LANGAN

Technical Excellence
Practical Experience
Client Responsiveness

October 26, 2023

Michael MacCabe, P.E.
Senior Environmental Engineer
New York State Department of Environmental Conservation
Division of Environmental Remediation
625 Broadway
Albany, New York 12233

RE: Supplemental Groundwater Investigation Report
438 11th Avenue
New York, New York
NYSDEC BCP Site No. C231095
Langan Project No.: 170395001

Dear Mr. MacCabe:

On behalf of 438-444 Eleventh Avenue, LLC (the "Volunteer"), Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C. (Langan) conducted groundwater sampling at 438 11th Avenue in accordance with the Supplemental Groundwater Sampling Plan, dated March 17, 2023. The sampling objective was to determine whether the concentrations of petroleum-related volatile organic compounds (VOCs) in groundwater on the northern portion of the site (i.e., Block 708, Lot 62 and the northern portion of Block 708, Lot 1) have attenuated since the last sampling event conducted in February 2020 for the Brownfield Cleanup Program (BCP) Remedial Investigation (RI). The groundwater sampling was conducted on May 17 and 18, 2023. Daily observation reports documenting sample collection are provided in Attachment A. A site location map is provided as Figure 1.

BCP Status and Site Background

The 38,150-square-foot site contains a one-story vacant commercial building formerly occupied by a lumber storage facility (Lot 62), a vacant parking area (northern portion of Lot 1), and a vacant open lot formerly used as a railroad yard (southern portion of Lot 1). As documented in BCP Monthly Progress Reports, the Volunteer is currently in discussion with Amtrak regarding ventilation requirements for the eastern-adjoining railway easement, which will be enclosed during redevelopment. The ventilation requirements will impact design and future excavation on the eastern portion of the site.

During groundwater sampling conducted in September and August 2016 and in February 2020, several petroleum-related VOCs, including benzene-toluene-ethylbenzene-xylene (BTEX) and naphthalene, were detected at concentrations above the New York State Department of Environmental Conservation (NYSDEC) Technical and Operational Guidance Series (TOGS) 1.1.1 Ambient Water Quality Standards/Guidance Values for drinking water (SGV) in four wells on Lot 62 (MW09, MW11, MW15, and GB10) and one well on the northern portion of Lot 1 (MW12). The analytical results of groundwater sampling conducted during the 2016 RI and 2020 supplemental groundwater investigation are shown on Figure 2.

About 6 inches of light non-aqueous phase liquid (LNAPL) were also observed in MW09 on Lot 62 in 2018. Fingerprint analysis of the LNAPL indicated an affinity to weathered No. 2 fuel oil or diesel fuel and weathered leaded gasoline. Tetraethyl lead, a gasoline additive that was phased out of production in the 1980s, was also detected in the sample. Residual soil contamination associated with undetected releases from historical petroleum bulk storage and vehicle repair operations on Lot 62 was a potential source of the LNAPL and dissolve-phase petroleum-related VOCs. The analytical results were presented in a Remedial Investigation Report, dated October 27, 2019, and an RI Addendum, dated September 8, 2020. The subsequent Remedial Action Work Plan (RAWP), dated July 2021, stated that the five VOC-impacted wells would be re-sampled prior to implementation of the soil and groundwater remedy, in conjunction with groundwater treatability analysis and a remediation feasibility study.

Since completion of the RI, a residential high-rise redevelopment project was completed by another party on the western-adjoining site at 450 11th Avenue (Block 708, Lot 65). The project was constructed with a cellar and required dewatering, which may have resulted in a reduction of the petroleum contaminant mass on Lot 62. The supplemental groundwater investigation summarized here was conducted to evaluate potential contaminant reduction associated with dewatering on the adjacent property and re-assess the need for groundwater remediation.

Sampling Methodology

Groundwater sampling was conducted on May 17 and 18, 2023. Before sampling, the headspace of monitoring wells MW09, MW11, MW15, and GB10 on Lot 62 and MW-12 on Lot 1 were screened for VOCs using a photoionization detector (PID). Each well was gauged with a Solinst® oil-water interface probe to record depth to groundwater and the thickness of LNAPL, if present. Headspace VOC concentrations of 383.2 parts per million (ppm) and 22.9 ppm were detected at MW09 and MW11, respectively. Depth to groundwater ranged from 11.1 feet below ground surface (bgs) in MW11 to 24.1 feet bgs in MW12. A 2.4-inch-thick layer of LNAPL was encountered in MW09. Well MW14 was inaccessible, due to the presence of road construction equipment (e.g., Yodock barriers), and groundwater was not encountered in monitoring well GB10, which had been infilled with sediment to a depth of about 16.8 feet bgs.

Monitoring wells MW11, MW12, and MW15 were purged using the low-flow method developed by the United States Environmental Protection Agency (USEPA) ("Low-Flow [Minimal Drawdown] Ground-Water Sampling Procedures," EPA/540/S-95/504, April 1996). Purging was performed using a Geotech Geosub® 2 pump fitted with dedicated tubing. During purging, turbidity, pH, temperature, conductivity, oxidation-reduction potential (ORP), and dissolved oxygen groundwater quality parameters were monitored using a Horiba U-52 Water Quality Meter with a flow-through cell. Purging of well MW11 was considered complete after three well volumes were purged and groundwater quality parameters had stabilized for three successive readings within an hour. Monitoring wells MW12 and MW15 were purged dry after 5 and 20 minutes, respectively, and were allowed to recharge for about 12 hours before sample collection the following day. All purged water was containerized into a 55-gallon drum that was temporarily stored in a secured area pending future off-site disposal. Groundwater elevation data is presented as Table 1. The groundwater quality parameters were recorded on the Groundwater Sampling Logs provided in Attachment B.

Groundwater samples were collected directly from the pump discharge line using USEPA low-flow techniques. One field blank sample, one duplicate sample, and one matrix spike/matrix spike duplicate (MS/MSD) sample were collected for quality assurance/quality control (QA/QC). A trip blank was included for quality control during transport. All samples were analyzed for Target Compound List (TCL) VOCs and semivolatile organic compounds (SVOCs). Samples MW11 and MW15 were also analyzed for total petroleum hydrocarbon/gasoline range organics (TPH-GRO), total and dissolved iron, total and dissolved manganese, sulfate, and nitrate. MW12 was not sampled for these parameters due to poor well recharge. Samples were analyzed by Alpha Analytical Inc., a New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP)-accredited laboratory located in Westborough, Massachusetts.

Groundwater analytical results were compared to the NYSDEC Title 6 of the Official Compilation of New York Codes, Rules, and Regulations (NYCRR) Part 703.5 and the TOGS SGVs.

Laboratory Analytical Results

Groundwater analytical results are summarized below. The range of detected concentrations above the SGVs are shown with the corresponding SGVs shown in parentheses.

- MW11

  VOCs:

  - Benzene - 20 micrograms per liter [µg/L) *(1 µg/L)*
  - Ethylbenzene - 5.7 µg/L *(5 µg/L)*
  - m,p xylene – 5.3 µg/L *(5 µg/L)*
  - sec-butylbenzene - 5.2 µg/L *(5 µg/L)*

- Isopropylbenzene - 22 µg/L *(5 µg/L)*
- n-propylbenzene - 36 µg/L *(5 µg/L)*
- 1,2,4-Trimethylbenzene - 6.4 µg/L *(5 µg/L)*
- 1,2,4,5-Tetramethylbenzene - 21 µg/L *(5 µg/L)*

Metals:

- Total and dissolved iron - 972 µg/L and 953 µg/L, respectively *(300 µg/L)*
- Total and dissolved manganese - 1,245 µg/L and 1,051 µg/L, respectively *(300 µg/L)*

SVOCs: No detections above the SGVs

- MW12: VOCs and SVOCs were not detected at concentrations above the SGVs.
- MW15

VOCs:

- Chlorobenzene - 12 µg/L (*5 µg/L*)
- 1,2-Dichlorobenzene - 3.5 µg/L (*3 µg/L*)

SVOCs:

- Benzo(a)anthracene - 0.02 µg/L (*0.002 µg/L*)
- Benzo(b)fluoranthene - 0.01 µg/L (*0.002 µg/L*) B
- Benzo(k)fluoranthene - 0.01 µg/L (*0.002 µg/L*)
- Chrysene - 0.01 µg/L (*0.002 µg/L*)

Metals:

- Total and dissolved iron - 29,600 µg/L and 1,790 µg/L, respectively (*300 µg/L*)
- Total and dissolved manganese - 1,688 µg/L and 1,374 µg/L, respectively *(300 µg/L)*

The analytical results are summarized in Table 2 with comparison to the 2020 supplemental groundwater investigation data. The monitoring well locations and analytical results are shown on Figure 3. Laboratory analytical reports are provided as Attachment C.

Comparison with Previous Results

The LNAPL thickness in MW09 decreased from 6 inches to 2.4 inches between 2018 and 2023. The highest total VOC concentrations were detected in MW11 in 2020 (127 µg/L) and 2023 (154 µg/L), with a marginal total VOC increase of about 20%. Three VOCs (sec-butylbenzene, 1,2,4,5-trimethylbenzene, and m,p-xylene) that were not detected in 2020 were detected in MW11 in 2023.

Total VOC concentrations decreased in MW15 from about 73 µg/L to 23 µg/L or about 70%, with benzene no longer detected above the SGV and 1,2-dichlorobenzene detected in 2023. Benzene, which was the only VOC detected above the SGV in MW12 in 2020, was not detected in 2023. The SVOC analytical results remained generally similar between 2020 and 2023, with no detections in MW11 and MW12 and marginal detections of four polycyclic aromatic hydrocarbons (i.e., 0.01 and 0.02 µg/L) occurring in MW15 in 2023.

Data Validation

Copies of the Analytical Services Protocol (ASP) Category B laboratory reports were submitted to Langan's data validation department for review in accordance with the USEPA validation guidelines for organic and inorganic data. The data were found to be 100% acceptable. The Data Usability Summary Report (DUSR) is included in Attachment D.

Conclusions

The supplemental groundwater investigation confirms that LNAPL remains in one well (MW09) near the central portion of Lot 62, although the LNAPL thickness has diminished by about 80% since 2018. Dissolved-phase petroleum-related VOCs in the well exhibiting the highest concentrations near the northern site boundary increased marginally, though total concentrations remained under 200 µg/L. The results from the two other wells sampled in the northwestern portion of Lot 62 and northern portion of Lot 1 indicate that most of the contaminant volume remains in the northern and central portions of Lot 62. Observation well GB10 has infilled with sediment to a depth shallower than the documented groundwater depth in 2020. The southern extent of LNAPL was therefore not delineated.

Based on these observations and findings, we will conduct a remedial design investigation (RDI) to evaluate alternatives for groundwater remediation in the northern portion of the site. The RDI may include the installation and sampling of additional groundwater monitoring wells to delineate impacts and potential LNAPL south of MW09, and groundwater treatability analysis to evaluate in situ remedies. Prior to the RDI, Langan will provide NYSDEC with an RDI Work Plan for review.

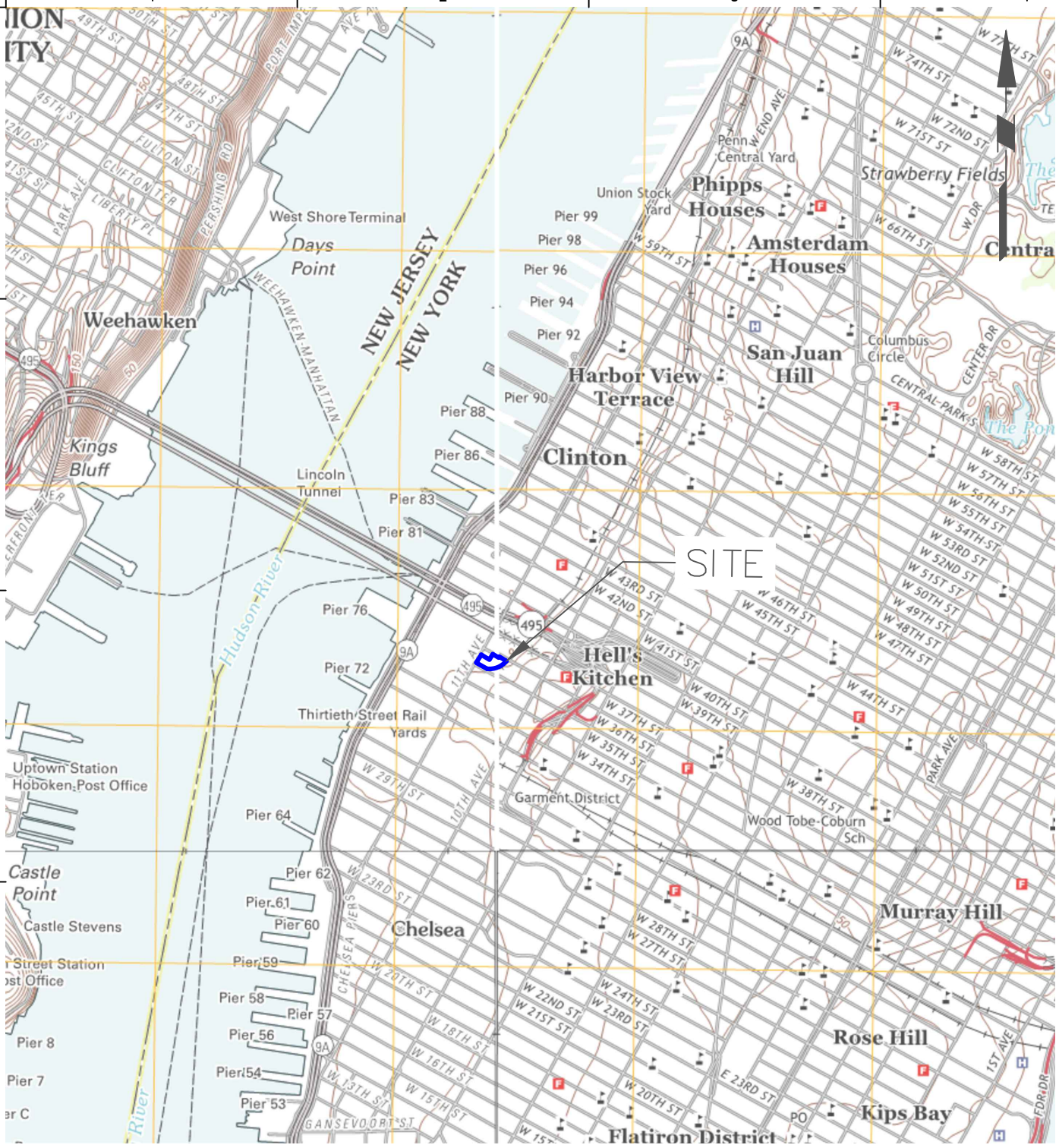
Sincerely,
Langan Engineering, Environmental, Surveying Landscape Architecture and Geology, D.P.C.

Michael D. Burke, PG, CHMM
Principal/Vice President

Attachments:

Figure 1	Site Location Map
Figure 2	Historical Groundwater Sample Analytical Results Map
Figure 3	Groundwater Sample Results Map
Table 1	Groundwater Elevation Data Summary
Table 2	Groundwater Sample Analytical Results – 2020 through 2023
Attachment A	Daily Site Observation Reports
Attachment B	Groundwater Sampling Logs
Attachment C	Laboratory Analytical Reports
Attachment D	Data Usability Summary Reports

FIGURES



BASEMAP REFERENCE: USGS 7.5 MINUTE SERIES CENTRAL PARK, NY TOPOGRAPHIC QUADRANGLE, 2013

APPROXIMATE SITE BOUNDARY

2000 0 1000 2000

SCALE IN FEET

WARNING: IT IS A VIOLATION OF THE NYS EDUCATION LAW ARTICLE 145 FOR ANY PERSON, UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS ITEM IN ANY WAY.

LANGAN

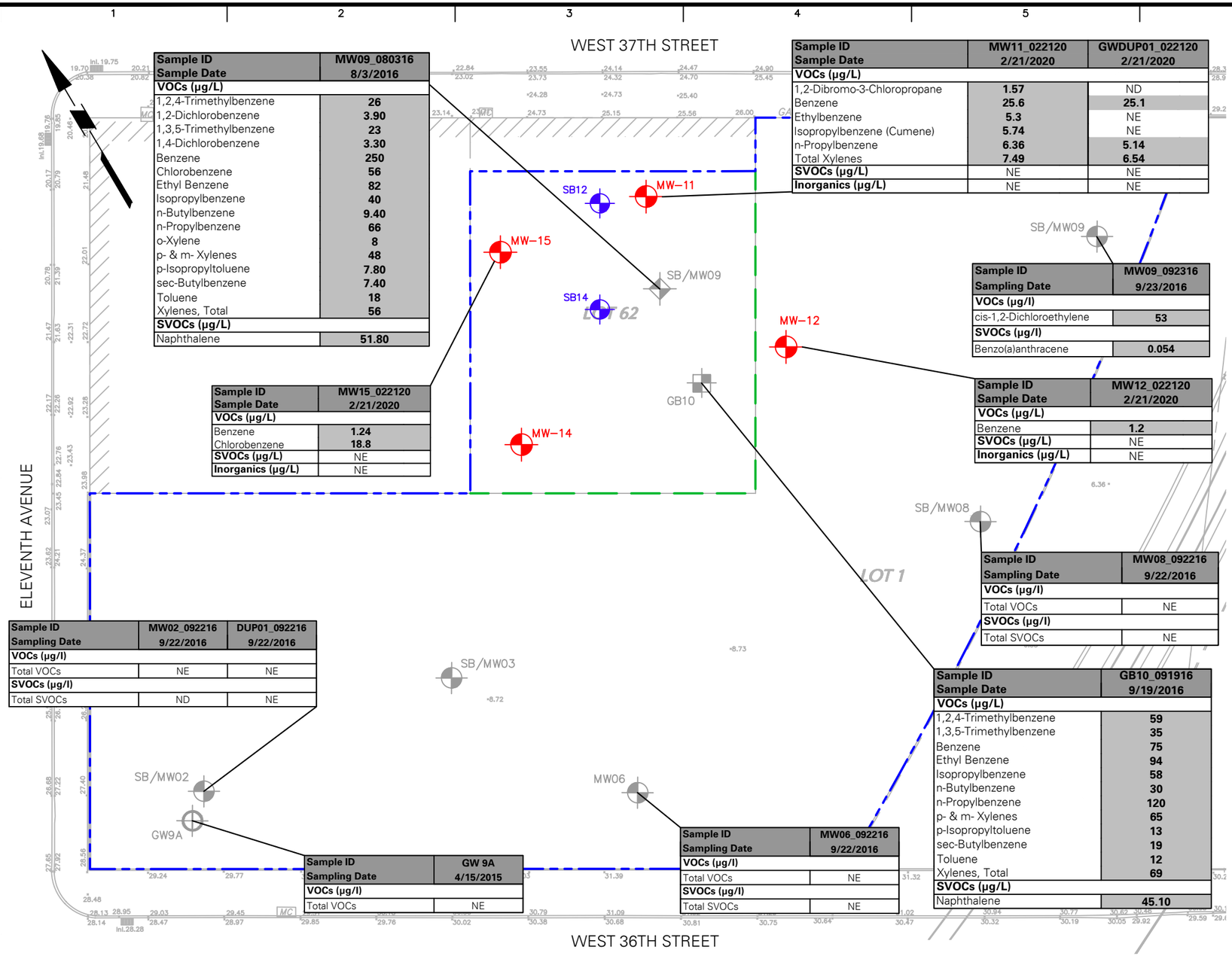
Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C.

21 Penn Plaza, 360 West 31st Street, 8th Floor
New York, NY 10001

T: 212.479.5400 F: 212.479.5444 www.langan.com

Project	438 11TH AVENUE BLOCK No. 708, LOT Nos. 1 AND 62 NEW YORK NEW YORK
Figure Title	SITE LOCATION MAP
Project No.	170395001
Date	7/2/2019
Drawn By	KMS
Checked By	SK
Figure No.	1

Filename: \\langan.com\data\NYC\data0\170395001\Cadd Data - 170395001\SheetFiles\Environmental\Lots 1 and 62\RIR Addendum\Figure 1 - Site Location Map.dwg Date: 5/14/2020 Time: 16:59 User: lesmail Style Table: Langan.stb Layout: ANSIA-BP



Sample ID Sample Date	MW09_080316 8/3/2016
VOCs (µg/L)	
1,2,4-Trimethylbenzene	**26**
1,2-Dichlorobenzene	**3.90**
1,3,5-Trimethylbenzene	**23**
1,4-Dichlorobenzene	**3.30**
Benzene	**250**
Chlorobenzene	**56**
Ethyl Benzene	**82**
Isopropylbenzene	**40**
n-Butylbenzene	**9.40**
n-Propylbenzene	**66**
o-Xylene	**8**
p- & m- Xylenes	**48**
p-Isopropyltoluene	**7.80**
sec-Butylbenzene	**7.40**
Toluene	**18**
Xylenes, Total	**56**
SVOCs (µg/L)	
Naphthalene	**51.80**

Sample ID Sample Date	MW11_022120 2/21/2020	GWDUP01_022120 2/21/2020
VOCs (µg/L)		
1,2-Dibromo-3-Chloropropane	**1.57**	ND
Benzene	**25.6**	**25.1**
Ethylbenzene	**5.3**	NE
Isopropylbenzene (Cumene)	**5.74**	NE
n-Propylbenzene	**6.36**	**5.14**
Total Xylenes	**7.49**	**6.54**
SVOCs (µg/L)	NE	NE
Inorganics (µg/L)	NE	NE

Sample ID Sampling Date	MW09_092316 9/23/2016
VOCs (µg/l)	
cis-1,2-Dichloroethylene	**53**
SVOCs (µg/l)	
Benzo(a)anthracene	**0.054**

Sample ID Sample Date	MW15_022120 2/21/2020
VOCs (µg/L)	
Benzene	**1.24**
Chlorobenzene	**18.8**
SVOCs (µg/L)	NE
Inorganics (µg/L)	NE

Sample ID Sample Date	MW12_022120 2/21/2020
VOCs (µg/L)	
Benzene	**1.2**
SVOCs (µg/L)	NE
Inorganics (µg/L)	NE

Sample ID Sampling Date	MW08_092216 9/22/2016
VOCs (µg/l)	
Total VOCs	NE
SVOCs (µg/l)	
Total SVOCs	NE

Sample ID Sampling Date	MW02_092216 9/22/2016	DUP01_092216 9/22/2016
VOCs (µg/l)		
Total VOCs	NE	NE
SVOCs (µg/l)		
Total SVOCs	ND	NE

Sample ID Sampling Date	GB10_091916 9/19/2016
VOCs (µg/L)	
1,2,4-Trimethylbenzene	**59**
1,3,5-Trimethylbenzene	**35**
Benzene	**75**
Ethyl Benzene	**94**
Isopropylbenzene	**58**
n-Butylbenzene	**30**
n-Propylbenzene	**120**
p- & m- Xylenes	**65**
p-Isopropyltoluene	**13**
sec-Butylbenzene	**19**
Toluene	**12**
Xylenes, Total	**69**
SVOCs (µg/L)	
Naphthalene	**45.10**

Sample ID Sampling Date	GW 9A 4/15/2015
VOCs (µg/l)	
Total VOCs	NE

Sample ID Sampling Date	MW06_092216 9/22/2016
VOCs (µg/l)	
Total VOCs	NE
SVOCs (µg/l)	
Total SVOCs	NE

LEGEND

- SITE BOUNDARY
- LOT 62 BOUNDARY
- MW–11 — SUPPLEMENTAL GROUNDWATER MONITORING WELLS (2020)
- SB–12 — 2017 RI SOIL BORINGS EXHIBITING FIELD AND/OR ANALYTICAL EVIDENCE OF PETROLEUM IMPACTS
- SB/MW09 — 2016 RI LOT 62 MONITORING WELL LOCATION
- GB10 — 2016 GEOTECHNICAL OBSERVATION WELL LOCATION
- SB/MW02 — 2016 RI LOT 1 MONITORING WELL LOCATION
- GW9A — 2015 PHASE II INVESTIGATION MONITORING WELL LOCATION

NOTES

1. BASEMAP REFERENCES: TOPOGRAPHIC, BOUNDARY AND UTILITY SURVEY PREPARED BY LANGAN, DATED 25 FEBRUARY 2011. AND ELEVATION SURVEY NO. 65178 PREPARED BY MONTROSE SURVEYING CO. LLP., DATED 26 JULY 2016.
2. ELEVATIONS SHOWN REFER TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
3. GROUNDWATER SAMPLE ANALYTICAL RESULTS ARE COMPARED TO THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION (NYSDEC) TECHNICAL AND OPERATIONAL GUIDANCE SERIES (TOGS) 1.1.1 AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES (SGV) FOR DRINKING WATER (CLASS GA).
4. RESULTS ABOVE THE NYSDEC TOGS 1.1.1 SGV CLASS GA VALUES ARE BOLDED AND SHADED.
5. ONLY COMPOUNDS EXCEEDING THE TOGS SGVs ARE SHOWN.
6. NYSDEC TOGS 1.1.1 SGV FOR CLASS GA DRINKING WATER CRITERIA ARE SHOWN IN THE TABLE BELOW.
7. VOCs = VOLATILE ORGANIC COMPOUNDS
8. SVOCs = SEMIVOLATILE ORGANIC COMPOUNDS
9. ug/L = MICROGRAMS PER LITER
10. ND = NOT DETECTED
11. NE = NO EXCEEDANCE
12. RI = REMEDIAL INVESTIGATION
13. GROUNDWATER WAS NOT ENCOUNTERED IN WELLS MW-14 AND MW03.

Analyte	CAS Number	NYSDEC SGVs
VOCs (µg/L)		
1,2,4-Trimethylbenzene	95-63-6	5
1,2-Dichlorobenzene	95-50-1	3
1,3,5-Trimethylbenzene	108-67-8	5
1,2-Dibromo-3-Chloropropane	96-12-8	0.04
1,4-Dichlorobenzene	106-46-7	3
Benzene	71-43-2	1
Chlorobenzene	108-90-7	5
cis-1,2-Dichloroethylene	159-59-2	5
Ethylbenzene	100-41-4	5
Isopropylbenzene (Cumene)	98-82-8	5
p- & m- Xylenes	179601-23-1	5
n-Butylbenzene	104-51-8	5
n-Propylbenzene	103-65-1	5
o-Xylene	95-47-6	5
p-Isopropyltoluene	CYMP	5
sec-Butylbenzene	135-98-8	5
Toluene	108-88-3	5
Total Xylenes	1330-20-7	5
SVOCs (µg/L)		
Naphthalene	91-20-3	10
Benzo(a)Anthracene	56-55-3	0.002

WARNING: IT IS A VIOLATION OF THE NYS EDUCATION LAW ARTICLE 145 FOR ANY PERSON, UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS ITEM IN ANY WAY.

