APPENDIX B

GEOPHYSICAL SURVEY REPORT

HAGER-RICHTER
GEOSCIENCE, INC.

GEOPHYSICAL SURVEY
250 WATER STREET
MANHATTAN, NEW YORK

Prepared for:

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

Prepared by:

Hager-Richter Geoscience, Inc.
846 Main Street
Fords, New Jersey 08863

File 20AM08
June 2020

HAGER-RICHTER
GEOSCIENCE, INC.

GEOPHYSICS FOR THE ENGINEERING COMMUNITY
SALEM, NEW HAMPSHIRE
Tel: 603.893.9944
FORDS, NEW JERSEY
Tel: 732.661.0555

June 25, 2020
File 20AM08

Joseph Yanowitz
Senior Staff Engineer
Langan
21 Penn Plaza
360 West 31st Street, 8th Floor
New York, New York 10001-2727

Tel: 212.479.5496
Cell: 845.270.4690
Email: jyanowitz@langan.com

RE: Geophysical Survey
250 Water Street
Manhattan, New York

Dear Mr. Yanowitz:

In this report, we summarize the results of a geophysical survey conducted in June 2020 by Hager-Richter Geoscience, Inc., dba HR Geological Services in New York (HRGS), at 250 Water Street in Manhattan, New York for Langan. The scope of the project and area of interest were specified by Langan.

INTRODUCTION

The site is located at 250 Water Street (Block 98, Lot 1) in Manhattan, New York as shown on Figure 1. The site is bounded by Pearl Street to the North, Peck Slip to the East, Water Street to the South and Beekman Street to the West. Langan specified the area of interest (AOI) as the entire city block. The AOI comprises an active parking lot and adjacent sidewalks and is approximately 48,000 square feet in size. The site was formerly occupied by a thermometer factory and several other buildings that were demolished and paved over several decades ago. A portion of the site, located south of the entry gates, has developed a surface depression.

Langan requested a geophysical survey to determine whether sub-surface features such as underground storage tanks (USTs), utilities, former foundations, and voids are present in the accessible portions of the site. Langan was also interested in determining whether utilities were present at the proposed locations of 36 borings at the site.

OBJECTIVE

The objective of the geophysical survey was to detect, and if detected, to locate sub-surface features such as USTs, utilities, foundations and voids in the accessible portions of the AOI, and to clear utilities in the vicinity of 36 proposed boring locations.

THE SURVEY

Amanda Fabian, P.G., Alexis Martinez and Ariana Martinez, conducted the field operations on June 15 and 16, 2020. The project was coordinated with Mr. Joseph Yanowitz of Langan. Mr. Thomas Schiefer, also of Langan, specified the AOI and was present on site during the survey. Photos 1 and 2 show general site conditions within the parking lot.

Photo 1. General site conditions; looking northwest

Photo 2. Surface depression in western portion of site

The geophysical survey was conducted using three complementary geophysical methods: time domain electromagnetic induction (EM61), ground penetrating radar (GPR), and precision utility location (PUL). The EM61 data were acquired at approximately 8-inch intervals along lines spaced 5 feet apart in the accessible portions of the AOI. The EM survey detects and outlines areas containing buried metal. However, the EM method cannot provide information on the type of objects causing EM anomalies.

In order to aid in the identification of the objects, GPR data were acquired in two mutually perpendicular directions and spaced no more than 2 feet apart in one direction and 5 feet apart in a perpendicular direction across the accessible portions of the site. The GPR method is useful for detecting both metallic and non-metallic subsurface objects. The two-foot spacing was adequate to detect voids with a horizontal dimension of at least two feet with a high degree of confidence within the effective depth of GPR signal penetration.

The PUL system was used for tracking utilities in the AOI by connecting the transmitter to conductive surface features such as light poles, valves, and hydrants and by scanning the AOI for the presence of live electric lines.

EQUIPMENT AND PROCEDURES

EM61. For the EM61 survey, we used a Geonics EM61-MK2 time domain electromagnetic induction metal detector. The EM61 is a time-domain electromagnetic induction type instrument designed specifically for detecting buried metal objects. An air-cored 1-meter by ½-meter transmitter coil generates a pulsed primary magnetic field in the earth, thereby inducing eddy currents in nearby metal objects. The decay of the eddy current produces a secondary magnetic field that is sensed by two receiver coils, one coincident with the transmitter and one positioned 40 cm above the main coil. By measuring the secondary magnetic field after the current in the ground has dissipated but before the current in metal objects has dissipated, the instrument responds only to the secondary magnetic field produced by metal objects. Four channels of secondary response are measured in mV and are recorded on a digital data logger. The system is generally operated by pushing the coils as a wagon with an odometer mounted on the axle to trigger the data logger automatically at approximately 8-inch intervals.

GPR. The GPR survey was conducted using a Geophysical Survey Systems, Inc. UtilityScan HS system using a Hyper Stacking antenna with central frequency of 350 MHz and a 100 ns time window. The system includes a survey wheel that triggers the recording of the data at fixed intervals, thereby increasing the accuracy of the locations of features detected along the survey lines.

GPR uses a high-frequency electromagnetic pulse (referred to herein as “radar signal”) transmitted from a radar antenna to probe the subsurface. The transmitted radar signals are reflected from subsurface interfaces of materials with contrasting electrical properties. The travel times of the radar signal can be converted to approximate depth below the surface by correlation with targets of known depths, including stratigraphic horizons, pipes, cables, and other utilities, or by using handbook values of velocities for the materials in the subsurface. The acquisition of GPR data was monitored in the field on a graphic recorder and the real time images were immediately available for field use. The GPR data were also recorded digitally for subsequent processing. Interpretation of the records is based on the nature and intensity of the reflected signals and on the resulting patterns.

PUL. The PUL survey was conducted using a precision electromagnetic pipe and cable locator, Radiodetection RD7000 series. The RD7000 series consists of separate transmitter and receiver. The system can be used in "passive" and "active" modes to locate buried pipes by detecting electromagnetic signals carried by the pipes. In the "passive" mode, only the receiver unit is used to detect signals carried by the pipe from nearby power lines, live signals transmitted along underground power cables, or very low frequency radio signals resulting from long wave radio transmissions that flow along buried conductors. In the "active" mode of operation, the transmitter is used to induce a signal on a target pipe, and the receiver is used to trace the signal along the length of the pipe. Our system uses a 10W transmitter.

LIMITATIONS OF THE METHODS

HAGER-RICHTER GEOSCIENCE, INC. MAKES NO GUARANTEE THAT ALL SUBSURFACE TARGETS OF INTEREST WERE DETECTED IN THIS SURVEY. HAGER-RICHTER GEOSCIENCE, INC. IS NOT RESPONSIBLE FOR DETECTING SUBSURFACE TARGETS THAT NORMALLY CANNOT BE DETECTED BY THE METHODS EMPLOYED OR THAT CANNOT BE DETECTED BECAUSE OF SITE CONDITIONS. GPR SIGNAL PENETRATION MAY NOT BE DEEP ENOUGH TO DETECT SOME TARGETS. HAGER-RICHTER GEOSCIENCE, INC. IS NOT RESPONSIBLE FOR MAINTAINING FIELD MARKOUTS AFTER LEAVING THE WORK AREA. THE CLIENT UNDERSTANDS THAT MARK-OUTS MADE DURING INCLEMENT WEATHER OR IN AREAS OF HIGH PEDESTRIAN OR VEHICULAR TRAFFIC MAY NOT LAST.

Field mark-outs. Utilities detected by the geophysical methods at the time of the survey are marked in the field, and the operator makes every attempt, field conditions permitting, to detect and mark as many utilities as possible at the time of survey. Adverse weather and site conditions (rain, snow, snow and soil piles, uneven surfaces, high traffic, etc.) can hamper in-field interpretation. Utility mark-outs made on wet pavement, snow, snow piles, gravel surfaces, or in active construction zones may not last. HRGS is not responsible for maintaining utility mark-outs after leaving the work area.

EM61. All electromagnetic geophysical methods, including the EM method used here, are affected by the presence of power lines and surface metal objects (steel sided buildings, dumpsters, vehicles, railroad tracks, reinforced concrete, etc.). Where such are present, the effects of materials in the subsurface may be masked, and firm conclusions about subsurface conditions cannot be made.

Detection and identification should be clearly differentiated. Detection is the recognition of the presence of a metal object, and the electromagnetic method is excellent for such purposes. Identification, on the other hand, is determination of the nature of the causative body (i.e., what is the body -- utilities, foundations, automobiles, white goods, etc.?). Although the EM61 data cannot be used to identify buried metal objects, they provide excellent guides to the identification of some objects. For example, buried metal utilities produce anomalies with lengths many times their widths.

GPR. There are limitations of the GPR technique as used to detect and/or locate targets such as those of the objectives of this survey: (1) surface conditions, (2) electrical conductivity of the ground, (3) contrast of the electrical properties of the target and the surrounding soil, and (4) spacing of the traverses. Of these restrictions, only the last is controllable by us.

The condition of the ground surface can affect the quality of the GPR data and the depth of penetration of the GPR signal. Sites covered with snow piles, high grass, bushes, landscape structures, debris, obstacles, soil mounds, etc. limit the survey access and the coupling of the GPR antenna with the ground. In many cases, the GPR signal will not penetrate below concrete pavement, especially inside buildings, and a target may not be detectable. The GPR method also commonly does not provide useful data under canopies found at some facilities. GPR surveys inside buildings may be severely constrained by space limitations and interference from above-grade structures.

The electrical conductivity of the ground determines the attenuation of the GPR signals, and thereby limits the maximum depth of exploration. For example, the GPR signal does not penetrate clay-rich soils, and targets buried in clay might not be detected.

A definite contrast in the electrical conductivities of the surrounding ground and the target material is required to obtain a reflection of the GPR signal. If the contrast is too small, possibly due to construction details or deeply corroded metal in the target, then the reflection may be too weak to recognize, and the target can be missed. In many cases, plastic, clay, asbestos concrete (transite), brick-lined, stone-lined, and other non-metallic utilities cannot be detected.

Spacing of the traverses is limited by access at many sites, but where flexibility of traverse spacing is possible, the spacing is adjusted to the size of the target. The GPR operator controls the spacing between lines, and the design of the survey is based on the dimensions of the smallest feature of interest. Targets with dimensions smaller than the spacing between GPR survey lines can be missed.

PUL. The PUL equipment cannot detect non-metallic utilities, such as pipes constructed of vitrified clay, transite, plastic, PVC, fiberglass, and unreinforced concrete, when used in passive mode alone. Such pipes can be detected if a wire tracer is installed with access to such tracer for transmission of a signal or where access (such as floor drains and clean-outs) permits insertion of a device on which a signal can be transmitted.

In some, but not all, cases, the subsurface utility designation equipment cannot detect metal utilities reliably under reinforced concrete because the signal couples onto the metal reinforcing in the concrete. Similarly, the method commonly cannot be used adjacent to grounded metal structures such as chain link fences and metal guardrails.

In congested areas, where several utilities are bundled or located within a short distance, the signal transmitted on one utility can couple onto adjacent utilities, and the accuracy of the location indicated by the instrument decreases.

RESULTS

The geophysical survey was conducted using EM61, GPR and PUL methods across the accessible portions of the specified AOI. Figure 2 is a color contour plot of the EM61 survey, and Figure 3 shows the locations of the GPR traverses, the approximate location of the former structures, and an integrated interpretation of the geophysical data.

In addition to the site-wide survey, a more detailed GPR survey was conducted in the vicinity of 36 proposed boring locations within the limits of the site to detect subsurface utilities or other buried structures prior to drilling activities. The features detected with the GPR and PUL in the vicinity of the proposed boring locations were marked in the field at the time of the survey. We note that after the office data review of the GPR data, numerous utilities and other subsurface objects were detected that were not marked in the field at the time of the survey.

EM61. Interpretation of EM data is based on the relative response of the instrument in millivolts to local conditions. The instrument is not calibrated to provide an absolute measure of a particular property, such as the conductivity of the soil or the strength of the earth's magnetic field. Subsurface metal objects produce sharply defined positive anomalies when the EM61 is positioned directly over them. Acquiring data at short intervals along closely spaced lines, as was done at the subject site, provides high spatial resolution of the location and footprint of the targets. Thus, buried metal is recognized in contour plots of EM data by positive anomalies roughly corresponding to the dimensions of the buried metal.

Several high amplitude EM anomalies are evident in Figure 2. Surface metal objects typically produce high amplitude EM anomalies, and those EM anomalies attributed to the effects of surface metal structures such as the parking attendant booth, the fence, reinforced concrete pads, etc. are indicated as such in Figure 3. We note that the presence or absence of subsurface metal in such areas cannot be determined based on the EM data alone due to the anomaly caused by the surface metal object.

Many low to high amplitude anomalies with an EM response >100 mV, not associated with surface metal, are present throughout the site indicating the widespread presence of metal objects in the subsurface. We note that the 100-mV threshold was selected for this specific site based on the high background EM levels. In urban sites with fill such as the subject site, the threshold is typically higher than for undeveloped areas due to fill and other metal object present at the surface and subsurface at urban sites. These anomalies are attributed to buried metal and are shown as red hatched areas on Figure 3. The GPR records for such locations were carefully examined to determine the cause. Several low amplitude linear EM61 anomalies were detected and are attributed to possible metallic utilities. The EM detected utilities were also detected by the GPR and/or PUL methods.

GPR. General. The locations of the GPR traverses and the integrated interpretation of the geophysical data are shown in Figure 3. Apparent GPR signal penetration was variable, with reflections received for about 25-45 nanoseconds. Based on velocity matching calibrations made for the area of interest, the GPR signal penetration is estimated to have been about 3-6 feet.

Subsurface Structures. GPR reflections typical for possible USTs were observed in the GPR records for the Site. Five possible USTs were detected, four of which were located under a portion of reinforced concrete pad near the fence along Peck Slip. The report for a previous geophysical survey at the site, conducted in 2015 by others, indicated the presence of a single tank at the same location. An additional UST was detected in the southwest portion of the site, but we note that there is no EM anomaly that coincides with the location of this possible UST and we therefore must conclude that this US is not of metal construction.

Numerous irregular reflections typical for widespread debris were present throughout the site making the GPR interpretation challenging by possibly obscuring potentially regularly shaped, deeper GPR reflections for former building foundations.

The GPR records exhibit linear reflections typical of utilities or former walls. Some of the alignments detected with the GPR in the parking lot coincide with walls from formers structures, and their location are shown with orange dashed lines on Figure 3. GPR reflections consistent with those expected for buried manhole covers were also identified. The GPR records corroborated the presence of steel in the concrete pads located at the entry on Pearl Street and along the fence adjacent to Peck Slip.

Whether buried structures such as USTs, utilities, foundations walls, etc. occur at a depth greater than the effective depth of investigation of the GPR (about 3-6 feet) or in areas inaccessible to the geophysical survey cannot be determined from the geophysical data.

Voids. The typical signature of air- or water-filled voids below an asphalt surface is a distinctive high-amplitude GPR reflection from the bottom of the pavement. The high-amplitude GPR reflection is due to the large contrast in dielectric properties between the pavement and the air gap. Moderate amplitude GPR reflections are interpreted to be caused by either thin air- or water filled voids, or poor coupling between the pavement and the soils below. Where good contact between the pavement and soils is present, there is typically no strong GPR reflector present.

Moderate- to high-amplitude GPR reflectors, indicating the presence of possible air-filled voids, were detected at several locations, primarily in the western portion of the site. Although possible voids were detected in the north-central portion of the parking lot, most of the possible voids were detected in and around the sunken section of the lot, including two small areas on the Water Street sidewalk. The locations of possible voids are shown in Figure 3.

PUL. The PUL transmitter was attached to conduits located in and on the perimeter of the site such as light poles and fire hydrants, etc. We also conducted a PUL survey in "passive" mode to detect signals carried by utilities from nearby power lines. Several Electric utilities were detected in the parking lot and on the Pearl Street, Peck Slip and Beekman Street sidewalks. The locations of utilities detected by the PUL method were marked in the field at the time of the survey and are shown in Figure 3.

CONCLUSIONS

The geophysical survey was completed using a wide range of surveying techniques and instruments (EM61, GPR, and PUL) to identify significant subsurface anomalies. The EM survey can detect the presence of a metal object; however, it cannot be used to identify what the object is. The GPR survey is conducted over the same areas to identify reflections that may be typical of significant subsurface anomalies. The PUL is used to locate subsurface utility lines. The results of the EM, GPR, and PUL surveys are compared with each other in order to identify significant subsurface anomalies. Based on the geophysical survey performed by Hager-Richter Geoscience, Inc. at 250 Water Street, in New York, New York, we conclude the following significant subsurface anomalies were identified:

- Four possible USTs under a portion of reinforced concrete pad near the fence along Peck Slip
- One possible USTs near the corner of Beekman Street and Water Street
- Several possible utilities in the parking lot and in the adjacent sidewalks.

Additional findings:

- Multiple areas of moderate to high amplitude GPR reflectors, possibly indicating the presence of air-filled voids, were detected within the parking lot and on the Water Street sidewalk
- Multiple areas of low to high amplitude EM results (>100 mV) were detected in the parking lot attributed to buried metal
- Several possible buried manhole covers were detected in the parking lot
- Possible former building foundation walls

Whether buried structures such as USTs, utilities, foundations, etc. occur at a depth greater than the effective depth of investigation of the GPR (about 3-6 feet) or in areas inaccessible to the geophysical survey cannot be determined from the geophysical data.

LIMITATIONS ON USE OF THE REPORT

This letter report was prepared for the exclusive use of Langan Engineering & Environmental Services and its client (collectively, Client). No other party shall be entitled to rely on this Report, or any information, documents, records, data, interpretations, advice, or opinions given

to the Client by Hager-Richter Geoscience, Inc. (HRGS) in the performance of its work. The Report relates solely to the specific project for which HRGS has been retained and shall not be used or relied upon by the Client or any third party for any variation or extension of this project, any other project or any other purpose without the express written permission of HRGS. Any unpermitted use by the Client or any third party shall be at the Client's or such third party's own risk and without any liability to HRGS.

