

August 10, 2022

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**Re: Off-Site Investigation Report  
432 Rodney Street - Offsite  
Brooklyn, New York  
Langan Project No.: 170650901  
Site No. C224216A**

Richard,

On May 27, 2020, the NYSDEC issued an Order on Consent and Administrative Settlement (CO# 2-20210506-81), requesting that the Respondents (former owners Quaker Sugar Co., and Diamond Sugar Co.) perform an off-site investigation to evaluate the potential for subsurface impacts to neighboring properties from contamination that may have migrated from 432 Rodney Street in the Williamsburg neighborhood of Brooklyn, NY (BCP Site No. C224216). The BCP site was remediated pursuant to a Brownfield Cleanup Agreement executed between the Volunteer (Rodney Street Investors LLC, 123 Hope Street Owner LLC, and Keap Retail Owner LLC) and the NYSDEC. The off-site investigation was completed between April 21 and 29, 2022, in accordance with the NYSDEC-approved March 30, 2020 Off-site Investigation Work Plan, which included soil, groundwater, and soil vapor sampling. This letter report summarizes the sampling methodology, field observations, and analytical results and recommends no further action.

## ON-SITE BACKGROUND

On-site remediation was completed by the Volunteer in 2017 and a Certificate of Completion was issued on December 29, 2017 for a Track 4 remediation. Remediation included the removal of volatile organic compound (VOC)-impacted source material and groundwater treatment for petroleum-related volatile organic compounds (VOCs) and chlorinated VOCs (CVOCs). Routine groundwater monitoring and soil vapor intrusion sampling were completed between 2018 and 2021 pursuant to a Site Management Plan. Sampling results indicated that on-site groundwater contaminant concentrations decreased by about 99% when compared to baseline conditions and that soil vapor intrusion conditions were eliminated as a result of the remediation. The 2021 Periodic Review Report recommended discontinuation of groundwater and soil vapor sampling and was approved by the NYSDEC in November 2021.

## OFF-SITE FIELD INVESTIGATION

Prior to the field investigation, Langan issued notification letters in November 2021 and January 2022 to neighboring properties requesting access to the basement or lowest level to install soil or sub-slab vapor sample points. No responses were returned; therefore, on March 31, 2022, NYSDEC approved moving sampling points to nearby right-of-way sidewalk locations.

The off-site investigation was completed between April 19 and 29, 2022 in accordance with the March 30, 2022 Off-site Investigation Work Plan and NYSDEC-approved modifications, and included a geophysical survey, advancement of three soil borings, installation of four monitoring wells, installation of five soil vapor points, and collection of soil, groundwater, and soil vapor samples. A site location map is provided as Figure 1 and sample locations are shown on Figure 2. A sampling summary is included as Table 1. Photographic documentation is included as Attachment A. The field investigation sampling is described in the following sections.

### Geophysical Investigation

On April 15, 2022, NOVA Geophysical Services Inc. (NOVA) of Douglaston, New York completed a geophysical survey under the supervision of Langan field personnel. NOVA used ground-penetrating radar (GPR) and electromagnetic detection equipment to clear proposed investigation locations and locate potential buried utilities and anomalies within the investigation areas. Borings were relocated as necessary to avoid identified subsurface utilities and anomalies (other subsurface impediments). A copy of the geophysical survey report presenting these findings is included as Attachment B.

### Soil Investigation

Eastern Environmental Solutions, Inc. (Eastern) advanced three soil borings (SB01, SB02, and SB03) to about 20 feet bgs in the sidewalk north of 442 Rodney Street, using a Geoprobe 7822DT drill rig. Langan field personnel documented the drilling activities and collected soil samples. Soil samples were screened for physical characteristics, visual and olfactory indications of chemical and petroleum impacts and for total VOCs with a photoionization detector (PID). Soil boring logs are provided as Attachment C.

One grab soil sample was collected from each boring (total of three) from the apparent groundwater interface (about 8 to 9 feet bgs) and submitted for laboratory analysis of VOCs. One duplicate sample was also collected for quality assurance/quality control (QA/QC). Soil samples were collected using laboratory supplied Terra Core sampling kits and delivered via courier under chain-of-custody protocol to Alpha Analytical Laboratories, Inc. (Alpha), a New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP)-certified laboratory (ELAP No. 11148), in Westborough, Massachusetts. Soil samples were analyzed for the Title 6 New York Codes, Rules and Regulations (6 NYCRR) Part 375 list and Target Compound List (TCL) of VOCs.

### Groundwater Investigation

One clustered shallow and deep monitoring well (MW01A/B) and two shallow monitoring wells (MW02 and MW03) were installed in the Ainslie and Keap Street sidewalks. Monitoring wells were constructed by advancing well casing to the desired depth and inserting 2-inch diameter polyvinyl chloride (PVC) riser pipes attached to a 10- or 15-foot-long, 0.01-inch slotted screen into the casing. The shallow monitoring well screens were installed to straddle the observed groundwater table (about 9 to 10 feet bgs). The deep monitoring well screen was installed at the 50- to 60-foot depth interval. The well annulus around the screen of each well was backfilled with No. 2 sand to about two feet above the top of the screen. A bentonite seal was installed about 1 foot above the sand filter, and followed by additional sand up to within 6 inches of surface grade. The monitoring wells were finished with flush-mount manhole covers encased in grout/concrete.

Following installation, monitoring wells were developed by pumping the wells until the effluent water became clear. Approximately one to five gallons of groundwater was purged from each of the four wells. Purged groundwater was stored in a labeled 55-gallon drum and removed from the site by Eastern. Monitoring well installation logs are provided as Attachment D.

Langan returned about one week after developing the wells to collect groundwater samples for laboratory analyses. Before sampling, the headspace of each well was screened with a PID and the wells were gauged with an interface probe to determine depth to groundwater and the potential presence of product. In general accordance with United States Environmental Protection Agency (USEPA) Low Flow procedures, at least 3 well-volumes were purged from the wells using a peristaltic or submersible pump and dedicated polyethylene tubing. During purging, a multi-parameter water quality instrument was used to record groundwater quality parameters (i.e., pH, temperature, oxidation-reduction potential [ORP], conductivity, turbidity, and dissolved oxygen) at periodic intervals. After purging, four groundwater samples (one from each well) were collected directly from the pump discharge line. One field blank and one duplicate sample were collected for quality assurance and quality control. A trip blank was included in each shipment of aqueous samples for quality control during transport. Groundwater samples were analyzed by Alpha for Part 375/TCL VOCs. Groundwater sampling logs are provided as Attachment E.

### Soil Vapor Investigation

Eastern installed five soil vapor sample points (SV01 through SV05) within sidewalk locations using the Geoprobe drill rig. Each soil vapor point consisted of dedicated Teflon-lined polyethylene tubing placed about six inches below the bottom of the sidewalk slab with a hydrated bentonite seal installed around the annulus up to surface grade. Prior to sampling, the soil vapor points were purged using a MultiRAE five-gas meter at an approximate rate of 0.2 liters per minute (L/min) to evacuate a minimum of three tubing/vapor point volumes. As a QA/QC measure before collecting air samples, an inert tracer gas (helium) was introduced into an above-grade sampling chamber to verify the seals above the target sampling depth, thereby preventing

subsurface infiltration of ambient air. One ambient air sample (AA01) was collected adjacent to SV03 from a typical breathing height of about 3 to 4 feet above the floor surface.

The vapor and air samples were collected into laboratory-supplied, batch-certified, 2.7-liter Summa® canisters equipped with flow controllers calibrated for a 2-hour sampling period. Canister pressures were recorded before and after sampling. The canisters were transported via courier to Alpha in accordance with standard chain-of-custody protocols and analyzed for VOCs via USEPA Method TO-15. Soil vapor sampling logs are provided as Attachment F.

## **OBSERVATIONS AND ANALYTICAL RESULTS**

### Field Observations

Uncontrolled fill was encountered below the sidewalks to about 8 to 10 feet bgs, and generally consists of brown, fine- to medium-grained sand with varying amounts of fine gravel, silt, concrete, brick, coal, and slag. The uncontrolled fill layer is underlain by native soil consisting of light brown sand with varying amounts of fine gravel. Groundwater was encountered at about 9 to 10 feet bgs. Visual, olfactory, and instrumental evidence of petroleum and chemical impacts were not identified in any of the investigation locations. Laboratory analytical reports are included in Attachment G.

### Soil Analytical Results

Soil analytical results were compared to the NYSDEC Title 6 NYCRR Part 375 Unrestricted Use (UU) and Restricted Use Restricted-Residential (RR) SCOs. Target compounds were not detected above the UU SCOs, with the exception of acetone from 8 to 9 feet bgs in soil boring SB02 at a concentration of 0.053 milligrams per kilogram (mg/kg). Acetone was not a contaminant of concern at the BCP site. Soil sample analytical results are summarized in Table 2.

### Groundwater Analytical Results

Groundwater analytical results were compared to the NYSDEC Technical and Operational Guidance Series (TOGS) 1.1.1 Ambient Water Quality Standards (AWQS) and Guidance Values for Class GA drinking water. Target compound VOCs were not detected in groundwater above the Class GA AWQS. Groundwater sample analytical results are summarized in Table 3.

### Soil Vapor Analytical Results

Several VOCs were detected in soil vapor and outdoor air samples. New York State currently does not have standards or criteria for VOCs in soil vapor. In lieu of regulatory standards, Decision Matrices published in the NYSDOH October 2006 Guidance for Evaluating Soil Vapor Intrusion in the State of New York (with updates) (SVI Guidance) were used as a screening tool for detected soil vapor concentrations. NYSDOH Decision Matrices are used to evaluate eight VOCs and recommended actions are provided based on a comparison of sub-slab vapor and indoor air concentrations for tetrachloroethene (PCE), trichloroethene (TCE), 1,1,1-trichloroethane (1,1,1-TCA), 1,1-dichloroethene, cis-1,2-dichloroethene (cis-1,2-DCE), vinyl chloride, methylene chloride

and carbon tetrachloride. Indoor air was not sampled; therefore, the matrices provide a range of recommended potential response measures based on soil vapor concentrations. The following VOCs that are included in the Decision Matrices were detected in air samples:

- TCE: 4.54 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ) in the ambient air sample and 1.26  $\mu\text{g}/\text{m}^3$  in soil vapor sample in SV04
- PCE: 11.2  $\mu\text{g}/\text{m}^3$  in SV05
- cis-1,2-DCE: 1.17  $\mu\text{g}/\text{m}^3$  in the ambient air sample

The soil vapor and outdoor air sample results are summarized in Table 4.

## DATA VALIDATION

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 acceptable and 100% useable.

Data reduction, validation, and reporting procedures were completed in accordance with the Quality Assurance Project Plan (QAPP) provided in Appendix I of the SMP. Data Usability Summary Reports (DUSRs) are included in Attachment H.

## CONCLUSIONS

Impacts associated with contaminants of concern for BCP Site No. C224216 were not identified in off-site areas. VOCs were not detected in soil above 6 NYCRR Part 375 UU SCOs, with the exception of acetone, which is a common laboratory contaminant resulting from use in laboratory equipment cleaning and was not a contaminant of concern at the BCP site. Groundwater samples did not contain VOCs above the TOGS AWQS. There are no standards for soil vapor in New York State; however, the NYSDOH decision matrices can be used as a tool for evaluating the potential for soil vapor intrusion. The detected soil vapor analytical concentrations for PCE, TCE and cis-1,2-DCE are below the minimum sub-slab vapor limit for "no further action", indicating that the potential for a soil vapor intrusion condition does not exist. The results of the off-site investigation indicate that target contaminants of concern associated with BCP Site No. C224216 are not impacting off-site properties. No further investigation or action is warranted at this time.

Please contact us at 212-497-5508 with any questions.

Sincerely,

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



Brian Gochena, QEP  
Associate



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

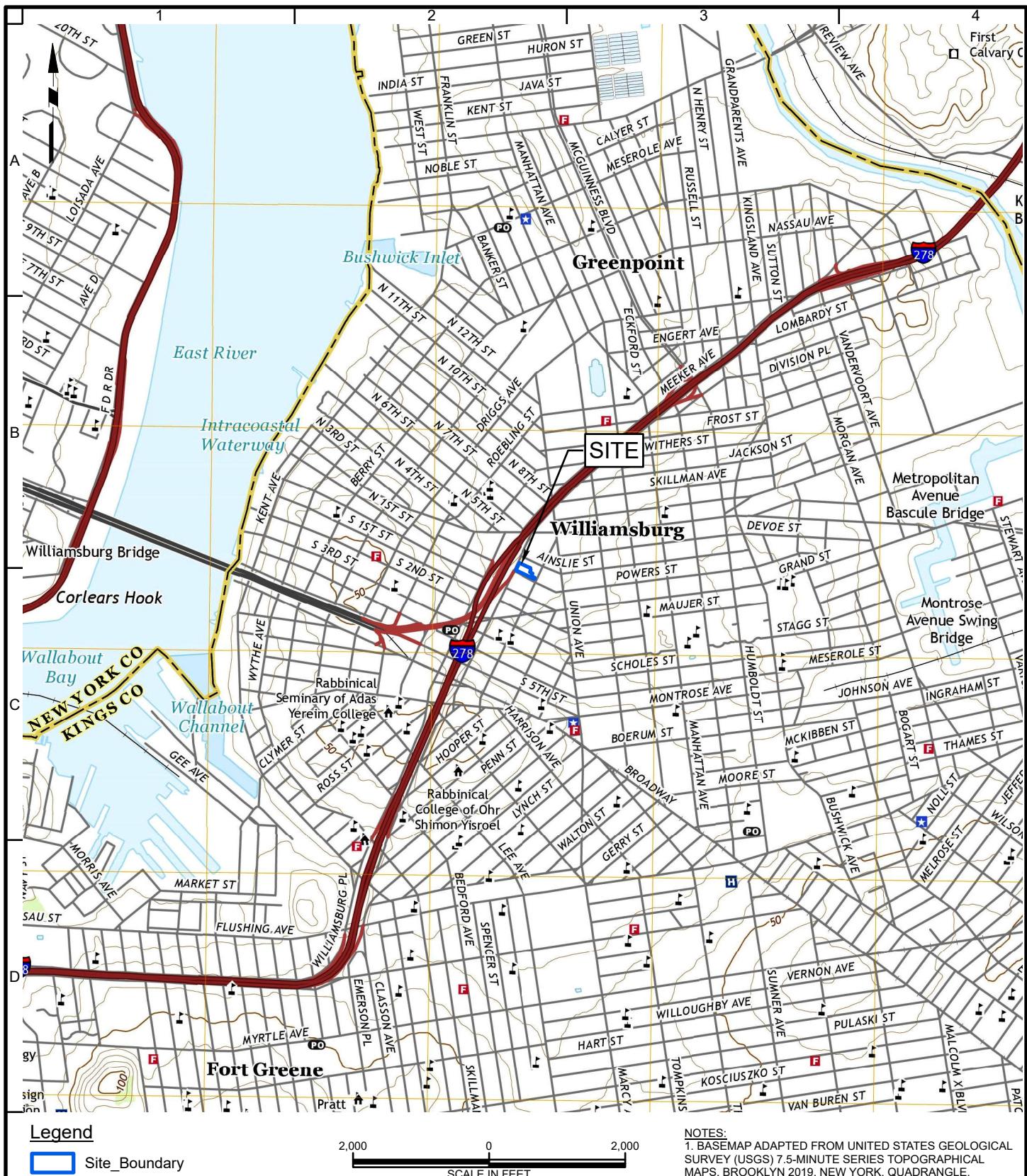
cc: A. Tashji (Langan)

Enclosures:      Figure 1: Site Location Map  
                      Figure 2: Sample Location Map

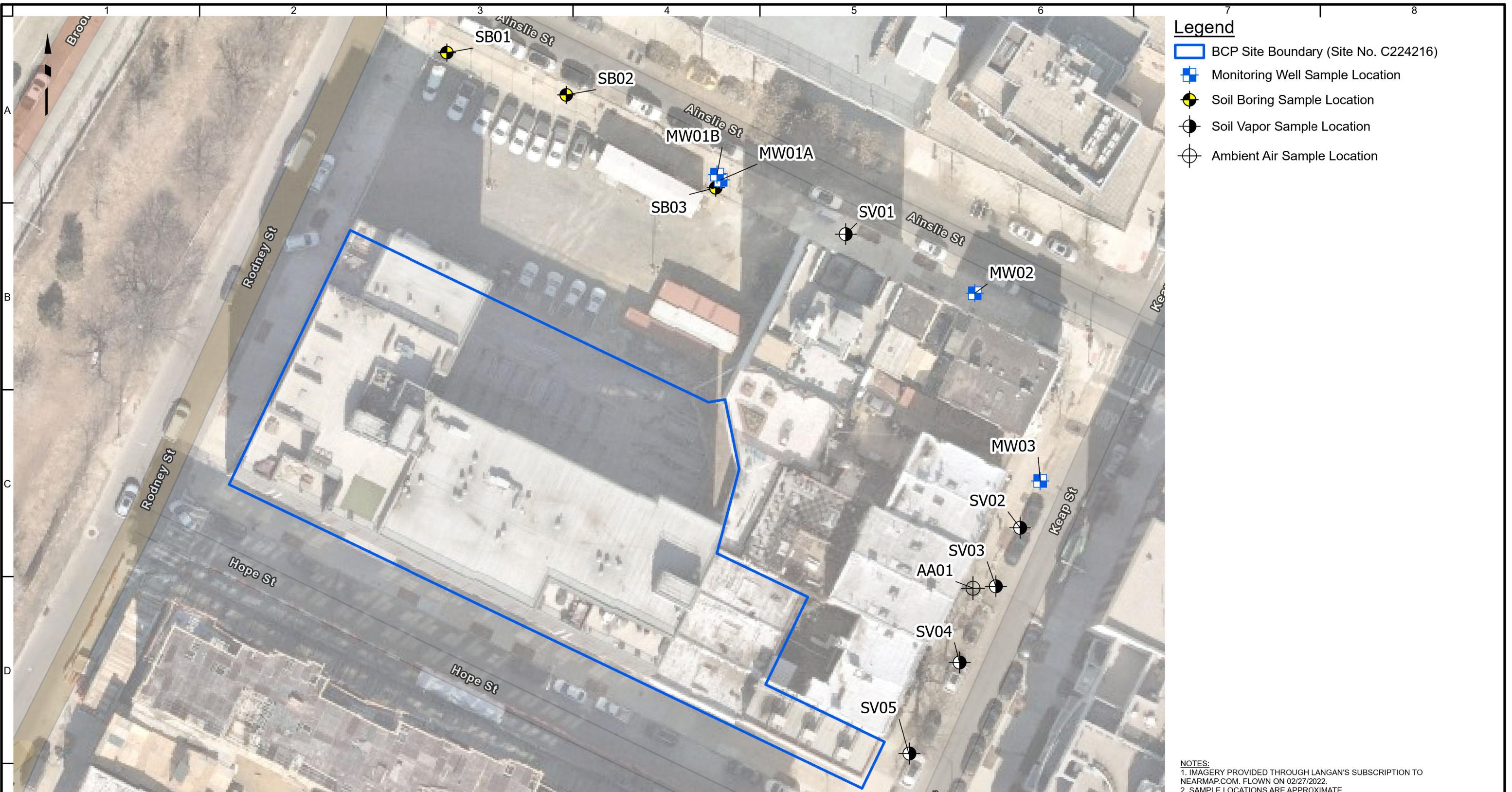
Table 1: Sample Summary Table  
Table 2: Soil Sample Analytical Results Summary  
Table 3: Groundwater Sample Analytical Results Summary  
Table 4: Soil Vapor Sample Analytical Results Summary

Attachment A: Photo Documentation Log  
Attachment B: Geophysical Survey Report  
Attachment C: Soil Boring Logs  
Attachment D: Groundwater Monitoring Well Installation Logs  
Attachment E: Groundwater Sampling Logs  
Attachment F: Soil Vapor Logs  
Attachment G: Laboratory Analytical Reports  
Attachment H: Data Usability Summary Reports

## **Figures**



<b>LANGAN</b> 21 Penn Plaza, 360 West 31st Street, 8th Floor New York, NY 10001-2727 T: 212.479.5400 F: 212.479.5444 <a href="http://www.langan.com">www.langan.com</a>	Project <b>432 RODNEY STREET - OFF SITE</b> BROOKLYN BLOCK No. 2374, LOTS No. 1, 27, 18 and 31 KINGS COUNTY NEW YORK	Figure Title <b>SITE LOCATION MAP</b>	Project No. <b>170650901</b>	Figure No. <b>1</b>
Langan Engineering & Environmental Services, Inc. Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C. Langan International LLC Collectively known as Langan	Date <b>5/17/2022</b>	Scale <b>1"=2,000'</b>	Drawn By <b>PDT</b>	Submission Date



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**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**

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Project

**432 RODNEY  
STREET - OFF SITE**  
BROOKLYN

KINGS COUNTY

NEW YORK

Figure Title

**SAMPLE  
LOCATION  
MAP**

Project No.	170650901
Date	8/8/2022
Scale	1"=40'
Drawn By	PDT

Figure No.	2
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## **Tables**

**Table 1**  
**Off-Site Investigation Report**  
**Sample Summary**

**432 Rodney Street - Offsite**  
**Brooklyn, New York**  
**NYSDEC BCP Site No.: C224216A**  
**Langan Project No.: 170650901**

Sample No.	Location Location	Sample Name	Sample Depth/Well Screen Interval <small>(feet)</small>	Sample Date	Laboratory Analysis
<b>Soil Samples</b>					
1	SB01	SB01_042522	8-9	04/25/2022	TCL/Part 375 VOCs
2	SB02	SB02_042522	8-9	04/25/2022	
2	SB03	SB03_042522	8-9	04/25/2022	
<b>Groundwater Samples</b>					
1	MW01A	MW01A_042922	10-20	04/29/2022	TCL/Part 375 VOCs
2	MW01B	MW01B_042922	50-60	04/29/2022	
3	MW02	MW02_042922	10-20	04/29/2022	
4	MW03	MW03_042922	10-20	04/29/2022	
<b>Air Samples</b>					
1	AA01	AA01_042122	-	04/21/2022	TO-15 VOCs
2	SV01	SV01_042122	-	04/21/2022	
3	SV02	SV02_042122	-	04/21/2022	
4	SV03	SV03_042122	-	04/21/2022	
5	SV04	SV04_042122	-	04/21/2022	
6	SV05	SV05_042122	-	04/21/2022	
<b>Quality Assurance and Quality Control</b>					
1	SB02	DUP01_042522	8-9	04/25/2022	TCL/Part 375 VOCs
2	MW01B	GWDUP01_042922	50-60	04/29/2022	
3	NA	GWTB01_042922	-	04/29/2022	

Notes

bgs = below grade surface

VOC = volatile organic compound

**Table 2**  
**Off-Site Investigation Report**  
**Soil Sample Analytical Results**

**432 Rodney Street - Offsite**  
**Brooklyn, New York**  
**NYSDEC BCP Site No.: C224216**  
**Langan Project No.: 170650901**

Analyte	CAS Number	NYSDEC Part 375 Unrestricted Use SCOs	NYSDEC Part 375 Restricted Use Restricted-Residential SCOs	Location	SB01	SB02	SB02	SB03			
				Sample Name	SB01_042522	SB02_042522	DUP01_042522	SB03_042522			
				Sample Date	04/25/2022	04/25/2022	04/25/2022	04/25/2022			
				Sample Depth	0-20	0-20	0-20	0-20			
				Unit	Result	Result	Result	Result			
<b>Volatile Organic Compounds</b>											
1,1,1,2-Tetrachloroethane	630-20-6	NS	NS	mg/kg	<0.0005 U	<0.00049 U	<0.00052 U	<0.00067 U			
1,1,1-Trichloroethane	71-55-6	0.68	100	mg/kg	<0.0005 U	<0.00049 U	<0.00052 U	<0.00067 U			
1,1,2,2-Tetrachloroethane	79-34-5	NS	NS	mg/kg	<0.0005 U	<0.00049 U	<0.00052 U	<0.00067 U			
1,1,2-Trichloroethane	79-00-5	NS	NS	mg/kg	<0.001 U	<0.00098 U	<0.001 U	<0.0013 U			
1,1-Dichloroethane	75-34-3	0.27	26	mg/kg	<0.001 U	<0.00098 U	<0.001 U	<0.0013 U			
1,1-Dichloroethene	75-35-4	0.33	100	mg/kg	<0.001 U	<0.00098 U	<0.001 U	<0.0013 U			
1,1-Dichloropropene	563-58-6	NS	NS	mg/kg	<0.0005 U	<0.00049 U	<0.00052 U	<0.00067 U			
1,2,3-Trichlorobenzene	87-61-6	NS	NS	mg/kg	<0.002 U	<0.002 U	<0.0021 U	<0.0027 U			
1,2,3-Trichloropropane	96-18-4	NS	NS	mg/kg	<0.002 U	<0.002 U	<0.0021 U	<0.0027 U			
1,2,4,5-Tetramethylbenzene	95-93-2	NS	NS	mg/kg	<0.002 U	<0.002 U	<0.0021 U	0.00053 J			
1,2,4-Trichlorobenzene	120-82-1	NS	NS	mg/kg	<0.002 U	<0.002 U	<0.0021 U	<0.0027 U			
1,2,4-Trimethylbenzene	95-63-6	3.6	52	mg/kg	<0.002 U	<0.002 U	<0.0021 U	0.0025 J			
1,2-Dibromo-3-Chloropropane	96-12-8	NS	NS	mg/kg	<0.003 U	<0.0029 U	<0.0031 U	<0.004 U			
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	NS	NS	mg/kg	<0.001 U	<0.00098 U	<0.001 U	<0.0013 U			
1,2-Dichlorobenzene	95-50-1	1.1	100	mg/kg	<0.002 U	<0.002 U	<0.0021 U	<0.0027 U			
1,2-Dichloroethane	107-06-2	0.02	3.1	mg/kg	<0.001 U	<0.00098 U	<0.001 U	<0.0013 U			
1,2-Dichloropropane	78-87-5	NS	NS	mg/kg	<0.001 U	<0.00098 U	<0.001 U	<0.0013 U			
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	8.4	52	mg/kg	<0.002 U	<0.002 U	<0.0021 U	0.00098 J			
1,3-Dichlorobenzene	541-73-1	2.4	49	mg/kg	<0.002 U	<0.002 U	<0.0021 U	<0.0027 U			
1,3-Dichloropropane	142-28-9	NS	NS	mg/kg	<0.002 U	<0.002 U	<0.0021 U	<0.0027 U			
1,4-Dichlorobenzene	106-46-7	1.8	13	mg/kg	<0.002 U	<0.002 U	<0.0021 U	<0.0027 U			
1,4-Diethyl Benzene	105-05-5	NS	NS	mg/kg	<0.002 U	<0.002 U	<0.0021 U	<0.0027 U			
1,4-Dioxane (P-Dioxane)	123-91-1	0.1	13	mg/kg	<0.08 U	<0.078 U	<0.083 U	<0.11 U			
2,2-Dichloropropane	594-20-7	NS	NS	mg/kg	<0.002 U	<0.002 U	<0.0021 U	<0.0027 U			
2-Chlorotoluene	95-49-8	NS	NS	mg/kg	<0.002 U	<0.002 U	<0.0021 U	<0.0027 U			
2-Hexanone (MBK)	591-78-6	NS	NS	mg/kg	<0.01 U	<0.0098 U	<0.01 U	<0.013 U			
4-Chlorotoluene	106-43-4	NS	NS	mg/kg	<0.002 U	<0.002 U	<0.0021 U	<0.0027 U			
4-Ethyltoluene	622-96-8	NS	NS	mg/kg	<0.002 U	<0.002 U	<0.0021 U	0.0038			
Acetone	67-64-1	<b>0.05</b>	100	mg/kg	<0.01 U	<b>0.01</b>	<0.01 U	<b>0.053</b>			
Acrylonitrile	107-13-1	NS	NS	mg/kg	<0.004 U	<0.0039 U	<0.0042 U	<0.0054 U			
Benzene	71-43-2	0.06	4.8	mg/kg	<0.0005 U	<0.00049 U	<0.00052 U	<0.00067 U			
Bromobenzene	108-86-1	NS	NS	mg/kg	<0.002 U	<0.002 U	<0.0021 U	<0.0027 U			
Bromochloromethane	74-97-5	NS	NS	mg/kg	<0.002 U	<0.002 U	<0.0021 U	<0.0027 U			
Bromodichloromethane	75-27-4	NS	NS	mg/kg	<0.0005 U	<0.00049 U	<0.00052 U	<0.00067 U			
Bromoform	75-25-2	NS	NS	mg/kg	<0.004 U	<0.0039 U	<0.0042 U	<0.0054 U			
Bromomethane	74-83-9	NS	NS	mg/kg	<0.002 U	<0.002 U	<0.0021 U	<0.0027 U			
Carbon Disulfide	75-15-0	NS	NS	mg/kg	<0.01 U	<0.0098 U	<0.01 U	<0.013 U			
Carbon Tetrachloride	56-23-5	0.76	2.4	mg/kg	<0.001 U	<0.0098 U	<0.001 U	<0.0013 U			
Chlorobenzene	108-90-7	1.1	100	mg/kg	<0.0005 U	<0.00049 U	<0.00052 U	<0.00067 U			
Chloroethane	75-00-3	NS	NS	mg/kg	<0.002 U	<0.002 U	<0.0021 U	<0.0027 U			
Chloroform	67-66-3	0.37	49	mg/kg	<b>0.00092 J</b>	<0.0015 U	<0.0016 U	<0.002 U			
Chloromethane	74-87-3	NS	NS	mg/kg	<0.004 U	<0.0039 U	<0.0042 U	<0.0054 U			
Cis-1,2-Dichloroethene	156-59-2	0.25	100	mg/kg	<b>0.00033 J</b>	<0.00098 U	<0.001 U	<0.0013 U			
Cis-1,3-Dichloropropene	10061-01-5	NS	NS	mg/kg	<0.0005 U	<0.00049 U	<0.00052 U	<0.00067 U			
Cymene	99-87-6	NS	NS	mg/kg	<0.001 U	<0.00098 U	<0.001 U	<b>0.0012 J</b>			
Dibromochloromethane	124-48-1	NS	NS	mg/kg	<0.001 U	<0.00098 U	<0.001 U	<0.0013 U			
Dibromomethane	74-95-3	NS	NS	mg/kg	<0.002 U	<0.002 U	<0.0021 U	<0.0027 U			
Dichlorodifluoromethane	75-71-8	NS	NS	mg/kg	<0.01 U	<0.0098 U	<0.01 U	<0.013 U			
Diethyl Ether (Ethyl Ether)	60-29-7	NS	NS	mg/kg	<0.002 U	<0.002 U	<0.0021 U	<0.0027 U			
Ethylbenzene	100-41-4	1	41	mg/kg	<0.001 U	<0.00098 U	<0.001 U	<b>0.0014</b>			
Hexachlorobutadiene	87-68-3	NS	NS	mg/kg	<0.004 U	<0.0039 U	<0.0042 U	<0.0054 U			
Isopropylbenzene (Cumene)	98-82-8	NS	NS	mg/kg	<0.001 U	<0.00098 U	<0.001 U	0.00038 J			
M,P-Xylene	179601-23-1	NS	NS	mg/kg	<0.002 U	<0.002 U	<0.0021 U	0.0018 J			
Methyl Ethyl Ketone (2-Butanone)	78-93-3	0.12	100	mg/kg	<0.01 U	<0.0098 U	<0.01 U	0.005 J			
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS	NS	mg/kg	<0.01 U	<0.0098 U	<0.01 U	<0.013 U			
Methylene Chloride	75-09-2	0.05	100	mg/kg	<0.005 U	<0.0049 U	<0.0052 U	<0.0067 U			
Naphthalene	91-20-3	12	100	mg/kg	<0.004 U	<0.0039 U	<b>0.0021 J</b>	0.13			
n-Butylbenzene	104-51-8	12	100	mg/kg	<0.001 U	<0.00098 U	<0.001 U	<0.0013 U			
n-Propylbenzene	103-65-1	3.9	100	mg/kg	<0.001 U	<0.00098 U	<0.001 U	<0.0013 U			
o-Xylene (1,2-Dimethylbenzene)	95-47-6	NS	NS	mg/kg	<0.001 U	<0.00098 U	<0.001 U	0.0008 J			
Sec-Butylbenzene	135-98-8	11	100	mg/kg	<0.001 U	<0.00098 U	<0.001 U	<0.0013 U			
Styrene	100-42-5	NS	NS	mg/kg	<0.001 U	<0.00098 U	<0.001 U	<0.0013 U			
T-Butylbenzene	9										

**Table 2**  
**Off-Site Investigation Report**  
**Soil Sample Analytical Results**

**432 Rodney Street - Offsite  
Brooklyn, New York  
NYSDEC BCP Site No.: C224216  
Langan Project No.: 170650901**

**Notes:**

CAS - Chemical Abstract Service

NS - No standard

mg/kg - milligram per kilogram

NA - Not analyzed

RL - Reporting limit

<RL - Not detected

Soil sample analytical results are compared to the New York State Department of Environmental Conservation (NYSDEC) Title 6 of the Official Compilation of New York Codes, Rules, and Regulations (NYCRR) Part 375

Unrestricted Use and Restricted Use Residential Soil Cleanup Objectives (SCO).

**Qualifiers:**

J - The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample.

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 Unrestricted Use SCOs

**10** - Result exceeds Restricted Use Residential SCOs

**Table 3**  
**Off-Site Investigation Report**  
**Groundwater Sample Analytical Results**

**432 Rodney Street - Offsite**  
**Brooklyn, New York**  
**NYSDEC BCP Site No.: C224216**  
**Langan Project No.: 170650901**

<b>Analyte</b>	<b>CAS Number</b>	<b>NYSDEC SGVs</b>	<b>Location</b>	MW01A	MW01B	MW01B	MW02	MW03
			<b>Sample Name</b>	MW01A_042922	MW01B_042922	GWDUP01_042922	MW02_042922	MW03_042922
			<b>Sample Date</b>	04/29/2022	04/29/2022	04/29/2022	04/29/2022	04/29/2022
<b>Volatile Organic Compounds</b>			<b>Unit</b>	<b>Result</b>	<b>Result</b>	<b>Result</b>	<b>Result</b>	<b>Result</b>
1,1,1,2-Tetrachloroethane	630-20-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1,1-Trichloroethane	71-55-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1,2,2-Tetrachloroethane	79-34-5	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,1,2-Trichloroethane	79-00-5	1	ug/l	<1.5 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U
1,1-Dichloroethane	75-34-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,1-Dichloroethene	75-35-4	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,1-Dichloropropene	563-58-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,3-Trichlorobenzene	87-61-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,3-Trichloropropane	96-18-4	0.04	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,4,5-Tetramethylbenzene	95-93-2	5	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U
1,2,4-Trichlorobenzene	120-82-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2,4-Trimethylbenzene	95-63-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U
1,2-Dichlorobenzene	95-50-1	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,2-Dichloroethane	107-06-2	0.6	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
1,2-Dichloropropane	78-87-5	1	ug/l	<1 U	<1 U	<1 U	<1 U	<1 U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichlorobenzene	541-73-1	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichloropropane	142-28-9	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,4-Dichlorobenzene	106-46-7	3	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,4-Diethyl Benzene	105-05-5	NS	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U
1,4-Dioxane (P-Dioxane)	123-91-1	NS	ug/l	<250 U	<250 U	<250 U	<250 U	<250 U
2,2-Dichloropropane	594-20-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-Chlorotoluene	95-49-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-Hexanone (MBK)	591-78-6	50	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U
4-Chlorotoluene	106-43-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
4-Ethyltoluene	622-96-8	NS	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U
Acetone	67-64-1	50	ug/l	<5 U	<5 U	<5 U	5	5.1
Acrylonitrile	107-13-1	5	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U
Benzene	71-43-2	1	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Bromobenzene	108-86-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Bromochloromethane	74-97-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Bromodichloromethane	75-27-4	50	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Bromoform	75-25-2	50	ug/l	<2 U	<2 U	<2 U	<2 U	<2 U
Bromomethane	74-83-9	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Carbon Disulfide	75-15-0	60	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U
Carbon Tetrachloride	56-23-5	5	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Chlorobenzene	108-90-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloroethane	75-00-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloroform	67-66-3	7	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chloromethane	74-87-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Cis-1,2-Dichloroethene	156-59-2	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Cis-1,3-Dichloropropene	10061-01-5	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Cymene	99-87-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Dibromochloromethane	124-48-1	50	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U
Dibromomethane	74-95-3	5	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U
Dichlorodifluoromethane	75-71-8	5	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U
Diethyl Ether (Ethyl Ether)	60-29-7	NS	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Ethylbenzene	100-41-4	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Hexachlorobutadiene	87-68-3	0.5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Isopropylbenzene (Cumene)	98-82-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
M,P-Xylene	179601-23-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS	ug/l	<5 U	<5 U	<5 U	<5 U	<5 U
Methylene Chloride	75-09-2	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Naphthalene	91-20-3	10	ug/l	1.5 J	6 J	<2.5 UJ	<2.5 U	<2.5 U
n-Butylbenzene	104-51-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
n-Propylbenzene	103-65-1	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Sec-Butylbenzene	135-98-8	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Styrene	100-42-5	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
T-Butylbenzene	98-06-6	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Tert-Butyl Methyl Ether	1634-04-4	10	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Tetrachloroethene (PCE)	127-18-4	5	ug/l	0.21 J	0.24 J	<0.5 U	<0.5 U	0.8
Toluene	108-88-3	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Total 1,2-Dichloroethene (Cis and Trans)	540-59-0	NS	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Total Xylenes	1330-20-7	5	ug/l	<2.5 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	542-75-6	0.4	ug/l	<0.5 U	<0.5 U	<0.5 U	<0.5 U	

**Table 3**  
**Off-Site Investigation Report**  
**Groundwater Sample Analytical Results**

Page 2 of 2

**432 Rodney Street - Offsite  
Brooklyn, New York  
NYSDEC BCP Site No.: C224216  
Langan Project No.: 170650901**

**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 of the Official Compilation of New York Codes, Rules, and Regulations (NYCRR) Part 703.5 and the NYSDEC Technical and Operational Guidance Series (TOGS) 1.1.1 Ambient Water Quality Standards and Guidance Values for Class GA Water (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

**Table 4**  
**Off-Site Investigation Report**  
**Soil Vapor Sample Analytical Results**

432 Rodney Street - Offsite  
Brooklyn, New York  
NYSDEC BCP Site No.: C224216  
Langan Project No.: 170650901

Analyte	CAS Number	NYSDOH Decision Matrices Minimum Concentrations	Location	AA01	SV01	SV02	SV03	SV04	SV05		
			Sample Name	AA01_042122	SV01_042122	SV02_042122	SV03_042122	SV04_042122	SV05_042122		
			Sample Date	04/21/2022	04/21/2022	04/21/2022	04/21/2022	04/21/2022	04/21/2022		
			Sample Type	AA	SV	SV	SV	SV	SV		
Unit											
<b>Volatile Organic Compounds</b>											
1,1,1-Trichloroethane	71-55-6	100	ug/m3	<1.09 U	<2.73 U	<7.8 U	<4.54 U	<1.09 U	<3.41 U		
1,1,2-Tetrachloroethane	79-34-5	NS	ug/m3	<1.37 U	<3.43 U	<9.82 U	<5.72 U	<1.37 U	<4.29 U		
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	NS	ug/m3	<1.53 U	<3.83 U	<11 U	<6.38 U	<1.53 U	<4.79 U		
1,1,2-Trichloroethane	79-00-5	NS	ug/m3	<1.09 U	<2.73 U	<7.8 U	<4.54 U	<1.09 U	<3.41 U		
1,1-Dichloroethane	75-34-3	NS	ug/m3	<0.809 U	<2.02 U	<5.79 U	<3.37 U	<0.809 U	<2.53 U		
1,1-Dichloroethene	75-35-4	6	ug/m3	<0.793 U	<1.98 U	<5.67 U	<3.3 U	<0.793 U	<2.48 U		
1,2,4-Trichlorobenzene	120-82-1	NS	ug/m3	<1.48 U	<3.71 U	<10.6 U	<6.18 U	<1.48 U	<4.64 U		
1,2,4-Trimethylbenzene	95-63-6	NS	ug/m3	<0.983 U	13.5	12.5	14	13.9	16.8		
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	NS	ug/m3	<1.54 U	<3.84 U	<11 U	<6.4 U	<1.54 U	<4.8 U		
1,2-Dichlorobenzene	95-50-1	NS	ug/m3	<1.2 U	<3.01 U	<8.6 U	<5.01 U	<1.2 U	<3.76 U		
1,2-Dichloroethane	107-06-2	NS	ug/m3	<0.809 U	<2.02 U	<5.79 U	<3.37 U	<0.809 U	<2.53 U		
1,2-Dichloropropane	78-87-5	NS	ug/m3	<0.924 U	<2.31 U	<6.61 U	<3.85 U	<0.924 U	<2.89 U		
1,2-Dichlortetrafluoroethane	76-14-2	NS	ug/m3	<1.4 U	<3.49 U	<10 U	<5.82 U	<1.4 U	<4.37 U		
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	NS	ug/m3	<0.983 U	3.97	<7.03 U	<4.1 U	3.77	4.78		
1,3-Butadiene	106-99-0	NS	ug/m3	<0.442 U	<1.11 U	<3.16 U	<1.84 U	<0.442 U	<1.38 U		
1,3-Dichlorobenzene	541-73-1	NS	ug/m3	<1.2 U	<3.01 U	<8.6 U	<5.01 U	<1.2 U	<3.76 U		
1,4-Dichlorobenzene	106-46-7	NS	ug/m3	<1.2 U	<3.01 U	<8.6 U	<5.01 U	<1.2 U	<3.76 U		
1,4-Dioxane (P-Dioxane)	123-91-1	NS	ug/m3	<0.721 U	<1.8 U	<5.15 U	<3 U	<0.721 U	<2.25 U		
2,2,4-Trimethylpentane	540-84-1	NS	ug/m3	<0.934 U	2.71	<6.68 U	6.35	2.45	<2.92 U		
2-Hexanone (MBK)	591-78-6	NS	ug/m3	<0.82 U	52.9	105	70.5	11.3	62.3		
4-Ethyltoluene	622-96-8	NS	ug/m3	<0.983 U	3.23	<7.03 U	<4.1 U	2.99	3.7		
Acetone	67-64-1	NS	ug/m3	15	190	183	165	70.8	335		
Allyl Chloride (3-Chloropropene)	107-05-1	NS	ug/m3	<0.626 U	<1.57 U	<4.48 U	<2.61 U	<0.626 U	<1.96 U		
Benzene	71-43-2	NS	ug/m3	<0.639 U	9.39	<4.57 U	8.75	3.15	9.14		
Benzyl Chloride	100-44-7	NS	ug/m3	<1.04 U	<2.59 U	<7.4 U	<4.31 U	<1.04 U	<3.24 U		
Bromodichloromethane	75-27-4	NS	ug/m3	<1.34 U	<3.35 U	<9.58 U	<5.58 U	<1.34 U	<4.19 U		
Bromoethene	593-60-2	NS	ug/m3	<0.874 U	<2.19 U	<6.25 U	<3.64 U	<0.874 U	<2.73 U		
Bromoform	75-25-2	NS	ug/m3	<2.07 U	<5.17 U	<14.8 U	<8.61 U	<2.07 U	<6.46 U		
Bromomethane	74-83-9	NS	ug/m3	<0.777 U	<1.94 U	<5.55 U	<3.23 U	<0.777 U	<2.43 U		
Carbon Disulfide	75-15-0	NS	ug/m3	<0.623 U	10.1	6.38	16.2	10.7	6.35		
Carbon Tetrachloride	56-23-5	6	ug/m3	<1.26 U	<3.15 U	<9 U	<5.24 U	<1.26 U	<3.93 U		
Chlorobenzene	108-90-7	NS	ug/m3	<0.921 U	<2.3 U	<6.59 U	<3.84 U	<0.921 U	<2.88 U		
Chloroethane	75-00-3	NS	ug/m3	<0.528 U	<1.32 U	<3.77 U	<2.2 U	<0.528 U	<1.65 U		
Chloroform	67-66-3	NS	ug/m3	<0.977 U	<2.44 U	20.4	<4.07 U	2.01	4.93		
Chloromethane	74-87-3	NS	ug/m3	1.24	1.15	<2.95 U	<1.72 U	0.64	<1.29 U		
Cis-1,2-Dichloroethene	156-59-2	6	ug/m3	1.17	<1.98 U	<5.67 U	<3.3 U	<0.793 U	<2.48 U		
Cis-1,3-Dichloropropene	10061-01-5	NS	ug/m3	<0.908 U	<2.27 U	<6.49 U	<3.78 U	<0.908 U	<2.84 U		
Cyclohexane	110-82-7	NS	ug/m3	<0.688 U	3.44	<4.92 U	5.61	5.4	<2.15 U		
Dibromochloromethane	124-48-1	NS	ug/m3	<1.7 U	<4.26 U	<12.2 U	<7.1 U	<1.7 U	<5.32 U		
Dichlorodifluoromethane	75-71-8	NS	ug/m3	2.66	2.51	<7.07 U	<4.12 U	2.6	<3.09 U		
Ethanol	64-17-5	NS	ug/m3	15.4	160	120	158	39.2	104		
Ethyl Acetate	141-78-6	NS	ug/m3	<1.8 U	<4.5 U	<12.9 U	<7.5 U	<1.8 U	<5.62 U		
Ethylbenzene	100-41-4	NS	ug/m3	<0.869 U	7.73	7.12	6.73	5.39	7.38		
Hexachlorobutadiene	87-68-3	NS	ug/m3	<2.13 U	<5.33 U	<15.3 U	<8.89 U	<2.13 U	<6.67 U		
Isopropanol	67-63-0	NS	ug/m3	1.93	6.49	<8.78 U	<5.11 U	3.1	7.92		
M,P-Xylene	179601-23-1	NS	ug/m3	<1.74 U	26.7	22.4	23.9	21	26		
Methyl Ethyl Ketone (2-Butanone)	78-93-3	NS	ug/m3	<1.47 U	599	1,360	655	258	643		
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	NS	ug/m3	<2.05 U	<5.12 U	<14.6 U	<8.52 U	14.2	15.7		
Methylene Chloride	75-09-2	100	ug/m3	<1.74 U	<4.34 U	<12.4 U	<7.23 U	<1.74 U	<5.42 U		
n-Heptane	142-82-5	NS	ug/m3	<0.82 U	9.3	11	103	7.25	10.2		
n-Hexane	110-54-3	NS	ug/m3	<0.705 U	5.57	9.73	306	4.12	6.45		
o-Xylene (1,2-Dimethylbenzene)	95-47-6	NS	ug/m3	<0.869 U	12	9.6	14.6	9.34	12.1		
Styrene	100-42-5	NS	ug/m3	<0.852 U	<2.13 U	<6.09 U	<3.55 U	<0.852 U	<2.66 U		
Tert-Butyl Alcohol	75-65-0	NS	ug/m3	<1.52 U	<3.79 U	<10.8 U	6.61	3.36	9.16		
Tert-Butyl Methyl Ether	1634-04-4	NS	ug/m3	<0.721 U	<1.8 U	<5.16 U	<3 U	<0.721 U	<2.25 U		
Tetrachloroethene (PCE)	127-18-4	100	ug/m3	1.95	<3.39 U	<9.7 U	1.84	2.68	11.2		
Tetrahydrofuran	109-99-9	NS	ug/m3	<1.47 U	<3.69 U	<10.5 U	<6.13 U	<1.47 U	<4.6 U		
Toluene	108-88-3	NS	ug/m3	7.54	27.4	15.1	22	15.2	20.7		
Total Xylenes	1330-20-7	NS	ug/m3	<0.869 U	38.7	32	3				

**Table 4**  
**Off-Site Investigation Report**  
**Soil Vapor Sample Analytical Results**

Page 2 of 2

**432 Rodney Street - Offsite  
Brooklyn, New York  
NYSDEC BCP Site No.: C224216  
Langan Project No.: 170650901**

**Notes:**

AA - Ambient Air

SV - Soil Vapor

CAS - Chemical Abstract Service

NS - No standard

ug/m<sup>3</sup> - microgram per cubic meter

NA - Not analyzed

RL - Reporting limit

<RL - Not detected

Soil vapor sample analytical results are compared to the minimum soil vapor concentrations at which mitigation is recommended as set forth in the New York State Department of Health (NYSDOH) October 2006 Guidance for Evaluating Soil Vapor Intrusion in the State of New York Decision Matrices for Sub-Slab Vapor and Indoor Air and subsequent updates (2017).