30 0 15 30
SCALE IN FEET

LANGAN
Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C.
21 Penn Plaza, 360 West 31st Street, 8th Floor
New York, NY 10001
T: 212.479.5400 F: 212.479.5444 www.langan.com

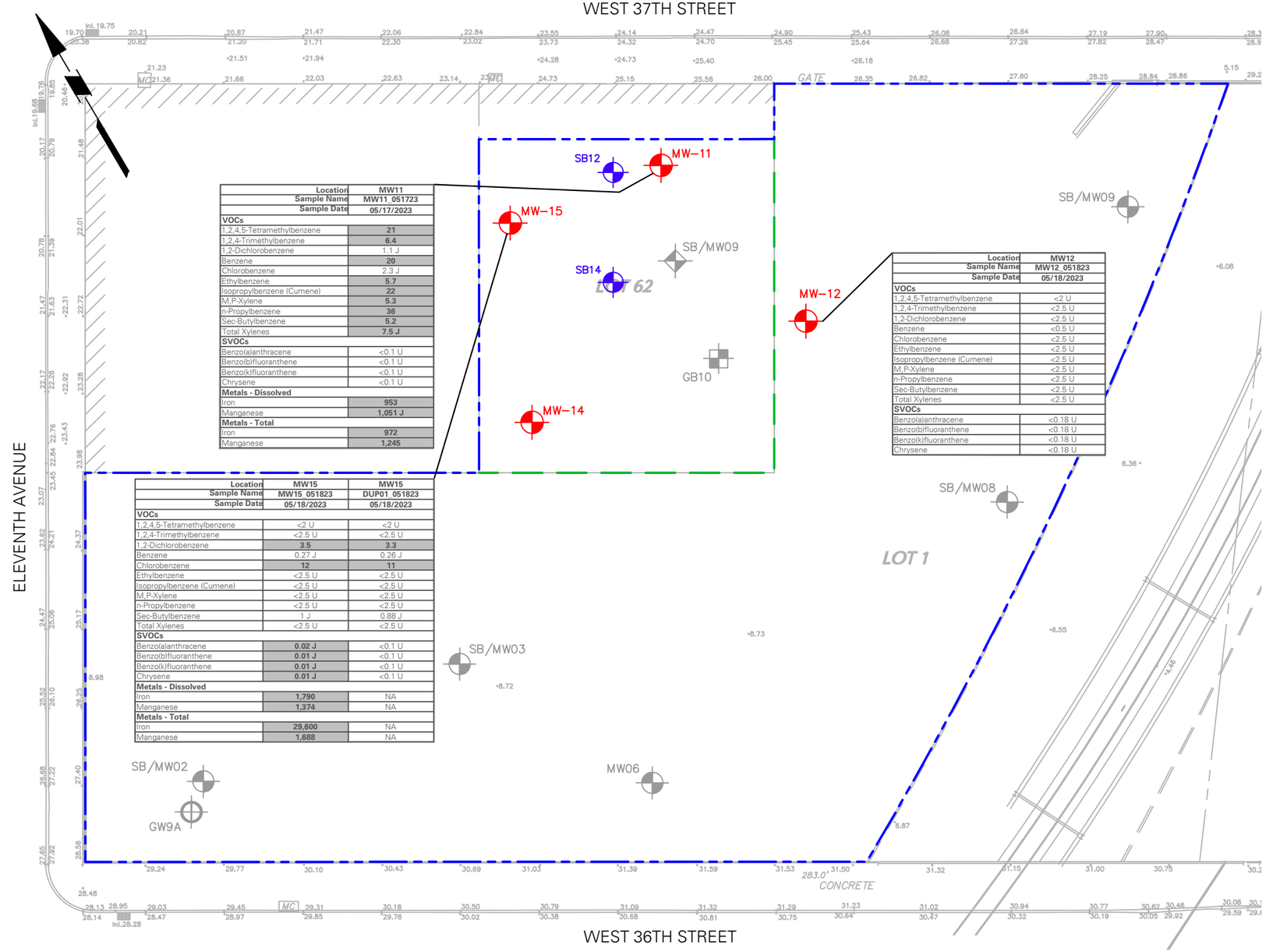
Project: 438 ELEVENTH AVENUE
BLOCK No. 708, LOT Nos. 1 AND 62
NEW YORK NEW YORK

Figure Title: HISTORICAL GROUNDWATER SAMPLE ANALYTICAL RESULTS MAP

Project No. 170395001
Date 7/18/2023
Drawn By LE
Checked By KS

Figure No. 2

Filename: \\langan.com\data\NYC\data0\170395001\Cadd Data - 170395001\SheetFiles\Environmental\Lots 1 and 62\RIR Addendum\Figure 2 - Historical Groundwater Sample Analytical Results Map.dwg Date: 9/11/2023 Time: 13:41 User: cbogin Style Table: Langan.stb Layout: Figure 2



Location	MW11
Sample Name	MW11_051723
Sample Date	05/17/2023
VOCs	
1,2,4,5-Tetramethylbenzene	**21**
1,2,4-Trimethylbenzene	**6.4**
1,2-Dichlorobenzene	1.1 J
Benzene	**20**
Chlorobenzene	2.3 J
Ethylbenzene	**5.7**
Isopropylbenzene (Cumene)	**22**
M,P-Xylene	**5.3**
n-Propylbenzene	**36**
Sec-Butylbenzene	**5.2**
Total Xylenes	**7.5 J**
SVOCs	
Benzo(a)anthracene	<0.1 U
Benzo(b)fluoranthene	<0.1 U
Benzo(k)fluoranthene	<0.1 U
Chrysene	<0.1 U
Metals - Dissolved	
Iron	**953**
Manganese	**1,051 J**
Metals - Total	
Iron	**972**
Manganese	**1,245**

Location	MW12
Sample Name	MW12_051823
Sample Date	05/18/2023
VOCs	
1,2,4,5-Tetramethylbenzene	<2 U
1,2,4-Trimethylbenzene	<2.5 U
1,2-Dichlorobenzene	<2.5 U
Benzene	<0.5 U
Chlorobenzene	<2.5 U
Ethylbenzene	<2.5 U
Isopropylbenzene (Cumene)	<2.5 U
M,P-Xylene	<2.5 U
n-Propylbenzene	<2.5 U
Sec-Butylbenzene	<2.5 U
Total Xylenes	<2.5 U
SVOCs	
Benzo(a)anthracene	<0.18 U
Benzo(b)fluoranthene	<0.18 U
Benzo(k)fluoranthene	<0.18 U
Chrysene	<0.18 U

Location	MW15	MW15
Sample Name	MW15_051823	DUP01_051823
Sample Date	05/18/2023	05/18/2023
VOCs		
1,2,4,5-Tetramethylbenzene	<2 U	<2 U
1,2,4-Trimethylbenzene	<2.5 U	<2.5 U
1,2-Dichlorobenzene	**3.5**	**3.3**
Benzene	0.27 J	0.26 J
Chlorobenzene	**12**	**11**
Ethylbenzene	<2.5 U	<2.5 U
Isopropylbenzene (Cumene)	<2.5 U	<2.5 U
M,P-Xylene	<2.5 U	<2.5 U
n-Propylbenzene	<2.5 U	<2.5 U
Sec-Butylbenzene	1 J	0.88 J
Total Xylenes	<2.5 U	<2.5 U
SVOCs		
Benzo(a)anthracene	**0.02 J**	<0.1 U
Benzo(b)fluoranthene	**0.01 J**	<0.1 U
Benzo(k)fluoranthene	**0.01 J**	<0.1 U
Chrysene	**0.01 J**	<0.1 U
Metals - Dissolved		
Iron	**1,790**	NA
Manganese	**1,374**	NA
Metals - Total		
Iron	**29,600**	NA
Manganese	**1,688**	NA

LEGEND

- SITE BOUNDARY
- LOT 62 BOUNDARY
- MW–11 — SUPPLEMENTAL GROUNDWATER MONITORING WELLS (2020)
- SB–12 — 2017 RI SOIL BORINGS EXHIBITING FIELD AND/OR ANALYTICAL EVIDENCE OF PETROLEUM IMPACTS
- SB/MW09 — 2016 RI LOT 62 MONITORING WELL LOCATION
- GB10 — 2016 GEOTECHNICAL OBSERVATION WELL LOCATION
- SB/MW02 — 2016 RI LOT 1 MONITORING WELL LOCATION
- GW9A — 2015 PHASE II INVESTIGATION MONITORING WELL LOCATION

NOTES

1. BASEMAP REFERENCES: TOPOGRAPHIC, BOUNDARY AND UTILITY SURVEY PREPARED BY LANGAN, DATED 25 FEBRUARY 2011. AND ELEVATION SURVEY NO. 65178 PREPARED BY MONTROSE SURVEYING CO. LLP., DATED 26 JULY 2016.
2. ELEVATIONS SHOWN REFER TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
3. GROUNDWATER SAMPLE ANALYTICAL RESULTS ARE COMPARED TO THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION (NYSDEC) TECHNICAL AND OPERATIONAL GUIDANCE SERIES (TOGS) 1.1.1 AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES (SGV) FOR DRINKING WATER (CLASS GA).
4. RESULTS ABOVE THE NYSDEC TOGS 1.1.1 SGV CLASS GA VALUES ARE BOLDED AND SHADED.
5. ONLY COMPOUNDS EXCEEDING THE TOGS SGVs ARE SHOWN.
6. NYSDEC TOGS 1.1.1 SGV FOR CLASS GA DRINKING WATER CRITERIA ARE SHOWN IN THE TABLE BELOW.
7. ALL UNITS ARE IN ug/L
8. VOCs = VOLATILE ORGANIC COMPOUNDS
9. SVOCs = SEMIVOLATILE ORGANIC COMPOUNDS
10. ug/L = MICROGRAMS PER LITER
11. LNAPL = LIGHT NON-AQUEOUS PHASE LIQUID
12. RI = REMEDIAL INVESTIGATION
13. A GROUNDWATER SAMPLE WAS NOT COLLECTED FROM MW09 (LOT 62) DUE TO LNAPL IDENTIFIED IN THE MONITORING WELL.

Analyte	NYSDEC SGVs
VOCs	
1,2,4,5-Tetramethylbenzene	5
1,2,4-Trimethylbenzene	5
1,2-Dichlorobenzene	3
Benzene	1
Chlorobenzene	5
Ethylbenzene	5
Isopropylbenzene (Cumene)	5
M,P-Xylene	5
n-Propylbenzene	5
Sec-Butylbenzene	5
Total Xylenes	5
SVOCs	
Benzo(a)anthracene	0.002
Benzo(b)fluoranthene	0.002
Benzo(k)fluoranthene	0.002
Chrysene	0.002
Metals - Dissolved	
Iron	300
Manganese	300
Metals - Total	
Iron	300
Manganese	300

Exceedance Summary:

10 - Result exceeds NYSDEC SGVs

WARNING: IT IS A VIOLATION OF THE NYS EDUCATION LAW ARTICLE 145 FOR ANY PERSON, UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS ITEM IN ANY WAY.

30 0 15 30
SCALE IN FEET

LANGAN
Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C.
21 Penn Plaza, 360 West 31st Street, 8th Floor
New York, NY 10001
T: 212.479.5400 F: 212.479.5444 www.langan.com

Project: 438 ELEVENTH AVENUE
BLOCK No. 708, LOT Nos. 1 AND 62
NEW YORK NEW YORK

Figure Title: GROUNDWATER SAMPLE ANALYTICAL RESULTS MAP

Project No. 170395001
Date 9/18/2023
Drawn By LH
Checked By LE

Figure No. 3

Filename: \\langan.com\data\NYC\data0\170395001\Cadd Data - 170395001\SheetFiles\Environmental\Lots 1 and 62\RIR Addendum\Figure 3 - Groundwater Sample Analytical Results Map - Copy.dwg Date: 9/18/2023 Time: 10:45 User: lhaley Style Table: Langan.stb Layout: Figure 2

TABLES

Table 1
Supplemental Groundwater Investigation Report
Groundwater Elevation Data Summary

438 11th Avenue
New York, New York
NYSDEC BCP Site No.: C231095
Langan Project No.: 170395001

Well Location	Date Gauged	Well Diameter (in.)	Screened Length (feet bTOC)	Screened Interval (feet bTOC)	Approximate Elevation of TOC (NAVD88)	Headspace VOC (ppm)	Depth to Groundwater (feet bTOC)	Groundwater Elevation (NAVD88)	Depth to Product (feet bTOC)	Total Depth (ft bTOC)	Bottom of Well Elevation (NAVD88)
MW09	5/17/2023	2	10	18 - 28	25.00	383.2	12.80	12.20	12.60	28	-3.00
MW11	5/17/2023	2	10	18 - 28	25.00	22.9	11.10	13.90	N/A	28	-3.00
MW12	5/17/2023	2	10	17 - 27	26.42	1.1	24.10	2.32	N/A	27	-0.58
MW15	5/17/2023	2	10	10 - 30	25.40	1.5	16.05	9.35	N/A	30	-4.60

Notes:
1. NAVD88 - North American Vertical Datum of 1988
2. bTOC = below top of casing
3. Grade surface elevations are referenced to the North American Vertical Datum of 1988, and are approximated.
4. Depth to groundwater was measured in feet below the top of well casing. Groundwater elevations are approximated using the grade surface elevation.
5. Monitoring well MW14 was inaccessible during the sampling event. Groundwater was not encountered in monitoring well GB10.
6. VOC = Volatile organic compound

Table 2
Supplemental Groundwater Investigation Report
Groundwater Sample Analytical Results - 2020 and 2023

438 11th Avenue
New York, New York
NYSDEC BCP Site No.: C231095
Langan Project No.: 170395001

Analyte	CAS Number	NYSDEC SGVs	Location	MW11	MW11	MW11	MW12	MW12	MW15	MW15	MW15
			Sample Name	MW11_022120	GWDUP01_022120	MW11_051723	MW12_022120	MW12_051823	MW15_022120	MW15_051823	DUP01_051823
			Sample Date	02/21/2020	02/21/2020	05/17/2023	02/21/2020	05/18/2023	02/21/2020	05/18/2023	05/18/2023
			Unit	Result	Result	Result	Result	Result	Result	Result	Result
Volatile Organic Compounds											
1,1,1,2-Tetrachloroethane	630-20-6	5	ug/l	<0.2 U	<0.2 U	<2.5 U	<0.2 U	<2.5 U	<0.2 U	<2.5 U	<2.5 U
1,1,1-Trichloroethane	71-55-6	5	ug/l	<0.2 U	<0.2 U	<2.5 U	<0.2 U	<2.5 U	<0.2 U	<2.5 U	<2.5 U
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/l	<0.2 U	<0.2 U	<0.5 U	<0.2 U	<0.5 U	<0.2 U	<0.5 U	<0.5 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	5	ug/l	<0.2 U	<0.2 U	NA	<0.2 U	NA	<0.2 U	NA	NA
1,1,2-Trichloroethane	79-00-5	1	ug/l	<0.2 U	<0.2 U	<1.5 U	<0.2 U	<1.5 U	<0.2 U	<1.5 U	<1.5 U
1,1-Dichloroethane	75-34-3	5	ug/l	<0.2 U	<0.2 U	<2.5 U	<0.2 U	<2.5 U	<0.2 U	<2.5 U	<2.5 U
1,1-Dichloroethene	75-35-4	5	ug/l	<0.2 U	<0.2 U	<0.5 U	<0.2 U	<0.5 U	<0.2 U	<0.5 U	<0.5 U
1,1-Dichloropropene	563-58-6	5	ug/l	NA	NA	<2.5 U	NA	<2.5 U	NA	<2.5 U	<2.5 U
1,2,3-Trichlorobenzene	87-61-6	5	ug/l	<0.2 U	<0.2 U	<2.5 U	<0.2 U	<2.5 U	<0.2 U	<2.5 U	<2.5 U
1,2,3-Trichloropropane	96-18-4	0.04	ug/l	<0.2 U	<0.2 U	<2.5 U	<0.2 U	<2.5 U	<0.2 U	<2.5 U	<2.5 U
1,2,4,5-Tetramethylbenzene	95-93-2	**5**	ug/l	NA	NA	**21**	NA	<2 U	NA	<2 U	<2 U
1,2,4-Trichlorobenzene	120-82-1	5	ug/l	<0.2 U	<0.2 U	<2.5 U	<0.2 U	<2.5 U	<0.2 U	<2.5 U	<2.5 U
1,2,4-Trimethylbenzene	95-63-6	**5**	ug/l	0.92	0.77	**6.4**	0.22 J	<2.5 U	<0.2 U	<2.5 U	<2.5 U
1,2-Dibromo-3-Chloropropane	96-12-8	**0.04**	ug/l	**1.57**	<0.2 U	<2.5 U	<0.2 U	<2.5 U	<0.2 U	<2.5 U	<2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006	ug/l	<0.2 U	<0.2 U	<2 U	<0.2 U	<2 U	<0.2 U	<2 U	<2 U
1,2-Dichlorobenzene	95-50-1	**3**	ug/l	0.5	<0.2 U	1.1 J	<0.2 U	<2.5 U	1.6	**3.5**	**3.3**
1,2-Dichloroethane	107-06-2	0.6	ug/l	<0.2 U	<0.2 U	<0.5 U	<0.2 U	<0.5 U	<0.2 U	<0.5 U	<0.5 U
1,2-Dichloropropane	78-87-5	1	ug/l	<0.2 U	<0.2 U	<1 U	<0.2 U	<1 U	<0.2 U	<1 U	<1 U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	5	ug/l	2.2	2.04	0.82 J	<0.2 U	<2.5 U	<0.2 U	<2.5 U	<2.5 U
1,3-Dichlorobenzene	541-73-1	3	ug/l	<0.2 U	<0.2 U	<2.5 U	<0.2 U	<2.5 U	0.24 J	<2.5 U	<2.5 U
1,3-Dichloropropane	142-28-9	5	ug/l	NA	NA	<2.5 U	NA	<2.5 U	NA	<2.5 U	<2.5 U
1,4-Dichlorobenzene	106-46-7	3	ug/l	<0.2 U	<0.2 U	<2.5 U	<0.2 U	<2.5 U	1.31	2 J	1.8 J
1,4-Diethyl Benzene	105-05-5	NS	ug/l	NA	NA	5.6	NA	<2 U	NA	<2 U	<2 U
1,4-Dioxane (P-Dioxane)	123-91-1	0.35	ug/l	<40 U	<40 U	<250 U	<40 U	<250 U	<40 U	<250 U	<250 U
2,2-Dichloropropane	594-20-7	5	ug/l	NA	NA	<2.5 U	NA	<2.5 U	NA	<2.5 U	<2.5 U
2-Chlorotoluene	95-49-8	5	ug/l	NA	NA	<2.5 U	NA	<2.5 U	NA	<2.5 U	<2.5 U
2-Hexanone (MBK)	591-78-6	50	ug/l	0.44 J	<0.2 U	<5 U	<0.2 U	<5 U	<0.2 U	<5 U	<5 U
4-Chlorotoluene	106-43-4	5	ug/l	NA	NA	<2.5 U	NA	<2.5 U	NA	<2.5 U	<2.5 U
4-Ethyltoluene	622-96-8	NS	ug/l	NA	NA	3.6	NA	<2 U	NA	<2 U	<2 U
Acetone	67-64-1	50	ug/l	12.7	14.8	<5 U	25	<5 U	35.5	2.9 J	2.8 J
Acrolein	107-02-8	5	ug/l	<0.2 U	<0.2 U	NA	<0.2 U	NA	<0.2 U	NA	NA
Acrylonitrile	107-13-1	5	ug/l	<0.2 U	<0.2 U	<5 U	<0.2 U	<5 U	<0.2 U	<5 U	<5 U
Benzene	71-43-2	**1**	ug/l	**25.6**	**25.1**	**20**	**1.2**	<0.5 U	**1.24**	0.27 J	0.26 J
Bromobenzene	108-86-1	5	ug/l	NA	NA	<2.5 U	NA	<2.5 U	NA	<2.5 U	<2.5 U
Bromochloromethane	74-97-5	5	ug/l	<0.2 U	<0.2 U	<2.5 U	<0.2 U	<2.5 U	<0.2 U	<2.5 U	<2.5 U
Bromodichloromethane	75-27-4	50	ug/l	<0.2 U	<0.2 U	<0.5 U	<0.2 U	<0.5 U	<0.2 U	<0.5 U	<0.5 U
Bromoform	75-25-2	50	ug/l	<0.2 U	<0.2 U	<2 U	<0.2 U	<2 U	<0.2 U	<2 U	<2 U
Bromomethane	74-83-9	5	ug/l	<0.2 U	<0.2 U	<2.5 U	<0.2 U	<2.5 U	<0.2 U	<2.5 U	<2.5 U
Carbon Disulfide	75-15-0	60	ug/l	0.71	0.72	<5 U	<0.2 U	<5 U	0.21 J	<5 U	<5 U
Carbon Tetrachloride	56-23-5	5	ug/l	<0.2 U	<0.2 U	<0.5 U	<0.2 U	<0.5 U	<0.2 U	<0.5 U	<0.5 U
Chlorobenzene	108-90-7	**5**	ug/l	2.69	2.54	2.3 J	<0.2 U	<2.5 U	**18.8**	**12**	**11**
Chloroethane	75-00-3	5	ug/l	<0.2 U	<0.2 U	<2.5 U	<0.2 U	<2.5 U	<0.2 U	<2.5 U	<2.5 U
Chloroform	67-66-3	7	ug/l	0.44 J	0.41 J	<2.5 U	<0.2 U	<2.5 U	0.2 J	<2.5 U	<2.5 U
Chloromethane	74-87-3	5	ug/l	<0.2 U	<0.2 U	<2.5 U	<0.2 U	<2.5 U	<0.2 U	<2.5 U	<2.5 U
Cis-1,2-Dichloroethene	156-59-2	5	ug/l	<0.2 U	<0.2 U	<2.5 U	<0.2 U	<2.5 U	<0.2 U	<2.5 U	<2.5 U
Cis-1,3-Dichloropropene	10061-01-5	0.4	ug/l	<0.2 U	<0.2 U	<0.5 U	<0.2 U	<0.5 U	<0.2 U	<0.5 U	<0.5 U
Cyclohexane	110-82-7	NS	ug/l	19	17.5	NA	3.56	NA	2.78	NA	NA
Cymene	99-87-6	5	ug/l	NA	NA	0.76 J	NA	<2.5 U	NA	<2.5 U	<2.5 U
Dibromochloromethane	124-48-1	50	ug/l	<0.2 U	<0.2 U	<0.5 U	<0.2 U	<0.5 U	<0.2 U	<0.5 U	<0.5 U
Dibromomethane	74-95-3	5	ug/l	<0.2 U	<0.2 U	<5 U	<0.2 U	<5 U	<0.2 U	<5 U	<5 U
Dichlorodifluoromethane	75-71-8	5	ug/l	<0.2 U	<0.2 U	<5 U	<0.2 U	<5 U	<0.2 U	<5 U	<5 U
Diethyl Ether (Ethyl Ether)	60-29-7	NS	ug/l	NA	NA	<2.5 U	NA	<2.5 U	NA	<2.5 U	<2.5 U
Ethylbenzene	100-41-4	**5**	ug/l	**5.3**	4.62	**5.7**	0.39 J	<2.5 U	0.28 J	<2.5 U	<2.5 U
Hexachlorobutadiene	87-68-3	0.5	ug/l	<0.2 U	<0.2 U	<2.5 U	<0.2 U	<2.5 U	<0.2 U	<2.5 U	<2.5 U
Isopropylbenzene (Cumene)	98-82-8	**5**	ug/l	**5.74**	4.98	**22**	0.29 J	<2.5 U	1.43	<2.5 U	<2.5 U
M,P-Xylene	179601-23-1	**5**	ug/l	3.4	2.74	**5.3**	0.84 J	<2.5 U	<0.5 U	<2.5 U	<2.5 U
Methyl Acetate	79-20-9	NS	ug/l	<0.2 U	<0.2 U	NA	<0.2 U	NA	<0.2 U	NA	NA
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50	ug/l	<0.2 U	<0.2 U	<5 U	<0.2 U	<5 U	<0.2 U	<5 U	<5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS	ug/l	1.82	1.95	<5 U	0.98	<5 U	1.71	<5 U	<5 U
Methylcyclohexane	108-87-2	NS	ug/l	21.5	19.2	NA	1.89	NA	3.6	NA	NA
Methylene Chloride	75-09-2	5	ug/l	<1 U	<1 U	<2.5 U	<1 U	<2.5 U	<1 U	<2.5 U	<2.5 U
Naphthalene	91-20-3	10	ug/l	NA	NA	2.5	NA	<2.5 U	NA	1.1 J	0.94 J
n-Butylbenzene	104-51-8	5	ug/l	0.43 J	0.5	4.3	0.2 J	<2.5 U	0.24 J	<2.5 U	<2.5 U
n-Propylbenzene	103-65-1	**5**	ug/l	**6.36**	**5.14**	**36**	<0.2 U	<2.5 U	1.27	<2.5 U	<2.5 U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	5	ug/l	4.09	3.8	2.2 J	0.2 J	<2.5 U	0.2 J	<2.5 U	<2.5 U
p-Cymene (p-Isopropyltoluene)	CYMP	NS	ug/l	1.02	0.97	NA	0.57	NA	0.21 J	NA	NA
Sec-Butylbenzene	135-98-8	**5**	ug/l	0.99	0.88	**5.2**	<0.2 U	<2.5 U	0.33 J	1 J	0.88 J
Styrene	100-42-5	5	ug/l	<0.2 U	<0.2 U	<2.5 U	<0.2 U	<2.5 U	<0.2 U	<2.5 U	<2.5 U
T-Butylbenzene	98-06-6	5	ug/l	0.32 J	0.31 J	0.85 J	0.23 J	<2.5 U	0.22 J	1.2 J	1.1 J
Tert-Butyl Alcohol	75-65-0	NS	ug/l	<0.5 U	<0.5 U	NA	<0.5 U	NA	<0.5 U	NA	NA
Tert-Butyl Methyl Ether	1634-04-4	10	ug/l	<0.2 U	<0.2 U	<2.5 U	0.62	<2.5 U	<0.2 U	<2.5 U	<2.5 U
Tetrachloroethene (PCE)	127-18-4	5	ug/l	<0.2 U	<0.2 U	<0.5 U	<0.2 U	0.64	<0.2 U	<0.5 U	<0.5 U
Toluene	108-88-3	5	ug/l	2.12	1.95	1.3 J	0.41 J	<2.5 U	1.51	<2.5 U	<2.5 U
Total 1,2-Dichloroethene (Cis and Trans)	540-59-0	NS	ug/l	NA	NA	<2.5 U	NA	<2.5 U	NA	<2.5 U	<2.5 U
Total Xylenes	1330-20-7	**5**	ug/l	**7.49**	**6.54**	**7.5 J**	1.04 J	<2.5 U	<0.6 U	<2.5 U	<2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	542-75-6	0.4	ug/l	NA	NA	<0.5 U	NA	<0.5 U	NA	<0.5 U	<0.5 U
Trans-1,2-Dichloroethene	156-60-5	5	ug/l	<0.2 U	<0.2 U	<2.5 U	<0.2 U	<2.5 U	<0.2 U	<2.5 U	<2.5 U
Trans-1,3-Dichloropropene	10061-02-6	0.4	ug/l	<0.2 U	<0.2 U	<0.5 U	<0.2 U	<0.5 U	<0.2 U	<0.5 U	<0.5 U
Trans-1,4-Dichloro-2-Butene	110-57-6	5	ug/l	NA	NA	<2.5 U	NA	<2.5 UJ	NA	<2.5 UJ	<2.5 UJ
Trichloroethene (TCE)	79-01-6	5	ug/l	<0.2 U	<0.2 U	<0.5 U	<0.2 U	<0.5 U	<0.2 U	<0.5 U	<0.5 U
Trichlorofluoromethane	75-69-4	5	ug/l	<0.2 U	<0.2 U	<2.5 U	<0.2 U	<2.5 U	<0.2 U	<2.5 U	<2.5 U
Vinyl Acetate	108-05-4	NS	ug/l	NA	NA	<5 U	NA	<5 U	NA	<5 U	<5 U
Vinyl Chloride	75-01-4	2	ug/l	<0.2 U	<0.2 U	<1 U	<0.2 U	<1 U	<0.2 U	<1 U	<1 U
Total VOCs	TOTAL VOCS	NS	ug/l	127.35	117.46	154.43	37.64	0.64	72.88	23.97	22.08

Table 2
Supplemental Groundwater Investigation Report
Groundwater Sample Analytical Results - 2020 and 2023

438 11th Avenue
New York, New York
NYSDEC BCP Site No.: C231095
Langan Project No.: 170395001