HRGS has used reasonable care, skill, competence, and judgment in the performance of its services for this project consistent with professional standards for those providing similar services at the same time, in the same locale, and under like circumstances. Unless otherwise stated, the work performed by HRGS should be understood to be exploratory and interpretational in character and any results, findings or recommendations contained in this Report or resulting from the work proposed may include decisions which are judgmental in nature and not necessarily based solely on pure science or engineering. It should be noted that our conclusions might be modified if subsurface conditions were better delineated with additional subsurface exploration including, but not limited to, test pits, soil borings with collection of soil and water samples, and laboratory testing.

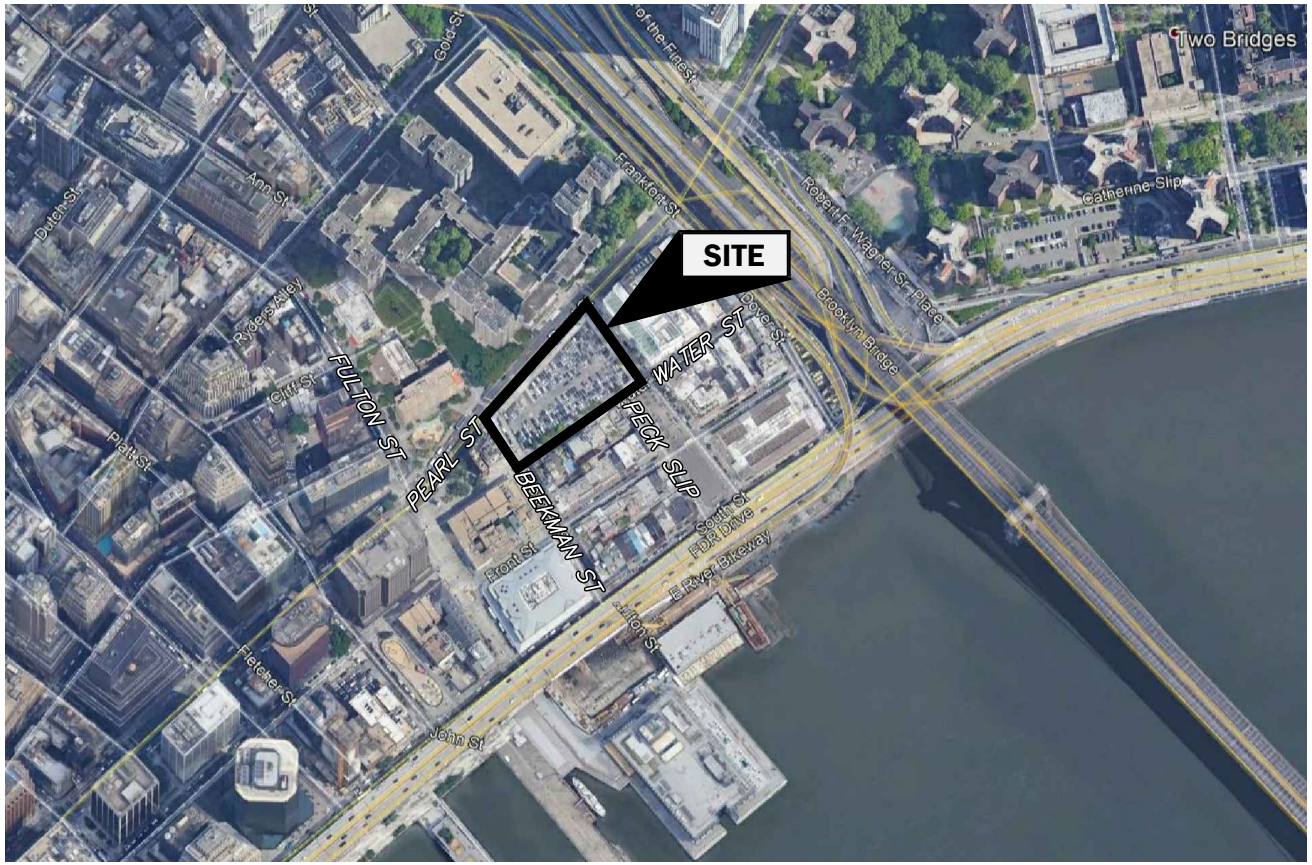
Except as expressly provided in this limitations section, HRGS makes no other representation or warranty of any kind whatsoever, oral or written, expressed or implied; and all implied warranties of merchantability and fitness for a particular purpose, are hereby disclaimed.

If you have any questions or comments on this letter report, please contact us at your convenience. It has been a pleasure to work with Langan on this project. We look forward to working with you again in the future.

Sincerely yours,
Hager-Richter GEOSCIENCE, INC.

José Carlos Cambero Calzada, P.G. (NY 000899)
Senior Geophysicist

Attachments: Figures 1 - 3



N

H-R

APPROXIMATE SCALE (feet)

0 1000 2000

NY

LOCATION

NOTE:

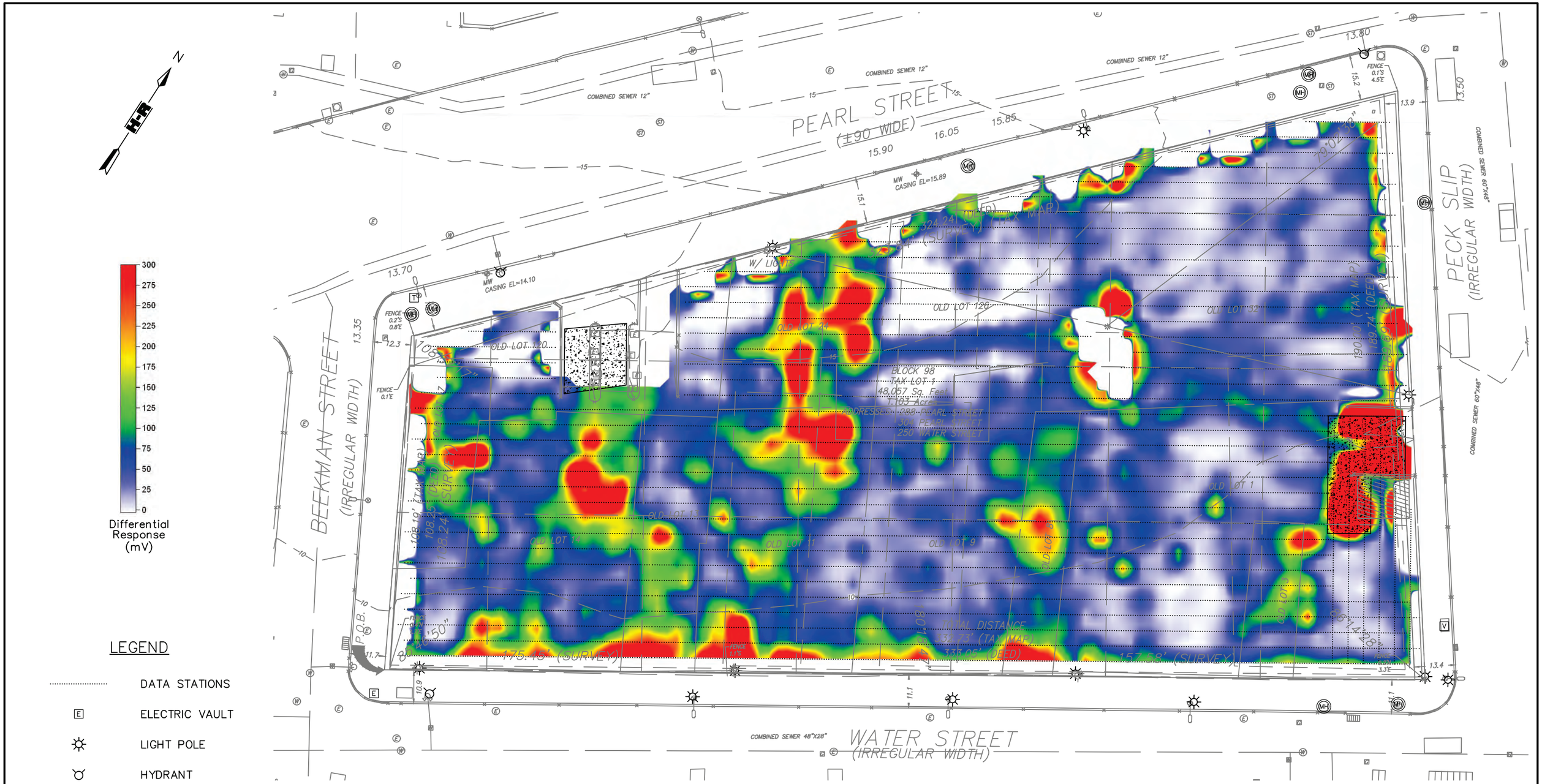
Modified from Google Earth Pro aerial photograph.

* DBA HR Geological Services in New York

Figure 1
General Site Location
250 Water Street
Manhattan, New York

File 20AM08 | June, 2020

HAGER–RICHTER*
Salem, NH | Fords, NJ



NOTES:

1. Modified from site plan provided by LANGAN, identified as, Figure 6 – AOC and BLP.dwg.
2. Data were acquired with Geonics EM61–MK2. Differential response shown.
3. Differential response equals top coil response – bottom coil response.

* DBA HR Geological Services in New York

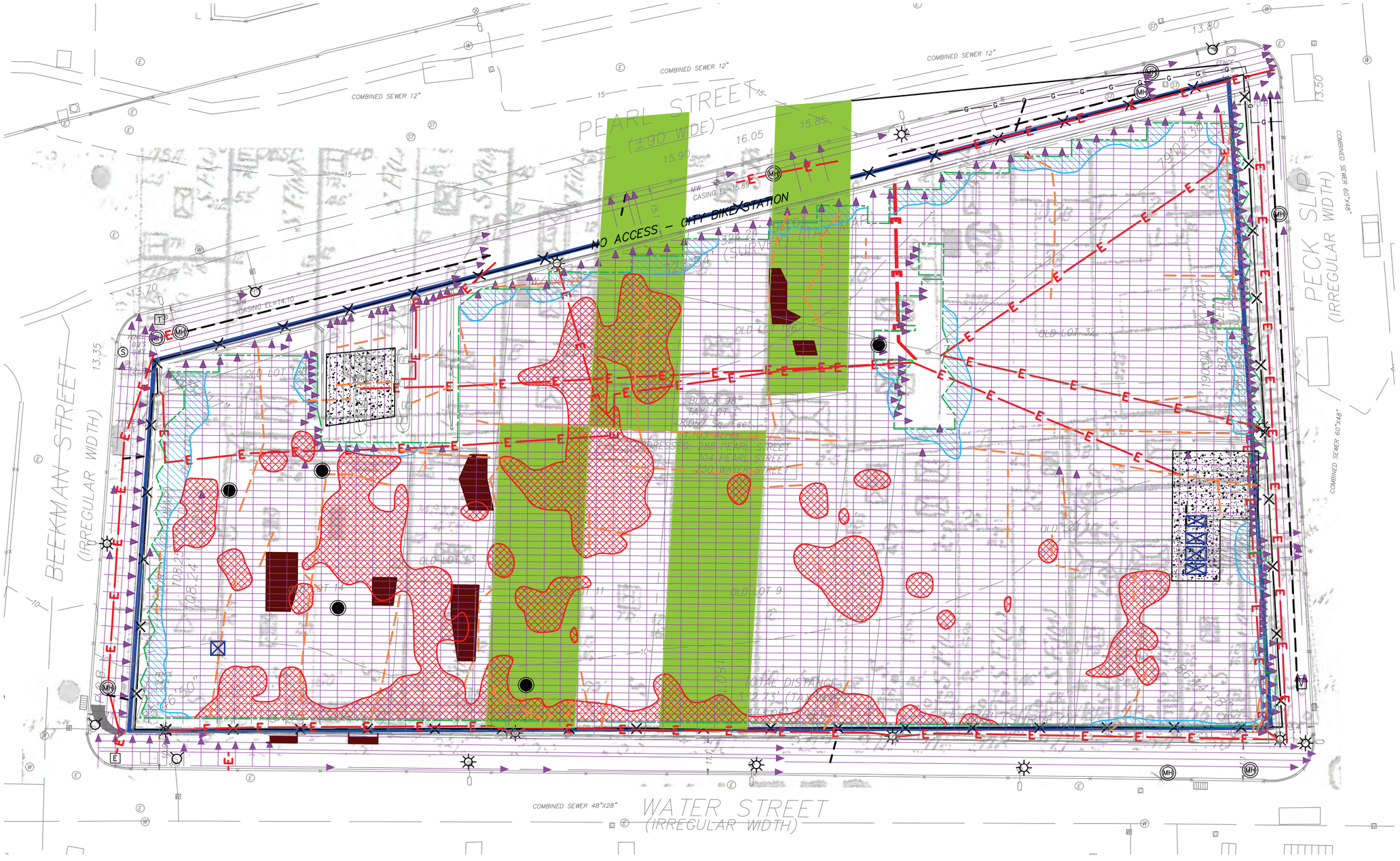
Figure 2
EM Survey
250 Water Street
Manhattan, New York

File 20AM08 | June, 2020

HAGER–RICHTER*
Salem, NH | Fords, NJ

LEGEND

- APPROXIMATE LIMITS OF EM SURVEY AREA
- GPR TRAVERSE
- AREAS OF EM RESPONSE >100 mV NOT ATTRIBUTED TO SURFACE METAL
- AREA OF POSSIBLE VOID
- POSSIBLE UST
- ELECTRIC LINE
- GAS LINE – MARKED BY OTHERS
- POSSIBLE UTILITY
- POSSIBLE FORMER FOUNDATION WALL
- POSSIBLE BURIED MANHOLE COVER
- EM ANOMALY ATTRIBUTED TO EFFECTS OF SURFACE OBJECTS. THE PRESENCE OR ABSENCE OF BURIED METAL WITHIN THIS AREA CANNOT BE DETERMINED ON THE BASIS OF THE EM61 DATA ALONE.
- [E] ELECTRIC VAULT
- LIGHT POLE
- HYDRANT
- (MH) MANHOLE
- [V] VAULT
- (S) SIGN
- [T] TRAFFIC LIGHT
- REINFORCE CONCRETE
- APPROXIMATE EXTENT OF HISTORICAL THERMOMETER FACTORY/WORKSHOPS FROM PDF PROVIDED BY LANGAN, IDENTIFIED AS FIGURE 7 – HISTORICAL 1923 SANBORN MAP



SCALE (feet)

0 30 60

N

NOTE:

Modified from site plan provided by LANGAN, identified as, Figure 6 – AOC and BLP.dwg.

* DBA HR Geological Services in New York

Figure 3
GPR Survey &
Integrated Interpretation
250 Water Street
Manhattan, New York

File 20AM08 | June, 2020

HAGER–RICHTER*
Salem, NH | Fords, NJ

APPENDIX C

SOIL BORING LOGS

LANGAN

Log of Boring **SB11/MW11** Sheet 1 of 1

Project: 250 Water Street	Project No.: 170381202
Location: 250 Water Street	Elevation and Datum: N/A
Drilling Company: AARCO Environmental Services, Corp.	Date Started: 8/19/20 — Date Finished: 8/19/20
Drilling Equipment: Geoprobe 7822 DT	Completion Depth: 20 ft — Rock Depth: N/A
Size and Type of Bit: 2-inch diameter closed point macro core	Number of Samples: Disturbed 5 — Undisturbed N/A — Core N/A
Casing Diameter (in): N/A — Casing Depth (ft): N/A	Water Level (ft.): First ▽ 6 — Completion ▼ N/A — 24 HR. ▼ N/A
Casing Hammer: N/A — Weight (lbs): N/A — Drop (in): N/A	Drilling Foreman: Rohn Dixon
Sampler: 4-foot long acetate liner	Field Engineer: Tyler Zorn
Sampler Hammer: NA — Weight (lbs): NA — Drop (in): NA	

Material Symbol	Elev. (ft)	Sample Description	PID (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	Jerome (ug/m³)	XRF (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Concrete	1.4	0					0.00	<LOD	
		R1A (10"-30"): Grey to reddish brown medium SAND, some fine gravel, some fine sand, brick, concrete (dry) [FILL]	0.0	1	R1	MACROCORE	30/48				Collected SB11_0-2.
			0.0	2					0.00	<LOD	
			0.0	3							
		R2A (0"-26"): Grey to reddish brown medium SAND, some fine gravel, some fine sand, brick, concrete, wood (moist) [FILL]	0.0	4					0.00	<LOD	
			0.0	5	R2	MACROCORE	48/48				
			0.0	6					0.00	<LOD	
		R2B (26"-48"): Brown to dark brown fine SAND, trace medium sand (wet) [FILL]	0.0	7							Collected SB11_6-8.
			0.0	8					0.00	<LOD	
		R3A (12"-48"): Brown to grey fine SAND, some silt, trace medium sand, peat (wet) [SM]	0.0	9	R3	MACROCORE	36/48				
			0.0	10					0.00	<LOD	
			0.9	11							
		R4A (0"-48"): Grey to dark grey fine SAND, some silt, trace clay, peat (wet) [SM]	0.0	12					0.00	<LOD	
			0.0	13	R4	MACROCORE	48/48				
			1.4	14					0.00	<LOD	
			0.0	15							
		R5A (0"-48"): Brown to grey fine SAND, some silt, trace medium sand (wet) [SP]	0.0	16					0.00	<LOD	Collected SB11_18-20.
			0.0	17	R5	MACROCORE	48/48				End of boring at 20 feet below grade surface (bgs). Borehole backfilled with soil cuttings to 15 feet bgs. Installed monitoring well MW11 in borehole to 15 feet bgs with screen between 5 and 15 feet bgs.
			0.0	18					0.00	<LOD	
			0.0	19							
			0.0	20					0.00	<LOD	