Ambient air sample analytical results are shown for reference only.

**Qualifiers:**

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 minimum soil vapor concentrations recommending mitigation

**Attachment A**

**Photo Documentation Log**



**Photograph 1:** View of NOVA conducting a geophysical survey on the site (facing northwest).



**Photograph 2:** Eastern Environmental Solutions, Inc. (Eastern) advancing soil vapor sampling location SV05 with a Geoprobe® 7822 DT track-mounted drill rig (facing south).



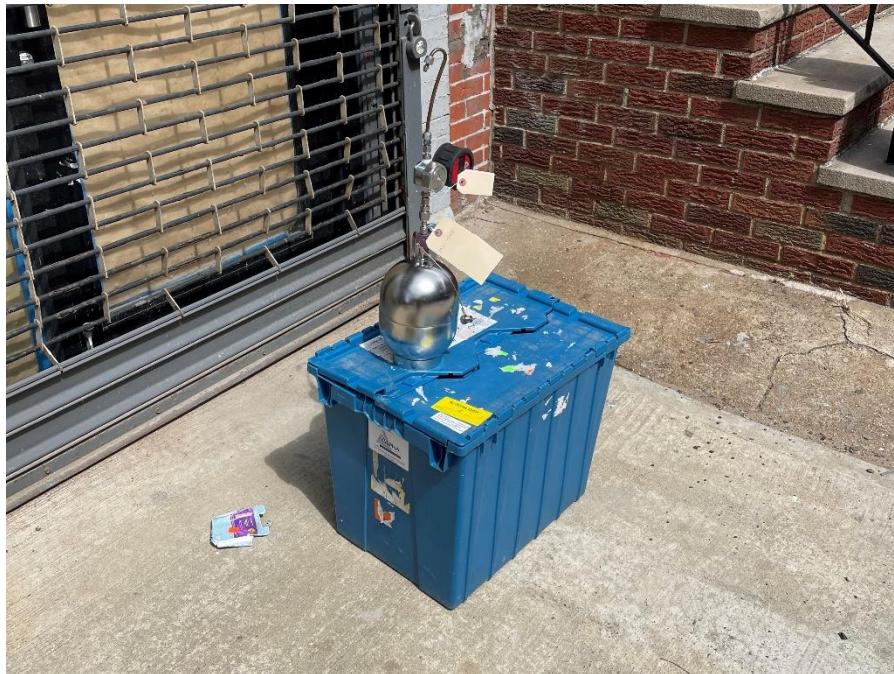
**Photograph 3:** MW03 macrocores from 10 to 20 feet below grade surface (bgs).



**Photograph 4:** Langan field engineer conducting a helium test on soil vapor point SV05 prior to sampling.



**Photograph 5:** Soil vapor sample point SV05 (facing south).



**Photograph 6:** Ambient air sample collection in the southeast part of the site (facing north).



**Photograph 7:** Eastern Environmental installing monitoring well MW02 (facing east).



**Photograph 8:** Developing monitoring well MW01A.

**Attachment B**

**Geophysical Survey Report**

# **GEOPHYSICAL ENGINEERING SURVEY REPORT**

Rodney Street Site  
Keap Street & Ainslie Street Sidewalks,  
Brooklyn, New York 11211

**NOVA PROJECT NUMBER:**

22-2635

**DATED:**

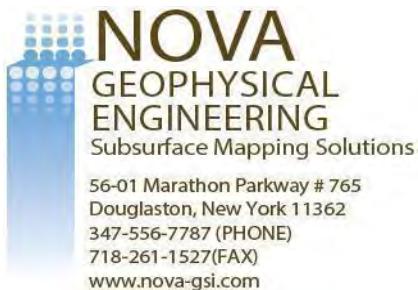
April 22, 2022

**PREPARED FOR:**

## **LANGAN**

21 Penn Plaza  
360 West 31st Street, 8th Floor  
New York, New York 10001-2727

**PREPARED BY:**



# NOVA GEOPHYSICAL SERVICES

SUBSURFACE MAPPING SOLUTIONS

56-01 Marathon Parkway #765, Douglaston, New York 11362  
Ph. 347-556-7787 Fax. 718-261-1527  
[www.novagsi.com](http://www.novagsi.com)

April 22, 2022

Joshua Golding, P.E.  
Senior Staff Engineer

**LANGAN**

21 Penn Plaza  
360 West 31st Street, 8th Floor  
New York, New York 10001-2727  
Direct: 212.479.5562  
Mobile: 917.941.3484  
E: [jgolding@langan.com](mailto:jgolding@langan.com)

Re: Geophysical Engineering Survey (GES) Report  
Rodney Street Site  
Keap Street & Ainslie Street Sidewalks,  
Brooklyn, New York 11211  
Langan Project# 170650901

Dear Mr. Golding.

Nova Geophysical Services (NOVA) is pleased to provide the findings of the geophysical engineering survey (GES) at the above referenced project site: the sidewalks of Keap Street & Ainslie Street, Brooklyn, New York (the "Site")

## INTRODUCTION TO GEOPHYSICAL ENGINEERING SURVEY (GES)

NOVA performed a geophysical engineering survey (GES) consisting of a Ground Penetrating Radar (GPR) and Electromagnetic (EM) survey at the site. The purpose of this survey is to locate and identify utilities, underground storage tanks (USTs) and other substructures on April 14<sup>th</sup>, 2022.

The equipment selected for this investigation was a Sensors and Software NOGGIN 250 MHz ground penetrating radar (GPR) with a shielded antenna and a RadioDetection RD7100 Electromagnetic utility locator.

A GPR system consists of a radar control unit, control cable, and transducer (antenna). The control unit transmits a trigger pulse at a normal repetition rate of 250 MHz. The trigger pulse is sent to the transmitter electronics in the transducer via the control cable. The transmitter electronics amplify the trigger pulse into bipolar pulses that are radiated to the surface. The transformed pulses vary in shape and frequency

according to the transducer used. In the subsurface, variations of the signal occur at boundaries where there is a dielectric contrast (void, steel, soil type, etc.). Signal reflections travel back to the control unit and are represented as color graphic images for interpolation.

A typical electromagnetic (EM) utility locating system consists of a transmitter unit and a receiver unit. The receiver unit can be used independently of the transmitter unit in order to detect utility lines with an inherent EM signature (electric utility lines, water lines, etc.). If needed a current at a specific frequency can also be placed on a utility that is being located. This can be done via the transmitter unit by either direct connection or induction via an EM field varying at specific frequency. The receiver unit is then set to the selected frequency and the electromagnetic field created by the current running through the utility can be located allowing the utility to be marked.

## GEOPHYSICAL METHODS

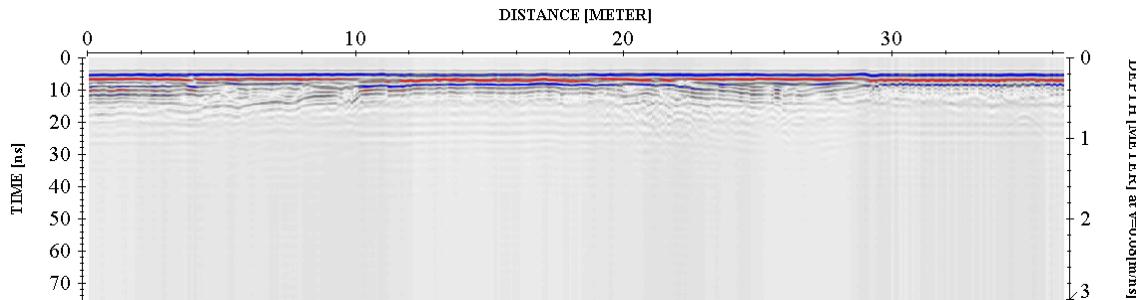
The project site was screened using GPR to search the specified area and inspected for reflections, which could be indicative of substructures and utilities within the subsurface. An EM utility locator was used to help determine the locations of utilities within the survey area.

EM data was collected and interpreted on site and suspected utilities marked as needed. GPR data profiles were collected for the areas of the Site specified by the client and processed as specified below.

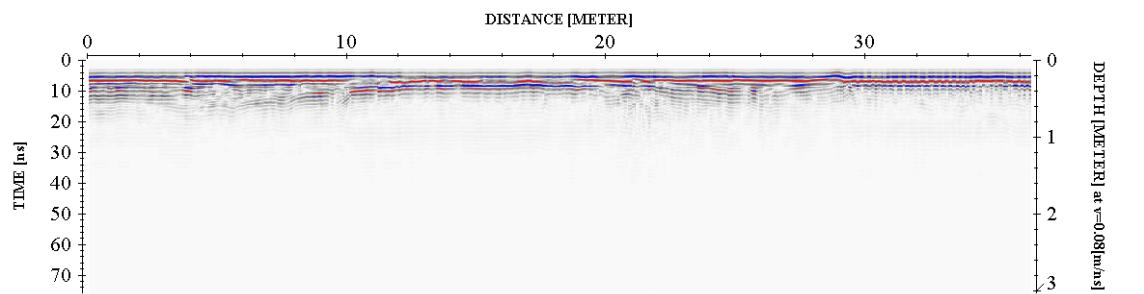
## DATA PROCESSING

To improve the quality of the results and to better identify anomalies NOVA processed the collected data. The processing workflow is briefly described in this section.

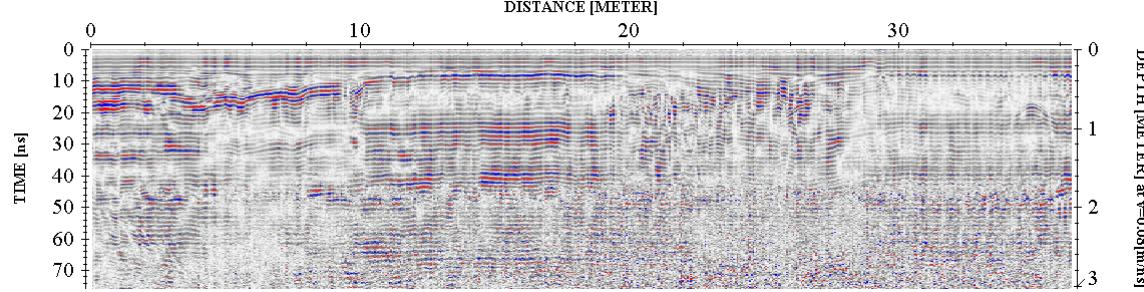
### Step 1. Import Raw RAMAC data to standard processing format



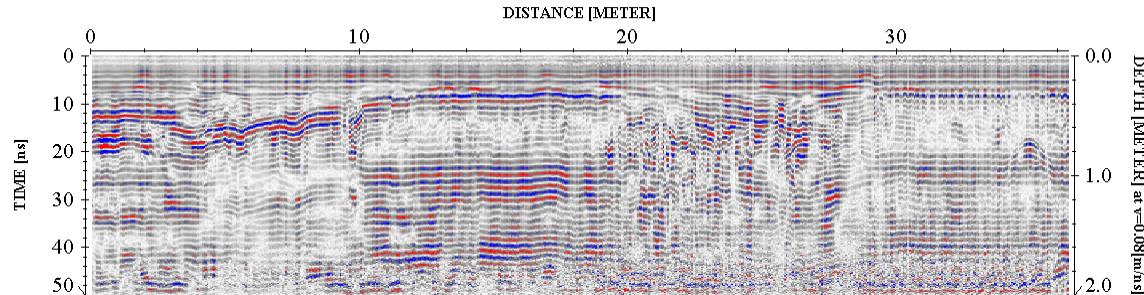
**Step 2. Remove instrument noise (*dewow*)**



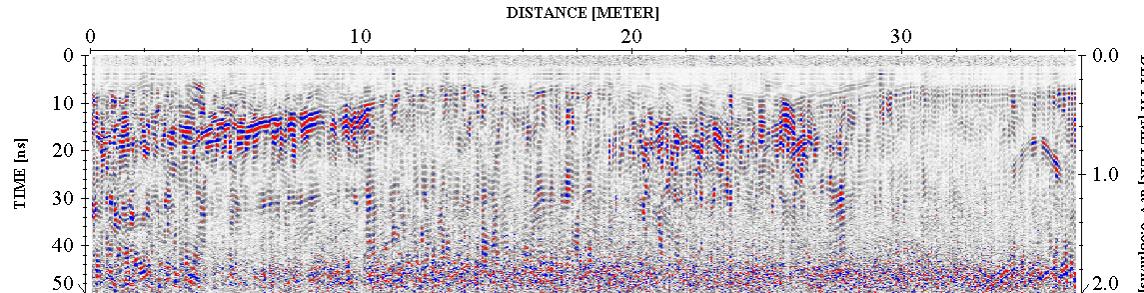
**Step 3. Correct for attenuation losses (*energy decay function*)**



**Step 4. Remove static from bottom of profile (*time cut*)**



**Step 5. Mute horizontal ringing/noise (*subtracting average*)**



The above example shows the significance of data processing. The last image (step 5) has higher resolution than the starting image (raw data – step 1) and represents the subsurface anomalies much more accurately.

## PHYSICAL SETTINGS

NOVA observed the following physical conditions at the time of the survey.

**Weather:** Clear

**Temperature:** 60° F

**Surface:** Concrete, Asphalt

**Survey Parameters:** A ground penetrating radar (GPR) grid scan was conducted within the survey areas as shown in the survey plan. The line spacing of the grid survey was approximately 4'. Additional GPR data was collected over features of interest and proposed boring locations. A utility locator was used in conjunction with GPR throughout the survey area.

**Limitations:** The geophysical noise level (GNL) at the site was high due to being in an urban environment, reinforced concrete, and metallic objects in the survey area.

## RESULTS

The results of the geophysical engineering survey (GES) identified the following at the project site:

- Anomalies resembling potential subsurface utilities (such as sewer, water, gas, electric and telecom) were identified within the surveyed areas. The approximate locations are shown in the survey plan.
- No large geophysical anomalies resembling a potential underground storage tank (UST) were identified during the GES.
- All cleared boring locations are shown in the survey plan.

If you have any questions, please do not hesitate to contact the undersigned.

Sincerely,

**NOVA Geophysical Services**



Levent Eskicakit, P.G., E.P.

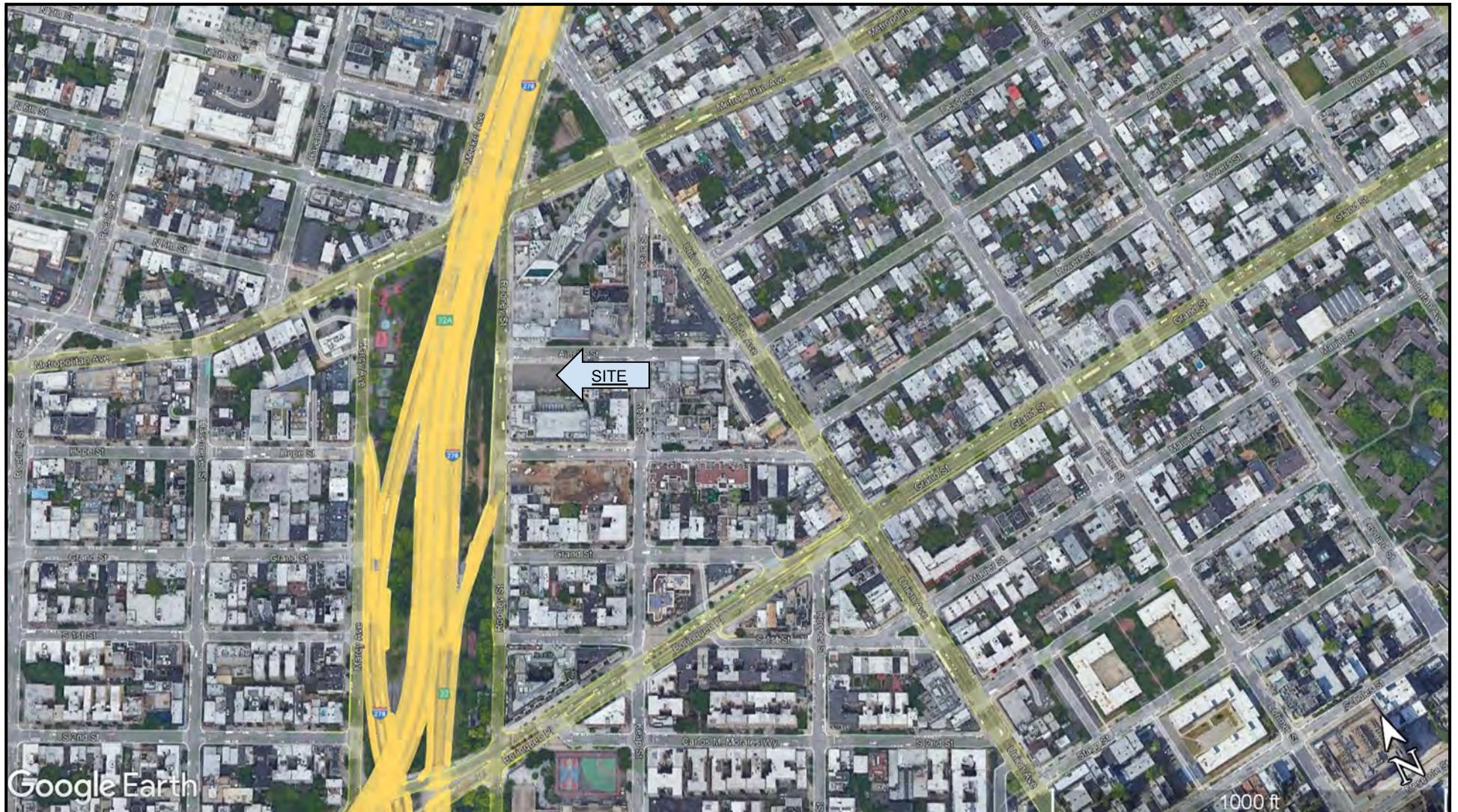
Project Manager

**Attachments:**

Location Map

Survey Plan

Geophysical Images



**NOVA**  
Geophysical Services

**Subsurface Mapping Solutions**  
56-01 Marathon Parkway, # 765  
Douglaston, New York 11362  
Phone (347) 556-7787 \* Fax (718) 261-1527  
[www.novagsi.com](http://www.novagsi.com)

## LOCATION MAP

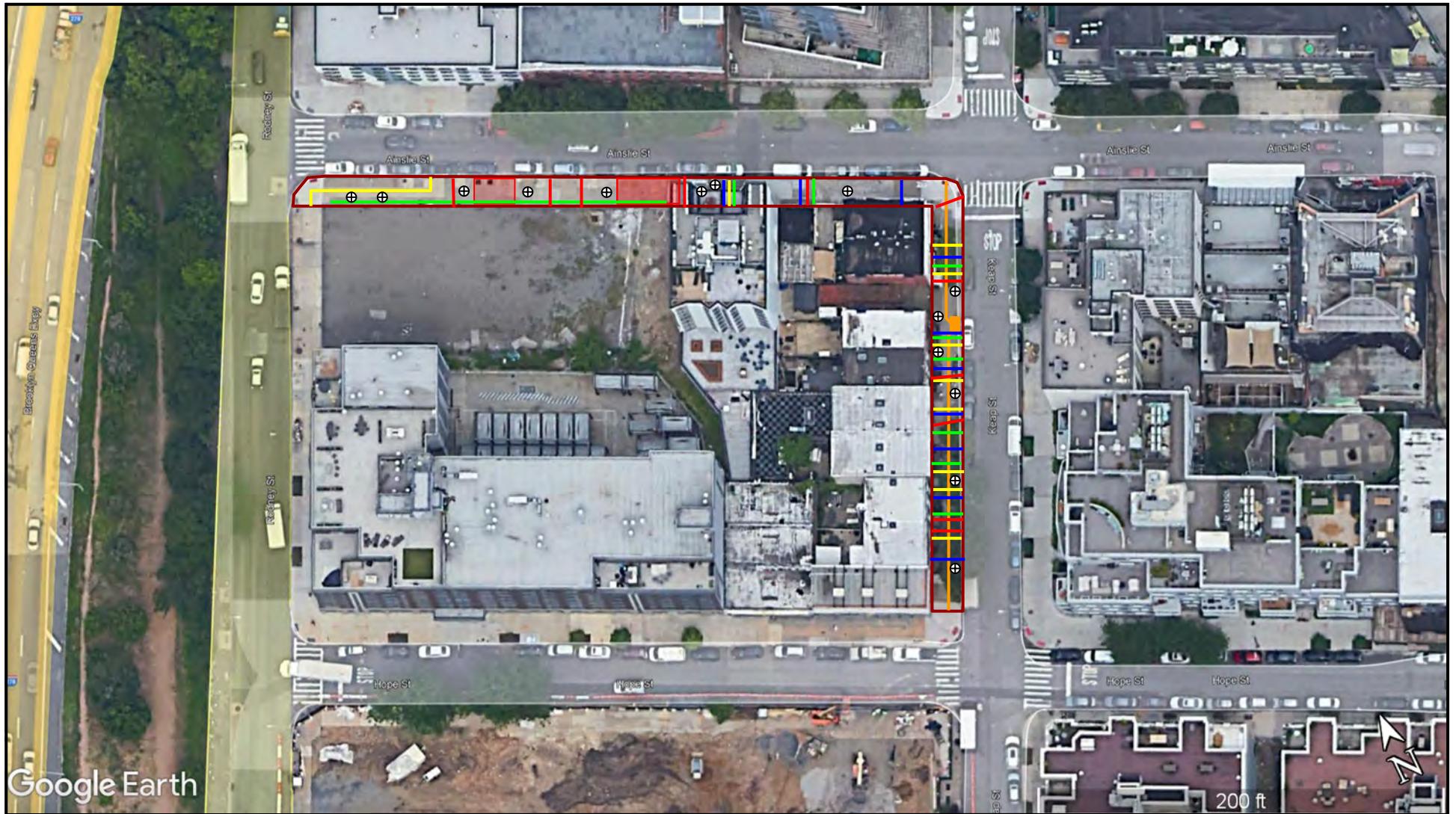
**SITE:** **Rodney Street Site**  
Keap Street & Ainsley Street,  
Brooklyn, New York 11211

CLIENT: Langan

DATE: April 14<sup>th</sup>, 2022

AUTH: Chris Steinley

## LEGEND



Google Earth

## NOVA

### Geophysical Services

Subsurface Mapping Solutions

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Phone (347) 556-7787 \* Fax (718) 261-1527  
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### SURVEY PLAN

SITE: **Rodney Street Site**  
Keap Street & Ainsley Street,  
Brooklyn, New York 11211

CLIENT: Langan

DATE: April 14<sup>th</sup>, 2022

AUTH: Chris Steinley

### LEGEND

- Survey Area
- Gas
- Water
- Electric
- Sewer
- Telecom



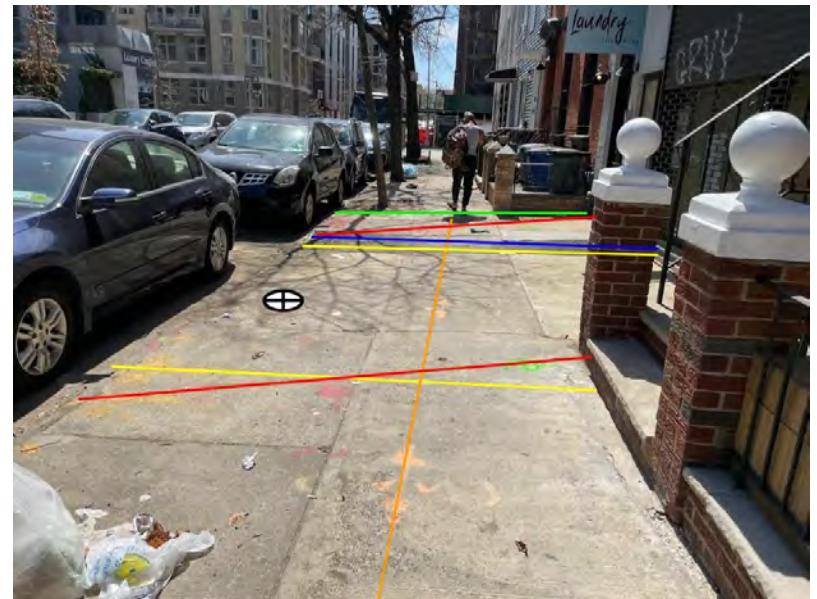
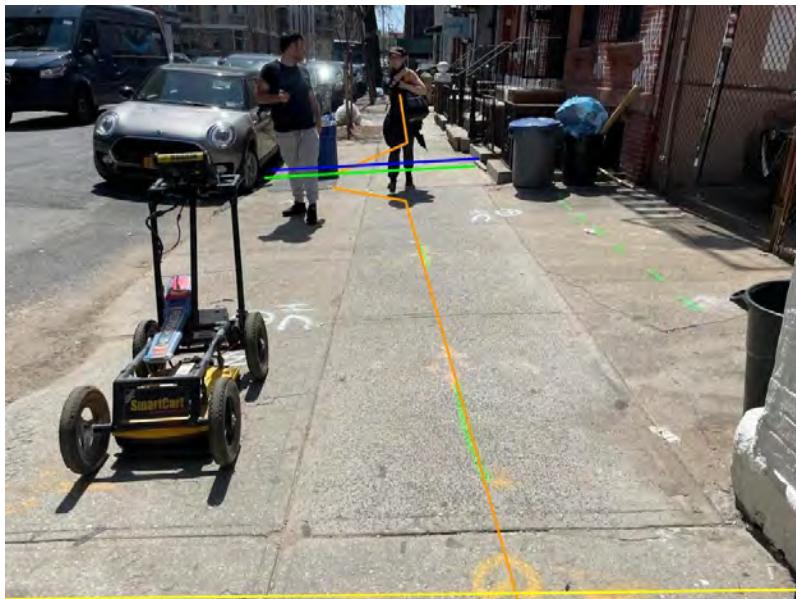
## GEOPHYSICAL IMAGES

Rodney Street Site  
Keap Street & Ainsley Street,  
Brooklyn, New York 11211  
April 15th, 2022



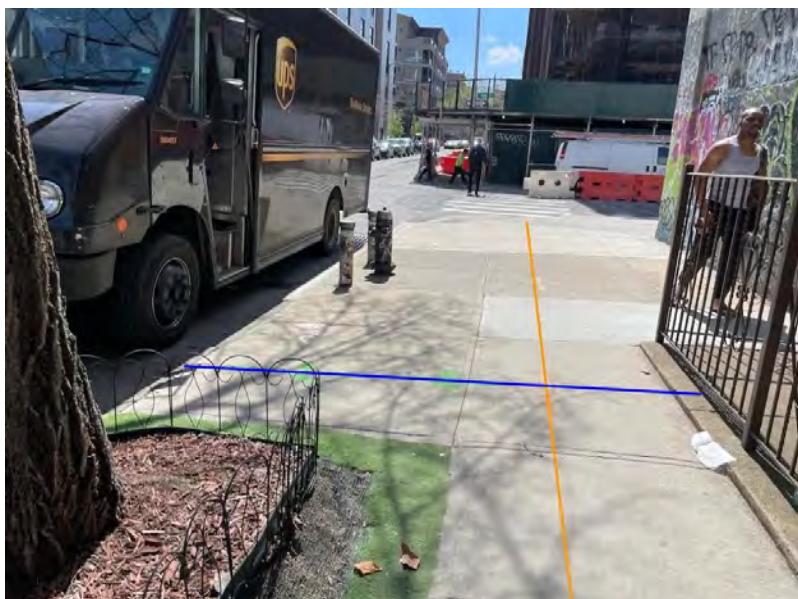
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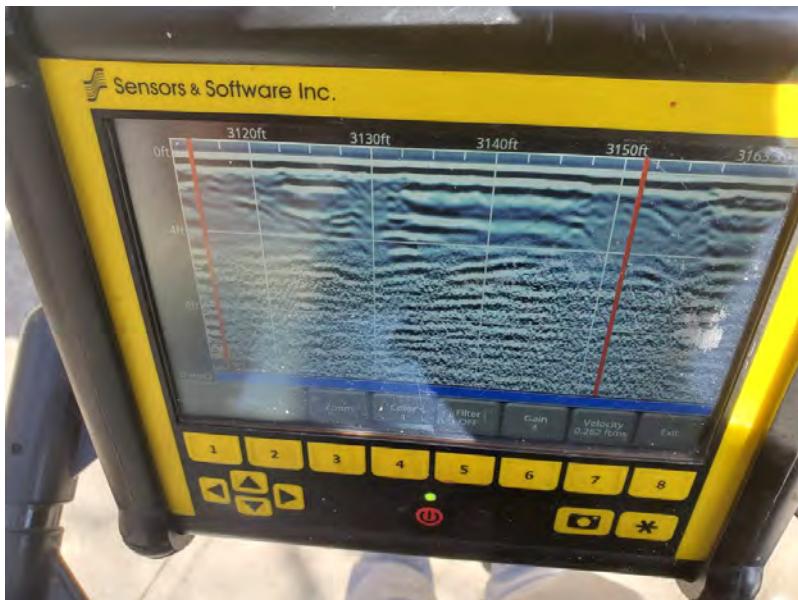
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Brooklyn, New York 11211

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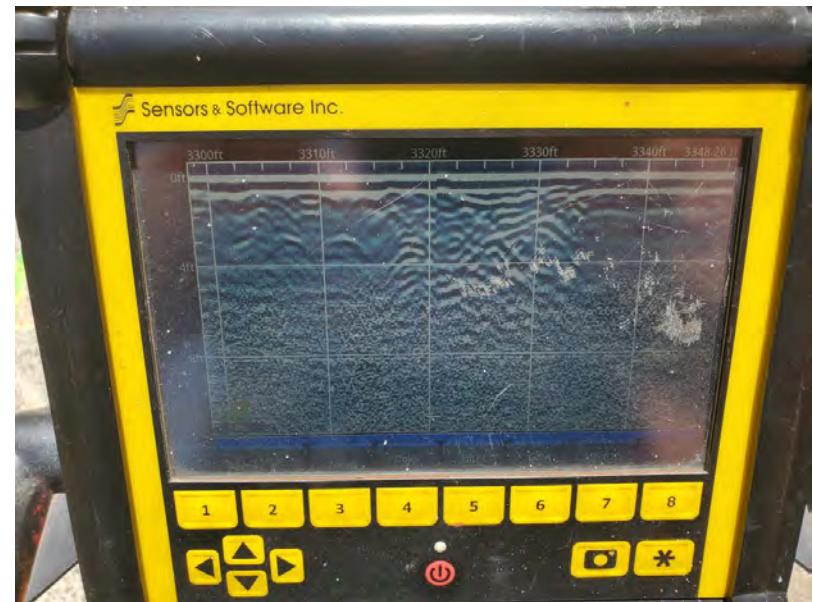
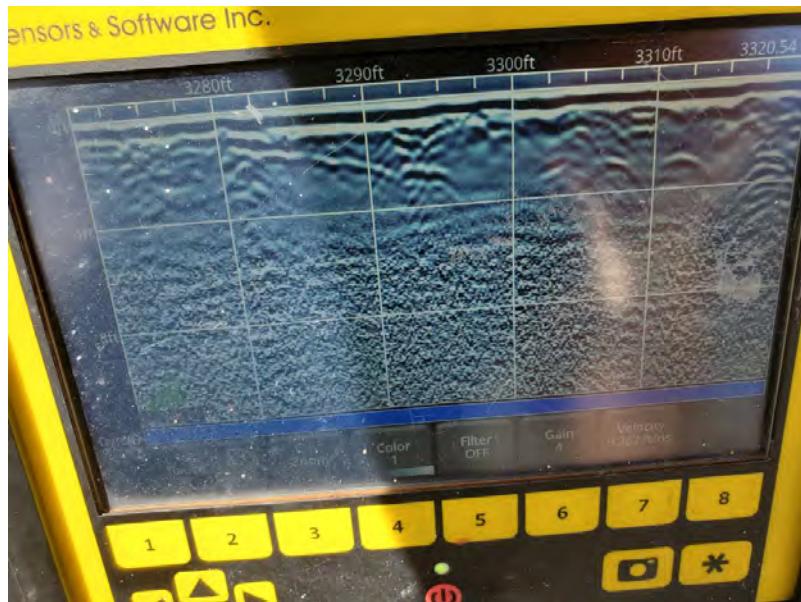
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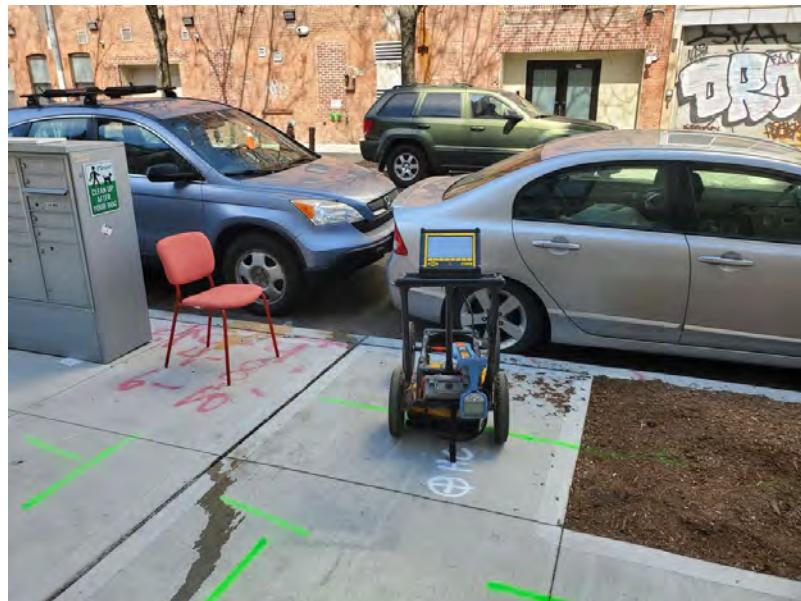
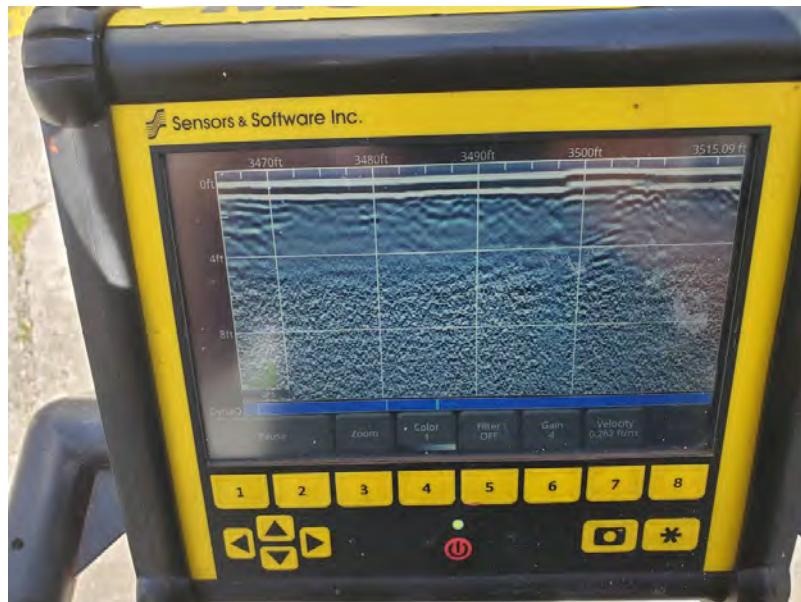
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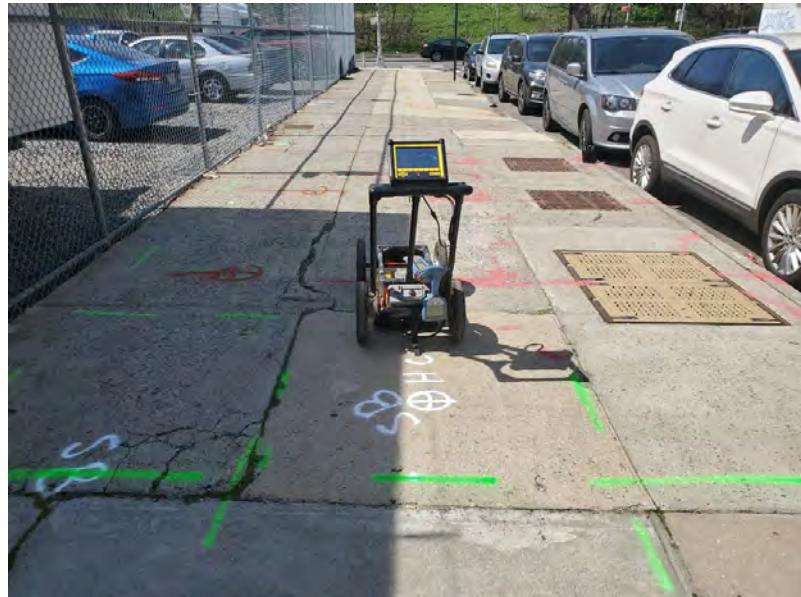
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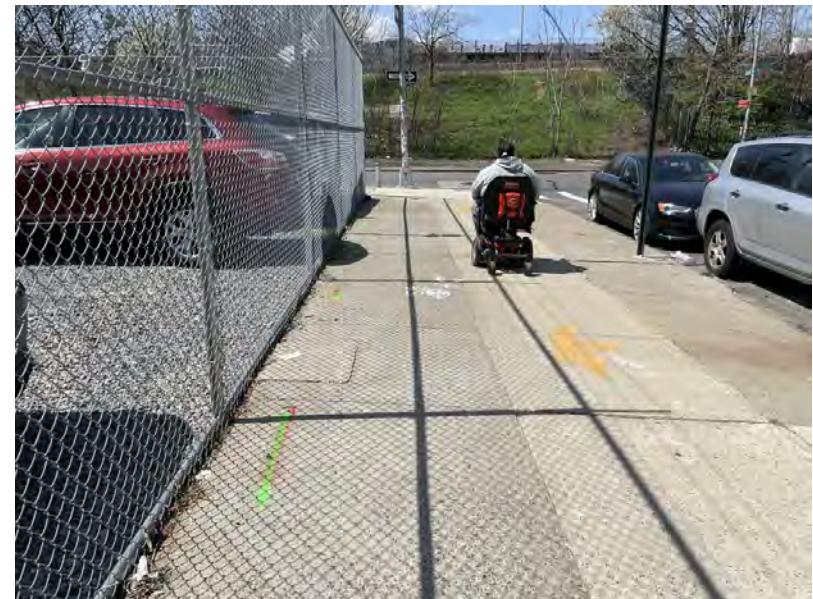
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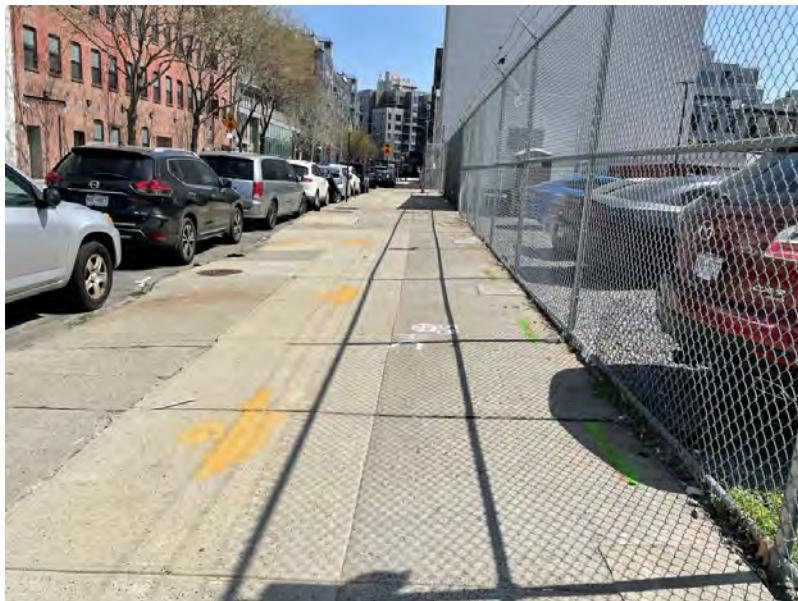
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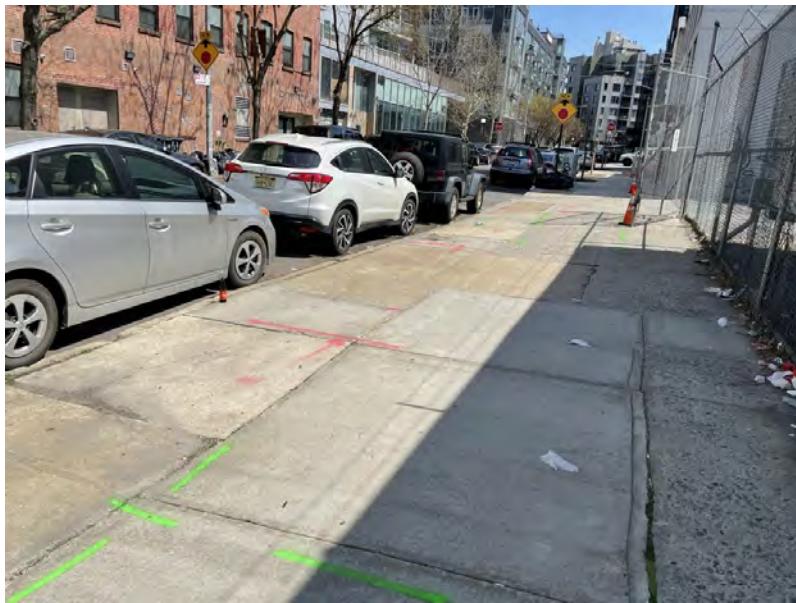
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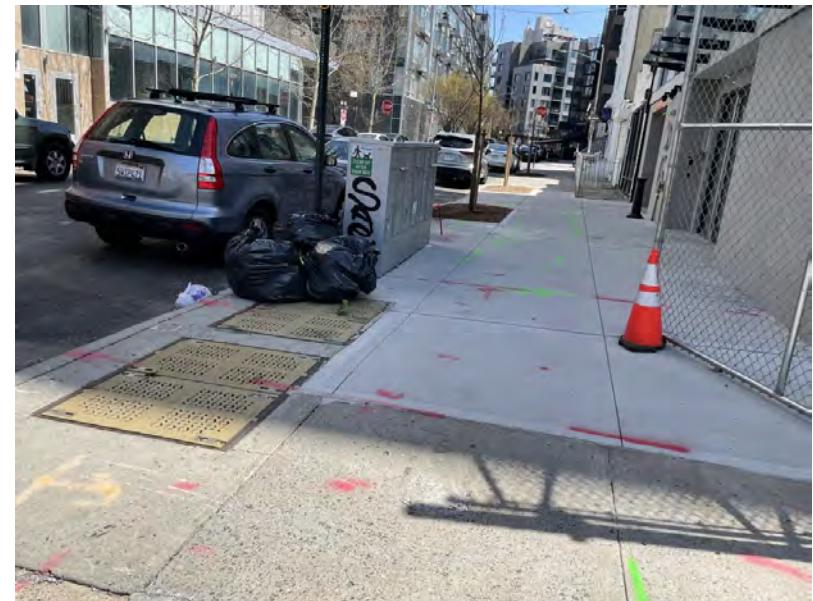
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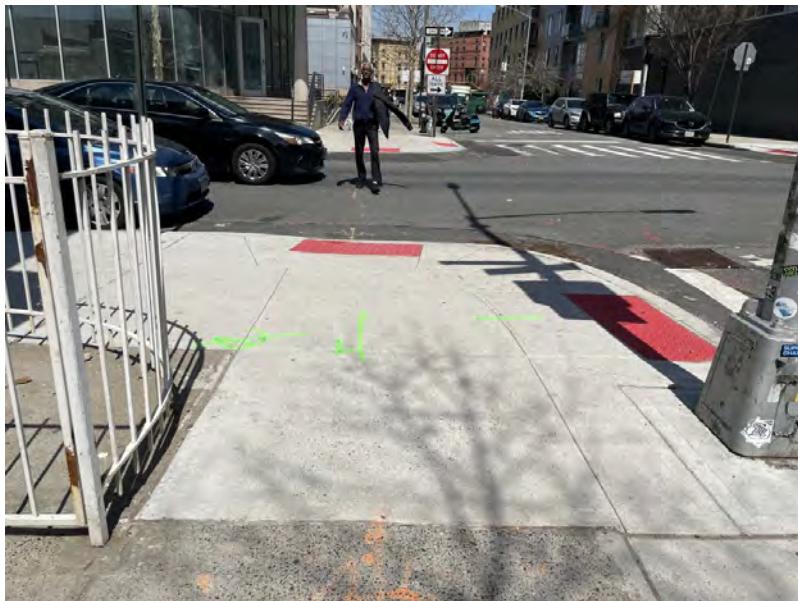
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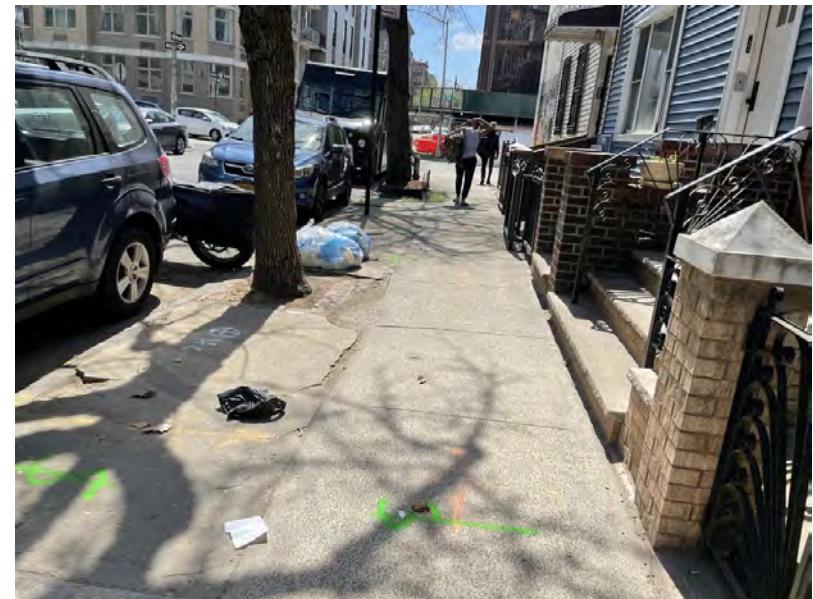
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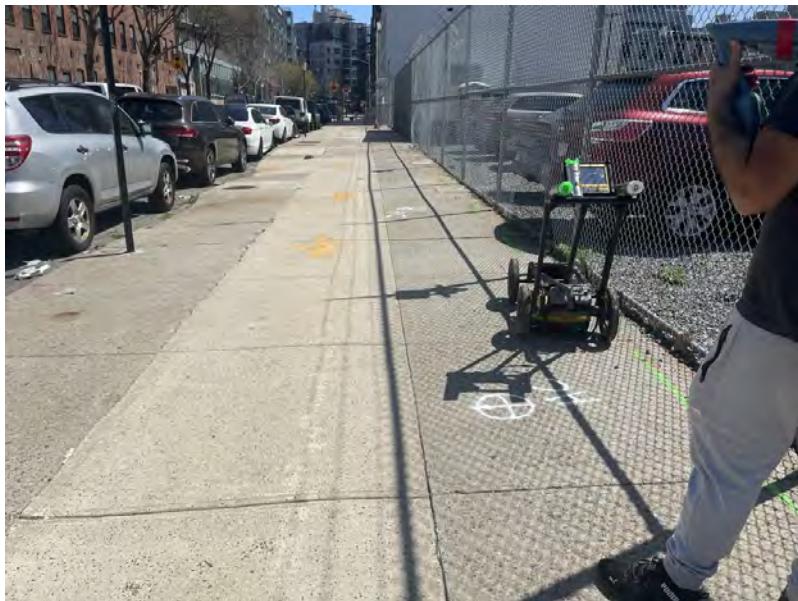
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**GEOPHYSICAL IMAGES**