Analyte	CAS Number	NYSDEC SGVs	Location	MW11	MW11	MW11	MW12	MW12	MW15	MW15	MW15
			Sample Name	MW11_022120	GWDUP01_022120	MW11_051723	MW12_022120	MW12_051823	MW15_022120	MW15_051823	DUP01_051823
			Sample Date	02/21/2020	02/21/2020	05/17/2023	02/21/2020	05/18/2023	02/21/2020	05/18/2023	05/18/2023
			Unit	Result	Result	Result	Result	Result	Result	Result	Result
Semi-Volatile Organic Compounds											
1,2,4,5-Tetrachlorobenzene	95-94-3	5	ug/l	<2.7 U	<2.5 U	<10 U	<2.7 U	<10 U	<2.63 U	<10 U	<10 U
1,2,4-Trichlorobenzene	120-82-1	5	ug/l	NA	NA	<5 U	NA	<5 U	NA	<5 U	<5 U
1,2-Dichlorobenzene	95-50-1	3	ug/l	NA	NA	0.61 J	NA	<2 U	NA	2.9	2.7
1,2-Diphenylhydrazine	122-66-7	0	ug/l	<2.7 U	<2.5 U	NA	<2.7 U	NA	<2.63 U	NA	NA
1,3-Dichlorobenzene	541-73-1	3	ug/l	NA	NA	<2 U	NA	<2 U	NA	<2 U	<2 U
1,4-Dichlorobenzene	106-46-7	3	ug/l	NA	NA	<2 U	NA	<2 U	NA	1.5 J	1.4 J
2,3,4,6-Tetrachlorophenol	58-90-2	NS	ug/l	<2.7 U	<2.5 U	NA	<2.7 U	NA	<2.63 U	NA	NA
2,4,5-Trichlorophenol	95-95-4	NS	ug/l	<2.7 U	<2.5 U	<5 U	<2.7 U	<5 U	<2.63 U	<5 U	<5 U
2,4,6-Trichlorophenol	88-06-2	NS	ug/l	<2.7 U	<2.5 U	<5 U	<2.7 U	<5 U	<2.63 U	<5 U	<5 U
2,4-Dichlorophenol	120-83-2	1	ug/l	<2.7 U	<2.5 U	<5 U	<2.7 U	<5 U	<2.63 U	<5 U	<5 U
2,4-Dimethylphenol	105-67-9	1	ug/l	<2.7 U	<2.5 U	<5 U	<2.7 U	<5 U	<2.63 U	<5 U	<5 U
2,4-Dinitrophenol	51-28-5	1	ug/l	<2.7 U	<2.5 U	<20 U	<2.7 U	<20 U	<2.63 U	<20 U	<20 U
2,4-Dinitrotoluene	121-14-2	5	ug/l	<2.7 U	<2.5 U	<5 U	<2.7 U	<5 U	<2.63 U	<5 U	<5 U
2,6-Dinitrotoluene	606-20-2	5	ug/l	<2.7 U	<2.5 U	<5 U	<2.7 U	<5 U	<2.63 U	<5 U	<5 U
2-Chloronaphthalene	91-58-7	10	ug/l	<2.7 U	<2.5 U	<0.2 U	<2.7 U	<0.37 U	<2.63 U	<0.2 U	<0.2 U
2-Chlorophenol	95-57-8	NS	ug/l	<2.7 U	<2.5 U	<2 U	<2.7 U	<2 U	<2.63 U	<2 U	<2 U
2-Methylnaphthalene	91-57-6	NS	ug/l	<2.7 U	<2.5 U	0.11 J	<2.7 U	<0.18 U	<2.63 U	0.06 J	0.07 J
2-Methylphenol (o-Cresol)	95-48-7	NS	ug/l	<2.7 U	<2.5 U	<5 U	<2.7 U	<5 U	<2.63 U	<5 U	<5 U
2-Nitroaniline	88-74-4	5	ug/l	<2.7 U	<2.5 U	<5 U	<2.7 U	<5 U	<2.63 U	<5 U	<5 U
2-Nitrophenol	88-75-5	NS	ug/l	<2.7 U	<2.5 U	<10 U	<2.7 U	<10 U	<2.63 U	<10 U	<10 U
3 & 4 Methylphenol (m&p Cresol)	65794-96-9	NS	ug/l	<2.7 U	<2.5 U	<5 U	<2.7 U	<5 U	<2.63 U	<5 U	<5 U
3,3'-Dichlorobenzidine	91-94-1	5	ug/l	<2.7 U	<2.5 U	<5 U	<2.7 U	<5 U	<2.63 U	<5 U	<5 U
3-Nitroaniline	99-09-2	5	ug/l	<2.7 U	<2.5 U	<5 U	<2.7 U	<5 U	<2.63 U	<5 U	<5 U
4,6-Dinitro-2-Methylphenol	534-52-1	NS	ug/l	<2.7 U	<2.5 U	<10 U	<2.7 U	<10 U	<2.63 U	<10 U	<10 U
4-Bromophenyl Phenyl Ether	101-55-3	NS	ug/l	<2.7 U	<2.5 U	<2 U	<2.7 U	<2 U	<2.63 U	<2 U	<2 U
4-Chloro-3-Methylphenol	59-50-7	NS	ug/l	<2.7 U	<2.5 U	<2 U	<2.7 U	<2 U	<2.63 U	<2 U	<2 U
4-Chloroaniline	106-47-8	5	ug/l	<2.7 U	<2.5 U	<5 U	<2.7 U	<5 U	<2.63 U	<5 U	<5 U
4-Chlorophenyl Phenyl Ether	7005-72-3	NS	ug/l	<2.7 U	<2.5 U	<2 U	<2.7 U	<2 U	<2.63 U	<2 U	<2 U
4-Nitroaniline	100-01-6	5	ug/l	<2.7 U	<2.5 U	<5 U	<2.7 U	<5 U	<2.63 U	<5 U	<5 U
4-Nitrophenol	100-02-7	NS	ug/l	<5.41 U	<5 U	<10 U	<5.41 U	<10 U	<5.26 U	<10 U	<10 U
Acenaphthene	83-32-9	20	ug/l	<0.0541 U	<0.05 U	0.6 J	0.0973	0.04 J	0.495	0.65	0.7
Acenaphthylene	208-96-8	NS	ug/l	0.0649	0.08	0.04 J	0.0865	<0.18 U	0.2	0.25	0.26
Acetophenone	98-86-2	NS	ug/l	<2.7 U	<2.5 U	<5 U	<2.7 U	<5 U	<2.63 U	<5 U	<5 U
Aniline (Phenylamine, Aminobenzene)	62-53-3	5	ug/l	<2.7 U	<2.5 U	NA	<2.7 U	NA	<2.63 U	NA	NA
Anthracene	120-12-7	50	ug/l	<0.0541 U	<0.05 U	<0.1 U	0.27	0.08 J	0.0947	<0.1 U	<0.1 U
Atrazine	1912-24-9	7.5	ug/l	<0.541 U	<0.5 U	NA	<0.541 U	NA	<0.526 U	NA	NA
Benzaldehyde	100-52-7	NS	ug/l	<2.7 U	<2.5 U	NA	<2.7 U	NA	<2.63 U	NA	NA
Benzidine	92-87-5	5	ug/l	<5.41 U	<5 U	NA	<5.41 U	NA	<5.26 U	NA	NA
Benzo(a)anthracene	56-55-3	**0.002**	ug/l	<0.0541 U	<0.05 U	<0.1 U	<0.0541 U	<0.18 U	<0.0526 U	**0.02 J**	<0.1 U
Benzo(a)pyrene	50-32-8	0	ug/l	<0.0541 U	<0.05 U	<0.1 U	<0.0541 U	<0.18 U	<0.0526 U	<0.1 U	<0.1 U
Benzo(b)fluoranthene	205-99-2	**0.002**	ug/l	<0.0541 U	<0.05 U	<0.1 U	<0.0541 U	<0.18 U	<0.0526 U	**0.01 J**	<0.1 U
Benzo(g,h,i)Perylene	191-24-2	NS	ug/l	<0.0541 U	<0.05 U	<0.1 U	<0.0541 U	<0.18 U	<0.0526 U	<0.1 U	<0.1 U
Benzo(k)fluoranthene	207-08-9	**0.002**	ug/l	<0.0541 U	<0.05 U	<0.1 U	<0.0541 U	<0.18 U	<0.0526 U	**0.01 J**	<0.1 U
Benzoic Acid	65-85-0	NS	ug/l	<2.7 U	<2.5 U	<50 U	<2.7 U	<50 U	<2.63 U	<50 U	<50 U
Benzyl Alcohol	100-51-6	NS	ug/l	<2.7 U	<2.5 U	<2 U	<2.7 U	<2 U	<2.63 U	<2 U	<2 U
Benzyl Butyl Phthalate	85-68-7	50	ug/l	<2.7 U	<2.5 U	<5 U	<2.7 U	<5 U	<2.63 U	<5 U	<5 U
Biphenyl (Diphenyl)	92-52-4	5	ug/l	<2.7 U	<2.5 U	<2 U	<2.7 U	<2 U	<2.63 U	<2 U	<2 U
Bis(2-chloroethoxy) methane	111-91-1	5	ug/l	<2.7 U	<2.5 U	<5 U	<2.7 U	<5 U	<2.63 U	<5 U	<5 U
Bis(2-chloroethyl) ether (2-chloroethyl ether)	111-44-4	1	ug/l	<1.08 U	<1 U	<2 U	<1.08 U	<2 U	<1.05 U	<2 U	<2 U
Bis(2-chloroisopropyl) ether	108-60-1	5	ug/l	<2.7 U	<2.5 U	<2 U	<2.7 U	<2 U	<2.63 U	<2 U	<2 U
Bis(2-ethylhexyl) phthalate	117-81-7	5	ug/l	<0.541 U	<0.5 U	<3 U	2.39	<3 U	0.663	<3 U	<3 U
Caprolactam	105-60-2	NS	ug/l	<2.7 U	<2.5 U	NA	<2.7 U	NA	<2.63 U	NA	NA
Carbazole	86-74-8	NS	ug/l	<2.7 U	<2.5 U	0.86 J	<2.7 U	<2 U	<2.63 U	<2 U	<2 U
Chrysene	218-01-9	**0.002**	ug/l	<0.0541 U	<0.05 U	<0.1 U	<0.0541 U	<0.18 U	<0.0526 U	**0.01 J**	<0.1 U
Dibenz(a,h)anthracene	53-70-3	NS	ug/l	<0.0541 U	<0.05 U	<0.1 U	<0.0541 U	<0.18 U	<0.0526 U	<0.1 U	<0.1 U
Dibenzofuran	132-64-9	NS	ug/l	<2.7 U	<2.5 U	0.66 J	<2.7 U	<2 U	<2.63 U	1.8 J	1.8 J
Dibutyl phthalate	84-74-2	50	ug/l	<2.7 U	<2.5 U	<5 U	<2.7 U	<5 U	<2.63 U	<5 U	<5 U
Diethyl phthalate	84-66-2	50	ug/l	<2.7 U	<2.5 U	<5 U	<2.7 U	<5 U	<2.63 U	<5 U	<5 U
Dimethyl phthalate	131-11-3	50	ug/l	<2.7 U	<2.5 U	<5 U	<2.7 U	<5 U	<2.63 U	<5 U	<5 U
Dioctyl phthalate	117-84-0	50	ug/l	<2.7 U	<2.5 U	<5 U	<2.7 U	<5 U	<2.63 U	<5 U	<5 U
Diphenylamine	122-39-4	5	ug/l	<2.7 U	<2.5 U	NA	<2.7 U	NA	<2.63 U	NA	NA
Fluoranthene	206-44-0	50	ug/l	<0.0541 U	<0.05 U	<0.1 U	<0.0541 U	<0.18 U	<0.0526 U	0.03 J	0.02 J
Fluorene	86-73-7	50	ug/l	0.0865	0.07	0.69 J	0.0865	<0.18 U	0.821	<0.1 U	<0.1 U
Hexachlorobenzene	118-74-1	0.04	ug/l	<0.0216 U	<0.02 U	<0.8 U	<0.0216 U	<1.5 U	<0.0211 U	<0.8 U	<0.8 U
Hexachlorobutadiene	87-68-3	0.5	ug/l	<0.541 U	<0.5 U	<0.5 U	<0.541 U	<0.92 U	<0.526 U	<0.5 U	<0.5 U
Hexachlorocyclopentadiene	77-47-4	5	ug/l	<5.41 U	<5 U	<20 U	<5.41 U	<20 U	<5.26 U	<20 U	<20 U
Hexachloroethane	67-72-1	5	ug/l	<0.541 U	<0.5 U	<0.8 U	<0.541 U	<1.5 U	<0.526 U	<0.8 U	<0.8 U
Indeno(1,2,3-cd)pyrene	193-39-5	0.002	ug/l	<0.0541 U	<0.05 U	<0.1 U	<0.0541 U	<0.18 U	<0.0526 U	<0.1 U	<0.1 U
Isophorone	78-59-1	50	ug/l	<2.7 U	<2.5 U	<5 U	<2.7 U	<5 U	<2.63 U	<5 U	<5 U
Naphthalene	91-20-3	10	ug/l	0.0757	0.08	0.73 J	0.0541	<0.18 U	0.137	<0.1 U	<0.1 U
Nitrobenzene	98-95-3	0.4	ug/l	<0.27 U	<0.25 U	<2 U	<0.27 U	<2 U	<0.263 U	<2 U	<2 U
n-Nitrosodimethylamine	62-75-9	NS	ug/l	<0.541 U	<0.5 U	NA	<0.541 U	NA	<0.526 U	NA	NA
n-Nitrosodi-N-Propylamine	621-64-7	NS	ug/l	<2.7 U	<2.5 U	<5 U	<2.7 U	<5 U	<2.63 U	<5 U	<5 U
n-Nitrosodiphenylamine	86-30-6	50	ug/l	<2.7 U	<2.5 U	<2 U	<2.7 U	<2 U	<2.63 U	<2 U	<2 U
Pentachlorophenol	87-86-5	1	ug/l	<0.27 U	<0.25 U	0.12 J	<0.27 U	0.35 J	<0.263 U	0.16 J	<0.8 U
Phenanthrene	85-01-8	50	ug/l	<0.0541 U	<0.05 U	<0.1 U	<0.0541 U	<0.18 U	0.137	<0.1 U	<0.1 U
Phenol	108-95-2	1	ug/l	<2.7 U	<2.5 U	<5 U	<2.7 U	<5 U	<2.63 U	<5 U	<5 U
Pyrene	129-00-0	50	ug/l	0.0541	<0.05 U	0.08 J	0.0649	<0.18 U	0.0632	0.04 J	0.05 J
Pyridine	110-86-1	50	ug/l	<2.7 U	<2.5 U	NA	<2.7 U	NA	<2.63 U	NA	NA
Petroleum Hydrocarbons											
Gasoline Range Organics	8006-61-9	NS	ug/l	NA	NA	1,400	NA	<50 U	NA	240	NA
Metals - Dissolved											
Iron	7439-89-6	**300**	ug/l	NA	NA	**953**	NA	NA	NA	**1,790**	NA
Manganese	7439-96-5	**300**	ug/l	NA	NA	**1,051 J**	NA	NA	NA	**1,374**	NA
Metals - Total											
Iron	7439-89-6	**300**	ug/l	NA	NA	**972**	NA	NA	NA	**29,600**	NA
Lead	7439-92-1	25	ug/l	2.83	2.87	NA	1.92	NA	6.28	NA	NA
Manganese	7439-96-5	**300**	ug/l	NA	NA	**1,245**	NA	NA	NA	**1,688**	NA
General Chemistry											
Nitrogen, Nitrate (As N)	14797-55-8	10000	ug/l	NA	NA	296	NA	NA	NA	59 J	NA
Sulfate (As SO4)	14808-79-8	250000	ug/l	NA	NA	<10,000 U	NA	NA	NA	97,000	NA

Table 2
Supplemental Groundwater Investigation Report
Groundwater Sample Analytical Results - 2020 and 2023

438 11th Avenue
New York, New York
NYSDEC BCP Site No.: C231095
Langan Project No.: 170395001

Notes:
CAS - Chemical Abstract Service
NS - No standard
ug/l - microgram per liter
NA - Not analyzed
RL - Reporting limit
<RL - Not detected
Groundwater sample analytical results are compared to the New York State Department of Environmental Conservation (NYSDEC) Title 6 Codes, Rules, and Regulations (NYCRR) Part 703.5 and the NYSDEC Technical and Operation Guidance Series (TOGS) 1.1.1 Ambient Water Quality Standards and Guidance Values for Class GA Water and published addenda (herein collectively referenced as "NYSDEC SGVs").

Qualifiers:
J - The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample.
UJ - The analyte was not detected at a level greater than or equal to the RL; however, the reported RL is approximate and may be inaccurate or imprecise.
U - The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the RL or the sample concentration for results impacted by blank contamination.

Exceedance Summary:
10 - Result exceeds NYSDEC SGVs

ATTACHMENT A

DAILY SITE OBSERVATION REPORTS

SITE OBSERVATION REPORT

PROJECT No.: 170395002		**DATE:**	Wednesday, May 17, 2023
PROJECT: 438 Eleventh Avenue BCP Site No. C231095	**CLIENT:** Tishman Speyer Worldwide LLC	**WEATHER:**	Sunny, 51-69°, Wind: N @ 14 mph
LOCATION: 550 West 37th Street, New York, NY		**TIME:**	8:00am to 5:15pm
CONTRACTOR: NA		**LANGAN REP. :**	Andrew Ashley TJ Malgieri
CONTRACTOR'S EQUIPMENT: N/A	**PRESENT AT SITE:** Langan: Andrew Ashley TJ Malgieri		

Work Activities Performed (Since Last Report):

- Langan used a photoionization detector (PID) to measure the headspace concentration of volatile organics, and a 100' Solinst Interface probe to gauge depth to water and presence of light non-aqueous phase liquid (LNAPL) in previously installed monitoring wells, as summarized below:

Monitoring Well	DTW (feet bgs)	DTP (feet bgs)	VOC (ppm)	Comment
MW09	12.6	12.8	383.2	Strong petroleum-like odor.
MW11	11.1	N/A	22.9	Petroleum-like odor.
MW12	24.1	N/A	1.1	MW12 purged dry after 5 minutes. Slow recharge.
MW14	N/A	N/A	N/A	Well was inaccessible
MW15	16.05	N/A	1.5	MW15 purged dry after 20 minutes. Slow recharge.
GB10	N/A	N/A	0.0	Well was dry

DTW= depth to water DTP = depth to product ft bgs = feet below grade surface VOC = volatile organic compound
ppm = parts per million N/A = not available

- Langan collected a groundwater sample from MW11 in accordance with the March 17, 2023 Supplemental Groundwater Investigation Plan. Investigation derived waste was containerized in a 55-gallon drum for future off-site disposal.

Samples Collected (Since Last Report):

- The following groundwater sample was collected and analyzed for volatile organic compounds (VOC), semi-volatile organic compounds (SVOC), total petroleum hydrocarbon/gasoline range organics (TPH-GRO), total and dissolved iron, total and dissolved manganese, sulfate, and nitrate:
  - MW11_051723
- The following quality assurance/quality control (QA/QC) samples were collected and analyzed for VOCs and/or SVOCs:
  - FB01_051723

Cc:	L. Esmail, S. Knoop, M. Burke (Langan)	By:	Andrew Ashley **LANGAN**

SITE OBSERVATION REPORT

- TB01_051723

Samples were submitted to Alpha Analytical Inc., a New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP)-certified laboratory located in Westborough, Massachusetts.

Community Air Monitoring:

- Community air-monitoring was not performed.

Problems Encountered:

- None.

Material Tracking:

- No material was imported to the site.
- No material was exported from the site.

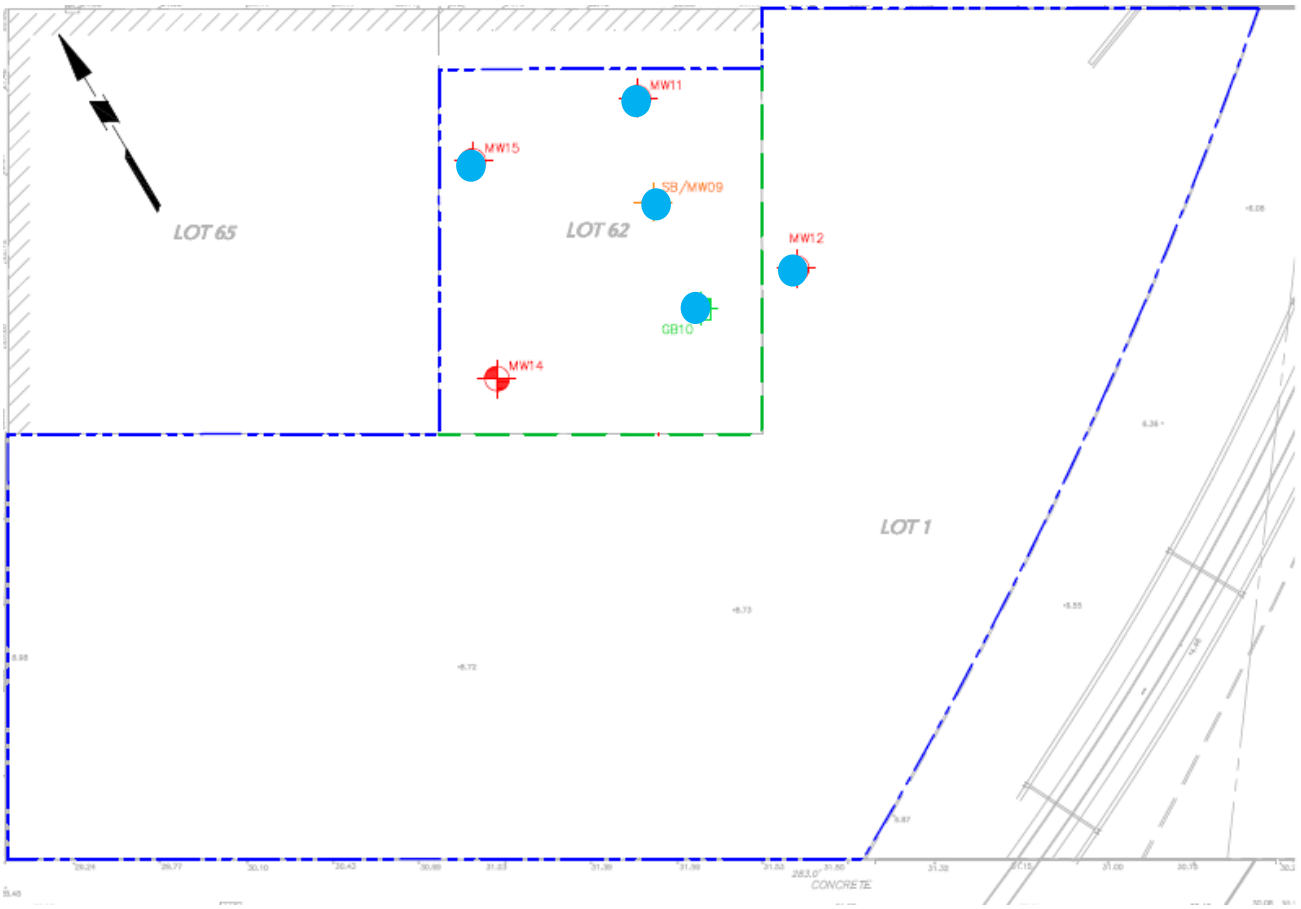
Anticipated Work

- Langan with resume groundwater sampling.

Cc:	L. Esmail, S. Knoop, M. Burke (Langan)	By:	Andrew Ashley

SITE OBSERVATION REPORT

SITE PLAN:



Legend:

- Approximate Site Boundary
- Approximate Work Area

Cc:	L. Esmail, S. Knoop, M. Burke (Langan)	By:	Andrew Ashley

SITE OBSERVATION REPORT

SITE PHOTOGRAPHS

Photo 1: View of Langan purging groundwater from monitoring well MW-11 (facing southwest).

Photo 2: View of monitoring well MW-12 (facing south).

Cc:	L. Esmail, S. Knoop, M. Burke (Langan)	By:	Andrew Ashley

LANGAN

SITE OBSERVATION REPORT

PROJECT No.: 170395002		**DATE:**	Thursday, May 18, 2023
PROJECT: 438 Eleventh Avenue BCP Site No. C231095	**CLIENT:** Tishman Speyer Worldwide LLC	**WEATHER:**	Clear, 45-59°, Wind: S @ 10 mph
LOCATION: 550 West 37th Street, New York, NY		**TIME:**	8:00am to 3:30pm
CONTRACTOR: NA		**LANGAN REP. :**	Andrew Ashley
CONTRACTOR'S EQUIPMENT: N/A	**PRESENT AT SITE:** Langan: Andrew Ashley		

Work Activities Performed (Since Last Report):

- Langan used a photoionization detector (PID) to measure the headspace concentration of volatile organics, and a 100' Solinst Interface probe to gauge depth to water and presence of light non-aqueous phase liquid (LNAPL) in previously installed monitoring wells, as summarized below:

Monitoring Well	DTW (feet bgs)	DTP (feet bgs)	VOC (ppm)
MW12	25.3	N/A	0.3
MW15	22.5	N/A	0.8

DTW= depth to water DTP = depth to product ft bgs = feet below grade surface
VOC = volatile organic compound ppm = parts per million N/A = not available

- Langan collected groundwater samples from MW12 and MW15 in accordance with the March 17, 2023 Supplemental Groundwater Investigation Plan. Investigation derived waste was containerized in a 55-gallon drum for future off-site disposal.

Samples Collected (Since Last Report):

- The following groundwater sample was collected and analyzed for volatile organic compounds (VOC), semi-volatile organic compounds (SVOC), total petroleum hydrocarbon/gasoline range organics (TPH-GRO), total and dissolved iron, total and dissolved manganese, sulfate, and nitrate:
  - MW15_051823
- The following groundwater sample was collected and analyzed for VOCs, SVOCs, and TPH-GRO:
  - MW12_051823

Samples were submitted to Alpha Analytical Inc., a New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP)-certified laboratory located in Westborough, Massachusetts.

Cc:	L. Esmail, S. Knoop, M. Burke (Langan)	By:	Andrew Ashley
			LANGAN

SITE OBSERVATION REPORT

Community Air Monitoring:

- Community air-monitoring was not performed.

Problems Encountered:

- MW12_051823 was not submitted for analysis of total and dissolved iron, total and dissolved manganese, sulfate, and nitrate due to the well going dry during purging.

Material Tracking:

- No material was imported to the site.
- No material was exported from the site.

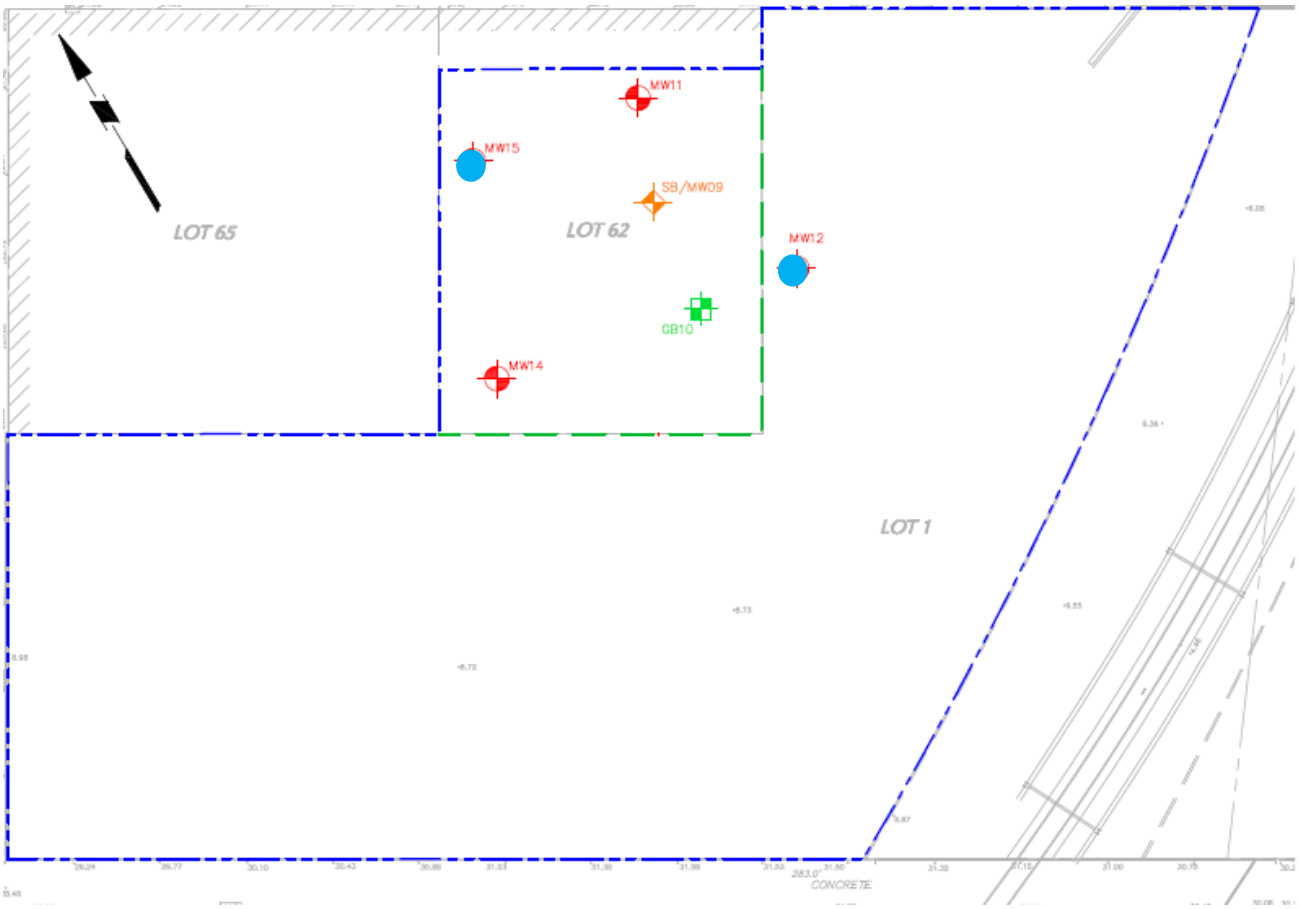
Anticipated Work

- None.

Cc:	L. Esmail, S. Knoop, M. Burke (Langan)	By:	Andrew Ashley

SITE OBSERVATION REPORT

SITE PLAN:



Legend:

Approximate Site Boundary

Approximate Work Area

Cc:	L. Esmail, S. Knoop, M. Burke (Langan)	By:	Andrew Ashley

SITE OBSERVATION REPORT

SITE PHOTOGRAPHS

Photo 1: View of MW12 groundwater sample collection setup (facing south).

Photo 2: View of pump decontamination between use (facing west).

Cc:	L. Esmail, S. Knoop, M. Burke (Langan)	By:	Andrew Ashley

ATTACHMENT B

GROUNDWATER SAMPLING LOGS

Attachment B
Sampling Documentation Form
Groundwater Monitoring Report
99 Hudson
438 11th Ave, New York
NYSDEC BCP Site No. C231095
Langan Project No.170395001

Project Information		Well Information		Equipment Information		Sampling Conditions		Sampling Information	
Project Name:	99 Hudson	**Well No:**	MW11	**Water Quality Device Model:**	Horiba	**Weather:**	Sunny, 51-69 °F, N @ 14 mph	**Sample(s):**	MW11_051723
Project Number:	170395001	**Well Depth:**	28 ft	**Pine Number:**	45273	**Background PID (ppm):**	0.0		
Site Location:	438 11th Avenue	**Well Diameter:**	2-inch	**Pump Make and Model:**	otech Geosub 2 & Contro	**PID Beneath Inner Cap (ppm):**	22.9		
Sampling Personnel:	Andrew Ashley TJ Malgieri	**Well Screen Interval:**	18 to 28 ft bgs	**Pine Number:**	49112 & 49107	**Pump Intake Depth:**	21 feet	**Sample Date:**	5/17/2023
				Tubing Diameter:	0.5-inch	**Depth to Water Before Purge:**	11.1	**Sample Time:**	11:00

STABILIZATION = 3 successive readings within limits

TIME	TEMP °Celsius (+/- 3%)	PH (+/- 0.1)	ORP mV (+/- 10mV)	CONDUCTIVITY mS/cm (+/- 3%)	TURBIDITY ntu (+/- 10%) above 5 NTU	DO mg/l (+/- 10%) above 0.5 mg/l	DTW ft Drawdown < 0.33 ft	Flow Rate (gpm) <0.13 gpm)	Cumulative Discharge Volume (Gal)	NOTES color, odor etc.	Stabilized?
BEGIN PURGING											
9:50	16.50	6.64	38	0.621	3.7	2.45	13.10	0.05	0	Petroleum Odor	**N/A**
9:55	17.70	6.62	92	0.572	3.1	1.53	13.05	0.05	0.25	Petroleum Odor	**N/A**
10:00	16.75	6.64	96	0.530	2.9	1.26	13.10	0.05	0.5	Petroleum Odor	**N**
10:05	16.87	6.69	97	0.504	2.4	0.95	13.10	0.05	0.75	Petroleum Odor	**N**
10:10	17.59	6.73	100	0.509	2.6	0.78	13.10	0.05	1	Petroleum Odor	**N**
10:15	17.69	6.67	103	0.508	2.6	0.85	12.80	0.05	1.25	Petroleum Odor	**N**
10:20	17.72	6.82	108	0.513	3.2	0.71	12.70	0.05	1.5	Petroleum Odor	**N**
10:25	17.75	6.85	109	0.616	2.9	0.59	13.05	0.05	1.75	Petroleum Odor	**N**
10:30	16.21	6.81	108	0.653	6.5	0.59	13.75	0.05	2	Petroleum Odor	**N**
10:35	16.63	6.80	108	0.651	7.5	0.60	13.50	0.05	2.25	Petroleum Odor	**N**
10:40	16.81	6.81	107	0.659	7.5	0.59	13.20	0.05	2.5	Petroleum Odor	**N**
10:45	16.82	6.83	107	0.657	7.9	0.54	13.00	0.05	2.75	Petroleum Odor	**N**
10:50	17.07	6.85	106	0.665	7.1	0.83	12.70	0.05	3	Petroleum Odor	**N**
10:55	17.20	6.86	106	0.688	7.2	0.31		0.05	3.25	Petroleum Odor	**N**
11:00	Stabilization not met; sample collected after 3.25 gallons of cumulative discharge										**N**
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N

Notes:
1. Well depths and groundwater depths were measured in feet below the top of well casing.
2. Well and tubing diameters are measured in inches.
3. PID = Photoionization Detector
4. PPM = Parts per million
5. pH = Hydrogen ion concentration
6. ORP = Oxidation-reduction potential, measured in millivolts (mV)
7. DO = Dissolved Oxygen, measured in milligrams per liter (mg/L)
8. DTW = Depth to water
9. mS/cm = milli-Siemens per centimeter
10. NTU = Nephelometric Turbidity Unit

Attachment B
Sampling Documentation Form
Groundwater Monitoring Report
99 Hudson
438 11th Ave, New York
NYSDEC BCP Site No. C231095
Langan Project No.170395001

Project Information		Well Information		Equipment Information		Sampling Conditions		Sampling Information	
Project Name:	99 Hudson	**Well No:**	MW12	**Water Quality Device Model:**	Horiba	**Weather:**	Sunny, 51-69 °F, N @ 14 mph	**Sample(s):**	MW12_051823
Project Number:	170395001	**Well Depth:**	27 feet	**Pine Number:**	45273	**Background PID (ppm):**	0.0		
Site Location:	438 11th Avenue	**Well Diameter:**	2	**Pump Make and Model:**	Geotech Geosub 2 & Controller	**PID Beneath Inner Cap (ppm):**	1.1		
Sampling Personnel:	Andrew Ashley	**Well Screen Interval:**	17 to 27 ft bgs	**Pine Number:**	49112 & 49107	**Pump Intake Depth:**	26 feet	**Sample Date:**	5/18/2023
	TJ Malgieri			**Tubing Diameter:**	0.5-inch	**Depth to Water Before Purge:**	24.1	**Sample Time:**	12:00

STABILIZATION = 3 successive readings within limits

TIME	TEMP °Celsius (+/- 3%)	PH (+/- 0.1)	ORP mV (+/- 10mV)	CONDUCTIVITY mS/cm (+/- 3%)	TURBIDITY ntu (+/- 10%) above 5 NTU	DO mg/l (+/- 10%) above 0.5 mg/l	DTW ft Drawdown < 0.33 ft	Flow Rate (gpm) <0.13 gpm)	Cumulative Discharge Volume (Gal)	NOTES color, odor etc.	Stabilized?
BEGIN PURGING											
3:45	16.10	6.94	86	87.000	230.0	7.93	24.10	0.05	0		**N/A**
3:50	MW12 was depleted within 5 minutes of purging on 05/17/23. Well was allowed to recharge for >12 hours before sampling on 05/18/23.										**N/A**
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N

Notes:
1. Well depths and groundwater depths were measured in feet below the top of well casing.
2. Well and tubing diameters are measured in inches.
3. PID = Photoionization Detector
4. PPM = Parts per million
5. pH = Hydrogen ion concentration
6. ORP = Oxidation-reduction potential, measured in millivolts (mV)
7. DO = Dissolved Oxygen, measured in milligrams per liter (mg/L)
8. DTW = Depth to water
9. mS/cm = milli-Siemens per centimeter
10. NTU = Nephelometric Turbidity Unit