LANGAN

Log of Boring **SB12** Sheet 1 of 1

Project: 250 Water Street	Project No.: 170381202
Location: 250 Water Street	Elevation and Datum: N/A
Drilling Company: AARCO Environmental Services, Corp.	Date Started: 8/20/20 — Date Finished: 8/20/20
Drilling Equipment: Geoprobe 7822 DT	Completion Depth: 20 ft — Rock Depth: N/A
Size and Type of Bit: 2-inch diameter closed point macro core	Number of Samples: Disturbed 5 — Undisturbed N/A — Core N/A
Casing Diameter (in): N/A — Casing Depth (ft): N/A	Water Level (ft.): First ▽ 17 — Completion ▼ N/A — 24 HR. ▼ N/A
Casing Hammer: N/A — Weight (lbs): N/A — Drop (in): N/A	Drilling Foreman: Rohn Dixon
Sampler: 4-foot long acetate liner	Field Engineer: Tyler Zorn
Sampler Hammer: NA — Weight (lbs): NA — Drop (in): NA	

Material Symbol	Elev. (ft)	Sample Description	PID (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	Jerome (ug/m³)	XRF (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		R1A (0"-34"): Grey to reddish brown fine SAND, some fine gravel, some medium sand, brick, concrete (dry) [FILL]	0.0	0	R1	MACROCORE	34/48			<LOD	
			0.0	1						<LOD	
			0.0	2						<LOD	Collected SB12_1-3.
			0.0	3							
			0.0	4							
			0.0	5	R2	MACROCORE	34/48			<LOD	
			0.0	6						<LOD	
		R2A (14"-48"): Grey to reddish brown fine SAND, some fine gravel, some medium sand, brick, concrete (dry) [FILL]	0.0	7						<LOD	Collected SB12_6-8.
			0.0	8							
			0.0	9	R3	MACROCORE	22/48				
		R3A (26"-36"): Grey to reddish brown fine SAND, some fine gravel, trace medium sand, brick, wood (dry) [FILL]	0.0	10						<LOD	
		R3B (36"-48"): Brown to dark grey fine SAND, trace medium sand, trace silt (moist) [SP-SM]	0.0	11						<LOD	
			0.0	12							
			0.0	13	R4	MACROCORE	38/48			<LOD	
		R4A (10"-48"): Brown fine SAND, trace medium sand (moist) [SP]	0.0	14						<LOD	
			0.0	15						<LOD	Collected SB12_14-16.
			0.0	16						<LOD	
		▽ R5A (12"-48"): Brown fine SAND, trace medium sand (wet) [SP]	0.0	17	R5	MACROCORE	36/48			<LOD	
			0.0	18						<LOD	End of boring at 20 feet below grade surface. Borehole backfilled with soil cuttings and clean sand to grade and sealed with concrete.
			0.0	19						<LOD	
			0.0	20							

LANGAN

Log of Boring **SB13** Sheet 1 of 1

Project: 250 Water Street	Project No.: 170381202
Location: 250 Water Street	Elevation and Datum: N/A
Drilling Company: AARCO Environmental Services, Corp.	Date Started: 8/18/20 — Date Finished: 8/18/20
Drilling Equipment: Geoprobe 7822 DT	Completion Depth: 20 ft — Rock Depth: N/A
Size and Type of Bit: 2-inch diameter closed point macro core	Number of Samples: Disturbed 5 — Undisturbed N/A — Core N/A
Casing Diameter (in): N/A — Casing Depth (ft): N/A	Water Level (ft.): First ▽ 16 — Completion ▼ N/A — 24 HR. ▼ N/A
Casing Hammer: N/A — Weight (lbs): N/A — Drop (in): N/A	Drilling Foreman: Rohn Dixon
Sampler: 4-foot long acetate liner	Field Engineer: Thomas Schiefer
Sampler Hammer: NA — Weight (lbs): NA — Drop (in): NA	

Material Symbol	Elev. (ft)	Sample Description	PID (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	Jerome (ug/m³)	XRF (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Asphalt		0							
		R1A (3"-27"): Brown fine SAND, some fine gravel, brick, wood, asphalt (dry) [FILL]	0.0	1	R1	MACROCORE	30/48		0.00	<LOD	Collected SB13_0-2.
			0.0	2							
			0.0	3					0.00	<LOD	
			0.0	4							
		R2A (0"-22"): Brown medum SAND, some fine gravel, some fine sand, brick, wood (dry) [FILL]	0.0	5	R2	MACROCORE	22/48		2.00	<LOD	Collected SB13_4-6.
			0.0	6							
			0.0	7					0.00	<LOD	
			0.0	8							
		R3A (0"-22"): Brown fine SAND, some fine gravel, brick, concrete, wood (dry) [FILL]	0.0	9	R3	MACROCORE	22/48		0.00	<LOD	
			0.0	10							
			0.0	11					0.00	<LOD	
			0.0	12							
		R4A (0"-30"): Brown fine to medium SAND, some fine gravel (dry) [SP]	0.0	13	R4	MACROCORE	30/48		0.00	<LOD	Collected SB13_12-14.
			0.0	14							
			0.0	15					0.00	<LOD	
			0.0	16							
		R5A (0"-48"): Brown fine SAND, some coarse sand, some silt (wet) [SW]	0.0	17	R5	MACROCORE	48/48		0.00	<LOD	End of boring at 20 feet below grade surface. Borehole backfilled with soil cuttings and clean sand to grade and sealed with asphalt.
			0.0	18							
			0.0	19					0.00	<LOD	
			0.0	20							

LANGAN

Log of Boring **SB14** Sheet 1 of 1

Project: 250 Water Street		Project No.: 170381202	
Location: 250 Water Street		Elevation and Datum: N/A	
Drilling Company: AARCO Environmental Services, Corp.		Date Started: 8/19/20	Date Finished: 8/19/20
Drilling Equipment: Geoprobe 7822 DT		Completion Depth: 20 ft	Rock Depth: N/A
Size and Type of Bit: 2-inch diameter closed point macro core		Number of Samples: Disturbed 5	Undisturbed N/A; Core N/A
Casing Diameter (in): N/A	Casing Depth (ft): N/A	Water Level (ft.): First ▽ 8	Completion ▼ N/A; 24 HR. ▼ N/A
Casing Hammer: N/A	Weight (lbs): N/A; Drop (in): N/A	Drilling Foreman: Rohn Dixon	
Sampler: 4-foot long acetate liner		Field Engineer: Tyler Zorn	
Sampler Hammer: NA	Weight (lbs): NA; Drop (in): NA		

Material Symbol	Elev. (ft)	Sample Description	PID (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	Jerome (ug/m³)	XRF (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		R1A (0"-24"): Grey to reddish brown fine SAND, some fine gravel, brick, concrete (moist) [FILL]	0.0	0	R1	MACROCORE	24/48		0.00	<LOD	
			0.0	1							Collected SB14_0-2.
			0.0								
			0.0	2					0.00	<LOD	
				3							
				4							
				5	R2	MACROCORE	24/48				
		R2A (24"-48"): Grey to reddish brown fine SAND, some fine gravel, brick, concrete (moist) [FILL]	0.0	6					0.00	<LOD	
			0.0								
			0.0	7							
		▽	0.0						0.00	<LOD	
				8							
		R3A (12"-48"): Light brown to brown fine SAND, some medium sand, trace coarse sand (wet) [SP]	0.0	9	R3	MACROCORE	36/48				Collected SB14_8-10.
			0.0								
			0.0	10					0.00	<LOD	
			0.0								
			0.0	11							
			.0								
				12							
		R4A (0"-48"): Light brown to grey fine SAND, some medium sand (wet) [SP]	0.0		R4	MACROCORE	48/48		0.00	<LOD	
			0.0	13							
			0.0								
			0.0	14					0.00	<LOD	
			0.0								
			0.0	15							
			0.0								
			0.0	16							
		R5A (0"-48"): Light brown to grey fine SAND, some medium sand (wet) [SP]	0.0		R5	MACROCORE	48/48		0.00	<LOD	Collected SB14_18-20.
			0.0	17							
			0.0								
			0.0	18					0.00	<LOD	End of boring at 20 feet below grade surface. Borehole backfilled with soil cuttings and clean sand to grade and sealed with concrete.
			0.0								
			0.0	19							
			0.0								
			0.0	20					0.00	<LOD	

LANGAN

Log of Boring **SB15/MW15** Sheet 1 of 1

Project: 250 Water Street	Project No.: 170381202
Location: 250 Water Street	Elevation and Datum: N/A
Drilling Company: AARCO Environmental Services, Corp.	Date Started: 8/19/20 — Date Finished: 8/19/20
Drilling Equipment: Geoprobe 7822 DT	Completion Depth: 20 ft — Rock Depth: N/A
Size and Type of Bit: 2-inch diameter closed point macro core	Number of Samples: Disturbed 5 — Undisturbed N/A — Core N/A
Casing Diameter (in): N/A — Casing Depth (ft): N/A	Water Level (ft.): First ▽ 18 — Completion ▼ N/A — 24 HR. ▼ N/A
Casing Hammer: N/A — Weight (lbs): N/A — Drop (in): N/A	Drilling Foreman: Rohn Dixon
Sampler: 4-foot long acetate liner	Field Engineer: Tyler Zorn
Sampler Hammer: NA — Weight (lbs): NA — Drop (in): NA	

Material Symbol	Elev. (ft)	Sample Description	PID (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	Jerome (ug/m³)	XRF (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		R1A (0"-32"): Grey to reddsh brown medium SAND, some fine gravel, some fine sand, brick, concrete (dry) [Fill]	0.0 0.0 0.0 0.0 0.0 0.0	0 1 2 3 4	R1	MACROCORE	32/48		0.00 0.00 0.00	<LOD <LOD <LOD	Collected SB15_0-2.
		R2A (26"-48"): Grey to reddish brown medium SAND, some fine gravel, some fine sand, brick, concrete, wood (dry) [FILL]	0.0 0.0 0.0 0.0	5 6 7 8	R2	MACROCORE	22/48		0.00 0.00	<LOD <LOD	
		R3A (10"-24"): Grey to reddish brown medium SAND, some fine gravel, some fine sand, brick, concrete (moist) [FILL] R3B (24"-32"): Grey to black fine SAND, some fine gravel, brick, glass (mosit) [FILL]	0.0 0.0 0.0 0.0	9 10	R3	MACROCORE	38/48		0.00 0.00 0.00	<LOD <LOD <LOD	Collected SB15_8-10.
		R3C (32"-48"): Light brown medium SAND, some coarse SAND, trace fine sand (moist) [SP]	0.0 0.0	11 12							
		R4B (24"-48"): Light brown medium SAND, some coarse sand, trace fine sand (moist) [SP]	0.0 0.0 0.0 0.0	13 14 15 16	R4	MACROCORE	24/48		0.97 0.58	<LOD <LOD	Collected SB15_14-16.
		R5A (0"-48"): Light brown to brown medium SAND, some fine sand (moist) [SP]	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	17 18 19 20	R5	MACROCORE	48/48		0.00 0.00 0.00 0.00	<LOD <LOD <LOD <LOD	End of boring at 22 feet below grade surface (bgs). Monitoring well MW15 installed in borehole to 22 feet bgs with screen between 12 and 22 feet bgs.

LANGAN

Log of Boring **SB16** Sheet 1 of 1

Project: 250 Water Street	Project No.: 170381202
Location: 250 Water Street	Elevation and Datum: N/A
Drilling Company: AARCO Environmental Services, Corp.	Date Started: 7/30/20 — Date Finished: 7/30/20
Drilling Equipment: Geoprobe 7822 DT	Completion Depth: 10 ft — Rock Depth: N/A
Size and Type of Bit: 2-inch diameter closed point macro core	Number of Samples: Disturbed 3 — Undisturbed N/A — Core N/A
Casing Diameter (in): N/A — Casing Depth (ft): N/A	Water Level (ft.): First N/A — Completion N/A — 24 HR. N/A
Casing Hammer: N/A — Weight (lbs): N/A — Drop (in): N/A	Drilling Foreman: Sergio Magana
Sampler: 4-foot long acetate liner	Field Engineer: Adrian Heath
Sampler Hammer: NA — Weight (lbs): NA — Drop (in): NA	

Material Symbol	Elev. (ft)	Sample Description	PID (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	Jerome (ug/m³)	XRF (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Asphalt	0.0	0							
		R1A (0-24"): Brown fine SAND, brick, concrete, wood (dry) [FILL]	0.0	1	R1	MACROCORE	24/48		0.04	<LOD	
			0.0	2							
			0.0	3					0.02	<LOD	
				4							
		R2A (0-28") Brown fine SAND, brick, concrete, coal, wood (dry) [FILL]	0.0	5	R2	MACROCORE	28/48				
			0.0	6					0.07	<LOD	
			0.0	7							
			0.0	8							
		R3A (0-24") Brown fine SAND, brick, concrete, coal, wood (dry) [FILL]	0.0	9	R3	MACROCORE	24/24		0.09	<LOD	
			0.0	10					0.02	<LOD	End of boring at 10 feet below grade surface (refusal). Borehole backfilled with soil cuttings and clean sand to grade and sealed with asphalt.
				11							
				12							
				13							
				14							
				15							
				16							
				17							
				18							
				19							
				20							

LANGAN

Log of Boring **SB16R** Sheet 1 of 1

Project: 250 Water Street	Project No.: 170381202
Location: 250 Water Street	Elevation and Datum: N/A
Drilling Company: AARCO Environmental Services, Corp.	Date Started: 8/18/20 — Date Finished: 8/18/20
Drilling Equipment: Geoprobe 7822 DT	Completion Depth: 12 ft — Rock Depth: N/A
Size and Type of Bit: 2-inch diameter closed point macro core	Number of Samples: Disturbed 3 — Undisturbed N/A — Core N/A
Casing Diameter (in): N/A — Casing Depth (ft): N/A	Water Level (ft.): First N/A — Completion N/A — 24 HR. N/A
Casing Hammer: N/A — Weight (lbs): N/A — Drop (in): N/A	Drilling Foreman: Rohn Dixon
Sampler: 4-foot long acetate liner	Field Engineer: Thomas Schiefer
Sampler Hammer: NA — Weight (lbs): NA — Drop (in): NA	

Material Symbol	Elev. (ft)	Sample Description	PID (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	Jerome (ug/m^3)	XRF (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Asphalt		0							
		R1A (3"-24"): Brown fine SAND, some fine gravel, brick, asphalt (dry) [FLL]	0.0	1	R1	MACROCORE	24/48		0.00	0.05	Collected SB16_0-2.
			0.0								
			0.0						0.00	0.04	
			0.0	2							
				3							
				4							
		R2A (0"-30"): Brown fine SAND, brick (dry) [FILL]	0.0	5	R2	MACROCORE	30/48		0.00	0.01	
			0.0	6							
			0.0						0.00	0.10	Collected SB16_6-8.
			0.0	7							
			0.0						0.00	0.03	
				8							
				9							
		R3A (0"-30"): Brown fine SAND, brick (dry) [FILL]	0.0	10	R3	MACROCORE	30/48				
			0.0	11					0.00	0.07	Collected SB16_10-12.
			0.0								
				12							End of boring at 12 feet below grade surface (bgs). Borehole backfilled with soil cuttings and clean sand to grade and sealed with asphalt.
				13							
				14							
				15							
				16							
				17							
				18							
				19							
				20							

LANGAN

Log of Boring **SB17/MW17** Sheet 1 of 2

Project: 250 Water Street	Project No.: 170381202
Location: 250 Water Street	Elevation and Datum: N/A
Drilling Company: AARCO Environmental Services, Corp.	Date Started: 7/31/20 — Date Finished: 7/31/20
Drilling Equipment: Geoprobe 7822 DT	Completion Depth: 32 ft — Rock Depth: N/A
Size and Type of Bit: 2-inch diameter closed point macro core	Number of Samples: Disturbed 8 — Undisturbed N/A — Core N/A
Casing Diameter (in): N/A — Casing Depth (ft): N/A	Water Level (ft.): First ▽ 11 — Completion ▼ N/A — 24 HR. ▼ N/A
Casing Hammer: N/A — Weight (lbs): N/A — Drop (in): N/A	Drilling Foreman: Sergio Magana
Sampler: 4-foot long acetate liner	Field Engineer: Adrian Heath
Sampler Hammer: NA — Weight (lbs): NA — Drop (in): NA	

Material Symbol	Elev. (ft)	Sample Description	PID (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	Jerome (ug/m^3)	XRF (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Asphalt	0.0	0							
		R1A (0"-31"): Reddish brown fine SAND, trace silt, brick, concrete (dry) [FILL]	0.0	1	R1	MACROCORE	31/48		0.07	<LOD	Collected SB17_0-2.
			0.0								
			0.0	2							
			0.0						0.09	<LOD	
				3							
				4							
				5							
				6	R2	MACROCORE	15/48				
		R2A (0"-15"): Light brown fine SAND, trace medium sand, brick (dry) [FILL]	0.0	7					0.10	<LOD	
			0.0								
			0.0	8					0.08	<LOD	
				9							
				10	R3	MACROCORE	19/48				Petroleum-like odors and staining from 10 to 28 feet below grade surface (bgs).
		R3A (0"-4"): Light brown fine SAND, trace medium sand, brick (dry) [FILL]	6.4	11					0.07	<LOD	
		R3B (4"-19"): Brown-grey fine SAND, some fine gravel (wet) [SP]	11.8								
			27						0.05	<LOD	
			13.4	12					0.14	<LOD	
				13							
				14	R4	MACROCORE	17/48				
		R4A (0"-17"): Blackish grey fine SAND (wet) [SP]	57.1						0.09	<LOD	
			86	15							Collected SB17_14-16
			6.0								
			4.5	16					0.12	<LOD	
				17							
		R5A (0"-35"): Greyish brown fine SAND (wet) [SP]	5.0		R5	MACROCORE	35/48				
			6.4								
			3.9	18					0.08	<LOD	
			5.0								
			2.9	19							
			1.7								
				20							