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Keap Street & Ainsley Street,  
Brooklyn, New York 11211  
April 15th, 2022



**Attachment C**

**Soil Boring Logs**

Project 432 Rodney Street - Offsite			Project No. 170650901					
Location New York, NY			Elevation and Datum N/A					
Drilling Company Eastern Environmental Solutions, Inc.			Date Started 04/22/2022		Date Finished 04/22/2022			
Drilling Equipment Geoprobe 7822 DT			Completion Depth 20 ft		Rock Depth N/A			
Size and Type of Bit 2-inch Direct Push			Number of Samples	Disturbed 4	Undisturbed N/A	Core N/A	N/A	
Casing Diameter (in) N/A	Casing Depth (ft) N/A		Water Level (ft.)	First 	13.4	Completion 	24 HR. 	
Casing Hammer N/A	Weight (lbs) N/A	Drop (in) N/A	Drilling Foreman Dylan Jewell					
Sampler 5-foot-long Macrocore with dedicated acetate liner			Field Engineer Seyena Simpson					
Sampler Hammer N/A	Weight (lbs) N/A	Drop (in) N/A						
MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data				
		R1a (0-9") Light gray fine GRAVEL (dry) [CONCRETE]	0	Number R1	Type Macrocore	Recov. (in) 15/60	Penetr. resist BL/6in 0.0	0.0
		R1b (9-15") Dark brown fine SAND, some silt, trace fine gravel, brick, coal (moist) [FILL]	2					0.0
			4					0.0
			6					0.0
			8					0.0
		R2a (0-13") Tannish brown to black fine SAND, some silt, trace fine gravel, fine red gravel (moist) [SP]	10					0.0
		R2b (13-18") Tannish brown silty fine SAND, trace clay (wet) [SP]	12					0.0
			14					0.0
		R3a (0-7") Tannish brown to olive brown silty fine SAND, trace clay, trace fine gravel, dark gray inclusions (wet) [SP]	16					0.0
		R3b (7-19") Light gray fine SAND, some fine gravel, concrete (dry) [SP]	18					0.0
			20					0.0
		R4 (0-7") Tannish brown fine SAND, some silt, trace fine gravel, fine red gravel (wet) [SP]	22					0.0
			24					0.0
			25					Bottom of boring at 20 feet bgs.

Project 432 Rodney Street - Offsite			Project No. 170650901				
Location New York, NY			Elevation and Datum N/A				
Drilling Company Eastern Environmental Solutions, Inc.			Date Started 04/22/2022		Date Finished 04/22/2022		
Drilling Equipment Geoprobe 7822 DT			Completion Depth 60 ft		Rock Depth N/A		
Size and Type of Bit 2-inch Direct Push			Number of Samples	Disturbed 12	Undisturbed N/A	Core N/A	Core N/A
Casing Diameter (in) N/A	Casing Depth (ft) N/A		Water Level (ft.)	First ▽	14.1	Completion ▽	24 HR. ▽
Casing Hammer N/A	Weight (lbs) N/A	Drop (in) N/A	Drilling Foreman Dylan Jewell				
Sampler 5-foot-long Macrocore with dedicated acetate liner			Field Engineer Seyena Simpson				
Sampler Hammer N/A	Weight (lbs) N/A	Drop (in) N/A					
MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data			
		R1a (0-9") Light gray fine GRAVEL (dry) [CONCRETE]	0	Number R1	Type Macrocore	Recov. 11/60	PID 0.0 0.0
		R1b (9-11") Dark brown to black fine SAND, trace silt, trace fine gravel, slag (moist) [FILL]	2				
		R2a (0-6") Tannish brown to dark black fine SAND, trace silt, trace fine gravel, fine red gravel (moist) [SW]	4				
		R2b (6-21") Tannish brown to dark brown fine SAND, some silt, trace fine gravel (moist) [SW]	6				
		R3 (0-11") Tannish brown to black fine SAND, some silt, trace fine gravel, fine red gravel, asphalt (wet) [SW]	8				
		R4a (0-8") Dark brown to black fine SAND, trace silt, trace fine gravel, fine red gravel (wet) [SW]	10				
		R4b (8-12") Light gray fine GRAVEL (dry) [GW]	12				
		R4c (12-15") Tannish brown silty fine SAND, trace clay, trace fine gravel (wet) [SW]	14				
		R4d (15-18") Olive brown fine SAND, trace silt, trace fine gravel (wet) [SW]	16				
		R4e (18-45") Tannish brown fine SAND, some silt, trace fine gravel, fine red gravel (wet) [SW]	18				
		R5a (0-5") Dark brown to black fine SAND, trace silt, trace fine gravel, fine red gravel (wet) [SW]	20				
		R5b (5-21") Olive gray clayey fine SAND (wet) [SW]	22				
		R5c (21-57") Tannish brown medium SAND, trace fine gravel (wet) [SW]	24				
		R6 (0-48") Tannish brown medium SAND, trace fine gravel (wet) [SW]	26				
		R7 (0-49") Tannish brown medium SAND, trace fine gravel (wet) [SW]	28				
			30				
			32				
			34				
			35				

# LANGAN

## Log of Boring

**MW01B**

Sheet 2 of 2

Project 432 Rodney Street - Offsite			Project No. 170650901				
Location New York, NY			Elevation and Datum N/A				
MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data			
		R8 (0-50") Tannish brown medium SAND, trace fine gravel (wet) [SW]	35	R8	Number	Type	Recov. (in)
		R9a (0-17") Brown medium SAND, trace fine gravel (wet) [SW]	36	R9	Macrocore	Macrocore	50/60
		R9b (17-28") Brown medium SAND, trace silt, trace fine gravel (wet) [SW]	38	R10	Macrocore	Macrocore	28/60
		R10a (0-35") Orangish brown medium SAND, trace fine gravel (wet) [SW]	40	R11	Macrocore	Macrocore	54/60
		R10b (33-54") Orangish brown medium SAND, trace fine gravel (wet) [SW]	42	R12	Macrocore	Macrocore	51/60
		R11 (0-51") Orangish brown medium SAND, some fine gravel (wet) [SW]	44				
		R12 (0-11") Brown to orangish brown medium SAND, trace silt, trace fine gravel (wet) [SW]	46				
			48				
			50				
			52				
			54				
			56				
			58				
			60				
			62				
			64				
			66				
			68				
			70				
			72				
			74				
			76				
			78				

Project 432 Rodney Street - Offsite			Project No. 170650901								
Location New York, NY			Elevation and Datum N/A								
Drilling Company Eastern Environmental Solutions, Inc.			Date Started 04/21/2022		Date Finished 04/21/2022						
Drilling Equipment Geoprobe 7822 DT			Completion Depth 20 ft		Rock Depth N/A						
Size and Type of Bit 2-inch Direct Push			Number of Samples	Disturbed 4	Undisturbed N/A	Core N/A	N/A				
Casing Diameter (in) N/A		Casing Depth (ft) N/A	Water Level (ft.)	First ▽	13.2	Completion ▽	24 HR. ▽				
Casing Hammer	Weight (lbs)	N/A	Drilling Foreman Dylan Jewell								
Sampler 5-foot-long Macrocore with dedicated acetate liner			Field Engineer Seyena Simpson								
Sampler Hammer	Weight (lbs)	N/A	Drop (in)	N/A							
MATERIAL SYMBOL	Elev. (ft)	Sample Description		Depth Scale	Sample Data						
		R1a (0-6") Light gray fine GRAVEL (dry) [CONCRETE] R1b (6-12") Black fine GRAVEL (dry) [ASPHALT]		0	Number M-1A	Type Macrocore	Recov. (in)	Penetr. resist BL/in	PID (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)	
		R1c (12-16") Dark brown find SAND, some fine black gravel (dry) [FILL]		2							
		R2 (0-30") Tannish brown to dark brown fine SAND, some silt, trace fine gravel (moist) [SW]		4							
		R3a (0-10") Tannish brown to dark brown fine SAND, some silt, trace fine gravel (moist) [SW] R3b (10-32") Tannish brown to dark brown silty fine SAND, trace clay (wet) [SW]		6							
		R4 (0-34") Tannish brown to dark brown silty fine SAND, trace clay (wet) [SW]		8							
				10							
				12							
				14							
				16							
				18							
				20						Bottom of boring at 20 feet bgs.	
				22							
				24							
				25							

Project 432 Rodney Street - Offsite			Project No. 170650901							
Location New York, NY			Elevation and Datum N/A							
Drilling Company Eastern Environmental Solutions, Inc.			Date Started 04/21/2022		Date Finished 04/21/2022					
Drilling Equipment Geoprobe 7822 DT			Completion Depth 20 ft		Rock Depth N/A					
Size and Type of Bit 2-inch Direct Push			Number of Samples	Disturbed 4	Undisturbed N/A	Core N/A	N/A			
Casing Diameter (in) N/A		Casing Depth (ft) N/A	Water Level (ft.)	First ▽	15.8	Completion ▽	24 HR. ▽			
Casing Hammer	Weight (lbs)	N/A	Drilling Foreman Dylan Jewell							
Sampler 5-foot-long Macrocore with dedicated acetate liner			Field Engineer Seyena Simpson							
Sampler Hammer	Weight (lbs)	N/A	Drop (in)	N/A						
MATERIAL SYMBOL	Elev. (ft)	Sample Description		Depth Scale	Sample Data					
		R1a (0-6") Light gray fine GRAVEL (dry) [CONCRETE] R1b (6-13") Tannish brown to dark brown fine SAND, some silt, trace fine gravel, brick (moist) [FILL]		0	Number M-1A	Type Macrocore	Recov. (in) 13/60	Penetr. resist BL/6in	PID (ppm) 0.0 0.0 0.0	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		R2a (0-20") Tannish brown to dark brown fine SAND, some silt, trace fine gravel, brick, wood (moist) [FILL]		2	M-2A	Macrocore	13/60		0.0 0.0 0.0 0.1 0.2	
		R2b (20-24") Olive brown silty fine SAND, trace clay, wood (moist) [SW] R3a (0-16") Olive brown clayey fine SAND (moist) [SW]		4	M-3A	Macrocore	24/60		0.0 0.0 0.0 0.0 0.0	
		R3b (16-48") Tannish brown fine SAND, some silt, trace fine gravel (moist) [SW]		6	M-4A	Macrocore	48/60		0.0 0.0 0.0 0.0 0.0	
		R4a (0-37") Tannish brown to dark brown fine SAND, some silt, trace fine gravel (wet) [SW]		8					0.0 0.0 0.0 0.0 0.0	
		R4b (37-50") Tannish brown medium SAND (wet) [SP]		10					0.0 0.0 0.0 0.0 0.0	
				12					0.0 0.0 0.0 0.0 0.0	
				14					0.0 0.0 0.0 0.0 0.0	
				16					0.0 0.0 0.0 0.0 0.0	
				18					0.0 0.0 0.0 0.0 0.0	
				20					0.0 0.0 0.0 0.0 0.0	Bottom of boring at 20 feet bgs.
				22						
				24						
				25						

# **LANGAN**

## Log of Boring

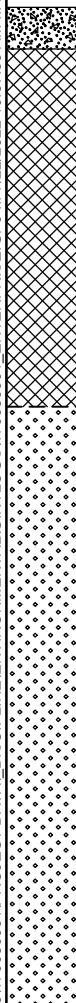
SB01

Shee

1 of

1

Project 432 Rodney Street - Offsite			Project No. 170650901								
Location New York, NY			Elevation and Datum N/A								
Drilling Company Eastern Environmental Solutions, Inc.			Date Started 04/25/2022		Date Finished 04/25/2022						
Drilling Equipment Geoprobe 7822 DT			Completion Depth 20 ft		Rock Depth N/A						
Size and Type of Bit 2-inch Direct Push			Number of Samples	Disturbed 4	Undisturbed N/A	Core N/A					
Casing Diameter (in) N/A		Casing Depth (ft) N/A	Water Level (ft.)	First ▽	Completion 8.3	24 HR. ▽					
Casing Hammer N/A		Weight (lbs) N/A	Drop (in) N/A	Drilling Foreman Dylan Jewell							
Sampler 5-foot-long Macrocore with dedicated acetate liner											
Sampler Hammer N/A		Weight (lbs) N/A	Drop (in) N/A	Field Engineer Seyena Simpson							
MATERIAL SYMBOL	Elev. (ft)	Sample Description						Depth Scale	Sample Data		
		R1a (0-11") Light gray fine GRAVEL (dry) [CONCRETE]		0	Number R1	Type Macrocore	Recov. (in)	Penetr. Bl/6in	Resist Bl/6in	PID (ppm)	0.0
		R1b (11-16") Red fine GRAVEL, brick (dry) [FILL] R1c (16-37") Tannish brown silty fine SAND, trace fine gravel (moist) [FILL]		2							0.0
		R2a (0-10") Tannish brown silty fine SAND, trace fine gravel, fine red gravel (moist) [SW] R2b (10-19") Tannish gray fine GRAVEL, concrete (dry) [SW]		4							0.0
		R2c (19-40") Tannish brown silty fine SAND, trace fine gravel, fine red gravel (wet) [SW]		6							0.0
		R3 (0-8") Tannish brown silty fine SAND, trace fine gravel, fine red gravel (wet) [SW]		8	R2	Macrocore	37/60				0.0
		R4 (0-53") Tannish brown silty fine SAND, trace fine gravel, fine red gravel (wet) [SW]		10	R3	Macrocore	40/60				0.0
				12	R4	Macrocore	8/60				0.0
				14							0.0
				16							0.0
				18							0.0
		20							0.0		
		22							0.0		
		24							0.0		
		25							0.0		
Bottom of boring at 20 feet bgs.											

Project 432 Rodney Street - Offsite			Project No. 170650901								
Location New York, NY			Elevation and Datum N/A								
Drilling Company Eastern Environmental Solutions, Inc.			Date Started 04/25/2022		Date Finished 04/25/2022						
Drilling Equipment Geoprobe 7822 DT			Completion Depth 20 ft		Rock Depth N/A						
Size and Type of Bit 2-inch Direct Push			Number of Samples	Disturbed 4	Undisturbed N/A	Core N/A	N/A				
Casing Diameter (in) N/A	Casing Depth (ft) N/A		Water Level (ft.)	First  11.8	Completion 	24 HR. 					
Casing Hammer N/A	Weight (lbs) N/A	Drop (in) N/A	Drilling Foreman Jay Slavin								
Sampler 5-foot-long Macrocore with dedicated acetate liner			Field Engineer Seyena Simpson								
Sampler Hammer N/A											
MATERIAL SYMBOL	Elev. (ft)	Sample Description		Depth Scale	Sample Data						
		R1a (0-10") Light gray fine GRAVEL (dry) [CONCRETE]		0	Number R1	Type Macrocore	Recov. (in) 28/60	Penetr. resist BL/6in 0.0	PID (ppm) 0.0	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)	
		R1b (10-24") Dark brown to black fine SAND, some silt, trace fine gravel, fine red gravel, coal, slag (moist) [FILL]		2				0.2	0.0		
		R1c (24-28") Light gray fine GRAVEL (dry) [FILL]		4				0.0	0.0		
		R2a (0-4") Dark brown to black fine SAND, some silt, trace fine gravel, fine red gravel, dark gray inclusions (moist) [SW]		6				0.2	0.0		
		R2b (4-9") Light gray fine sand, some fine gravel (dry) [SW]		8				0.0	0.0		
		R2c (9-23") Dark brown to black fine SAND, some silt, trace fine gravel, fine red gravel, dark gray inclusions (wet) [SW]		10				0.0	0.0		
		R3a (0-14") Olive brown silty fine SAND, trace fine gravel, fine red gravel, dark gray inclusions (wet) [SW]		12				0.0	0.0		
		R3b (14-38") Tannish brown to dark black medium SAND, trace fine gravel (wet) [SW]		14				0.0	0.0		
		R4 (0-58") Tannish brown to dark brown medium SAND, trace fine gravel (wet) [SW]		16				0.0	0.0		
				18				0.0	0.0		
				20				0.0	0.0		
				22						Bottom of boring at 20 feet bgs.	
				24							
				25							

Project 432 Rodney Street - Offsite			Project No. 170650901						
Location New York, NY			Elevation and Datum N/A						
Drilling Company Eastern Environmental Solutions, Inc.			Date Started 04/25/2022		Date Finished 04/25/2022				
Drilling Equipment Geoprobe 7822 DT			Completion Depth 20 ft		Rock Depth N/A		N/A		
Size and Type of Bit 2-inch Direct Push			Number of Samples	Disturbed 4	Undisturbed N/A	Core N/A			
Casing Diameter (in) N/A		Casing Depth (ft) N/A	Water Level (ft.)	First ▽	12.6	Completion ▼	24 HR. ▽		
Casing Hammer	Weight (lbs) N/A	Drop (in) N/A	Drilling Foreman Jay Slavin						
Sampler 5-foot-long Macrocore with dedicated acetate liner			Field Engineer Seyena Simpson						
Sampler Hammer	Weight (lbs) N/A	Drop (in) N/A							
MATERIAL SYMBOL	Elev. (ft)	Sample Description		Depth Scale	Sample Data				
				0	Number	Type	Recov. (in)		
		R1a (0-7") Light gray fine GRAVEL (dry) [CONCRETE]		R1	Macrocore	15/60	Penetr. resist BL/6in	PID (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		R1b (7-15") Light brown fine SAND, trace silt, fine red gravel (moist) [FILL]		2				0.0	
				4				0.0	
				6				0.0	
				8				0.0	
		R2a (0-8") Light brown fine SAND, fine red gravel (dry) [SW]		R2	Macrocore	24/60		0.0	
		R2b (8-12") Dark brown to black SAND, fine black gravel, wood (moist) [SW]						0.0	
		R2c (12-18") Tan to light gray fine SAND, trace silt, trace fine gravel (moist) [SW]						0.0	
		R2d (18-24") Brown to black fine SAND, some silt, trace fine gravel, dark gray inclusions (wet) [SW]						0.0	
				10				0.0	
		R3a (0-7") Brown to black fine SAND, trace silt, trace fine gravel, fine red gravel, dark gray inclusions (wet) [SW]		R3	Macrocore	29/60		0.0	
		R3b (7-24") Tannish brown to black silty fine SAND, trace clay, trace fine gravel, fine red gravel, dark gray inclusions (wet) [SW]						0.0	
		R3c (24-29") Brown to dark brown fine SAND, trace silt, fine gray gravel, fine red gravel (wet) [SW]						0.0	
		R4a (0-19") Tannish brown to black silty fine SAND, trace clay, fine gray gravel, fine red gravel (wet) [SW]		R4	Macrocore	44/60		0.0	
		R4b (19-25") Light brown fine SAND, trace silt, trace fine gravel, fine red gravel (wet) [SW]						0.0	
		R4c (25-44") Tannish brown fine SAND, some silt, trace fine gravel, fine red gravel (wet) [SW]						0.0	
				12				0.0	
				14				0.0	
				16				0.0	
				18				0.0	
				20				0.0	
				22				0.0	
				24				0.0	
				25				0.0	
									Bottom of boring at 20 feet bgs.

**Attachment D**

**Groundwater Monitoring Well Installation Logs**

## WELL CONSTRUCTION AND DEVELOPMENT SUMMARY

Well No.

MW01A

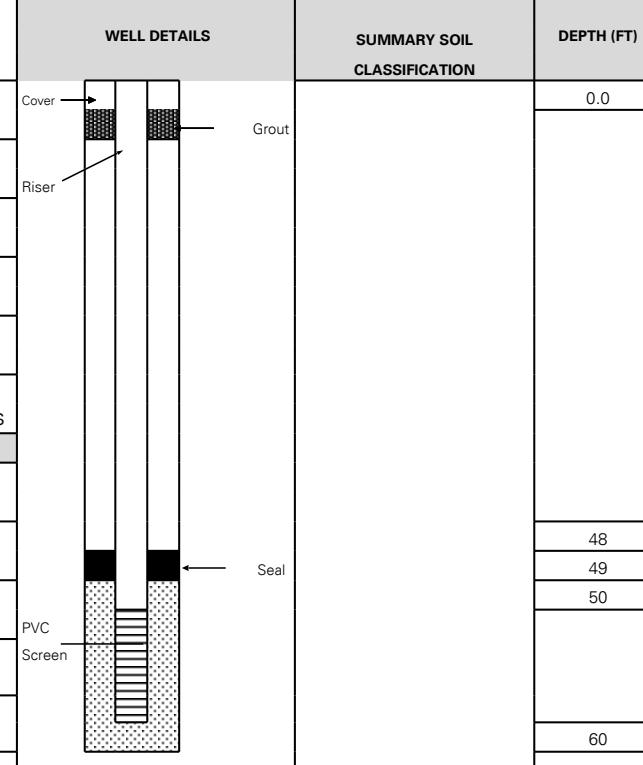
PROJECT	PROJECT NO.						
432 Rodney Street Offsite Investigation	170650901						
LOCATION	ELEVATION AND DATUM						
Brooklyn, NY	el. N/A	NAVD88					
DRILLING AGENCY	DATE STARTED	DATE FINISHED					
Eastern Environmental Solutions Inc.	4/22/2022	4/22/2022					
DRILLING EQUIPMENT	DRILLER						
Geoprobe® 7822 DT	Dylan Jewell						
SIZE AND TYPE OF BIT	INSPECTOR						
3.25-inch casing with steel-point	Seyena Simpson						
BOREHOLE DIAMETER	TYPE OF WELL (OVERBURDEN / BEDROCK)						
3.25 inches	Overburden						
RISER MATERIAL	DIAMETER	TYPE OF BACKFILL MATERIAL					
PVC	2-inch	No. 2 Sand					
TYPE OF SCREEN	DIAMETER	TYPE OF WELL PACK	TYPE OF SEAL MATERIAL				
PVC No. 20 slot	2-inch	No. 2 Sand	Bentonite				
METHOD OF INSTALLATION							
A Geoprobe 7822 DT was used to advance the boring to approximately 15 feet bgs. A two-inch (2") PVC monitoring well was installed which consisted of 10' of 20 slot (0.020-inch) well screen, and a solid 2-inch PVC riser. The well screen was installed from approximately 5 to 15 feet bgs with riser from 5 feet bgs to grade. The borehole annulus was backfilled with No.2 Sand to about 4 foot bgs, sealed with 1 foot of bentonite, raised to grade with No. 2 sand then cemented. The well was finished with a flush mounted road box and concrete pad.							
WELL DEVELOPMENT DATA							
SURGE BLOCK DIAMETER	N/A	TYPE PUMP	Whale Pump				
DRILLER OR LANGAN	Driller	MAX PUMP RATE	3.4gpm				
NUMBER OF SURGE CYCLES	N/A	TOTAL VOLUME	N/A				
4/22/2022: Well ran dry during development							
TOP OF CASING	ELEVATION	DEPTH (ft)	WELL DETAILS				
	N/A	0	Cover				
TOP OF SEAL	ELEVATION	DEPTH (ft)					
	N/A	3		Grout			
TOP OF FILTER	ELEVATION	DEPTH (ft)		Riser			
	N/A	4		Seal			
TOP OF SCREEN	ELEVATION	DEPTH (ft)		PVC			
	N/A	5		Screen			
BOTTOM OF BORING	ELEVATION	DEPTH (ft)					
	N/A	15					
SCREEN LENGTH		10					
SLOT SIZE	No. 20 Slot, 0.020 Inches						
GROUNDWATER ELEVATIONS							
ELEVATION	DATE	DEPTH TO WATER					
N/A	4/25/2022	9.4 ft					
ELEVATION	DATE	DEPTH TO WATER					
N/A							
ELEVATION	DATE	DEPTH TO WATER					
N/A							
ELEVATION	DATE	DEPTH TO WATER					
N/A							
ELEVATION	DATE	DEPTH TO WATER					
N/A							
ELEVATION	DATE	DEPTH TO WATER					
N/A							
LANGAN Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C.							
21 Penn Plaza, 360 West 31st Street, 8th Floor, New York							

## WELL CONSTRUCTION AND DEVELOPMENT SUMMARY

Well No.

MW01B

PROJECT	PROJECT NO.				
432 Rodney Street Offsite Investigation	170650901				
LOCATION	ELEVATION AND DATUM				
Brooklyn, NY	el. N/A	NAVD88			
DRILLING AGENCY	DATE STARTED	DATE FINISHED			
Eastern Environmental Solutions Inc.	4/22/2022	4/22/2022			
DRILLING EQUIPMENT	DRILLER				
Geoprobe® 7822 DT	Dylan Jewell				
SIZE AND TYPE OF BIT	INSPECTOR				
3.25-inch casing with steel-point	Seyena Simpson				
BOREHOLE DIAMETER	TYPE OF WELL (OVERBURDEN / BEDROCK)				
3.25 inches	Overburden				
RISER MATERIAL	DIAMETER	TYPE OF BACKFILL MATERIAL			
PVC	2-inch	No. 2 Sand			
TYPE OF SCREEN	DIAMETER	TYPE OF WELL PACK	TYPE OF SEAL MATERIAL		
PVC No. 20 slot	2-inch	No. 2 Sand	Bentonite		
METHOD OF INSTALLATION					
A Geoprobe 7822 DT was used to advance the boring to approximately 60 feet bgs. A two-inch (2") PVC monitoring well was installed which consisted of 10' of 20 slot (0.020-inch) well screen, and a solid 2-inch PVC riser. The well screen was installed from approximately 50 to 60 feet bgs with riser from 50 feet bgs to grade. The borehole annulus was backfilled with No. 2 Sand to about 49 foot bgs, sealed with 1 foot of bentonite, raised to grade with No. 2 sand then cemented. The well was finished with a flush mounted road box and concrete pad.					
WELL DEVELOPMENT DATA					
SURGE BLOCK DIAMETER	N/A	TYPE PUMP	Whale Pump		
DRILLER OR LANGAN	Driller	MAX PUMP RATE	3.4gpm		
NUMBER OF SURGE CYCLES	N/A	TOTAL VOLUME	N/A		
TOP OF CASING	ELEVATION	DEPTH (ft)			
	N/A	0			
TOP OF SEAL	ELEVATION	DEPTH (ft)			
	N/A	48			
TOP OF FILTER	ELEVATION	DEPTH (ft)			
	N/A	49			
TOP OF SCREEN	ELEVATION	DEPTH (ft)			
	N/A	50			
BOTTOM OF BORING	ELEVATION	DEPTH (ft)			
	N/A	60			
SCREEN LENGTH					
		10			
SLOT SIZE	No. 20 Slot, 0.020 Inches				
GROUNDWATER ELEVATIONS					
ELEVATION	DATE	DEPTH TO WATER			
N/A	4/25/2022	9.4 ft			
ELEVATION	DATE	DEPTH TO WATER			
N/A			48		
ELEVATION	DATE	DEPTH TO WATER			
N/A			49		
ELEVATION	DATE	DEPTH TO WATER			
N/A			50		
ELEVATION	DATE	DEPTH TO WATER			
N/A					
ELEVATION	DATE	DEPTH TO WATER			
N/A			60		
ELEVATION	DATE	DEPTH TO WATER			
N/A					
<b>LANGAN Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C.</b>					
21 Penn Plaza, 360 West 31st Street, 8th Floor, New York					



## WELL CONSTRUCTION AND DEVELOPMENT SUMMARY

Well No.

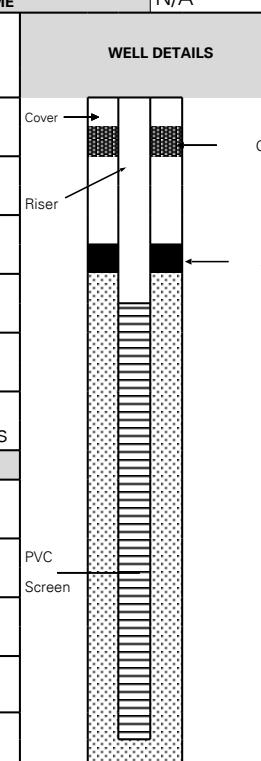
MW02

PROJECT	PROJECT NO.				
432 Rodney Street Offsite Investigation	170650901				
LOCATION	ELEVATION AND DATUM				
Brooklyn, NY	el. N/A	NAVD88			
DRILLING AGENCY	DATE STARTED	DATE FINISHED			
Eastern Environmental Solutions Inc.	4/21/2022	4/21/2022			
DRILLING EQUIPMENT	DRILLER				
Geoprobe® 7822 DT	Dylan Jewell				
SIZE AND TYPE OF BIT	INSPECTOR				
3.25-inch casing with steel-point	Seyena Simpson				
BOREHOLE DIAMETER	TYPE OF WELL (OVERBURDEN / BEDROCK)				
3.25 inches	Overburden				
RISER MATERIAL	DIAMETER	TYPE OF BACKFILL MATERIAL			
PVC	2-inch	No. 2 Sand			
TYPE OF SCREEN	DIAMETER	TYPE OF WELL PACK	TYPE OF SEAL MATERIAL		
PVC No. 20 slot	2-inch	No. 2 Sand	Bentonite		
METHOD OF INSTALLATION					
A Geoprobe 7822 DT was used to advance the boring to approximately 15 feet bgs. A two-inch (2") PVC monitoring well was installed which consisted of 10' of 20 slot (0.020-inch) well screen, and a solid 2-inch PVC riser. The well screen was installed from approximately 5 to 15 feet bgs with riser from 5 feet bgs to grade. The borehole annulus was backfilled with No.2 Sand to about 4 foot bgs, sealed with 1 foot of bentonite, raised to grade with No. 2 sand then cemented. The well was finished with a flush mounted road box and concrete pad.					
WELL DEVELOPMENT DATA					
SURGE BLOCK DIAMETER	N/A	TYPE PUMP	Whale Pump		
DRILLER OR LANGAN	Driller	MAX PUMP RATE	3.4gpm		
NUMBER OF SURGE CYCLES	N/A	TOTAL VOLUME	N/A		
4/22/2022: Well ran dry during development					
TOP OF CASING	ELEVATION	DEPTH (ft)	WELL DETAILS		
	N/A	0	Cover		
TOP OF SEAL	ELEVATION	DEPTH (ft)			
	N/A	3		Grout	
TOP OF FILTER	ELEVATION	DEPTH (ft)		Riser	
	N/A	4		Seal	
TOP OF SCREEN	ELEVATION	DEPTH (ft)		PVC	
	N/A	5		Screen	
BOTTOM OF BORING	ELEVATION	DEPTH (ft)			
	N/A	15			
SCREEN LENGTH		10			
SLOT SIZE	No. 20 Slot, 0.020 Inches				
GROUNDWATER ELEVATIONS					
ELEVATION	DATE	DEPTH TO WATER			
N/A	4/22/2022	9.23 ft			
ELEVATION	DATE	DEPTH TO WATER			
N/A					
ELEVATION	DATE	DEPTH TO WATER			
N/A					
ELEVATION	DATE	DEPTH TO WATER			
N/A					
ELEVATION	DATE	DEPTH TO WATER			
N/A					
ELEVATION	DATE	DEPTH TO WATER			
N/A					
LANGAN Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C.					
21 Penn Plaza, 360 West 31st Street, 8th Floor, New York					

## WELL CONSTRUCTION AND DEVELOPMENT SUMMARY

Well No.