Attachment B
Sampling Documentation Form
Groundwater Monitoring Report
99 Hudson
438 11th Ave, New York
NYSDEC BCP Site No. C231095
Langan Project No.170395001

Project Information		Well Information		Equipment Information		Sampling Conditions		Sampling Information	
Project Name:	99 Hudson	**Well No:**	MW15	**Water Quality Device Model:**	Horiba	**Weather:**	Sunny, 51-69 °F, N @ 14 mph	**Sample(s):**	MW15_051823
Project Number:	170395001	**Well Depth:**	30 feet	**Pine Number:**	45273	**Background PID (ppm):**	0.0		
Site Location:	438 11th Avenue	**Well Diameter:**	2-inch	**Pump Make and Model:**	Geotech Geosub 2 & Controller	**PID Beneath Inner Cap (ppm):**	1.5		
Sampling Personnel:	Andrew Ashley TJ Malgieri	**Well Screen Interval:**	10 to 30 ft bgs	**Pine Number:**	49112 & 49107	**Pump Intake Depth:**	20 feet	**Sample Date:**	5/18/2023
				Tubing Diameter:	0.5-inch	**Depth to Water Before Purge:**	16.05	**Sample Time:**	9:45

STABILIZATION = 3 successive readings within limits

TIME	TEMP °Celsius (+/- 3%)	PH (+/- 0.1)	ORP mV (+/- 10mV)	CONDUCTIVITY mS/cm (+/- 3%)	TURBIDITY ntu (+/- 10%) above 5 NTU	DO mg/l (+/- 10%) above 0.5 mg/l	DTW ft Drawdown < 0.33 ft	Flow Rate (gpm) <0.13 gpm)	Cumulative Discharge Volume (Gal)	NOTES color, odor etc.	Stabilized?
BEGIN PURGING											
12:20	15.03	6.98	106	1.810	190.0	0.67	16.05	0.05	0	No odor, No color	**N/A**
12:25	15.28	6.97	114	1.770	28.2	0.47	18.95	0.05	0.25	No odor, No color	**N/A**
12:30	15.37	6.97	116	1.770	21.2	0.46	19.45	0.05	0.5	No odor, No color	**N**
12:35	15.32	6.69	114	1.780	12.2	0.47	22.37	0.05	0.75	No odor, No color	**N**
12:40	15.67	6.98	95	1.800	980.0	6.43		0.05	1	No odor, No color	**N**
12:45	MW15 was depleted after 20 minutes of purging on 05/17/23. Well was allowed to recharge for >12 hours before sampling on 05/18/23										**N**
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N

Notes:
1. Well depths and groundwater depths were measured in feet below the top of well casing.
2. Well and tubing diameters are measured in inches.
3. PID = Photoionization Detector
4. PPM = Parts per million
5. pH = Hydrogen ion concentration
6. ORP = Oxidation-reduction potential, measured in millivolts (mV)
7. DO = Dissolved Oxygen, measured in milligrams per liter (mg/L)
8. DTW = Depth to water
9. mS/cm = milli-Siemens per centimeter
10. NTU = Nephelometric Turbidity Unit

ATTACHMENT C

LABORATORY ANALYTICAL REPORTS

ANALYTICAL REPORT

Lab Number:	L2327488
Client:	Langan Engineering & Environmental 21 Penn Plaza 360 W. 31st Street, 8th Floor New York, NY 10001-2727
ATTN:	Stuart Knoop
Phone:	(212) 479-5400
Project Name:	99 HUDSON
Project Number:	170395001
Report Date:	05/26/23

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0826), IL (200077), IN (C-MA-03), KY (KY98045), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), OH (CL108), OR (MA-1316), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #525-23-122-91930).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: 99 HUDSON
Project Number: 170395001

Lab Number: L2327488
Report Date: 05/26/23

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2327488-01	MW11_051723	WATER	438 11TH AVE, NEW YORK, NY	05/17/23 11:00	05/17/23
L2327488-02	FB01_051723	WATER	438 11TH AVE, NEW YORK, NY	05/17/23 14:00	05/17/23
L2327488-03	TB01_051723	WATER	438 11TH AVE, NEW YORK, NY	05/17/23 00:00	05/17/23

Project Name:	99 HUDSON	**Lab Number:**	L2327488
Project Number:	170395001	**Report Date:**	05/26/23

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name: 99 HUDSON
Project Number: 170395001
Lab Number: L2327488
Report Date: 05/26/23

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Semivolatile Organics by SIM

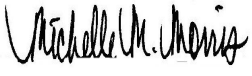
L2327488-01: The surrogate recoveries were outside the acceptance criteria for nitrobenzene-d5 (148%), 2-fluorobiphenyl (126%), and 2,4,6-tribromophenol (152%); however, the criteria were achieved upon re-extraction outside of holding time. The results of both extractions are reported.

The WG1783497-1 Method Blank, associated with L2327488-01RE, has a concentration above the reporting limit for Naphthalene; however, additional re-extraction could not be performed due to lack of additional sample volume. The results of the analyses are reported and are qualified with a "B".

Dissolved Metals

The WG1781061-3 MS recovery, performed on L2327488-01, is outside the acceptance criteria for manganese (138%). A post digestion spike was performed and yielded an unacceptable recovery for manganese (158%). The serial dilution recovery was acceptable; therefore, the matrix test passed for the sample matrix.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:  Michelle M. Morris

Title: Technical Director/Representative Date: 05/26/23

ORGANICS

VOLATILES

Project Name: 99 HUDSON
Project Number: 170395001
Lab Number: L2327488
Report Date: 05/26/23

SAMPLE RESULTS

Lab ID: L2327488-01
Client ID: MW11_051723
Sample Location: 438 11TH AVE, NEW YORK, NY
Date Collected: 05/17/23 11:00
Date Received: 05/17/23
Field Prep: Refer to COC

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 05/24/23 17:11
Analyst: PID

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	2.3	J	ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	20		ug/l	0.50	0.16	1
Toluene	1.3	J	ug/l	2.5	0.70	1
Ethylbenzene	5.7		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: 99 HUDSON
Project Number: 170395001
Lab Number: L2327488
Report Date: 05/26/23

SAMPLE RESULTS

Lab ID: L2327488-01
Client ID: MW11_051723
Sample Location: 438 11TH AVE, NEW YORK, NY
Date Collected: 05/17/23 11:00
Date Received: 05/17/23
Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	1.1	J	ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	5.3		ug/l	2.5	0.70	1
o-Xylene	2.2	J	ug/l	2.5	0.70	1
Xylenes, Total	7.5	J	ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	4.3		ug/l	2.5	0.70	1
sec-Butylbenzene	5.2		ug/l	2.5	0.70	1
tert-Butylbenzene	0.85	J	ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	22		ug/l	2.5	0.70	1
p-Isopropyltoluene	0.76	J	ug/l	2.5	0.70	1
Naphthalene	2.5		ug/l	2.5	0.70	1

Project Name: 99 HUDSON
Project Number: 170395001
Lab Number: L2327488
Report Date: 05/26/23

SAMPLE RESULTS

Lab ID: L2327488-01
Client ID: MW11_051723
Sample Location: 438 11TH AVE, NEW YORK, NY
Date Collected: 05/17/23 11:00
Date Received: 05/17/23
Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	36		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	0.82	J	ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	6.4		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	5.6		ug/l	2.0	0.70	1
p-Ethyltoluene	3.6		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	21		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	107		70-130
Toluene-d8	90		70-130
4-Bromofluorobenzene	78		70-130
Dibromofluoromethane	80		70-130

Project Name: 99 HUDSON
Project Number: 170395001
Lab Number: L2327488
Report Date: 05/26/23

SAMPLE RESULTS

Lab ID: L2327488-02
Client ID: FB01_051723
Sample Location: 438 11TH AVE, NEW YORK, NY
Date Collected: 05/17/23 14:00
Date Received: 05/17/23
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 05/24/23 16:25
Analyst: PID

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: 99 HUDSON
Project Number: 170395001
Lab Number: L2327488
Report Date: 05/26/23

SAMPLE RESULTS

Lab ID: L2327488-02
Client ID: FB01_051723
Sample Location: 438 11TH AVE, NEW YORK, NY
Date Collected: 05/17/23 14:00
Date Received: 05/17/23
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: 99 HUDSON
Project Number: 170395001
Lab Number: L2327488
Report Date: 05/26/23

SAMPLE RESULTS

Lab ID: L2327488-02
Client ID: FB01_051723
Sample Location: 438 11TH AVE, NEW YORK, NY
Date Collected: 05/17/23 14:00
Date Received: 05/17/23
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	107		70-130
Toluene-d8	83		70-130
4-Bromofluorobenzene	78		70-130
Dibromofluoromethane	98		70-130

Project Name: 99 HUDSON
Project Number: 170395001
Lab Number: L2327488
Report Date: 05/26/23

SAMPLE RESULTS

Lab ID: L2327488-03
Client ID: TB01_051723
Sample Location: 438 11TH AVE, NEW YORK, NY
Date Collected: 05/17/23 00:00
Date Received: 05/17/23
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 05/24/23 16:48
Analyst: PID

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: 99 HUDSON
Project Number: 170395001
Lab Number: L2327488
Report Date: 05/26/23

SAMPLE RESULTS

Lab ID: L2327488-03
Client ID: TB01_051723
Sample Location: 438 11TH AVE, NEW YORK, NY
Date Collected: 05/17/23 00:00
Date Received: 05/17/23
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: 99 HUDSON
Project Number: 170395001
Lab Number: L2327488
Report Date: 05/26/23

SAMPLE RESULTS

Lab ID: L2327488-03
Client ID: TB01_051723
Sample Location: 438 11TH AVE, NEW YORK, NY
Date Collected: 05/17/23 00:00
Date Received: 05/17/23
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	107		70-130
Toluene-d8	84		70-130
4-Bromofluorobenzene	78		70-130
Dibromofluoromethane	98		70-130

Project Name: 99 HUDSON
Project Number: 170395001
Lab Number: L2327488
Report Date: 05/26/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 05/24/23 08:39
Analyst: PID

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-03 Batch: WG1782891-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.70
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18

Project Name: 99 HUDSON
Project Number: 170395001
Lab Number: L2327488
Report Date: 05/26/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 05/24/23 08:39
Analyst: PID

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-03 Batch: WG1782891-5					
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70

Project Name: 99 HUDSON
Project Number: 170395001
Lab Number: L2327488
Report Date: 05/26/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 05/24/23 08:39
Analyst: PID

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-03 Batch: WG1782891-5					
o-Chlorotoluene	ND		ug/l	2.5	0.70
p-Chlorotoluene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Hexachlorobutadiene	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
1,4-Dioxane	ND		ug/l	250	61.
p-Diethylbenzene	ND		ug/l	2.0	0.70
p-Ethyltoluene	ND		ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54
Ethyl ether	ND		ug/l	2.5	0.70
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	118		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	94		70-130
Dibromofluoromethane	111		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: 99 HUDSON
Project Number: 170395001

Lab Number: L2327488
Report Date: 05/26/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG1782891-3 WG1782891-4								
Methylene chloride	110		120		70-130	9		20
1,1-Dichloroethane	130		130		70-130	0		20
Chloroform	120		120		70-130	0		20
Carbon tetrachloride	110		120		63-132	9		20
1,2-Dichloropropane	130		130		70-130	0		20
Dibromochloromethane	95		100		63-130	5		20
1,1,2-Trichloroethane	100		110		70-130	10		20
Tetrachloroethene	100		110		70-130	10		20
Chlorobenzene	100		110		75-130	10		20
Trichlorofluoromethane	100		100		62-150	0		20
1,2-Dichloroethane	120		120		70-130	0		20
1,1,1-Trichloroethane	110		120		67-130	9		20
Bromodichloromethane	110		110		67-130	0		20
trans-1,3-Dichloropropene	100		110		70-130	10		20
cis-1,3-Dichloropropene	110		120		70-130	9		20
1,1-Dichloropropene	110		120		70-130	9		20
Bromoform	87		89		54-136	2		20
1,1,2,2-Tetrachloroethane	91		98		67-130	7		20
Benzene	120		120		70-130	0		20
Toluene	100		110		70-130	10		20
Ethylbenzene	100		110		70-130	10		20
Chloromethane	**140**	Q	**140**	Q	64-130	0		20
Bromomethane	91		98		39-139	7		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: 99 HUDSON

Project Number: 170395001

Lab Number: L2327488

Report Date: 05/26/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG1782891-3 WG1782891-4								
Vinyl chloride	110		110		55-140	0		20
Chloroethane	110		110		55-138	0		20
1,1-Dichloroethene	110		120		61-145	9		20
trans-1,2-Dichloroethene	110		120		70-130	9		20
Trichloroethene	99		100		70-130	1		20
1,2-Dichlorobenzene	92		96		70-130	4		20
1,3-Dichlorobenzene	94		97		70-130	3		20
1,4-Dichlorobenzene	93		96		70-130	3		20
Methyl tert butyl ether	100		110		63-130	10		20
p/m-Xylene	105		110		70-130	5		20
o-Xylene	105		110		70-130	5		20
cis-1,2-Dichloroethene	110		110		70-130	0		20
Dibromomethane	100		110		70-130	10		20
1,2,3-Trichloropropane	89		96		64-130	8		20
Acrylonitrile	120		130		70-130	8		20
Styrene	105		110		70-130	5		20
Dichlorodifluoromethane	97		100		36-147	3		20
Acetone	85		100		58-148	16		20
Carbon disulfide	120		120		51-130	0		20
2-Butanone	100		110		63-138	10		20
Vinyl acetate	**160**	Q	**170**	Q	70-130	6		20
4-Methyl-2-pentanone	100		110		59-130	10		20
2-Hexanone	94		100		57-130	6		20

Lab Control Sample Analysis
Batch Quality Control

Project Name: 99 HUDSON
Project Number: 170395001

Lab Number: L2327488
Report Date: 05/26/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG1782891-3 WG1782891-4								
Bromochloromethane	110		110		70-130	0		20
2,2-Dichloropropane	130		130		63-133	0		20
1,2-Dibromoethane	98		100		70-130	2		20
1,3-Dichloropropane	100		100		70-130	0		20
1,1,1,2-Tetrachloroethane	98		100		64-130	2		20
Bromobenzene	89		92		70-130	3		20
n-Butylbenzene	97		99		53-136	2		20
sec-Butylbenzene	96		100		70-130	4		20
tert-Butylbenzene	93		95		70-130	2		20
o-Chlorotoluene	96		99		70-130	3		20
p-Chlorotoluene	95		99		70-130	4		20
1,2-Dibromo-3-chloropropane	73		81		41-144	10		20
Hexachlorobutadiene	97		96		63-130	1		20
Isopropylbenzene	94		98		70-130	4		20
p-Isopropyltoluene	94		97		70-130	3		20
Naphthalene	74		81		70-130	9		20
n-Propylbenzene	95		99		69-130	4		20
1,2,3-Trichlorobenzene	81		86		70-130	6		20
1,2,4-Trichlorobenzene	83		87		70-130	5		20
1,3,5-Trimethylbenzene	95		100		64-130	5		20
1,2,4-Trimethylbenzene	94		98		70-130	4		20
1,4-Dioxane	86		92		56-162	7		20
p-Diethylbenzene	91		94		70-130	3		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: 99 HUDSON
Project Number: 170395001

Lab Number: L2327488
Report Date: 05/26/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG1782891-3 WG1782891-4								
p-Ethyltoluene	95		98		70-130	3		20
1,2,4,5-Tetramethylbenzene	86		90		70-130	5		20
Ethyl ether	91		100		59-134	9		20
trans-1,4-Dichloro-2-butene	96		100		70-130	4		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	115		117		70-130
Toluene-d8	103		104		70-130
4-Bromofluorobenzene	94		93		70-130
Dibromofluoromethane	104		106		70-130

SEMIVOLATILES

Project Name: 99 HUDSON
Project Number: 170395001
Lab Number: L2327488
Report Date: 05/26/23

SAMPLE RESULTS

Lab ID: L2327488-01
Client ID: MW11_051723
Sample Location: 438 11TH AVE, NEW YORK, NY

Date Collected: 05/17/23 11:00
Date Received: 05/17/23
Field Prep: Refer to COC

Sample Depth:
Matrix: Water
Analytical Method: 1,8270E
Analytical Date: 05/24/23 12:54
Analyst: ALS

Extraction Method: EPA 3510C
Extraction Date: 05/23/23 22:03

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.50	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50	1
1,2-Dichlorobenzene	0.61	J	ug/l	2.0	0.45	1
1,3-Dichlorobenzene	ND		ug/l	2.0	0.40	1
1,4-Dichlorobenzene	ND		ug/l	2.0	0.43	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6	1
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2	1
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.49	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.38	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50	1
Hexachlorocyclopentadiene	ND		ug/l	20	0.69	1
Isophorone	ND		ug/l	5.0	1.2	1
Nitrobenzene	ND		ug/l	2.0	0.77	1
NDPA/DPA	ND		ug/l	2.0	0.42	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5	1
Butyl benzyl phthalate	ND		ug/l	5.0	1.2	1
Di-n-butylphthalate	ND		ug/l	5.0	0.39	1
Di-n-octylphthalate	ND		ug/l	5.0	1.3	1
Diethyl phthalate	ND		ug/l	5.0	0.38	1
Dimethyl phthalate	ND		ug/l	5.0	1.8	1
Biphenyl	ND		ug/l	2.0	0.46	1
4-Chloroaniline	ND		ug/l	5.0	1.1	1
2-Nitroaniline	ND		ug/l	5.0	0.50	1
3-Nitroaniline	ND		ug/l	5.0	0.81	1
4-Nitroaniline	ND		ug/l	5.0	0.80	1

Project Name: 99 HUDSON
Project Number: 170395001
Lab Number: L2327488
Report Date: 05/26/23

SAMPLE RESULTS

Lab ID: L2327488-01
Client ID: MW11_051723
Sample Location: 438 11TH AVE, NEW YORK, NY
Date Collected: 05/17/23 11:00
Date Received: 05/17/23
Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Dibenzofuran	0.66	J	ug/l	2.0	0.50	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	10	0.44	1
Acetophenone	ND		ug/l	5.0	0.53	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61	1
p-Chloro-m-cresol	ND		ug/l	2.0	0.35	1
2-Chlorophenol	ND		ug/l	2.0	0.48	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.41	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.8	1
2-Nitrophenol	ND		ug/l	10	0.85	1
4-Nitrophenol	ND		ug/l	10	0.67	1
2,4-Dinitrophenol	ND		ug/l	20	6.6	1
4,6-Dinitro-o-cresol	ND		ug/l	10	1.8	1
Phenol	ND		ug/l	5.0	0.57	1
2-Methylphenol	ND		ug/l	5.0	0.49	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77	1
Benzoic Acid	ND		ug/l	50	2.6	1
Benzyl Alcohol	ND		ug/l	2.0	0.59	1
Carbazole	0.86	J	ug/l	2.0	0.49	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	**148**	Q	21-120
Phenol-d6	**122**	Q	10-120
Nitrobenzene-d5	**174**	Q	23-120
2-Fluorobiphenyl	**151**	Q	15-120
2,4,6-Tribromophenol	**202**	Q	10-120
4-Terphenyl-d14	**169**	Q	41-149

Project Name: 99 HUDSON
Project Number: 170395001
Lab Number: L2327488
Report Date: 05/26/23

SAMPLE RESULTS

Lab ID: L2327488-01
Client ID: MW11_051723
Sample Location: 438 11TH AVE, NEW YORK, NY

Date Collected: 05/17/23 11:00
Date Received: 05/17/23
Field Prep: Refer to COC

Sample Depth:
Matrix: Water
Analytical Method: 1,8270E-SIM
Analytical Date: 05/24/23 11:42
Analyst: JJW

Extraction Method: EPA 3510C
Extraction Date: 05/24/23 02:36

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	0.60		ug/l	0.10	0.01	1
2-Chloronaphthalene	ND		ug/l	0.20	0.02	1
Fluoranthene	ND		ug/l	0.10	0.02	1
Hexachlorobutadiene	ND		ug/l	0.50	0.05	1
Naphthalene	ND		ug/l	0.10	0.05	1
Benzo(a)anthracene	ND		ug/l	0.10	0.02	1
Benzo(a)pyrene	ND		ug/l	0.10	0.02	1
Benzo(b)fluoranthene	ND		ug/l	0.10	0.01	1
Benzo(k)fluoranthene	ND		ug/l	0.10	0.01	1
Chrysene	ND		ug/l	0.10	0.01	1
Acenaphthylene	0.04	J	ug/l	0.10	0.01	1
Anthracene	ND		ug/l	0.10	0.01	1
Benzo(ghi)perylene	ND		ug/l	0.10	0.01	1
Fluorene	0.69		ug/l	0.10	0.01	1
Phenanthrene	ND		ug/l	0.10	0.02	1
Dibenzo(a,h)anthracene	ND		ug/l	0.10	0.01	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.01	1
Pyrene	0.04	J	ug/l	0.10	0.02	1
2-Methylnaphthalene	ND		ug/l	0.10	0.02	1
Pentachlorophenol	0.12	J	ug/l	0.80	0.01	1
Hexachlorobenzene	ND		ug/l	0.80	0.01	1
Hexachloroethane	ND		ug/l	0.80	0.06	1

Project Name: 99 HUDSON
Lab Number: L2327488
Project Number: 170395001
Report Date: 05/26/23

SAMPLE RESULTS

Lab ID: L2327488-01
Client ID: MW11_051723
Sample Location: 438 11TH AVE, NEW YORK, NY
Date Collected: 05/17/23 11:00
Date Received: 05/17/23
Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Semivolatile Organics by GC/MS-SIM - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	111		21-120
Phenol-d6	102		10-120
Nitrobenzene-d5	**148**	Q	23-120
2-Fluorobiphenyl	**126**	Q	15-120
2,4,6-Tribromophenol	**152**	Q	10-120
4-Terphenyl-d14	133		41-149

Project Name: 99 HUDSON
Project Number: 170395001
Lab Number: L2327488
Report Date: 05/26/23

SAMPLE RESULTS

Lab ID: L2327488-01 RE
Client ID: MW11_051723
Sample Location: 438 11TH AVE, NEW YORK, NY

Date Collected: 05/17/23 11:00
Date Received: 05/17/23
Field Prep: Refer to COC

Sample Depth:
Matrix: Water
Analytical Method: 1,8270E-SIM
Analytical Date: 05/26/23 11:43
Analyst: RP

Extraction Method: EPA 3510C
Extraction Date: 05/25/23 15:40

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	0.37		ug/l	0.10	0.01	1
2-Chloronaphthalene	ND		ug/l	0.20	0.02	1
Fluoranthene	ND		ug/l	0.10	0.02	1
Hexachlorobutadiene	ND		ug/l	0.50	0.05	1
Naphthalene	0.73	B	ug/l	0.10	0.05	1
Benzo(a)anthracene	ND		ug/l	0.10	0.02	1
Benzo(a)pyrene	ND		ug/l	0.10	0.02	1
Benzo(b)fluoranthene	ND		ug/l	0.10	0.01	1
Benzo(k)fluoranthene	ND		ug/l	0.10	0.01	1
Chrysene	ND		ug/l	0.10	0.01	1
Acenaphthylene	0.02	J	ug/l	0.10	0.01	1
Anthracene	ND		ug/l	0.10	0.01	1
Benzo(ghi)perylene	ND		ug/l	0.10	0.01	1
Fluorene	0.23		ug/l	0.10	0.01	1
Phenanthrene	ND		ug/l	0.10	0.02	1
Dibenzo(a,h)anthracene	ND		ug/l	0.10	0.01	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.01	1
Pyrene	0.08	J	ug/l	0.10	0.02	1
2-Methylnaphthalene	0.11		ug/l	0.10	0.02	1
Pentachlorophenol	ND		ug/l	0.80	0.01	1
Hexachlorobenzene	ND		ug/l	0.80	0.01	1
Hexachloroethane	ND		ug/l	0.80	0.06	1

Project Name: 99 HUDSON
Lab Number: L2327488
Project Number: 170395001
Report Date: 05/26/23

SAMPLE RESULTS

Lab ID: L2327488-01 RE
Client ID: MW11_051723
Sample Location: 438 11TH AVE, NEW YORK, NY

Date Collected: 05/17/23 11:00
Date Received: 05/17/23
Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Semivolatile Organics by GC/MS-SIM - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	69		21-120
Phenol-d6	58		10-120
Nitrobenzene-d5	91		23-120
2-Fluorobiphenyl	91		15-120
2,4,6-Tribromophenol	**131**	Q	10-120
4-Terphenyl-d14	91		41-149

Project Name: 99 HUDSON
Project Number: 170395001
Lab Number: L2327488
Report Date: 05/26/23

SAMPLE RESULTS

Lab ID: L2327488-02
Client ID: FB01_051723
Sample Location: 438 11TH AVE, NEW YORK, NY

Date Collected: 05/17/23 14:00
Date Received: 05/17/23
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270E
Analytical Date: 05/24/23 13:17
Analyst: ALS

Extraction Method: EPA 3510C
Extraction Date: 05/23/23 22:03

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.50	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50	1
1,2-Dichlorobenzene	ND		ug/l	2.0	0.45	1
1,3-Dichlorobenzene	ND		ug/l	2.0	0.40	1
1,4-Dichlorobenzene	ND		ug/l	2.0	0.43	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6	1
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2	1
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.49	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.38	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50	1
Hexachlorocyclopentadiene	ND		ug/l	20	0.69	1
Isophorone	ND		ug/l	5.0	1.2	1
Nitrobenzene	ND		ug/l	2.0	0.77	1
NDPA/DPA	ND		ug/l	2.0	0.42	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5	1
Butyl benzyl phthalate	ND		ug/l	5.0	1.2	1
Di-n-butylphthalate	ND		ug/l	5.0	0.39	1
Di-n-octylphthalate	ND		ug/l	5.0	1.3	1
Diethyl phthalate	ND		ug/l	5.0	0.38	1
Dimethyl phthalate	ND		ug/l	5.0	1.8	1
Biphenyl	ND		ug/l	2.0	0.46	1
4-Chloroaniline	ND		ug/l	5.0	1.1	1
2-Nitroaniline	ND		ug/l	5.0	0.50	1
3-Nitroaniline	ND		ug/l	5.0	0.81	1
4-Nitroaniline	ND		ug/l	5.0	0.80	1

Project Name: 99 HUDSON
Project Number: 170395001
Lab Number: L2327488
Report Date: 05/26/23

SAMPLE RESULTS

Lab ID: L2327488-02
Client ID: FB01_051723
Sample Location: 438 11TH AVE, NEW YORK, NY
Date Collected: 05/17/23 14:00
Date Received: 05/17/23
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Dibenzofuran	ND		ug/l	2.0	0.50	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	10	0.44	1
Acetophenone	ND		ug/l	5.0	0.53	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61	1
p-Chloro-m-cresol	ND		ug/l	2.0	0.35	1
2-Chlorophenol	ND		ug/l	2.0	0.48	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.41	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.8	1
2-Nitrophenol	ND		ug/l	10	0.85	1
4-Nitrophenol	ND		ug/l	10	0.67	1
2,4-Dinitrophenol	ND		ug/l	20	6.6	1
4,6-Dinitro-o-cresol	ND		ug/l	10	1.8	1
Phenol	ND		ug/l	5.0	0.57	1
2-Methylphenol	ND		ug/l	5.0	0.49	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77	1
Benzoic Acid	ND		ug/l	50	2.6	1
Benzyl Alcohol	ND		ug/l	2.0	0.59	1
Carbazole	ND		ug/l	2.0	0.49	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	61		21-120
Phenol-d6	48		10-120
Nitrobenzene-d5	74		23-120
2-Fluorobiphenyl	64		15-120
2,4,6-Tribromophenol	88		10-120
4-Terphenyl-d14	85		41-149

Project Name: 99 HUDSON
Project Number: 170395001
Lab Number: L2327488
Report Date: 05/26/23

SAMPLE RESULTS

Lab ID: L2327488-02
Client ID: FB01_051723
Sample Location: 438 11TH AVE, NEW YORK, NY

Date Collected: 05/17/23 14:00
Date Received: 05/17/23
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270E-SIM
Analytical Date: 05/24/23 12:14
Analyst: JJW

Extraction Method: EPA 3510C
Extraction Date: 05/23/23 22:11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	ND		ug/l	0.10	0.01	1
2-Chloronaphthalene	ND		ug/l	0.20	0.02	1
Fluoranthene	ND		ug/l	0.10	0.02	1
Hexachlorobutadiene	ND		ug/l	0.50	0.05	1
Naphthalene	ND		ug/l	0.10	0.05	1
Benzo(a)anthracene	ND		ug/l	0.10	0.02	1
Benzo(a)pyrene	ND		ug/l	0.10	0.02	1
Benzo(b)fluoranthene	ND		ug/l	0.10	0.01	1
Benzo(k)fluoranthene	ND		ug/l	0.10	0.01	1
Chrysene	ND		ug/l	0.10	0.01	1
Acenaphthylene	ND		ug/l	0.10	0.01	1
Anthracene	ND		ug/l	0.10	0.01	1
Benzo(ghi)perylene	ND		ug/l	0.10	0.01	1
Fluorene	0.01	J	ug/l	0.10	0.01	1
Phenanthrene	0.03	J	ug/l	0.10	0.02	1
Dibenzo(a,h)anthracene	ND		ug/l	0.10	0.01	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.01	1
Pyrene	ND		ug/l	0.10	0.02	1
2-Methylnaphthalene	0.03	J	ug/l	0.10	0.02	1
Pentachlorophenol	ND		ug/l	0.80	0.01	1
Hexachlorobenzene	ND		ug/l	0.80	0.01	1
Hexachloroethane	ND		ug/l	0.80	0.06	1

Project Name: 99 HUDSON
Project Number: 170395001
Lab Number: L2327488
Report Date: 05/26/23

SAMPLE RESULTS

Lab ID: L2327488-02
Client ID: FB01_051723
Sample Location: 438 11TH AVE, NEW YORK, NY
Date Collected: 05/17/23 14:00
Date Received: 05/17/23
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Semivolatile Organics by GC/MS-SIM - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	64		21-120
Phenol-d6	57		10-120
Nitrobenzene-d5	85		23-120
2-Fluorobiphenyl	77		15-120
2,4,6-Tribromophenol	100		10-120
4-Terphenyl-d14	111		41-149

Project Name: 99 HUDSON
Project Number: 170395001

Lab Number: L2327488
Report Date: 05/26/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270E
Analytical Date: 05/24/23 10:34
Analyst: ALS