LANGAN

Log of Boring **SB17/MW17** Sheet 2 of 2

Project	Project No.
250 Water Street	170381202
Location	**Elevation and Datum**
250 Water Street	N/A

Material Symbol	Elev. (ft)	Sample Description	PID (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	Jerome (ug/m^3)	XRF (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		R6A (0"-30"): Greyish brown fine SAND (wet) [SP]	1.3	20	R6	MACROCORE	30/48		0.00	<LOD	
			1.1	21							
			1.0	22					0.06	<LOD	
			1.0								
			0.9	23							
			0.7	24					0.07	<LOD	
		R7A (0"-38"): Greyish brown fine SAND (wet) [SP]	1.0	25	R7	MACROCORE	38/48				
			1.1								
			0.8	26					0.06	<LOD	
			0.9								
			1.1	27							
			0.8	28					0.09	<LOD	
		R8A (0"-24"): Greyish brown fine SAND (wet) [SP]	0.0	29	R8	MACROCORE	24/48				
			0.4	30					0.10	<LOD	Collected SB17_30-32.
			0.0	31							End of boring at 32 feet bgs. Monitoring well MW17 installed in borehole to 17 feet bgs with screen between 7 and 17 feet bgs.
			0.4								
			0.0	32							
				33							
				34							
				35							
				36							
				37							
				38							
				39							
				40							
				41							
				42							
				43							
				44							
				45							

LANGAN

Log of Boring **SB18** Sheet 1 of 1

Project: 250 Water Street	Project No.: 170381202
Location: 250 Water Street	Elevation and Datum: N/A
Drilling Company: AARCO Environmental Services, Corp.	Date Started: 7/30/20 — Date Finished: 7/30/20
Drilling Equipment: Geoprobe 7822 DT	Completion Depth: 20 ft — Rock Depth: N/A
Size and Type of Bit: 2-inch diameter closed point macro core	Number of Samples: Disturbed 5 — Undisturbed N/A — Core N/A
Casing Diameter (in): N/A — Casing Depth (ft): N/A	Water Level (ft.): First ▽ 16.5 — Completion ▼ N/A — 24 HR. ▼ N/A
Casing Hammer: N/A — Weight (lbs): N/A — Drop (in): N/A	Drilling Foreman: Sergio Magana
Sampler: 4-foot long acetate liner	Field Engineer: Ashley Stappenbeck
Sampler Hammer: NA — Weight (lbs): NA — Drop (in): NA	

Material Symbol	Elev. (ft)	Sample Description	PID (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	Jerome (ug/m^3)	XRF (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Asphalt		0							
		R1A (0-20"): Brown fine SAND, trace coarse sand, trace medium sand, brick (dry) [FILL]	0.0	1	R1	MACROCORE	20/48		0.04	<LOD	
			0.0						0.09	<LOD	Collected SB18_0-2.
			0.0	2							
				3							
				4							
		R2A (0-18"): Brown fine SAND, trace coarse sand, trace medium sand, brick (dry) [FILL]	0.0	5	R2	MACROCORE	27/48		0.10	<LOD	
			0.0	6							
		R2B (18-27"): Light brown fine SAND, some medium sand (dry) [SP]	0.0	7							Collected SB18_7-8.
			0.0	8					0.17	<LOD	
		R3A (0-20"): Light brown fine SAND, some medium sand (dry) [SP]	0.0	9	R3	MACROCORE	25/48				
			0.0	10					0.21	<LOD	
			0.0	11							
		R3B (20-25"): Brown fine SAND (dry) [SP]	0.0	12					0.03	<LOD	
		R4A (0-21"): Brown fine SAND, trace silt, trace clay (dry)	0.0	13	R4	MACROCORE	33/48				
			0.0	14					0.01	<LOD	
		R4B (21-33"): Light brown fine SAND, trace medium sand (dry) [SP]	0.0	15							
			0.0	16					0.05	<LOD	Clay lenses from 19 to 20 feet below grade surface (bgs). Collected SB18_18-20.
		R5A (0-32"): Brown fine SAND, trace medium sand (wet) [SP] ▽	0.0	17	R5	MACROCORE	43/48				
			0.0	18					0.01	<LOD	End of boring at 20 feet below grade surface. Borehole backfilled with soil cuttings and clean sand to grade and sealed with asphalt.
		R5B (32-43"): Brown fine SAND, trace medium sand, trace clay (wet)	0.0	19							
			0.0	20					0.03	<LOD	

LANGAN

Log of Boring **SB19** Sheet 1 of 1

Project: 250 Water Street	Project No.: 170381202
Location: 250 Water Street	Elevation and Datum: N/A
Drilling Company: AARCO Environmental Services, Corp.	Date Started: 7/29/20 — Date Finished: 7/29/20
Drilling Equipment: Geoprobe 7822 DT	Completion Depth: 20 ft — Rock Depth: N/A
Size and Type of Bit: 2-inch diameter closed point macro core	Number of Samples: Disturbed 5 — Undisturbed N/A — Core N/A
Casing Diameter (in): N/A — Casing Depth (ft): N/A	Water Level (ft.): First ▽ 16 — Completion ▼ N/A — 24 HR. ▼ N/A
Casing Hammer: N/A — Weight (lbs): N/A — Drop (in): N/A	Drilling Foreman: Sergio Magana
Sampler: 4-foot long acetate liner	Field Engineer: Ashley Stappenbeck
Sampler Hammer: NA — Weight (lbs): NA — Drop (in): NA	

Material Symbol	Elev. (ft)	Sample Description	PID (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	Jerome (ug/m³)	XRF (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Asphalt	0.0	0							
		R1A (0-21"): Brown fine SAND, trace coarse sand, brick, coal, metal (dry) [FILL]	0.0	1	R1	MACROCORE	21/48		0.02	<LOD	Collected SB19_0-2.
			0.0								
			0.0	2					0.04	<LOD	
			0.0	3							
				4							
		R2A (0-6"): Brown fine SAND, trace coarse sand, coal, brick (dry) [FILL]	0.0	5	R2	MACROCORE	28/48				
		R2B (6-28"): Light brown fine SAND, some medium sand (dry) [SP]	0.0	6					0.05	<LOD	
			0.0	7							Collected SB19_6-8.
			0.0								
			0.0	8					0.05	<LOD	
				9							
		R3A (0-28"): Light brown fine SAND, some medium sand, trace clay (dry)	0.0	10	R3	MACROCORE	28/48		0.03	<LOD	
			0.0								
			0.0	11							
			0.0								
			0.0	12					0.02	<LOD	
				13							
		R4A (0-28"): Light brown fine SAND, some medium sand, trace clay (dry)	0.0	14	R4	MACROCORE	23/48		0.03	<LOD	
			0.0								
			0.0	15							
			0.0								
		▽	0.0	16					0.10	<LOD	
		R5A (0-48"): Brown fine SAND, some medium sand (wet) [SP]	0.0								
			0.0	17							Collected SB19_18-20.
			0.0								
			0.0	18	R5	MACROCORE	48/48		0.00	<LOD	End of boring at 20 feet below grade surface (bgs). Borehole backfilled with soil cuttings and clean sand to grade and sealed with asphalt.
			0.0								
			0.0	19							
			0.0						0.00	<LOD	
				20							

LANGAN

Log of Boring **SB20** Sheet 1 of 2

Project: 250 Water Street	Project No.: 170381202
Location: 250 Water Street	Elevation and Datum: N/A
Drilling Company: AARCO Environmental Services, Corp.	Date Started: 7/30/20 — Date Finished: 7/30/20
Drilling Equipment: Geoprobe 7822 DT	Completion Depth: 32 ft — Rock Depth: N/A
Size and Type of Bit: 2-inch diameter closed point macro core	Number of Samples: Disturbed 8 — Undisturbed N/A — Core N/A
Casing Diameter (in): N/A — Casing Depth (ft): N/A	Water Level (ft.): First ▽ 17 — Completion ▼ N/A — 24 HR. ▼ N/A
Casing Hammer: N/A — Weight (lbs): N/A — Drop (in): N/A	Drilling Foreman: Sergio Magana
Sampler: 4-foot long acetate liner	Field Engineer: Ashley Stappenbeck
Sampler Hammer: NA — Weight (lbs): NA — Drop (in): NA	

Material Symbol	Elev. (ft)	Sample Description	PID (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	Jerome (ug/m³)	XRF (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Asphalt	0.0	0							
		R1A (0-26"): Brown fine SAND, trace coarse sand, brick (dry) [FILL]	0.0	1	R1	MACROCORE	26/48		0.02	<LOD	Collected SB20_0-2.
			0.0	2							
			0.0	3					0.00	<LOD	
			0.0	4							
		R2A (0-29"): Brown fine SAND, trace coarse sand, brick (dry) [FILL]	0.0	5	R2	MACROCORE	29/48				
			0.0	6					0.00	<LOD	
			0.0	7							
			0.0	8					0.03	<LOD	
		R3A (0-14"): Brown fine SAND, trace coarse sand, brick (dry) [FILL]	18.7	9	R3	MACROCORE	34/48				Petroleum-like odors and staining from 9.5 to 28 feet below grade surface (bgs).
		R3B (14-34"): Light brown fine SAND (dry) [SP]	21.4	10					0.00	<LOD	
			26.4								Collected SB20_10-12.
			23.9	11							
			24.5								
			16.7	12					0.00	<LOD	
				13	R4	MACROCORE	26/48				
		R4A (0-26"): Light brown fine SAND, trace medium sand (dry) [SP]	30.3	14					0.00	<LOD	
			41.5								
			37.7	15							
			53.5								
		R5A (0-48"): Brown to dark grey fine SAND (wet) [SP]	162.6	16					0.00	<LOD	
		▽	2.7		R5	MACROCORE	48/48				
			3.5	17							
			4.9								
			40.7	18					0.00	<LOD	
			190								
			200.7	19							
			170.4	20							

LANGAN

Log of Boring **SB20** Sheet 2 of 2

Project	Project No.
250 Water Street	170381202
Location	**Elevation and Datum**
250 Water Street	N/A

Material Symbol	Elev. (ft)	Sample Description	PID (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	Jerome (ug/m^3)	XRF (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		R6A (0-45"): Grey to dark grey fine SAND, some medium sand (wet) [SP]	223.1 370.4 266.7 299.1 225.1 337.6 286.5 88.9	20 21 22 23	R6	MACROCORE	43/48		0.00 0.00	<LOD 10.3	Collected SB20_20-22.
		R7A (0-48"): Grey brown fine SAND, trace medium sand (wet) [SP]	64.6 1.3 1.7	24 25 26 27	R7	MACROCORE	48/48		0.00 0.00	8.9 <LOD	
		R8A (0-48"): Brown fine SAND, trace medium sand (wet) [SP]	1.7 0.0 0.0 0.0	28 29 30 31 32	R8	MACROCORE	48/48		0.00 0.02	<LOD <LOD	Collected SB20_30-32. End of boring at 32 feet bgs. Borehole backfilled with soil cuttings and clean sand to grade and sealed with asphalt.
				33 34 35 36 37 38 39 40 41 42 43 44 45							

\\LANGAN.COM\DATA\NY\DATA2\170381202\PROJECT DATA_DISCIPLINE\ENVIRONMENTAL\GINTLOGS\170381202_ENTERPRISE_LH_UPDATED_TM.GPJ ... 1/25/2021 8:41:48 AM ... Report: Log - LANGAN

LANGAN

Log of Boring **SB21** Sheet 1 of 1

Project: 250 Water Street	Project No.: 170381202
Location: 250 Water Street	Elevation and Datum: N/A
Drilling Company: AARCO Environmental Services, Corp.	Date Started: 7/30/20 — Date Finished: 7/30/20
Drilling Equipment: Geoprobe 7822 DT	Completion Depth: 10 ft — Rock Depth: N/A
Size and Type of Bit: 2-inch diameter closed point macro core	Number of Samples: Disturbed 3 — Undisturbed N/A — Core N/A
Casing Diameter (in): N/A — Casing Depth (ft): N/A	Water Level (ft.): First N/A — Completion N/A — 24 HR. N/A
Casing Hammer: N/A — Weight (lbs): N/A — Drop (in): N/A	Drilling Foreman: Sergio Magana
Sampler: 4-foot long acetate liner	Field Engineer: Ashley Stappenbeck
Sampler Hammer: NA — Weight (lbs): NA — Drop (in): NA	

Material Symbol	Elev. (ft)	Sample Description	PID (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	Jerome (ug/m^3)	XRF (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Asphalt	0.0	0							
		R1A (0-24"): Dark brown fine SAND, trace coarse sand, trace medium sand, brick, coal (dry) [FILL]	0.0	1							
			0.0		R1	MACROCORE	24/48		0.04	<LOD	
			0.0	2							
			0.0						0.05	<LOD	
				3							
				4							
				5							
		R2A (0-28"): Dark brown fine SAND, trace coarse sand, trace medium sand, trace silt, brick, coal (dry) [FILL]	0.0	6	R2	MACROCORE	28/48		0.07	<LOD	
			0.0								
			13.1	7							
			0.0								
			42.9	8					0.04	<LOD	
		R3A (0-15"): Brown fine SAND, trace medium sand, trace coarse sand, wood, brick (dry) [FILL]	2.7	9	R3	MACROCORE	15/24		0.08	<LOD	
			0.0								
			0.0	10					0.05	<LOD	End of boring at 10 feet below grade surface (refusal). Borehole backfilled with soil cuttings and clean sand to grade and sealed with asphalt.
				11							
				12							
				13							
				14							
				15							
				16							
				17							
				18							
				19							
				20							

LANGAN

Log of Boring **SB21R** Sheet 1 of 1

Project: 250 Water Street	Project No.: 170381202
Location: 250 Water Street	Elevation and Datum: N/A
Drilling Company: AARCO Environmental Services, Corp.	Date Started: 8/18/20 — Date Finished: 8/18/20
Drilling Equipment: Geoprobe 7822 DT	Completion Depth: 11 ft — Rock Depth: N/A
Size and Type of Bit: 2-inch diameter closed point macro core	Number of Samples: Disturbed 3 — Undisturbed N/A — Core N/A
Casing Diameter (in): N/A — Casing Depth (ft): N/A	Water Level (ft.): First ▽ N/A — Completion ▼ N/A — 24 HR. ▼ N/A
Casing Hammer: N/A — Weight (lbs): N/A — Drop (in): N/A	Drilling Foreman: Rohn Dixon
Sampler: 4-foot long acetate liner	Field Engineer: Tyler Zorn
Sampler Hammer: NA — Weight (lbs): NA — Drop (in): NA	

Material Symbol	Elev. (ft)	Sample Description	PID (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	Jerome (ug/m^3)	XRF (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		R1A (0"-36"): Light brown to light grey fine SAND, some medium sand, some fine gravel, brick, concrete (dry) [FILL]	0.0 0.0 0.0 0.0 0.0 0.0	0 1 2 3	R1	MACROCORE	36/48		0.00 0.00 0.00	<LOD <LOD <LOD	Collected SB21R_0-2.
		R1A (16"-34"): Light brown to light grey fine SAND, some medium sand, some fine gravel, brick, concrete (dry) [FILL]		4 5	R2	MACROCORE	28/48				
			0.0	6					0.00	<LOD	Collected SB21R_6-8.
		R2B (34"-48"): Light grey to black fine SAND, some fine gravel (dry) [FILL]	0.0 55.6 68.2	7 8					0.00	<LOD	Petroleum-like odors from 7 to 8 feet below grade surface (bgs).
				9	R3	MACROCORE	12/36				Collected SB21R_9-11.
		R3A (36"-48"): Light brown to light grey fine SAND, some medium sand, some fine gravel, brick, concrete, wood (moist) [FILL]	0.0 0.0 0.0	10 11					0.00 0.00	<LOD <LOD	End of boring at 11 feet bgs (refusal-wood). Borehole backfilled with soil cuttings and clean sand to grade and sealed with concrete.
				12 13 14 15 16 17 18 19 20							

LANGAN

Log of Boring **SB22** Sheet 1 of 1

Project: 250 Water Street	Project No.: 170381202
Location: 250 Water Street	Elevation and Datum: N/A
Drilling Company: AARCO Environmental Services, Corp.	Date Started: 7/30/20 — Date Finished: 7/30/20
Drilling Equipment: Geoprobe 7822 DT	Completion Depth: 10 ft — Rock Depth: N/A
Size and Type of Bit: 2-inch diameter closed point macro core	Number of Samples: Disturbed 3 — Undisturbed N/A — Core N/A
Casing Diameter (in): N/A — Casing Depth (ft): N/A	Water Level (ft.): First N/A — Completion N/A — 24 HR. N/A
Casing Hammer: N/A — Weight (lbs): N/A — Drop (in): N/A	Drilling Foreman: Sergio Magana
Sampler: 4-foot long acetate liner	Field Engineer: Ashley Stappenbeck
Sampler Hammer: NA — Weight (lbs): NA — Drop (in): NA	

Material Symbol	Elev. (ft)	Sample Description	PID (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	Jerome (ug/m^3)	XRF (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Asphalt		0							
		R1A (0-35"): Brown fine SAND, trace coarse sand, trace medium sand, brick, coal (dry) [FILL]	0.0	1							
			0.0								
			0.0								
			0.0	2	R1	MACROCORE	35/48		0.09	<LOD	
			0.0								
			0.0	3					0.14	<LOD	
				4							
				5							
				6	R2	MACROCORE	21/48				
		R2A (0-21"): Brown fine SAND, trace coarse sand, trace medium sand, brick, coal (dry) [FILL]	0.0						0.10	<LOD	
			0.0	7							
			0.0								
		No Recovery	0.0	8					0.08	<LOD	
				9	R3	MACROCORE	0/24				
				10							End of boring at 9.5 feet below grade surface (refusal). Borehole backfilled with soil cuttings and clean sand to grade and sealed with asphalt.
				11							
				12							
				13							
				14							
				15							
				16							
				17							
				18							
				19							
				20							