MW03

PROJECT	PROJECT NO.				
432 Rodney Street Offsite Investigation	170650901				
LOCATION	ELEVATION AND DATUM				
Brooklyn, NY	el. N/A	NAVD88			
DRILLING AGENCY	DATE STARTED	DATE FINISHED			
Eastern Environmental Solutions Inc.	4/21/2022	4/21/2022			
DRILLING EQUIPMENT	DRILLER				
Geoprobe® 7822 DT	Dylan Jewell				
SIZE AND TYPE OF BIT	INSPECTOR				
3.25-inch casing with steel-point	Seyena Simpson				
BOREHOLE DIAMETER	TYPE OF WELL (OVERBURDEN / BEDROCK)				
3.25 inches	Overburden				
RISER MATERIAL	DIAMETER	TYPE OF BACKFILL MATERIAL			
PVC	2-inch	No. 2 Sand			
TYPE OF SCREEN	DIAMETER	TYPE OF WELL PACK	TYPE OF SEAL MATERIAL		
PVC No. 20 slot	2-inch	No. 2 Sand	Bentonite		
METHOD OF INSTALLATION					
A Geoprobe 7822 DT was used to advance the boring to approximately 20 feet bgs. A two-inch (2") PVC monitoring well was installed which consisted of 10' of 20 slot (0.020-inch) well screen, and a solid 2-inch PVC riser. The well screen was installed from approximately 10 to 20 feet bgs with riser from 10 feet bgs to grade. The borehole annulus was backfilled with No.2 Sand to about 9 foot bgs, sealed with 1 foot of bentonite, raised to grade with No. 2 sand then cemented. The well was finished with a flush mounted road box and concrete pad.					
WELL DEVELOPMENT DATA					
SURGE BLOCK DIAMETER	N/A	TYPE PUMP	Whale Pump		
DRILLER OR LANGAN	Driller	MAX PUMP RATE	3.4gpm		
NUMBER OF SURGE CYCLES	N/A	TOTAL VOLUME	N/A		
TOP OF CASING	ELEVATION	DEPTH (ft)			
	N/A	0			
TOP OF SEAL	ELEVATION	DEPTH (ft)			
	N/A	8			
TOP OF FILTER	ELEVATION	DEPTH (ft)			
	N/A	9			
TOP OF SCREEN	ELEVATION	DEPTH (ft)			
	N/A	10			
BOTTOM OF BORING	ELEVATION	DEPTH (ft)			
	N/A	20			
SCREEN LENGTH					
		10			
SLOT SIZE	No. 20 Slot, 0.020 Inches				
GROUNDWATER ELEVATIONS					
ELEVATION	DATE	DEPTH TO WATER			
N/A	4/22/2022	9.82 ft			
ELEVATION	DATE	DEPTH TO WATER			
N/A					
ELEVATION	DATE	DEPTH TO WATER			
N/A					
ELEVATION	DATE	DEPTH TO WATER			
N/A					
ELEVATION	DATE	DEPTH TO WATER			
N/A					
ELEVATION	DATE	DEPTH TO WATER			
N/A					
<b>LANGAN Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C.</b>					
21 Penn Plaza, 360 West 31st Street, 8th Floor, New York					

**Attachment E**

**Groundwater Sampling Logs**

Project Information		Well Information		Equipment Information			Sampling Conditions			Sampling Information	
Project Name:	432 Rodney Street	Well No.:	MW01A	Water Quality Device Model:	Horiba U-52		Weather:	40-60 F		Sample(s):	MW01A_042922
Project Number:	170650901	Well Depth:	15	Pine Number:	43605		Background PID (ppm):	0.0			
Site Location:	432 Rodney Street	Well Diameter:	2 inch	Pump Make and Model:	Perisaltic Pump		PID Beneath Inner Cap (ppm):	0			
Sampling Personnel:	Elsah Boak	Well Screen Interval:	5-15	Pine Number:	24462		Pump Intake Depth:	13.00		Sample Date:	4/29/202
<i>STABILIZATION = 3 successive readings within limits</i>											
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	Stabilized?
<b>BEGIN PURGING</b>											
9:10	13.04	9.69	-4	3.820	379.0	6.79	8.95		0.1	yellow tint, no odor	N/A
9:15	13.00	9.44	2	3.880	358.0	5.62	8.95	0.03	0.25		N/A
9:20	12.85	9.13	18	3.800	319.0	5.21	9.00	0.03	0.4		N
9:25	12.21	8.63	44	3.470	263.0	4.82	9.10	0.07	0.75		N
9:30	12.07	8.37	45	3.400	182.0	3.66	9.20	0.05	1		N
9:35	12.05	8.22	24	3.300	490.0	2.55	9.22	0.08	1.4		N
9:40	12.28	8.45	5	3.370	546.0	2.58	9.25	0.04	1.6		N
9:45	12.36	8.16	30	3.190	329.0	2.75	9.27	0.03	1.75		N
9:50	12.23	7.92	50	3.000	178.0	2.77	9.22	0.05	2		N
9:55	12.15	7.82	61	2.850	107.0	2.57	9.00	0.05	2.25		N
10:00	12.25	7.76	70	2.720	84.7	2.79	9.00	0.02	2.35		N
10:05	12.31	7.73	70	2.660	63.4	2.52	9.12	0.03	2.5		N
10:10	12.46	7.70	74	2.560	36.3	2.57	9.10	0.04	2.7		N
10:15	12.35	7.68	75	2.510	26.2	2.50	9.12	0.06	3		N
10:20	12.40	7.68	78	2.460	22.8	2.44	9.15	0.05	3.25		N
10:25	12.46	7.67	79	2.420	17.0	2.46	9.18	0.05	3.5		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

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

Project Information		Well Information		Equipment Information			Sampling Conditions			Sampling Information	
Project Name:	432 Rodney Street	Well No:	MW01B	Water Quality Device Model:	Horiba U-52		Weather:	40-60 F		Sample(s):	
Project Number:	170650901	Well Depth:	60	Pine Number:	43605		Background PID (ppm):	0.0			MW01B_042922
Site Location:	432 Rodney Street	Well Diameter:	2 inch	Pump Make and Model:	Peristaltic Pump		PID Beneath Inner Cap (ppm):	0.1			DUP,MS,MSD
Sampling Personnel:	Elsah Boak	Well Screen Interval:	50-60	Pine Number:	24462		Pump Intake Depth:	50.00		Sample Date:	4/29/2022
				Tubing Diameter:	1/4"IDx3/8"OD LPDE		Depth to Water Before Purge:	9.04		Sample Time:	9:00
<b>STABILIZATION = 3 successive readings within limits</b>											
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 <0.13 gpm)	Flow Rate (gpm)	Cumulative Discharge Volume (Gal)	NOTES	Stabilized?
<b>BEGIN PURGING</b>											
7:55	12.45	7.55	-111	0.851	222.0	3.92	9.04		0.2	clear, no odor	N/A
8:00	13.32	7.35	-138	0.815	176.0	1.62	9.07	0.06	0.5		N/A
8:05	13.58	7.34	-142	0.806	163.0	0.88	9.00	0.1	1		N
8:10	13.46	7.35	-140	0.807	146.0	0.80	9.12	0.05	1.25		N
8:15	13.32	7.37	-124	0.800	144.0	0.71	9.16	0.05	1.5		N
8:20	13.37	7.38	-120	0.796	144.0	0.76	9.19	0.05	1.75		N
8:25	13.41	7.39	-114	0.788	145.0	0.87	9.18	0.05	2		N
8:30	13.27	7.41	-110	0.782	143.0	0.87	9.15	0.04	2.2		N
8:35	13.34	7.43	-107	0.779	130.0	0.92	9.15	0.04	2.4		N
8:40	13.43	7.44	-107	0.775	137.0	0.92	9.12	0.04	2.6		Y

**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

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Project Information		Well Information		Equipment Information			Sampling Conditions			Sampling Information	
Project Name:	432 Rodney Street	Well No:	MW02	Water Quality Device Model:	Horiba U-52	Pine Number:	43605	Weather:	40-60 F	Sample(s):	MW02042922
Project Number:	170650901	Well Depth:	15	Pump Make and Model:	Peristaltic Pump	Pine Number:	24462	Background PID (ppm):	0.0		
Site Location:	432 Rodney Street	Well Diameter:	2-inch	Tubing Diameter:	1/4"IDx3/8"OD LPDE	PID Beneath Inner Cap (ppm):	0	Pump Intake Depth:	13.00	Sample Date:	7/6/2017
Sampling Personnel:	Elsah Boak	Well Screen Interval:	'5-15			Depth to Water Before Purge:	9.2	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	Stabilized?
BEGIN PURGING											
10:55	14.43	7.68	92	3.600	315.0	6.48	9.20		0.2	yellow tint, no odor	N/A
11:00	14.78	8.49	79	3.800	340.0	6.94	10.40	0.04	0.4		N/A
11:05	14.83	9.43	60	3.590	296.0	7.44	11.50	0.02	0.5		N
11:10	14.96	9.61	44	3.590	198.0	7.56	12.00	0.02	0.6		N
11:15	15.05	8.87	62	3.720	695.0	6.94	13.50	0.04	0.8		N
11:20	15.27	9.36	59	3.690	329.0	7.34	13.68	0.04	1		N
11:25	15.70	9.22	64	3.690	199.0	8.92	13.80	0.04	1.2		N
11:30	15.73	9.31	60	3.670	137.0	7.74	13.95	0.01	1.25		N
11:35	16.01	9.22	61	3.680	119.0	7.87	14.00	0.002	1.26		N
11:40	16.18	9.28	61	3.660	93.5	7.92	14.02	0.002	1.27		N
11:45	16.25	9.34	60	3.650	75.1	7.88	14.05	0.002	1.28		N
11:50	16.09	9.32	61	3.640	84.3	7.53	14.10	0.024	1.4		N
11:55	16.12	9.39	63	3.630	84.0	7.62	14.10	0.02	1.5		N
12:00	16.13	9.36	61	3.660	84.6	7.54	14.10	0.01	1.55		Y

**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

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Project Information		Well Information		Equipment Information			Sampling Conditions			Sampling Information	
Project Name:	432 Rodney Street	Well No:	MW03	Water Quality Device Model:	Horiba U-52		Weather:	40-60 F		Sample(s):	MW03_042922
Project Number:	170650901	Well Depth:	20	Pine Number:	43605		Background PID (ppm):	0.0			
Site Location:	432 Rodney Street	Well Diameter:	2-inch	Pump Make and Model:	Peristaltic Pump		PID Beneath Inner Cap (ppm):	0			
Sampling Personnel:	Elsah Boak	Well Screen Interval:	10-20	Pine Number:	24462		Pump Intake Depth:	18.00	Sample Date:	4/29/2022	Sample Time: 1:30
<i>STABILIZATION = 3 successive readings within limits</i>											
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?
<b>BEGIN PURGING</b>											
12:20	15.06	8.08	66	1.080	91.0	4.90	9.40		0.1	clear, no odor	N/A
12:25	14.99	7.83	62	1.030	67.4	5.27	9.55	0.03	0.25		N/A
12:30	15.13	7.78	62	1.010	48.4	5.86	9.60	0.02	0.35		N
12:35	15.12	7.72	59	1.000	32.2	5.42	9.74	0.03	0.5		N
12:40	15.00	7.68	57	0.996	27.3	4.85	9.87	0.05	0.75		N
12:45	14.89	7.63	57	0.989	17.1	4.16	10.00	0.09	1.2		N
12:50	14.80	7.61	56	0.992	13.3	4.19	10.03	0.04	1.4		N
12:55	14.80	7.59	56	1.000	12.0	4.03	10.00	0.04	1.6		N
13:00	14.95	7.53	59	1.030	9.7	4.25	9.75	0.05	1.85		N
13:05	15.04	7.52	59	1.060	8.8	4.01	9.50	0.05	2.1		N
13:10	15.21	7.52	60	1.090	7.0	4.50	9.42	0.03	2.25		N
13:15	15.24	7.53	61	1.100	6.9	4.60	9.30	0.05	2.5		N
13:20	15.27	7.56	59	1.120	6.8	4.70	9.30	0.04	2.7		Y

**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

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**Attachment F**

**Soil Vapor Logs**

## AIR SAMPLING LOG SHEET

Sample Number: AA01\_042122

<b>PROJECT:</b> 432 Rodney Street Offsite Investigation	<b>PROJECT NO.:</b> 170650901	
<b>LOCATION:</b> Brooklyn, NY	<b>SURFACE ELEVATION AND DATUM (NAV88):</b> N/A	
<b>SAMPLER:</b> Seyena Simpson	<b>SAMPLE DATE STARTED:</b> 4/21/2022	<b>DATE FINISHED:</b> 4/21/2022
<b>INSPECTOR:</b> Seyena Simpson	<b>TYPE OF SAMPLING DEVICE:</b> 2.7-Liter Summa Canister	
<b>POTENTIAL SAMPLE INTERFERENCES:</b>  N/A	<b>WEATHER CONDITIONS (PRECIP., TEMP., PRESS., WIND SPEED AND DIR.):</b>	
	Temp:	44-59 F
	Wind:	SW 5mph
	Precipitation:	N/A
	Pressure:	N/A

**METHOD OF INSTALLATION AND SAMPLING:**

Langan field screened the sample location with a MultiRAE detector prior to sampling. Sample consisted of 2.7L Summa canister fitted with a 2-hour flow control valve. The flow controller was zeroed and valve opened to initiate the 2-hour sample collection. The sample and flow controller were checked each half hour during sampling to ensure proper operation.

<b>SAMPLE DETAILS</b>		<b>SAMPLE LOCATION SKETCH</b>
HEIGHT ABOVE GROUND (FT)	3.0	 <b>See Sample Location Plan</b>
PID BEFORE SAMPLE (PPM):	0.0	
SAMPLE START TIME:	11:10	
SAMPLE STOP TIME:	13:19	
TOTAL SAMPLE TIME (MIN):	130	
REGULATOR FLOW RATE (L/	0.04	
VOLUME OF SAMPLE (LITER:	2.7	
PID AFTER SAMPLE (PPM):	0.0	
SAMPLE MOISTURE CONTE	N/A	
CAN SERIAL NUMBER:	3178	
REGULATOR SERIAL NUMBE	2094	
CAN START VACUUM PRESS:	-30.97	
CAN STOP VACUUM PRESS:	-5.02	
<b>NOTES</b>		
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# SUB-SLAB SOIL VAPOR SAMPLING LOG SHEET

Sample Number: SV01

<b>PROJECT:</b> 432 Rodney Street Offsite Investigation	<b>PROJECT NO.:</b> 170650901	
<b>LOCATION:</b> Brooklyn, NY	<b>SURFACE ELEVATION AND DATUM (NAV88):</b> N/A	
<b>DRILLING FIRM OR LANGAN INSTALLER:</b> Eastern Environmental Solutions Inc.	<b>INSTALLATION DATE STARTED:</b> 4/21/2022	<b>DATE FINISHED:</b> 4/21/2022
<b>INSTALLATION FOREMAN:</b> Dylan Jewell	<b>SAMPLE DATE STARTED:</b> 4/21/2022	<b>DATE FINISHED:</b> 4/21/2022
<b>INSTALLATION EQUIPMENT:</b> Geoprobe 7822 DT	<b>TYPE OF SAMPLING DEVICE:</b> 2.7-Liter Summa Canister	
<b>INSPECTOR:</b> Seyena Simpson	<b>SAMPLER:</b> Seyena Simpson	
<b>POTENTIAL SAMPLE INTERFERENCES:</b>  N/A	<b>WEATHER CONDITIONS (PRECIP., TEMP., PRESS., WIND SPEED AND DIR.):</b> Temp: 44-59 F Wind: SW 5mph Precipitation: N/A Pressure: N/A	

**METHOD OF INSTALLATION AND PURGING:**

A Geoprobe 7822DT was used to advance a sub-slab vapor point to about 5 inches below the slab (slab 7 inches, total depth 12 inches). A small amount of No. 2 sand was backfilled into the borehole to set the vapor tubing. The remainder of the borehole was sealed with bentonite.

<b>TUBING TYPE/DIAMETER:</b> 3/16-inch ID, 1/4-inch OD Teflon-Lined Polyethylene Tubing	<b>TYPE OF MATERIAL ABOVE SEAL:</b> Bentonite		
<b>IMPLANT SCREEN TYPE/LENGTH/DIAMETER:</b> None	<b>SEAL MATERIAL (Bentonite, Beeswax, Modeling Clay, etc.):</b> Bentonite		
<b>BOREHOLE DIAMETER:</b> 1-1/8-inch	<b>FILTER PACK MATERIAL (Sand or Glass Beads):</b> No. 2 Sand		
<b>PURGE VOLUME (L):</b> 0.20	<b>IMPLANT/PROBE DETAILS</b>	<b>DEPTH</b>	<b>NOTES</b>
<b>PURGE FLOW RATE (ML/MIN):</b> 200	(SEAL, FILTER, ETC.)	(FEET FROM SURFACE)	
<b>PID AFTER PURGE (PPM):</b> 0.3	SURFACE	SURFACE	
<b>HELIUM TESTS</b>	Pre-sampling	Post-sampling	
<b>HELUM TEST IN BUCKET(%):</b>	23.7%	21.2%	
<b>HELUM TEST IN TUBE (PPM):</b>	19900ppm	13800ppm	
<b>SAMPLE START TIME:</b>	11:08		
<b>SAMPLE STOP TIME:</b>	13:11		
<b>TOTAL SAMPLE TIME (MIN):</b>	124		
<b>REGULATOR FLOW RATE (L/MIN):</b>	0.04		
<b>VOLUME OF SAMPLE (LITERS):</b>	2.7		
<b>PID AFTER SAMPLE (PPM):</b>	0.0		
<b>SAMPLE MOISTURE CONTENT:</b>	N/A		
<b>CAN SERIAL NUMBER:</b>	3431		
<b>REGULATOR SERIAL NUMBER:</b>	2123		
<b>CAN START VACUUM PRESS. (" HG):</b>	-30.75		
<b>CAN STOP VACUUM PRESS. (" HG):</b>	-5.78		
<b>SAMPLE LOCATION SKETCH</b>			
			
<b>NOTES</b>			
<p>See Sample Location Plan</p>			
<b>Langan Engineering, Environmental, Surveying, Landscape Architecture, and Geology D.P.C.</b> 21 Penn Plaza, 360 West 31st Street, 8th Floor, New York, New York 10001-2727			

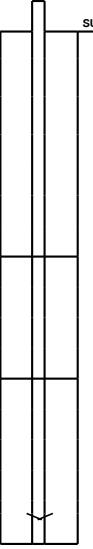
# SUB-SLAB SOIL VAPOR SAMPLING LOG SHEET

Sample Number: SV02

<b>PROJECT:</b> 432 Rodney Street Offsite Investigation	<b>PROJECT NO.:</b> 170650901	
<b>LOCATION:</b> Brooklyn, NY	<b>SURFACE ELEVATION AND DATUM (NAV88):</b> N/A	
<b>DRILLING FIRM OR LANGAN INSTALLER:</b> Eastern Environmental Solutions Inc.	<b>INSTALLATION DATE STARTED:</b> 4/21/2022	<b>DATE FINISHED:</b> 4/21/2022
<b>INSTALLATION FOREMAN:</b> Dylan Jewell	<b>SAMPLE DATE STARTED:</b> 4/21/2022	<b>DATE FINISHED:</b> 4/21/2022
<b>INSTALLATION EQUIPMENT:</b> Geoprobe 7822 DT	<b>TYPE OF SAMPLING DEVICE:</b> 2.7-Liter Summa Canister	
<b>INSPECTOR:</b> Seyena Simpson	<b>SAMPLER:</b> Seyena Simpson	
<b>POTENTIAL SAMPLE INTERFERENCES:</b>  N/A	<b>WEATHER CONDITIONS (PRECIP., TEMP., PRESS., WIND SPEED AND DIR.):</b> Temp: 44-59 F Wind: SW 5mph Precipitation: N/A Pressure: N/A	

**METHOD OF INSTALLATION AND PURGING:**

A Geoprobe 7822DT was used to advance a sub-slab vapor point to about 6 inches below the slab (slab 6 inches, total depth 12 inches). A small amount of No. 2 sand was backfilled into the borehole to set the vapor tubing. The remainder of the borehole was sealed with bentonite.

<b>TUBING TYPE/DIAMETER:</b> 3/16-inch ID, 1/4-inch OD Teflon-Lined Polyethylene Tubing	<b>TYPE OF MATERIAL ABOVE SEAL:</b> Bentonite		
<b>IMPLANT SCREEN TYPE/LENGTH/DIAMETER:</b> None	<b>SEAL MATERIAL (Bentonite, Beeswax, Modeling Clay, etc.):</b> Bentonite		
<b>BOREHOLE DIAMETER:</b> 1-1/8-inch	<b>FILTER PACK MATERIAL (Sand or Glass Beads):</b> No. 2 Sand		
<b>PURGE VOLUME (L):</b> 0.20	<b>IMPLANT/PROBE DETAILS</b>	<b>DEPTH</b>	<b>NOTES</b>
<b>PURGE FLOW RATE (ML/MIN):</b> 200	(SEAL, FILTER, ETC.)	(FEET FROM SURFACE)	
<b>PID AFTER PURGE (PPM):</b> 0.0			
<b>HELIUM TESTS</b>			
<b>HELIUM TEST IN BUCKET(%):</b> 19.0%	5.7	Post-sampling	
<b>HELIUM TEST IN TUBE (PPM):</b> 0.0%	19.0%	23.0%	
<b>SAMPLE START TIME:</b> 11:07			
<b>SAMPLE STOP TIME:</b> 14:23			
<b>TOTAL SAMPLE TIME (MIN):</b> 197			
<b>REGULATOR FLOW RATE (L/MIN):</b> 0.04			
<b>VOLUME OF SAMPLE (LITERS):</b> 2.7			
<b>PID AFTER SAMPLE (PPM):</b> 0.0			
<b>SAMPLE MOISTURE CONTENT:</b> N/A			
<b>CAN SERIAL NUMBER:</b> 481			
<b>REGULATOR SERIAL NUMBER:</b> 1389			
<b>CAN START VACUUM PRESS. (" HG):</b> -30.86			
<b>CAN STOP VACUUM PRESS. (" HG):</b> -5.34			
<b>SAMPLE LOCATION SKETCH</b>			
 <b>Top of Seal</b>			
 <b>Top of Pack</b>			
 <b>Tube Depth</b>			
<b>NOTES</b>			
<p>See Sample Location Plan</p>			
<b>Langan Engineering, Environmental, Surveying, Landscape Architecture, and Geology D.P.C.</b> 21 Penn Plaza, 360 West 31st Street, 8th Floor, New York, New York 10001-2727			

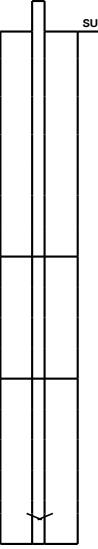
# SUB-SLAB SOIL VAPOR SAMPLING LOG SHEET

Sample Number: SV03

<b>PROJECT:</b> 432 Rodney Street Offsite Investigation	<b>PROJECT NO.:</b> 170650901	
<b>LOCATION:</b> Brooklyn, NY	<b>SURFACE ELEVATION AND DATUM (NAV88):</b> N/A	
<b>DRILLING FIRM OR LANGAN INSTALLER:</b> Eastern Environmental Solutions Inc.	<b>INSTALLATION DATE STARTED:</b> 4/21/2022	<b>DATE FINISHED:</b> 4/21/2022
<b>INSTALLATION FOREMAN:</b> Dylan Jewell	<b>SAMPLE DATE STARTED:</b> 4/21/2022	<b>DATE FINISHED:</b> 4/21/2022
<b>INSTALLATION EQUIPMENT:</b> Geoprobe 7822 DT	<b>TYPE OF SAMPLING DEVICE:</b> 2.7-Liter Summa Canister	
<b>INSPECTOR:</b> Seyena Simpson	<b>SAMPLER:</b> Seyena Simpson	
<b>POTENTIAL SAMPLE INTERFERENCES:</b>  N/A	<b>WEATHER CONDITIONS (PRECIP., TEMP., PRESS., WIND SPEED AND DIR.):</b> Temp: 44-59 F Wind: SW 5mph Precipitation: N/A Pressure: N/A	

**METHOD OF INSTALLATION AND PURGING:**

A Geoprobe 7822DT was used to advance a sub-slab vapor point to about 6 inches below the slab (slab 6 inches, total depth 12 inches). A small amount of No. 2 sand was backfilled into the borehole to set the vapor tubing. The remainder of the borehole was sealed with bentonite.

<b>TUBING TYPE/DIAMETER:</b> 3/16-inch ID, 1/4-inch OD Teflon-Lined Polyethylene Tubing	<b>TYPE OF MATERIAL ABOVE SEAL:</b> Bentonite				
<b>IMPLANT SCREEN TYPE/LENGTH/DIAMETER:</b> None	<b>SEAL MATERIAL (Bentonite, Beeswax, Modeling Clay, etc.):</b> Bentonite				
<b>BOREHOLE DIAMETER:</b> 1-1/8-inch	<b>FILTER PACK MATERIAL (Sand or Glass Beads):</b> No. 2 Sand				
<b>PURGE VOLUME (L):</b> 0.20	<b>IMPLANT/PROBE DETAILS</b> (SEAL, FILTER, ETC.)		<b>NOTES</b>		
<b>PURGE FLOW RATE (ML/MIN):</b> 200					
<b>PID AFTER PURGE (PPM):</b> 0.6					
<b>HELIUM TESTS</b>				<b>Pre-sampling</b>	<b>Post-sampling</b>
<b>HELIUM TEST IN BUCKET(%):</b>				22.0%	25.7%
<b>HELIUM TEST IN TUBE (PPM):</b>				14900ppm	11400ppm
<b>SAMPLE START TIME:</b>				11:06	
<b>SAMPLE STOP TIME:</b>				13:29	
<b>TOTAL SAMPLE TIME (MIN):</b>				144	
<b>REGULATOR FLOW RATE (L/MIN):</b>				0.04	
<b>VOLUME OF SAMPLE (LITERS):</b>	2.7				
<b>PID AFTER SAMPLE (PPM):</b>	0.0				
<b>SAMPLE MOISTURE CONTENT:</b>	N/A				
<b>CAN SERIAL NUMBER:</b>	2237				
<b>REGULATOR SERIAL NUMBER:</b>	1541				
<b>CAN START VACUUM PRESS. (" HG):</b>	-30.87				
<b>CAN STOP VACUUM PRESS. (" HG):</b>	-5.34				
<b>SAMPLE LOCATION SKETCH</b>					
					
<b>NOTES</b>					
<p>See Sample Location Plan</p>					

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

21 Penn Plaza, 360 West 31st Street, 8th Floor, New York, New York 10001-2727

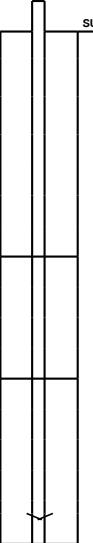
# SUB-SLAB SOIL VAPOR SAMPLING LOG SHEET

Sample Number: SV04

<b>PROJECT:</b> 432 Rodney Street Offsite Investigation	<b>PROJECT NO.:</b> 170650901	
<b>LOCATION:</b> Brooklyn, NY	<b>SURFACE ELEVATION AND DATUM (NAV88):</b> N/A	
<b>DRILLING FIRM OR LANGAN INSTALLER:</b> Eastern Environmental Solutions Inc.	<b>INSTALLATION DATE STARTED:</b> 4/21/2022	<b>DATE FINISHED:</b> 4/21/2022
<b>INSTALLATION FOREMAN:</b> Dylan Jewell	<b>SAMPLE DATE STARTED:</b> 4/21/2022	<b>DATE FINISHED:</b> 4/21/2022
<b>INSTALLATION EQUIPMENT:</b> Geoprobe 7822 DT	<b>TYPE OF SAMPLING DEVICE:</b> 2.7-Liter Summa Canister	
<b>INSPECTOR:</b> Seyena Simpson	<b>SAMPLER:</b> Seyena Simpson	
<b>POTENTIAL SAMPLE INTERFERENCES:</b>  N/A	<b>WEATHER CONDITIONS (PRECIP., TEMP., PRESS., WIND SPEED AND DIR.):</b> Temp: 44-59 F Wind: SW 5mph Precipitation: N/A Pressure: N/A	

**METHOD OF INSTALLATION AND PURGING:**

A Geoprobe 7822DT was used to advance a sub-slab vapor point to about 8 inches below the slab (slab 4 inches, total depth 12 inches). A small amount of No. 2 sand was backfilled into the borehole to set the vapor tubing. The remainder of the borehole was sealed with bentonite.

<b>TUBING TYPE/DIAMETER:</b> 3/16-inch ID, 1/4-inch OD Teflon-Lined Polyethylene Tubing	<b>TYPE OF MATERIAL ABOVE SEAL:</b> Bentonite		
<b>IMPLANT SCREEN TYPE/LENGTH/DIAMETER:</b> None	<b>SEAL MATERIAL (Bentonite, Beeswax, Modeling Clay, etc.):</b> Bentonite		
<b>BOREHOLE DIAMETER:</b> 1-1/8-inch	<b>FILTER PACK MATERIAL (Sand or Glass Beads):</b> No. 2 Sand		
<b>PURGE VOLUME (L):</b> 0.20	<b>IMPLANT/PROBE DETAILS</b>	<b>DEPTH</b>	<b>NOTES</b>
<b>PURGE FLOW RATE (ML/MIN):</b> 200	(SEAL, FILTER, ETC.)	(FEET FROM SURFACE)	
<b>PID AFTER PURGE (PPM):</b> 1.0	SURFACE	SURFACE	
<b>HELIUM TESTS</b>	Pre-sampling Post-sampling		
<b>HELIM TEST IN BUCKET(%):</b>	20.0%	19.2%	
<b>HELIM TEST IN TUBE (PPM):</b>	0.0%	0.0%	
<b>SAMPLE START TIME:</b>	11:05		
<b>SAMPLE STOP TIME:</b>	13:09		
<b>TOTAL SAMPLE TIME (MIN):</b>	125		
<b>REGULATOR FLOW RATE (L/MIN):</b>	0.04		
<b>VOLUME OF SAMPLE (LITERS):</b>	2.7		
<b>PID AFTER SAMPLE (PPM):</b>	0.0		
<b>SAMPLE MOISTURE CONTENT:</b>	N/A		
<b>CAN SERIAL NUMBER:</b>	2358		
<b>REGULATOR SERIAL NUMBER:</b>	1552		
<b>CAN START VACUUM PRESS. (" HG):</b>	-30.97		
<b>CAN STOP VACUUM PRESS. (" HG):</b>	-5.16		
<b>SAMPLE LOCATION SKETCH</b>			
			
<b>NOTES</b>			
<p>See Sample Location Plan</p>			
<b>Langan Engineering, Environmental, Surveying, Landscape Architecture, and Geology D.P.C.</b> 21 Penn Plaza, 360 West 31st Street, 8th Floor, New York, New York 10001-2727			

# SUB-SLAB SOIL VAPOR SAMPLING LOG SHEET

Sample Number: SV05

<b>PROJECT:</b> 432 Rodney Street Offsite Investigation	<b>PROJECT NO.:</b> 170650901	
<b>LOCATION:</b> Brooklyn, NY	<b>SURFACE ELEVATION AND DATUM (NAV88):</b> N/A	
<b>DRILLING FIRM OR LANGAN INSTALLER:</b> Eastern Environmental Solutions Inc.	<b>INSTALLATION DATE STARTED:</b> 4/21/2022	<b>DATE FINISHED:</b> 4/21/2022
<b>INSTALLATION FOREMAN:</b> Dylan Jewell	<b>SAMPLE DATE STARTED:</b> 4/21/2022	<b>DATE FINISHED:</b> 4/21/2022
<b>INSTALLATION EQUIPMENT:</b> Geoprobe 7822 DT	<b>TYPE OF SAMPLING DEVICE:</b> 2.7-Liter Summa Canister	
<b>INSPECTOR:</b> Seyena Simpson	<b>SAMPLER:</b> Seyena Simpson	
<b>POTENTIAL SAMPLE INTERFERENCES:</b>  N/A	<b>WEATHER CONDITIONS (PRECIP., TEMP., PRESS., WIND SPEED AND DIR.):</b>  Temp: 44-59 F Wind: SW 5mph Precipitation: N/A Pressure: N/A	

**METHOD OF INSTALLATION AND PURGING:**

A Geoprobe 7822DT was used to advance a sub-slab vapor point to about 6 inches below the slab (slab 6 inches, total depth 12 inches). A small amount of No. 2 sand was backfilled into the borehole to set the vapor tubing. The remainder of the borehole was sealed with bentonite.

<b>TUBING TYPE/DIAMETER:</b> 3/16-inch ID, 1/4-inch OD Teflon-Lined Polyethylene Tubing	<b>TYPE OF MATERIAL ABOVE SEAL:</b> Bentonite					
<b>IMPLANT SCREEN TYPE/LENGTH/DIAMETER:</b> None	<b>SEAL MATERIAL (Bentonite, Beeswax, Modeling Clay, etc.):</b> Bentonite					
<b>BOREHOLE DIAMETER:</b> 1-1/8-inch	<b>FILTER PACK MATERIAL (Sand or Glass Beads):</b> No. 2 Sand					
<b>PURGE VOLUME (L):</b> 0.20	<b>IMPLANT/PROBE DETAILS</b>  (SEAL, FILTER, ETC.)  SURFACE                          SURFACE		<b>NOTES</b>			
<b>PURGE FLOW RATE (ML/MIN):</b> 200						
<b>PID AFTER PURGE (PPM):</b> 2.2						
<b>HELIUM TESTS</b>				Pre-sampling	Post-sampling	
<b>HELUM TEST IN BUCKET(%):</b>				17.1%	24.6%	
<b>HELUM TEST IN TUBE (PPM):</b>				0.0%	0.0%	
<b>SAMPLE START TIME:</b>				11:04		
<b>SAMPLE STOP TIME:</b>				13:13		
<b>TOTAL SAMPLE TIME (MIN):</b>				130		
<b>REGULATOR FLOW RATE (L/MIN):</b>				0.04		
<b>VOLUME OF SAMPLE (LITERS):</b>	2.7					
<b>PID AFTER SAMPLE (PPM):</b>	0.0					
<b>SAMPLE MOISTURE CONTENT:</b>	N/A					
<b>CAN SERIAL NUMBER:</b>	2828					
<b>REGULATOR SERIAL NUMBER:</b>	934					
<b>CAN START VACUUM PRESS. (" HG):</b>	-30					
<b>CAN STOP VACUUM PRESS. (" HG):</b>	-5.03					
<b>SAMPLE LOCATION SKETCH</b>						
<b>NOTES</b>						
<p>See Sample Location Plan</p>						

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

21 Penn Plaza, 360 West 31st Street, 8th Floor, New York, New York 10001-2727

**Attachment G**

**Laboratory Analytical Reports**



## ANALYTICAL REPORT

Lab Number:	L2221340
Client:	Langan Engineering & Environmental 21 Penn Plaza 360 W. 31st Street, 8th Floor New York, NY 10001-2727
ATTN:	Albert Tashji
Phone:	(212) 479-5400
Project Name:	432 RODNEY STREET (OFFSITE)
Project Number:	170650901
Report Date:	04/29/22

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

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



**Project Name:** 432 RODNEY STREET (OFFSITE)  
**Project Number:** 170650901

**Lab Number:** L2221340  
**Report Date:** 04/29/22

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2221340-01	SB01_042522	SOIL	BROOKLYN, NY	04/25/22 11:00	04/25/22
L2221340-02	SB02_042522	SOIL	BROOKLYN, NY	04/25/22 10:41	04/25/22
L2221340-03	SB03_042522	SOIL	BROOKLYN, NY	04/25/22 08:45	04/25/22
L2221340-04	DUP01_042522	SOIL	BROOKLYN, NY	04/25/22 00:00	04/25/22
L2221340-05	FB01_042522	WATER	BROOKLYN, NY	04/25/22 11:30	04/25/22
L2221340-06	TB01_042522	WATER	BROOKLYN, NY	04/25/22 00:00	04/25/22

**Project Name:** 432 RODNEY STREET (OFFSITE)  
**Project Number:** 170650901

**Lab Number:** L2221340  
**Report Date:** 04/29/22

### 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.

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**Project Name:** 432 RODNEY STREET (OFFSITE)  
**Project Number:** 170650901

**Lab Number:** L2221340  
**Report Date:** 04/29/22

#### 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.

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:

Melissa Sturgis

Title: Technical Director/Representative

Date: 04/29/22

# ORGANICS

# VOLATILES



**Project Name:** 432 RODNEY STREET (OFFSITE)  
**Project Number:** 170650901

**Lab Number:** L2221340  
**Report Date:** 04/29/22

**SAMPLE RESULTS**

Lab ID: L2221340-01  
Client ID: SB01\_042522  
Sample Location: BROOKLYN, NY

Date Collected: 04/25/22 11:00  
Date Received: 04/25/22  
Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
Analytical Method: 1,8260C  
Analytical Date: 04/27/22 13:28  
Analyst: JC  
Percent Solids: 86%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by EPA 5035 Low - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	5.0	2.3	1
1,1-Dichloroethane	ND		ug/kg	1.0	0.14	1
Chloroform	0.92	J	ug/kg	1.5	0.14	1
Carbon tetrachloride	ND		ug/kg	1.0	0.23	1
1,2-Dichloropropane	ND		ug/kg	1.0	0.12	1
Dibromochloromethane	ND		ug/kg	1.0	0.14	1
1,1,2-Trichloroethane	ND		ug/kg	1.0	0.27	1
Tetrachloroethene	0.88		ug/kg	0.50	0.20	1
Chlorobenzene	ND		ug/kg	0.50	0.13	1
Trichlorofluoromethane	ND		ug/kg	4.0	0.69	1
1,2-Dichloroethane	ND		ug/kg	1.0	0.26	1
1,1,1-Trichloroethane	ND		ug/kg	0.50	0.17	1
Bromodichloromethane	ND		ug/kg	0.50	0.11	1
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.27	1
cis-1,3-Dichloropropene	ND		ug/kg	0.50	0.16	1
1,3-Dichloropropene, Total	ND		ug/kg	0.50	0.16	1
1,1-Dichloropropene	ND		ug/kg	0.50	0.16	1
Bromoform	ND		ug/kg	4.0	0.24	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.50	0.16	1
Benzene	ND		ug/kg	0.50	0.16	1
Toluene	ND		ug/kg	1.0	0.54	1
Ethylbenzene	ND		ug/kg	1.0	0.14	1
Chloromethane	ND		ug/kg	4.0	0.93	1
Bromomethane	ND		ug/kg	2.0	0.58	1
Vinyl chloride	ND		ug/kg	1.0	0.33	1
Chloroethane	ND		ug/kg	2.0	0.45	1
1,1-Dichloroethene	ND		ug/kg	1.0	0.24	1
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.14	1



Project Name: 432 RODNEY STREET (OFFSITE)

Lab Number: L2221340

Project Number: 170650901

Report Date: 04/29/22

**SAMPLE RESULTS**

Lab ID:	L2221340-01	Date Collected:	04/25/22 11:00
Client ID:	SB01_042522	Date Received:	04/25/22
Sample Location:	BROOKLYN, NY	Field Prep:	Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by EPA 5035 Low - Westborough Lab</b>						
Trichloroethene	0.47	J	ug/kg	0.50	0.14	1
1,2-Dichlorobenzene	ND		ug/kg	2.0	0.14	1
1,3-Dichlorobenzene	ND		ug/kg	2.0	0.15	1
1,4-Dichlorobenzene	ND		ug/kg	2.0	0.17	1
Methyl tert butyl ether	ND		ug/kg	2.0	0.20	1
p/m-Xylene	ND		ug/kg	2.0	0.56	1
o-Xylene	ND		ug/kg	1.0	0.29	1
Xylenes, Total	ND		ug/kg	1.0	0.29	1
cis-1,2-Dichloroethene	0.33	J	ug/kg	1.0	0.17	1
1,2-Dichloroethene, Total	0.33	J	ug/kg	1.0	0.14	1
Dibromomethane	ND		ug/kg	2.0	0.24	1
Styrene	ND		ug/kg	1.0	0.20	1
Dichlorodifluoromethane	ND		ug/kg	10	0.91	1
Acetone	ND		ug/kg	10	4.8	1
Carbon disulfide	ND		ug/kg	10	4.5	1
2-Butanone	ND		ug/kg	10	2.2	1
Vinyl acetate	ND		ug/kg	10	2.1	1
4-Methyl-2-pentanone	ND		ug/kg	10	1.3	1
1,2,3-Trichloropropane	ND		ug/kg	2.0	0.13	1
2-Hexanone	ND		ug/kg	10	1.2	1
Bromochloromethane	ND		ug/kg	2.0	0.20	1
2,2-Dichloropropane	ND		ug/kg	2.0	0.20	1
1,2-Dibromoethane	ND		ug/kg	1.0	0.28	1
1,3-Dichloropropane	ND		ug/kg	2.0	0.17	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.50	0.13	1
Bromobenzene	ND		ug/kg	2.0	0.14	1
n-Butylbenzene	ND		ug/kg	1.0	0.17	1
sec-Butylbenzene	ND		ug/kg	1.0	0.14	1
tert-Butylbenzene	ND		ug/kg	2.0	0.12	1
o-Chlorotoluene	ND		ug/kg	2.0	0.19	1
p-Chlorotoluene	ND		ug/kg	2.0	0.11	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.0	1.0	1
Hexachlorobutadiene	ND		ug/kg	4.0	0.17	1
Isopropylbenzene	ND		ug/kg	1.0	0.11	1
p-Isopropyltoluene	ND		ug/kg	1.0	0.11	1
Naphthalene	ND		ug/kg	4.0	0.65	1
Acrylonitrile	ND		ug/kg	4.0	1.1	1



Project Name: 432 RODNEY STREET (OFFSITE)

Lab Number: L2221340

Project Number: 170650901

Report Date: 04/29/22

**SAMPLE RESULTS**

Lab ID: L2221340-01  
 Client ID: SB01\_042522  
 Sample Location: BROOKLYN, NY

Date Collected: 04/25/22 11:00  
 Date Received: 04/25/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by EPA 5035 Low - Westborough Lab</b>						
n-Propylbenzene	ND		ug/kg	1.0	0.17	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.0	0.32	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.0	0.27	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	0.19	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	0.33	1
1,4-Dioxane	ND		ug/kg	80	35.	1
p-Diethylbenzene	ND		ug/kg	2.0	0.18	1
p-Ethyltoluene	ND		ug/kg	2.0	0.38	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.0	0.19	1
Ethyl ether	ND		ug/kg	2.0	0.34	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.0	1.4	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	106		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	96		70-130

**Project Name:** 432 RODNEY STREET (OFFSITE)  
**Project Number:** 170650901

**Lab Number:** L2221340  
**Report Date:** 04/29/22

**SAMPLE RESULTS**

Lab ID: L2221340-02  
Client ID: SB02\_042522  
Sample Location: BROOKLYN, NY

Date Collected: 04/25/22 10:41  
Date Received: 04/25/22  
Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
Analytical Method: 1,8260C  
Analytical Date: 04/27/22 13:48  
Analyst: JC  
Percent Solids: 82%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by EPA 5035 Low - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	4.9	2.2	1
1,1-Dichloroethane	ND		ug/kg	0.98	0.14	1
Chloroform	ND		ug/kg	1.5	0.14	1
Carbon tetrachloride	ND		ug/kg	0.98	0.22	1
1,2-Dichloropropane	ND		ug/kg	0.98	0.12	1
Dibromochloromethane	ND		ug/kg	0.98	0.14	1
1,1,2-Trichloroethane	ND		ug/kg	0.98	0.26	1
Tetrachloroethene	0.33	J	ug/kg	0.49	0.19	1
Chlorobenzene	ND		ug/kg	0.49	0.12	1
Trichlorofluoromethane	ND		ug/kg	3.9	0.68	1
1,2-Dichloroethane	ND		ug/kg	0.98	0.25	1
1,1,1-Trichloroethane	ND		ug/kg	0.49	0.16	1
Bromodichloromethane	ND		ug/kg	0.49	0.11	1
trans-1,3-Dichloropropene	ND		ug/kg	0.98	0.27	1
cis-1,3-Dichloropropene	ND		ug/kg	0.49	0.15	1
1,3-Dichloropropene, Total	ND		ug/kg	0.49	0.15	1
1,1-Dichloropropene	ND		ug/kg	0.49	0.16	1
Bromoform	ND		ug/kg	3.9	0.24	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.49	0.16	1
Benzene	ND		ug/kg	0.49	0.16	1
Toluene	ND		ug/kg	0.98	0.53	1
Ethylbenzene	ND		ug/kg	0.98	0.14	1
Chloromethane	ND		ug/kg	3.9	0.91	1
Bromomethane	ND		ug/kg	2.0	0.57	1
Vinyl chloride	ND		ug/kg	0.98	0.33	1
Chloroethane	ND		ug/kg	2.0	0.44	1
1,1-Dichloroethene	ND		ug/kg	0.98	0.23	1
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.13	1



Project Name: 432 RODNEY STREET (OFFSITE)

Lab Number: L2221340

Project Number: 170650901

Report Date: 04/29/22

**SAMPLE RESULTS**

Lab ID:	L2221340-02	Date Collected:	04/25/22 10:41
Client ID:	SB02_042522	Date Received:	04/25/22
Sample Location:	BROOKLYN, NY	Field Prep:	Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by EPA 5035 Low - Westborough Lab</b>						
Trichloroethene	ND		ug/kg	0.49	0.13	1
1,2-Dichlorobenzene	ND		ug/kg	2.0	0.14	1
1,3-Dichlorobenzene	ND		ug/kg	2.0	0.14	1
1,4-Dichlorobenzene	ND		ug/kg	2.0	0.17	1
Methyl tert butyl ether	ND		ug/kg	2.0	0.20	1
p/m-Xylene	ND		ug/kg	2.0	0.55	1
o-Xylene	ND		ug/kg	0.98	0.28	1
Xylenes, Total	ND		ug/kg	0.98	0.28	1
cis-1,2-Dichloroethene	ND		ug/kg	0.98	0.17	1
1,2-Dichloroethene, Total	ND		ug/kg	0.98	0.13	1
Dibromomethane	ND		ug/kg	2.0	0.23	1
Styrene	ND		ug/kg	0.98	0.19	1
Dichlorodifluoromethane	ND		ug/kg	9.8	0.89	1
Acetone	10		ug/kg	9.8	4.7	1
Carbon disulfide	ND		ug/kg	9.8	4.4	1
2-Butanone	ND		ug/kg	9.8	2.2	1
Vinyl acetate	ND		ug/kg	9.8	2.1	1
4-Methyl-2-pentanone	ND		ug/kg	9.8	1.2	1
1,2,3-Trichloropropane	ND		ug/kg	2.0	0.12	1
2-Hexanone	ND		ug/kg	9.8	1.2	1
Bromochloromethane	ND		ug/kg	2.0	0.20	1
2,2-Dichloropropane	ND		ug/kg	2.0	0.20	1
1,2-Dibromoethane	ND		ug/kg	0.98	0.27	1
1,3-Dichloropropane	ND		ug/kg	2.0	0.16	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.49	0.13	1
Bromobenzene	ND		ug/kg	2.0	0.14	1
n-Butylbenzene	ND		ug/kg	0.98	0.16	1
sec-Butylbenzene	ND		ug/kg	0.98	0.14	1
tert-Butylbenzene	ND		ug/kg	2.0	0.12	1
o-Chlorotoluene	ND		ug/kg	2.0	0.19	1
p-Chlorotoluene	ND		ug/kg	2.0	0.10	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	2.9	0.97	1
Hexachlorobutadiene	ND		ug/kg	3.9	0.16	1
Isopropylbenzene	ND		ug/kg	0.98	0.11	1
p-Isopropyltoluene	ND		ug/kg	0.98	0.11	1
Naphthalene	ND		ug/kg	3.9	0.63	1
Acrylonitrile	ND		ug/kg	3.9	1.1	1



Project Name: 432 RODNEY STREET (OFFSITE)

Lab Number: L2221340

Project Number: 170650901

Report Date: 04/29/22

**SAMPLE RESULTS**

Lab ID: L2221340-02  
 Client ID: SB02\_042522  
 Sample Location: BROOKLYN, NY

Date Collected: 04/25/22 10:41  
 Date Received: 04/25/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by EPA 5035 Low - Westborough Lab</b>						
n-Propylbenzene	ND		ug/kg	0.98	0.17	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.0	0.31	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.0	0.26	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	0.19	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	0.33	1
1,4-Dioxane	ND		ug/kg	78	34.	1
p-Diethylbenzene	ND		ug/kg	2.0	0.17	1
p-Ethyltoluene	ND		ug/kg	2.0	0.38	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.0	0.19	1
Ethyl ether	ND		ug/kg	2.0	0.33	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	4.9	1.4	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	113		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	122		70-130
Dibromofluoromethane	98		70-130