Extraction Method: EPA 3510C
Extraction Date: 05/23/23 22:03

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG1782532-1					
Acenaphthene	ND		ug/l	2.0	0.44
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.50
Hexachlorobenzene	ND		ug/l	2.0	0.46
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50
2-Chloronaphthalene	ND		ug/l	2.0	0.44
1,2-Dichlorobenzene	ND		ug/l	2.0	0.45
1,3-Dichlorobenzene	ND		ug/l	2.0	0.40
1,4-Dichlorobenzene	ND		ug/l	2.0	0.43
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93
Fluoranthene	ND		ug/l	2.0	0.26
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.49
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.38
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50
Hexachlorobutadiene	ND		ug/l	2.0	0.66
Hexachlorocyclopentadiene	ND		ug/l	20	0.69
Hexachloroethane	ND		ug/l	2.0	0.58
Isophorone	ND		ug/l	5.0	1.2
Naphthalene	ND		ug/l	2.0	0.46
Nitrobenzene	ND		ug/l	2.0	0.77
NDPA/DPA	ND		ug/l	2.0	0.42
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5
Butyl benzyl phthalate	ND		ug/l	5.0	1.2
Di-n-butylphthalate	ND		ug/l	5.0	0.39
Di-n-octylphthalate	ND		ug/l	5.0	1.3
Diethyl phthalate	ND		ug/l	5.0	0.38

Project Name: 99 HUDSON
Project Number: 170395001

Lab Number: L2327488
Report Date: 05/26/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270E
Analytical Date: 05/24/23 10:34
Analyst: ALS

Extraction Method: EPA 3510C
Extraction Date: 05/23/23 22:03

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG1782532-1					
Dimethyl phthalate	ND		ug/l	5.0	1.8
Benzo(a)anthracene	ND		ug/l	2.0	0.32
Benzo(a)pyrene	ND		ug/l	2.0	0.41
Benzo(b)fluoranthene	ND		ug/l	2.0	0.35
Benzo(k)fluoranthene	ND		ug/l	2.0	0.37
Chrysene	ND		ug/l	2.0	0.34
Acenaphthylene	ND		ug/l	2.0	0.46
Anthracene	ND		ug/l	2.0	0.33
Benzo(ghi)perylene	ND		ug/l	2.0	0.30
Fluorene	ND		ug/l	2.0	0.41
Phenanthrene	ND		ug/l	2.0	0.33
Dibenzo(a,h)anthracene	ND		ug/l	2.0	0.32
Indeno(1,2,3-cd)pyrene	ND		ug/l	2.0	0.40
Pyrene	ND		ug/l	2.0	0.28
Biphenyl	ND		ug/l	2.0	0.46
4-Chloroaniline	ND		ug/l	5.0	1.1
2-Nitroaniline	ND		ug/l	5.0	0.50
3-Nitroaniline	ND		ug/l	5.0	0.81
4-Nitroaniline	ND		ug/l	5.0	0.80
Dibenzofuran	ND		ug/l	2.0	0.50
2-Methylnaphthalene	ND		ug/l	2.0	0.45
1,2,4,5-Tetrachlorobenzene	ND		ug/l	10	0.44
Acetophenone	ND		ug/l	5.0	0.53
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61
p-Chloro-m-cresol	ND		ug/l	2.0	0.35
2-Chlorophenol	ND		ug/l	2.0	0.48
2,4-Dichlorophenol	ND		ug/l	5.0	0.41
2,4-Dimethylphenol	ND		ug/l	5.0	1.8
2-Nitrophenol	ND		ug/l	10	0.85

Project Name: 99 HUDSON
Project Number: 170395001

Lab Number: L2327488
Report Date: 05/26/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270E
Analytical Date: 05/24/23 10:34
Analyst: ALS

Extraction Method: EPA 3510C
Extraction Date: 05/23/23 22:03

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG1782532-1					
4-Nitrophenol	ND		ug/l	10	0.67
2,4-Dinitrophenol	ND		ug/l	20	6.6
4,6-Dinitro-o-cresol	ND		ug/l	10	1.8
Pentachlorophenol	ND		ug/l	10	1.8
Phenol	ND		ug/l	5.0	0.57
2-Methylphenol	ND		ug/l	5.0	0.49
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77
Benzoic Acid	ND		ug/l	50	2.6
Benzyl Alcohol	ND		ug/l	2.0	0.59
Carbazole	ND		ug/l	2.0	0.49

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	70		21-120
Phenol-d6	54		10-120
Nitrobenzene-d5	83		23-120
2-Fluorobiphenyl	67		15-120
2,4,6-Tribromophenol	89		10-120
4-Terphenyl-d14	83		41-149

Project Name: 99 HUDSON
Project Number: 170395001

Lab Number: L2327488
Report Date: 05/26/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270E-SIM
Analytical Date: 05/24/23 11:26
Analyst: JJW

Extraction Method: EPA 3510C
Extraction Date: 05/23/23 22:11

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01-02 Batch: WG1782534-1					
Acenaphthene	ND		ug/l	0.10	0.01
2-Chloronaphthalene	ND		ug/l	0.20	0.02
Fluoranthene	ND		ug/l	0.10	0.02
Hexachlorobutadiene	ND		ug/l	0.50	0.05
Naphthalene	ND		ug/l	0.10	0.05
Benzo(a)anthracene	ND		ug/l	0.10	0.02
Benzo(a)pyrene	ND		ug/l	0.10	0.02
Benzo(b)fluoranthene	ND		ug/l	0.10	0.01
Benzo(k)fluoranthene	ND		ug/l	0.10	0.01
Chrysene	ND		ug/l	0.10	0.01
Acenaphthylene	ND		ug/l	0.10	0.01
Anthracene	ND		ug/l	0.10	0.01
Benzo(ghi)perylene	ND		ug/l	0.10	0.01
Fluorene	ND		ug/l	0.10	0.01
Phenanthrene	ND		ug/l	0.10	0.02
Dibenzo(a,h)anthracene	ND		ug/l	0.10	0.01
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.01
Pyrene	ND		ug/l	0.10	0.02
2-Methylnaphthalene	ND		ug/l	0.10	0.02
Pentachlorophenol	ND		ug/l	0.80	0.01
Hexachlorobenzene	ND		ug/l	0.80	0.01
Hexachloroethane	ND		ug/l	0.80	0.06

Project Name: 99 HUDSON
Project Number: 170395001

Lab Number: L2327488
Report Date: 05/26/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270E-SIM
Analytical Date: 05/24/23 11:26
Analyst: JJW

Extraction Method: EPA 3510C
Extraction Date: 05/23/23 22:11

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01-02 Batch: WG1782534-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	66		21-120
Phenol-d6	59		10-120
Nitrobenzene-d5	89		23-120
2-Fluorobiphenyl	79		15-120
2,4,6-Tribromophenol	93		10-120
4-Terphenyl-d14	100		41-149

Project Name: 99 HUDSON
Project Number: 170395001

Lab Number: L2327488
Report Date: 05/26/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270E-SIM
Analytical Date: 05/26/23 10:54
Analyst: RP

Extraction Method: EPA 3510C
Extraction Date: 05/25/23 15:40

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01 Batch: WG1783497-1					
Acenaphthene	ND		ug/l	0.10	0.01
2-Chloronaphthalene	ND		ug/l	0.20	0.02
Fluoranthene	ND		ug/l	0.10	0.02
Hexachlorobutadiene	ND		ug/l	0.50	0.05
Naphthalene	0.18		ug/l	0.10	0.05
Benzo(a)anthracene	ND		ug/l	0.10	0.02
Benzo(a)pyrene	ND		ug/l	0.10	0.02
Benzo(b)fluoranthene	ND		ug/l	0.10	0.01
Benzo(k)fluoranthene	ND		ug/l	0.10	0.01
Chrysene	ND		ug/l	0.10	0.01
Acenaphthylene	ND		ug/l	0.10	0.01
Anthracene	ND		ug/l	0.10	0.01
Benzo(ghi)perylene	ND		ug/l	0.10	0.01
Fluorene	ND		ug/l	0.10	0.01
Phenanthrene	ND		ug/l	0.10	0.02
Dibenzo(a,h)anthracene	ND		ug/l	0.10	0.01
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.01
Pyrene	ND		ug/l	0.10	0.02
2-Methylnaphthalene	ND		ug/l	0.10	0.02
Pentachlorophenol	ND		ug/l	0.80	0.01
Hexachlorobenzene	ND		ug/l	0.80	0.01
Hexachloroethane	ND		ug/l	0.80	0.06

Project Name: 99 HUDSON
Project Number: 170395001

Lab Number: L2327488
Report Date: 05/26/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270E-SIM
Analytical Date: 05/26/23 10:54
Analyst: RP

Extraction Method: EPA 3510C
Extraction Date: 05/25/23 15:40

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01 Batch: WG1783497-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	56		21-120
Phenol-d6	47		10-120
Nitrobenzene-d5	78		23-120
2-Fluorobiphenyl	82		15-120
2,4,6-Tribromophenol	97		10-120
4-Terphenyl-d14	90		41-149

Lab Control Sample Analysis
Batch Quality Control

Project Name: 99 HUDSON
Project Number: 170395001

Lab Number: L2327488
Report Date: 05/26/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG1782532-2 WG1782532-3								
Acenaphthene	88		84		37-111	5		30
1,2,4-Trichlorobenzene	95		90		39-98	5		30
Hexachlorobenzene	92		88		40-140	4		30
Bis(2-chloroethyl)ether	94		86		40-140	9		30
2-Chloronaphthalene	91		87		40-140	4		30
1,2-Dichlorobenzene	95		91		40-140	4		30
1,3-Dichlorobenzene	93		89		40-140	4		30
1,4-Dichlorobenzene	96		87		36-97	10		30
3,3'-Dichlorobenzidine	60		49		40-140	20		30
2,4-Dinitrotoluene	104		107		48-143	3		30
2,6-Dinitrotoluene	96		95		40-140	1		30
Fluoranthene	89		102		40-140	14		30
4-Chlorophenyl phenyl ether	92		86		40-140	7		30
4-Bromophenyl phenyl ether	88		84		40-140	5		30
Bis(2-chloroisopropyl)ether	90		80		40-140	12		30
Bis(2-chloroethoxy)methane	93		88		40-140	6		30
Hexachlorobutadiene	85		78		40-140	9		30
Hexachlorocyclopentadiene	73		75		40-140	3		30
Hexachloroethane	96		84		40-140	13		30
Isophorone	86		77		40-140	11		30
Naphthalene	88		86		40-140	2		30
Nitrobenzene	102		93		40-140	9		30
NDPA/DPA	91		90		40-140	1		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: 99 HUDSON

Project Number: 170395001

Lab Number: L2327488

Report Date: 05/26/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG1782532-2 WG1782532-3								
n-Nitrosodi-n-propylamine	83		78		29-132	6		30
Bis(2-ethylhexyl)phthalate	90		87		40-140	3		30
Butyl benzyl phthalate	100		117		40-140	16		30
Di-n-butylphthalate	90		99		40-140	10		30
Di-n-octylphthalate	92		92		40-140	0		30
Diethyl phthalate	99		97		40-140	2		30
Dimethyl phthalate	94		88		40-140	7		30
Benzo(a)anthracene	93		95		40-140	2		30
Benzo(a)pyrene	99		107		40-140	8		30
Benzo(b)fluoranthene	89		96		40-140	8		30
Benzo(k)fluoranthene	100		105		40-140	5		30
Chrysene	93		94		40-140	1		30
Acenaphthylene	87		85		45-123	2		30
Anthracene	91		92		40-140	1		30
Benzo(ghi)perylene	115		118		40-140	3		30
Fluorene	91		85		40-140	7		30
Phenanthrene	93		97		40-140	4		30
Dibenzo(a,h)anthracene	110		112		40-140	2		30
Indeno(1,2,3-cd)pyrene	106		110		40-140	4		30
Pyrene	92		107		26-127	15		30
Biphenyl	77		78		40-140	1		30
4-Chloroaniline	60		51		40-140	16		30
2-Nitroaniline	102		95		52-143	7		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: 99 HUDSON
Project Number: 170395001

Lab Number: L2327488
Report Date: 05/26/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG1782532-2 WG1782532-3								
3-Nitroaniline	90		87		25-145	3		30
4-Nitroaniline	113		102		51-143	10		30
Dibenzofuran	97		91		40-140	6		30
2-Methylnaphthalene	91		86		40-140	6		30
1,2,4,5-Tetrachlorobenzene	78		77		2-134	1		30
Acetophenone	83		76		39-129	9		30
2,4,6-Trichlorophenol	91		86		30-130	6		30
p-Chloro-m-cresol	90		91		23-97	1		30
2-Chlorophenol	102		98		27-123	4		30
2,4-Dichlorophenol	103		95		30-130	8		30
2,4-Dimethylphenol	93		73		30-130	24		30
2-Nitrophenol	124		109		30-130	13		30
4-Nitrophenol	**127**	Q	**132**	Q	10-80	4		30
2,4-Dinitrophenol	100		119		20-130	17		30
4,6-Dinitro-o-cresol	130		132		20-164	2		30
Pentachlorophenol	100		**116**	Q	9-103	15		30
Phenol	82		70		12-110	16		30
2-Methylphenol	98		87		30-130	12		30
3-Methylphenol/4-Methylphenol	102		88		30-130	15		30
2,4,5-Trichlorophenol	96		86		30-130	11		30
Benzoic Acid	76		100		10-164	27		30
Benzyl Alcohol	84		74		26-116	13		30
Carbazole	91		105		55-144	14		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: 99 HUDSON
Project Number: 170395001

Lab Number: L2327488
Report Date: 05/26/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG1782532-2 WG1782532-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	103		84		21-120
Phenol-d6	88		71		10-120
Nitrobenzene-d5	114		98		23-120
2-Fluorobiphenyl	85		75		15-120
2,4,6-Tribromophenol	106		100		10-120
4-Terphenyl-d14	89		95		41-149

Lab Control Sample Analysis
Batch Quality Control

Project Name: 99 HUDSON
Project Number: 170395001

Lab Number: L2327488
Report Date: 05/26/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-02 Batch: WG1782534-2 WG1782534-3								
Acenaphthene	41		43		40-140	5		40
2-Chloronaphthalene	41		42		40-140	2		40
Fluoranthene	48		51		40-140	6		40
Hexachlorobutadiene	45		47		40-140	4		40
Naphthalene	40		40		40-140	0		40
Benzo(a)anthracene	48		50		40-140	4		40
Benzo(a)pyrene	51		53		40-140	4		40
Benzo(b)fluoranthene	49		49		40-140	0		40
Benzo(k)fluoranthene	45		50		40-140	11		40
Chrysene	43		46		40-140	7		40
Acenaphthylene	52		53		40-140	2		40
Anthracene	47		50		40-140	6		40
Benzo(ghi)perylene	45		51		40-140	13		40
Fluorene	46		48		40-140	4		40
Phenanthrene	42		44		40-140	5		40
Dibenzo(a,h)anthracene	50		55		40-140	10		40
Indeno(1,2,3-cd)pyrene	48		53		40-140	10		40
Pyrene	47		50		40-140	6		40
2-Methylnaphthalene	45		46		40-140	2		40
Pentachlorophenol	61		69		40-140	12		40
Hexachlorobenzene	48		51		40-140	6		40
Hexachloroethane	43		43		40-140	0		40

Lab Control Sample Analysis
Batch Quality Control

Project Name: 99 HUDSON
Project Number: 170395001

Lab Number: L2327488
Report Date: 05/26/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-02 Batch: WG1782534-2 WG1782534-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	47		43		21-120
Phenol-d6	44		40		10-120
Nitrobenzene-d5	58		57		23-120
2-Fluorobiphenyl	47		46		15-120
2,4,6-Tribromophenol	61		61		10-120
4-Terphenyl-d14	54		55		41-149

Lab Control Sample Analysis
Batch Quality Control

Project Name: 99 HUDSON
Project Number: 170395001

Lab Number: L2327488
Report Date: 05/26/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01 Batch: WG1783497-2 WG1783497-3								
Acenaphthene	74		68		40-140	8		40
2-Chloronaphthalene	79		75		40-140	5		40
Fluoranthene	80		77		40-140	4		40
Hexachlorobutadiene	86		82		40-140	5		40
Naphthalene	91		65		40-140	33		40
Benzo(a)anthracene	79		76		40-140	4		40
Benzo(a)pyrene	84		81		40-140	4		40
Benzo(b)fluoranthene	78		78		40-140	0		40
Benzo(k)fluoranthene	90		80		40-140	12		40
Chrysene	78		72		40-140	8		40
Acenaphthylene	81		76		40-140	6		40
Anthracene	75		71		40-140	5		40
Benzo(ghi)perylene	77		76		40-140	1		40
Fluorene	95		72		40-140	28		40
Phenanthrene	70		66		40-140	6		40
Dibenzo(a,h)anthracene	79		76		40-140	4		40
Indeno(1,2,3-cd)pyrene	72		70		40-140	3		40
Pyrene	81		76		40-140	6		40
2-Methylnaphthalene	80		72		40-140	11		40
Pentachlorophenol	99		97		40-140	2		40
Hexachlorobenzene	81		79		40-140	3		40
Hexachloroethane	66		62		40-140	6		40

Lab Control Sample Analysis

Batch Quality Control

Project Name: 99 HUDSON
Project Number: 170395001

Lab Number: L2327488
Report Date: 05/26/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01 Batch: WG1783497-2 WG1783497-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	64		59		21-120
Phenol-d6	56		51		10-120
Nitrobenzene-d5	79		74		23-120
2-Fluorobiphenyl	81		76		15-120
2,4,6-Tribromophenol	115		110		10-120
4-Terphenyl-d14	83		78		41-149

PETROLEUM HYDROCARBONS

Project Name: 99 HUDSON
Project Number: 170395001
Lab Number: L2327488
Report Date: 05/26/23

SAMPLE RESULTS

Lab ID: L2327488-01
Client ID: MW11_051723
Sample Location: 438 11TH AVE, NEW YORK, NY

Date Collected: 05/17/23 11:00
Date Received: 05/17/23
Field Prep: Refer to COC

Sample Depth:
Matrix: Water
Analytical Method: 1,8015D(M)
Analytical Date: 05/23/23 09:32
Analyst: BAD

Extraction Method:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Gasoline Range Organics - Westborough Lab						
Gasoline Range Organics	1400		ug/l	50	3.0	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,1,1-Trifluorotoluene	116		70-130
4-Bromofluorobenzene	102		70-130

Project Name: 99 HUDSON
Project Number: 170395001
Lab Number: L2327488
Report Date: 05/26/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8015D(M)
Analytical Date: 05/23/23 09:01
Analyst: BAD

Parameter	Result	Qualifier	Units	RL	MDL
Gasoline Range Organics - Westborough Lab for sample(s): 01 Batch: WG1782641-4					
Gasoline Range Organics	17	J	ug/l	50	3.0

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,1,1-Trifluorotoluene	95		70-130
4-Bromofluorobenzene	90		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: 99 HUDSON
Project Number: 170395001

Lab Number: L2327488
Report Date: 05/26/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Gasoline Range Organics - Westborough Lab	Associated sample(s): 01		Batch: WG1782641-2 WG1782641-3					
Gasoline Range Organics	82		92		80-120	11		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,1,1-Trifluorotoluene	93		105		70-130
4-Bromofluorobenzene	89		100		70-130

METALS

Project Name: 99 HUDSON
Project Number: 170395001
Lab Number: L2327488
Report Date: 05/26/23

SAMPLE RESULTS

Lab ID: L2327488-01
Client ID: MW11_051723
Sample Location: 438 11TH AVE, NEW YORK, NY
Date Collected: 05/17/23 11:00
Date Received: 05/17/23
Field Prep: Refer to COC

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Iron, Total	0.972		mg/l	0.0500	0.0191	1	05/21/23 10:15	05/24/23 00:01	EPA 3005A	1,6020B	WKP
Manganese, Total	1.245		mg/l	0.00100	0.00044	1	05/21/23 10:15	05/24/23 00:01	EPA 3005A	1,6020B	WKP
Dissolved Metals - Mansfield Lab											
Iron, Dissolved	0.953		mg/l	0.0500	0.0191	1	05/23/23 23:30	05/24/23 10:04	EPA 3005A	1,6020B	SMV
Manganese, Dissolved	1.051		mg/l	0.00100	0.00044	1	05/23/23 23:30	05/24/23 10:04	EPA 3005A	1,6020B	SMV

Project Name: 99 HUDSON
Project Number: 170395001
Lab Number: L2327488
Report Date: 05/26/23

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01 Batch: WG1780877-1										
Iron, Total	ND		mg/l	0.0500	0.0191	1	05/21/23 10:15	05/22/23 09:34	1,6020B	SMV
Manganese, Total	ND		mg/l	0.00100	0.00044	1	05/21/23 10:15	05/22/23 09:34	1,6020B	SMV

Prep Information

Digestion Method: EPA 3005A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Dissolved Metals - Mansfield Lab for sample(s): 01 Batch: WG1781061-1										
Iron, Dissolved	0.0223	J	mg/l	0.0500	0.0191	1	05/23/23 23:30	05/24/23 09:44	1,6020B	SMV
Manganese, Dissolved	ND		mg/l	0.00100	0.00044	1	05/23/23 23:30	05/24/23 09:44	1,6020B	SMV

Prep Information

Digestion Method: EPA 3005A

Lab Control Sample Analysis

Batch Quality Control

Project Name: 99 HUDSON

Project Number: 170395001

Lab Number: L2327488

Report Date: 05/26/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 Batch: WG1780877-2								
Iron, Total	98		-		80-120	-		
Manganese, Total	95		-		80-120	-		
Dissolved Metals - Mansfield Lab Associated sample(s): 01 Batch: WG1781061-2								
Iron, Dissolved	102		-		80-120	-		
Manganese, Dissolved	93		-		80-120	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: 99 HUDSON
Project Number: 170395001

Lab Number: L2327488
Report Date: 05/26/23

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1780877-3 WG1780877-4 QC Sample: L2326514-03 Client ID: MS Sample												
Iron, Total	2.18	1	2.94	76		2.90	**72**	Q	75-125	1		20
Manganese, Total	0.3468	0.5	0.7896	88		0.7854	88		75-125	1		20
Dissolved Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1781061-3 QC Sample: L2327488-01 Client ID: MW11_051723												
Iron, Dissolved	0.953	1	2.06	111		-	-		75-125	-		20
Manganese, Dissolved	1.051	0.5	1.740	**138**	Q	-	-		75-125	-		20

Lab Duplicate Analysis

Batch Quality Control

Project Name: 99 HUDSON

Project Number: 170395001

Lab Number: L2327488

Report Date: 05/26/23

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Dissolved Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1781061-4 QC Sample: L2327488-01 Client ID: MW11_051723						
Iron, Dissolved	0.953	0.959	mg/l	1		20
Manganese, Dissolved	1.051	1.058	mg/l	1		20

Project Name: 99 HUDSON
Project Number: 170395001

Lab Serial Dilution Analysis
Batch Quality Control

Lab Number: L2327488
Report Date: 05/26/23

Parameter	Native Sample	Serial Dilution	Units	% D	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1780877-6 QC Sample: L2326514-03 Client ID: DUP Sample						
Manganese, Total	0.3468	0.3351	mg/l	3		20
Dissolved Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1781061-6 QC Sample: L2327488-01 Client ID: MW11_051723						
Manganese, Dissolved	1.051	1.234	mg/l	17		20

INORGANICS
&
MISCELLANEOUS

Project Name: 99 HUDSON
Project Number: 170395001
Lab Number: L2327488
Report Date: 05/26/23

SAMPLE RESULTS

Lab ID: L2327488-01
Client ID: MW11_051723
Sample Location: 438 11TH AVE, NEW YORK, NY
Date Collected: 05/17/23 11:00
Date Received: 05/17/23
Field Prep: Refer to COC

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Nitrogen, Nitrate	0.296		mg/l	0.100	0.022	1	-	05/19/23 07:10	121,4500NO3-F	KAF
Sulfate	1.6	J	mg/l	10	1.4	1	05/23/23 14:00	05/23/23 14:00	1,9038	SMD

Project Name: 99 HUDSON
Project Number: 170395001
Lab Number: L2327488
Report Date: 05/26/23

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG1780803-1										
Nitrogen, Nitrate	ND		mg/l	0.100	0.022	1	-	05/19/23 05:49	121,4500NO3-F	KAF
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG1782340-1										
Sulfate	1.7	J	mg/l	10	1.4	1	05/23/23 14:00	05/23/23 14:00	1,9038	SMD

Lab Control Sample Analysis

Batch Quality Control

Project Name: 99 HUDSON
Project Number: 170395001

Lab Number: L2327488
Report Date: 05/26/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1780803-2								
Nitrogen, Nitrate	104		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1782340-2								
Sulfate	95		-		90-110	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: 99 HUDSON
Project Number: 170395001

Lab Number: L2327488
Report Date: 05/26/23

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1780803-4 QC Sample: L2327207-01 Client ID: MS Sample												
Nitrogen, Nitrate	ND	4	4.49	112		-	-		83-113	-		17
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1782340-3 QC Sample: L2326028-10 Client ID: MS Sample												
Sulfate	61.	200	290	114		-	-		55-147	-		14

Lab Duplicate Analysis
Batch Quality Control

Project Name: 99 HUDSON
Project Number: 170395001

Lab Number: L2327488
Report Date: 05/26/23

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1780803-3 QC Sample: L2327207-01 Client ID: DUP Sample						
Nitrogen, Nitrate	ND	ND	mg/l	NC		17
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1782340-4 QC Sample: L2326028-10 Client ID: DUP Sample						
Sulfate	61.	70	mg/l	14		14

Project Name: 99 HUDSON
Project Number: 170395001

Lab Number: L2327488
Report Date: 05/26/23

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2327488-01A	Vial HCl preserved	A	NA		2.6	Y	Absent		NYTCL-8260(14)
L2327488-01B	Vial HCl preserved	A	NA		2.6	Y	Absent		NYTCL-8260(14)
L2327488-01C	Vial HCl preserved	A	NA		2.6	Y	Absent		NYTCL-8260(14)
L2327488-01D	Vial HCl preserved	A	NA		2.6	Y	Absent		TPH-GRO(14)
L2327488-01E	Vial HCl preserved	A	NA		2.6	Y	Absent		TPH-GRO(14)
L2327488-01F	Vial HCl preserved	A	NA		2.6	Y	Absent		TPH-GRO(14)
L2327488-01G	Plastic 250ml unpreserved	A	7	7	2.6	Y	Absent		SO4-9038(28),NO3-4500(2)
L2327488-01I	Plastic 250ml HNO3 preserved	A	<2	<2	2.6	Y	Absent		MN-6020S(180),FE-6020S(180)
L2327488-01J	Plastic 250ml HNO3 preserved	A	<2	<2	2.6	Y	Absent		FE-6020T(180),MN-6020T(180)
L2327488-01K	Amber 250ml unpreserved	A	7	7	2.6	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L2327488-01L	Amber 250ml unpreserved	A	7	7	2.6	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L2327488-02A	Vial HCl preserved	A	NA		2.6	Y	Absent		NYTCL-8260(14)
L2327488-02B	Vial HCl preserved	A	NA		2.6	Y	Absent		NYTCL-8260(14)
L2327488-02C	Vial HCl preserved	A	NA		2.6	Y	Absent		NYTCL-8260(14)
L2327488-02D	Amber 250ml unpreserved	A	7	7	2.6	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L2327488-02E	Amber 250ml unpreserved	A	7	7	2.6	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L2327488-03A	Vial HCl preserved	A	NA		2.6	Y	Absent		NYTCL-8260(14)
L2327488-03B	Vial HCl preserved	A	NA		2.6	Y	Absent		NYTCL-8260(14)

*Values in parentheses indicate holding time in days

Project Name:	99 HUDSON	**Lab Number:**	L2327488
Project Number:	170395001	**Report Date:**	05/26/23

GLOSSARY

Acronyms

DL - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

NR - No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers

Project Name:	99 HUDSON	**Lab Number:**	L2327488
Project Number:	170395001	**Report Date:**	05/26/23

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively

Report Format: DU Report with 'J' Qualifiers

Project Name:	99 HUDSON	**Lab Number:**	L2327488
Project Number:	170395001	**Report Date:**	05/26/23

Data Qualifiers

Identified Compounds (TICs).

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Report Format: DU Report with 'J' Qualifiers

Project Name:	99 HUDSON	**Lab Number:**	L2327488
Project Number:	170395001	**Report Date:**	05/26/23

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625/625.1: alpha-Terpineol
EPA 8260C/8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D/8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522, EPA 537.1.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

NEW YORK CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 1

Date Rec'd in Lab: 5/17/23

ALPHA Job #: L2327488

Client Information

Client: LANGAN DPC
Address: 360 West 31st St. 8th Floor, New York NY
Phone: 212-479-5400
Fax:
Email: skuoop@langan.com

Project Information

Project Name: 99 Hudson
Project Location: 438 11th Ave, New York, NY
Project #: 170395001
(Use Project name as Project #) ☐
Project Manager: Stuart Knoop
ALPHAQuote #:

Turn-Around Time

Standard ☑ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables

☐ ASP-A ☑ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement

☑ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Billing Information

☐ Same as Client Info
PO #

Disposal Site Information

Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☐ NY
☐ Other:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:

Please cc: datamanagement@langan.com, and lesmail@langan.com

Please specify Metals or TAL.

ANALYSIS

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	TCL/TAL VOCs and SVOCs	TPH-GRO	Total and dissolved Iron	Total and dissolved Manganese	Sulfate and Nitrate		TCL VOCs	TCL SVOCs	Sample Specific Comments	Total Bottle
27488-01	MW11_051723	05/17/23	11:00	Aqueous	AA	X	X	X	X	X					
-02	FB01_051723	05/17/23	14:00	Aqueous	AA							X	X		
-03	TB01_051723	05/17/23	14:10	↓	AA							X			

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Container Type											
Preservative											

Relinquished By:	Date/Time	Received By:	Date/Time
A. Ashley	05/17/23 1630	Tyler McKenzie	5/17 1630
Tyler McKenzie	5/17 1830	[illegible]	5/17/23 18:45
[illegible]	5/17/23	[illegible] DAC	5/17/23 21:30
[illegible] DAC	5/17/23 23:30	[illegible]	5/17/23 23:30

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

ANALYTICAL REPORT

Lab Number:	L2327845
Client:	Langan Engineering & Environmental 21 Penn Plaza 360 W. 31st Street, 8th Floor New York, NY 10001-2727
ATTN:	Stuart Knoop
Phone:	(212) 479-5400
Project Name:	99 HUDSON
Project Number:	170395001
Report Date:	05/25/23

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0826), IL (200077), IN (C-MA-03), KY (KY98045), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), OH (CL108), OR (MA-1316), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #525-23-122-91930).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: 99 HUDSON
Project Number: 170395001

Lab Number: L2327845
Report Date: 05/25/23

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2327845-01	MW12_051823	WATER	438 11TH AVENUE, NEW YORK, NY	05/18/23 12:00	05/18/23
L2327845-02	MW15_051823	WATER	438 11TH AVENUE, NEW YORK, NY	05/18/23 09:45	05/18/23
L2327845-03	DUP01_051823	WATER	438 11TH AVENUE, NEW YORK, NY	05/18/23 00:00	05/18/23
L2327845-04	MW15_051823	WATER	438 11TH AVENUE, NEW YORK, NY	05/18/23 10:15	05/18/23

Project Name:	99 HUDSON	**Lab Number:**	L2327845
Project Number:	170395001	**Report Date:**	05/25/23

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name: 99 HUDSON
Project Number: 170395001
Lab Number: L2327845
Report Date: 05/25/23

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Semivolatile Organics

The WG1782532-4/-5 MS/MSD recoveries, performed on L2327845-04, are below the acceptance criteria for 3,3'-dichlorobenzidine (0%/0%) due to the concentration of this compound in the MS/MSD falling below the reported detection limit.