LANGAN

Log of Boring **SB22R** Sheet 1 of 1

Project: 250 Water Street	Project No.: 170381202
Location: 250 Water Street	Elevation and Datum: N/A
Drilling Company: AARCO Environmental Services, Corp.	Date Started: 8/18/20 — Date Finished: 8/18/20
Drilling Equipment: Geoprobe 7822 DT	Completion Depth: 10 ft — Rock Depth: N/A
Size and Type of Bit: 2-inch diameter closed point macro core	Number of Samples: Disturbed 3 — Undisturbed N/A — Core N/A
Casing Diameter (in): N/A — Casing Depth (ft): N/A	Water Level (ft.): First N/A — Completion N/A — 24 HR. N/A
Casing Hammer: N/A — Weight (lbs): N/A — Drop (in): N/A	Drilling Foreman: Rohn Dixon
Sampler: 4-foot long acetate liner	Field Engineer: Thomas Schiefer
Sampler Hammer: NA — Weight (lbs): NA — Drop (in): NA	

Material Symbol	Elev. (ft)	Sample Description	PID (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	Jerome (ug/m^3)	XRF (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Asphalt		0							
		R1A (3"-32"): Brown fine SAND, some fine gravel, brick, asphalt (dry) [FILL]	0.0	1	R1	MACROCORE	32/48		0.00	0.005	Collected SB22_0-2.
			0.0								
			0.0	2							
			0.0						0.00		Collected SB22_2-4.
			0.0	3							
				4							
		R2A (0"-30"): Brown fine SAND, some fine gravel, brick, wood, asphalt (dry) [FILL]	0.0	5	R2	MACROCORE	30/48				Collected SB22_4-6.
			0.0	6					0.00	0.01	
			0.0								
			0.0	7					0.00		
			0.0								
				8							
		R3A (0"-12"): Brown fine SAND, some fine gravel, brick (dry) [FILL]	0.0	9	R3	MACROCORE	12/24				Collected SB22_8-10.
			0.0						0.00	0.12	
			0.0	10							End of boring at 10 feet below grade surface (refusal - concrete). Borehole backfilled with soil cuttings and clean sand to grade and sealed with asphalt.
				11							
				12							
				13							
				14							
				15							
				16							
				17							
				18							
				19							
				20							

LANGAN

Log of Boring **SB23** Sheet 1 of 2

Project: 250 Water Street	Project No.: 170381202
Location: 250 Water Street	Elevation and Datum: N/A
Drilling Company: AARCO Environmental Services, Corp.	Date Started: 7/31/20 — Date Finished: 7/31/20
Drilling Equipment: Geoprobe 7822 DT	Completion Depth: 28 ft — Rock Depth: N/A
Size and Type of Bit: 2-inch diameter closed point macro core	Number of Samples: Disturbed 7 — Undisturbed N/A — Core N/A
Casing Diameter (in): N/A — Casing Depth (ft): N/A	Water Level (ft.): First ▽ 12 — Completion ▼ N/A — 24 HR. ▼ N/A
Casing Hammer: N/A — Weight (lbs): N/A — Drop (in): N/A	Drilling Foreman: Sergio Magana
Sampler: 4-foot long acetate liner	Field Engineer: Adrian Heath
Sampler Hammer: NA — Weight (lbs): NA — Drop (in): NA	

Material Symbol	Elev. (ft)	Sample Description	PID (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	Jerome (ug/m³)	XRF (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Asphalt	1.0	0							
		R1A (0"-24"): Brown fine SAND, trace medium sand, brick, coal, wood (dry) [FILL]	0.0	1							
			0.0								
			0.0	2	R1	MACROCORE	24/48		0.01	<LOD	Creosote-like odor from 0.25 to 6 feet below grade surface (bgs).
				3					0.04	<LOD	Collected SB23_0-2.
				4							
				5							
		R2A (0"-24"): Brown to black fine SAND, trace silt, brick, wood (dry) [FILL]	2.8	6	R2	MACROCORE	24/48		0.01	<LOD	Petroleum-like odors and staining at 6.5 feet bgs.
			13.8								
			0.5	7							Black tar-like substance at 7 feet bgs.
			0.0								
			0.0	8					0.01	<LOD	
		R3A(0"-18"): Brown fine SAND, trace silt, brick, wood (dry) [FILL]	44.3	9							Petroleum-like odors and sheen from 9 feet to 24 feet bgs.
			51.3								
		R3B(18"-42"): White to light grey fine SAND, some gravel, trace silt (moist)	54.7	10	R3	MACROCORE	42/48		0.01	<LOD	
			93								
			87	11							Collected SB23_9-11.
		▽	4.3	12					0.01	<LOD	
		R4A(0"-36"): Grey-brown fine SAND (wet) [SP]	3.0	13							
			2.3								
			1.6	14	R4	MACROCORE	36/48		0.03	<LOD	
			1.2								
			1.4	15							
			1.3						0.05	<LOD	
				16							
		R5A(0"-42"): Grey-brown fine SAND, trace medium sand (wet) [SP]	0.5	17							
			0.5								
			0.5								
			0.4	18	R5	MACROCORE	42/48		0.03	<LOD	
			0.0								
			0.0	19							
			0.0								
				20							

LANGAN

Log of Boring **SB23** Sheet 2 of 2

Project	Project No.
250 Water Street	170381202
Location	**Elevation and Datum**
250 Water Street	N/A

Material Symbol	Elev. (ft)	Sample Description	PID (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	Jerome (ug/m^3)	XRF (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		R6A (0"-42"): Grey-brown fine SAND, trace medium sand (wet) [SP]	0.0 0.0 0.0 0.0 0.0 0.0 0.0	20 21 22 23 24	R6	MACROCORE	42/48		0.03 0.03 0.00	<LOD <LOD <LOD	
		R7A (0"-42"): Grey-brown fine SAND, trace medium sand (wet) [SP]	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	25 26 27 28	R7	MACROCORE	42/48		0.02 0.04	<LOD <LOD	Collected SB23_26-28. End of boring at 28 feet bgs. Borehole backfilled with soil cuttings and clean sand to grade and sealed with asphalt.
				29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45						

\\LANGAN.COM\DATA\NY\DATA2\170381202\PROJECT DATA_DISCIPLINE\ENVIRONMENTAL\GINTLOGS\170381202_ENTERPRISE_LH_UPDATED_TM.GPJ ... 1/25/2021 8:41:58 AM ... Report: Log - LANGAN

LANGAN

Log of Boring **SB24** Sheet 1 of 2

Project: 250 Water Street	Project No.: 170381202
Location: 250 Water Street	Elevation and Datum: N/A
Drilling Company: AARCO Environmental Services, Corp.	Date Started: 7/29/20 — Date Finished: 7/29/20
Drilling Equipment: Geoprobe 7822 DT	Completion Depth: 30 ft — Rock Depth: N/A
Size and Type of Bit: 2-inch diameter closed point macro core	Number of Samples: Disturbed 8 — Undisturbed N/A — Core N/A
Casing Diameter (in): N/A — Casing Depth (ft): N/A	Water Level (ft.): First ▽ 18 — Completion ▼ N/A — 24 HR. ▼ N/A
Casing Hammer: N/A — Weight (lbs): N/A — Drop (in): N/A	Drilling Foreman: Nick Turro
Sampler: 4-foot long acetate liner	Field Engineer: Ashley Stappenbeck
Sampler Hammer: NA — Weight (lbs): NA — Drop (in): NA	

Material Symbol	Elev. (ft)	Sample Description	PID (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	Jerome (ug/m³)	XRF (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Asphalt		0							
		R1A (0-32"): Brown fine SAND, trace coarse sand, brick, concrete (dry) [FILL]	0.0	1	R1	MACROCORE	32/48		0.14	<LOD	Collected SB24_0-2.
			0.0	2							
			0.0	3					0.10	257.0	
			0.0	4							
			0.0	5							
		R2A (0-6"): Brown fine SAND, trace coarse sand, brick (dry) [FILL]	0.0	6	R2	MACROCORE	20/48		0.19	6.0	
		R2B (6-20"): Brown fine SAND, some medium sand, trace coarse sand (dry) [FILL]	0.0	7							Collected SB24_6-8.
			0.0	8					0.75	<LOD	
			0.0	9							
		R3A (0-27"): Brown fine SAND, trace medium sand (dry) [SP]	0.0	10	R3	MACROCORE	27/48		0.18	<LOD	
			0.0	11							Collected SB24_10-12.
			0.0	12					0.12	<LOD	
			0.0	13							
		R4A (0-32"): Light brown fine SAND, some medium sand (dry) [SP]	0.0	14	R4	MACROCORE	32/48		0.25	<LOD	
			0.0	15							
			0.0	16					0.22	<LOD	
		R5A (0-36"): Brown fine SAND, trace medium sand, trace coarse sand (wet) [SP] ▽	0.0	17	R5	MACROCORE	36/48				
			0.0	18					0.25	<LOD	
			0.0	19							
			0.0	20							

LANGAN

Log of Boring **SB24** Sheet 2 of 2

Project	Project No.
250 Water Street	170381202
Location	**Elevation and Datum**
250 Water Street	N/A

Material Symbol	Elev. (ft)	Sample Description	PID (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	Jerome (ug/m^3)	XRF (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		R6A (0-22"): Brown fine SAND, trace medium sand, trace coarse sand (wet) [SP]	0.0	20	R6	MACROCORE	26/48		0.10	<LOD	
			0.0	21							
			0.0	22					0.39	<LOD	
			0.0	23							
			0.0	24					0.09	<LOD	
		R7A (0-32"): Brown fine SAND, trace medium sand, trace coarse sand (wet) [SP]	0.0	25	R7	MACROCORE	32/48				
			0.0	26					0.54	2.0	
			0.0	27							
			0.0	28					0.04	<LOD	
		R8A (0-24"): Brown fine SAND, trace medium sand, trace coarse sand (wet) [SP]	0.0	29	R8	MACROCORE	24/24				
			0.0	30					0.08	<LOD	End of boring at 30 feet below grade surface (bgs). Borehole backfilled with soil cuttings and clean sand to grade and sealed with asphalt.
				31							
				32							
				33							
				34							
				35							
				36							
				37							
				38							
				39							
				40							
				41							
				42							
				43							
				44							
				45							

LANGAN

Log of Boring **SB25/MW25** Sheet 1 of 2

Project: 250 Water Street	Project No.: 170381202
Location: 250 Water Street	Elevation and Datum: N/A
Drilling Company: AARCO Environmental Services, Corp.	Date Started: 7/28/20 — Date Finished: 7/28/20
Drilling Equipment: Geoprobe 7822 DT	Completion Depth: 30 ft — Rock Depth: N/A
Size and Type of Bit: 2-inch diameter closed point macro core	Number of Samples: Disturbed 8 — Undisturbed N/A — Core N/A
Casing Diameter (in): N/A — Casing Depth (ft): N/A	Water Level (ft.): First ▽ 15 — Completion ▼ N/A — 24 HR. ▼ N/A
Casing Hammer: N/A — Weight (lbs): N/A — Drop (in): N/A	Drilling Foreman: Nick Turro
Sampler: 4-foot long acetate liner	Field Engineer: Ashley Stappenbeck
Sampler Hammer: NA — Weight (lbs): NA — Drop (in): NA	

Material Symbol	Elev. (ft)	Sample Description	PID (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	Jerome (ug/m^3)	XRF (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Asphalt		0							
		R1A (0-36"): Light brown fine SAND, trace medium sand, trace coarse sand, brick (dry) [FILL]	0.0	1	R1	MACROCORE	36/48		0.15	<LOD	Collected SB25_0-2.
			0.0	2							
			0.0	3					0.08	<LOD	
		R2A (0-9"): Light brown fine SAND, trace coarse sand, brick (dry) [FILL]	0.0	4							
		R2B (9-33"): Light brown fine SAND, trace medium sand (dry) [SP]	0.0	5	R2	MACROCORE	33/48		1.72	<LOD	
			0.0	6							Collected SB25_6-8.
			0.0	7							
			0.0	8					0.13	<LOD	
		R3A (0-28"): Light brown fine SAND, some medium sand (dry) [SP]	0.0	9							
			0.0	10	R3	MACROCORE	28/48		0.23	<LOD	
			0.0	11							
			0.0	12					0.04	<LOD	
		R4A (0-28"): Light brown fine SAND, some medium sand (dry) [SP]	0.0	13							
			0.0	14	R4	MACROCORE	38/48		0.02	<LOD	
		▽	0.0	15							
		R4B (28-38"): Light brown fine SAND, some medium sand (wet) [SP]	0.0	16					0.08	<LOD	
		R5A (0-34"): Brown fine SAND, some medium sand, trace coarse sand (wet) [SP]	0.0	17							
			0.0	18	R5	MACROCORE	34/48		0.12	<LOD	
			0.0	19							
			0.0	20							

LANGAN

Log of Boring **SB25/MW25** Sheet 2 of 2

Project	Project No.
250 Water Street	170381202
Location	**Elevation and Datum**
250 Water Street	N/A

Material Symbol	Elev. (ft)	Sample Description	PID (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	Jerome (ug/m^3)	XRF (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		R6A (0-43"): Brown fine SAND, some medium sand, trace coarse sand (wet) [SP]	0.0	20	R6	MACROCORE	43/48		0.08	<LOD	
			0.0	21							
			0.0	22					0.06	<LOD	
			0.0	23							
		R7A (0-48"): Brown fine SAND, some medium sand, trace coarse sand (wet) [SP]	0.0	24	R7	MACROCORE	48/48		0.01	<LOD	
			0.0	25							
			0.0	26					0.04	<LOD	
			0.0	27							
		R8A (0-24"): Brown fine SAND, some medium sand, trace coarse sand (wet) [SP]	0.0	28	R8	MACROCORE	24/24		0.05	<LOD	
			0.0	29							Collected SB25_28-30.
			0.0	30					0.0	<LOD	End of boring at 30 feet below grade surface (bgs). Monitoring well MW25 installed in borehole to 22 feet bgs with screen between 12 and 22 feet bgs.
				31							
				32							
				33							
				34							
				35							
				36							
				37							
				38							
				39							
				40							
				41							
				42							
				43							
				44							
				45							

LANGAN

Log of Boring **SB26** Sheet 1 of 1

Project: 250 Water Street	Project No.: 170381202
Location: 250 Water Street	Elevation and Datum: N/A
Drilling Company: AARCO Environmental Services, Corp.	Date Started: 8/17/20 — Date Finished: 8/17/20
Drilling Equipment: Geoprobe 7822 DT	Completion Depth: 6 ft — Rock Depth: N/A
Size and Type of Bit: 2-inch diameter closed point macro core	Number of Samples: Disturbed 2 — Undisturbed N/A — Core N/A
Casing Diameter (in): N/A — Casing Depth (ft): N/A	Water Level (ft.): First N/A — Completion N/A — 24 HR. N/A
Casing Hammer: N/A — Weight (lbs): N/A — Drop (in): N/A	Drilling Foreman: Rohn Dixon
Sampler: 4-foot long acetate liner	Field Engineer: Tyler Zorn
Sampler Hammer: NA — Weight (lbs): NA — Drop (in): NA	

Material Symbol	Elev. (ft)	Sample Description	PID (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	Jerome (ug/m^3)	XRF (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		R1A (0"-48"): Light brown to reddish grey medium SAND, some fine gravel, brick, concrete (moist) [FILL]	0.0	0	R1	MACROCORE	48/48		0.00	<LOD	Collected SB26_0-2.
			0.0	1					0.00	<LOD	
			0.0	2					0.00	<LOD	
			0.0	3					0.00	<LOD	
			0.0	4					0.00	<LOD	
		R2A (0"-24"): Light brown to reddish grey medium SAND, some fine gravel, brick (moist) [FILL]	0.0	5	R2	MACROCORE	24/24		0.10	<LOD	
			0.0	6					0.20	<LOD	End of boring at 6 feet below grade surface (refusal). Borehole backfilled with soil cuttings and clean sand to grade and sealed with concrete.
				7							
				8							
				9							
				10							
				11							
				12							
				13							
				14							
				15							
				16							
				17							
				18							
				19							
				20							

LANGAN

Log of Boring **SB26R/MW26** Sheet 1 of 1

Project: 250 Water Street	Project No.: 170381202
Location: 250 Water Street	Elevation and Datum: N/A
Drilling Company: AARCO Environmental Services, Corp.	Date Started: 8/24/20 — Date Finished: 8/24/20
Drilling Equipment: AMS Power Probe 9580-VTR	Completion Depth: 20 ft — Rock Depth: N/A
Size and Type of Bit: 2-inch diameter closed point macro core	Number of Samples: Disturbed 5 — Undisturbed N/A — Core N/A
Casing Diameter (in): N/A — Casing Depth (ft): N/A	Water Level (ft.): First ▽ 13 — Completion ▼ N/A — 24 HR. ▼ N/A
Casing Hammer: N/A — Weight (lbs): N/A — Drop (in): N/A	Drilling Foreman: Rohn Dixon
Sampler: 4-foot long acetate liner	Field Engineer: Lexi Haley
Sampler Hammer: NA — Weight (lbs): NA — Drop (in): NA	