**Project Name:** 432 RODNEY STREET (OFFSITE)  
**Project Number:** 170650901

**Lab Number:** L2221340  
**Report Date:** 04/29/22

**SAMPLE RESULTS**

Lab ID: L2221340-03  
Client ID: SB03\_042522  
Sample Location: BROOKLYN, NY

Date Collected: 04/25/22 08:45  
Date Received: 04/25/22  
Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
Analytical Method: 1,8260C  
Analytical Date: 04/28/22 14:55  
Analyst: JC  
Percent Solids: 85%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by EPA 5035 Low - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	6.7	3.1	1
1,1-Dichloroethane	ND		ug/kg	1.3	0.19	1
Chloroform	ND		ug/kg	2.0	0.19	1
Carbon tetrachloride	ND		ug/kg	1.3	0.31	1
1,2-Dichloropropane	ND		ug/kg	1.3	0.17	1
Dibromochloromethane	ND		ug/kg	1.3	0.19	1
1,1,2-Trichloroethane	ND		ug/kg	1.3	0.36	1
Tetrachloroethene	ND		ug/kg	0.67	0.26	1
Chlorobenzene	ND		ug/kg	0.67	0.17	1
Trichlorofluoromethane	ND		ug/kg	5.4	0.93	1
1,2-Dichloroethane	ND		ug/kg	1.3	0.34	1
1,1,1-Trichloroethane	ND		ug/kg	0.67	0.22	1
Bromodichloromethane	ND		ug/kg	0.67	0.14	1
trans-1,3-Dichloropropene	ND		ug/kg	1.3	0.36	1
cis-1,3-Dichloropropene	ND		ug/kg	0.67	0.21	1
1,3-Dichloropropene, Total	ND		ug/kg	0.67	0.21	1
1,1-Dichloropropene	ND		ug/kg	0.67	0.21	1
Bromoform	ND		ug/kg	5.4	0.33	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.67	0.22	1
Benzene	ND		ug/kg	0.67	0.22	1
Toluene	1.1	J	ug/kg	1.3	0.73	1
Ethylbenzene	1.4		ug/kg	1.3	0.19	1
Chloromethane	ND		ug/kg	5.4	1.2	1
Bromomethane	ND		ug/kg	2.7	0.78	1
Vinyl chloride	ND		ug/kg	1.3	0.45	1
Chloroethane	ND		ug/kg	2.7	0.60	1
1,1-Dichloroethene	ND		ug/kg	1.3	0.32	1
trans-1,2-Dichloroethene	ND		ug/kg	2.0	0.18	1



Project Name: 432 RODNEY STREET (OFFSITE)

Lab Number: L2221340

Project Number: 170650901

Report Date: 04/29/22

**SAMPLE RESULTS**

Lab ID:	L2221340-03	Date Collected:	04/25/22 08:45
Client ID:	SB03_042522	Date Received:	04/25/22
Sample Location:	BROOKLYN, NY	Field Prep:	Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by EPA 5035 Low - Westborough Lab</b>						
Trichloroethene	0.39	J	ug/kg	0.67	0.18	1
1,2-Dichlorobenzene	ND		ug/kg	2.7	0.19	1
1,3-Dichlorobenzene	ND		ug/kg	2.7	0.20	1
1,4-Dichlorobenzene	ND		ug/kg	2.7	0.23	1
Methyl tert butyl ether	ND		ug/kg	2.7	0.27	1
p/m-Xylene	1.8	J	ug/kg	2.7	0.75	1
o-Xylene	0.80	J	ug/kg	1.3	0.39	1
Xylenes, Total	2.6	J	ug/kg	1.3	0.39	1
cis-1,2-Dichloroethene	ND		ug/kg	1.3	0.23	1
1,2-Dichloroethene, Total	ND		ug/kg	1.3	0.18	1
Dibromomethane	ND		ug/kg	2.7	0.32	1
Styrene	ND		ug/kg	1.3	0.26	1
Dichlorodifluoromethane	ND		ug/kg	13	1.2	1
Acetone	53		ug/kg	13	6.4	1
Carbon disulfide	ND		ug/kg	13	6.1	1
2-Butanone	5.0	J	ug/kg	13	3.0	1
Vinyl acetate	ND		ug/kg	13	2.9	1
4-Methyl-2-pentanone	ND		ug/kg	13	1.7	1
1,2,3-Trichloropropane	ND		ug/kg	2.7	0.17	1
2-Hexanone	ND		ug/kg	13	1.6	1
Bromochloromethane	ND		ug/kg	2.7	0.27	1
2,2-Dichloropropane	ND		ug/kg	2.7	0.27	1
1,2-Dibromoethane	ND		ug/kg	1.3	0.37	1
1,3-Dichloropropane	ND		ug/kg	2.7	0.22	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.67	0.18	1
Bromobenzene	ND		ug/kg	2.7	0.19	1
n-Butylbenzene	ND		ug/kg	1.3	0.22	1
sec-Butylbenzene	ND		ug/kg	1.3	0.20	1
tert-Butylbenzene	ND		ug/kg	2.7	0.16	1
o-Chlorotoluene	ND		ug/kg	2.7	0.26	1
p-Chlorotoluene	ND		ug/kg	2.7	0.14	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	4.0	1.3	1
Hexachlorobutadiene	ND		ug/kg	5.4	0.23	1
Isopropylbenzene	0.38	J	ug/kg	1.3	0.14	1
p-Isopropyltoluene	1.2	J	ug/kg	1.3	0.14	1
Naphthalene	130		ug/kg	5.4	0.87	1
Acrylonitrile	ND		ug/kg	5.4	1.5	1



Project Name: 432 RODNEY STREET (OFFSITE)

Lab Number: L2221340

Project Number: 170650901

Report Date: 04/29/22

**SAMPLE RESULTS**

Lab ID: L2221340-03  
 Client ID: SB03\_042522  
 Sample Location: BROOKLYN, NY

Date Collected: 04/25/22 08:45  
 Date Received: 04/25/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by EPA 5035 Low - Westborough Lab</b>						
n-Propylbenzene	ND		ug/kg	1.3	0.23	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.7	0.43	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.7	0.36	1
1,3,5-Trimethylbenzene	0.98	J	ug/kg	2.7	0.26	1
1,2,4-Trimethylbenzene	2.5	J	ug/kg	2.7	0.45	1
1,4-Dioxane	ND		ug/kg	110	47.	1
p-Diethylbenzene	ND		ug/kg	2.7	0.24	1
p-Ethyltoluene	3.8		ug/kg	2.7	0.51	1
1,2,4,5-Tetramethylbenzene	0.53	J	ug/kg	2.7	0.26	1
Ethyl ether	ND		ug/kg	2.7	0.46	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	6.7	1.9	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	110		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	109		70-130
Dibromofluoromethane	90		70-130

**Project Name:** 432 RODNEY STREET (OFFSITE)  
**Project Number:** 170650901

**Lab Number:** L2221340  
**Report Date:** 04/29/22

**SAMPLE RESULTS**

Lab ID: L2221340-04  
Client ID: DUP01\_042522  
Sample Location: BROOKLYN, NY

Date Collected: 04/25/22 00:00  
Date Received: 04/25/22  
Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
Analytical Method: 1,8260C  
Analytical Date: 04/27/22 14:27  
Analyst: JC  
Percent Solids: 83%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by EPA 5035 Low - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	5.2	2.4	1
1,1-Dichloroethane	ND		ug/kg	1.0	0.15	1
Chloroform	ND		ug/kg	1.6	0.14	1
Carbon tetrachloride	ND		ug/kg	1.0	0.24	1
1,2-Dichloropropane	ND		ug/kg	1.0	0.13	1
Dibromochloromethane	ND		ug/kg	1.0	0.14	1
1,1,2-Trichloroethane	ND		ug/kg	1.0	0.28	1
Tetrachloroethene	0.42	J	ug/kg	0.52	0.20	1
Chlorobenzene	ND		ug/kg	0.52	0.13	1
Trichlorofluoromethane	ND		ug/kg	4.2	0.72	1
1,2-Dichloroethane	ND		ug/kg	1.0	0.27	1
1,1,1-Trichloroethane	ND		ug/kg	0.52	0.17	1
Bromodichloromethane	ND		ug/kg	0.52	0.11	1
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.28	1
cis-1,3-Dichloropropene	ND		ug/kg	0.52	0.16	1
1,3-Dichloropropene, Total	ND		ug/kg	0.52	0.16	1
1,1-Dichloropropene	ND		ug/kg	0.52	0.16	1
Bromoform	ND		ug/kg	4.2	0.26	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.52	0.17	1
Benzene	ND		ug/kg	0.52	0.17	1
Toluene	ND		ug/kg	1.0	0.56	1
Ethylbenzene	ND		ug/kg	1.0	0.15	1
Chloromethane	ND		ug/kg	4.2	0.97	1
Bromomethane	ND		ug/kg	2.1	0.60	1
Vinyl chloride	ND		ug/kg	1.0	0.35	1
Chloroethane	ND		ug/kg	2.1	0.47	1
1,1-Dichloroethene	ND		ug/kg	1.0	0.25	1
trans-1,2-Dichloroethene	ND		ug/kg	1.6	0.14	1



Project Name: 432 RODNEY STREET (OFFSITE)

Lab Number: L2221340

Project Number: 170650901

Report Date: 04/29/22

**SAMPLE RESULTS**

Lab ID:	L2221340-04	Date Collected:	04/25/22 00:00
Client ID:	DUP01_042522	Date Received:	04/25/22
Sample Location:	BROOKLYN, NY	Field Prep:	Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by EPA 5035 Low - Westborough Lab</b>						
Trichloroethene	ND		ug/kg	0.52	0.14	1
1,2-Dichlorobenzene	ND		ug/kg	2.1	0.15	1
1,3-Dichlorobenzene	ND		ug/kg	2.1	0.15	1
1,4-Dichlorobenzene	ND		ug/kg	2.1	0.18	1
Methyl tert butyl ether	ND		ug/kg	2.1	0.21	1
p/m-Xylene	ND		ug/kg	2.1	0.58	1
o-Xylene	ND		ug/kg	1.0	0.30	1
Xylenes, Total	ND		ug/kg	1.0	0.30	1
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18	1
1,2-Dichloroethene, Total	ND		ug/kg	1.0	0.14	1
Dibromomethane	ND		ug/kg	2.1	0.25	1
Styrene	ND		ug/kg	1.0	0.20	1
Dichlorodifluoromethane	ND		ug/kg	10	0.95	1
Acetone	ND		ug/kg	10	5.0	1
Carbon disulfide	ND		ug/kg	10	4.7	1
2-Butanone	ND		ug/kg	10	2.3	1
Vinyl acetate	ND		ug/kg	10	2.2	1
4-Methyl-2-pentanone	ND		ug/kg	10	1.3	1
1,2,3-Trichloropropane	ND		ug/kg	2.1	0.13	1
2-Hexanone	ND		ug/kg	10	1.2	1
Bromochloromethane	ND		ug/kg	2.1	0.21	1
2,2-Dichloropropane	ND		ug/kg	2.1	0.21	1
1,2-Dibromoethane	ND		ug/kg	1.0	0.29	1
1,3-Dichloropropane	ND		ug/kg	2.1	0.17	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.52	0.14	1
Bromobenzene	ND		ug/kg	2.1	0.15	1
n-Butylbenzene	ND		ug/kg	1.0	0.17	1
sec-Butylbenzene	ND		ug/kg	1.0	0.15	1
tert-Butylbenzene	ND		ug/kg	2.1	0.12	1
o-Chlorotoluene	ND		ug/kg	2.1	0.20	1
p-Chlorotoluene	ND		ug/kg	2.1	0.11	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.1	1.0	1
Hexachlorobutadiene	ND		ug/kg	4.2	0.18	1
Isopropylbenzene	ND		ug/kg	1.0	0.11	1
p-Isopropyltoluene	ND		ug/kg	1.0	0.11	1
Naphthalene	2.1	J	ug/kg	4.2	0.67	1
Acrylonitrile	ND		ug/kg	4.2	1.2	1



Project Name: 432 RODNEY STREET (OFFSITE)

Lab Number: L2221340

Project Number: 170650901

Report Date: 04/29/22

**SAMPLE RESULTS**

Lab ID: L2221340-04  
 Client ID: DUP01\_042522  
 Sample Location: BROOKLYN, NY

Date Collected: 04/25/22 00:00  
 Date Received: 04/25/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by EPA 5035 Low - Westborough Lab</b>						
n-Propylbenzene	ND		ug/kg	1.0	0.18	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.1	0.33	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.1	0.28	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.1	0.20	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.1	0.35	1
1,4-Dioxane	ND		ug/kg	83	36.	1
p-Diethylbenzene	ND		ug/kg	2.1	0.18	1
p-Ethyltoluene	ND		ug/kg	2.1	0.40	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.1	0.20	1
Ethyl ether	ND		ug/kg	2.1	0.35	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.2	1.5	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	112		70-130
Toluene-d8	103		70-130
4-Bromofluorobenzene	116		70-130
Dibromofluoromethane	99		70-130

**Project Name:** 432 RODNEY STREET (OFFSITE)  
**Project Number:** 170650901

**Lab Number:** L2221340  
**Report Date:** 04/29/22

**SAMPLE RESULTS**

Lab ID: L2221340-05  
Client ID: FB01\_042522  
Sample Location: BROOKLYN, NY

Date Collected: 04/25/22 11:30  
Date Received: 04/25/22  
Field Prep: Not Specified

Sample Depth:

Matrix: Water  
Analytical Method: 1,8260C  
Analytical Date: 04/26/22 19:14  
Analyst: AJK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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: 432 RODNEY STREET (OFFSITE)

Lab Number: L2221340

Project Number: 170650901

Report Date: 04/29/22

**SAMPLE RESULTS**

Lab ID:	L2221340-05	Date Collected:	04/25/22 11:30
Client ID:	FB01_042522	Date Received:	04/25/22
Sample Location:	BROOKLYN, NY	Field Prep:	Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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: 432 RODNEY STREET (OFFSITE)

Lab Number: L2221340

Project Number: 170650901

Report Date: 04/29/22

**SAMPLE RESULTS**

Lab ID: L2221340-05  
 Client ID: FB01\_042522  
 Sample Location: BROOKLYN, NY

Date Collected: 04/25/22 11:30  
 Date Received: 04/25/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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	101		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	98		70-130

**Project Name:** 432 RODNEY STREET (OFFSITE)  
**Project Number:** 170650901

**Lab Number:** L2221340  
**Report Date:** 04/29/22

**SAMPLE RESULTS**

Lab ID: L2221340-06  
Client ID: TB01\_042522  
Sample Location: BROOKLYN, NY

Date Collected: 04/25/22 00:00  
Date Received: 04/25/22  
Field Prep: Not Specified

Sample Depth:

Matrix: Water  
Analytical Method: 1,8260C  
Analytical Date: 04/26/22 19:40  
Analyst: AJK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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: 432 RODNEY STREET (OFFSITE)

Lab Number: L2221340

Project Number: 170650901

Report Date: 04/29/22

**SAMPLE RESULTS**

Lab ID:	L2221340-06	Date Collected:	04/25/22 00:00
Client ID:	TB01_042522	Date Received:	04/25/22
Sample Location:	BROOKLYN, NY	Field Prep:	Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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: 432 RODNEY STREET (OFFSITE)

Lab Number: L2221340

Project Number: 170650901

Report Date: 04/29/22

**SAMPLE RESULTS**

Lab ID: L2221340-06  
 Client ID: TB01\_042522  
 Sample Location: BROOKLYN, NY

Date Collected: 04/25/22 00:00  
 Date Received: 04/25/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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	99		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	97		70-130

**Project Name:** 432 RODNEY STREET (OFFSITE)  
**Project Number:** 170650901

**Lab Number:** L2221340  
**Report Date:** 04/29/22

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 04/28/22 08:12  
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 03			Batch:	WG1631642-12	
Methylene chloride	ND		ug/kg	5.0	2.3
1,1-Dichloroethane	ND		ug/kg	1.0	0.14
Chloroform	ND		ug/kg	1.5	0.14
Carbon tetrachloride	ND		ug/kg	1.0	0.23
1,2-Dichloropropane	ND		ug/kg	1.0	0.12
Dibromochloromethane	ND		ug/kg	1.0	0.14
1,1,2-Trichloroethane	ND		ug/kg	1.0	0.27
Tetrachloroethene	ND		ug/kg	0.50	0.20
Chlorobenzene	ND		ug/kg	0.50	0.13
Trichlorofluoromethane	ND		ug/kg	4.0	0.70
1,2-Dichloroethane	ND		ug/kg	1.0	0.26
1,1,1-Trichloroethane	ND		ug/kg	0.50	0.17
Bromodichloromethane	ND		ug/kg	0.50	0.11
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.27
cis-1,3-Dichloropropene	ND		ug/kg	0.50	0.16
1,3-Dichloropropene, Total	ND		ug/kg	0.50	0.16
1,1-Dichloropropene	ND		ug/kg	0.50	0.16
Bromoform	ND		ug/kg	4.0	0.25
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.50	0.17
Benzene	ND		ug/kg	0.50	0.17
Toluene	ND		ug/kg	1.0	0.54
Ethylbenzene	ND		ug/kg	1.0	0.14
Chloromethane	ND		ug/kg	4.0	0.93
Bromomethane	ND		ug/kg	2.0	0.58
Vinyl chloride	ND		ug/kg	1.0	0.34
Chloroethane	ND		ug/kg	2.0	0.45
1,1-Dichloroethene	ND		ug/kg	1.0	0.24
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.14
Trichloroethene	ND		ug/kg	0.50	0.14

**Project Name:** 432 RODNEY STREET (OFFSITE)  
**Project Number:** 170650901

**Lab Number:** L2221340  
**Report Date:** 04/29/22

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 04/28/22 08:12  
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 03			Batch:	WG1631642-12	
1,2-Dichlorobenzene	ND		ug/kg	2.0	0.14
1,3-Dichlorobenzene	ND		ug/kg	2.0	0.15
1,4-Dichlorobenzene	ND		ug/kg	2.0	0.17
Methyl tert butyl ether	ND		ug/kg	2.0	0.20
p/m-Xylene	ND		ug/kg	2.0	0.56
o-Xylene	ND		ug/kg	1.0	0.29
Xylenes, Total	ND		ug/kg	1.0	0.29
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18
1,2-Dichloroethene, Total	ND		ug/kg	1.0	0.14
Dibromomethane	ND		ug/kg	2.0	0.24
Styrene	ND		ug/kg	1.0	0.20
Dichlorodifluoromethane	ND		ug/kg	10	0.92
Acetone	ND		ug/kg	10	4.8
Carbon disulfide	ND		ug/kg	10	4.6
2-Butanone	ND		ug/kg	10	2.2
Vinyl acetate	ND		ug/kg	10	2.2
4-Methyl-2-pentanone	ND		ug/kg	10	1.3
1,2,3-Trichloropropane	ND		ug/kg	2.0	0.13
2-Hexanone	ND		ug/kg	10	1.2
Bromochloromethane	ND		ug/kg	2.0	0.20
2,2-Dichloropropane	ND		ug/kg	2.0	0.20
1,2-Dibromoethane	ND		ug/kg	1.0	0.28
1,3-Dichloropropane	ND		ug/kg	2.0	0.17
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.50	0.13
Bromobenzene	ND		ug/kg	2.0	0.14
n-Butylbenzene	ND		ug/kg	1.0	0.17
sec-Butylbenzene	ND		ug/kg	1.0	0.15
tert-Butylbenzene	ND		ug/kg	2.0	0.12
o-Chlorotoluene	ND		ug/kg	2.0	0.19

**Project Name:** 432 RODNEY STREET (OFFSITE)  
**Project Number:** 170650901

**Lab Number:** L2221340  
**Report Date:** 04/29/22

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 04/28/22 08:12  
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s):	03		Batch:	WG1631642-12	
p-Chlorotoluene	ND		ug/kg	2.0	0.11
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.0	1.0
Hexachlorobutadiene	ND		ug/kg	4.0	0.17
Isopropylbenzene	ND		ug/kg	1.0	0.11
p-Isopropyltoluene	ND		ug/kg	1.0	0.11
Naphthalene	0.76	J	ug/kg	4.0	0.65
Acrylonitrile	ND		ug/kg	4.0	1.2
n-Propylbenzene	ND		ug/kg	1.0	0.17
1,2,3-Trichlorobenzene	ND		ug/kg	2.0	0.32
1,2,4-Trichlorobenzene	ND		ug/kg	2.0	0.27
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	0.19
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	0.33
1,4-Dioxane	ND		ug/kg	80	35.
p-Diethylbenzene	ND		ug/kg	2.0	0.18
p-Ethyltoluene	ND		ug/kg	2.0	0.38
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.0	0.19
Ethyl ether	ND		ug/kg	2.0	0.34
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.0	1.4

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	109		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	108		70-130
Dibromofluoromethane	92		70-130



**Project Name:** 432 RODNEY STREET (OFFSITE)  
**Project Number:** 170650901

**Lab Number:** L2221340  
**Report Date:** 04/29/22

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 04/27/22 08:28  
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s):	01-02,04		Batch:	WG1631642-5	
Methylene chloride	ND		ug/kg	5.0	2.3
1,1-Dichloroethane	ND		ug/kg	1.0	0.14
Chloroform	ND		ug/kg	1.5	0.14
Carbon tetrachloride	ND		ug/kg	1.0	0.23
1,2-Dichloropropane	ND		ug/kg	1.0	0.12
Dibromochloromethane	ND		ug/kg	1.0	0.14
1,1,2-Trichloroethane	ND		ug/kg	1.0	0.27
Tetrachloroethene	ND		ug/kg	0.50	0.20
Chlorobenzene	ND		ug/kg	0.50	0.13
Trichlorofluoromethane	ND		ug/kg	4.0	0.70
1,2-Dichloroethane	ND		ug/kg	1.0	0.26
1,1,1-Trichloroethane	ND		ug/kg	0.50	0.17
Bromodichloromethane	ND		ug/kg	0.50	0.11
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.27
cis-1,3-Dichloropropene	ND		ug/kg	0.50	0.16
1,3-Dichloropropene, Total	ND		ug/kg	0.50	0.16
1,1-Dichloropropene	ND		ug/kg	0.50	0.16
Bromoform	ND		ug/kg	4.0	0.25
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.50	0.17
Benzene	ND		ug/kg	0.50	0.17
Toluene	ND		ug/kg	1.0	0.54
Ethylbenzene	ND		ug/kg	1.0	0.14
Chloromethane	ND		ug/kg	4.0	0.93
Bromomethane	ND		ug/kg	2.0	0.58
Vinyl chloride	ND		ug/kg	1.0	0.34
Chloroethane	ND		ug/kg	2.0	0.45
1,1-Dichloroethene	ND		ug/kg	1.0	0.24
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.14
Trichloroethene	ND		ug/kg	0.50	0.14

**Project Name:** 432 RODNEY STREET (OFFSITE)  
**Project Number:** 170650901

**Lab Number:** L2221340  
**Report Date:** 04/29/22

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 04/27/22 08:28  
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s):	01-02,04		Batch:	WG1631642-5	
1,2-Dichlorobenzene	ND		ug/kg	2.0	0.14
1,3-Dichlorobenzene	ND		ug/kg	2.0	0.15
1,4-Dichlorobenzene	ND		ug/kg	2.0	0.17
Methyl tert butyl ether	ND		ug/kg	2.0	0.20
p/m-Xylene	ND		ug/kg	2.0	0.56
o-Xylene	ND		ug/kg	1.0	0.29
Xylenes, Total	ND		ug/kg	1.0	0.29
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18
1,2-Dichloroethene, Total	ND		ug/kg	1.0	0.14
Dibromomethane	ND		ug/kg	2.0	0.24
Styrene	ND		ug/kg	1.0	0.20
Dichlorodifluoromethane	ND		ug/kg	10	0.92
Acetone	ND		ug/kg	10	4.8
Carbon disulfide	ND		ug/kg	10	4.6
2-Butanone	ND		ug/kg	10	2.2
Vinyl acetate	ND		ug/kg	10	2.2
4-Methyl-2-pentanone	ND		ug/kg	10	1.3
1,2,3-Trichloropropane	ND		ug/kg	2.0	0.13
2-Hexanone	ND		ug/kg	10	1.2
Bromochloromethane	ND		ug/kg	2.0	0.20
2,2-Dichloropropane	ND		ug/kg	2.0	0.20
1,2-Dibromoethane	ND		ug/kg	1.0	0.28
1,3-Dichloropropane	ND		ug/kg	2.0	0.17
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.50	0.13
Bromobenzene	ND		ug/kg	2.0	0.14
n-Butylbenzene	ND		ug/kg	1.0	0.17
sec-Butylbenzene	ND		ug/kg	1.0	0.15
tert-Butylbenzene	ND		ug/kg	2.0	0.12
o-Chlorotoluene	ND		ug/kg	2.0	0.19

**Project Name:** 432 RODNEY STREET (OFFSITE)  
**Project Number:** 170650901

**Lab Number:** L2221340  
**Report Date:** 04/29/22

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 04/27/22 08:28  
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s):	01-02,04		Batch:	WG1631642-5	
p-Chlorotoluene	ND		ug/kg	2.0	0.11
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.0	1.0
Hexachlorobutadiene	ND		ug/kg	4.0	0.17
Isopropylbenzene	ND		ug/kg	1.0	0.11
p-Isopropyltoluene	ND		ug/kg	1.0	0.11
Naphthalene	ND		ug/kg	4.0	0.65
Acrylonitrile	ND		ug/kg	4.0	1.2
n-Propylbenzene	ND		ug/kg	1.0	0.17
1,2,3-Trichlorobenzene	ND		ug/kg	2.0	0.32
1,2,4-Trichlorobenzene	ND		ug/kg	2.0	0.27
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	0.19
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	0.33
1,4-Dioxane	ND		ug/kg	80	35.
p-Diethylbenzene	ND		ug/kg	2.0	0.18
p-Ethyltoluene	ND		ug/kg	2.0	0.38
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.0	0.19
Ethyl ether	ND		ug/kg	2.0	0.34
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.0	1.4

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	108		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	91		70-130



**Project Name:** 432 RODNEY STREET (OFFSITE)  
**Project Number:** 170650901

**Lab Number:** L2221340  
**Report Date:** 04/29/22

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 04/26/22 16:34  
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s):	05-06	Batch:	WG1631655-5		
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:** 432 RODNEY STREET (OFFSITE)  
**Project Number:** 170650901

**Lab Number:** L2221340  
**Report Date:** 04/29/22

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 04/26/22 16:34  
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s):	05-06	Batch:	WG1631655-5		
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	
Bromoform	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:** 432 RODNEY STREET (OFFSITE)  
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**Lab Number:** L2221340  
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**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 04/26/22 16:34  
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s):	05-06	Batch:	WG1631655-5		
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	99		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	98		70-130



# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 432 RODNEY STREET (OFFSITE)  
**Project Number:** 170650901

**Lab Number:** L2221340  
**Report Date:** 04/29/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 03 Batch: WG1631642-10 WG1631642-11								
Methylene chloride	80		79		70-130	1		30
1,1-Dichloroethane	84		81		70-130	4		30
Chloroform	83		81		70-130	2		30
Carbon tetrachloride	83		79		70-130	5		30
1,2-Dichloropropane	89		87		70-130	2		30
Dibromochloromethane	84		85		70-130	1		30
1,1,2-Trichloroethane	91		92		70-130	1		30
Tetrachloroethene	88		86		70-130	2		30
Chlorobenzene	87		86		70-130	1		30
Trichlorofluoromethane	83		79		70-139	5		30
1,2-Dichloroethane	89		86		70-130	3		30
1,1,1-Trichloroethane	87		82		70-130	6		30
Bromodichloromethane	82		80		70-130	2		30
trans-1,3-Dichloropropene	91		92		70-130	1		30
cis-1,3-Dichloropropene	91		90		70-130	1		30
1,1-Dichloropropene	93		90		70-130	3		30
Bromoform	75		78		70-130	4		30
1,1,2,2-Tetrachloroethane	96		100		70-130	4		30
Benzene	88		86		70-130	2		30
Toluene	88		86		70-130	2		30
Ethylbenzene	90		88		70-130	2		30
Chloromethane	81		79		52-130	3		30
Bromomethane	91		86		57-147	6		30

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 432 RODNEY STREET (OFFSITE)  
**Project Number:** 170650901

**Lab Number:** L2221340  
**Report Date:** 04/29/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 03 Batch: WG1631642-10 WG1631642-11								
Vinyl chloride	82		79		67-130	4		30
Chloroethane	87		85		50-151	2		30
1,1-Dichloroethene	81		78		65-135	4		30
trans-1,2-Dichloroethene	82		80		70-130	2		30
Trichloroethene	87		85		70-130	2		30
1,2-Dichlorobenzene	89		89		70-130	0		30
1,3-Dichlorobenzene	90		90		70-130	0		30
1,4-Dichlorobenzene	90		90		70-130	0		30
Methyl tert butyl ether	93		93		66-130	0		30
p/m-Xylene	89		87		70-130	2		30
o-Xylene	88		86		70-130	2		30
cis-1,2-Dichloroethene	82		80		70-130	2		30
Dibromomethane	82		82		70-130	0		30
Styrene	86		84		70-130	2		30
Dichlorodifluoromethane	67		64		30-146	5		30
Acetone	102		102		54-140	0		30
Carbon disulfide	82		78		59-130	5		30
2-Butanone	82		82		70-130	0		30
Vinyl acetate	104		105		70-130	1		30
4-Methyl-2-pentanone	89		88		70-130	1		30
1,2,3-Trichloropropane	93		96		68-130	3		30
2-Hexanone	81		82		70-130	1		30
Bromochloromethane	82		81		70-130	1		30

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 432 RODNEY STREET (OFFSITE)  
**Project Number:** 170650901

**Lab Number:** L2221340  
**Report Date:** 04/29/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 03 Batch: WG1631642-10 WG1631642-11								
2,2-Dichloropropane	86		80		70-130	7		30
1,2-Dibromoethane	91		92		70-130	1		30
1,3-Dichloropropane	93		93		69-130	0		30
1,1,1,2-Tetrachloroethane	89		89		70-130	0		30
Bromobenzene	87		88		70-130	1		30
n-Butylbenzene	101		99		70-130	2		30
sec-Butylbenzene	95		94		70-130	1		30
tert-Butylbenzene	92		90		70-130	2		30
o-Chlorotoluene	90		89		70-130	1		30
p-Chlorotoluene	93		93		70-130	0		30
1,2-Dibromo-3-chloropropane	81		83		68-130	2		30
Hexachlorobutadiene	89		88		67-130	1		30
Isopropylbenzene	94		93		70-130	1		30
p-Isopropyltoluene	96		95		70-130	1		30
Naphthalene	92		92		70-130	0		30
Acrylonitrile	84		83		70-130	1		30
n-Propylbenzene	97		94		70-130	3		30
1,2,3-Trichlorobenzene	91		91		70-130	0		30
1,2,4-Trichlorobenzene	95		93		70-130	2		30
1,3,5-Trimethylbenzene	96		94		70-130	2		30
1,2,4-Trimethylbenzene	96		95		70-130	1		30
1,4-Dioxane	90		91		65-136	1		30
p-Diethylbenzene	97		95		70-130	2		30

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 432 RODNEY STREET (OFFSITE)  
**Project Number:** 170650901

**Lab Number:** L2221340  
**Report Date:** 04/29/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 03 Batch: WG1631642-10 WG1631642-11								
p-Ethyltoluene	95		94		70-130	1		30
1,2,4,5-Tetramethylbenzene	98		96		70-130	2		30
Ethyl ether	91		90		67-130	1		30
trans-1,4-Dichloro-2-butene	93		97		70-130	4		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	99		98		70-130
Toluene-d8	101		103		70-130
4-Bromofluorobenzene	104		107		70-130
Dibromofluoromethane	92		90		70-130

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 432 RODNEY STREET (OFFSITE)  
**Project Number:** 170650901

**Lab Number:** L2221340  
**Report Date:** 04/29/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02,04 Batch: WG1631642-3 WG1631642-4								
Methylene chloride	78		78		70-130	0		30
1,1-Dichloroethane	82		80		70-130	2		30
Chloroform	82		80		70-130	2		30
Carbon tetrachloride	80		78		70-130	1		30
1,2-Dichloropropane	87		86		70-130	1		30
Dibromochloromethane	86		82		70-130	5		30
1,1,2-Trichloroethane	92		88		70-130	4		30
Tetrachloroethene	84		81		70-130	4		30
Chlorobenzene	83		80		70-130	4		30
Trichlorofluoromethane	81		78		70-139	4		30
1,2-Dichloroethane	89		87		70-130	2		30
1,1,1-Trichloroethane	84		82		70-130	2		30
Bromodichloromethane	81		79		70-130	3		30
trans-1,3-Dichloropropene	92		88		70-130	4		30
cis-1,3-Dichloropropene	92		89		70-130	3		30
1,1-Dichloropropene	88		87		70-130	1		30
Bromoform	79		76		70-130	4		30
1,1,2,2-Tetrachloroethane	98		93		70-130	5		30
Benzene	84		82		70-130	2		30
Toluene	82		80		70-130	2		30
Ethylbenzene	86		83		70-130	4		30
Chloromethane	77		76		52-130	1		30
Bromomethane	87		86		57-147	1		30

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 432 RODNEY STREET (OFFSITE)  
**Project Number:** 170650901

**Lab Number:** L2221340  
**Report Date:** 04/29/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02,04 Batch: WG1631642-3 WG1631642-4								
Vinyl chloride	77		76		67-130	1		30
Chloroethane	83		82		50-151	1		30
1,1-Dichloroethene	78		76		65-135	3		30
trans-1,2-Dichloroethene	79		78		70-130	1		30
Trichloroethene	85		83		70-130	2		30
1,2-Dichlorobenzene	86		82		70-130	5		30
1,3-Dichlorobenzene	86		82		70-130	5		30
1,4-Dichlorobenzene	86		82		70-130	5		30
Methyl tert butyl ether	96		93		66-130	3		30
p/m-Xylene	85		82		70-130	4		30
o-Xylene	84		82		70-130	2		30
cis-1,2-Dichloroethene	81		77		70-130	3		30
Dibromomethane	83		82		70-130	1		30
Styrene	83		80		70-130	4		30
Dichlorodifluoromethane	66		65		30-146	2		30
Acetone	114		111		54-140	3		30
Carbon disulfide	78		76		59-130	3		30
2-Butanone	88		87		70-130	1		30
Vinyl acetate	109		102		70-130	7		30
4-Methyl-2-pentanone	94		89		70-130	5		30
1,2,3-Trichloropropane	100		90		68-130	11		30
2-Hexanone	86		82		70-130	5		30
Bromochloromethane	82		82		70-130	0		30

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 432 RODNEY STREET (OFFSITE)  
**Project Number:** 170650901

**Lab Number:** L2221340  
**Report Date:** 04/29/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02,04 Batch: WG1631642-3 WG1631642-4								
2,2-Dichloropropane	82		81		70-130	1		30
1,2-Dibromoethane	92		90		70-130	2		30
1,3-Dichloropropane	93		90		69-130	3		30
1,1,1,2-Tetrachloroethane	88		85		70-130	3		30
Bromobenzene	85		81		70-130	5		30
n-Butylbenzene	94		89		70-130	5		30
sec-Butylbenzene	89		84		70-130	6		30
tert-Butylbenzene	86		83		70-130	4		30
o-Chlorotoluene	85		82		70-130	4		30
p-Chlorotoluene	88		84		70-130	5		30
1,2-Dibromo-3-chloropropane	86		82		68-130	5		30
Hexachlorobutadiene	82		79		67-130	4		30
Isopropylbenzene	87		84		70-130	4		30
p-Isopropyltoluene	89		86		70-130	3		30
Naphthalene	90		85		70-130	6		30
Acrylonitrile	84		86		70-130	2		30
n-Propylbenzene	89		86		70-130	3		30
1,2,3-Trichlorobenzene	89		85		70-130	5		30
1,2,4-Trichlorobenzene	90		85		70-130	6		30
1,3,5-Trimethylbenzene	89		86		70-130	3		30
1,2,4-Trimethylbenzene	90		86		70-130	5		30
1,4-Dioxane	79		76		65-136	4		30
p-Diethylbenzene	89		84		70-130	6		30

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 432 RODNEY STREET (OFFSITE)  
**Project Number:** 170650901

**Lab Number:** L2221340  
**Report Date:** 04/29/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02,04 Batch: WG1631642-3 WG1631642-4								
p-Ethyltoluene	88		84		70-130	5		30
1,2,4,5-Tetramethylbenzene	90		86		70-130	5		30
Ethyl ether	93		91		67-130	2		30
trans-1,4-Dichloro-2-butene	95		93		70-130	2		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	99		98		70-130
Toluene-d8	100		99		70-130
4-Bromofluorobenzene	103		101		70-130
Dibromofluoromethane	91		92		70-130

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 432 RODNEY STREET (OFFSITE)  
**Project Number:** 170650901

**Lab Number:** L2221340  
**Report Date:** 04/29/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 05-06 Batch: WG1631655-3 WG1631655-4								
Methylene chloride	98		97		70-130	1		20
1,1-Dichloroethane	98		96		70-130	2		20
Chloroform	92		90		70-130	2		20
Carbon tetrachloride	97		95		63-132	2		20
1,2-Dichloropropane	95		96		70-130	1		20
Dibromochloromethane	94		91		63-130	3		20
1,1,2-Trichloroethane	95		94		70-130	1		20
Tetrachloroethene	100		98		70-130	2		20
Chlorobenzene	97		96		75-130	1		20
Trichlorofluoromethane	100		100		62-150	0		20
1,2-Dichloroethane	95		95		70-130	0		20
1,1,1-Trichloroethane	100		99		67-130	1		20
Bromodichloromethane	94		94		67-130	0		20
trans-1,3-Dichloropropene	96		93		70-130	3		20
cis-1,3-Dichloropropene	97		96		70-130	1		20
1,1-Dichloropropene	100		96		70-130	4		20
Bromoform	93		92		54-136	1		20
1,1,2,2-Tetrachloroethane	98		100		67-130	2		20
Benzene	98		95		70-130	3		20
Toluene	98		96		70-130	2		20
Ethylbenzene	97		95		70-130	2		20
Chloromethane	100		100		64-130	0		20
Bromomethane	100		95		39-139	5		20

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 432 RODNEY STREET (OFFSITE)  
**Project Number:** 170650901

**Lab Number:** L2221340  
**Report Date:** 04/29/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 05-06 Batch: WG1631655-3 WG1631655-4								
Vinyl chloride	110		100		55-140	10		20
Chloroethane	110		110		55-138	0		20
1,1-Dichloroethene	100		98		61-145	2		20
trans-1,2-Dichloroethene	100		98		70-130	2		20
Trichloroethene	95		90		70-130	5		20
1,2-Dichlorobenzene	100		97		70-130	3		20
1,3-Dichlorobenzene	100		97		70-130	3		20
1,4-Dichlorobenzene	100		98		70-130	2		20
Methyl tert butyl ether	97		95		63-130	2		20
p/m-Xylene	100		95		70-130	5		20
o-Xylene	95		95		70-130	0		20
cis-1,2-Dichloroethene	98		93		70-130	5		20
Dibromomethane	97		95		70-130	2		20
1,2,3-Trichloropropane	87		93		64-130	7		20
Acrylonitrile	93		97		70-130	4		20
Styrene	95		95		70-130	0		20
Dichlorodifluoromethane	100		97		36-147	3		20
Acetone	81		77		58-148	5		20
Carbon disulfide	100		96		51-130	4		20
2-Butanone	91		91		63-138	0		20
Vinyl acetate	110		110		70-130	0		20
4-Methyl-2-pentanone	94		98		59-130	4		20
2-Hexanone	88		88		57-130	0		20

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 432 RODNEY STREET (OFFSITE)  
**Project Number:** 170650901

**Lab Number:** L2221340  
**Report Date:** 04/29/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 05-06 Batch: WG1631655-3 WG1631655-4								
Bromochloromethane	100		100		70-130	0		20
2,2-Dichloropropane	100		100		63-133	0		20
1,2-Dibromoethane	96		94		70-130	2		20
1,3-Dichloropropane	96		96		70-130	0		20
1,1,1,2-Tetrachloroethane	95		94		64-130	1		20
Bromobenzene	100		98		70-130	2		20
n-Butylbenzene	100		96		53-136	4		20
sec-Butylbenzene	98		95		70-130	3		20
tert-Butylbenzene	99		96		70-130	3		20
o-Chlorotoluene	95		95		70-130	0		20
p-Chlorotoluene	96		93		70-130	3		20
1,2-Dibromo-3-chloropropane	95		92		41-144	3		20
Hexachlorobutadiene	100		100		63-130	0		20
Isopropylbenzene	99		96		70-130	3		20
p-Isopropyltoluene	99		96		70-130	3		20
Naphthalene	95		98		70-130	3		20
n-Propylbenzene	99		96		69-130	3		20
1,2,3-Trichlorobenzene	100		100		70-130	0		20
1,2,4-Trichlorobenzene	100		100		70-130	0		20
1,3,5-Trimethylbenzene	98		96		64-130	2		20
1,2,4-Trimethylbenzene	96		94		70-130	2		20
1,4-Dioxane	96		98		56-162	2		20
p-Diethylbenzene	97		96		70-130	1		20

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 432 RODNEY STREET (OFFSITE)  
**Project Number:** 170650901

**Lab Number:** L2221340  
**Report Date:** 04/29/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 05-06 Batch: WG1631655-3 WG1631655-4								
p-Ethyltoluene	99		95		70-130	4		20
1,2,4,5-Tetramethylbenzene	90		87		70-130	3		20
Ethyl ether	100		98		59-134	2		20
trans-1,4-Dichloro-2-butene	95		91		70-130	4		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	101		101		70-130
Toluene-d8	100		100		70-130
4-Bromofluorobenzene	98		98		70-130
Dibromofluoromethane	97		96		70-130

**Matrix Spike Analysis**  
*Batch Quality Control*

**Project Name:** 432 RODNEY STREET (OFFSITE)  
**Project Number:** 170650901

**Lab Number:** L2221340  
**Report Date:** 04/29/22

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: WG1631642-6 WG1631642-7 QC Sample: L2221340-03 Client ID: SB03_042522												
Methylene chloride	ND	82.9	65	78		81	79		70-130	22		30
1,1-Dichloroethane	ND	82.9	73	88		88	86		70-130	18		30
Chloroform	ND	82.9	71	85		86	84		70-130	19		30
Carbon tetrachloride	ND	82.9	78	94		88	86		70-130	12		30
1,2-Dichloropropane	ND	82.9	75	91		93	91		70-130	21		30
Dibromochloromethane	ND	82.9	67	80		85	83		70-130	24		30
1,1,2-Trichloroethane	ND	82.9	71	86		90	89		70-130	24		30
Tetrachloroethene	ND	82.9	75	90		77	75		70-130	3		30
Chlorobenzene	ND	82.9	64	77		76	75		70-130	17		30
Trichlorofluoromethane	ND	82.9	79	95		89	87		70-139	12		30
1,2-Dichloroethane	ND	82.9	70	84		87	85		70-130	22		30
1,1,1-Trichloroethane	ND	82.9	79	96		93	91		70-130	15		30
Bromodichloromethane	ND	82.9	68	82		84	82		70-130	21		30
trans-1,3-Dichloropropene	ND	82.9	68	82		86	85		70-130	23		30
cis-1,3-Dichloropropene	ND	82.9	72	87		89	88		70-130	21		30
1,1-Dichloropropene	ND	82.9	86	104		95	93		70-130	10		30
Bromoform	ND	82.9	56	68	Q	72	71		70-130	25		30
1,1,2,2-Tetrachloroethane	ND	82.9	17	21	Q	70	69	Q	70-130	121	Q	30
Benzene	ND	82.9	77	93		92	91		70-130	18		30
Toluene	1.1J	82.9	72	87		84	83		70-130	16		30
Ethylbenzene	1.4	82.9	72	86		81	78		70-130	11		30
Chloromethane	ND	82.9	73	88		89	88		52-130	19		30
Bromomethane	ND	82.9	82	98		92	90		57-147	12		30

**Matrix Spike Analysis**  
*Batch Quality Control*

**Project Name:** 432 RODNEY STREET (OFFSITE)  
**Project Number:** 170650901

**Lab Number:** L2221340  
**Report Date:** 04/29/22

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	MSD Qual	Recovery Limits	RPD	RPD Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG1631642-6 WG1631642-7 QC Sample: L2221340-03 Client ID: SB03_042522												
Vinyl chloride	ND	82.9	78	94		89	87		67-130	13		30
Chloroethane	ND	82.9	82	99		98	96		50-151	18		30
1,1-Dichloroethene	ND	82.9	76	92		87	86		65-135	14		30
trans-1,2-Dichloroethene	ND	82.9	71	85		83	81		70-130	16		30
Trichloroethene	0.39J	82.9	120	141	Q	100	98		70-130	16		30
1,2-Dichlorobenzene	ND	82.9	48	58	Q	54	53	Q	70-130	11		30
1,3-Dichlorobenzene	ND	82.9	51	62	Q	54	53	Q	70-130	6		30
1,4-Dichlorobenzene	ND	82.9	49	59	Q	53	52	Q	70-130	7		30
Methyl tert butyl ether	ND	82.9	76	92		96	94		66-130	24		30
p/m-Xylene	1.8J	166	140	83		150	74		70-130	10		30
o-Xylene	0.80J	166	130	79		150	73		70-130	13		30
cis-1,2-Dichloroethene	ND	82.9	67	81		82	81		70-130	20		30
Dibromomethane	ND	82.9	61	74		78	76		70-130	23		30
Styrene	ND	166	120	74		140	70		70-130	16		30
Dichlorodifluoromethane	ND	82.9	68	81		77	76		30-146	13		30
Acetone	53	82.9	86	40	Q	110	52	Q	54-140	21		30
Carbon disulfide	ND	82.9	68	82		74	72		59-130	8		30
2-Butanone	5.0J	82.9	62	74		78	76		70-130	23		30
Vinyl acetate	ND	82.9	14	17	Q	23	23	Q	70-130	49	Q	30
4-Methyl-2-pentanone	ND	82.9	64	77		81	80		70-130	24		30
1,2,3-Trichloropropane	ND	82.9	63	76		81	79		68-130	24		30
2-Hexanone	ND	82.9	57	69	Q	73	72		70-130	25		30
Bromochloromethane	ND	82.9	64	77		80	79		70-130	23		30