Semivolatile Organics by SIM

L2327845-01: The sample has elevated detection limits due to limited sample volume available for analysis.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Kelly O'Neill

Title: Technical Director/Representative Date: 05/25/23

ORGANICS

VOLATILES

Project Name: 99 HUDSON
Project Number: 170395001
Lab Number: L2327845
Report Date: 05/25/23

SAMPLE RESULTS

Lab ID: L2327845-01
Client ID: MW12_051823
Sample Location: 438 11TH AVENUE, NEW YORK, NY
Date Collected: 05/18/23 12:00
Date Received: 05/18/23
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 05/25/23 08:33
Analyst: PID

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	0.64		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: 99 HUDSON
Project Number: 170395001
Lab Number: L2327845
Report Date: 05/25/23

SAMPLE RESULTS

Lab ID: L2327845-01
Client ID: MW12_051823
Sample Location: 438 11TH AVENUE, NEW YORK, NY
Date Collected: 05/18/23 12:00
Date Received: 05/18/23
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: 99 HUDSON
Project Number: 170395001
Lab Number: L2327845
Report Date: 05/25/23

SAMPLE RESULTS

Lab ID: L2327845-01
Client ID: MW12_051823
Sample Location: 438 11TH AVENUE, NEW YORK, NY
Date Collected: 05/18/23 12:00
Date Received: 05/18/23
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	92		70-130
Toluene-d8	84		70-130
4-Bromofluorobenzene	85		70-130
Dibromofluoromethane	91		70-130

Project Name: 99 HUDSON
Project Number: 170395001
Lab Number: L2327845
Report Date: 05/25/23

SAMPLE RESULTS

Lab ID: L2327845-02
Client ID: MW15_051823
Sample Location: 438 11TH AVENUE, NEW YORK, NY
Date Collected: 05/18/23 09:45
Date Received: 05/18/23
Field Prep: Refer to COC

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 05/25/23 08:54
Analyst: PID

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	12		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	0.27	J	ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: 99 HUDSON
Project Number: 170395001
Lab Number: L2327845
Report Date: 05/25/23

SAMPLE RESULTS

Lab ID: L2327845-02
Client ID: MW15_051823
Sample Location: 438 11TH AVENUE, NEW YORK, NY
Date Collected: 05/18/23 09:45
Date Received: 05/18/23
Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	3.5		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	2.0	J	ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	2.9	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	1.0	J	ug/l	2.5	0.70	1
tert-Butylbenzene	1.2	J	ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	1.1	J	ug/l	2.5	0.70	1

Project Name: 99 HUDSON
Project Number: 170395001
Lab Number: L2327845
Report Date: 05/25/23

SAMPLE RESULTS

Lab ID: L2327845-02
Client ID: MW15_051823
Sample Location: 438 11TH AVENUE, NEW YORK, NY
Date Collected: 05/18/23 09:45
Date Received: 05/18/23
Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	89		70-130
Toluene-d8	85		70-130
4-Bromofluorobenzene	88		70-130
Dibromofluoromethane	88		70-130

Project Name: 99 HUDSON
Project Number: 170395001
Lab Number: L2327845
Report Date: 05/25/23

SAMPLE RESULTS

Lab ID: L2327845-03
Client ID: DUP01_051823
Sample Location: 438 11TH AVENUE, NEW YORK, NY

Date Collected: 05/18/23 00:00
Date Received: 05/18/23
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 05/25/23 09:15
Analyst: PID

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	11		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	0.26	J	ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: 99 HUDSON
Project Number: 170395001
Lab Number: L2327845
Report Date: 05/25/23

SAMPLE RESULTS

Lab ID: L2327845-03
Client ID: DUP01_051823
Sample Location: 438 11TH AVENUE, NEW YORK, NY
Date Collected: 05/18/23 00:00
Date Received: 05/18/23
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	3.3		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	1.8	J	ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	2.8	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	0.88	J	ug/l	2.5	0.70	1
tert-Butylbenzene	1.1	J	ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	0.94	J	ug/l	2.5	0.70	1

Project Name: 99 HUDSON
Project Number: 170395001
Lab Number: L2327845
Report Date: 05/25/23

SAMPLE RESULTS

Lab ID: L2327845-03
Client ID: DUP01_051823
Sample Location: 438 11TH AVENUE, NEW YORK, NY
Date Collected: 05/18/23 00:00
Date Received: 05/18/23
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	92		70-130
Toluene-d8	85		70-130
4-Bromofluorobenzene	89		70-130
Dibromofluoromethane	90		70-130

Project Name: 99 HUDSON
Project Number: 170395001
Lab Number: L2327845
Report Date: 05/25/23

SAMPLE RESULTS

Lab ID: L2327845-04
Client ID: MW15_051823
Sample Location: 438 11TH AVENUE, NEW YORK, NY
Date Collected: 05/18/23 10:15
Date Received: 05/18/23
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 05/25/23 09:36
Analyst: PID

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	12		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	0.34	J	ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: 99 HUDSON **Lab Number:** L2327845

Project Number: 170395001 **Report Date:** 05/25/23

SAMPLE RESULTS

Lab ID: L2327845-04 Date Collected: 05/18/23 10:15

Client ID: MW15_051823 Date Received: 05/18/23

Sample Location: 438 11TH AVENUE, NEW YORK, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	3.3		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	1.9	J	ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	3.0	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	0.85	J	ug/l	2.5	0.70	1
tert-Butylbenzene	1.1	J	ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	0.98	J	ug/l	2.5	0.70	1

Project Name: 99 HUDSON
Project Number: 170395001
Lab Number: L2327845
Report Date: 05/25/23

SAMPLE RESULTS

Lab ID: L2327845-04
Client ID: MW15_051823
Sample Location: 438 11TH AVENUE, NEW YORK, NY
Date Collected: 05/18/23 10:15
Date Received: 05/18/23
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	91		70-130
Toluene-d8	83		70-130
4-Bromofluorobenzene	89		70-130
Dibromofluoromethane	89		70-130

Project Name: 99 HUDSON
Project Number: 170395001
Lab Number: L2327845
Report Date: 05/25/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 05/25/23 08:12
Analyst: PID

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-04 Batch: WG1783388-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.70
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18

Project Name: 99 HUDSON
Project Number: 170395001
Lab Number: L2327845
Report Date: 05/25/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 05/25/23 08:12
Analyst: PID

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-04 Batch: WG1783388-5					
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70

Project Name: 99 HUDSON
Project Number: 170395001
Lab Number: L2327845
Report Date: 05/25/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 05/25/23 08:12
Analyst: PID

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-04 Batch: WG1783388-5					
o-Chlorotoluene	ND		ug/l	2.5	0.70
p-Chlorotoluene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Hexachlorobutadiene	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
1,4-Dioxane	ND		ug/l	250	61.
p-Diethylbenzene	ND		ug/l	2.0	0.70
p-Ethyltoluene	ND		ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54
Ethyl ether	ND		ug/l	2.5	0.70
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	90		70-130
Toluene-d8	85		70-130
4-Bromofluorobenzene	84		70-130
Dibromofluoromethane	90		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: 99 HUDSON
Project Number: 170395001

Lab Number: L2327845
Report Date: 05/25/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04 Batch: WG1783388-3 WG1783388-4								
Methylene chloride	93		94		70-130	1		20
1,1-Dichloroethane	97		98		70-130	1		20
Chloroform	94		96		70-130	2		20
Carbon tetrachloride	94		96		63-132	2		20
1,2-Dichloropropane	95		94		70-130	1		20
Dibromochloromethane	81		87		63-130	7		20
1,1,2-Trichloroethane	88		90		70-130	2		20
Tetrachloroethene	92		97		70-130	5		20
Chlorobenzene	92		96		75-130	4		20
Trichlorofluoromethane	95		98		62-150	3		20
1,2-Dichloroethane	92		96		70-130	4		20
1,1,1-Trichloroethane	91		97		67-130	6		20
Bromodichloromethane	88		89		67-130	1		20
trans-1,3-Dichloropropene	83		86		70-130	4		20
cis-1,3-Dichloropropene	86		88		70-130	2		20
1,1-Dichloropropene	95		96		70-130	1		20
Bromoform	74		76		54-136	3		20
1,1,2,2-Tetrachloroethane	83		89		67-130	7		20
Benzene	95		97		70-130	2		20
Toluene	92		95		70-130	3		20
Ethylbenzene	89		92		70-130	3		20
Chloromethane	82		86		64-130	5		20
Bromomethane	48		52		39-139	8		20

Lab Control Sample Analysis
Batch Quality Control

Project Name: 99 HUDSON
Project Number: 170395001

Lab Number: L2327845
Report Date: 05/25/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04 Batch: WG1783388-3 WG1783388-4								
Vinyl chloride	93		97		55-140	4		20
Chloroethane	98		100		55-138	2		20
1,1-Dichloroethene	96		99		61-145	3		20
trans-1,2-Dichloroethene	95		97		70-130	2		20
Trichloroethene	80		91		70-130	13		20
1,2-Dichlorobenzene	91		95		70-130	4		20
1,3-Dichlorobenzene	92		96		70-130	4		20
1,4-Dichlorobenzene	91		94		70-130	3		20
Methyl tert butyl ether	82		88		63-130	7		20
p/m-Xylene	90		95		70-130	5		20
o-Xylene	90		95		70-130	5		20
cis-1,2-Dichloroethene	93		97		70-130	4		20
Dibromomethane	89		94		70-130	5		20
1,2,3-Trichloropropane	87		90		64-130	3		20
Acrylonitrile	82		81		70-130	1		20
Styrene	90		90		70-130	0		20
Dichlorodifluoromethane	78		82		36-147	5		20
Acetone	81		80		58-148	1		20
Carbon disulfide	94		96		51-130	2		20
2-Butanone	70		78		63-138	11		20
Vinyl acetate	84		96		70-130	13		20
4-Methyl-2-pentanone	75		82		59-130	9		20
2-Hexanone	73		79		57-130	8		20

Lab Control Sample Analysis
Batch Quality Control

Project Name: 99 HUDSON
Project Number: 170395001

Lab Number: L2327845
Report Date: 05/25/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04 Batch: WG1783388-3 WG1783388-4								
Bromochloromethane	92		94		70-130	2		20
2,2-Dichloropropane	100		97		63-133	3		20
1,2-Dibromoethane	90		94		70-130	4		20
1,3-Dichloropropane	86		92		70-130	7		20
1,1,1,2-Tetrachloroethane	93		96		64-130	3		20
Bromobenzene	88		92		70-130	4		20
n-Butylbenzene	95		100		53-136	5		20
sec-Butylbenzene	94		98		70-130	4		20
tert-Butylbenzene	94		96		70-130	2		20
o-Chlorotoluene	93		94		70-130	1		20
p-Chlorotoluene	90		92		70-130	2		20
1,2-Dibromo-3-chloropropane	78		85		41-144	9		20
Hexachlorobutadiene	93		97		63-130	4		20
Isopropylbenzene	90		92		70-130	2		20
p-Isopropyltoluene	92		96		70-130	4		20
Naphthalene	79		85		70-130	7		20
n-Propylbenzene	90		94		69-130	4		20
1,2,3-Trichlorobenzene	87		93		70-130	7		20
1,2,4-Trichlorobenzene	93		95		70-130	2		20
1,3,5-Trimethylbenzene	93		96		64-130	3		20
1,2,4-Trimethylbenzene	92		96		70-130	4		20
1,4-Dioxane	80		80		56-162	0		20
p-Diethylbenzene	94		97		70-130	3		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: 99 HUDSON
Project Number: 170395001

Lab Number: L2327845
Report Date: 05/25/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04 Batch: WG1783388-3 WG1783388-4								
p-Ethyltoluene	91		93		70-130	2		20
1,2,4,5-Tetramethylbenzene	90		92		70-130	2		20
Ethyl ether	85		89		59-134	5		20
trans-1,4-Dichloro-2-butene	71		**65**	Q	70-130	9		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	88		92		70-130
Toluene-d8	88		89		70-130
4-Bromofluorobenzene	85		84		70-130
Dibromofluoromethane	90		90		70-130

Matrix Spike Analysis
Batch Quality Control

Project Name: 99 HUDSON
Project Number: 170395001
Lab Number: L2327845
Report Date: 05/25/23

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG1783388-6 WG1783388-7 QC Sample: L2327845-04 Client ID: MW15_051823												
Methylene chloride	ND	10	9.4	94		8.8	88		70-130	7		20
1,1-Dichloroethane	ND	10	9.9	99		9.4	94		70-130	5		20
Chloroform	ND	10	9.7	97		9.2	92		70-130	5		20
Carbon tetrachloride	ND	10	10	100		9.7	97		63-132	3		20
1,2-Dichloropropane	ND	10	9.9	99		9.2	92		70-130	7		20
Dibromochloromethane	ND	10	8.3	83		8.0	80		63-130	4		20
1,1,2-Trichloroethane	ND	10	9.3	93		8.8	88		70-130	6		20
Tetrachloroethene	ND	10	9.5	95		9.4	94		70-130	1		20
Chlorobenzene	12	10	22	100		22	100		75-130	0		20
Trichlorofluoromethane	ND	10	10	100		10	100		62-150	0		20
1,2-Dichloroethane	ND	10	9.2	92		8.8	88		70-130	4		20
1,1,1-Trichloroethane	ND	10	9.9	99		9.6	96		67-130	3		20
Bromodichloromethane	ND	10	9.1	91		8.4	84		67-130	8		20
trans-1,3-Dichloropropene	ND	10	8.8	88		8.4	84		70-130	5		20
cis-1,3-Dichloropropene	ND	10	8.8	88		8.5	85		70-130	3		20
1,1-Dichloropropene	ND	10	10	100		9.7	97		70-130	3		20
Bromoform	ND	10	7.5	75		7.0	70		54-136	7		20
1,1,2,2-Tetrachloroethane	ND	10	9.5	95		8.8	88		67-130	8		20
Benzene	0.34J	10	10	100		9.7	97		70-130	3		20
Toluene	ND	10	9.7	97		9.3	93		70-130	4		20
Ethylbenzene	ND	10	9.4	94		9.0	90		70-130	4		20
Chloromethane	ND	10	8.6	86		8.1	81		64-130	6		20
Bromomethane	ND	10	4.3	43		4.3	43		39-139	0		20

Matrix Spike Analysis
Batch Quality Control

Project Name: 99 HUDSON
Project Number: 170395001

Lab Number: L2327845
Report Date: 05/25/23

Parameter	*Native Sample*	*MS Added*	*MS Found*	*MS %Recovery*	*Qual*	*MSD Found*	*MSD %Recovery*	*Qual*	*Recovery Limits*	*RPD*	*Qual*	*RPD Limits*
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG1783388-6 WG1783388-7 QC Sample: L2327845-04 Client ID: MW15_051823												
Vinyl chloride	ND	10	10	100		9.7	97		55-140	3		20
Chloroethane	ND	10	10	100		9.7	97		55-138	3		20
1,1-Dichloroethene	ND	10	10	100		10	100		61-145	0		20
trans-1,2-Dichloroethene	ND	10	9.9	99		9.4	94		70-130	5		20
Trichloroethene	ND	10	8.6	86		8.1	81		70-130	6		20
1,2-Dichlorobenzene	3.3	10	13	97		12	87		70-130	8		20
1,3-Dichlorobenzene	ND	10	9.9	99		9.2	92		70-130	7		20
1,4-Dichlorobenzene	1.9J	10	11	110		10	100		70-130	10		20
Methyl tert butyl ether	ND	10	8.7	87		8.5	85		63-130	2		20
p/m-Xylene	ND	20	19	95		18	90		70-130	5		20
o-Xylene	ND	20	19	95		18	90		70-130	5		20
cis-1,2-Dichloroethene	ND	10	9.3	93		9.0	90		70-130	3		20
Dibromomethane	ND	10	9.2	92		8.6	86		70-130	7		20
1,2,3-Trichloropropane	ND	10	9.0	90		8.6	86		64-130	5		20
Acrylonitrile	ND	10	8.0	80		8.5	85		70-130	6		20
Styrene	ND	20	18	90		17	85		70-130	6		20
Dichlorodifluoromethane	ND	10	9.0	90		8.5	85		36-147	6		20
Acetone	3.0J	10	10	100		10	100		58-148	0		20
Carbon disulfide	ND	10	10	100		9.5	95		51-130	5		20
2-Butanone	ND	10	16	**160**	Q	15	**150**	Q	63-138	6		20
Vinyl acetate	ND	10	8.8	88		8.7	87		70-130	1		20
4-Methyl-2-pentanone	ND	10	9.1	91		8.6	86		59-130	6		20
2-Hexanone	ND	10	8.3	83		8.7	87		57-130	5		20

Matrix Spike Analysis
Batch Quality Control

Project Name: 99 HUDSON
Project Number: 170395001
Lab Number: L2327845
Report Date: 05/25/23

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG1783388-6 WG1783388-7 QC Sample: L2327845-04 Client ID: MW15_051823												
Bromochloromethane	ND	10	9.4	94		8.8	88		70-130	7		20
2,2-Dichloropropane	ND	10	10	100		9.4	94		63-133	6		20
1,2-Dibromoethane	ND	10	9.8	98		9.4	94		70-130	4		20
1,3-Dichloropropane	ND	10	9.2	92		8.8	88		70-130	4		20
1,1,1,2-Tetrachloroethane	ND	10	9.2	92		8.9	89		64-130	3		20
Bromobenzene	ND	10	9.1	91		8.4	84		70-130	8		20
n-Butylbenzene	ND	10	9.8	98		9.0	90		53-136	9		20
sec-Butylbenzene	0.85J	10	11	110		10	100		70-130	10		20
tert-Butylbenzene	1.1J	10	11	110		10	100		70-130	10		20
o-Chlorotoluene	ND	10	9.6	96		8.8	88		70-130	9		20
p-Chlorotoluene	ND	10	9.4	94		8.6	86		70-130	9		20
1,2-Dibromo-3-chloropropane	ND	10	9.0	90		8.7	87		41-144	3		20
Hexachlorobutadiene	ND	10	9.5	95		8.6	86		63-130	10		20
Isopropylbenzene	ND	10	9.8	98		8.9	89		70-130	10		20
p-Isopropyltoluene	ND	10	9.9	99		9.0	90		70-130	10		20
Naphthalene	0.98J	10	10	100		9.5	95		70-130	5		20
n-Propylbenzene	ND	10	9.8	98		8.9	89		69-130	10		20
1,2,3-Trichlorobenzene	ND	10	9.6	96		8.8	88		70-130	9		20
1,2,4-Trichlorobenzene	ND	10	9.8	98		9.0	90		70-130	9		20
1,3,5-Trimethylbenzene	ND	10	9.7	97		8.9	89		64-130	9		20
1,2,4-Trimethylbenzene	ND	10	9.6	96		8.8	88		70-130	9		20
1,4-Dioxane	ND	500	300	60		310	62		56-162	3		20
p-Diethylbenzene	ND	10	9.7	97		9.1	91		70-130	6		20

Matrix Spike Analysis

Batch Quality Control

Project Name: 99 HUDSON
Project Number: 170395001

Lab Number: L2327845
Report Date: 05/25/23

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG1783388-6 WG1783388-7 QC Sample: L2327845-04 Client ID: MW15_051823												
p-Ethyltoluene	ND	10	9.5	95		8.7	87		70-130	9		20
1,2,4,5-Tetramethylbenzene	ND	10	9.6	96		8.9	89		70-130	8		20
Ethyl ether	ND	10	9.0	90		9.0	90		59-134	0		20
trans-1,4-Dichloro-2-butene	ND	10	7.4	74		6.7	**67**	Q	70-130	10		20

Surrogate	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	89		90		70-130
4-Bromofluorobenzene	90		88		70-130
Dibromofluoromethane	90		91		70-130
Toluene-d8	88		88		70-130

SEMIVOLATILES

Project Name: 99 HUDSON
Project Number: 170395001
Lab Number: L2327845
Report Date: 05/25/23

SAMPLE RESULTS

Lab ID: L2327845-01
Client ID: MW12_051823
Sample Location: 438 11TH AVENUE, NEW YORK, NY

Date Collected: 05/18/23 12:00
Date Received: 05/18/23
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270E
Analytical Date: 05/24/23 13:40
Analyst: SZ

Extraction Method: EPA 3510C
Extraction Date: 05/23/23 22:03

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.50	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50	1
1,2-Dichlorobenzene	ND		ug/l	2.0	0.45	1
1,3-Dichlorobenzene	ND		ug/l	2.0	0.40	1
1,4-Dichlorobenzene	ND		ug/l	2.0	0.43	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6	1
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2	1
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.49	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.38	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50	1
Hexachlorocyclopentadiene	ND		ug/l	20	0.69	1
Isophorone	ND		ug/l	5.0	1.2	1
Nitrobenzene	ND		ug/l	2.0	0.77	1
NDPA/DPA	ND		ug/l	2.0	0.42	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5	1
Butyl benzyl phthalate	ND		ug/l	5.0	1.2	1
Di-n-butylphthalate	ND		ug/l	5.0	0.39	1
Di-n-octylphthalate	ND		ug/l	5.0	1.3	1
Diethyl phthalate	ND		ug/l	5.0	0.38	1
Dimethyl phthalate	ND		ug/l	5.0	1.8	1
Biphenyl	ND		ug/l	2.0	0.46	1
4-Chloroaniline	ND		ug/l	5.0	1.1	1
2-Nitroaniline	ND		ug/l	5.0	0.50	1
3-Nitroaniline	ND		ug/l	5.0	0.81	1
4-Nitroaniline	ND		ug/l	5.0	0.80	1

Project Name: 99 HUDSON
Project Number: 170395001
Lab Number: L2327845
Report Date: 05/25/23

SAMPLE RESULTS

Lab ID: L2327845-01
Client ID: MW12_051823
Sample Location: 438 11TH AVENUE, NEW YORK, NY
Date Collected: 05/18/23 12:00
Date Received: 05/18/23
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Dibenzofuran	ND		ug/l	2.0	0.50	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	10	0.44	1
Acetophenone	ND		ug/l	5.0	0.53	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61	1
p-Chloro-m-cresol	ND		ug/l	2.0	0.35	1
2-Chlorophenol	ND		ug/l	2.0	0.48	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.41	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.8	1
2-Nitrophenol	ND		ug/l	10	0.85	1
4-Nitrophenol	ND		ug/l	10	0.67	1
2,4-Dinitrophenol	ND		ug/l	20	6.6	1
4,6-Dinitro-o-cresol	ND		ug/l	10	1.8	1
Phenol	ND		ug/l	5.0	0.57	1
2-Methylphenol	ND		ug/l	5.0	0.49	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77	1
Benzoic Acid	ND		ug/l	50	2.6	1
Benzyl Alcohol	ND		ug/l	2.0	0.59	1
Carbazole	ND		ug/l	2.0	0.49	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	78		21-120
Phenol-d6	71		10-120
Nitrobenzene-d5	89		23-120
2-Fluorobiphenyl	69		15-120
2,4,6-Tribromophenol	97		10-120
4-Terphenyl-d14	80		41-149

Project Name: 99 HUDSON
Project Number: 170395001
Lab Number: L2327845
Report Date: 05/25/23

SAMPLE RESULTS

Lab ID: L2327845-01
Client ID: MW12_051823
Sample Location: 438 11TH AVENUE, NEW YORK, NY

Date Collected: 05/18/23 12:00
Date Received: 05/18/23
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270E-SIM
Analytical Date: 05/24/23 12:30
Analyst: AH

Extraction Method: EPA 3510C
Extraction Date: 05/23/23 22:11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	0.04	J	ug/l	0.18	0.03	1
2-Chloronaphthalene	ND		ug/l	0.37	0.03	1
Fluoranthene	ND		ug/l	0.18	0.04	1
Hexachlorobutadiene	ND		ug/l	0.92	0.09	1
Naphthalene	ND		ug/l	0.18	0.09	1
Benzo(a)anthracene	ND		ug/l	0.18	0.04	1
Benzo(a)pyrene	ND		ug/l	0.18	0.03	1
Benzo(b)fluoranthene	ND		ug/l	0.18	0.02	1
Benzo(k)fluoranthene	ND		ug/l	0.18	0.02	1
Chrysene	ND		ug/l	0.18	0.02	1
Acenaphthylene	ND		ug/l	0.18	0.02	1
Anthracene	0.08	J	ug/l	0.18	0.03	1
Benzo(ghi)perylene	ND		ug/l	0.18	0.03	1
Fluorene	ND		ug/l	0.18	0.03	1
Phenanthrene	ND		ug/l	0.18	0.04	1
Dibenzo(a,h)anthracene	ND		ug/l	0.18	0.02	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.18	0.02	1
Pyrene	ND		ug/l	0.18	0.04	1
2-Methylnaphthalene	ND		ug/l	0.18	0.04	1
Pentachlorophenol	0.35	J	ug/l	1.5	0.03	1
Hexachlorobenzene	ND		ug/l	1.5	0.02	1
Hexachloroethane	ND		ug/l	1.5	0.12	1

Project Name: 99 HUDSON
Lab Number: L2327845
Project Number: 170395001
Report Date: 05/25/23

SAMPLE RESULTS

Lab ID: L2327845-01
Client ID: MW12_051823
Sample Location: 438 11TH AVENUE, NEW YORK, NY
Date Collected: 05/18/23 12:00
Date Received: 05/18/23
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	69		21-120
Phenol-d6	68		10-120
Nitrobenzene-d5	86		23-120
2-Fluorobiphenyl	76		15-120
2,4,6-Tribromophenol	89		10-120
4-Terphenyl-d14	83		41-149

Project Name: 99 HUDSON
Project Number: 170395001
Lab Number: L2327845
Report Date: 05/25/23

SAMPLE RESULTS

Lab ID: L2327845-02
Client ID: MW15_051823
Sample Location: 438 11TH AVENUE, NEW YORK, NY

Date Collected: 05/18/23 09:45
Date Received: 05/18/23
Field Prep: Refer to COC

Sample Depth:
Matrix: Water
Analytical Method: 1,8270E
Analytical Date: 05/24/23 14:04
Analyst: SZ

Extraction Method: EPA 3510C
Extraction Date: 05/23/23 22:03

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.50	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50	1
1,2-Dichlorobenzene	2.9		ug/l	2.0	0.45	1
1,3-Dichlorobenzene	ND		ug/l	2.0	0.40	1
1,4-Dichlorobenzene	1.5	J	ug/l	2.0	0.43	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6	1
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2	1
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.49	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.38	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50	1
Hexachlorocyclopentadiene	ND		ug/l	20	0.69	1
Isophorone	ND		ug/l	5.0	1.2	1
Nitrobenzene	ND		ug/l	2.0	0.77	1
NDPA/DPA	ND		ug/l	2.0	0.42	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5	1
Butyl benzyl phthalate	ND		ug/l	5.0	1.2	1
Di-n-butylphthalate	ND		ug/l	5.0	0.39	1
Di-n-octylphthalate	ND		ug/l	5.0	1.3	1
Diethyl phthalate	ND		ug/l	5.0	0.38	1
Dimethyl phthalate	ND		ug/l	5.0	1.8	1
Biphenyl	ND		ug/l	2.0	0.46	1
4-Chloroaniline	ND		ug/l	5.0	1.1	1
2-Nitroaniline	ND		ug/l	5.0	0.50	1
3-Nitroaniline	ND		ug/l	5.0	0.81	1
4-Nitroaniline	ND		ug/l	5.0	0.80	1

Project Name: 99 HUDSON
Project Number: 170395001
Lab Number: L2327845
Report Date: 05/25/23

SAMPLE RESULTS

Lab ID: L2327845-02
Client ID: MW15_051823
Sample Location: 438 11TH AVENUE, NEW YORK, NY
Date Collected: 05/18/23 09:45
Date Received: 05/18/23
Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Dibenzofuran	1.8	J	ug/l	2.0	0.50	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	10	0.44	1
Acetophenone	ND		ug/l	5.0	0.53	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61	1
p-Chloro-m-cresol	ND		ug/l	2.0	0.35	1
2-Chlorophenol	ND		ug/l	2.0	0.48	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.41	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.8	1
2-Nitrophenol	ND		ug/l	10	0.85	1
4-Nitrophenol	ND		ug/l	10	0.67	1
2,4-Dinitrophenol	ND		ug/l	20	6.6	1
4,6-Dinitro-o-cresol	ND		ug/l	10	1.8	1
Phenol	ND		ug/l	5.0	0.57	1
2-Methylphenol	ND		ug/l	5.0	0.49	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77	1
Benzoic Acid	ND		ug/l	50	2.6	1
Benzyl Alcohol	ND		ug/l	2.0	0.59	1
Carbazole	ND		ug/l	2.0	0.49	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	85		21-120
Phenol-d6	71		10-120
Nitrobenzene-d5	107		23-120
2-Fluorobiphenyl	79		15-120
2,4,6-Tribromophenol	112		10-120
4-Terphenyl-d14	96		41-149

Project Name: 99 HUDSON
Project Number: 170395001
Lab Number: L2327845
Report Date: 05/25/23

SAMPLE RESULTS

Lab ID: L2327845-02
Client ID: MW15_051823
Sample Location: 438 11TH AVENUE, NEW YORK, NY

Date Collected: 05/18/23 09:45
Date Received: 05/18/23
Field Prep: Refer to COC

Sample Depth:
Matrix: Water
Analytical Method: 1,8270E-SIM
Analytical Date: 05/24/23 14:07
Analyst: AH

Extraction Method: EPA 3510C
Extraction Date: 05/23/23 22:11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	0.65		ug/l	0.10	0.01	1
2-Chloronaphthalene	ND		ug/l	0.20	0.02	1
Fluoranthene	0.03	J	ug/l	0.10	0.02	1
Hexachlorobutadiene	ND		ug/l	0.50	0.05	1
Naphthalene	ND		ug/l	0.10	0.05	1
Benzo(a)anthracene	0.02	J	ug/l	0.10	0.02	1
Benzo(a)pyrene	ND		ug/l	0.10	0.02	1
Benzo(b)fluoranthene	0.01	J	ug/l	0.10	0.01	1
Benzo(k)fluoranthene	0.01	J	ug/l	0.10	0.01	1
Chrysene	0.01	J	ug/l	0.10	0.01	1
Acenaphthylene	0.25		ug/l	0.10	0.01	1
Anthracene	ND		ug/l	0.10	0.01	1
Benzo(ghi)perylene	ND		ug/l	0.10	0.01	1
Fluorene	ND		ug/l	0.10	0.01	1
Phenanthrene	ND		ug/l	0.10	0.02	1
Dibenzo(a,h)anthracene	ND		ug/l	0.10	0.01	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.01	1
Pyrene	0.04	J	ug/l	0.10	0.02	1
2-Methylnaphthalene	0.06	J	ug/l	0.10	0.02	1
Pentachlorophenol	0.16	J	ug/l	0.80	0.01	1
Hexachlorobenzene	ND		ug/l	0.80	0.01	1
Hexachloroethane	ND		ug/l	0.80	0.06	1