Material Symbol	Elev. (ft)	Sample Description	PID (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	Jerome (ug/m³)	XRF (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		R1A (0"-44"): Reddish brown fine SAND, some fine gravel, concrete, brick (dry) [FILL]	0.0	0	R1	MACROCORE	44/48			<LOD	
			0.0	1						<LOD	Collected SB26_0-2.
			0.0	2						<LOD	
			0.0	3						<LOD	
			0.0	4							
		R2A (24"-48"): Reddish brown fine SAND, some fine gravel, concrete, brick (dry) [FILL]	0.0	5	R2	MACROCORE	24/48			<LOD	
			0.0	6						<LOD	
			0.0	7						<LOD	Collected SB26_6-8.
			0.0	8							
		R3A (42"-48"): Reddish brown fine SAND, some fine gravel, concrete, brick (dry) [FILL]	0.0	9	R3	MACROCORE	6/48			<LOD	
				10							
				11							
				12							
		R4A (8"-48"): Light brown fine SAND, trace medium sand (wet) [SP] ▽	0.0	13	R4	MACROCORE	40/48			<LOD	
			0.0	14						<LOD	Collected SB26_13-15, SODUP05_08242020.
			0.0	15						<LOD	
			0.0	16							
		R5A (3"-48"): Brown fine SAND, trace medium sand (wet) [SP]	0.0	17	R5	MACROCORE	45/48			<LOD	
			0.0	18						<LOD	End of boring at 20 feet below grade surface (bgs). Monitoring well MW26 installed in borehole to 20 feet bgs with screen between 10 and 20 feet bgs.
			0.0	19						<LOD	
			0.0	20							

LANGAN

Log of Boring **SB27** Sheet 1 of 2

Project: 250 Water Street	Project No.: 170381202
Location: 250 Water Street	Elevation and Datum: N/A
Drilling Company: AARCO Environmental Services, Corp.	Date Started: 8/20/20 — Date Finished: 8/20/20
Drilling Equipment: Geoprobe 7822 DT	Completion Depth: 24 ft — Rock Depth: N/A
Size and Type of Bit: 2-inch diameter closed point macro core	Number of Samples: Disturbed 6 — Undisturbed N/A — Core N/A
Casing Diameter (in): N/A — Casing Depth (ft): N/A	Water Level (ft.): First ▽ 12 — Completion ▼ N/A — 24 HR. ▼ N/A
Casing Hammer: N/A — Weight (lbs): N/A — Drop (in): N/A	Drilling Foreman: Rohn Dixon
Sampler: 4-foot long acetate liner	Field Engineer: Tyler Zorn
Sampler Hammer: NA — Weight (lbs): NA — Drop (in): NA	

Material Symbol	Elev. (ft)	Sample Description	PID (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	Jerome (ug/m³)	XRF (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		R1A (0"-48"): Dark grey to reddish brown fine SAND, some fine gravel, some medium sand, brick, concrete (dry) [FILL]	0.0	0	R1	MACROCORE	48/48			<LOD	
			0.0	1						<LOD	Collected SB27_0-2.
			0.0	2						<LOD	
			0.0	3						<LOD	Collected SB27_2-4.
			0.0	4							
		R2A (16"-42"): Reddish brown fine SAND, some fine gravel, some medium sand, brick (dry) [FILL]	0.0	5	R2	MACROCORE	32/48			<LOD	
			0.0	6						<LOD	
			0.0	7						<LOD	
		R2B (42"-48"): Brown to grey fne SAND, trace silt (moist) [SP-SM]	0.0	8						<LOD	
		R3A (16"-48"): Brown to grey fine SAND, trace medium sand, trace silt (moist) [SP-SM]	0.0	9	R3	MACROCORE	32/48				
			0.0	10						<LOD	
			0.0	11						<LOD	Collected SB27_10-12.
		▽	0.0	12							
		R4A (12"-48"): Brown to grey fine SAND, some medium sand, trace silt (wet) [SP-SM]	0.0	13	R4	MACROCORE	36/48			<LOD	
			0.0	14						<LOD	
			0.7	15						<LOD	
			0.0	16							
		R5A (0"-48"): Brown to dark grey fine SAND, some medium sand, trace silt (wet) [SP-SM]	0.0	17	R5	MACROCORE	48/48			<LOD	
			0.0	18						<LOD	
			0.8	19						<LOD	Collected SB27_18-20.
			1.0	20						<LOD	
			2.3							<LOD	

LANGAN

Log of Boring **SB27** Sheet 2 of 2

Project	Project No.
250 Water Street	170381202
Location	**Elevation and Datum**
250 Water Street	N/A

MATERIAL SYMBOL	Elev. (ft)	Sample Description	PID (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	Jerome (ug/m^3)	XRF (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		R6A (0"-48"): Brown to grey fine SAND, trace medium sand, trace silt (wet) [SP-SM]	0.7	20	R6	MACROCORE	48/48				
			3.0	21						<LOD	Petroleum-like odors from 19 to 22 feet below grade surface (bgs).
			0.6								
			1.4	22						<LOD	
			0.0								
			0.0	23						<LOD	Collected SB27_22-24.
			0.0							<LOD	
				24							End of boring at 24 feet bgs. Borehole backfilled with soil cuttings and clean sand to grade and sealed with concrete.
				25							
				26							
				27							
				28							
				29							
				30							
				31							
				32							
				33							
				34							
				35							
				36							
				37							
				38							
				39							
				40							
				41							
				42							
				43							
				44							
				45							

LANGAN

Log of Boring **SB28/MW28** Sheet 1 of 1

Project: 250 Water Street	Project No.: 170381202
Location: 250 Water Street	Elevation and Datum: N/A
Drilling Company: AARCO Environmental Services, Corp.	Date Started: 8/18/20 — Date Finished: 8/18/20
Drilling Equipment: Geoprobe 7822 DT	Completion Depth: 20 ft — Rock Depth: N/A
Size and Type of Bit: 2-inch diameter closed point macro core	Number of Samples: Disturbed 5 — Undisturbed N/A — Core N/A
Casing Diameter (in): N/A — Casing Depth (ft): N/A	Water Level (ft.): First ▽ 7 — Completion ▼ N/A — 24 HR. ▼ N/A
Casing Hammer: N/A — Weight (lbs): N/A — Drop (in): N/A	Drilling Foreman: Rohn Dixon
Sampler: 4-foot long acetate liner	Field Engineer: Thomas Schiefer
Sampler Hammer: NA — Weight (lbs): NA — Drop (in): NA	

Material Symbol	Elev. (ft)	Sample Description	PID (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	Jerome (ug/m³)	XRF (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Asphalt	0.0	0							
		R1A (3"-36"): Dark brown fine to medium SAND, trace fine gravel, brick, asphalt (dry) [FILL]	0.0	1							Collected SB28_0-2.
			0.0	2	R1	MACROCORE	36/48		0.00	<LOD	
			0.0	3					0.00	<LOD	
			0.0	4							
			0.0	5							Collected SB28_4-6.
		R2A (0"-7"): Dark brown fine to medium SAND, some fine gravel, asphalt (dry) [FILL]	0.0	6	R2	MACROCORE	30/48		0.00	<LOD	
		R2B (7"-15"): White to tan coarse SAND, glass (dry) [FILL] ▽	0.0	7							
		R2C (15"-30"): Dark brown to black fine SAND, some silt (wet) [FILL]	0.0	8					0.00	<LOD	
			0.0	9							
		R3A (0"-19"): Dark brownish black fine SAND, trace fine gravel, wood (wet) [FILL]	0.0	10	R3	MACROCORE	19/48		0.00	<LOD	
			0.0	11							
			0.0	12					0.00	<LOD	
			0.0	13							Collected SB28_12-14.
		R4A (0"-29"): Dark brown fine SAND, trace fine gravel, trace silt, trace clay (wet) [SP-SM]	0.0	14	R4	MACROCORE	29/48		0.00	<LOD	
			0.0	15							
			0.0	16					0.00	<LOD	
		R5A (0"-48"): Light brown fine SAND, trace fine gravel (wet)	0.0	17							
			0.0	18	R5	MACROCORE	48/48		0.00	<LOD	End of boring at 20 feet below grade surface (bgs). Borehole backfilled with soil cuttings to 14 feet bgs. Monitoring well MW28 installed in borehole to 14 feet bgs with screen between 4 and 14 feet bgs.
			0.0	19							
			0.0	20					0.00	<LOD	

LANGAN

Log of Boring **SB29** Sheet 1 of 1

Project: 250 Water Street	Project No.: 170381202
Location: 250 Water Street	Elevation and Datum: N/A
Drilling Company: AARCO Environmental Services, Corp.	Date Started: 8/17/20 — Date Finished: 8/17/20
Drilling Equipment: Geoprobe 7822 DT	Completion Depth: 15 ft — Rock Depth: N/A
Size and Type of Bit: 2-inch diameter closed point macro core	Number of Samples: Disturbed 3 — Undisturbed N/A — Core N/A
Casing Diameter (in): N/A — Casing Depth (ft): N/A	Water Level (ft.): First N/A — Completion N/A — 24 HR. N/A
Casing Hammer: N/A — Weight (lbs): N/A — Drop (in): N/A	Drilling Foreman: Rohn Dixon
Sampler: 4-foot long acetate liner	Field Engineer: Tyler Zorn
Sampler Hammer: NA — Weight (lbs): NA — Drop (in): NA	

Material Symbol	Elev. (ft)	Sample Description	PID (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	Jerome (ug/m³)	XRF (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		R1A (0"-16"): Light brown to brown fine SAND, some silt, trace fine gravel, concrete (moist) [FILL]	0.0	0							Collected SB29_0-2.
			0.0	1					0.00	<LOD	
		R2A (16"-42"): Dark grey to black fine SAND, some silt, brick, concrete, wood (moist) [FILL]	0.0	2	R1	MACROCORE	42/60				Petroleum-like odors from 2 to 4 feet below grade surface (bgs).
			0.0								
			162								
			61	3					0.00	<LOD	
			44	4							Collected SB29_2-4.
				5							
				6							
				7	R2	MACROCORE	22/60				
		R2A (38"-60"): Light brown to grey fine SAND, some silt, trace fine gravel, concrete, brick (moist) [FILL]	0.0	8					0.00	<LOD	Collected SB29_7-9.
			0.0	9							
			0.0								
			0.0	10					0.00	<LOD	
				11							
				12							
				13	R3	MACROCORE	16/60				
		R3A (44"-60"): Light brown to light grey fine SAND, trace fine gravel, concrete (moist) [FILL]	0.0	14					0.00	<LOD	Collected SB29_13-15.
			0.0								
			0.0	15					0.00	<LOD	End of boring at 15 feet bgs (refusal). Borehole backfilled with soil cuttings and clean sand to grade and sealed with concrete.
				16							
				17							
				18							
				19							
				20							

LANGAN

Log of Boring **SB30/MW30** Sheet 1 of 2

Project: 250 Water Street	Project No.: 170381202
Location: 250 Water Street	Elevation and Datum: N/A
Drilling Company: AARCO Environmental Services, Corp.	Date Started: 8/20/20 — Date Finished: 8/20/20
Drilling Equipment: Geoprobe 7822 DT	Completion Depth: 32 ft — Rock Depth: N/A
Size and Type of Bit: 2-inch diameter closed point macro core	Number of Samples: Disturbed 8 — Undisturbed N/A — Core N/A
Casing Diameter (in): N/A — Casing Depth (ft): N/A	Water Level (ft.): First ▽ 14 — Completion ▼ N/A — 24 HR. ▼ N/A
Casing Hammer: N/A — Weight (lbs): N/A — Drop (in): N/A	Drilling Foreman: Rohn Dixon
Sampler: 4-foot long acetate liner	Field Engineer: Tyler Zorn
Sampler Hammer: NA — Weight (lbs): NA — Drop (in): NA	

Material Symbol	Elev. (ft)	Sample Description	PID (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	Jerome (ug/m³)	XRF (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		R1A (0"-36"): Grey to reddish brown fine SAND, some fine gravel, some medium sand, brick, concrete, wood (dry) [FILL]	0.0	0	R1	MACROCORE	36/48			<LOD	Collected SB30_0-2.
			0.0	1						<LOD	
			0.0								
			0.0	2						<LOD	
			0.0								
			0.0	3						<LOD	
			0.0								
		R2A (8"-48"): Grey to reddish brown fine SAND, some medium sand, trace fine gravel, brick, concrete (moist) [FILL]	0.0	4	R2	MACROCORE	40/48			<LOD	
			0.0	5							
			0.0							<LOD	
			0.0	6							
			0.0							<LOD	
			0.0	7							
			0.0							<LOD	
			0.0	8							
		R3A (18"-48"): Light tan to reddish brown fine SAND, some fine gravel, brick, concrete (moist) [FILL]	0.0	9	R3	MACROCORE	30/48			<LOD	
			0.0	10							
			0.0							<LOD	
			0.0	11							
			0.0							<LOD	
				12							
				13							
		R4A (18"-48"): Dark grey to black fine SAND, trace medium sand, trace silt (wet) [SP-SM] ▽	3.6	14	R4	MACROCORE	30/48				
			361.0							<LOD	Petroleum-like odors and staining from 13 to 28 feet below grade surface (bgs).
			1500	15							
			1300							<LOD	
				16							
		R5A (0"-48"): Dark grey to balck fine SAND, trace medium sand, trace silt (wet) [SP-SM]	315.0		R5	MACROCORE	48/48				
			15000	17						<LOD	
			15000								
			15000	18						<LOD	Collected SB30_16-18.
			15000								
			15000	19						<LOD	
			15000								
				20							

LANGAN

Log of Boring **SB30/MW30** Sheet 2 of 2

Project	Project No.
250 Water Street	170381202
Location	**Elevation and Datum**
250 Water Street	N/A

Material Symbol	Elev. (ft)	Sample Description	PID (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	Jerome (ug/m^3)	XRF (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		R6A (0"-48"): Dark grey to balck fine SAND, trace medium sand, trace silt (wet) [SP-SM]	15000	20	R6	MACROCORE	48/48			<LOD	
			15000	21							
			15000	22						<LOD	
			15000	23						<LOD	
			15000	24						<LOD	
			1825.0								
		R7A (0"-48"): Grey fine SAND, some medium sand (wet) [SP]	1.7	25	R7	MACROCORE	48/48			<LOD	
			5.8								
			1.4	26						<LOD	
			6.8								
			8.0	27						<LOD	
			8.0								
			8.6	28							
		R8A (0"-48"): Brown to light grey fine SAND, some medium sand (wet) [SP]	2.4		R8	MACROCORE	48/48			<LOD	
			3.1	29							
			4.0							<LOD	
			6.8	30							
			0.3							<LOD	
			1.2	31							Collected SB30_30-32.
			2.0							<LOD	
				32							End of boring at 32 feet bgs. Monitoring well MW30 installed in borehole to 22 feet bgs with screen between 12 and 22 feet bgs.
				33							
				34							
				35							
				36							
				37							
				38							
				39							
				40							
				41							
				42							
				43							
				44							
				45							

LANGAN

Log of Boring **SB31/MW31** Sheet 1 of 2

Project: 250 Water Street	Project No.: 170381202
Location: 250 Water Street	Elevation and Datum: N/A
Drilling Company: AARCO Environmental Services, Corp.	Date Started: 8/24/20 — Date Finished: 8/24/20
Drilling Equipment: AMS Power Probe 9580-VTR	Completion Depth: 32 ft — Rock Depth: N/A
Size and Type of Bit: 2-inch diameter closed point macro core	Number of Samples: Disturbed 8 — Undisturbed N/A — Core N/A
Casing Diameter (in): N/A — Casing Depth (ft): N/A	Water Level (ft.): First ▽ 11 — Completion ▼ N/A — 24 HR. ▼ N/A
Casing Hammer: N/A — Weight (lbs): N/A — Drop (in): N/A	Drilling Foreman: Rohn Dixon
Sampler: 4-foot long acetate liner	Field Engineer: Lexi Haley
Sampler Hammer: NA — Weight (lbs): NA — Drop (in): NA	

Material Symbol	Elev. (ft)	Sample Description	PID (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	Jerome (ug/m³)	XRF (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Concrete	0.0	0							
		R1A (8"-41"): Reddish-brown fine SAND, some fine gravel, brick, concrete (dry) [FILL]	0.0	1	R1	MACROCORE	41/48			<LOD	Collected SB31_0-2.
			0.0								
			0.0	2						<LOD	
			0.0								
			0.0	3						<LOD	
			0.1								
				4							
		R2A (19"-48"): Reddish brown fine SAND, some fine gravel, brick, concrete (dry) [FILL]	0.0	5	R2	MACROCORE	29/48			<LOD	
			0.0	6						<LOD	
			0.0								
			22.6	7						<LOD	
			0.2								
				8							
		R3A (14"-39"): Reddish brown fine SAND, some fine gravel, brck, concrete (dry) [FILL]	11.3	9	R3	MACROCORE	34/48			<LOD	
			11.8	10						<LOD	Petroleum-like odors and staining from 10 to 32 feet below grade surface (bgs).
			1202 ▽	11						<LOD	
		R3B (39"-42"): Concrete	734.2								
		R3C (42"-48"): Black fine SAND, trace fine gravel (moist) [SP]		12							
				13							
		R4A (18"-48"): Balck fine SAND, trace medium sand (wet) [SP]	333.2	14	R4	MACROCORE	30/48			<LOD	
				15							
				16							
				17							
				18	R5	MACROCORE	14/48				
		R5A (34"-48"): Dark grey to black fine SAND, trace medium sand (wet) [SP]	978.2	19						<LOD	Collected SB31_18-20.
			945.0							<LOD	
				20							

LANGAN

Log of Boring **SB31/MW31** Sheet 2 of 2

Project	Project No.
250 Water Street	170381202
Location	**Elevation and Datum**
250 Water Street	N/A