**Matrix Spike Analysis**  
*Batch Quality Control*

**Project Name:** 432 RODNEY STREET (OFFSITE)  
**Project Number:** 170650901

**Lab Number:** L2221340  
**Report Date:** 04/29/22

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: WG1631642-6 WG1631642-7 QC Sample: L2221340-03 Client ID: SB03_042522												
2,2-Dichloropropane	ND	82.9	76	92		88	86		70-130	14		30
1,2-Dibromoethane	ND	82.9	67	80		85	83		70-130	24		30
1,3-Dichloropropane	ND	82.9	71	86		90	88		69-130	24		30
1,1,1,2-Tetrachloroethane	ND	82.9	72	87		88	86		70-130	20		30
Bromobenzene	ND	82.9	58	70		69	68	Q	70-130	18		30
n-Butylbenzene	ND	82.9	65	78		46	46	Q	70-130	33	Q	30
sec-Butylbenzene	ND	82.9	68	82		54	53	Q	70-130	23		30
tert-Butylbenzene	ND	82.9	68	82		62	60	Q	70-130	10		30
o-Chlorotoluene	ND	82.9	61	74		65	63	Q	70-130	5		30
p-Chlorotoluene	ND	82.9	59	71		63	62	Q	70-130	6		30
1,2-Dibromo-3-chloropropane	ND	82.9	48	58	Q	65	64	Q	68-130	31	Q	30
Hexachlorobutadiene	ND	82.9	46	55	Q	24	24	Q	67-130	62	Q	30
Isopropylbenzene	0.38J	82.9	73	88		73	72		70-130	0		30
p-Isopropyltoluene	1.2J	82.9	66	80		55	54	Q	70-130	18		30
Naphthalene	130	82.9	290E	196	Q	440E	302	Q	70-130	40	Q	30
Acrylonitrile	ND	82.9	57	68	Q	72	71		70-130	24		30
n-Propylbenzene	ND	82.9	70	84		66	65	Q	70-130	6		30
1,2,3-Trichlorobenzene	ND	82.9	28	34	Q	25	24	Q	70-130	11		30
1,2,4-Trichlorobenzene	ND	82.9	31	37	Q	26	26	Q	70-130	15		30
1,3,5-Trimethylbenzene	0.98J	82.9	67	81		66	64	Q	70-130	2		30
1,2,4-Trimethylbenzene	2.5J	82.9	64	78		65	64	Q	70-130	1		30
1,4-Dioxane	ND	4150	3700	89		4800	94		65-136	26		30
p-Diethylbenzene	ND	82.9	65	79		57	56	Q	70-130	14		30

**Matrix Spike Analysis*****Batch Quality Control***

**Project Name:** 432 RODNEY STREET (OFFSITE)  
**Project Number:** 170650901

**Lab Number:** L2221340  
**Report Date:** 04/29/22

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Recovery Qual	Limits	RPD	RPD Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG1631642-6 WG1631642-7 QC Sample: L2221340-03 Client ID: SB03_042522												
p-Ethyltoluene	3.8	82.9	70	79		71	66	Q	70-130	1		30
1,2,4,5-Tetramethylbenzene	0.53J	82.9	53	64	Q	45	44	Q	70-130	16		30
Ethyl ether	ND	82.9	75	90		94	92		67-130	22		30
trans-1,4-Dichloro-2-butene	ND	82.9	56	68	Q	73	71		70-130	25		30

Surrogate	MS	MS		MSD	MSD		Acceptance Criteria
	% Recovery	Qualifier	% Recovery	Qualifier	% Recovery	Qualifier	
1,2-Dichloroethane-d4	97		96		70-130		
4-Bromofluorobenzene	104		103		70-130		
Dibromofluoromethane	91		92		70-130		
Toluene-d8	100		100		70-130		

# **INORGANICS & MISCELLANEOUS**



**Project Name:** 432 RODNEY STREET (OFFSITE)  
**Project Number:** 170650901

**Lab Number:** L2221340  
**Report Date:** 04/29/22

### SAMPLE RESULTS

Lab ID: L2221340-01  
Client ID: SB01\_042522  
Sample Location: BROOKLYN, NY

Date Collected: 04/25/22 11:00  
Date Received: 04/25/22  
Field Prep: Not Specified

Sample Depth:  
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	86.3		%	0.100	NA	1	-	04/26/22 10:33	121,2540G	RI

**Project Name:** 432 RODNEY STREET (OFFSITE)  
**Project Number:** 170650901

**Lab Number:** L2221340  
**Report Date:** 04/29/22

### SAMPLE RESULTS

Lab ID: L2221340-02  
Client ID: SB02\_042522  
Sample Location: BROOKLYN, NY

Date Collected: 04/25/22 10:41  
Date Received: 04/25/22  
Field Prep: Not Specified

Sample Depth:  
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	82.3		%	0.100	NA	1	-	04/26/22 10:33	121,2540G	RI

**Project Name:** 432 RODNEY STREET (OFFSITE)  
**Project Number:** 170650901

**Lab Number:** L2221340  
**Report Date:** 04/29/22

### SAMPLE RESULTS

Lab ID: L2221340-03  
Client ID: SB03\_042522  
Sample Location: BROOKLYN, NY

Date Collected: 04/25/22 08:45  
Date Received: 04/25/22  
Field Prep: Not Specified

Sample Depth:  
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	84.9		%	0.100	NA	1	-	04/26/22 10:33	121,2540G	RI

**Project Name:** 432 RODNEY STREET (OFFSITE)  
**Project Number:** 170650901

**Lab Number:** L2221340  
**Report Date:** 04/29/22

### SAMPLE RESULTS

Lab ID: L2221340-04  
Client ID: DUP01\_042522  
Sample Location: BROOKLYN, NY

Date Collected: 04/25/22 00:00  
Date Received: 04/25/22  
Field Prep: Not Specified

Sample Depth:  
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	83.2		%	0.100	NA	1	-	04/26/22 10:33	121,2540G	RI

**Lab Duplicate Analysis**  
*Batch Quality Control*

**Project Name:** 432 RODNEY STREET (OFFSITE)  
**Project Number:** 170650901

**Lab Number:** L2221340  
**Report Date:** 04/29/22

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG1630994-1 QC Sample: L2221340-03 Client ID: SB03_042522						
Solids, Total	84.9	83.7	%	1		20

**Project Name:** 432 RODNEY STREET (OFFSITE)  
**Project Number:** 170650901

Serial\_No:04292212:00  
**Lab Number:** L2221340  
**Report Date:** 04/29/22

### Sample Receipt and Container Information

Were project specific reporting limits specified? YES

#### Cooler Information

<b>Cooler</b>	<b>Custody Seal</b>
A	Absent
B	Absent

#### Container Information

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L2221340-01A	Vial MeOH preserved	A	NA	3.8	Y	Absent			NYTCL-8260HLW(14)
L2221340-01B	Vial water preserved	A	NA	3.8	Y	Absent	26-APR-22 06:45		NYTCL-8260HLW(14)
L2221340-01C	Vial water preserved	A	NA	3.8	Y	Absent	26-APR-22 06:45		NYTCL-8260HLW(14)
L2221340-01D	Plastic 2oz unpreserved for TS	A	NA	3.8	Y	Absent			TS(7)
L2221340-02A	Vial MeOH preserved	A	NA	3.8	Y	Absent			NYTCL-8260HLW(14)
L2221340-02B	Vial water preserved	A	NA	3.8	Y	Absent	26-APR-22 06:45		NYTCL-8260HLW(14)
L2221340-02C	Vial water preserved	A	NA	3.8	Y	Absent	26-APR-22 06:45		NYTCL-8260HLW(14)
L2221340-02D	Plastic 2oz unpreserved for TS	A	NA	3.8	Y	Absent			TS(7)
L2221340-03A	Vial MeOH preserved	A	NA	3.8	Y	Absent			NYTCL-8260HLW(14)
L2221340-03A1	Vial MeOH preserved	A	NA	3.8	Y	Absent			NYTCL-8260HLW(14)
L2221340-03A2	Vial MeOH preserved	A	NA	3.8	Y	Absent			NYTCL-8260HLW(14)
L2221340-03B	Vial water preserved	A	NA	3.8	Y	Absent	26-APR-22 06:45		NYTCL-8260HLW(14)
L2221340-03B1	Vial water preserved	A	NA	3.8	Y	Absent	26-APR-22 06:45		NYTCL-8260HLW(14)
L2221340-03B2	Vial water preserved	A	NA	3.8	Y	Absent	26-APR-22 06:45		NYTCL-8260HLW(14)
L2221340-03C	Vial water preserved	A	NA	3.8	Y	Absent	26-APR-22 06:45		NYTCL-8260HLW(14)
L2221340-03C1	Vial water preserved	A	NA	3.8	Y	Absent	26-APR-22 06:45		NYTCL-8260HLW(14)
L2221340-03C2	Vial water preserved	A	NA	3.8	Y	Absent	26-APR-22 06:45		NYTCL-8260HLW(14)
L2221340-03D	Plastic 2oz unpreserved for TS	A	NA	3.8	Y	Absent			TS(7)
L2221340-03D1	Plastic 2oz unpreserved for TS	A	NA	3.8	Y	Absent			TS(7)
L2221340-03D2	Plastic 2oz unpreserved for TS	A	NA	3.8	Y	Absent			TS(7)
L2221340-04A	Vial MeOH preserved	A	NA	3.8	Y	Absent			NYTCL-8260HLW(14)
L2221340-04B	Vial water preserved	A	NA	3.8	Y	Absent	26-APR-22 06:45		NYTCL-8260HLW(14)

\*Values in parentheses indicate holding time in days

**Project Name:** 432 RODNEY STREET (OFFSITE)  
**Project Number:** 170650901

Serial\_No:04292212:00  
**Lab Number:** L2221340  
**Report Date:** 04/29/22

**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L2221340-04C	Vial water preserved	A	NA		3.8	Y	Absent	26-APR-22 06:45	NYTCL-8260HLW(14)
L2221340-04D	Plastic 2oz unpreserved for TS	A	NA		3.8	Y	Absent		TS(7)
L2221340-05A	Vial HCl preserved	A	NA		3.8	Y	Absent		NYTCL-8260(14)
L2221340-05B	Vial HCl preserved	A	NA		3.8	Y	Absent		NYTCL-8260(14)
L2221340-05C	Vial HCl preserved	A	NA		3.8	Y	Absent		NYTCL-8260(14)
L2221340-06A	Vial HCl preserved	B	NA		4.7	Y	Absent		NYTCL-8260(14)
L2221340-06B	Vial HCl preserved	B	NA		4.7	Y	Absent		NYTCL-8260(14)
L2221340-06C	Vial HCl preserved	B	NA		4.7	Y	Absent		NYTCL-8260(14)
L2221340-06D	Vial HCl preserved	B	NA		4.7	Y	Absent		NYTCL-8260(14)
L2221340-06E	Vial HCl preserved	A	NA		3.8	Y	Absent		NYTCL-8260(14)
L2221340-06F	Vial HCl preserved	A	NA		3.8	Y	Absent		NYTCL-8260(14)

\*Values in parentheses indicate holding time in days

**Project Name:** 432 RODNEY STREET (OFFSITE)  
**Project Number:** 170650901

**Lab Number:** L2221340  
**Report Date:** 04/29/22

## 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:** 432 RODNEY STREET (OFFSITE)  
**Project Number:** 170650901

**Lab Number:** L2221340  
**Report Date:** 04/29/22

#### 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.

**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'.

**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 Fluoranthrenes/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.

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.)

**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 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.

**Report Format:** DU Report with 'J' Qualifiers



**Project Name:** 432 RODNEY STREET (OFFSITE)  
**Project Number:** 170650901

**Lab Number:** L2221340  
**Report Date:** 04/29/22

**Data Qualifiers**

- 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:** 432 RODNEY STREET (OFFSITE)  
**Project Number:** 170650901

**Lab Number:** L2221340  
**Report Date:** 04/29/22

## 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 its 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

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**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, NO<sub>2</sub>, NO<sub>3</sub>.

**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

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**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**, **SM4500CI-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, 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**

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

 <p><b>NEW YORK CHAIN OF CUSTODY</b></p> <p>Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193</p> <p>Mansfield, MA 02048 320 Forbes Blvd TEL: 508-822-9300 FAX: 508-822-3288</p>		<p><b>Service Centers</b> Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105</p>		<p>Page 1 of 1</p>	<p>Date Rec'd in Lab 4/25/22</p>	<p>ALPHA Job # L2221340</p>														
		<p><b>Project Information</b></p> <p>Project Name: <i>432 Rodney Street (offsite)</i> Project Location: <i>Brooklyn, NY</i> Project # <i>170650901</i></p>		<p><b>Deliverables</b></p> <p><input type="checkbox"/> ASP-A      <input checked="" type="checkbox"/> ASP-B  <input type="checkbox"/> EQuIS (1 File)      <input type="checkbox"/> EQuIS (4 File)  <input type="checkbox"/> Other</p>		<p><b>Billing Information</b></p> <p><input checked="" type="checkbox"/> Same as Client Info PO #</p>														
<p><b>Client Information</b></p> <p>Client: <i>Langan Engineering</i> Address: <i>360 W 31st Street</i> <i>8th Flr, New York, NY 10001</i> Phone: <i>212-4795400</i> Fax: Email: <i>jgolding@langan.com</i></p>		<p>(Use Project name as Project #) <input type="checkbox"/></p> <p>Project Manager: <i>Albert Tashji</i> ALPHAQuote #: <i></i></p>		<p><b>Regulatory Requirement</b></p> <p><input type="checkbox"/> NY TOGS      <input type="checkbox"/> NY Part 375  <input type="checkbox"/> AWQ Standards      <input type="checkbox"/> NY CP-51  <input type="checkbox"/> NY Restricted Use      <input type="checkbox"/> Other  <input type="checkbox"/> NY Unrestricted Use  <input type="checkbox"/> NYC Sewer Discharge</p>		<p><b>Disposal Site Information</b></p> <p>Please identify below location of applicable disposal facilities.</p> <p><input type="checkbox"/> NJ      <input type="checkbox"/> NY  <input type="checkbox"/> Other:</p>														
		<p><b>Turn-Around Time</b></p> <p>Standard <input checked="" type="checkbox"/> Rush (only if pre approved) <input type="checkbox"/></p>		<p>Due Date: # of Days:</p>																
				<p><b>ANALYSIS</b></p> <p>TCL/TCL/VOCs</p>		<p><b>Sample Filtration</b></p> <p><input type="checkbox"/> Done  <input type="checkbox"/> Lab to do  <b>Preservation</b>  <input type="checkbox"/> Lab to do</p> <p>(Please Specify below)</p>														
						<p><b>Sample Specific Comments</b></p> <p>+ MS/MSD</p>														
<p><b>ALPHA Lab ID (Lab Use Only)</b></p> <p>21340-01 -02 -03 -04 -05 -06</p>	<p><b>Sample ID</b></p> <p>SBo1-042522 SBo2-042522 SBo3-042522 DUPO1-042522 FB01-042522 TB01-042522</p>	<p><b>Collection</b></p> <table border="1"> <thead> <tr> <th>Date</th> <th>Time</th> </tr> </thead> <tbody> <tr> <td>4/25/22</td> <td>11:00</td> </tr> <tr> <td></td> <td>10:41</td> </tr> <tr> <td></td> <td>8:45</td> </tr> <tr> <td></td> <td>-</td> </tr> <tr> <td></td> <td>11:30</td> </tr> <tr> <td></td> <td>11:45</td> </tr> </tbody> </table>		Date	Time	4/25/22	11:00		10:41		8:45		-		11:30		11:45	<p>Sample Matrix</p> <p>S      SS</p>	<p>Sampler's Initials</p> <p>SS      X</p>	
		Date	Time																	
		4/25/22	11:00																	
			10:41																	
			8:45																	
			-																	
			11:30																	
	11:45																			
<p>Preservative Code:</p> <p>A = None B = HCl C = HNO<sub>3</sub> D = H<sub>2</sub>SO<sub>4</sub> E = NaOH F = MeOH G = NaHSO<sub>4</sub> H = Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub> K/E = Zn Ac/NaOH O = Other</p>		<p>Container Code</p> <p>P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Encore D = BOD Bottle</p>		<p>Westboro: Certification No: MA935 Mansfield: Certification No: MA015</p>		<p><b>Container Type</b></p>														
						<p><b>Preservative</b></p>														
<p>Relinquished By:</p> <p><i>Savanna Simpson &amp; VNGI</i></p>		<p>Date/Time</p> <p><i>4/25/22 12:20</i></p>		<p>Received By:</p> <p><i>UNSE sealed Luis Mendoza</i></p>		<p>Date/Time</p> <p><i>4/25/22 12:30</i></p>														
<p><i>Luis Mendoza AAI</i></p>		<p><i>4/26/22</i></p>		<p><i>Dan Gurn</i></p>		<p><i>4/25 21:40</i></p>														
<p><i>Dan Gurn</i></p>		<p><i>4/25 23:20</i></p>		<p><i>Mr. Wu</i></p>		<p><i>4/25/22 23:20</i></p>														
<p>Form No: 01-25 HC (rev. 30-Sept-2013)</p>																				
<p>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 &amp; CONDITIONS. (See reverse side.)</p>																				



## ANALYTICAL REPORT

Lab Number:	L2222636
Client:	Langan Engineering & Environmental 21 Penn Plaza 360 W. 31st Street, 8th Floor New York, NY 10001-2727
ATTN:	Albert Tashji
Phone:	(212) 479-5400
Project Name:	432 RODNEY ST.
Project Number:	170650901
Report Date:	05/05/22

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

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

**Project Name:** 432 RODNEY ST.  
**Project Number:** 170650901

**Lab Number:** L2222636  
**Report Date:** 05/05/22

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2222636-01	MW01A_042922	WATER	432 RODNEY ST., BROOKLYN, NY	04/29/22 09:00	04/29/22
L2222636-02	MW01B_042922	WATER	432 RODNEY ST., BROOKLYN, NY	04/29/22 10:15	04/29/22
L2222636-03	MW02_042922	WATER	432 RODNEY ST., BROOKLYN, NY	04/29/22 12:00	04/29/22
L2222636-04	MW03_042922	WATER	432 RODNEY ST., BROOKLYN, NY	04/29/22 13:30	04/29/22
L2222636-05	GWDUP01_042922	WATER	432 RODNEY ST., BROOKLYN, NY	04/29/22 00:00	04/29/22
L2222636-06	GWFB01_042922	WATER	432 RODNEY ST., BROOKLYN, NY	04/29/22 09:30	04/29/22
L2222636-07	GTWB01_042922	WATER	432 RODNEY ST., BROOKLYN, NY	04/29/22 00:00	04/29/22

**Project Name:** 432 RODNEY ST.  
**Project Number:** 170650901

**Lab Number:** L2222636  
**Report Date:** 05/05/22

### 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.

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**Project Name:** 432 RODNEY ST.  
**Project Number:** 170650901

**Lab Number:** L2222636  
**Report Date:** 05/05/22

#### 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.

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:

 Cristin Walker

Title: Technical Director/Representative

Date: 05/05/22

# ORGANICS



# VOLATILES



Project Name: 432 RODNEY ST.

Lab Number: L2222636

Project Number: 170650901

Report Date: 05/05/22

**SAMPLE RESULTS**

Lab ID: L2222636-01  
 Client ID: MW01A\_042922  
 Sample Location: 432 RODNEY ST., BROOKLYN, NY

Date Collected: 04/29/22 09:00  
 Date Received: 04/29/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 05/02/22 15:17  
 Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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	0.21	J	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: 432 RODNEY ST.

Lab Number: L2222636

Project Number: 170650901

Report Date: 05/05/22

**SAMPLE RESULTS**

Lab ID:	L2222636-01	Date Collected:	04/29/22 09:00
Client ID:	MW01A_042922	Date Received:	04/29/22
Sample Location:	432 RODNEY ST., BROOKLYN, NY	Field Prep:	Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Trichloroethene	0.31	J	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	1.5	J	ug/l	2.5	0.70	1



Project Name: 432 RODNEY ST.

Lab Number: L2222636

Project Number: 170650901

Report Date: 05/05/22

**SAMPLE RESULTS**

Lab ID: L2222636-01  
 Client ID: MW01A\_042922  
 Sample Location: 432 RODNEY ST., BROOKLYN, NY

Date Collected: 04/29/22 09:00  
 Date Received: 04/29/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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	101		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	102		70-130

Project Name: 432 RODNEY ST.

Lab Number: L2222636

Project Number: 170650901

Report Date: 05/05/22

**SAMPLE RESULTS**

Lab ID: L2222636-02  
 Client ID: MW01B\_042922  
 Sample Location: 432 RODNEY ST., BROOKLYN, NY

Date Collected: 04/29/22 10:15  
 Date Received: 04/29/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 05/02/22 15:41  
 Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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	0.24	J	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: 432 RODNEY ST.

Lab Number: L2222636

Project Number: 170650901

Report Date: 05/05/22

**SAMPLE RESULTS**

Lab ID:	L2222636-02	Date Collected:	04/29/22 10:15
Client ID:	MW01B_042922	Date Received:	04/29/22
Sample Location:	432 RODNEY ST., BROOKLYN, NY	Field Prep:	Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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	6.0	ug/l	2.5	0.70	1	



Project Name: 432 RODNEY ST.

Lab Number: L2222636

Project Number: 170650901

Report Date: 05/05/22

**SAMPLE RESULTS**

Lab ID: L2222636-02  
 Client ID: MW01B\_042922  
 Sample Location: 432 RODNEY ST., BROOKLYN, NY

Date Collected: 04/29/22 10:15  
 Date Received: 04/29/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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	100		70-130
Toluene-d8	103		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	100		70-130

Project Name: 432 RODNEY ST.

Lab Number: L2222636

Project Number: 170650901

Report Date: 05/05/22

**SAMPLE RESULTS**

Lab ID: L2222636-03  
 Client ID: MW02\_042922  
 Sample Location: 432 RODNEY ST., BROOKLYN, NY

Date Collected: 04/29/22 12:00  
 Date Received: 04/29/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 05/02/22 16:04  
 Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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: 432 RODNEY ST.

Lab Number: L2222636

Project Number: 170650901

Report Date: 05/05/22

**SAMPLE RESULTS**

Lab ID:	L2222636-03	Date Collected:	04/29/22 12:00
Client ID:	MW02_042922	Date Received:	04/29/22
Sample Location:	432 RODNEY ST., BROOKLYN, NY	Field Prep:	Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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	5.0	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: 432 RODNEY ST.

Lab Number: L2222636

Project Number: 170650901

Report Date: 05/05/22

**SAMPLE RESULTS**

Lab ID: L2222636-03  
 Client ID: MW02\_042922  
 Sample Location: 432 RODNEY ST., BROOKLYN, NY

Date Collected: 04/29/22 12:00  
 Date Received: 04/29/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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	103		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	102		70-130

Project Name: 432 RODNEY ST.

Lab Number: L2222636

Project Number: 170650901

Report Date: 05/05/22

**SAMPLE RESULTS**

Lab ID: L2222636-04  
 Client ID: MW03\_042922  
 Sample Location: 432 RODNEY ST., BROOKLYN, NY

Date Collected: 04/29/22 13:30  
 Date Received: 04/29/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 05/02/22 16:28  
 Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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	0.80	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: 432 RODNEY ST.

Lab Number: L2222636

Project Number: 170650901

Report Date: 05/05/22

**SAMPLE RESULTS**

Lab ID:	L2222636-04	Date Collected:	04/29/22 13:30
Client ID:	MW03_042922	Date Received:	04/29/22
Sample Location:	432 RODNEY ST., BROOKLYN, NY	Field Prep:	Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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	5.1	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: 432 RODNEY ST.

Lab Number: L2222636

Project Number: 170650901

Report Date: 05/05/22

**SAMPLE RESULTS**

Lab ID: L2222636-04  
 Client ID: MW03\_042922  
 Sample Location: 432 RODNEY ST., BROOKLYN, NY

Date Collected: 04/29/22 13:30  
 Date Received: 04/29/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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	102		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	100		70-130

Project Name: 432 RODNEY ST.

Lab Number: L2222636

Project Number: 170650901

Report Date: 05/05/22

**SAMPLE RESULTS**

Lab ID: L2222636-05  
 Client ID: GWDUP01\_042922  
 Sample Location: 432 RODNEY ST., BROOKLYN, NY

Date Collected: 04/29/22 00:00  
 Date Received: 04/29/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 05/02/22 16:51  
 Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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: 432 RODNEY ST.

Lab Number: L2222636

Project Number: 170650901

Report Date: 05/05/22

**SAMPLE RESULTS**

Lab ID:	L2222636-05	Date Collected:	04/29/22 00:00
Client ID:	GWDUP01_042922	Date Received:	04/29/22
Sample Location:	432 RODNEY ST., BROOKLYN, NY	Field Prep:	Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Trichloroethene	0.30	J	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: 432 RODNEY ST.

Lab Number: L2222636

Project Number: 170650901

Report Date: 05/05/22

**SAMPLE RESULTS**

Lab ID:	L2222636-05	Date Collected:	04/29/22 00:00
Client ID:	GWDUP01_042922	Date Received:	04/29/22
Sample Location:	432 RODNEY ST., BROOKLYN, NY	Field Prep:	Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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	104		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	103		70-130

Project Name: 432 RODNEY ST.

Lab Number: L2222636

Project Number: 170650901

Report Date: 05/05/22

**SAMPLE RESULTS**

Lab ID: L2222636-06  
 Client ID: GWFB01\_042922  
 Sample Location: 432 RODNEY ST., BROOKLYN, NY

Date Collected: 04/29/22 09:30  
 Date Received: 04/29/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 05/02/22 17:15  
 Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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: 432 RODNEY ST.

Lab Number: L2222636

Project Number: 170650901

Report Date: 05/05/22

**SAMPLE RESULTS**

Lab ID:	L2222636-06	Date Collected:	04/29/22 09:30
Client ID:	GWFB01_042922	Date Received:	04/29/22
Sample Location:	432 RODNEY ST., BROOKLYN, NY	Field Prep:	Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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: 432 RODNEY ST.

Lab Number: L2222636

Project Number: 170650901

Report Date: 05/05/22

**SAMPLE RESULTS**

Lab ID:	L2222636-06	Date Collected:	04/29/22 09:30
Client ID:	GWFB01_042922	Date Received:	04/29/22
Sample Location:	432 RODNEY ST., BROOKLYN, NY	Field Prep:	Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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	100		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	99		70-130

Project Name: 432 RODNEY ST.

Lab Number: L2222636

Project Number: 170650901

Report Date: 05/05/22

**SAMPLE RESULTS**

Lab ID: L2222636-07  
 Client ID: GWTB01\_042922  
 Sample Location: 432 RODNEY ST., BROOKLYN, NY

Date Collected: 04/29/22 00:00  
 Date Received: 04/29/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 05/02/22 17:38  
 Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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: 432 RODNEY ST.

Lab Number: L2222636

Project Number: 170650901

Report Date: 05/05/22

**SAMPLE RESULTS**

Lab ID:	L2222636-07	Date Collected:	04/29/22 00:00
Client ID:	GWTB01_042922	Date Received:	04/29/22
Sample Location:	432 RODNEY ST., BROOKLYN, NY	Field Prep:	Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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: 432 RODNEY ST.

Lab Number: L2222636

Project Number: 170650901

Report Date: 05/05/22

**SAMPLE RESULTS**

Lab ID: L2222636-07  
 Client ID: GWTB01\_042922  
 Sample Location: 432 RODNEY ST., BROOKLYN, NY

Date Collected: 04/29/22 00:00  
 Date Received: 04/29/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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	100		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	100		70-130

**Project Name:** 432 RODNEY ST.  
**Project Number:** 170650901

**Lab Number:** L2222636  
**Report Date:** 05/05/22

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 05/02/22 14:06  
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s):	01-07		Batch:	WG1633826-5	
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:** 432 RODNEY ST.  
**Project Number:** 170650901

**Lab Number:** L2222636  
**Report Date:** 05/05/22

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 05/02/22 14:06  
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s):	01-07	Batch:	WG1633826-5		
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	
Bromoform	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:** 432 RODNEY ST.  
**Project Number:** 170650901

**Lab Number:** L2222636  
**Report Date:** 05/05/22

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 05/02/22 14:06  
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s):	01-07	Batch:	WG1633826-5		
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	99		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	100		70-130

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 432 RODNEY ST.  
**Project Number:** 170650901

**Lab Number:** L2222636  
**Report Date:** 05/05/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-07 Batch: WG1633826-3 WG1633826-4								
Methylene chloride	100		100		70-130	0		20
1,1-Dichloroethane	100		100		70-130	0		20
Chloroform	110		110		70-130	0		20
Carbon tetrachloride	110		110		63-132	0		20
1,2-Dichloropropane	94		96		70-130	2		20
Dibromochloromethane	100		100		63-130	0		20
1,1,2-Trichloroethane	100		110		70-130	10		20
Tetrachloroethene	120		120		70-130	0		20
Chlorobenzene	110		110		75-130	0		20
Trichlorofluoromethane	110		110		62-150	0		20
1,2-Dichloroethane	97		98		70-130	1		20
1,1,1-Trichloroethane	120		110		67-130	9		20
Bromodichloromethane	100		100		67-130	0		20
trans-1,3-Dichloropropene	110		110		70-130	0		20
cis-1,3-Dichloropropene	100		100		70-130	0		20
1,1-Dichloropropene	110		120		70-130	9		20
Bromoform	110		110		54-136	0		20
1,1,2,2-Tetrachloroethane	99		100		67-130	1		20
Benzene	100		110		70-130	10		20
Toluene	110		110		70-130	0		20
Ethylbenzene	110		120		70-130	9		20
Chloromethane	66		69		64-130	4		20
Bromomethane	56		58		39-139	4		20

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 432 RODNEY ST.  
**Project Number:** 170650901

**Lab Number:** L2222636  
**Report Date:** 05/05/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-07 Batch: WG1633826-3 WG1633826-4								
Vinyl chloride	69		68		55-140	1		20
Chloroethane	68		72		55-138	6		20
1,1-Dichloroethene	110		110		61-145	0		20
trans-1,2-Dichloroethene	110		110		70-130	0		20
Trichloroethene	100		110		70-130	10		20
1,2-Dichlorobenzene	97		100		70-130	3		20
1,3-Dichlorobenzene	98		100		70-130	2		20
1,4-Dichlorobenzene	98		100		70-130	2		20
Methyl tert butyl ether	100		100		63-130	0		20
p/m-Xylene	110		110		70-130	0		20
o-Xylene	105		110		70-130	5		20
cis-1,2-Dichloroethene	100		100		70-130	0		20
Dibromomethane	100		100		70-130	0		20
1,2,3-Trichloropropane	100		110		64-130	10		20
Acrylonitrile	82		80		70-130	2		20
Styrene	105		105		70-130	0		20
Dichlorodifluoromethane	110		110		36-147	0		20
Acetone	65		62		58-148	5		20
Carbon disulfide	110		110		51-130	0		20
2-Butanone	70		71		63-138	1		20
Vinyl acetate	94		98		70-130	4		20
4-Methyl-2-pentanone	84		89		59-130	6		20
2-Hexanone	73		80		57-130	9		20

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 432 RODNEY ST.  
**Project Number:** 170650901

**Lab Number:** L2222636  
**Report Date:** 05/05/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-07 Batch: WG1633826-3 WG1633826-4								
Bromochloromethane	100		100		70-130	0		20
2,2-Dichloropropane	120		120		63-133	0		20
1,2-Dibromoethane	100		110		70-130	10		20
1,3-Dichloropropane	110		110		70-130	0		20
1,1,1,2-Tetrachloroethane	100		110		64-130	10		20
Bromobenzene	100		110		70-130	10		20
n-Butylbenzene	100		110		53-136	10		20
sec-Butylbenzene	100		110		70-130	10		20
tert-Butylbenzene	100		110		70-130	10		20
o-Chlorotoluene	110		110		70-130	0		20
p-Chlorotoluene	100		110		70-130	10		20
1,2-Dibromo-3-chloropropane	96		100		41-144	4		20
Hexachlorobutadiene	110		120		63-130	9		20
Isopropylbenzene	110		110		70-130	0		20
p-Isopropyltoluene	100		110		70-130	10		20
Naphthalene	90		99		70-130	10		20
n-Propylbenzene	110		110		69-130	0		20
1,2,3-Trichlorobenzene	98		100		70-130	2		20
1,2,4-Trichlorobenzene	100		100		70-130	0		20
1,3,5-Trimethylbenzene	100		110		64-130	10		20
1,2,4-Trimethylbenzene	100		100		70-130	0		20
1,4-Dioxane	96		104		56-162	8		20
p-Diethylbenzene	98		100		70-130	2		20

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 432 RODNEY ST.  
**Project Number:** 170650901

**Lab Number:** L2222636  
**Report Date:** 05/05/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-07 Batch: WG1633826-3 WG1633826-4								
p-Ethyltoluene	100		100		70-130	0		20
1,2,4,5-Tetramethylbenzene	96		100		70-130	4		20
Ethyl ether	99		99		59-134	0		20
trans-1,4-Dichloro-2-butene	84		90		70-130	7		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	101		100		70-130
Toluene-d8	103		103		70-130
4-Bromofluorobenzene	99		100		70-130
Dibromofluoromethane	100		100		70-130

**Matrix Spike Analysis**  
*Batch Quality Control*

**Project Name:** 432 RODNEY ST.  
**Project Number:** 170650901

**Lab Number:** L2222636  
**Report Date:** 05/05/22

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): 01-07 QC Batch ID: WG1633826-6 WG1633826-7 QC Sample: L2222636-01 Client ID: MW01A_042922												
Methylene chloride	ND	10	9.9	99		10	100		70-130	1		20
1,1-Dichloroethane	ND	10	9.9	99		10	100		70-130	1		20
Chloroform	ND	10	10	100		11	110		70-130	10		20
Carbon tetrachloride	ND	10	11	110		12	120		63-132	9		20
1,2-Dichloropropane	ND	10	9.2	92		9.8	98		70-130	6		20
Dibromochloromethane	ND	10	9.7	97		10	100		63-130	3		20
1,1,2-Trichloroethane	ND	10	10	100		10	100		70-130	0		20
Tetrachloroethene	0.21J	10	11	110		11	110		70-130	0		20
Chlorobenzene	ND	10	10	100		11	110		75-130	10		20
Trichlorofluoromethane	ND	10	12	120		12	120		62-150	0		20
1,2-Dichloroethane	ND	10	10	100		10	100		70-130	0		20
1,1,1-Trichloroethane	ND	10	12	120		12	120		67-130	0		20
Bromodichloromethane	ND	10	10	100		11	110		67-130	10		20
trans-1,3-Dichloropropene	ND	10	9.9	99		10	100		70-130	1		20
cis-1,3-Dichloropropene	ND	10	9.6	96		10	100		70-130	4		20
1,1-Dichloropropene	ND	10	11	110		12	120		70-130	9		20
Bromoform	ND	10	9.9	99		10	100		54-136	1		20
1,1,2,2-Tetrachloroethane	ND	10	9.4	94		10	100		67-130	6		20
Benzene	ND	10	10	100		11	110		70-130	10		20
Toluene	ND	10	11	110		11	110		70-130	0		20
Ethylbenzene	ND	10	11	110		11	110		70-130	0		20
Chloromethane	ND	10	5.4	54	Q	6.0	60	Q	64-130	11		20
Bromomethane	ND	10	1.8J	18	Q	3.4	34	Q	39-139	62	Q	20

**Matrix Spike Analysis**  
*Batch Quality Control*

**Project Name:** 432 RODNEY ST.  
**Project Number:** 170650901

**Lab Number:** L2222636  
**Report Date:** 05/05/22

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): 01-07 QC Batch ID: WG1633826-6 WG1633826-7 QC Sample: L2222636-01 Client ID: MW01A_042922												
Vinyl chloride	ND	10	6.5	65		6.8	68		55-140	5		20
Chloroethane	ND	10	7.0	70		7.6	76		55-138	8		20
1,1-Dichloroethene	ND	10	11	110		11	110		61-145	0		20
trans-1,2-Dichloroethene	ND	10	10	100		11	110		70-130	10		20
Trichloroethene	0.31J	10	10	100		11	110		70-130	10		20
1,2-Dichlorobenzene	ND	10	9.3	93		9.9	99		70-130	6		20
1,3-Dichlorobenzene	ND	10	9.4	94		9.9	99		70-130	5		20
1,4-Dichlorobenzene	ND	10	9.3	93		9.7	97		70-130	4		20
Methyl tert butyl ether	ND	10	10	100		11	110		63-130	10		20
p/m-Xylene	ND	20	21	105		21	105		70-130	0		20
o-Xylene	ND	20	20	100		21	105		70-130	5		20
cis-1,2-Dichloroethene	ND	10	10	100		11	110		70-130	10		20
Dibromomethane	ND	10	10	100		10	100		70-130	0		20
1,2,3-Trichloropropane	ND	10	9.0	90		9.5	95		64-130	5		20
Acrylonitrile	ND	10	8.0	80		8.5	85		70-130	6		20
Styrene	ND	20	20	100		20	100		70-130	0		20
Dichlorodifluoromethane	ND	10	12	120		12	120		36-147	0		20
Acetone	ND	10	8.2	82		7.8	78		58-148	5		20
Carbon disulfide	ND	10	11	110		11	110		51-130	0		20
2-Butanone	ND	10	7.1	71		6.9	69		63-138	3		20
Vinyl acetate	ND	10	8.9	89		9.2	92		70-130	3		20
4-Methyl-2-pentanone	ND	10	8.2	82		8.4	84		59-130	2		20
2-Hexanone	ND	10	7.3	73		7.4	74		57-130	1		20

# Matrix Spike Analysis

## Batch Quality Control

**Project Name:** 432 RODNEY ST.  
**Project Number:** 170650901

**Lab Number:** L2222636  
**Report Date:** 05/05/22

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): 01-07 QC Batch ID: WG1633826-6 WG1633826-7 QC Sample: L2222636-01 Client ID: MW01A_042922												
Bromochloromethane	ND	10	10	100		11	110		70-130	10		20
2,2-Dichloropropane	ND	10	9.6	96		10	100		63-133	4		20
1,2-Dibromoethane	ND	10	10	100		10	100		70-130	0		20
1,3-Dichloropropane	ND	10	10	100		11	110		70-130	10		20
1,1,1,2-Tetrachloroethane	ND	10	10	100		10	100		64-130	0		20
Bromobenzene	ND	10	10	100		10	100		70-130	0		20
n-Butylbenzene	ND	10	9.4	94		9.7	97		53-136	3		20
sec-Butylbenzene	ND	10	9.5	95		9.8	98		70-130	3		20
tert-Butylbenzene	ND	10	9.6	96		10	100		70-130	4		20
o-Chlorotoluene	ND	10	9.9	99		10	100		70-130	1		20
p-Chlorotoluene	ND	10	10	100		10	100		70-130	0		20
1,2-Dibromo-3-chloropropane	ND	10	9.1	91		10	100		41-144	9		20
Hexachlorobutadiene	ND	10	8.7	87		8.9	89		63-130	2		20
Isopropylbenzene	ND	10	9.9	99		10	100		70-130	1		20
p-Isopropyltoluene	ND	10	9.7	97		10	100		70-130	3		20
Naphthalene	1.5J	10	9.8	98		10	100		70-130	2		20
n-Propylbenzene	ND	10	10	100		10	100		69-130	0		20
1,2,3-Trichlorobenzene	ND	10	9.3	93		10	100		70-130	7		20
1,2,4-Trichlorobenzene	ND	10	9.4	94		10	100		70-130	6		20
1,3,5-Trimethylbenzene	ND	10	9.6	96		10	100		64-130	4		20
1,2,4-Trimethylbenzene	ND	10	9.7	97		10	100		70-130	3		20
1,4-Dioxane	ND	500	430	86		420	84		56-162	2		20
p-Diethylbenzene	ND	10	9.2	92		9.5	95		70-130	3		20

# Matrix Spike Analysis

*Batch Quality Control*

**Project Name:** 432 RODNEY ST.  
**Project Number:** 170650901

**Lab Number:** L2222636  
**Report Date:** 05/05/22

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	MSD Qual	Recovery Limits	RPD	RPD Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-07 QC Batch ID: WG1633826-6 WG1633826-7 QC Sample: L2222636-01 Client ID: MW01A_042922												
p-Ethyltoluene	ND	10	9.8	98		10	100		70-130	2		20
1,2,4,5-Tetramethylbenzene	ND	10	9.2	92		9.8	98		70-130	6		20
Ethyl ether	ND	10	9.8	98		10	100		59-134	2		20
trans-1,4-Dichloro-2-butene	ND	10	7.1	71		7.5	75		70-130	5		20

Surrogate	MS	MSD		Acceptance Criteria	
	% Recovery	Qualifier	% Recovery	Qualifier	
1,2-Dichloroethane-d4	104		105		70-130
4-Bromofluorobenzene	96		98		70-130
Dibromofluoromethane	104		103		70-130
Toluene-d8	102		100		70-130

**Project Name:** 432 RODNEY ST.  
**Project Number:** 170650901

Serial\_No:05052212:49  
**Lab Number:** L2222636  
**Report Date:** 05/05/22

### Sample Receipt and Container Information

Were project specific reporting limits specified? YES

#### Cooler Information

<b>Cooler</b>	<b>Custody Seal</b>
A	Absent

#### Container Information

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L2222636-01A	Vial HCl preserved	A	NA		4.5	Y	Absent		NYTCL-8260(14)
L2222636-01A1	Vial HCl preserved	A	NA		4.5	Y	Absent		NYTCL-8260(14)
L2222636-01A2	Vial HCl preserved	A	NA		4.5	Y	Absent		NYTCL-8260(14)
L2222636-01B	Vial HCl preserved	A	NA		4.5	Y	Absent		NYTCL-8260(14)
L2222636-01B1	Vial HCl preserved	A	NA		4.5	Y	Absent		NYTCL-8260(14)
L2222636-01B2	Vial HCl preserved	A	NA		4.5	Y	Absent		NYTCL-8260(14)
L2222636-01C	Vial HCl preserved	A	NA		4.5	Y	Absent		NYTCL-8260(14)
L2222636-01C1	Vial HCl preserved	A	NA		4.5	Y	Absent		NYTCL-8260(14)
L2222636-01C2	Vial HCl preserved	A	NA		4.5	Y	Absent		NYTCL-8260(14)
L2222636-02A	Vial HCl preserved	A	NA		4.5	Y	Absent		NYTCL-8260(14)
L2222636-02B	Vial HCl preserved	A	NA		4.5	Y	Absent		NYTCL-8260(14)
L2222636-02C	Vial HCl preserved	A	NA		4.5	Y	Absent		NYTCL-8260(14)
L2222636-03A	Vial HCl preserved	A	NA		4.5	Y	Absent		NYTCL-8260(14)
L2222636-03B	Vial HCl preserved	A	NA		4.5	Y	Absent		NYTCL-8260(14)
L2222636-03C	Vial HCl preserved	A	NA		4.5	Y	Absent		NYTCL-8260(14)
L2222636-04A	Vial HCl preserved	A	NA		4.5	Y	Absent		NYTCL-8260(14)
L2222636-04B	Vial HCl preserved	A	NA		4.5	Y	Absent		NYTCL-8260(14)
L2222636-04C	Vial HCl preserved	A	NA		4.5	Y	Absent		NYTCL-8260(14)
L2222636-05A	Vial HCl preserved	A	NA		4.5	Y	Absent		NYTCL-8260(14)
L2222636-05B	Vial HCl preserved	A	NA		4.5	Y	Absent		NYTCL-8260(14)
L2222636-05C	Vial HCl preserved	A	NA		4.5	Y	Absent		NYTCL-8260(14)
L2222636-06A	Vial HCl preserved	A	NA		4.5	Y	Absent		NYTCL-8260(14)
L2222636-06B	Vial HCl preserved	A	NA		4.5	Y	Absent		NYTCL-8260(14)

\*Values in parentheses indicate holding time in days

**Project Name:** 432 RODNEY ST.  
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**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L2222636-06C	Vial HCl preserved	A	NA		4.5	Y	Absent		NYTCL-8260(14)
L2222636-07A	Vial HCl preserved	A	NA		4.5	Y	Absent		NYTCL-8260(14)
L2222636-07B	Vial HCl preserved	A	NA		4.5	Y	Absent		NYTCL-8260(14)

\*Values in parentheses indicate holding time in days

**Project Name:** 432 RODNEY ST.  
**Project Number:** 170650901

**Lab Number:** L2222636  
**Report Date:** 05/05/22

## 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:** 432 RODNEY ST.  
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#### 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.