Project Name: 99 HUDSON
Project Number: 170395001
Lab Number: L2327845
Report Date: 05/25/23

SAMPLE RESULTS

Lab ID: L2327845-02
Client ID: MW15_051823
Sample Location: 438 11TH AVENUE, NEW YORK, NY
Date Collected: 05/18/23 09:45
Date Received: 05/18/23
Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	79		21-120
Phenol-d6	73		10-120
Nitrobenzene-d5	109		23-120
2-Fluorobiphenyl	96		15-120
2,4,6-Tribromophenol	**121**	Q	10-120
4-Terphenyl-d14	108		41-149

Project Name: 99 HUDSON
Project Number: 170395001
Lab Number: L2327845
Report Date: 05/25/23

SAMPLE RESULTS

Lab ID: L2327845-03
Client ID: DUP01_051823
Sample Location: 438 11TH AVENUE, NEW YORK, NY

Date Collected: 05/18/23 00:00
Date Received: 05/18/23
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270E
Analytical Date: 05/24/23 14:27
Analyst: SZ

Extraction Method: EPA 3510C
Extraction Date: 05/23/23 22:03

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.50	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50	1
1,2-Dichlorobenzene	2.7		ug/l	2.0	0.45	1
1,3-Dichlorobenzene	ND		ug/l	2.0	0.40	1
1,4-Dichlorobenzene	1.4	J	ug/l	2.0	0.43	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6	1
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2	1
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.49	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.38	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50	1
Hexachlorocyclopentadiene	ND		ug/l	20	0.69	1
Isophorone	ND		ug/l	5.0	1.2	1
Nitrobenzene	ND		ug/l	2.0	0.77	1
NDPA/DPA	ND		ug/l	2.0	0.42	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5	1
Butyl benzyl phthalate	ND		ug/l	5.0	1.2	1
Di-n-butylphthalate	ND		ug/l	5.0	0.39	1
Di-n-octylphthalate	ND		ug/l	5.0	1.3	1
Diethyl phthalate	ND		ug/l	5.0	0.38	1
Dimethyl phthalate	ND		ug/l	5.0	1.8	1
Biphenyl	ND		ug/l	2.0	0.46	1
4-Chloroaniline	ND		ug/l	5.0	1.1	1
2-Nitroaniline	ND		ug/l	5.0	0.50	1
3-Nitroaniline	ND		ug/l	5.0	0.81	1
4-Nitroaniline	ND		ug/l	5.0	0.80	1

Project Name: 99 HUDSON
Project Number: 170395001
Lab Number: L2327845
Report Date: 05/25/23

SAMPLE RESULTS

Lab ID: L2327845-03
Client ID: DUP01_051823
Sample Location: 438 11TH AVENUE, NEW YORK, NY
Date Collected: 05/18/23 00:00
Date Received: 05/18/23
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Dibenzofuran	1.8	J	ug/l	2.0	0.50	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	10	0.44	1
Acetophenone	ND		ug/l	5.0	0.53	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61	1
p-Chloro-m-cresol	ND		ug/l	2.0	0.35	1
2-Chlorophenol	ND		ug/l	2.0	0.48	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.41	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.8	1
2-Nitrophenol	ND		ug/l	10	0.85	1
4-Nitrophenol	ND		ug/l	10	0.67	1
2,4-Dinitrophenol	ND		ug/l	20	6.6	1
4,6-Dinitro-o-cresol	ND		ug/l	10	1.8	1
Phenol	ND		ug/l	5.0	0.57	1
2-Methylphenol	ND		ug/l	5.0	0.49	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77	1
Benzoic Acid	ND		ug/l	50	2.6	1
Benzyl Alcohol	ND		ug/l	2.0	0.59	1
Carbazole	ND		ug/l	2.0	0.49	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	83		21-120
Phenol-d6	68		10-120
Nitrobenzene-d5	105		23-120
2-Fluorobiphenyl	85		15-120
2,4,6-Tribromophenol	**121**	Q	10-120
4-Terphenyl-d14	94		41-149

Project Name: 99 HUDSON
Project Number: 170395001
Lab Number: L2327845
Report Date: 05/25/23

SAMPLE RESULTS

Lab ID: L2327845-03
Client ID: DUP01_051823
Sample Location: 438 11TH AVENUE, NEW YORK, NY

Date Collected: 05/18/23 00:00
Date Received: 05/18/23
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270E-SIM
Analytical Date: 05/24/23 14:23
Analyst: AH

Extraction Method: EPA 3510C
Extraction Date: 05/23/23 22:11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	0.70		ug/l	0.10	0.01	1
2-Chloronaphthalene	ND		ug/l	0.20	0.02	1
Fluoranthene	0.02	J	ug/l	0.10	0.02	1
Hexachlorobutadiene	ND		ug/l	0.50	0.05	1
Naphthalene	ND		ug/l	0.10	0.05	1
Benzo(a)anthracene	ND		ug/l	0.10	0.02	1
Benzo(a)pyrene	ND		ug/l	0.10	0.02	1
Benzo(b)fluoranthene	ND		ug/l	0.10	0.01	1
Benzo(k)fluoranthene	ND		ug/l	0.10	0.01	1
Chrysene	ND		ug/l	0.10	0.01	1
Acenaphthylene	0.26		ug/l	0.10	0.01	1
Anthracene	ND		ug/l	0.10	0.01	1
Benzo(ghi)perylene	ND		ug/l	0.10	0.01	1
Fluorene	ND		ug/l	0.10	0.01	1
Phenanthrene	ND		ug/l	0.10	0.02	1
Dibenzo(a,h)anthracene	ND		ug/l	0.10	0.01	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.01	1
Pyrene	0.05	J	ug/l	0.10	0.02	1
2-Methylnaphthalene	0.07	J	ug/l	0.10	0.02	1
Pentachlorophenol	ND		ug/l	0.80	0.01	1
Hexachlorobenzene	ND		ug/l	0.80	0.01	1
Hexachloroethane	ND		ug/l	0.80	0.06	1

Project Name: 99 HUDSON
Lab Number: L2327845
Project Number: 170395001
Report Date: 05/25/23

SAMPLE RESULTS

Lab ID: L2327845-03
Client ID: DUP01_051823
Sample Location: 438 11TH AVENUE, NEW YORK, NY
Date Collected: 05/18/23 00:00
Date Received: 05/18/23
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Semivolatile Organics by GC/MS-SIM - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	86		21-120
Phenol-d6	78		10-120
Nitrobenzene-d5	**122**	Q	23-120
2-Fluorobiphenyl	107		15-120
2,4,6-Tribromophenol	**134**	Q	10-120
4-Terphenyl-d14	117		41-149

Project Name: 99 HUDSON
Project Number: 170395001
Lab Number: L2327845
Report Date: 05/25/23

SAMPLE RESULTS

Lab ID: L2327845-04
Client ID: MW15_051823
Sample Location: 438 11TH AVENUE, NEW YORK, NY

Date Collected: 05/18/23 10:15
Date Received: 05/18/23
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270E
Analytical Date: 05/24/23 14:51
Analyst: SZ

Extraction Method: EPA 3510C
Extraction Date: 05/23/23 22:03

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.50	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50	1
1,2-Dichlorobenzene	1.7	J	ug/l	2.0	0.45	1
1,3-Dichlorobenzene	ND		ug/l	2.0	0.40	1
1,4-Dichlorobenzene	1.1	J	ug/l	2.0	0.43	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6	1
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2	1
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.49	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.38	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50	1
Hexachlorocyclopentadiene	ND		ug/l	20	0.69	1
Isophorone	ND		ug/l	5.0	1.2	1
Nitrobenzene	ND		ug/l	2.0	0.77	1
NDPA/DPA	ND		ug/l	2.0	0.42	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5	1
Butyl benzyl phthalate	ND		ug/l	5.0	1.2	1
Di-n-butylphthalate	ND		ug/l	5.0	0.39	1
Di-n-octylphthalate	ND		ug/l	5.0	1.3	1
Diethyl phthalate	ND		ug/l	5.0	0.38	1
Dimethyl phthalate	ND		ug/l	5.0	1.8	1
Biphenyl	ND		ug/l	2.0	0.46	1
4-Chloroaniline	ND		ug/l	5.0	1.1	1
2-Nitroaniline	ND		ug/l	5.0	0.50	1
3-Nitroaniline	ND		ug/l	5.0	0.81	1
4-Nitroaniline	ND		ug/l	5.0	0.80	1

Project Name: 99 HUDSON
Project Number: 170395001
Lab Number: L2327845
Report Date: 05/25/23

SAMPLE RESULTS

Lab ID: L2327845-04
Client ID: MW15_051823
Sample Location: 438 11TH AVENUE, NEW YORK, NY
Date Collected: 05/18/23 10:15
Date Received: 05/18/23
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Dibenzofuran	1.5	J	ug/l	2.0	0.50	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	10	0.44	1
Acetophenone	ND		ug/l	5.0	0.53	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61	1
p-Chloro-m-cresol	ND		ug/l	2.0	0.35	1
2-Chlorophenol	ND		ug/l	2.0	0.48	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.41	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.8	1
2-Nitrophenol	ND		ug/l	10	0.85	1
4-Nitrophenol	ND		ug/l	10	0.67	1
2,4-Dinitrophenol	ND		ug/l	20	6.6	1
4,6-Dinitro-o-cresol	ND		ug/l	10	1.8	1
Phenol	ND		ug/l	5.0	0.57	1
2-Methylphenol	ND		ug/l	5.0	0.49	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77	1
Benzoic Acid	ND		ug/l	50	2.6	1
Benzyl Alcohol	ND		ug/l	2.0	0.59	1
Carbazole	ND		ug/l	2.0	0.49	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	81		21-120
Phenol-d6	66		10-120
Nitrobenzene-d5	93		23-120
2-Fluorobiphenyl	75		15-120
2,4,6-Tribromophenol	108		10-120
4-Terphenyl-d14	90		41-149

Project Name: 99 HUDSON
Project Number: 170395001
Lab Number: L2327845
Report Date: 05/25/23

SAMPLE RESULTS

Lab ID: L2327845-04
Client ID: MW15_051823
Sample Location: 438 11TH AVENUE, NEW YORK, NY

Date Collected: 05/18/23 10:15
Date Received: 05/18/23
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270E-SIM
Analytical Date: 05/24/23 14:40
Analyst: AH

Extraction Method: EPA 3510C
Extraction Date: 05/23/23 22:11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	0.50		ug/l	0.10	0.01	1
2-Chloronaphthalene	ND		ug/l	0.20	0.02	1
Fluoranthene	ND		ug/l	0.10	0.02	1
Hexachlorobutadiene	ND		ug/l	0.50	0.05	1
Naphthalene	ND		ug/l	0.10	0.05	1
Benzo(a)anthracene	ND		ug/l	0.10	0.02	1
Benzo(a)pyrene	ND		ug/l	0.10	0.02	1
Benzo(b)fluoranthene	ND		ug/l	0.10	0.01	1
Benzo(k)fluoranthene	ND		ug/l	0.10	0.01	1
Chrysene	ND		ug/l	0.10	0.01	1
Acenaphthylene	0.22		ug/l	0.10	0.01	1
Anthracene	ND		ug/l	0.10	0.01	1
Benzo(ghi)perylene	ND		ug/l	0.10	0.01	1
Fluorene	ND		ug/l	0.10	0.01	1
Phenanthrene	ND		ug/l	0.10	0.02	1
Dibenzo(a,h)anthracene	ND		ug/l	0.10	0.01	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.01	1
Pyrene	0.03	J	ug/l	0.10	0.02	1
2-Methylnaphthalene	0.05	J	ug/l	0.10	0.02	1
Pentachlorophenol	ND		ug/l	0.80	0.01	1
Hexachlorobenzene	ND		ug/l	0.80	0.01	1
Hexachloroethane	ND		ug/l	0.80	0.06	1

Project Name: 99 HUDSON
Lab Number: L2327845
Project Number: 170395001
Report Date: 05/25/23

SAMPLE RESULTS

Lab ID: L2327845-04
Client ID: MW15_051823
Sample Location: 438 11TH AVENUE, NEW YORK, NY
Date Collected: 05/18/23 10:15
Date Received: 05/18/23
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	82		21-120
Phenol-d6	77		10-120
Nitrobenzene-d5	109		23-120
2-Fluorobiphenyl	95		15-120
2,4,6-Tribromophenol	**123**	Q	10-120
4-Terphenyl-d14	111		41-149

Project Name: 99 HUDSON
Project Number: 170395001

Lab Number: L2327845
Report Date: 05/25/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270E
Analytical Date: 05/24/23 10:34
Analyst: ALS

Extraction Method: EPA 3510C
Extraction Date: 05/23/23 22:03

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-04 Batch: WG1782532-1					
Acenaphthene	ND		ug/l	2.0	0.44
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.50
Hexachlorobenzene	ND		ug/l	2.0	0.46
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50
2-Chloronaphthalene	ND		ug/l	2.0	0.44
1,2-Dichlorobenzene	ND		ug/l	2.0	0.45
1,3-Dichlorobenzene	ND		ug/l	2.0	0.40
1,4-Dichlorobenzene	ND		ug/l	2.0	0.43
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93
Fluoranthene	ND		ug/l	2.0	0.26
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.49
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.38
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50
Hexachlorobutadiene	ND		ug/l	2.0	0.66
Hexachlorocyclopentadiene	ND		ug/l	20	0.69
Hexachloroethane	ND		ug/l	2.0	0.58
Isophorone	ND		ug/l	5.0	1.2
Naphthalene	ND		ug/l	2.0	0.46
Nitrobenzene	ND		ug/l	2.0	0.77
NDPA/DPA	ND		ug/l	2.0	0.42
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5
Butyl benzyl phthalate	ND		ug/l	5.0	1.2
Di-n-butylphthalate	ND		ug/l	5.0	0.39
Di-n-octylphthalate	ND		ug/l	5.0	1.3
Diethyl phthalate	ND		ug/l	5.0	0.38

Project Name: 99 HUDSON
Project Number: 170395001
Lab Number: L2327845
Report Date: 05/25/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270E
Analytical Date: 05/24/23 10:34
Analyst: ALS

Extraction Method: EPA 3510C
Extraction Date: 05/23/23 22:03

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-04 Batch: WG1782532-1					
Dimethyl phthalate	ND		ug/l	5.0	1.8
Benzo(a)anthracene	ND		ug/l	2.0	0.32
Benzo(a)pyrene	ND		ug/l	2.0	0.41
Benzo(b)fluoranthene	ND		ug/l	2.0	0.35
Benzo(k)fluoranthene	ND		ug/l	2.0	0.37
Chrysene	ND		ug/l	2.0	0.34
Acenaphthylene	ND		ug/l	2.0	0.46
Anthracene	ND		ug/l	2.0	0.33
Benzo(ghi)perylene	ND		ug/l	2.0	0.30
Fluorene	ND		ug/l	2.0	0.41
Phenanthrene	ND		ug/l	2.0	0.33
Dibenzo(a,h)anthracene	ND		ug/l	2.0	0.32
Indeno(1,2,3-cd)pyrene	ND		ug/l	2.0	0.40
Pyrene	ND		ug/l	2.0	0.28
Biphenyl	ND		ug/l	2.0	0.46
4-Chloroaniline	ND		ug/l	5.0	1.1
2-Nitroaniline	ND		ug/l	5.0	0.50
3-Nitroaniline	ND		ug/l	5.0	0.81
4-Nitroaniline	ND		ug/l	5.0	0.80
Dibenzofuran	ND		ug/l	2.0	0.50
2-Methylnaphthalene	ND		ug/l	2.0	0.45
1,2,4,5-Tetrachlorobenzene	ND		ug/l	10	0.44
Acetophenone	ND		ug/l	5.0	0.53
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61
p-Chloro-m-cresol	ND		ug/l	2.0	0.35
2-Chlorophenol	ND		ug/l	2.0	0.48
2,4-Dichlorophenol	ND		ug/l	5.0	0.41
2,4-Dimethylphenol	ND		ug/l	5.0	1.8
2-Nitrophenol	ND		ug/l	10	0.85

Project Name: 99 HUDSON
Project Number: 170395001

Lab Number: L2327845
Report Date: 05/25/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270E
Analytical Date: 05/24/23 10:34
Analyst: ALS

Extraction Method: EPA 3510C
Extraction Date: 05/23/23 22:03

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-04 Batch: WG1782532-1					
4-Nitrophenol	ND		ug/l	10	0.67
2,4-Dinitrophenol	ND		ug/l	20	6.6
4,6-Dinitro-o-cresol	ND		ug/l	10	1.8
Pentachlorophenol	ND		ug/l	10	1.8
Phenol	ND		ug/l	5.0	0.57
2-Methylphenol	ND		ug/l	5.0	0.49
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77
Benzoic Acid	ND		ug/l	50	2.6
Benzyl Alcohol	ND		ug/l	2.0	0.59
Carbazole	ND		ug/l	2.0	0.49

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	70		21-120
Phenol-d6	54		10-120
Nitrobenzene-d5	83		23-120
2-Fluorobiphenyl	67		15-120
2,4,6-Tribromophenol	89		10-120
4-Terphenyl-d14	83		41-149

Project Name: 99 HUDSON
Project Number: 170395001

Lab Number: L2327845
Report Date: 05/25/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270E-SIM
Analytical Date: 05/24/23 11:26
Analyst: JJW

Extraction Method: EPA 3510C
Extraction Date: 05/23/23 22:11

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01-04 Batch: WG1782534-1					
Acenaphthene	ND		ug/l	0.10	0.01
2-Chloronaphthalene	ND		ug/l	0.20	0.02
Fluoranthene	ND		ug/l	0.10	0.02
Hexachlorobutadiene	ND		ug/l	0.50	0.05
Naphthalene	ND		ug/l	0.10	0.05
Benzo(a)anthracene	ND		ug/l	0.10	0.02
Benzo(a)pyrene	ND		ug/l	0.10	0.02
Benzo(b)fluoranthene	ND		ug/l	0.10	0.01
Benzo(k)fluoranthene	ND		ug/l	0.10	0.01
Chrysene	ND		ug/l	0.10	0.01
Acenaphthylene	ND		ug/l	0.10	0.01
Anthracene	ND		ug/l	0.10	0.01
Benzo(ghi)perylene	ND		ug/l	0.10	0.01
Fluorene	ND		ug/l	0.10	0.01
Phenanthrene	ND		ug/l	0.10	0.02
Dibenzo(a,h)anthracene	ND		ug/l	0.10	0.01
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.01
Pyrene	ND		ug/l	0.10	0.02
2-Methylnaphthalene	ND		ug/l	0.10	0.02
Pentachlorophenol	ND		ug/l	0.80	0.01
Hexachlorobenzene	ND		ug/l	0.80	0.01
Hexachloroethane	ND		ug/l	0.80	0.06

Project Name: 99 HUDSON
Project Number: 170395001

Lab Number: L2327845
Report Date: 05/25/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270E-SIM
Analytical Date: 05/24/23 11:26
Analyst: JJW

Extraction Method: EPA 3510C
Extraction Date: 05/23/23 22:11

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01-04 Batch: WG1782534-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	66		21-120
Phenol-d6	59		10-120
Nitrobenzene-d5	89		23-120
2-Fluorobiphenyl	79		15-120
2,4,6-Tribromophenol	93		10-120
4-Terphenyl-d14	100		41-149

Lab Control Sample Analysis
Batch Quality Control

Project Name: 99 HUDSON
Project Number: 170395001

Lab Number: L2327845
Report Date: 05/25/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04 Batch: WG1782532-2 WG1782532-3								
Acenaphthene	88		84		37-111	5		30
1,2,4-Trichlorobenzene	95		90		39-98	5		30
Hexachlorobenzene	92		88		40-140	4		30
Bis(2-chloroethyl)ether	94		86		40-140	9		30
2-Chloronaphthalene	91		87		40-140	4		30
1,2-Dichlorobenzene	95		91		40-140	4		30
1,3-Dichlorobenzene	93		89		40-140	4		30
1,4-Dichlorobenzene	96		87		36-97	10		30
3,3'-Dichlorobenzidine	60		49		40-140	20		30
2,4-Dinitrotoluene	104		107		48-143	3		30
2,6-Dinitrotoluene	96		95		40-140	1		30
Fluoranthene	89		102		40-140	14		30
4-Chlorophenyl phenyl ether	92		86		40-140	7		30
4-Bromophenyl phenyl ether	88		84		40-140	5		30
Bis(2-chloroisopropyl)ether	90		80		40-140	12		30
Bis(2-chloroethoxy)methane	93		88		40-140	6		30
Hexachlorobutadiene	85		78		40-140	9		30
Hexachlorocyclopentadiene	73		75		40-140	3		30
Hexachloroethane	96		84		40-140	13		30
Isophorone	86		77		40-140	11		30
Naphthalene	88		86		40-140	2		30
Nitrobenzene	102		93		40-140	9		30
NDPA/DPA	91		90		40-140	1		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: 99 HUDSON
Project Number: 170395001

Lab Number: L2327845
Report Date: 05/25/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04 Batch: WG1782532-2 WG1782532-3								
n-Nitrosodi-n-propylamine	83		78		29-132	6		30
Bis(2-ethylhexyl)phthalate	90		87		40-140	3		30
Butyl benzyl phthalate	100		117		40-140	16		30
Di-n-butylphthalate	90		99		40-140	10		30
Di-n-octylphthalate	92		92		40-140	0		30
Diethyl phthalate	99		97		40-140	2		30
Dimethyl phthalate	94		88		40-140	7		30
Benzo(a)anthracene	93		95		40-140	2		30
Benzo(a)pyrene	99		107		40-140	8		30
Benzo(b)fluoranthene	89		96		40-140	8		30
Benzo(k)fluoranthene	100		105		40-140	5		30
Chrysene	93		94		40-140	1		30
Acenaphthylene	87		85		45-123	2		30
Anthracene	91		92		40-140	1		30
Benzo(ghi)perylene	115		118		40-140	3		30
Fluorene	91		85		40-140	7		30
Phenanthrene	93		97		40-140	4		30
Dibenzo(a,h)anthracene	110		112		40-140	2		30
Indeno(1,2,3-cd)pyrene	106		110		40-140	4		30
Pyrene	92		107		26-127	15		30
Biphenyl	77		78		40-140	1		30
4-Chloroaniline	60		51		40-140	16		30
2-Nitroaniline	102		95		52-143	7		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: 99 HUDSON
Project Number: 170395001

Lab Number: L2327845
Report Date: 05/25/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04 Batch: WG1782532-2 WG1782532-3								
3-Nitroaniline	90		87		25-145	3		30
4-Nitroaniline	113		102		51-143	10		30
Dibenzofuran	97		91		40-140	6		30
2-Methylnaphthalene	91		86		40-140	6		30
1,2,4,5-Tetrachlorobenzene	78		77		2-134	1		30
Acetophenone	83		76		39-129	9		30
2,4,6-Trichlorophenol	91		86		30-130	6		30
p-Chloro-m-cresol	90		91		23-97	1		30
2-Chlorophenol	102		98		27-123	4		30
2,4-Dichlorophenol	103		95		30-130	8		30
2,4-Dimethylphenol	93		73		30-130	24		30
2-Nitrophenol	124		109		30-130	13		30
4-Nitrophenol	**127**	Q	**132**	Q	10-80	4		30
2,4-Dinitrophenol	100		119		20-130	17		30
4,6-Dinitro-o-cresol	130		132		20-164	2		30
Pentachlorophenol	100		**116**	Q	9-103	15		30
Phenol	82		70		12-110	16		30
2-Methylphenol	98		87		30-130	12		30
3-Methylphenol/4-Methylphenol	102		88		30-130	15		30
2,4,5-Trichlorophenol	96		86		30-130	11		30
Benzoic Acid	76		100		10-164	27		30
Benzyl Alcohol	84		74		26-116	13		30
Carbazole	91		105		55-144	14		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: 99 HUDSON
Project Number: 170395001

Lab Number: L2327845
Report Date: 05/25/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04 Batch: WG1782532-2 WG1782532-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	103		84		21-120
Phenol-d6	88		71		10-120
Nitrobenzene-d5	114		98		23-120
2-Fluorobiphenyl	85		75		15-120
2,4,6-Tribromophenol	106		100		10-120
4-Terphenyl-d14	89		95		41-149

Lab Control Sample Analysis
Batch Quality Control

Project Name: 99 HUDSON
Project Number: 170395001

Lab Number: L2327845
Report Date: 05/25/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-04 Batch: WG1782534-2 WG1782534-3								
Acenaphthene	41		43		40-140	5		40
2-Chloronaphthalene	41		42		40-140	2		40
Fluoranthene	48		51		40-140	6		40
Hexachlorobutadiene	45		47		40-140	4		40
Naphthalene	40		40		40-140	0		40
Benzo(a)anthracene	48		50		40-140	4		40
Benzo(a)pyrene	51		53		40-140	4		40
Benzo(b)fluoranthene	49		49		40-140	0		40
Benzo(k)fluoranthene	45		50		40-140	11		40
Chrysene	43		46		40-140	7		40
Acenaphthylene	52		53		40-140	2		40
Anthracene	47		50		40-140	6		40
Benzo(ghi)perylene	45		51		40-140	13		40
Fluorene	46		48		40-140	4		40
Phenanthrene	42		44		40-140	5		40
Dibenzo(a,h)anthracene	50		55		40-140	10		40
Indeno(1,2,3-cd)pyrene	48		53		40-140	10		40
Pyrene	47		50		40-140	6		40
2-Methylnaphthalene	45		46		40-140	2		40
Pentachlorophenol	61		69		40-140	12		40
Hexachlorobenzene	48		51		40-140	6		40
Hexachloroethane	43		43		40-140	0		40

Lab Control Sample Analysis
Batch Quality Control

Project Name: 99 HUDSON
Project Number: 170395001

Lab Number: L2327845
Report Date: 05/25/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits

Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-04 Batch: WG1782534-2 WG1782534-3

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	47		43		21-120
Phenol-d6	44		40		10-120
Nitrobenzene-d5	58		57		23-120
2-Fluorobiphenyl	47		46		15-120
2,4,6-Tribromophenol	61		61		10-120
4-Terphenyl-d14	54		55		41-149

Matrix Spike Analysis

Batch Quality Control

Project Name: 99 HUDSON
Project Number: 170395001
Lab Number: L2327845
Report Date: 05/25/23

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG1782532-4 WG1782532-5 QC Sample: L2327845-04 Client ID: MW15_051823												
1,2,4-Trichlorobenzene	ND	18.2	14	77		17	94		39-98	19		30
Bis(2-chloroethyl)ether	ND	18.2	14	77		17	94		40-140	19		30
1,2-Dichlorobenzene	1.7J	18.2	16	88		21	120		40-140	27		30
1,3-Dichlorobenzene	ND	18.2	14	77		18	99		40-140	25		30
1,4-Dichlorobenzene	1.1J	18.2	15	83		18	**99**	Q	36-97	18		30
3,3'-Dichlorobenzidine	ND	18.2	ND	**0**	Q	ND	**0**	Q	40-140	NC		30
2,4-Dinitrotoluene	ND	18.2	18	99		23	130		48-143	24		30
2,6-Dinitrotoluene	ND	18.2	15	83		21	120		40-140	**33**	Q	30
4-Chlorophenyl phenyl ether	ND	18.2	15	83		18	99		40-140	18		30
4-Bromophenyl phenyl ether	ND	18.2	15	83		18	99		40-140	18		30
Bis(2-chloroisopropyl)ether	ND	18.2	14	77		18	99		40-140	25		30
Bis(2-chloroethoxy)methane	ND	18.2	15	83		19	100		40-140	24		30
Hexachlorocyclopentadiene	ND	18.2	13.J	72		17.J	94		40-140	27		30
Isophorone	ND	18.2	13	72		17	94		40-140	27		30
Nitrobenzene	ND	18.2	15	83		18	99		40-140	18		30
NDPA/DPA	ND	18.2	15	83		19	100		40-140	24		30
n-Nitrosodi-n-propylamine	ND	18.2	13	72		16	88		29-132	21		30
Bis(2-ethylhexyl)phthalate	ND	18.2	20	110		23	130		40-140	14		30
Butyl benzyl phthalate	ND	18.2	20	110		22	120		40-140	10		30
Di-n-butylphthalate	ND	18.2	19	100		21	120		40-140	10		30
Di-n-octylphthalate	ND	18.2	20	110		24	130		40-140	18		30
Diethyl phthalate	ND	18.2	17	94		21	120		40-140	21		30
Dimethyl phthalate	ND	18.2	15	83		19	100		40-140	24		30

Matrix Spike Analysis
Batch Quality Control

Project Name: 99 HUDSON
Project Number: 170395001
Lab Number: L2327845
Report Date: 05/25/23

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG1782532-4 WG1782532-5 QC Sample: L2327845-04 Client ID: MW15_051823												
Biphenyl	ND	18.2	13	72		16	88		40-140	21		30
4-Chloroaniline	ND	18.2	7.7	42		9.4	52		40-140	20		30
2-Nitroaniline	ND	18.2	17	94		22	120		52-143	26		30
3-Nitroaniline	ND	18.2	12	66		14	77		25-145	15		30
4-Nitroaniline	ND	18.2	15	83		18	99		51-143	18		30
Dibenzofuran	1.5J	18.2	16	88		21	120		40-140	27		30
1,2,4,5-Tetrachlorobenzene	ND	18.2	12	66		15	83		2-134	22		30
Acetophenone	ND	18.2	13	72		16	88		39-129	21		30
2,4,6-Trichlorophenol	ND	18.2	15	83		19	100		30-130	24		30
p-Chloro-m-cresol	ND	18.2	18	**99**	Q	21	**120**	Q	23-97	15		30
2-Chlorophenol	ND	18.2	15	83		20	110		27-123	29		30
2,4-Dichlorophenol	ND	18.2	16	88		21	120		30-130	27		30
2,4-Dimethylphenol	ND	18.2	14	77		19	100		30-130	30		30
2-Nitrophenol	ND	18.2	18	99		23	130		30-130	24		30
4-Nitrophenol	ND	18.2	24	**130**	Q	28	**150**	Q	10-80	15		30
2,4-Dinitrophenol	ND	18.2	22	120		26	**140**	Q	20-130	17		30
4,6-Dinitro-o-cresol	ND	18.2	22	120		28	150		20-164	24		30
Phenol	ND	18.2	12	66		14	77		12-110	15		30
2-Methylphenol	ND	18.2	15	83		18	99		30-130	18		30
3-Methylphenol/4-Methylphenol	ND	18.2	15	83		19	100		30-130	24		30
2,4,5-Trichlorophenol	ND	18.2	15	83		19	100		30-130	24		30
Benzoic Acid	ND	18.2	24.J	130		28.J	150		10-164	15		30
Benzyl Alcohol	ND	18.2	13	72		16	88		26-116	21		30