Material Symbol	Elev. (ft)	Sample Description	PID (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	Jerome (ug/m^3)	XRF (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		R6A (36"-48"): Dark grey fine SAND, trace medium sand (wet) [SP]	450.0	20	R6	MACROCORE	12/48			<LOD	
			310.0	21							
			294.0	22						<LOD	
		R7A (0"-48"): Dark grey fine SAND, some medium sand (wet) [SP]	36.0	23							
			32.0	24	R7	MACROCORE	48/48			<LOD	
			24.0	25							
			54.0	26						<LOD	
			30.0	27							
			8.0	28						<LOD	
			2.8	29							
		R8A (28"-48"): Dark grey fine SAND, some medium sand (wet) [SP]	23.0	30	R8	MACROCORE	20/48			<LOD	Collected SB31_30-32.
			18.0	31							
			14.0	32						<LOD	End of boring 32 feet bgs. Borehole backfilled to 18 feet bgs with soil cuttings. Monitoring well MW31 installed in borehole to 18 feet bgs with screen between 8 and 18 feet bgs.
				33							
				34							
				35							
				36							
				37							
				38							
				39							
				40							
				41							
				42							
				43							
				44							
				45							

\\LANGAN.COM\DATA\NY\DATA2\170381202\PROJECT DATA_DISCIPLINE\ENVIRONMENTAL\GINTLOGS\170381202_ENTERPRISE_LH_UPDATED_TM.GPJ ... 1/25/2021 8:42:26 AM ... Report: Log - LANGAN

LANGAN

Log of Boring **SB32/MW32** Sheet 1 of 2

Project: 250 Water Street	Project No.: 170381202
Location: 250 Water Street	Elevation and Datum: N/A
Drilling Company: AARCO Environmental Services, Corp.	Date Started: 8/21/20 — Date Finished: 8/21/20
Drilling Equipment: Geoprobe 7822 DT	Completion Depth: 28 ft — Rock Depth: N/A
Size and Type of Bit: 2-inch diameter closed point macro core	Number of Samples: Disturbed 7 — Undisturbed N/A — Core N/A
Casing Diameter (in): N/A — Casing Depth (ft): N/A	Water Level (ft.): First ▽ 12 — Completion ▼ N/A — 24 HR. ▼ N/A
Casing Hammer: N/A — Weight (lbs): N/A — Drop (in): N/A	Drilling Foreman: Rohn Dixon
Sampler: 4-foot long acetate liner	Field Engineer: Tyler Zorn
Sampler Hammer: N/A — Weight (lbs): N/A — Drop (in): N/A	

Material Symbol	Elev. (ft)	Sample Description	PID (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	Jerome (ug/m³)	XRF (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		R1A (0"-34"): Grey to reddish brown fine SAND, some fine gravel, trace medium sand, brick, concrete (dry) [FILL]	0.0	0	R1	MACROCORE	34/48			<LOD	
			0.0	1							Collected SB32_0-2.
			0.0	2						<LOD	
			0.0	3						<LOD	
				4							
				5	R2	MACROCORE	15/48				
				6							
		R2A (33"-48"): Grey to reddish brown fine SAND, some fine gravel, brick, concrete (dry) [FILL]	0.0	7						<LOD	
			0.0								
			0.0	8							
				9							
		R3A (28"-48"): Grey to black fine SAND, trace medium sand, trace silt (moist) [SP-SM]	198.9	10	R3	MACROCORE	20/48			<LOD	Petroleum-like odors and staining from 10 to 24 feet below grade surface (bgs).
			10.7	11							
			2.8							<LOD	
			3.4 ▽	12							
				13							
		R4A (24"-48"): Grey to black fine SAND, some medium sand, trace silt (wet) [SP-SM]	130.8	14	R4	MACROCORE	23/48			<LOD	
			62.3	15							Collected SB32_14-16.
			126.8							<LOD	
			441.8	16							
		R5A (0"-48"): Brown to dark grey fine SAND, some medium sand (wet) [SP]	441.0	17	R5	MACROCORE	48/48			<LOD	
			740.1								
			365.2							<LOD	
			57.8	18							
			330.9							<LOD	
			54.7	19							
			10.8							<LOD	
				20							

LANGAN

Log of Boring **SB32/MW32** Sheet 2 of 2

Project	Project No.
250 Water Street	170381202
Location	**Elevation and Datum**
250 Water Street	N/A

Material Symbol	Elev. (ft)	Sample Description	PID (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	Jerome (ug/m^3)	XRF (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		R6A (0"-48"): Brown to grey medium SAND, some fine sand (wet) [SP]	4.6	20	R6	MACROCORE	48/48				
			7.2	21						<LOD	
			3.4	22							
			2.1	23						<LOD	
			1.9	24							
		R7A (0"-48"): Brown to grey medium SAND, some fine sand (wet) [SP]	2.3	25	R7	MACROCORE	48/48			<LOD	
			0.2								
			0.0	26						<LOD	
			0.0								
			0.0	27						<LOD	Collected SB32_26-28.
			0.0								
			0.0	28						<LOD	End of boring at 28 feet bgs. Monitoring well MW32 installed in borehole to 19 feet bgs with screen between 9 and 19 feet bgs.
				29							
				30							
				31							
				32							
				33							
				34							
				35							
				36							
				37							
				38							
				39							
				40							
				41							
				42							
				43							
				44							
				45							

LANGAN

Log of Boring **SB33/MW33** Sheet 1 of 1

Project: 250 Water Street	Project No.: 170381202
Location: 250 Water Street	Elevation and Datum: N/A
Drilling Company: AARCO Environmental Services, Corp.	Date Started: 8/21/20 — Date Finished: 8/21/20
Drilling Equipment: Geoprobe 7822 DT	Completion Depth: 20 ft — Rock Depth: N/A
Size and Type of Bit: 2-inch diameter closed point macro core	Number of Samples: Disturbed 5 — Undisturbed N/A — Core N/A
Casing Diameter (in): N/A — Casing Depth (ft): N/A	Water Level (ft.): First ▽ 12 — Completion ▼ N/A — 24 HR. ▼ N/A
Casing Hammer: N/A — Weight (lbs): N/A — Drop (in): N/A	Drilling Foreman: Rohn Dixon
Sampler: 4-foot long acetate liner	Field Engineer: Tyler Zorn
Sampler Hammer: N/A — Weight (lbs): N/A — Drop (in): N/A	

Material Symbol	Elev. (ft)	Sample Description	PID (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	Jerome (ug/m³)	XRF (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		R1A (0"-24"): Grey to reddish brown fine SAND, some fine gravel, some medium sand, brick, concrete (dry) [FILL]	0.0	0	R1	MACROCORE	24/48			<LOD	Collected SB33_0-2.
			0.0	1							
			0.0							<LOD	
			0.0	2							
				3							
				4	R2	MACROCORE	25/48			<LOD	
		R2A (23"-48"): Brownish grey to reddish brown fine SAND, some fine gravel, some medium sand, brick, concrete (dry) [FILL]	0.0	5							
			0.0	6							
			0.0	7						<LOD	
			0.0								
				8	R3	MACROCORE	30/48			<LOD	
		R3A (18"-48"): Brown to black fine SAND, trace silt (moist) [SP-SM]	0.0	9							
			0.0	10							
			0.0							<LOD	Petroleum-like odors from 10.5 to 14 feet below grade surface (bgs).
			2.2	11							
		▽	6.6							<LOD	Collected SB33_11-13.
				12							
				13	R4	MACROCORE	28/48			<LOD	
		R4A (20"-48"): Brown to grey fine SAND, trace silt (wet) [SP-SM]	0.7	14							
			1.5								
			1.6	15						<LOD	
			0.8								
				16	R5	MACROCORE	48/48			<LOD	
		R5A (0"-48"): Grey to dark grey fine SAND, some silt (wet) [SP-SM]	0.0	17							
			0.0								
			0.0							<LOD	
			0.0	18							End of boring at 20 feet bgs. Monitoring well MW33 installed in borehole to 19 feet bgs with screen between 9 and 19 feet bgs.
			0.0								
			0.0	19						<LOD	
			0.0								
			0.0	20						<LOD	

LANGAN

Log of Boring **SB34/MW34** Sheet 1 of 1

Project: 250 Water Street	Project No.: 170381202
Location: 250 Water Street	Elevation and Datum: N/A
Drilling Company: AARCO Environmental Services, Corp.	Date Started: 8/25/20 — Date Finished: 8/25/20
Drilling Equipment: AMS Power Probe 9580-VTR	Completion Depth: 20 ft — Rock Depth: N/A
Size and Type of Bit: 2-inch diameter closed point macro core	Number of Samples: Disturbed 5 — Undisturbed N/A — Core N/A
Casing Diameter (in): N/A — Casing Depth (ft): N/A	Water Level (ft.): First ▽ 11 — Completion ▼ N/A — 24 HR. ▼ N/A
Casing Hammer: N/A — Weight (lbs): N/A — Drop (in): N/A	Drilling Foreman: Rohn Dixon
Sampler: 4-foot long acetate liner	Field Engineer: Tyler Zorn
Sampler Hammer: N/A — Weight (lbs): N/A — Drop (in): N/A	

Material Symbol	Elev. (ft)	Sample Description	PID (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	Jerome (ug/m³)	XRF (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		No Recovery		0	R1	MACROCORE	0/48				
				1							
				2							
				3							
				4	R2	MACROCORE	22/48				
				5							Collected SB34_4-6.
				6							
		R2A (26"-48"): Reddish brown to dark brown fine SAND, some gravel, some silt, brick, concrete (dry) [FILL]	0.0	7						<LOD	
			0.0								
			0.1							<LOD	
		R3A (0"-32"): Reddish brown to greenish brown fine SAND, some gravel, some silt, brick, concrete (dry) [FILL]	0.0	8	R3	MACROCORE	48/48				
			0.0	9						<LOD	
			0.1	10							
		R3B (32"-48"): Brown to grey fine SAND, trace medium sand (wet) [SP] ▽	0.2	11						<LOD	Collected SB34_10-12.
			0.0	12							
		R4A (4"-48"): Light brown to grey fine SAND, some medium sand (wet) [SP]	2.6	13	R4	MACROCORE	44/48			<LOD	Collected SB34_12-14.
			4.2								
			3.8	14						<LOD	
			1.0	15							Petroleum-like odors from 14 to 16 feet below grade surface (bgs).
				16							
				17							
				18	R5	MACROCORE	13/48				Collected SB34_18-20.
			0.2							<LOD	End of boring at 20 feet bgs. Monitoring well MW34 installed in borehole to 19 feet bgs with screen between 9 and 19 feet bgs.
		R5A (35"-48"): Grey fine SAND, some medium sand (wet) [SP]	0.2	19							
			0.2	20						<LOD	

LANGAN

Log of Boring **SB35** Sheet 1 of 2

Project: 250 Water Street	Project No.: 170381202
Location: 250 Water Street	Elevation and Datum: N/A
Drilling Company: AARCO Environmental Services, Corp.	Date Started: 8/25/20 — Date Finished: 8/25/20
Drilling Equipment: AMS Power Probe 9580-VTR	Completion Depth: 28 ft — Rock Depth: N/A
Size and Type of Bit: 2-inch diameter closed point macro core	Number of Samples: Disturbed 7 — Undisturbed N/A — Core N/A
Casing Diameter (in): N/A — Casing Depth (ft): N/A	Water Level (ft.): First ▽ 7.5 — Completion ▼ N/A — 24 HR. ▼ N/A
Casing Hammer: N/A — Weight (lbs): N/A — Drop (in): N/A	Drilling Foreman: Rohn Dixon
Sampler: 4-foot long acetate liner	Field Engineer: Tyler Zorn
Sampler Hammer: N/A — Weight (lbs): N/A — Drop (in): N/A	

Material Symbol	Elev. (ft)	Sample Description	PID (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	Jerome (ug/m^3)	XRF (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		R1A (0"-26"): Reddish brown to grey fine SAND, some fine gravel, brick, asphalt, concrete (dry) [FILL]	0.0 0.0 0.0 0.0 0.0	0 1 2 3 4	R1	MACROCORE	26/48			<LOD <LOD <LOD	Collected SB35_0-2.
		R2A (30"-41"): Reddish brown to grey fine SAND, some fine gravel, brick, concrete (dry) [FILL]	0.0 0.0	5 6 7	R2	MACROCORE	18/48			<LOD	
		R2B (41"-48"): Brown fine SAND, some fine gravel, trace silt (wet) [SP-SM]	0.0	8							
		R3A (2"-18"): Brown to grey fine SAND, some silt, trace fine gravel (wet) [SM]	6.0 12.0	9						<LOD	Collected SB35_8-10.
		R3B (18"-48"): Timber	21.0 5.0 4.0	10 11 12	R3	MACROCORE	46/48			<LOD <LOD	
		R4A (16"-34"): Timber	3.0 15.3	13 14	R4	MACROCORE	32/48			<LOD	Creosote-like odors from 9 to 15 feet below grade surface (bgs).
		R4B (34"-48"): Light brown to grey fine SAND, some wood, trace medium sand (wet) [SP]	20.0 18.0	15						<LOD	
		R5A (0"-42"): Light brown to grey fine SAND, trace medium sand (wet) [SP]	3.0 0.8 0.8 6.5 5.0 2.8	16 17 18	R5	MACROCORE	48/48			<LOD <LOD <LOD	
		R5B (42"-48"): Light brown to grey fine SAND, some medium sand (wet) [SP]	0.8	19 20						<LOD	

LANGAN

Log of Boring **SB35** Sheet 2 of 2

Project	Project No.
250 Water Street	170381202
Location	**Elevation and Datum**
250 Water Street	N/A

Material Symbol	Elev. (ft)	Sample Description	PID (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	Jerome (ug/m^3)	XRF (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		R6A (0"-48"): Brown fine SAND, some medium sand (wet) [SP]	0.3	20	R6	MACROCORE	48/48			<LOD	
			0.4	21							
			1.5							<LOD	
			1.5	22							
			4.7							<LOD	
			1.4	23							
			3.3							<LOD	
				24							
				25	R7	MACROCORE	18/48				
		R7A (30-48"): Brown fine SAND, some medium snad (wet) [SP]	0.0	26							
			0.0	27						<LOD	Collected SB35_26-28.
			0.0								
				28							End of boring at 28 feet bgs (refusal). Borehole backfilled with soil cuttings and clean sand to grade and sealed with concrete.
				29							
				30							
				31							
				32							
				33							
				34							
				35							
				36							
				37							
				38							
				39							
				40							
				41							
				42							
				43							
				44							
				45							

LANGAN

Log of Boring **SB36** Sheet 1 of 2

Project: 250 Water Street	Project No.: 170381202
Location: 250 Water Street	Elevation and Datum: N/A
Drilling Company: AARCO Environmental Services, Corp.	Date Started: 8/24/20 — Date Finished: 8/24/20
Drilling Equipment: AMS Power Probe 9580-VTR	Completion Depth: 24 ft — Rock Depth: N/A
Size and Type of Bit: 2-inch diameter closed point macro core	Number of Samples: Disturbed 6 — Undisturbed N/A — Core N/A
Casing Diameter (in): N/A — Casing Depth (ft): N/A	Water Level (ft.): First ▽ 16 — Completion ▼ N/A — 24 HR. ▼ N/A
Casing Hammer: N/A — Weight (lbs): N/A — Drop (in): N/A	Drilling Foreman: Rohn Dixon
Sampler: 4-foot long acetate liner	Field Engineer: Lexi Haley
Sampler Hammer: N/A — Weight (lbs): N/A — Drop (in): N/A	

Material Symbol	Elev. (ft)	Sample Description	PID (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	Jerome (ug/m³)	XRF (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		R1A (0"-35"): Light brown to black fine SAND, some fine gravel, trace medium sand, brick, concrete, glass (dry) [FILL]	0.0	0						<LOD	
			0.2	1							Collected SB36_0-2.
			0.7							<LOD	
			4.7	2	R1	MACROCORE	35/48				
			3.5							<LOD	
			26.2	3							Collected SB36_2-4.
		R2A (2"-14"): Black fine SAND, some fine gravel, brick, concrete, lumber (dry) [FILL]	3.2	4						<LOD	
			4.2	5							Petroleum-like odors from 2 to 6 feet below grade surface (bgs).
			4.0							<LOD	
		R2B (14"-26"): Concrete	4.2	6	R2	MACROCORE	46/48				
		R2C (26"-32"): Reddish brown to black fine SAND, some fine gravel, brick, concrete, lumber (dry) [FILL]	1.8							<LOD	
		R2D (32"-36"): Concrete	0.7	7							
		R2E (36"-48"): Light brown to dark brown fine SAND, some fine gravel, concrete, wood, brick, glass (dry) [FILL]	0.3							<LOD	
			0.2	8							
				9							
		R3A (30"-48"): Light brown to grey fine SAND, some fine gravel, brick, concrete (dry) [FILL]	0.2	10	R3	MACROCORE	18/48			<LOD	
			0.0	11							
				12							
				13							
				14	R4	MACROCORE	18/48				
		R4A (30"-48"): Light grey to dark brown fine SAND, some fine gravel, lumber (moist) [FILL]	3.2	15						<LOD	
			4.0	16							
		R5A (2"-48"): Brown to grey fine SAND, trace fine gravel, trace medium sand (wet) [SP]	0.7							<LOD	
			17.9	17							Collected SB36_16-18.
			7.4	18	R5	MACROCORE	46/48			<LOD	
			3.0	19							Petroleum-like odors from 17 to 22 feet bgs
			5.7	20						<LOD	

LANGAN

Log of Boring **SB36** Sheet 2 of 2

Project	Project No.
250 Water Street	170381202
Location	**Elevation and Datum**
250 Water Street	N/A

MATERIAL SYMBOL	Elev. (ft)	Sample Description	PID (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	Jerome (ug/m^3)	XRF (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		R6A (0"-48"): Brown to grey fine SAND, some medium sand (wet) [SP]	3.3	20	R6	MACROCORE	48/48				
			8.0	21						<LOD	
			2.6	22							
			5.7	23						<LOD	Collected SB36_22-24.
			3.6	24							End of boring at 24 feet bgs. Borehole backfilled with soil cuttings and clean sand to grade and sealed with concrete.
			1.3	25						<LOD	
				26							
				27							
				28							
				29							
				30							
				31							
				32							
				33							
				34							
				35							
				36							
				37							
				38							
				39							
				40							
				41							
				42							
				43							
				44							
				45							