**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'.

**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 Fluoranthrenes/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.

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.)

**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 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.

**Report Format:** DU Report with 'J' Qualifiers



**Project Name:** 432 RODNEY ST.  
**Project Number:** 170650901

**Lab Number:** L2222636  
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**Data Qualifiers**

- 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:** 432 RODNEY ST.  
**Project Number:** 170650901

**Lab Number:** L2222636  
**Report Date:** 05/05/22

## REFERENCES

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

## 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 its 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

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**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, NO<sub>2</sub>, NO<sub>3</sub>.

**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

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**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**, **SM4500CI-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, 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**

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

 <b>NEW YORK CHAIN OF CUSTODY</b> Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193		<b>Service Centers</b> Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105		Page <u>1</u> of <u>1</u>	Date Rec'd in Lab <u>4/29/22</u>	ALPHA Job # <u>L2222636</u>	
		<b>Project Information</b> Project Name: <u>432 Redley St.</u> Project Location: <u>432 Redley St. Brooklyn, NY</u> Project # <u>1F0659901</u> (Use Project name as Project #) <input type="checkbox"/>		<b>Deliverables</b> <input type="checkbox"/> ASP-A <input checked="" type="checkbox"/> ASP-B <input type="checkbox"/> EQUIS (1 File) <input type="checkbox"/> EQUIS (4 File) <input type="checkbox"/> Other		<b>Billing Information</b> <input checked="" type="checkbox"/> Same as Client Info PO #	
<b>Client Information</b> Client: <u>Langan</u> Address: <u>360 W 31st st.</u> <u>8th floor, Manhattan</u> Phone: <u>212-479-5400</u> Fax: Email: <u>TGOLDING@LANGAN.COM</u>		Project Manager: <u>Taylor Golding</u> ALPHAQuote #: <b>Turn-Around Time</b> Standard <input checked="" type="checkbox"/> Rush (only if pre approved) <input type="checkbox"/>		<b>Regulatory Requirement</b> <input type="checkbox"/> NY TOGS <input checked="" type="checkbox"/> NY Part 375 <input type="checkbox"/> AWQ Standards <input type="checkbox"/> NY CP-51 <input type="checkbox"/> NY Restricted Use <input type="checkbox"/> Other <input type="checkbox"/> NY Unrestricted Use <input type="checkbox"/> NYC Sewer Discharge		<b>Disposal Site Information</b> Please identify below location of applicable disposal facilities. <b>Disposal Facility:</b> <input type="checkbox"/> NJ <input checked="" type="checkbox"/> NY <input type="checkbox"/> Other	
These samples have been previously analyzed by Alpha <input type="checkbox"/>				<b>ANALYSIS</b> <i>Separation/Rust</i>		<b>Sample Filtration</b> <input type="checkbox"/> Done <input type="checkbox"/> Lab to do <b>Preservation</b> <input type="checkbox"/> Lab to do  <i>(Please Specify below)</i>	
<b>Other project specific requirements/comments:</b> <i>CC: datamanagement@langan.com</i>						<b>Sample Specific Comments</b> <i>via method 8260 by a NYS DOIT CLAP Laboratory</i>	
<b>Please specify Metals or TAL.</b>							
ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials	<i>Separation/Rust</i>	
		Date	Time				
22636-01	MW01A-042922	4/29/22	6N	9:00	EB	<input checked="" type="checkbox"/>	
-02	MW01B-042922			10:15		<input checked="" type="checkbox"/>	
-03	MW02-042922			12:00		<input checked="" type="checkbox"/>	
-04	MW03-042922			13:30		<input checked="" type="checkbox"/>	
-05	GWDUP01-042922			—		<input checked="" type="checkbox"/>	
-06	GWFB01-042922		AQ	9:30		<input checked="" type="checkbox"/>	
→ -01	GWMSD01-042922		GW	9:05		<input checked="" type="checkbox"/>	
→ -01	GWMSD01-042922			9:10		<input checked="" type="checkbox"/>	
-07	GWTR01-042922	↓	AQ	9:35	↓	<input checked="" type="checkbox"/>	
Preservative Code: A = None B = HCl C = HNO <sub>3</sub> D = H <sub>2</sub> SO <sub>4</sub> E = NaOH F = MeOH G = NaHSO <sub>4</sub> H = Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> 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	
						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)		Relinquished By: <u>Elijah Berlin / Langan</u> <u>VMR DenBob</u> <u>Paul Mazzella</u>		Date/Time: <u>4/29/22 17:20</u> <u>4/29/22 17:30</u> <u>4/29/22 17:30</u>		Received By: <u>Mark Jones</u> <u>Paul Mazzella</u> <u>Mark Jones</u>	Date/Time: <u>4/29/22 16:30</u> <u>4/29/22 17:30</u> <u>4/29/22 22:30</u>



## ANALYTICAL REPORT

Lab Number:	L2220871
Client:	Langan Engineering & Environmental 21 Penn Plaza 360 W. 31st Street, 8th Floor New York, NY 10001-2727
ATTN:	Albert Tashji
Phone:	(212) 479-5400
Project Name:	432 RODNEY ST (OFFSITE)
Project Number:	170650901
Report Date:	04/28/22

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA030), NH NELAP (2062), CT (PH-0141), DoD (L2474), FL (E87814), IL (200081), LA (85084), ME (MA00030), MD (350), NJ (MA015), NY (11627), NC (685), OH (CL106), PA (68-02089), RI (LAO00299), TX (T104704419), VT (VT-0015), VA (460194), WA (C954), US Army Corps of Engineers, USDA (Permit #P330-17-00150), USFWS (Permit #206964).

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320 Forbes Boulevard, Mansfield, MA 02048-1806  
508-822-9300 (Fax) 508-822-3288 800-624-9220 - [www.alphalab.com](http://www.alphalab.com)

**Project Name:** 432 RODNEY ST (OFFSITE)  
**Project Number:** 170650901

**Lab Number:** L2220871  
**Report Date:** 04/28/22

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2220871-01	AA01_042122	AIR	BROOKLYN, NY	04/21/22 13:19	04/21/22
L2220871-02	SV01	SOIL_VAPOR	BROOKLYN, NY	04/21/22 13:11	04/21/22
L2220871-03	SV02	SOIL_VAPOR	BROOKLYN, NY	04/21/22 14:23	04/21/22
L2220871-04	SV03	SOIL_VAPOR	BROOKLYN, NY	04/21/22 13:29	04/21/22
L2220871-05	SV04	SOIL_VAPOR	BROOKLYN, NY	04/21/22 13:09	04/21/22
L2220871-06	SV05	SOIL_VAPOR	BROOKLYN, NY	04/21/22 13:13	04/21/22
L2220871-07	UNUSED CAN #2792	SOIL_VAPOR	BROOKLYN, NY		04/21/22

**Project Name:** 432 RODNEY ST (OFFSITE)  
**Project Number:** 170650901

**Lab Number:** L2220871  
**Report Date:** 04/28/22

### 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.

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**Project Name:** 432 RODNEY ST (OFFSITE)  
**Project Number:** 170650901

**Lab Number:** L2220871  
**Report Date:** 04/28/22

### Case Narrative (continued)

#### Volatile Organics in Air

Canisters were released from the laboratory on April 20, 2022. The canister certification results are provided as an addendum.

Some of the samples required a dilution greater than 4x; based on direction from the client the New York Decision Matrix Compounds have been reported by TO15-SIM for these samples.

L2220871-02D: The sample has elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the sample.

L2220871-03D: The sample has elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the sample.

L2220871-04D: The sample has elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the sample.

L2220871-06D: The sample has elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the sample.

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:

*Christopher J. Anderson* Christopher J. Anderson

Title: Technical Director/Representative

Date: 04/28/22

**AIR**



**Project Name:** 432 RODNEY ST (OFFSITE)  
**Project Number:** 170650901

**Lab Number:** L2220871  
**Report Date:** 04/28/22

### **SAMPLE RESULTS**

Lab ID:	L2220871-01	Date Collected:	04/21/22 13:19
Client ID:	AA01_042122	Date Received:	04/21/22
Sample Location:	BROOKLYN, NY	Field Prep:	Not Specified

Sample Depth:

Matrix: Air  
Anaytical Method: 48,TO-15  
Analytical Date: 04/27/22 19:20  
Analyst: RY

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>								
Dichlorodifluoromethane	0.538	0.200	--	2.66	0.989	--		1
Chloromethane	0.599	0.200	--	1.24	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	8.18	5.00	--	15.4	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	6.33	1.00	--	15.0	2.38	--		1
Trichlorofluoromethane	0.233	0.200	--	1.31	1.12	--		1
Isopropanol	0.786	0.500	--	1.93	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	0.295	0.200	--	1.17	0.793	--		1



**Project Name:** 432 RODNEY ST (OFFSITE)  
**Project Number:** 170650901

**Lab Number:** L2220871  
**Report Date:** 04/28/22

### **SAMPLE RESULTS**

Lab ID:	L2220871-01	Date Collected:	04/21/22 13:19
Client ID:	AA01_042122	Date Received:	04/21/22
Sample Location:	BROOKLYN, NY	Field Prep:	Not Specified

Sample Depth:

Parameter	Results	ppbV		ug/m3		Qualifier	Dilution Factor
		RL	MDL	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>							
Ethyl Acetate	ND	0.500	--	ND	1.80	--	1
Chloroform	ND	0.200	--	ND	0.977	--	1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--	1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	1
n-Hexane	ND	0.200	--	ND	0.705	--	1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	1
Benzene	ND	0.200	--	ND	0.639	--	1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--	1
Cyclohexane	ND	0.200	--	ND	0.688	--	1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--	1
Xylenes, Total	ND	0.200	--	ND	0.869	--	1
Bromodichloromethane	ND	0.200	--	ND	1.34	--	1
1,4-Dioxane	ND	0.200	--	ND	0.721	--	1
Trichloroethene	0.845	0.200	--	4.54	1.07	--	1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--	1
Heptane	ND	0.200	--	ND	0.820	--	1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--	1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--	1
Toluene	2.00	0.200	--	7.54	0.754	--	1
2-Hexanone	ND	0.200	--	ND	0.820	--	1
Dibromochloromethane	ND	0.200	--	ND	1.70	--	1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--	1
Tetrachloroethene	0.288	0.200	--	1.95	1.36	--	1
Chlorobenzene	ND	0.200	--	ND	0.921	--	1



**Project Name:** 432 RODNEY ST (OFFSITE)  
**Project Number:** 170650901

**Lab Number:** L2220871  
**Report Date:** 04/28/22

### **SAMPLE RESULTS**

Lab ID:	L2220871-01	Date Collected:	04/21/22 13:19
Client ID:	AA01_042122	Date Received:	04/21/22
Sample Location:	BROOKLYN, NY	Field Prep:	Not Specified

Sample Depth:

Parameter	Results	ppbV		ug/m3		Qualifier	Dilution Factor
		RL	MDL	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>							
Ethylbenzene	ND	0.200	--	ND	0.869	--	1
p/m-Xylene	ND	0.400	--	ND	1.74	--	1
Bromoform	ND	0.200	--	ND	2.07	--	1
Styrene	ND	0.200	--	ND	0.852	--	1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	1
o-Xylene	ND	0.200	--	ND	0.869	--	1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--	1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--	1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--	1
Benzyl chloride	ND	0.200	--	ND	1.04	--	1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--	1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--	1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--	1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--	1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--	1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	87		60-140
Bromochloromethane	95		60-140
chlorobenzene-d5	92		60-140



**Project Name:** 432 RODNEY ST (OFFSITE)  
**Project Number:** 170650901

**Lab Number:** L2220871  
**Report Date:** 04/28/22

### **SAMPLE RESULTS**

Lab ID:	L2220871-02 D	Date Collected:	04/21/22 13:11
Client ID:	SV01	Date Received:	04/21/22
Sample Location:	BROOKLYN, NY	Field Prep:	Not Specified

Sample Depth:

Matrix: Soil\_Vapor  
Anaytical Method: 48,TO-15  
Analytical Date: 04/28/22 02:29  
Analyst: RY

Parameter	Results	ppbV		ug/m3		Qualifier	Dilution Factor
		RL	MDL	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>							
Dichlorodifluoromethane	0.508	0.500	--	2.51	2.47	--	2.5
Chloromethane	0.558	0.500	--	1.15	1.03	--	2.5
Freon-114	ND	0.500	--	ND	3.49	--	2.5
Vinyl chloride	ND	0.500	--	ND	1.28	--	2.5
1,3-Butadiene	ND	0.500	--	ND	1.11	--	2.5
Bromomethane	ND	0.500	--	ND	1.94	--	2.5
Chloroethane	ND	0.500	--	ND	1.32	--	2.5
Ethanol	84.8	12.5	--	160	23.6	--	2.5
Vinyl bromide	ND	0.500	--	ND	2.19	--	2.5
Acetone	79.8	2.50	--	190	5.94	--	2.5
Trichlorofluoromethane	ND	0.500	--	ND	2.81	--	2.5
Isopropanol	2.64	1.25	--	6.49	3.07	--	2.5
1,1-Dichloroethene	ND	0.500	--	ND	1.98	--	2.5
Tertiary butyl Alcohol	ND	1.25	--	ND	3.79	--	2.5
Methylene chloride	ND	1.25	--	ND	4.34	--	2.5
3-Chloropropene	ND	0.500	--	ND	1.57	--	2.5
Carbon disulfide	3.24	0.500	--	10.1	1.56	--	2.5
Freon-113	ND	0.500	--	ND	3.83	--	2.5
trans-1,2-Dichloroethene	ND	0.500	--	ND	1.98	--	2.5
1,1-Dichloroethane	ND	0.500	--	ND	2.02	--	2.5
Methyl tert butyl ether	ND	0.500	--	ND	1.80	--	2.5
2-Butanone	203	1.25	--	599	3.69	--	2.5
cis-1,2-Dichloroethene	ND	0.500	--	ND	1.98	--	2.5



**Project Name:** 432 RODNEY ST (OFFSITE)  
**Project Number:** 170650901

**Lab Number:** L2220871  
**Report Date:** 04/28/22

### **SAMPLE RESULTS**

Lab ID:	L2220871-02 D	Date Collected:	04/21/22 13:11
Client ID:	SV01	Date Received:	04/21/22
Sample Location:	BROOKLYN, NY	Field Prep:	Not Specified

Sample Depth:

Parameter	Results	ppbV		ug/m3		Qualifier	Dilution Factor
		RL	MDL	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>							
Ethyl Acetate	ND	1.25	--	ND	4.50	--	2.5
Chloroform	ND	0.500	--	ND	2.44	--	2.5
Tetrahydrofuran	ND	1.25	--	ND	3.69	--	2.5
1,2-Dichloroethane	ND	0.500	--	ND	2.02	--	2.5
n-Hexane	1.58	0.500	--	5.57	1.76	--	2.5
1,1,1-Trichloroethane	ND	0.500	--	ND	2.73	--	2.5
Benzene	2.94	0.500	--	9.39	1.60	--	2.5
Carbon tetrachloride	ND	0.500	--	ND	3.15	--	2.5
Cyclohexane	0.998	0.500	--	3.44	1.72	--	2.5
1,2-Dichloropropane	ND	0.500	--	ND	2.31	--	2.5
Xylenes, Total	8.91	0.500	--	38.7	2.17	--	2.5
Bromodichloromethane	ND	0.500	--	ND	3.35	--	2.5
1,4-Dioxane	ND	0.500	--	ND	1.80	--	2.5
Trichloroethene	ND	0.500	--	ND	2.69	--	2.5
2,2,4-Trimethylpentane	0.580	0.500	--	2.71	2.34	--	2.5
Heptane	2.27	0.500	--	9.30	2.05	--	2.5
cis-1,3-Dichloropropene	ND	0.500	--	ND	2.27	--	2.5
4-Methyl-2-pentanone	ND	1.25	--	ND	5.12	--	2.5
trans-1,3-Dichloropropene	ND	0.500	--	ND	2.27	--	2.5
1,1,2-Trichloroethane	ND	0.500	--	ND	2.73	--	2.5
Toluene	7.27	0.500	--	27.4	1.88	--	2.5
2-Hexanone	12.9	0.500	--	52.9	2.05	--	2.5
Dibromochloromethane	ND	0.500	--	ND	4.26	--	2.5
1,2-Dibromoethane	ND	0.500	--	ND	3.84	--	2.5
Tetrachloroethene	ND	0.500	--	ND	3.39	--	2.5
Chlorobenzene	ND	0.500	--	ND	2.30	--	2.5



**Project Name:** 432 RODNEY ST (OFFSITE)  
**Project Number:** 170650901

**Lab Number:** L2220871  
**Report Date:** 04/28/22

### **SAMPLE RESULTS**

Lab ID:	L2220871-02 D	Date Collected:	04/21/22 13:11
Client ID:	SV01	Date Received:	04/21/22
Sample Location:	BROOKLYN, NY	Field Prep:	Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>								
Ethylbenzene	1.78	0.500	--	7.73	2.17	--		2.5
p/m-Xylene	6.14	1.00	--	26.7	4.34	--		2.5
Bromoform	ND	0.500	--	ND	5.17	--		2.5
Styrene	ND	0.500	--	ND	2.13	--		2.5
1,1,2,2-Tetrachloroethane	ND	0.500	--	ND	3.43	--		2.5
o-Xylene	2.77	0.500	--	12.0	2.17	--		2.5
4-Ethyltoluene	0.658	0.500	--	3.23	2.46	--		2.5
1,3,5-Trimethylbenzene	0.808	0.500	--	3.97	2.46	--		2.5
1,2,4-Trimethylbenzene	2.75	0.500	--	13.5	2.46	--		2.5
Benzyl chloride	ND	0.500	--	ND	2.59	--		2.5
1,3-Dichlorobenzene	ND	0.500	--	ND	3.01	--		2.5
1,4-Dichlorobenzene	ND	0.500	--	ND	3.01	--		2.5
1,2-Dichlorobenzene	ND	0.500	--	ND	3.01	--		2.5
1,2,4-Trichlorobenzene	ND	0.500	--	ND	3.71	--		2.5
Hexachlorobutadiene	ND	0.500	--	ND	5.33	--		2.5

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	94		60-140
Bromochloromethane	96		60-140
chlorobenzene-d5	98		60-140



**Project Name:** 432 RODNEY ST (OFFSITE)  
**Project Number:** 170650901

**Lab Number:** L2220871  
**Report Date:** 04/28/22

### **SAMPLE RESULTS**

Lab ID:	L2220871-03 D	Date Collected:	04/21/22 14:23
Client ID:	SV02	Date Received:	04/21/22
Sample Location:	BROOKLYN, NY	Field Prep:	Not Specified

Sample Depth:

Matrix: Soil\_Vapor  
Anaytical Method: 48,TO-15  
Analytical Date: 04/28/22 03:05  
Analyst: RY

Parameter	Results	ppbV		ug/m3		Qualifier	Dilution Factor
		RL	MDL	Results	RL	MDL	
<b>Volatile Organics in Air - Mansfield Lab</b>							
Dichlorodifluoromethane	ND	1.43	--	ND	7.07	--	7.143
Chloromethane	ND	1.43	--	ND	2.95	--	7.143
Freon-114	ND	1.43	--	ND	10.0	--	7.143
Vinyl chloride	ND	1.43	--	ND	3.66	--	7.143
1,3-Butadiene	ND	1.43	--	ND	3.16	--	7.143
Bromomethane	ND	1.43	--	ND	5.55	--	7.143
Chloroethane	ND	1.43	--	ND	3.77	--	7.143
Ethanol	63.7	35.7	--	120	67.3	--	7.143
Vinyl bromide	ND	1.43	--	ND	6.25	--	7.143
Acetone	77.0	7.14	--	183	17.0	--	7.143
Trichlorofluoromethane	ND	1.43	--	ND	8.04	--	7.143
Isopropanol	ND	3.57	--	ND	8.78	--	7.143
1,1-Dichloroethene	ND	1.43	--	ND	5.67	--	7.143
Tertiary butyl Alcohol	ND	3.57	--	ND	10.8	--	7.143
Methylene chloride	ND	3.57	--	ND	12.4	--	7.143
3-Chloropropene	ND	1.43	--	ND	4.48	--	7.143
Carbon disulfide	2.05	1.43	--	6.38	4.45	--	7.143
Freon-113	ND	1.43	--	ND	11.0	--	7.143
trans-1,2-Dichloroethene	ND	1.43	--	ND	5.67	--	7.143
1,1-Dichloroethane	ND	1.43	--	ND	5.79	--	7.143
Methyl tert butyl ether	ND	1.43	--	ND	5.16	--	7.143
2-Butanone	461	3.57	--	1360	10.5	--	7.143
cis-1,2-Dichloroethene	ND	1.43	--	ND	5.67	--	7.143



**Project Name:** 432 RODNEY ST (OFFSITE)  
**Project Number:** 170650901

**Lab Number:** L2220871  
**Report Date:** 04/28/22

### **SAMPLE RESULTS**

Lab ID:	L2220871-03 D	Date Collected:	04/21/22 14:23
Client ID:	SV02	Date Received:	04/21/22
Sample Location:	BROOKLYN, NY	Field Prep:	Not Specified

Sample Depth:

Parameter	Results	ppbV		ug/m3		Qualifier	Dilution Factor
		RL	MDL	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>							
Ethyl Acetate	ND	3.57	--	ND	12.9	--	7.143
Chloroform	4.18	1.43	--	20.4	6.98	--	7.143
Tetrahydrofuran	ND	3.57	--	ND	10.5	--	7.143
1,2-Dichloroethane	ND	1.43	--	ND	5.79	--	7.143
n-Hexane	2.76	1.43	--	9.73	5.04	--	7.143
1,1,1-Trichloroethane	ND	1.43	--	ND	7.80	--	7.143
Benzene	ND	1.43	--	ND	4.57	--	7.143
Carbon tetrachloride	ND	1.43	--	ND	9.00	--	7.143
Cyclohexane	ND	1.43	--	ND	4.92	--	7.143
1,2-Dichloropropane	ND	1.43	--	ND	6.61	--	7.143
Bromodichloromethane	ND	1.43	--	ND	9.58	--	7.143
Xylenes, Total	7.36	1.43	--	32.0	6.21	--	7.143
1,4-Dioxane	ND	1.43	--	ND	5.15	--	7.143
Trichloroethene	ND	1.43	--	ND	7.69	--	7.143
2,2,4-Trimethylpentane	ND	1.43	--	ND	6.68	--	7.143
Heptane	2.68	1.43	--	11.0	5.86	--	7.143
cis-1,3-Dichloropropene	ND	1.43	--	ND	6.49	--	7.143
4-Methyl-2-pentanone	ND	3.57	--	ND	14.6	--	7.143
trans-1,3-Dichloropropene	ND	1.43	--	ND	6.49	--	7.143
1,1,2-Trichloroethane	ND	1.43	--	ND	7.80	--	7.143
Toluene	4.00	1.43	--	15.1	5.39	--	7.143
2-Hexanone	25.6	1.43	--	105	5.86	--	7.143
Dibromochloromethane	ND	1.43	--	ND	12.2	--	7.143
1,2-Dibromoethane	ND	1.43	--	ND	11.0	--	7.143
Tetrachloroethene	ND	1.43	--	ND	9.70	--	7.143
Chlorobenzene	ND	1.43	--	ND	6.59	--	7.143



**Project Name:** 432 RODNEY ST (OFFSITE)  
**Project Number:** 170650901

**Lab Number:** L2220871  
**Report Date:** 04/28/22

### **SAMPLE RESULTS**

Lab ID:	L2220871-03 D	Date Collected:	04/21/22 14:23
Client ID:	SV02	Date Received:	04/21/22
Sample Location:	BROOKLYN, NY	Field Prep:	Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>								
Ethylbenzene	1.64	1.43	--	7.12	6.21	--		7.143
p/m-Xylene	5.16	2.86	--	22.4	12.4	--		7.143
Bromoform	ND	1.43	--	ND	14.8	--		7.143
Styrene	ND	1.43	--	ND	6.09	--		7.143
1,1,2,2-Tetrachloroethane	ND	1.43	--	ND	9.82	--		7.143
o-Xylene	2.21	1.43	--	9.60	6.21	--		7.143
4-Ethyltoluene	ND	1.43	--	ND	7.03	--		7.143
1,3,5-Trimethylbenzene	ND	1.43	--	ND	7.03	--		7.143
1,2,4-Trimethylbenzene	2.54	1.43	--	12.5	7.03	--		7.143
Benzyl chloride	ND	1.43	--	ND	7.40	--		7.143
1,3-Dichlorobenzene	ND	1.43	--	ND	8.60	--		7.143
1,4-Dichlorobenzene	ND	1.43	--	ND	8.60	--		7.143
1,2-Dichlorobenzene	ND	1.43	--	ND	8.60	--		7.143
1,2,4-Trichlorobenzene	ND	1.43	--	ND	10.6	--		7.143
Hexachlorobutadiene	ND	1.43	--	ND	15.3	--		7.143

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	92		60-140
Bromochloromethane	96		60-140
chlorobenzene-d5	96		60-140



**Project Name:** 432 RODNEY ST (OFFSITE)  
**Project Number:** 170650901

**Lab Number:** L2220871  
**Report Date:** 04/28/22

### **SAMPLE RESULTS**

Lab ID:	L2220871-03 D	Date Collected:	04/21/22 14:23
Client ID:	SV02	Date Received:	04/21/22
Sample Location:	BROOKLYN, NY	Field Prep:	Not Specified

Sample Depth:

Matrix: Soil\_Vapor  
Anaytical Method: 48,TO-15-SIM  
Analytical Date: 04/28/22 03:05  
Analyst: RY

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air by SIM - Mansfield Lab</b>								
Vinyl chloride	ND	0.143	--	ND	0.366	--		7.143
1,1-Dichloroethene	ND	0.143	--	ND	0.567	--		7.143
cis-1,2-Dichloroethene	ND	0.143	--	ND	0.567	--		7.143
1,1,1-Trichloroethane	ND	0.143	--	ND	0.780	--		7.143
Carbon tetrachloride	ND	0.143	--	ND	0.900	--		7.143
Trichloroethene	ND	0.143	--	ND	0.769	--		7.143
Tetrachloroethene	ND	0.143	--	ND	0.970	--		7.143

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	94		60-140
bromochloromethane	97		60-140
chlorobenzene-d5	97		60-140

**Project Name:** 432 RODNEY ST (OFFSITE)  
**Project Number:** 170650901

**Lab Number:** L2220871  
**Report Date:** 04/28/22

### **SAMPLE RESULTS**

Lab ID:	L2220871-04 D	Date Collected:	04/21/22 13:29
Client ID:	SV03	Date Received:	04/21/22
Sample Location:	BROOKLYN, NY	Field Prep:	Not Specified

Sample Depth:

Matrix: Soil\_Vapor  
Anaytical Method: 48,TO-15  
Analytical Date: 04/28/22 03:41  
Analyst: RY

Parameter	Results	ppbV		ug/m3		Qualifier	Dilution Factor
		RL	MDL	Results	RL	MDL	
<b>Volatile Organics in Air - Mansfield Lab</b>							
Dichlorodifluoromethane	ND	0.833	--	ND	4.12	--	4.167
Chloromethane	ND	0.833	--	ND	1.72	--	4.167
Freon-114	ND	0.833	--	ND	5.82	--	4.167
Vinyl chloride	ND	0.833	--	ND	2.13	--	4.167
1,3-Butadiene	ND	0.833	--	ND	1.84	--	4.167
Bromomethane	ND	0.833	--	ND	3.23	--	4.167
Chloroethane	ND	0.833	--	ND	2.20	--	4.167
Ethanol	83.7	20.8	--	158	39.2	--	4.167
Vinyl bromide	ND	0.833	--	ND	3.64	--	4.167
Acetone	69.3	4.17	--	165	9.91	--	4.167
Trichlorofluoromethane	ND	0.833	--	ND	4.68	--	4.167
Isopropanol	ND	2.08	--	ND	5.11	--	4.167
1,1-Dichloroethene	ND	0.833	--	ND	3.30	--	4.167
Tertiary butyl Alcohol	2.18	2.08	--	6.61	6.31	--	4.167
Methylene chloride	ND	2.08	--	ND	7.23	--	4.167
3-Chloropropene	ND	0.833	--	ND	2.61	--	4.167
Carbon disulfide	5.20	0.833	--	16.2	2.59	--	4.167
Freon-113	ND	0.833	--	ND	6.38	--	4.167
trans-1,2-Dichloroethene	ND	0.833	--	ND	3.30	--	4.167
1,1-Dichloroethane	ND	0.833	--	ND	3.37	--	4.167
Methyl tert butyl ether	ND	0.833	--	ND	3.00	--	4.167
2-Butanone	222	2.08	--	655	6.13	--	4.167
cis-1,2-Dichloroethene	ND	0.833	--	ND	3.30	--	4.167



**Project Name:** 432 RODNEY ST (OFFSITE)  
**Project Number:** 170650901

**Lab Number:** L2220871  
**Report Date:** 04/28/22

### **SAMPLE RESULTS**

Lab ID:	L2220871-04 D	Date Collected:	04/21/22 13:29
Client ID:	SV03	Date Received:	04/21/22
Sample Location:	BROOKLYN, NY	Field Prep:	Not Specified

Sample Depth:

Parameter	Results	ppbV		ug/m3		Qualifier	Dilution Factor
		RL	MDL	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>							
Ethyl Acetate	ND	2.08	--	ND	7.50	--	4.167
Chloroform	ND	0.833	--	ND	4.07	--	4.167
Tetrahydrofuran	ND	2.08	--	ND	6.13	--	4.167
1,2-Dichloroethane	ND	0.833	--	ND	3.37	--	4.167
n-Hexane	86.8	0.833	--	306	2.94	--	4.167
1,1,1-Trichloroethane	ND	0.833	--	ND	4.54	--	4.167
Benzene	2.74	0.833	--	8.75	2.66	--	4.167
Carbon tetrachloride	ND	0.833	--	ND	5.24	--	4.167
Cyclohexane	1.63	0.833	--	5.61	2.87	--	4.167
1,2-Dichloropropane	ND	0.833	--	ND	3.85	--	4.167
Bromodichloromethane	ND	0.833	--	ND	5.58	--	4.167
Xylenes, Total	8.86	0.833	--	38.5	3.62	--	4.167
1,4-Dioxane	ND	0.833	--	ND	3.00	--	4.167
Trichloroethene	ND	0.833	--	ND	4.48	--	4.167
2,2,4-Trimethylpentane	1.36	0.833	--	6.35	3.89	--	4.167
Heptane	25.2	0.833	--	103	3.41	--	4.167
cis-1,3-Dichloropropene	ND	0.833	--	ND	3.78	--	4.167
4-Methyl-2-pentanone	ND	2.08	--	ND	8.52	--	4.167
trans-1,3-Dichloropropene	ND	0.833	--	ND	3.78	--	4.167
1,1,2-Trichloroethane	ND	0.833	--	ND	4.54	--	4.167
Toluene	5.84	0.833	--	22.0	3.14	--	4.167
2-Hexanone	17.2	0.833	--	70.5	3.41	--	4.167
Dibromochloromethane	ND	0.833	--	ND	7.10	--	4.167
1,2-Dibromoethane	ND	0.833	--	ND	6.40	--	4.167
Tetrachloroethene	ND	0.833	--	ND	5.65	--	4.167
Chlorobenzene	ND	0.833	--	ND	3.84	--	4.167



**Project Name:** 432 RODNEY ST (OFFSITE)  
**Project Number:** 170650901

**Lab Number:** L2220871  
**Report Date:** 04/28/22

### **SAMPLE RESULTS**

Lab ID:	L2220871-04 D	Date Collected:	04/21/22 13:29
Client ID:	SV03	Date Received:	04/21/22
Sample Location:	BROOKLYN, NY	Field Prep:	Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>								
Ethylbenzene	1.55	0.833	--	6.73	3.62	--		4.167
p/m-Xylene	5.50	1.67	--	23.9	7.25	--		4.167
Bromoform	ND	0.833	--	ND	8.61	--		4.167
Styrene	ND	0.833	--	ND	3.55	--		4.167
1,1,2,2-Tetrachloroethane	ND	0.833	--	ND	5.72	--		4.167
o-Xylene	3.36	0.833	--	14.6	3.62	--		4.167
4-Ethyltoluene	ND	0.833	--	ND	4.10	--		4.167
1,3,5-Trimethylbenzene	ND	0.833	--	ND	4.10	--		4.167
1,2,4-Trimethylbenzene	2.85	0.833	--	14.0	4.10	--		4.167
Benzyl chloride	ND	0.833	--	ND	4.31	--		4.167
1,3-Dichlorobenzene	ND	0.833	--	ND	5.01	--		4.167
1,4-Dichlorobenzene	ND	0.833	--	ND	5.01	--		4.167
1,2-Dichlorobenzene	ND	0.833	--	ND	5.01	--		4.167
1,2,4-Trichlorobenzene	ND	0.833	--	ND	6.18	--		4.167
Hexachlorobutadiene	ND	0.833	--	ND	8.89	--		4.167

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	93		60-140
Bromochloromethane	96		60-140
chlorobenzene-d5	99		60-140



**Project Name:** 432 RODNEY ST (OFFSITE)  
**Project Number:** 170650901

**Lab Number:** L2220871  
**Report Date:** 04/28/22

### **SAMPLE RESULTS**

Lab ID:	L2220871-04 D	Date Collected:	04/21/22 13:29
Client ID:	SV03	Date Received:	04/21/22
Sample Location:	BROOKLYN, NY	Field Prep:	Not Specified

Sample Depth:

Matrix: Soil\_Vapor  
Anaytical Method: 48,TO-15-SIM  
Analytical Date: 04/28/22 03:41  
Analyst: RY

Parameter	Results	ppbV		ug/m3		Qualifier	Dilution Factor
		RL	MDL	RL	MDL		
<b>Volatile Organics in Air by SIM - Mansfield Lab</b>							
Vinyl chloride	ND	0.083	--	ND	0.213	--	4.167
1,1-Dichloroethene	ND	0.083	--	ND	0.330	--	4.167
cis-1,2-Dichloroethene	ND	0.083	--	ND	0.330	--	4.167
1,1,1-Trichloroethane	ND	0.083	--	ND	0.454	--	4.167
Carbon tetrachloride	ND	0.083	--	ND	0.524	--	4.167
Trichloroethene	ND	0.083	--	ND	0.448	--	4.167
Tetrachloroethene	0.271	0.083	--	1.84	0.565	--	4.167

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	95		60-140
bromochloromethane	97		60-140
chlorobenzene-d5	100		60-140

**Project Name:** 432 RODNEY ST (OFFSITE)  
**Project Number:** 170650901

**Lab Number:** L2220871  
**Report Date:** 04/28/22

### **SAMPLE RESULTS**

Lab ID:	L2220871-05	Date Collected:	04/21/22 13:09
Client ID:	SV04	Date Received:	04/21/22
Sample Location:	BROOKLYN, NY	Field Prep:	Not Specified

Sample Depth:  
Matrix: Soil\_Vapor  
Anaytical Method: 48,TO-15  
Analytical Date: 04/28/22 04:20  
Analyst: RY

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>								
Dichlorodifluoromethane	0.525	0.200	--	2.60	0.989	--		1
Chloromethane	0.310	0.200	--	0.640	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	20.8	5.00	--	39.2	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	29.8	1.00	--	70.8	2.38	--		1
Trichlorofluoromethane	0.238	0.200	--	1.34	1.12	--		1
Isopropanol	1.26	0.500	--	3.10	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	1.11	0.500	--	3.36	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	3.42	0.200	--	10.7	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	87.5	0.500	--	258	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1



**Project Name:** 432 RODNEY ST (OFFSITE)  
**Project Number:** 170650901

**Lab Number:** L2220871  
**Report Date:** 04/28/22

### **SAMPLE RESULTS**

Lab ID:	L2220871-05	Date Collected:	04/21/22 13:09
Client ID:	SV04	Date Received:	04/21/22
Sample Location:	BROOKLYN, NY	Field Prep:	Not Specified

Sample Depth:

Parameter	Results	ppbV		ug/m3		Qualifier	Dilution Factor
		RL	MDL	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>							
Ethyl Acetate	ND	0.500	--	ND	1.80	--	1
Chloroform	0.412	0.200	--	2.01	0.977	--	1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--	1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	1
n-Hexane	1.17	0.200	--	4.12	0.705	--	1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	1
Benzene	0.985	0.200	--	3.15	0.639	--	1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--	1
Cyclohexane	1.57	0.200	--	5.40	0.688	--	1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--	1
Xylenes, Total	6.98	0.200	--	30.3	0.869	--	1
Bromodichloromethane	ND	0.200	--	ND	1.34	--	1
1,4-Dioxane	ND	0.200	--	ND	0.721	--	1
Trichloroethene	0.234	0.200	--	1.26	1.07	--	1
2,2,4-Trimethylpentane	0.524	0.200	--	2.45	0.934	--	1
Heptane	1.77	0.200	--	7.25	0.820	--	1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	1
4-Methyl-2-pentanone	3.46	0.500	--	14.2	2.05	--	1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--	1
Toluene	4.04	0.200	--	15.2	0.754	--	1
2-Hexanone	2.75	0.200	--	11.3	0.820	--	1
Dibromochloromethane	ND	0.200	--	ND	1.70	--	1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--	1
Tetrachloroethene	0.395	0.200	--	2.68	1.36	--	1
Chlorobenzene	ND	0.200	--	ND	0.921	--	1



**Project Name:** 432 RODNEY ST (OFFSITE)  
**Project Number:** 170650901

**Lab Number:** L2220871  
**Report Date:** 04/28/22

### **SAMPLE RESULTS**

Lab ID:	L2220871-05	Date Collected:	04/21/22 13:09
Client ID:	SV04	Date Received:	04/21/22
Sample Location:	BROOKLYN, NY	Field Prep:	Not Specified

Sample Depth:

Parameter	Results	ppbV		ug/m3		Qualifier	Dilution Factor
		RL	MDL	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>							
Ethylbenzene	1.24	0.200	--	5.39	0.869	--	1
p/m-Xylene	4.83	0.400	--	21.0	1.74	--	1
Bromoform	ND	0.200	--	ND	2.07	--	1
Styrene	ND	0.200	--	ND	0.852	--	1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	1
o-Xylene	2.15	0.200	--	9.34	0.869	--	1
4-Ethyltoluene	0.608	0.200	--	2.99	0.983	--	1
1,3,5-Trimethylbenzene	0.766	0.200	--	3.77	0.983	--	1
1,2,4-Trimethylbenzene	2.83	0.200	--	13.9	0.983	--	1
Benzyl chloride	ND	0.200	--	ND	1.04	--	1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--	1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--	1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--	1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--	1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--	1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	96		60-140
Bromochloromethane	96		60-140
chlorobenzene-d5	100		60-140



**Project Name:** 432 RODNEY ST (OFFSITE)  
**Project Number:** 170650901

**Lab Number:** L2220871  
**Report Date:** 04/28/22

### **SAMPLE RESULTS**

Lab ID:	L2220871-06 D	Date Collected:	04/21/22 13:13
Client ID:	SV05	Date Received:	04/21/22
Sample Location:	BROOKLYN, NY	Field Prep:	Not Specified

Sample Depth:

Matrix: Soil\_Vapor  
Anaytical Method: 48,TO-15  
Analytical Date: 04/28/22 04:57  
Analyst: RY

Parameter	Results	ppbV		ug/m3		Qualifier	Dilution Factor
		RL	MDL	Results	RL	MDL	
<b>Volatile Organics in Air - Mansfield Lab</b>							
Dichlorodifluoromethane	ND	0.625	--	ND	3.09	--	3.125
Chloromethane	ND	0.625	--	ND	1.29	--	3.125
Freon-114	ND	0.625	--	ND	4.37	--	3.125
Vinyl chloride	ND	0.625	--	ND	1.60	--	3.125
1,3-Butadiene	ND	0.625	--	ND	1.38	--	3.125
Bromomethane	ND	0.625	--	ND	2.43	--	3.125
Chloroethane	ND	0.625	--	ND	1.65	--	3.125
Ethanol	55.2	15.6	--	104	29.4	--	3.125
Vinyl bromide	ND	0.625	--	ND	2.73	--	3.125
Acetone	141	3.12	--	335	7.41	--	3.125
Trichlorofluoromethane	ND	0.625	--	ND	3.51	--	3.125
Isopropanol	3.22	1.56	--	7.92	3.83	--	3.125
1,1-Dichloroethene	ND	0.625	--	ND	2.48	--	3.125
Tertiary butyl Alcohol	3.02	1.56	--	9.16	4.73	--	3.125
Methylene chloride	ND	1.56	--	ND	5.42	--	3.125
3-Chloropropene	ND	0.625	--	ND	1.96	--	3.125
Carbon disulfide	2.04	0.625	--	6.35	1.95	--	3.125
Freon-113	ND	0.625	--	ND	4.79	--	3.125
trans-1,2-Dichloroethene	ND	0.625	--	ND	2.48	--	3.125
1,1-Dichloroethane	ND	0.625	--	ND	2.53	--	3.125
Methyl tert butyl ether	ND	0.625	--	ND	2.25	--	3.125
2-Butanone	218	1.56	--	643	4.60	--	3.125
cis-1,2-Dichloroethene	ND	0.625	--	ND	2.48	--	3.125



**Project Name:** 432 RODNEY ST (OFFSITE)  
**Project Number:** 170650901

**Lab Number:** L2220871  
**Report Date:** 04/28/22

### **SAMPLE RESULTS**

Lab ID:	L2220871-06 D	Date Collected:	04/21/22 13:13
Client ID:	SV05	Date Received:	04/21/22
Sample Location:	BROOKLYN, NY	Field Prep:	Not Specified

Sample Depth:

Parameter	Results	ppbV		ug/m3		Qualifier	Dilution Factor
		RL	MDL	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>							
Ethyl Acetate	ND	1.56	--	ND	5.62	--	3.125
Chloroform	1.01	0.625	--	4.93	3.05	--	3.125
Tetrahydrofuran	ND	1.56	--	ND	4.60	--	3.125
1,2-Dichloroethane	ND	0.625	--	ND	2.53	--	3.125
n-Hexane	1.83	0.625	--	6.45	2.20	--	3.125
1,1,1-Trichloroethane	ND	0.625	--	ND	3.41	--	3.125
Benzene	2.86	0.625	--	9.14	2.00	--	3.125
Carbon tetrachloride	ND	0.625	--	ND	3.93	--	3.125
Cyclohexane	ND	0.625	--	ND	2.15	--	3.125
1,2-Dichloropropane	ND	0.625	--	ND	2.89	--	3.125
Xylenes, Total	8.76	0.625	--	38.0	2.71	--	3.125
Bromodichloromethane	ND	0.625	--	ND	4.19	--	3.125
1,4-Dioxane	ND	0.625	--	ND	2.25	--	3.125
Trichloroethene	ND	0.625	--	ND	3.36	--	3.125
2,2,4-Trimethylpentane	ND	0.625	--	ND	2.92	--	3.125
Heptane	2.48	0.625	--	10.2	2.56	--	3.125
cis-1,3-Dichloropropene	ND	0.625	--	ND	2.84	--	3.125
4-Methyl-2-pentanone	3.82	1.56	--	15.7	6.39	--	3.125
trans-1,3-Dichloropropene	ND	0.625	--	ND	2.84	--	3.125
1,1,2-Trichloroethane	ND	0.625	--	ND	3.41	--	3.125
Toluene	5.48	0.625	--	20.7	2.36	--	3.125
2-Hexanone	15.2	0.625	--	62.3	2.56	--	3.125
Dibromochloromethane	ND	0.625	--	ND	5.32	--	3.125
1,2-Dibromoethane	ND	0.625	--	ND	4.80	--	3.125
Tetrachloroethene	1.65	0.625	--	11.2	4.24	--	3.125
Chlorobenzene	ND	0.625	--	ND	2.88	--	3.125