Matrix Spike Analysis

Batch Quality Control

Project Name: 99 HUDSON
Project Number: 170395001
Lab Number: L2327845
Report Date: 05/25/23

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG1782532-4 WG1782532-5 QC Sample: L2327845-04 Client ID: MW15_051823												
Carbazole	ND	18.2	17	94		19	100		55-144	11		30

Surrogate	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria
2,4,6-Tribromophenol	99		**126**	Q	10-120
2-Fluorobiphenyl	72		90		15-120
2-Fluorophenol	79		92		21-120
4-Terphenyl-d14	85		94		41-149
Nitrobenzene-d5	89		114		23-120
Phenol-d6	67		77		10-120

Matrix Spike Analysis
Batch Quality Control

Project Name: 99 HUDSON
Project Number: 170395001
Lab Number: L2327845
Report Date: 05/25/23

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG1782534-4 WG1782534-5 QC Sample: L2327845-04 Client ID: MW15_051823												
Acenaphthene	0.50	18.2	14	74		17	91		40-140	19		40
2-Chloronaphthalene	ND	18.2	14	77		16	88		40-140	13		40
Fluoranthene	ND	18.2	15	83		18	99		40-140	18		40
Hexachlorobutadiene	ND	18.2	14	77		17	94		40-140	19		40
Naphthalene	ND	18.2	13	72		15	83		40-140	14		40
Benzo(a)anthracene	ND	18.2	17	94		20	110		40-140	16		40
Benzo(a)pyrene	ND	18.2	18	99		21	120		40-140	15		40
Benzo(b)fluoranthene	ND	18.2	16	88		20	110		40-140	22		40
Benzo(k)fluoranthene	ND	18.2	15	83		18	99		40-140	18		40
Chrysene	ND	18.2	15	83		18	99		40-140	18		40
Acenaphthylene	0.22	18.2	17	92		20	110		40-140	16		40
Anthracene	ND	18.2	16	88		19	100		40-140	17		40
Benzo(ghi)perylene	ND	18.2	17	94		21	120		40-140	21		40
Fluorene	ND	18.2	15	83		18	99		40-140	18		40
Phenanthrene	ND	18.2	14	77		17	94		40-140	19		40
Dibenzo(a,h)anthracene	ND	18.2	18	99		22	120		40-140	20		40
Indeno(1,2,3-cd)pyrene	ND	18.2	18	99		22	120		40-140	20		40
Pyrene	0.03J	18.2	15	83		18	99		40-140	18		40
2-Methylnaphthalene	0.05J	18.2	14	77		17	94		40-140	19		40
Pentachlorophenol	ND	18.2	24	130		27	**150**	Q	40-140	12		40
Hexachlorobenzene	ND	18.2	17	94		20	110		40-140	16		40
Hexachloroethane	ND	18.2	14	77		16	88		40-140	13		40

Matrix Spike Analysis

Batch Quality Control

Project Name: 99 HUDSON

Project Number: 170395001

Lab Number: L2327845

Report Date: 05/25/23

Parameter	*Native Sample*	*MS Added*	*MS Found*	*MS %Recovery*	*Qual*	*MSD Found*	*MSD %Recovery*	*Qual*	*Recovery Limits*	*RPD*	*Qual*	*RPD Limits*

Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG1782534-4 WG1782534-5 QC Sample: L2327845-04 Client ID: MW15_051823

Surrogate	*MS % Recovery*	*MS Qualifier*	*MSD % Recovery*	*MSD Qualifier*	*Acceptance Criteria*
2,4,6-Tribromophenol	109		**124**	Q	10-120
2-Fluorobiphenyl	84		97		15-120
2-Fluorophenol	78		87		21-120
4-Terphenyl-d14	93		109		41-149
Nitrobenzene-d5	101		116		23-120
Phenol-d6	76		83		10-120

PETROLEUM HYDROCARBONS

Project Name: 99 HUDSON
Project Number: 170395001
Lab Number: L2327845
Report Date: 05/25/23

SAMPLE RESULTS

Lab ID: L2327845-01
Client ID: MW12_051823
Sample Location: 438 11TH AVENUE, NEW YORK, NY

Date Collected: 05/18/23 12:00
Date Received: 05/18/23
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8015D(M)
Analytical Date: 05/23/23 10:03
Analyst: BAD

Extraction Method:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Gasoline Range Organics - Westborough Lab						
Gasoline Range Organics	39	J	ug/l	50	3.0	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,1,1-Trifluorotoluene	111		70-130
4-Bromofluorobenzene	113		70-130

Project Name: 99 HUDSON
Project Number: 170395001
Lab Number: L2327845
Report Date: 05/25/23

SAMPLE RESULTS

Lab ID: L2327845-02
Client ID: MW15_051823
Sample Location: 438 11TH AVENUE, NEW YORK, NY

Date Collected: 05/18/23 09:45
Date Received: 05/18/23
Field Prep: Refer to COC

Sample Depth:
Matrix: Water
Analytical Method: 1,8015D(M)
Analytical Date: 05/23/23 10:35
Analyst: BAD

Extraction Method:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Gasoline Range Organics - Westborough Lab						
Gasoline Range Organics	240		ug/l	50	3.0	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,1,1-Trifluorotoluene	123		70-130
4-Bromofluorobenzene	119		70-130

Project Name: 99 HUDSON
Project Number: 170395001
Lab Number: L2327845
Report Date: 05/25/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8015D(M)
Analytical Date: 05/23/23 09:01
Analyst: BAD

Parameter	Result	Qualifier	Units	RL	MDL
Gasoline Range Organics - Westborough Lab for sample(s): 01-02 Batch: WG1782641-4					
Gasoline Range Organics	17	J	ug/l	50	3.0

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,1,1-Trifluorotoluene	95		70-130
4-Bromofluorobenzene	90		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: 99 HUDSON
Project Number: 170395001

Lab Number: L2327845
Report Date: 05/25/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Gasoline Range Organics - Westborough Lab	Associated sample(s): 01-02		Batch: WG1782641-2 WG1782641-3					
Gasoline Range Organics	82		92		80-120	11		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,1,1-Trifluorotoluene	93		105		70-130
4-Bromofluorobenzene	89		100		70-130

Matrix Spike Analysis

Batch Quality Control

Project Name: 99 HUDSON
Project Number: 170395001

Lab Number: L2327845
Report Date: 05/25/23

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Gasoline Range Organics - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1782641-6 QC Sample: L2327845-02 Client ID: MW15_051823												
Gasoline Range Organics	240	400	620	96		-	-		80-120	-		20

Surrogate	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria
1,1,1-Trifluorotoluene	120				70-130
4-Bromofluorobenzene	116				70-130

Lab Duplicate Analysis
Batch Quality Control

Project Name: 99 HUDSON
Project Number: 170395001

Lab Number: L2327845
Report Date: 05/25/23

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Gasoline Range Organics - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1782641-5 QC Sample: L2327845-02 Client ID: MW15_051823						
Gasoline Range Organics	240	230	ug/l	4		20

Surrogate	%Recovery	Qualifier	%Recovery	Qualifier	Acceptance Criteria
1,1,1-Trifluorotoluene	123		120		70-130
4-Bromofluorobenzene	119		115		70-130

METALS

Project Name: 99 HUDSON
Project Number: 170395001
Lab Number: L2327845
Report Date: 05/25/23

SAMPLE RESULTS

Lab ID: L2327845-02
Client ID: MW15_051823
Sample Location: 438 11TH AVENUE, NEW YORK, NY
Date Collected: 05/18/23 09:45
Date Received: 05/18/23
Field Prep: Refer to COC

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Iron, Total	29.6		mg/l	0.0500	0.0191	1	05/22/23 15:16	05/25/23 11:39	EPA 3005A	1,6020B	SMV
Manganese, Total	1.688		mg/l	0.00100	0.00044	1	05/22/23 15:16	05/25/23 11:39	EPA 3005A	1,6020B	SMV
Dissolved Metals - Mansfield Lab											
Iron, Dissolved	1.79		mg/l	0.0500	0.0191	1	05/23/23 23:30	05/25/23 11:44	EPA 3005A	1,6020B	SMV
Manganese, Dissolved	1.374		mg/l	0.00100	0.00044	1	05/23/23 23:30	05/25/23 11:44	EPA 3005A	1,6020B	SMV

Project Name: 99 HUDSON
Project Number: 170395001
Lab Number: L2327845
Report Date: 05/25/23

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Dissolved Metals - Mansfield Lab for sample(s): 02 Batch: WG1781061-1										
Iron, Dissolved	0.0223	J	mg/l	0.0500	0.0191	1	05/23/23 23:30	05/24/23 09:44	1,6020B	SMV
Manganese, Dissolved	ND		mg/l	0.00100	0.00044	1	05/23/23 23:30	05/24/23 09:44	1,6020B	SMV

Prep Information

Digestion Method: EPA 3005A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 02 Batch: WG1781719-1										
Iron, Total	ND		mg/l	0.0500	0.0191	1	05/22/23 15:16	05/22/23 18:45	1,6020B	WKP
Manganese, Total	ND		mg/l	0.00100	0.00044	1	05/22/23 15:16	05/22/23 18:45	1,6020B	WKP

Prep Information

Digestion Method: EPA 3005A

Lab Control Sample Analysis

Batch Quality Control

Project Name: 99 HUDSON

Project Number: 170395001

Lab Number: L2327845

Report Date: 05/25/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Dissolved Metals - Mansfield Lab Associated sample(s): 02 Batch: WG1781061-2								
Iron, Dissolved	102		-		80-120	-		
Manganese, Dissolved	93		-		80-120	-		
Total Metals - Mansfield Lab Associated sample(s): 02 Batch: WG1781719-2								
Iron, Total	106		-		80-120	-		
Manganese, Total	97		-		80-120	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: 99 HUDSON
Project Number: 170395001

Lab Number: L2327845
Report Date: 05/25/23

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Dissolved Metals - Mansfield Lab Associated sample(s): 02 QC Batch ID: WG1781061-3 QC Sample: L2327488-01 Client ID: MS Sample												
Iron, Dissolved	0.953	1	2.06	111		-	-		75-125	-		20
Manganese, Dissolved	1.051	0.5	1.740	**138**	Q	-	-		75-125	-		20
Total Metals - Mansfield Lab Associated sample(s): 02 QC Batch ID: WG1781719-3 QC Sample: L2326947-01 Client ID: MS Sample												
Iron, Total	0.0229J	1	0.981	98		-	-		75-125	-		20
Manganese, Total	0.00180	0.5	0.4763	95		-	-		75-125	-		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: 99 HUDSON
Project Number: 170395001

Lab Number: L2327845
Report Date: 05/25/23

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Dissolved Metals - Mansfield Lab Associated sample(s): 02 QC Batch ID: WG1781061-4 QC Sample: L2327488-01 Client ID: DUP Sample						
Iron, Dissolved	0.953	0.959	mg/l	1		20
Manganese, Dissolved	1.051	1.058	mg/l	1		20
Total Metals - Mansfield Lab Associated sample(s): 02 QC Batch ID: WG1781719-4 QC Sample: L2326947-01 Client ID: DUP Sample						
Iron, Total	0.0229J	0.0272J	mg/l	NC		20
Manganese, Total	0.00180	0.00198	mg/l	9		20

Project Name: 99 HUDSON
Project Number: 170395001

Lab Serial Dilution Analysis
Batch Quality Control

Lab Number: L2327845
Report Date: 05/25/23

Parameter	Native Sample	Serial Dilution	Units	% D	Qual	RPD Limits
Dissolved Metals - Mansfield Lab Associated sample(s): 02 QC Batch ID: WG1781061-6 QC Sample: L2327488-01 Client ID: DUP Sample						
Manganese, Dissolved	1.051	1.234	mg/l	17		20

INORGANICS
&
MISCELLANEOUS

Project Name: 99 HUDSON
Project Number: 170395001
Lab Number: L2327845
Report Date: 05/25/23

SAMPLE RESULTS

Lab ID: L2327845-02
Client ID: MW15_051823
Sample Location: 438 11TH AVENUE, NEW YORK, NY
Sample Depth:
Matrix: Water
Date Collected: 05/18/23 09:45
Date Received: 05/18/23
Field Prep: Refer to COC

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Nitrogen, Nitrate	0.059	J	mg/l	0.100	0.022	1	-	05/20/23 03:24	121,4500NO3-F	KAF
Sulfate	97.		mg/l	50	6.8	5	05/23/23 09:15	05/23/23 09:15	1,9038	SMD

Project Name: 99 HUDSON
Project Number: 170395001
Lab Number: L2327845
Report Date: 05/25/23

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 02 Batch: WG1781259-1										
Nitrogen, Nitrate	ND		mg/l	0.100	0.022	1	-	05/20/23 03:07	121,4500NO3-F	KAF
General Chemistry - Westborough Lab for sample(s): 02 Batch: WG1782692-1										
Sulfate	ND		mg/l	10	1.4	1	05/23/23 09:15	05/23/23 09:15	1,9038	SMD

Lab Control Sample Analysis

Batch Quality Control

Project Name: 99 HUDSON
Project Number: 170395001

Lab Number: L2327845
Report Date: 05/25/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 02 Batch: WG1781259-2								
Nitrogen, Nitrate	101		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 02 Batch: WG1782692-2								
Sulfate	90		-		90-110	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: 99 HUDSON
Project Number: 170395001

Lab Number: L2327845
Report Date: 05/25/23

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 02 QC Batch ID: WG1781259-4 QC Sample: L2327830-01 Client ID: MS Sample												
Nitrogen, Nitrate	0.032J	4	4.17	104		-	-		83-113	-		17
General Chemistry - Westborough Lab Associated sample(s): 02 QC Batch ID: WG1782692-3 QC Sample: L2326358-02 Client ID: MS Sample												
Sulfate	12.	20	39	135		-	-		55-147	-		14

Lab Duplicate Analysis

Batch Quality Control

Project Name: 99 HUDSON
Project Number: 170395001

Lab Number: L2327845
Report Date: 05/25/23

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 02 QC Batch ID: WG1781259-3 QC Sample: L2327830-01 Client ID: DUP Sample						
Nitrogen, Nitrate	0.032J	ND	mg/l	NC		17
General Chemistry - Westborough Lab Associated sample(s): 02 QC Batch ID: WG1782692-4 QC Sample: L2326358-02 Client ID: DUP Sample						
Sulfate	12.	14	mg/l	**15**	Q	14

Project Name: 99 HUDSON
Project Number: 170395001

Lab Number: L2327845
Report Date: 05/25/23

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2327845-01A	Vial HCl preserved	A	NA		4.3	Y	Absent		NYTCL-8260(14)
L2327845-01B	Vial HCl preserved	A	NA		4.3	Y	Absent		NYTCL-8260(14)
L2327845-01C	Vial HCl preserved	A	NA		4.3	Y	Absent		NYTCL-8260(14)
L2327845-01D	Vial HCl preserved	A	NA		4.3	Y	Absent		TPH-GRO(14)
L2327845-01E	Vial HCl preserved	A	NA		4.3	Y	Absent		TPH-GRO(14)
L2327845-01F	Vial HCl preserved	A	NA		4.3	Y	Absent		TPH-GRO(14)
L2327845-01G	Amber 250ml unpreserved	A	7	7	4.3	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L2327845-01H	Amber 250ml unpreserved	A	7	7	4.3	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L2327845-02A	Vial HCl preserved	A	NA		4.3	Y	Absent		NYTCL-8260(14)
L2327845-02B	Vial HCl preserved	A	NA		4.3	Y	Absent		NYTCL-8260(14)
L2327845-02C	Vial HCl preserved	A	NA		4.3	Y	Absent		NYTCL-8260(14)
L2327845-02D	Vial HCl preserved	A	NA		4.3	Y	Absent		TPH-GRO(14)
L2327845-02E	Vial HCl preserved	A	NA		4.3	Y	Absent		TPH-GRO(14)
L2327845-02F	Vial HCl preserved	A	NA		4.3	Y	Absent		TPH-GRO(14)
L2327845-02G	Plastic 250ml unpreserved	A	7	7	4.3	Y	Absent		SO4-9038(28),NO3-4500(2)
L2327845-02H	Plastic 250ml HNO3 preserved	A	<2	<2	4.3	Y	Absent		MN-6020S(180),FE-6020S(180)
L2327845-02J	Plastic 250ml HNO3 preserved	A	<2	<2	4.3	Y	Absent		FE-6020T(180),MN-6020T(180)
L2327845-02K	Amber 250ml unpreserved	A	7	7	4.3	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L2327845-02L	Amber 250ml unpreserved	A	7	7	4.3	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L2327845-03A	Vial HCl preserved	A	NA		4.3	Y	Absent		NYTCL-8260(14)
L2327845-03B	Vial HCl preserved	A	NA		4.3	Y	Absent		NYTCL-8260(14)
L2327845-03C	Vial HCl preserved	A	NA		4.3	Y	Absent		NYTCL-8260(14)
L2327845-03D	Amber 250ml unpreserved	A	7	7	4.3	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)

*Values in parentheses indicate holding time in days

Project Name: 99 HUDSON
Project Number: 170395001

Lab Number: L2327845
Report Date: 05/25/23

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2327845-03E	Amber 250ml unpreserved	A	7	7	4.3	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L2327845-04A	Vial HCl preserved	A	NA		4.3	Y	Absent		NYTCL-8260(14)
L2327845-04A1	Vial HCl preserved	A	NA		4.3	Y	Absent		NYTCL-8260(14)
L2327845-04B	Vial HCl preserved	A	NA		4.3	Y	Absent		NYTCL-8260(14)
L2327845-04B1	Vial HCl preserved	A	NA		4.3	Y	Absent		NYTCL-8260(14)
L2327845-04C	Vial HCl preserved	A	NA		4.3	Y	Absent		NYTCL-8260(14)
L2327845-04C1	Vial HCl preserved	A	NA		4.3	Y	Absent		NYTCL-8260(14)
L2327845-04D	Amber 250ml unpreserved	A	7	7	4.3	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L2327845-04D1	Amber 250ml unpreserved	A	7	7	4.3	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L2327845-04E	Amber 250ml unpreserved	A	7	7	4.3	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L2327845-04E1	Amber 250ml unpreserved	A	7	7	4.3	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)

*Values in parentheses indicate holding time in days

Project Name:	99 HUDSON	**Lab Number:**	L2327845
Project Number:	170395001	**Report Date:**	05/25/23

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers

Project Name:	99 HUDSON	**Lab Number:**	L2327845
Project Number:	170395001	**Report Date:**	05/25/23

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively

Report Format: DU Report with 'J' Qualifiers

Project Name:	99 HUDSON	**Lab Number:**	L2327845
Project Number:	170395001	**Report Date:**	05/25/23

Data Qualifiers

Identified Compounds (TICs).

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Report Format: DU Report with 'J' Qualifiers

Project Name:	99 HUDSON	**Lab Number:**	L2327845
Project Number:	170395001	**Report Date:**	05/25/23

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625/625.1: alpha-Terpineol
EPA 8260C/8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D/8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522, EPA 537.1.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

NEW YORK CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 1

Date Rec'd in Lab: 05/18/23

ALPHA Job #: L2327845

Client Information

Client: LANGAN DPC
Address: 360 West 31st Street 8th Floor, New York, NY
Phone: 212-479-5400
Fax:
Email: sknoop@langan.com

Project Information

Project Name: 99 Hudson
Project Location: 438 11th Avenue, New York, NY
Project #: 170395001
(Use Project name as Project #)
Project Manager: Stuart Knoop
ALPHAQuote #:

Turn-Around Time

Standard ☑ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables

☐ ASP-A ☑ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Billing Information

☐ Same as Client Info
PO #

Regulatory Requirement

☑ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Disposal Site Information

Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☐ NY
☐ Other:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:

Please cc: datamanagement@langan.com ~~and~~ and lesmail@langan.com

Please specify Metals or TAL.

ANALYSIS

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	TCL/TAL VOCs, and SVOCs	TPH - GRO	Total and dissolved Iron	Total and dissolved Manganese	Sulfate, and Nitrate			TCL VOCs/SVOCs	Sample Specific Comments	Total Bottle
27845-01	MW12_051823	05/18/23	12:00	Aqueous	AA	X	X								
-02	MW15_051823	05/18/23	9:45	Aqueous	AA	X	X	X	X	X					
-03	DUP01_051823	05/18/23	—	Aqueous	AA								X		
-04	MW15_051823	05/18/23	10:15	Aqueous	AA								X	MS/MSD	

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Container Type											
Preservative											

Relinquished By:	Date/Time	Received By:	Date/Time
Andrew Ashley	05/18/23 1548	Alfonso Rivera (AAL)	5-18-23 1546
Alfonso Rivera (AAL)	5-18-23 1745		5/18/23 18:45
	5/18/23		5/18/23 22:00
AAC	5/18/23 23:45		5/18/23 2345

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

APPENDIX D

DATA USABILITY SUMMARY REPORTS

LANGAN
ENGINEERING & ENVIRONMENTAL SERVICES

Technical Memorandum

1 University Square Drive Princeton, NJ 08540 T: 609.282.8000
Mailing Address: 1 University Square Drive Princeton, NJ 08540

To: Stuart R. Knoop, Langan Senior Project Manager

From: Joe Conboy, Langan Senior Staff Chemist

Date: June 9, 2023

Re: Data Usability Summary Report
For 99 Hudson
May 2023 Groundwater Samples
Langan Project No.: 170395001

This memorandum presents the findings of an analytical data validation from the analysis of groundwater samples collected in May 2023 by Langan Engineering and Environmental Services at 99 Hudson. The samples were analyzed by Alpha Analytical Laboratories, Inc. (NYSDOH NELAP registration # 11148) for volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), gasoline range organics (GRO), metals, nitrate, and sulfate by the methods specified below.

- VOCs by SW-846 Method 8260D
- SVOCs by SW-846 Method 8270E/8270E SIM
- GRO by SW-846 Method 8015D
- Total and Dissolved Metals by SW-846 Method 6020B
- Nitrate by Standard Method 4500NO3-F
- Sulfate by SW-846 Method 9038

Table 1, attached, summarizes the laboratory and client sample identification numbers, sample collection dates, level of data validation, and analytical parameters subject to review.

Validation Overview

This data validation was performed in accordance with the following guidelines, where applicable:

- USEPA Region II Standard Operating Procedures (SOPs) for Data Validation
- USEPA Contract Laboratory Program "National Functional Guidelines for Organic Superfund Methods Data Review" (EPA 540- R-20-005, November 2020)
- USEPA Contract Laboratory Program "National Functional Guidelines for Inorganic Superfund Methods Data Review" (EPA 540- R-20-005, November 2020), and
- published analytical methodologies.

The following acronyms may be used in the discussion of data-quality issues:

%D	Percent Difference	MB	Method Blank

CCV	Continuing Calibration Verification	MDL	Method Detection Limit
FB	Field Blank	MS	Matrix Spike
FD	Field Duplicate	MSD	Matrix Spike Duplicate
ICAL	Initial Calibration	RF	Response Factor
ICV	Initial Calibration Verification	RL	Reporting Limit
ISTD	Internal Standard	RPD	Relative Percent Difference
LCL	Lower Control Limit	RSD	Relative Standard Deviation
LCS	Laboratory Control Sample	TB	Trip Blank
LCSD	Laboratory Control Sample Duplicate	UCL	Upper Control Limit

Tier 1 data validation is based on completeness and compliance checks of sample-related QC results including: sample receipt documentation; analytical holding times; sample preservation; blank results (method, field, and trip); surrogate recoveries; MS/MSD recoveries and RPDs values; field duplicate RPDs, laboratory duplicate RPDs, and LCS/LCSD recoveries and RPDs. Two sample delivery groups (SDGs) underwent Tier 1 validation review.

As a result of the review process, the following qualifiers may be assigned to the data in accordance with the USEPA guidelines and our best professional judgment:

- **R –** The sample results are unusable because certain criteria were not met when generating the data. The analyte may or may not be present in the sample.
- **J –** The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample.
- **UJ –** The analyte was not detected at a level greater than or equal to the reporting limit; however, the reported reporting limit is approximate and may be inaccurate or imprecise.
- **U –** The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the RL or the sample concentration for results impacted by blank contamination.
- **NJ –** The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

If any validation qualifiers are assigned, these qualifiers should supersede any laboratory-applied qualifiers. Data that is not qualified as a result of this data validation is considered acceptable on the basis of the items specified for review. Data that is qualified as "R" are considered invalid and are not technically usable for data interpretation. Data that is otherwise qualified because of minor data-quality anomalies are usable, as qualified in Table 2 (attached).

MAJOR DEFICIENCIES:

Major deficiencies include those that grossly impact data quality and necessitate the rejection of results. No major deficiencies were identified.

MINOR DEFICIENCIES:

Minor deficiencies include anomalies that directly impact data quality and necessitate qualification, but do not result in unusable data. The section below describes the minor deficiencies that were identified.

VOCs by SW-846 Method 8260D

L2327845

The LCSD for batch WG1783388 exhibited a percent recovery below the LCL for trans-1,4-dichloro-2-butene (65%). The associated results in samples MW12_051823, MW15_051823, and DUP01_051823 are qualified as UJ because of potential low bias.

SVOCs by SW-846 Method 8270E/8270E SIM

L2327488

The FB (FB01_051723) exhibited detections of 2-methylnaphthalene (0.03 ug/l) and fluorene (0.01 ug/l). The associated results in sample MW11_051723 are qualified as J because of potential blank contamination.

The MB for batch WG1783497 exhibited a detection of naphthalene (0.18 ug/l). The associated results in sample MW11_051723 (re-extraction) are qualified as J because of potential blank contamination.

The sample MW11_051723 exhibited an exceedance of the recommended holding time for 2-methylnaphthalene, naphthalene, and pyrene (8 days to extraction). The associated results are qualified as J because of potential low bias.

The sample MW11_051723 exhibited percent recoveries above the UCL for the surrogates 2-fluorobiphenyl (126%) and nitrobenzene-d5 (148%). The associated detected results are qualified as J because of potential high bias.

The sample MW11_051723 exhibited percent recoveries above the UCL for the surrogates phenol-d6 (122%), 2-fluorophenol (148%), 2,4,6-tribromophenol (202%), 2-fluorobiphenyl (151%), p-terphenyl-d14 (169%), and nitrobenzene-d5 (174%). The associated detected results are qualified as J because of potential high bias.

GRO by SW-846 Method 8015D

L2327845

The MB for batch WG1782641 exhibited a detection of gasoline range organics (17 ug/l). The associated results in sample MW12_051823 and MW15_051823 are qualified as U at the reporting limit because of potential blank contamination.

Total and Dissolved Metals by SW-846 Method 6020B

L2327488

The MS performed on sample MW11_051723 exhibited a percent recovery above the UCL for dissolved manganese (138%). The associated results in sample MW11_051723 are qualified as J because of potential high bias.

Sulfate by SW-846 Method 9038

L2327488

The MB for batch WG1782340 exhibited a detection of sulfate (as SO4) (1.7 mg/l). The associated results in sample MW11_051723 are qualified as U at the reporting limit because of potential blank contamination.

OTHER DEFICIENCIES:

Other deficiencies include anomalies that do not directly impact data quality and do not necessitate qualification. The section below describes the other deficiencies that were identified.

VOCs by SW-846 Method 8260D

L2327488

The LCS/LCSD for batch WG1782891 exhibited percent recoveries above the UCL for chloromethane (140%, 140%) and vinyl acetate (160%, 170%). The associated results are non-detect. No qualification is necessary.

L2327845

The MSD performed on sample MW15_051823 exhibited a percent recovery above the UCL for 2-butanone (160%, 150%). Organic results are not qualified on the basis of MS recoveries alone. No qualification is necessary.

SVOCs by SW-846 Method 8270E/8270E SIM

L2327488

The FB (FB01_051723) exhibited a detection of phenanthrene (0.03 ug/l). The associated results are non-detect. No qualification is necessary.

The sample MW11_051723 exhibited a percent recovery above the UCL for the surrogate 2,4,6-tribromophenol (152%). No more than one surrogate from a single fraction recovered outside of the control limits. No qualification is necessary.

The LCS/LCSD for batch WG1782532 exhibited percent recoveries above the UCL for 4-nitrophenol (127%, 132%) and pentachlorophenol (116%). The associated results are non-detect. No qualification is necessary.

L2327845

The sample DUP01_051823 exhibited a percent recovery above the UCL for the surrogate 2,4,6-tribromophenol (121%). No more than one surrogate from a single fraction recovered outside of the control limits. No qualification is necessary.

The LCS/LCSD for batch WG1782532 exhibited a percent recovery above the UCL for 4-nitrophenol (127%, 132%). The associated results are non-detect. No qualification is necessary.

The MS and/or MSD performed on sample MW15_051823 exhibited percent recoveries outside of control limits for 1,4-dichlorobenzene (99%), 3,3'-dichlorobenzidine (0%), p-chloro-m-cresol (99%, 120%), and 2,4-dinitrophenol (140%) and a RPD above the control limit for 2,6-dinitrotoluene (33%). Organic results are not qualified on the basis of MS/MSD recoveries or RPDs alone. No qualification is necessary.

The sample MW15_051823 exhibited a percent recovery above the UCL for the surrogate 2,4,6-tribromophenol (121%). No more than one surrogate from a single fraction recovered outside of the control limits. No qualification is necessary.

The sample DUP01_051823 exhibited a percent recovery above the UCL for the surrogate nitrobenzene-d5 (122%). No more than one surrogate from a single fraction recovered outside of the control limits. No qualification is necessary.

The MSD performed on sample MW15_051823 exhibited a percent recovery above the UCL for pentachlorophenol (150%). Organic results are not qualified on the basis of MS recoveries alone. No qualification is necessary.

GRO by SW-846 Method 8015D

L2327488

The MB for batch WG1782641 exhibited a detection of gasoline range organics (17 ug/l). The associated results are >10X the contamination. No qualification is necessary.

Total and Dissolved Metals by SW-846 Method 6020B

L2327488

The MB for batch WG1781061 exhibited a detection of dissolved iron (0.0223 mg/l). The associated results are >10X the contamination. No qualification is necessary.

L2327845

The MB for batch WG1781061 exhibited a detection of dissolved iron (0.0223 mg/l). The associated results are >10X the contamination. No qualification is necessary.

FIELD DUPLICATE:

One field duplicate and parent sample pair was collected and analyzed for all parameters. For results less than 5X the RL, analytes meet the precision criteria if the absolute difference is less than the RL. For results greater than 5X the RL, analytes meet the precision criteria if the RPD is less than or equal to 30% for groundwater. The following field duplicate and parent sample pair was compared to and met the precision criteria:

- DUP01_051823 and MW15_051823

CONCLUSION:

On the basis of this evaluation, the laboratory appears to have followed the specified analytical methods with the exception of errors discussed above. If a given fraction is not mentioned above, that means that all specified criteria were met for that parameter. All of the data packages met ASP Category B requirements.

All data are considered usable, as qualified. In addition, completeness, defined as the percentage of analytical results that are judged to be valid, is 100%.

Signed:

Joe Conboy
Senior Staff Chemist