**Project Name:** 432 RODNEY ST (OFFSITE)  
**Project Number:** 170650901

**Lab Number:** L2220871  
**Report Date:** 04/28/22

### **SAMPLE RESULTS**

Lab ID:	L2220871-06 D	Date Collected:	04/21/22 13:13
Client ID:	SV05	Date Received:	04/21/22
Sample Location:	BROOKLYN, NY	Field Prep:	Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>								
Ethylbenzene	1.70	0.625	--	7.38	2.71	--		3.125
p/m-Xylene	5.98	1.25	--	26.0	5.43	--		3.125
Bromoform	ND	0.625	--	ND	6.46	--		3.125
Styrene	ND	0.625	--	ND	2.66	--		3.125
1,1,2,2-Tetrachloroethane	ND	0.625	--	ND	4.29	--		3.125
o-Xylene	2.79	0.625	--	12.1	2.71	--		3.125
4-Ethyltoluene	0.753	0.625	--	3.70	3.07	--		3.125
1,3,5-Trimethylbenzene	0.972	0.625	--	4.78	3.07	--		3.125
1,2,4-Trimethylbenzene	3.42	0.625	--	16.8	3.07	--		3.125
Benzyl chloride	ND	0.625	--	ND	3.24	--		3.125
1,3-Dichlorobenzene	ND	0.625	--	ND	3.76	--		3.125
1,4-Dichlorobenzene	ND	0.625	--	ND	3.76	--		3.125
1,2-Dichlorobenzene	ND	0.625	--	ND	3.76	--		3.125
1,2,4-Trichlorobenzene	ND	0.625	--	ND	4.64	--		3.125
Hexachlorobutadiene	ND	0.625	--	ND	6.67	--		3.125

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	94		60-140
Bromochloromethane	96		60-140
chlorobenzene-d5	99		60-140



**Project Name:** 432 RODNEY ST (OFFSITE)  
**Project Number:** 170650901

**Lab Number:** L2220871  
**Report Date:** 04/28/22

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15  
Analytical Date: 04/27/22 17:03

Parameter	ppbV			ug/m3			Dilution Factor
	Results	RL	MDL	Results	RL	MDL	Qualifier
<b>Volatile Organics in Air - Mansfield Lab for sample(s): 01-06 Batch: WG1631780-4</b>							
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--	1
Chloromethane	ND	0.200	--	ND	0.413	--	1
Freon-114	ND	0.200	--	ND	1.40	--	1
Vinyl chloride	ND	0.200	--	ND	0.511	--	1
1,3-Butadiene	ND	0.200	--	ND	0.442	--	1
Bromomethane	ND	0.200	--	ND	0.777	--	1
Chloroethane	ND	0.200	--	ND	0.528	--	1
Ethanol	ND	5.00	--	ND	9.42	--	1
Vinyl bromide	ND	0.200	--	ND	0.874	--	1
Acetone	ND	1.00	--	ND	2.38	--	1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--	1
Isopropanol	ND	0.500	--	ND	1.23	--	1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--	1
Methylene chloride	ND	0.500	--	ND	1.74	--	1
3-Chloropropene	ND	0.200	--	ND	0.626	--	1
Carbon disulfide	ND	0.200	--	ND	0.623	--	1
Freon-113	ND	0.200	--	ND	1.53	--	1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--	1
Xylenes, Total	ND	0.200	--	ND	0.869	--	1
2-Butanone	ND	0.500	--	ND	1.47	--	1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	1
Ethyl Acetate	ND	0.500	--	ND	1.80	--	1



**Project Name:** 432 RODNEY ST (OFFSITE)  
**Project Number:** 170650901

**Lab Number:** L2220871  
**Report Date:** 04/28/22

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15  
Analytical Date: 04/27/22 17:03

Parameter	ppbV			ug/m3			Dilution Factor
	Results	RL	MDL	Results	RL	MDL	
<b>Volatile Organics in Air - Mansfield Lab for sample(s): 01-06 Batch: WG1631780-4</b>							
Chloroform	ND	0.200	--	ND	0.977	--	1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--	1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	1
n-Hexane	ND	0.200	--	ND	0.705	--	1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	1
Benzene	ND	0.200	--	ND	0.639	--	1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--	1
Cyclohexane	ND	0.200	--	ND	0.688	--	1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--	1
Bromodichloromethane	ND	0.200	--	ND	1.34	--	1
1,4-Dioxane	ND	0.200	--	ND	0.721	--	1
Trichloroethene	ND	0.200	--	ND	1.07	--	1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--	1
Heptane	ND	0.200	--	ND	0.820	--	1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--	1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--	1
Toluene	ND	0.200	--	ND	0.754	--	1
2-Hexanone	ND	0.200	--	ND	0.820	--	1
Dibromochloromethane	ND	0.200	--	ND	1.70	--	1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--	1
Tetrachloroethene	ND	0.200	--	ND	1.36	--	1
Chlorobenzene	ND	0.200	--	ND	0.921	--	1
Ethylbenzene	ND	0.200	--	ND	0.869	--	1



**Project Name:** 432 RODNEY ST (OFFSITE)  
**Project Number:** 170650901

**Lab Number:** L2220871  
**Report Date:** 04/28/22

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15  
Analytical Date: 04/27/22 17:03

<b>Parameter</b>	<b>ppbV</b>			<b>ug/m3</b>			<b>Dilution Factor</b>
	<b>Results</b>	<b>RL</b>	<b>MDL</b>	<b>Results</b>	<b>RL</b>	<b>MDL</b>	
<b>Volatile Organics in Air - Mansfield Lab for sample(s): 01-06 Batch: WG1631780-4</b>							
p/m-Xylene	ND	0.400	--	ND	1.74	--	1
Bromoform	ND	0.200	--	ND	2.07	--	1
Styrene	ND	0.200	--	ND	0.852	--	1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	1
o-Xylene	ND	0.200	--	ND	0.869	--	1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--	1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--	1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--	1
Benzyl chloride	ND	0.200	--	ND	1.04	--	1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--	1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--	1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--	1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--	1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--	1



**Project Name:** 432 RODNEY ST (OFFSITE)  
**Project Number:** 170650901

**Lab Number:** L2220871  
**Report Date:** 04/28/22

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 48,TO-15-SIM  
Analytical Date: 04/27/22 17:42

Parameter	ppbV			ug/m3			Dilution Factor
	Results	RL	MDL	Results	RL	MDL	
Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 03-04 Batch: WG1631781-4							
Vinyl chloride	ND	0.020	--	ND	0.051	--	1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--	1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--	1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--	1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--	1
Trichloroethene	ND	0.020	--	ND	0.107	--	1
Tetrachloroethene	ND	0.020	--	ND	0.136	--	1



# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 432 RODNEY ST (OFFSITE)  
**Project Number:** 170650901

**Lab Number:** L2220871  
**Report Date:** 04/28/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-06 Batch: WG1631780-3								
Dichlorodifluoromethane	83		-		70-130	-		
Chloromethane	83		-		70-130	-		
Freon-114	84		-		70-130	-		
Vinyl chloride	80		-		70-130	-		
1,3-Butadiene	91		-		70-130	-		
Bromomethane	77		-		70-130	-		
Chloroethane	83		-		70-130	-		
Ethanol	127		-		40-160	-		
Vinyl bromide	92		-		70-130	-		
Acetone	111		-		40-160	-		
Trichlorofluoromethane	90		-		70-130	-		
Isopropanol	103		-		40-160	-		
1,1-Dichloroethene	89		-		70-130	-		
Tertiary butyl Alcohol	92		-		70-130	-		
Methylene chloride	115		-		70-130	-		
3-Chloropropene	113		-		70-130	-		
Carbon disulfide	124		-		70-130	-		
Freon-113	98		-		70-130	-		
trans-1,2-Dichloroethene	85		-		70-130	-		
1,1-Dichloroethane	86		-		70-130	-		
Methyl tert butyl ether	88		-		70-130	-		
2-Butanone	95		-		70-130	-		
cis-1,2-Dichloroethene	81		-		70-130	-		

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 432 RODNEY ST (OFFSITE)  
**Project Number:** 170650901

**Lab Number:** L2220871  
**Report Date:** 04/28/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-06 Batch: WG1631780-3								
Ethyl Acetate	95		-		70-130	-		
Chloroform	88		-		70-130	-		
Tetrahydrofuran	89		-		70-130	-		
1,2-Dichloroethane	84		-		70-130	-		
n-Hexane	104		-		70-130	-		
1,1,1-Trichloroethane	97		-		70-130	-		
Benzene	89		-		70-130	-		
Carbon tetrachloride	100		-		70-130	-		
Cyclohexane	101		-		70-130	-		
1,2-Dichloropropane	93		-		70-130	-		
Bromodichloromethane	110		-		70-130	-		
1,4-Dioxane	98		-		70-130	-		
Trichloroethene	89		-		70-130	-		
2,2,4-Trimethylpentane	107		-		70-130	-		
Heptane	108		-		70-130	-		
cis-1,3-Dichloropropene	96		-		70-130	-		
4-Methyl-2-pentanone	108		-		70-130	-		
trans-1,3-Dichloropropene	84		-		70-130	-		
1,1,2-Trichloroethane	94		-		70-130	-		
Toluene	81		-		70-130	-		
2-Hexanone	101		-		70-130	-		
Dibromochloromethane	111		-		70-130	-		
1,2-Dibromoethane	90		-		70-130	-		

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 432 RODNEY ST (OFFSITE)  
**Project Number:** 170650901

**Lab Number:** L2220871  
**Report Date:** 04/28/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-06 Batch: WG1631780-3								
Tetrachloroethene	84		-		70-130	-		
Chlorobenzene	89		-		70-130	-		
Ethylbenzene	86		-		70-130	-		
p/m-Xylene	88		-		70-130	-		
Bromoform	111		-		70-130	-		
Styrene	84		-		70-130	-		
1,1,2,2-Tetrachloroethane	94		-		70-130	-		
o-Xylene	90		-		70-130	-		
4-Ethyltoluene	97		-		70-130	-		
1,3,5-Trimethylbenzene	89		-		70-130	-		
1,2,4-Trimethylbenzene	96		-		70-130	-		
Benzyl chloride	111		-		70-130	-		
1,3-Dichlorobenzene	91		-		70-130	-		
1,4-Dichlorobenzene	89		-		70-130	-		
1,2-Dichlorobenzene	88		-		70-130	-		
1,2,4-Trichlorobenzene	82		-		70-130	-		
Hexachlorobutadiene	83		-		70-130	-		

**Lab Control Sample Analysis**  
**Batch Quality Control**

**Project Name:** 432 RODNEY ST (OFFSITE)  
**Project Number:** 170650901

**Lab Number:** L2220871  
**Report Date:** 04/28/22

<b>Parameter</b>	<i>LCS</i> %Recovery	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>Qual</i>	<i>%Recovery</i> <i>Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> <i>Limits</i>
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 03-04 Batch: WG1631781-3								
Vinyl chloride	78	-			70-130	-		25
1,1-Dichloroethene	83	-			70-130	-		25
cis-1,2-Dichloroethene	73	-			70-130	-		25
1,1,1-Trichloroethane	92	-			70-130	-		25
Carbon tetrachloride	93	-			70-130	-		25
Trichloroethene	85	-			70-130	-		25
Tetrachloroethene	80	-			70-130	-		25

Project Name: 432 RODNEY ST (OFFSITE)

Serial\_No:04282215:49

Project Number: 170650901

Lab Number: L2220871

Report Date: 04/28/22

**Canister and Flow Controller Information**

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controller Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L2220871-01	AA01_042122	02094	Flow 3	04/20/22	385431		-	-	-	Pass	18.0	18.3	2
L2220871-01	AA01_042122	3178	2.7L Can	04/20/22	385431	L2219378-01	Pass	-29.3	-3.9	-	-	-	-
L2220871-02	SV01	02123	FLOW 2	04/20/22	385431		-	-	-	Pass	18.0	18.8	4
L2220871-02	SV01	3431	2.7L Can	04/20/22	385431	L2218609-01	Pass	-29.2	-4.2	-	-	-	-
L2220871-03	SV02	01389	Flow 3	04/20/22	385431		-	-	-	Pass	18.0	12.6	35
L2220871-03	SV02	481	2.7L Can	04/20/22	385431	L2219378-01	Pass	-29.3	-3.7	-	-	-	-
L2220871-04	SV03	01541	Flow 3	04/20/22	385431		-	-	-	Pass	18.0	16.1	11
L2220871-04	SV03	2237	2.7L Can	04/20/22	385431	L2218609-01	Pass	-29.2	-4.1	-	-	-	-
L2220871-05	SV04	01552	Flow 3	04/20/22	385431		-	-	-	Pass	18.0	18.8	4
L2220871-05	SV04	2358	2.7L Can	04/20/22	385431	L2219378-01	Pass	-29.4	-3.7	-	-	-	-
L2220871-06	SV05	0934	Flow 3	04/20/22	385431		-	-	-	Pass	18.0	17.6	2
L2220871-06	SV05	2828	2.7L Can	04/20/22	385431	L2218609-01	Pass	-28.9	-3.9	-	-	-	-
L2220871-07	UNUSED CAN #2792	01546	Flow 3	04/20/22	385431		-	-	-	Pass	18.0	16.5	9
L2220871-07	UNUSED CAN #2792	2792	2.7L Can	04/20/22	385431	L2219378-01	Pass	-29.2	-29.2	-	-	-	-

Project Name: BATCH CANISTER CERTIFICATION

Lab Number: L2218609

Project Number: CANISTER QC BAT

Report Date: 04/28/22

## Air Canister Certification Results

Lab ID:	L2218609-01	Date Collected:	04/08/22 18:00
Client ID:	CAN 454 SHELF 13	Date Received:	04/11/22
Sample Location:		Field Prep:	Not Specified

Sample Depth:

Matrix: Air  
 Analytical Method: 48,TO-15  
 Analytical Date: 04/11/22 18:23  
 Analyst: TS

Parameter	Results	ppbV		ug/m3		Qualifier	Dilution Factor
		RL	MDL	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>							
Chlorodifluoromethane	ND	0.200	--	0.707	--		1
Propylene	ND	0.500	--	0.861	--		1
Propane	ND	0.500	--	0.902	--		1
Dichlorodifluoromethane	ND	0.200	--	0.989	--		1
Chloromethane	ND	0.200	--	0.413	--		1
Freon-114	ND	0.200	--	1.40	--		1
Methanol	ND	5.00	--	6.55	--		1
Vinyl chloride	ND	0.200	--	0.511	--		1
1,3-Butadiene	ND	0.200	--	0.442	--		1
Butane	ND	0.200	--	0.475	--		1
Bromomethane	ND	0.200	--	0.777	--		1
Chloroethane	ND	0.200	--	0.528	--		1
Ethanol	ND	5.00	--	9.42	--		1
Dichlorofluoromethane	ND	0.200	--	0.842	--		1
Vinyl bromide	ND	0.200	--	0.874	--		1
Acrolein	ND	0.500	--	1.15	--		1
Acetone	ND	1.00	--	2.38	--		1
Acetonitrile	ND	0.200	--	0.336	--		1
Trichlorofluoromethane	ND	0.200	--	1.12	--		1
Isopropanol	ND	0.500	--	1.23	--		1
Acrylonitrile	ND	0.500	--	1.09	--		1
Pentane	ND	0.200	--	0.590	--		1
Ethyl ether	ND	0.200	--	0.606	--		1
1,1-Dichloroethene	ND	0.200	--	0.793	--		1



Project Name: BATCH CANISTER CERTIFICATION

Lab Number: L2218609

Project Number: CANISTER QC BAT

Report Date: 04/28/22

## Air Canister Certification Results

Lab ID: L2218609-01 Date Collected: 04/08/22 18:00  
 Client ID: CAN 454 SHELF 13 Date Received: 04/11/22  
 Sample Location: Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>								
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
Xylenes, total	ND	0.600	--	ND	0.869	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Diisopropyl ether	ND	0.200	--	ND	0.836	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--		1
1,2-Dichloroethene (total)	ND	1.00	--	ND	1.00	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1



Project Name: BATCH CANISTER CERTIFICATION

Lab Number: L2218609

Project Number: CANISTER QC BAT

Report Date: 04/28/22

## Air Canister Certification Results

Lab ID: L2218609-01 Date Collected: 04/08/22 18:00  
 Client ID: CAN 454 SHELF 13 Date Received: 04/11/22  
 Sample Location: Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>								
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Butyl acetate	ND	0.500	--	ND	2.38	--		1
Octane	ND	0.200	--	ND	0.934	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1



Project Name: BATCH CANISTER CERTIFICATION

Lab Number: L2218609

Project Number: CANISTER QC BAT

Report Date: 04/28/22

## Air Canister Certification Results

Lab ID: L2218609-01 Date Collected: 04/08/22 18:00  
 Client ID: CAN 454 SHELF 13 Date Received: 04/11/22  
 Sample Location: Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>								
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Decane	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--		1
Undecane	ND	0.200	--	ND	1.28	--		1
Dodecane	ND	0.200	--	ND	1.39	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1



Project Name: BATCH CANISTER CERTIFICATION

Lab Number: L2218609

Project Number: CANISTER QC BAT

Report Date: 04/28/22

## Air Canister Certification Results

Lab ID: L2218609-01 Date Collected: 04/08/22 18:00  
 Client ID: CAN 454 SHELF 13 Date Received: 04/11/22  
 Sample Location: Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Dilution Factor
	Results	RL	MDL	Results	RL	MDL	Qualifier
Volatile Organics in Air - Mansfield Lab							

	Results	Qualifier	Units	RDL	
--	---------	-----------	-------	-----	--

Tentatively Identified Compounds

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	93		60-140
Bromochloromethane	95		60-140
chlorobenzene-d5	92		60-140

Project Name: BATCH CANISTER CERTIFICATION

Lab Number: L2218609

Project Number: CANISTER QC BAT

Report Date: 04/28/22

## Air Canister Certification Results

Lab ID:	L2218609-01	Date Collected:	04/08/22 18:00
Client ID:	CAN 454 SHELF 13	Date Received:	04/11/22
Sample Location:		Field Prep:	Not Specified

Sample Depth:

Matrix: Air  
 Analytical Method: 48,TO-15-SIM  
 Analytical Date: 04/11/22 18:23  
 Analyst: TS

Parameter	Results	ppbV		ug/m3		Qualifier	Dilution Factor
		RL	MDL	RL	MDL		
<b>Volatile Organics in Air by SIM - Mansfield Lab</b>							
Dichlorodifluoromethane	ND	0.200	--	0.989	--		1
Chloromethane	ND	0.200	--	0.413	--		1
Freon-114	ND	0.050	--	0.349	--		1
Vinyl chloride	ND	0.020	--	0.051	--		1
1,3-Butadiene	ND	0.020	--	0.044	--		1
Bromomethane	ND	0.020	--	0.078	--		1
Chloroethane	ND	0.100	--	0.264	--		1
Acrolein	ND	0.050	--	0.115	--		1
Acetone	ND	1.00	--	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	0.281	--		1
Acrylonitrile	ND	0.500	--	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	0.079	--		1
Methylene chloride	ND	0.500	--	1.74	--		1
Freon-113	ND	0.050	--	0.383	--		1
trans-1,2-Dichloroethene	ND	0.020	--	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	0.721	--		1
2-Butanone	ND	0.500	--	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	0.079	--		1
Chloroform	ND	0.020	--	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	0.109	--		1
Benzene	ND	0.100	--	0.319	--		1
Carbon tetrachloride	ND	0.020	--	0.126	--		1



Project Name: BATCH CANISTER CERTIFICATION

Lab Number: L2218609

Project Number: CANISTER QC BAT

Report Date: 04/28/22

## Air Canister Certification Results

Lab ID: L2218609-01 Date Collected: 04/08/22 18:00  
 Client ID: CAN 454 SHELF 13 Date Received: 04/11/22  
 Sample Location: Field Prep: Not Specified

Sample Depth:

Parameter	Results	ppbV		ug/m3		Qualifier	Dilution Factor
		RL	MDL	RL	MDL		
<b>Volatile Organics in Air by SIM - Mansfield Lab</b>							
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--	1
Bromodichloromethane	ND	0.020	--	ND	0.134	--	1
1,4-Dioxane	ND	0.100	--	ND	0.360	--	1
Trichloroethene	ND	0.020	--	ND	0.107	--	1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--	1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--	1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--	1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--	1
Toluene	ND	0.100	--	ND	0.377	--	1
Dibromochloromethane	ND	0.020	--	ND	0.170	--	1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--	1
Tetrachloroethene	ND	0.020	--	ND	0.136	--	1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--	1
Chlorobenzene	ND	0.100	--	ND	0.461	--	1
Ethylbenzene	ND	0.020	--	ND	0.087	--	1
p/m-Xylene	ND	0.040	--	ND	0.174	--	1
Bromoform	ND	0.020	--	ND	0.207	--	1
Styrene	ND	0.020	--	ND	0.085	--	1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--	1
o-Xylene	ND	0.020	--	ND	0.087	--	1
Isopropylbenzene	ND	0.200	--	ND	0.983	--	1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--	1
1,3,5-Trimethylbenzene	ND	0.020	--	ND	0.098	--	1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--	1
Benzyl chloride	ND	0.100	--	ND	0.518	--	1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--	1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--	1



Project Name: BATCH CANISTER CERTIFICATION

Lab Number: L2218609

Project Number: CANISTER QC BAT

Report Date: 04/28/22

## Air Canister Certification Results

Lab ID: L2218609-01 Date Collected: 04/08/22 18:00  
 Client ID: CAN 454 SHELF 13 Date Received: 04/11/22  
 Sample Location: Field Prep: Not Specified

Sample Depth:

Parameter	Results	ppbV		ug/m3		Qualifier	Dilution Factor
		RL	MDL	RL	MDL		
<b>Volatile Organics in Air by SIM - Mansfield Lab</b>							
sec-Butylbenzene	ND	0.200	--	ND	1.10	--	1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--	1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--	1
n-Butylbenzene	ND	0.200	--	ND	1.10	--	1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--	1
Naphthalene	ND	0.050	--	ND	0.262	--	1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--	1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--	1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	94		60-140
bromochloromethane	95		60-140
chlorobenzene-d5	93		60-140

Project Name: BATCH CANISTER CERTIFICATION

Lab Number: L2219378

Project Number: CANISTER QC BAT

Report Date: 04/28/22

## Air Canister Certification Results

Lab ID:	L2219378-01	Date Collected:	04/13/22 18:00
Client ID:	CAN 107 SHELF 6	Date Received:	04/14/22
Sample Location:		Field Prep:	Not Specified

Sample Depth:

Matrix: Air  
 Analytical Method: 48,TO-15  
 Analytical Date: 04/14/22 19:29  
 Analyst: TS

Parameter	Results	ppbV		ug/m3		Qualifier	Dilution Factor
		RL	MDL	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>							
Chlorodifluoromethane	ND	0.200	--	0.707	--		1
Propylene	ND	0.500	--	0.861	--		1
Propane	ND	0.500	--	0.902	--		1
Dichlorodifluoromethane	ND	0.200	--	0.989	--		1
Chloromethane	ND	0.200	--	0.413	--		1
Freon-114	ND	0.200	--	1.40	--		1
Methanol	ND	5.00	--	6.55	--		1
Vinyl chloride	ND	0.200	--	0.511	--		1
1,3-Butadiene	ND	0.200	--	0.442	--		1
Butane	ND	0.200	--	0.475	--		1
Bromomethane	ND	0.200	--	0.777	--		1
Chloroethane	ND	0.200	--	0.528	--		1
Ethanol	ND	5.00	--	9.42	--		1
Dichlorofluoromethane	ND	0.200	--	0.842	--		1
Vinyl bromide	ND	0.200	--	0.874	--		1
Acrolein	ND	0.500	--	1.15	--		1
Acetone	ND	1.00	--	2.38	--		1
Acetonitrile	ND	0.200	--	0.336	--		1
Trichlorofluoromethane	ND	0.200	--	1.12	--		1
Isopropanol	ND	0.500	--	1.23	--		1
Acrylonitrile	ND	0.500	--	1.09	--		1
Pentane	ND	0.200	--	0.590	--		1
Ethyl ether	ND	0.200	--	0.606	--		1
1,1-Dichloroethene	ND	0.200	--	0.793	--		1



Project Name: BATCH CANISTER CERTIFICATION

Lab Number: L2219378

Project Number: CANISTER QC BAT

Report Date: 04/28/22

## Air Canister Certification Results

Lab ID: L2219378-01 Date Collected: 04/13/22 18:00  
 Client ID: CAN 107 SHELF 6 Date Received: 04/14/22  
 Sample Location: Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>								
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
Xylenes, total	ND	0.600	--	ND	0.869	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Diisopropyl ether	ND	0.200	--	ND	0.836	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--		1
1,2-Dichloroethene (total)	ND	1.00	--	ND	1.00	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1



Project Name: BATCH CANISTER CERTIFICATION

Lab Number: L2219378

Project Number: CANISTER QC BAT

Report Date: 04/28/22

## Air Canister Certification Results

Lab ID: L2219378-01 Date Collected: 04/13/22 18:00  
 Client ID: CAN 107 SHELF 6 Date Received: 04/14/22  
 Sample Location: Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>								
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Butyl acetate	ND	0.500	--	ND	2.38	--		1
Octane	ND	0.200	--	ND	0.934	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1



Project Name: BATCH CANISTER CERTIFICATION

Lab Number: L2219378

Project Number: CANISTER QC BAT

Report Date: 04/28/22

## Air Canister Certification Results

Lab ID: L2219378-01 Date Collected: 04/13/22 18:00  
 Client ID: CAN 107 SHELF 6 Date Received: 04/14/22  
 Sample Location: Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>								
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Decane	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--		1
Undecane	ND	0.200	--	ND	1.28	--		1
Dodecane	ND	0.200	--	ND	1.39	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1



Project Name: BATCH CANISTER CERTIFICATION

Lab Number: L2219378

Project Number: CANISTER QC BAT

Report Date: 04/28/22

## Air Canister Certification Results

Lab ID: L2219378-01 Date Collected: 04/13/22 18:00  
 Client ID: CAN 107 SHELF 6 Date Received: 04/14/22  
 Sample Location: Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Dilution Factor
	Results	RL	MDL	Results	RL	MDL	Qualifier
Volatile Organics in Air - Mansfield Lab							

	Results	Qualifier	Units	RDL	Dilution Factor
--	---------	-----------	-------	-----	-----------------

Tentatively Identified Compounds

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	94		60-140
Bromochloromethane	95		60-140
chlorobenzene-d5	92		60-140

Project Name: BATCH CANISTER CERTIFICATION

Lab Number: L2219378

Project Number: CANISTER QC BAT

Report Date: 04/28/22

## Air Canister Certification Results

Lab ID:	L2219378-01	Date Collected:	04/13/22 18:00
Client ID:	CAN 107 SHELF 6	Date Received:	04/14/22
Sample Location:		Field Prep:	Not Specified

Sample Depth:

Matrix: Air  
 Analytical Method: 48,TO-15-SIM  
 Analytical Date: 04/14/22 19:29  
 Analyst: TS

Parameter	Results	ppbV		ug/m3		Qualifier	Dilution Factor
		RL	MDL	RL	MDL		
<b>Volatile Organics in Air by SIM - Mansfield Lab</b>							
Dichlorodifluoromethane	ND	0.200	--	0.989	--		1
Chloromethane	ND	0.200	--	0.413	--		1
Freon-114	ND	0.050	--	0.349	--		1
Vinyl chloride	ND	0.020	--	0.051	--		1
1,3-Butadiene	ND	0.020	--	0.044	--		1
Bromomethane	ND	0.020	--	0.078	--		1
Chloroethane	ND	0.100	--	0.264	--		1
Acrolein	ND	0.050	--	0.115	--		1
Acetone	ND	1.00	--	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	0.281	--		1
Acrylonitrile	ND	0.500	--	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	0.079	--		1
Methylene chloride	ND	0.500	--	1.74	--		1
Freon-113	ND	0.050	--	0.383	--		1
trans-1,2-Dichloroethene	ND	0.020	--	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	0.721	--		1
2-Butanone	ND	0.500	--	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	0.079	--		1
Chloroform	ND	0.020	--	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	0.109	--		1
Benzene	ND	0.100	--	0.319	--		1
Carbon tetrachloride	ND	0.020	--	0.126	--		1



Project Name: BATCH CANISTER CERTIFICATION

Lab Number: L2219378

Project Number: CANISTER QC BAT

Report Date: 04/28/22

**Air Canister Certification Results**

Lab ID: L2219378-01 Date Collected: 04/13/22 18:00  
 Client ID: CAN 107 SHELF 6 Date Received: 04/14/22  
 Sample Location: Field Prep: Not Specified

Sample Depth:

Parameter	Results	ppbV		ug/m3		Qualifier	Dilution Factor
		RL	MDL	Results	RL		
<b>Volatile Organics in Air by SIM - Mansfield Lab</b>							
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--	1
Bromodichloromethane	ND	0.020	--	ND	0.134	--	1
1,4-Dioxane	ND	0.100	--	ND	0.360	--	1
Trichloroethene	ND	0.020	--	ND	0.107	--	1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--	1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--	1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--	1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--	1
Toluene	ND	0.100	--	ND	0.377	--	1
Dibromochloromethane	ND	0.020	--	ND	0.170	--	1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--	1
Tetrachloroethene	ND	0.020	--	ND	0.136	--	1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--	1
Chlorobenzene	ND	0.100	--	ND	0.461	--	1
Ethylbenzene	ND	0.020	--	ND	0.087	--	1
p/m-Xylene	ND	0.040	--	ND	0.174	--	1
Bromoform	ND	0.020	--	ND	0.207	--	1
Styrene	ND	0.020	--	ND	0.085	--	1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--	1
o-Xylene	ND	0.020	--	ND	0.087	--	1
Isopropylbenzene	ND	0.200	--	ND	0.983	--	1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--	1
1,3,5-Trimethylbenzene	ND	0.020	--	ND	0.098	--	1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--	1
Benzyl chloride	ND	0.100	--	ND	0.518	--	1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--	1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--	1



Project Name: BATCH CANISTER CERTIFICATION

Lab Number: L2219378

Project Number: CANISTER QC BAT

Report Date: 04/28/22

## Air Canister Certification Results

Lab ID: L2219378-01 Date Collected: 04/13/22 18:00  
 Client ID: CAN 107 SHELF 6 Date Received: 04/14/22  
 Sample Location: Field Prep: Not Specified

Sample Depth:

Parameter	Results	ppbV		ug/m3		Qualifier	Dilution Factor
		RL	MDL	RL	MDL		
<b>Volatile Organics in Air by SIM - Mansfield Lab</b>							
sec-Butylbenzene	ND	0.200	--	ND	1.10	--	1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--	1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--	1
n-Butylbenzene	ND	0.200	--	ND	1.10	--	1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--	1
Naphthalene	ND	0.050	--	ND	0.262	--	1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--	1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--	1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	93		60-140
bromochloromethane	96		60-140
chlorobenzene-d5	91		60-140

**Project Name:** 432 RODNEY ST (OFFSITE)  
**Project Number:** 170650901

Serial\_No:04282215:49  
**Lab Number:** L2220871  
**Report Date:** 04/28/22

### **Sample Receipt and Container Information**

Were project specific reporting limits specified? YES

#### **Cooler Information**

<b>Cooler</b>	<b>Custody Seal</b>
NA	Absent

#### **Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L2220871-01A	Canister - 2.7 Liter	NA	NA			Y	Absent		TO15-LL(30)
L2220871-02A	Canister - 2.7 Liter	NA	NA			Y	Absent		TO15-LL(30)
L2220871-03A	Canister - 2.7 Liter	NA	NA			Y	Absent		TO15-SIM(30),TO15-LL(30)
L2220871-04A	Canister - 2.7 Liter	NA	NA			Y	Absent		TO15-LL(30),TO15-SIM(30)
L2220871-05A	Canister - 2.7 Liter	NA	NA			Y	Absent		TO15-LL(30)
L2220871-06A	Canister - 2.7 Liter	NA	NA			Y	Absent		TO15-LL(30)
L2220871-07A	Canister - 2.7 Liter	NA	NA			Y	Absent		CLEAN-FEE()

**Project Name:** 432 RODNEY ST (OFFSITE)  
**Project Number:** 170650901

**Lab Number:** L2220871  
**Report Date:** 04/28/22

## 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:** Data Usability Report



**Project Name:** 432 RODNEY ST (OFFSITE)  
**Project Number:** 170650901

**Lab Number:** L2220871  
**Report Date:** 04/28/22

#### 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.

**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'.

**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 Fluoranthrenes/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.

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.)

**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. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the reporting limit (RL) for the sample.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where

**Report Format:** Data Usability Report



**Project Name:** 432 RODNEY ST (OFFSITE)  
**Project Number:** 170650901

**Lab Number:** L2220871  
**Report Date:** 04/28/22

**Data Qualifiers**

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: Data Usability Report*



**Project Name:** 432 RODNEY ST (OFFSITE)  
**Project Number:** 170650901

**Lab Number:** L2220871  
**Report Date:** 04/28/22

## REFERENCES

- 48 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air. Second Edition. EPA/625/R-96/010b, January 1999.

## 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 its 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

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**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, NO<sub>2</sub>, NO<sub>3</sub>.

**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

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**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**, **SM4500CI-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, 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**

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


**CHAIN OF CUSTODY**

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

**Client Information**

Client: Langan Engineering  
Address: 360 W 31st Street 8th Flr  
New York, NY 10001  
Phone: 212-4795400

Fax:

Email: [j.golding@langan.com](mailto:j.golding@langan.com)

These samples have been previously analyzed by Alpha

Other Project Specific Requirements/Comments:

Project-Specific Target Compound List:

<b>All Columns Below Must Be Filled Out</b>																	
ALPHA Lab ID (Lab Use Only)	Sample ID	COLLECTION				Sample Matrix*	Sampler's Initials	Can Size	ID Can	ID - Flow Controller	TO-15	TO-15 SIM	APH	Sulfur Nonpetroleum Acids	Fixed Gases	Sulfides & Mercaptans by TO-15	Sample Comments (i.e. PID)
		End Date	Start Time	End Time	Initial Vacuum												
20871-01	AA01_042122	4/21/22	11:10	13:19	-30.97	-5.02	SS	2.7L	3178	2094	X						
	02 SV01	4/21/22	11:08	13:11	-30.15	-5.78	SS	2.7L	3431	2123	X						
	03 SV02	4/21/22	11:07	14:23	-30.86	-5.34	SS	2.7L	481	1389	X						
	04 SV03	4/21/22	11:06	13:29	-30.87	-5.34	SS	2.7L	2237	1541	X						
	05 SV04	4/21/22	11:05	13:09	-30.97	-5.16	SS	2.7L	2358	1552	X						
	06 SV05	4/21/22	11:04	13:13	-30.00	-5.03	SS	2.7L	2828	934	X						

**\*SAMPLE MATRIX CODES**

AA = Ambient Air (Indoor/Outdoor)  
SV = Soil Vapor/Landfill Gas/SVE  
Other = Please Specify

Container Type

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions.  
See reverse side.

Relinquished By: <i>Seveng Simpson (Langan)</i>	Date/Time: <i>4/21/22 1530</i>	Received By: <i>Mul (AAL)</i>	Date/Time: <i>4-21-22 1530</i>
	<i>4-21-22 1750</i>	<i>Yellow Tree</i>	<i>4-21-22 2100</i>
	<i>4-21-22</i>	<i>ASAC 4/21/22 2350</i>	
<i>ASAC 4/21/22 0200</i>			

**Attachment H**

**Data Usability Summary Reports**

**Technical  
Memorandum**

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**989 Lenox Drive Lawrenceville, NJ 08648 T: 609.282.8000**  
**Mailing Address: 989 Lenox Drive Lawrenceville, NJ 08648**

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**To:** Liz Mcconnell, Langan Senior Staff Engineer

**From:** Joe Conboy, Langan Senior Staff Chemist

**Date:** May 19, 2022

**Re:** Data Usability Summary Report  
For 432 Rodney Street (Offsite)  
April 2022 Soil Samples  
Langan Project No.: 170650901

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This memorandum presents the findings of an analytical data validation from the analysis of soil samples collected in April 2022 by Langan Engineering and Environmental Services at 432 Rodney Street (Offsite). The samples were analyzed by Alpha Analytical Laboratories, Inc. (NYSDOH NELAP registration # 11148) for volatile organic compounds (VOCs) by the method specified below.

- VOCs by SW-846 Method 8260C

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)
- 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

# Technical Memorandum

Data Usability Summary Report  
For 432 Rodney Street (Offsite)  
April 2022 Soil Samples  
Langan Project No.: 170650901  
May 19, 2022 Page 2 of 4

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. One SDG 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. No minor deficiencies were identified in this data set.

# Technical Memorandum

Data Usability Summary Report  
For 432 Rodney Street (Offsite)  
April 2022 Soil Samples  
Langan Project No.: 170650901  
May 19, 2022 Page 3 of 4

## 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 8260C

#### L2221340

The MB for batch WG1631642 exhibited a detection of naphthalene (0.76 ug/kg). The associated results are >10X the contamination. No qualification is necessary.

The MS/MSD performed on sample SB03\_042522 exhibited percent recoveries outside control limits for 1,1,2,2-tetrachloroethane (21%, 69%), 1,2,3-trichlorobenzene (34%, 24%), 1,2,4,5-tetramethylbenzene (64%, 44%), 1,2,4-trichlorobenzene (37%, 26%), 1,2,4-trimethylbenzene (64%), 1,2-dibromo-3-chloropropane (58%, 64%), 1,2-dichlorobenzene (58%, 53%), 1,3,5-trimethylbenzene (64%), 1,3-dichlorobenzene (62%, 53%), 1,4-dichlorobenzene (59%, 52%), 1,4-diethyl benzene (56%), 2-chlorotoluene (63%), 2-hexanone (69%), 4-chlorotoluene (62%), 4-ethyltoluene (66%), acetone (40%, 52%), acrylonitrile (68%), bromobenzene (68%), bromoform (68%), cymene (54%), hexachlorobutadiene (55%, 24%), naphthalene (196%, 302%), n-butylbenzene (46%), n-propylbenzene (65%), sec-butylbenzene (53%), t-butylbenzene (60%), trans-1,4-dichloro-2-butene (68%), trichloroethylene (141%), and vinyl acetate (17%, 23%). Organic results are not qualified on the basis of MS/MSD recoveries alone. No qualification is necessary.

The MS/MSD performed on sample SB03\_042522 exhibited RPDs above the control limit for 1,1,2,2-tetrachloroethane (121%), 1,2-dibromo-3-chloropropane (31%), hexachlorobutadiene (62%), naphthalene (40%), n-butylbenzene (33%), and vinyl acetate (49%). Organic results are not qualified on the basis of MS/MSD recoveries alone. 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  $\pm 2\text{X}$  the RL. For results greater than 5X the RL, analytes meet the precision criteria if the RPD is less than or equal to 50% for soil. The following field duplicate and parent sample pair was compared to and met the precision criteria:

- DUP01\_042522 and SB02\_042522

# **Technical Memorandum**

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Data Usability Summary Report  
For 432 Rodney Street (Offsite)  
April 2022 Soil Samples  
Langan Project No.: 170650901  
May 19, 2022 Page 4 of 4

## **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

**Technical  
Memorandum**

**989 Lenox Drive Lawrenceville, NJ 08648 T: 609.282.8000**  
**Mailing Address: 989 Lenox Drive Lawrenceville, NJ 08648**

**To:** Liz McConnell, Langan Senior Staff Engineer

**From:** Joe Conboy, Langan Senior Staff Chemist

**Date:** May 20, 2022

**Re:** Data Usability Summary Report  
For 432 Rodney Street (Offsite)  
April 2022 Groundwater Samples  
Langan Project No.: 170650901

This memorandum presents the findings of an analytical data validation from the analysis of groundwater samples collected in April 2022 by Langan Engineering and Environmental Services at 432 Rodney Street (Offsite). The samples were analyzed by Alpha Analytical Laboratories, Inc. (NYSDOH NELAP registration # 11148) for volatile organic compounds (VOCs) by the method specified below.

- VOCs by SW-846 Method 8260C

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)
- 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

# Technical Memorandum

Data Usability Summary Report  
For 432 Rodney Street (Offsite)  
April 2022 Groundwater Samples  
Langan Project No.: 170650901  
May 20, 2022 Page 2 of 3

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. One SDG 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. No minor deficiencies were identified.

# Technical Memorandum

Data Usability Summary Report  
For 432 Rodney Street (Offsite)  
April 2022 Groundwater Samples  
Langan Project No.: 170650901  
May 20, 2022 Page 3 of 3

## 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 8260C

#### L2222636

The MS/MSD performed on sample MW01A\_042922 exhibited percent recoveries below the LCL for bromomethane (18%, 34%) and chloromethane (54%, 60%). This MS/MSD also exhibited a RPD above the control limit for bromomethane (62%). Organic results are not qualified on the basis of MS/MSD recoveries alone. 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  $\pm 1X$  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:

- GWDUP01\_042922 and MW01B\_042922

The field duplicate (GWDUP01\_042922) and parent sample (MW01B\_042922) exhibited a RPD above the control limit for naphthalene (82.4%). The associated results are qualified as J or UJ because of potential indeterminate bias.

### 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

---

**989 Lenox Drive Lawrenceville, NJ 08648 T: 609.282.8000**  
**Mailing Address: 989 Lenox Drive Lawrenceville, NJ 08648**

---

**To:** Liz Mcconnell, Langan Senior Staff Engineer

**From:** Joe Conboy, Langan Senior Staff Chemist

**Date:** May 18, 2022

**Re:** Data Usability Summary Report  
For 432 Rodney Street (Offsite)  
April 2022 Soil Vapor and Ambient Air Samples  
Langan Project No.: 170650901

---

This memorandum presents the findings of an analytical data validation of the data generated from the analysis of air samples collected in April 2022 by Langan Engineering and Environmental Services at the 432 Rodney Street (Offsite) site. The samples were analyzed by Alpha Analytical Laboratories, Inc. (NYSDOH NELAP registration # 11148) for volatile organic compounds (VOCs) by the methods specified below.

- VOCs by USEPA Method TO-15

Table 1, attached, summarizes the laboratory and client sample identification numbers, sample collection dates, 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 Procedure (SOP) #HW-31, "Analysis of Volatile Organic Compounds in Air Contained in Canisters by Method TO-15" (September 2016, Revision 6),
- USEPA Contract Laboratory Program "National Functional Guidelines for Organic Superfund Methods Data Review" (EPA 540-R-20-005, November 2020), and
- published analytical methodologies.

Validation includes review of the analytical data to verify that data are easily traceable and sufficiently complete to permit logical reconstruction by a qualified individual other than the originator.

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

# Technical Memorandum

Data Usability Summary Report  
For 432 Rodney Street (Offsite)  
April 2022 Soil Vapor and Ambient Air Samples  
Langan Project No.: 170650901  
May 18, 2022 Page 2 of 3

values; field duplicate RPDs, laboratory duplicate RPDs, and LCS/LCSD recoveries and RPDs. The one SDG 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's guidelines and 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 due to minor data quality anomalies are usable, as qualified in Table 2 (attached).

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

## MAJOR DEFICIENCIES:

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

# **Technical Memorandum**

Data Usability Summary Report  
For 432 Rodney Street (Offsite)  
April 2022 Soil Vapor and Ambient Air Samples  
Langan Project No.: 170650901  
May 18, 2022 Page 3 of 3

## **MINOR DEFICIENCIES:**

Minor deficiencies include anomalies that directly impact data quality and necessitate qualification, but do not result in unusable data. No minor deficiencies were identified.

## **OTHER DEFICIENCIES:**

Other deficiencies include anomalies that do not directly impact data quality and do not necessitate qualification. No other deficiencies were identified.

## **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