LANGAN

Log of Boring **SB37** Sheet 1 of 1

Project: 250 Water Street	Project No.: 170381202
Location: 250 Water Street	Elevation and Datum: N/A
Drilling Company: AARCO Environmental Services, Corp.	Date Started: 8/20/20 — Date Finished: 8/20/20
Drilling Equipment: Geoprobe 7822 DT	Completion Depth: 20 ft — Rock Depth: N/A
Size and Type of Bit: 2-inch diameter closed point macro core	Number of Samples: Disturbed 5 — Undisturbed N/A — Core N/A
Casing Diameter (in): N/A — Casing Depth (ft): N/A	Water Level (ft.): First ▽ 14 — Completion ▼ N/A — 24 HR. ▼ N/A
Casing Hammer: N/A — Weight (lbs): N/A — Drop (in): N/A	Drilling Foreman: Rohn Dixon
Sampler: 4-foot long acetate liner	Field Engineer: Tyler Zorn
Sampler Hammer: N/A — Weight (lbs): N/A — Drop (in): N/A	

Material Symbol	Elev. (ft)	Sample Description	PID (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	Jerome (ug/m³)	XRF (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		R1A (0"-12"): Dark grey to black medium SAND, concrete, asphalt (dry) [FILL]	0.0	0							
		R1B (12"-26"): Reddish brown fine SAND, some medium sand, trace fine gravel, trace silt, brick (moist) [FILL]	0.0	1							
			0.0	2	R1	MACROCORE	26/48			<LOD	
			0.0	3							Collected SB37_2-4.
				4							
				5							
				6	R2	MACROCORE	16/48				
		R2A (32"-48"): Light tan to reddish brown fine SAND, some fine gravel, trace medium sand, trace silt, brick (moist) [FILL]	0.0	7						<LOD	Collected SB37_6-8.
			0.0	8							
			0.0	9							
		R3A (20"-42"): Light grey to reddish brown fine SAND, some fine gravel, trace medium sand, trace silt, brick (moist) [FILL]	0.0	10	R3	MACROCORE	28/48			<LOD	
			0.0	11						<LOD	
		R3B (42"-48"): Brown to grey fine SAND, some medium sand, trace silt (mosit) [SP-SM]	0.0	12						<LOD	
		R4A (10"-48"): Brown to grey fine SAND, some medium sand, trace silt (wet) [SP-SM] ▽	0.0.	13							Collected SB37_12-14.
			0.0	14	R4	MACROCORE	38/48			<LOD	
			0.0	15						<LOD	
			0.0	16							
		R5A (0"-48"): Brown to grey medium SAND, some fine sand, trace silt (wet) [SP-SM]	0.0	17						<LOD	
			0.0	18	R5	MACROCORE	48/48			<LOD	End of boring at 20 feet below grade surface. Borehole backfilled with soil cuttings and clean sand to grade and sealed with concrete.
			0.0	19						<LOD	
			0.0	20						<LOD	

\\LANGAN.COM\DATA\NY\DATA2\170381202\PROJECT DATA_DISCIPLINE\ENVIRONMENTAL\GINTLOGS\170381202_ENTERPRISE_LH_UPDATED_TM.GPJ ... 1/25/2021 8:42:46 AM ... Report: Log - LANGAN

LANGAN

Log of Boring **SB38** Sheet 1 of 2

Project: 250 Water Street	Project No.: 170381202
Location: 250 Water Street	Elevation and Datum: N/A
Drilling Company: AARCO Environmental Services, Corp.	Date Started: 8/3/20 — Date Finished: 8/3/20
Drilling Equipment: Geoprobe 7822 DT	Completion Depth: 24 ft — Rock Depth: N/A
Size and Type of Bit: 2-inch diameter closed point macro core	Number of Samples: Disturbed 6 — Undisturbed N/A — Core N/A
Casing Diameter (in): N/A — Casing Depth (ft): N/A	Water Level (ft.): First ▽ 17.5 — Completion ▼ N/A — 24 HR. ▼ N/A
Casing Hammer: N/A — Weight (lbs): N/A — Drop (in): N/A	Drilling Foreman: Sergio Magana
Sampler: 4-foot long acetate liner	Field Engineer: Adrian Heath
Sampler Hammer: N/A — Weight (lbs): N/A — Drop (in): N/A	

Material Symbol	Elev. (ft)	Sample Description	PID (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	Jerome (ug/m³)	XRF (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Concrete	0.0	0							
		R1A (6"-48"): Light brown fine SAND, trace coarse sand, trace medium sand (dry) [FILL]	0.0	1	R1	MACROCORE	48/48		0.26	<LOD	Collected SB38_0-2.
			0.0	2							
			0.0	3							
			0.0	4					0.51	<LOD	
		R2A (16"-30"): Brown fine SAND, trace coarse sand, trace medium sand, brick, ceramics (dry) [FILL]	0.0	5							
			0.0	6	R2	MACROCORE	32/48		0.20	<LOD	
		R2B (30"-48"): Brown fine SAND, trace clay, trace silt (dry)	0.0	7							Collected SB38_6-8.
			0.0	8					0.08	<LOD	
		R3A (19"-48"): Brown fine SAND, trace clay, trace silt (dry)	0.0	9							
			0.0	10	R3	MACROCORE	29/48		0.12	<LOD	
			0.0	11							
			0.0	12					0.03	<LOD	
		R4A (14"-48"): Brown fine SAND, trace clay, trace silt (dry)	0.0	13							
			0.0	14	R4	MACROCORE	34/48		0.00	<LOD	
			0.0	15							
			0.0	16					0.03	<LOD	
		R5A (7"-25"): Brown fine SAND, trace clay, trace silt (dry) ▽	0.0	17							
			0.0	18	R5	MACROCORE	43/48		0.06	<LOD	
		R5B (23"-48"): Brown fine SAND, trace medium sand (wet) [SP]	0.0	19							
			0.0	20					0.07	<LOD	

LANGAN

Log of Boring **SB38** Sheet 2 of 2

Project	Project No.
250 Water Street	170381202
Location	**Elevation and Datum**
250 Water Street	N/A

MATERIAL SYMBOL	Elev. (ft)	Sample Description	PID (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	Jerome (ug/m^3)	XRF (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		R6A (0"-23"): Brown fine SAND, trace medium sand (wet) [SP]	0.0 0.0 0.0 0.0	20 21	R6	MACROCORE	46/48				Collected SB38_22-24.
		R6B (25"-48"): Brown fine SAND, trace clay (wet)	0.0 0.0 0.0 0.0 0.0	22 23					0.39	<LOD	
			0.0	24					0.05	<LOD	End of boring at 24 feet below grade surface. Borehole backfilled with soil cuttings and clean sand to grade and sealed with concrete.
				25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45							

LANGAN

Log of Boring **SB39** Sheet 1 of 2

Project: 250 Water Street	Project No.: 170381202
Location: 250 Water Street	Elevation and Datum: N/A
Drilling Company: AARCO Environmental Services, Corp.	Date Started: 8/3/20 — Date Finished: 8/3/20
Drilling Equipment: Geoprobe 7822 DT	Completion Depth: 24 ft — Rock Depth: N/A
Size and Type of Bit: 2-inch diameter closed point macro core	Number of Samples: Disturbed 6 — Undisturbed N/A — Core N/A
Casing Diameter (in): N/A — Casing Depth (ft): N/A	Water Level (ft.): First ▽ 17.5 — Completion ▼ N/A — 24 HR. ▼ N/A
Casing Hammer: N/A — Weight (lbs): N/A — Drop (in): N/A	Drilling Foreman: Sergio Magana
Sampler: 4-foot long acetate liner	Field Engineer: Adrian Heath
Sampler Hammer: N/A — Weight (lbs): N/A — Drop (in): N/A	

Material Symbol	Elev. (ft)	Sample Description	PID (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	Jerome (ug/m^3)	XRF (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Asphalt	0.0	0							
		R1A (3"-48"): Brown fine SAND, trace coarse sand, trace medium sand, brick, ceramics (dry) [FILL]	0.0	1							Collected SB39_0-2.
			0.0	2	R1	MACROCORE	48/48		0.27	<LOD	
			0.0	3							
			0.0	4					0.19	<LOD	
		R2A (0"-27"): Brown fine SAND, trace coarse sand, trace medium sand, brick, ceramics (dry) [FILL]	0.0	5							
			0.0	6	R2	MACROCORE	27/48		0.40	<LOD	
			0.0	7							
			0.0	8					0.57	22.0	
		R3A (0"-28"): Brown fine SAND, trace coarse sand, trace medium sand, brick, ceramics (dry) [FILL]	0.0	9							Collected SB39_8-10.
			0.0	10	R3	MACROCORE	28/48		0.29	24.0	
			0.0	11							
			0.0	12					0.21	<LOD	
		R4A (0"-24"): Brown fine SAND, trace coarse sand, trace medium sand, brick, ceramics (dry) [FILL]	0.0	13							
			0.0	14	R4	MACROCORE	24/48		0.36	<LOD	
			0.0	15							
			0.0	16					0.10	<LOD	
		R5A (0"-9"): Brown fine SAND, trace coarse sand, trace medium sand, brick, ceramics (dry) [FILL]	0.0	17							
		R5B (9"-20"): Brown fine SAND, some medium sand, trace coarse sand (wet) [SP] ▽	0.0	18	R5	MACROCORE	42/48		0.12	<LOD	
		R5C (20"-42"): Brown fine SAND, trace medium sand, trace silt (wet)	0.0	19							Collected SB39_18-20.
			0.0	20							

LANGAN

Log of Boring **SB39** Sheet 2 of 2

Project	Project No.
250 Water Street	170381202
Location	**Elevation and Datum**
250 Water Street	N/A

MATERIAL SYMBOL	Elev. (ft)	Sample Description	PID (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	Jerome (ug/m^3)	XRF (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		R6A (0"-48"): Brown fine SAND, some medium sand, trace coarse sand (wet) [SP]	0.0	20	R6	MACROCORE	48/48		0.05	<LOD	
			0.0	21							
			0.0								
			0.0	22					0.28	<LOD	
			0.0								
			0.0	23							Collected SB39_22-24.
			0.0								
			0.0	24					0.00	<LOD	End of boring at 24 feet below grade surface. Borehole backfilled with soil cuttings and clean sand to grade and sealed with concrete.
				25							
				26							
				27							
				28							
				29							
				30							
				31							
				32							
				33							
				34							
				35							
				36							
				37							
				38							
				39							
				40							
				41							
				42							
				43							
				44							
				45							

LANGAN

Log of Boring **SB4E1** Sheet 1 of 2

Project: 250 Water Street	Project No.: 170381202
Location: 250 Water Street	Elevation and Datum: N/A
Drilling Company: AARCO Environmental Services, Corp.	Date Started: 7/27/20 — Date Finished: 7/27/20
Drilling Equipment: Geoprobe 7822 DT	Completion Depth: 30 ft — Rock Depth: N/A
Size and Type of Bit: 2-inch diameter closed point macro core	Number of Samples: Disturbed 8 — Undisturbed N/A — Core N/A
Casing Diameter (in): N/A — Casing Depth (ft): N/A	Water Level (ft.): First ▽ 15 — Completion ▼ N/A — 24 HR. ▼ N/A
Casing Hammer: N/A — Weight (lbs): N/A — Drop (in): N/A	Drilling Foreman: Nick Turro
Sampler: 4-foot long acetate liner	Field Engineer: Ashley Stappenbeck
Sampler Hammer: N/A — Weight (lbs): N/A — Drop (in): N/A	

Material Symbol	Elev. (ft)	Sample Description	PID (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	Jerome (ug/m^3)	XRF (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Asphalt	0.0	0							
		R1A (3"-35"): Brown fine SAND, trace coarse sand, brick, coal, ceramics (dry) [FILL]	0.0	1	R1	MACROCORE	35/48		0.41	<LOD	
			0.0	2							
			0.0	3					2.48	<LOD	
			0.0	4							
		R2A (0"-18"): Dark brown fine SAND, trace coarse sand, brick, glass, (dry) [FILL]	0.0	5	R2	MACROCORE	18/48				
			0.0	6					0.04	<LOD	
			0.0	7							
			0.0	8							
		R3A (0"-27"): Concrete and brick (dry) [FILL]	0.0	9	R3	MACROCORE	27/48				
			0.0	10					0.11	<LOD	
			0.0	11							
			0.0	12					0.25	<LOD	
		R4A (0"-18"): Tan to brown fine SAND, trace medium sand, trace coarse sand, coal, brick (dry) [FILL] ▽	0.0	13	R4	MACROCORE	21/48				
			0.0	14					0.25	<LOD	
			0.0	15							
			0.0	16					0.08	<LOD	
		R4B (18"-21"): Brown fine SAND, trace medium sand (wet) [SP]	0.0	17	R5	MACROCORE	33/48				
		R5A (0"-33"): Greyish brown fine SAND, trace medium sand, trace coarse sand (wet) [SP]	0.0	18					0.07	<LOD	
			0.0	19							
			0.0	20							

LANGAN

Log of Boring **SB4E1** Sheet 2 of 2

Project	Project No.
250 Water Street	170381202
Location	**Elevation and Datum**
250 Water Street	N/A

MATERIAL SYMBOL	Elev. (ft)	Sample Description	PID (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	Jerome (ug/m^3)	XRF (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		R6A (0"-45"): Greyish brown fine SAND, trace medium sand, trace coarse sand (wet) [SP]	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	20 21 22 23 24	R6	MACROCORE	45/48		0.08 0.04	<LOD <LOD	
		R7A (0"-38"): Greyish brown fine SAND, trace medium sand, trace coarse sand (wet) [SP]	0.0 0.0 0.0 0.0 0.0 0.0	25 26 27 28	R7	MACROCORE	38/48		0.01 0.05	<LOD <LOD	
		R8A (0-22"): Greyish brown fine SAND, trace medium sand, trace coarse sand (wet) [SP]	0.0 0.0 0.0	29 30	R8	MACROCORE	22/24		0.11	<LOD	End of boring at 30 feet below grade surface. Borehole backfilled with soil cuttings and clean sand to grade and sealed with asphalt.
				31 32 33 34 35 36 37 38 39 40 41 42 43 44 45							

LANGAN

Log of Boring **SB4E2** Sheet 1 of 2

Project: 250 Water Street	Project No.: 170381202
Location: 250 Water Street	Elevation and Datum: N/A
Drilling Company: AARCO Environmental Services, Corp.	Date Started: 7/28/20 — Date Finished: 7/28/20
Drilling Equipment: Geoprobe 7822 DT	Completion Depth: 30 ft — Rock Depth: N/A
Size and Type of Bit: 2-inch diameter closed point macro core	Number of Samples: Disturbed 8 — Undisturbed N/A — Core N/A
Casing Diameter (in): N/A — Casing Depth (ft): N/A	Water Level (ft.): First ▽ 15 — Completion ▼ N/A — 24 HR. ▼ N/A
Casing Hammer: N/A — Weight (lbs): N/A — Drop (in): N/A	Drilling Foreman: Nick Turro
Sampler: 4-foot long acetate liner	Field Engineer: Ashley Stappenbeck
Sampler Hammer: N/A — Weight (lbs): N/A — Drop (in): N/A	

Material Symbol	Elev. (ft)	Sample Description	PID (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	Jerome (ug/m^3)	XRF (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Asphalt		0							
		R1A (0-35"): Brown fine SAND, trace medium sand, brick, glass, ceramics, concrete (dry) [FILL]	0.0	1	R1	MACROCORE	35/48		0.07	<LOD	
			0.0	2							
			0.0	3					0.06	<LOD	
		R2A (0-36"): Brown fine SAND, trace medium sand, brick, glass, ceramics, concrete (dry) [FILL]	0.0	4	R2	MACROCORE	36/48		0.13	<LOD	
			0.0	5							
			0.0	6							
			0.0	7							
			0.0	8	R3	MACROCORE	32/48		0.04	<LOD	
		R3A (0-32"): Brown fine SAND, trace medium sand, brick, glass, ceramics, concrete (dry) [FILL]	0.0	9							
			0.0	10					0.12	<LOD	
			0.0	11							
			0.0	12	R4	MACROCORE	38/48		0.00	<LOD	
		R4A (0-26"): Brown fine SAND, trace medium sand, brick, glass, ceramics, concrete (dry) [FILL]	0.0	13							
			0.0	14					0.12	<LOD	
			0.0	15							
		R4B (26-38"): Brown fine SAND, some medium sand (wet) [SP]	0.0	16	R5	MACROCORE	28/48		0.10	<LOD	
			0.0	17							
		R5A (0-28") Brown fine SAND, some medium sand (wet) [SP]	0.0	18					0.02	<LOD	
			0.0	19							
			0.0	20							

LANGAN

Log of Boring **SB4E2** Sheet 2 of 2

Project	Project No.
250 Water Street	170381202
Location	**Elevation and Datum**
250 Water Street	N/A

MATERIAL SYMBOL	Elev. (ft)	Sample Description	PID (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	Jerome (ug/m^3)	XRF (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		R6A (0-44") Brown fine SAND, some medium sand (wet) [SP]	0.0	20	R6	MACROCORE	44/48		0.09	<LOD	
			0.0	21							
			0.0	22					0.06	<LOD	
			0.0	23							
			0.0	24					0.08	<LOD	
		R7A (0-40"): Brown fine SAND, some medium sand (wet) [SP]	0.0	25	R7	MACROCORE	40/48				
			0.0	26					0.06	<LOD	
			0.0	27							
			0.0	28					0.06	<LOD	
		R8A (0-24"): Brown fine SAND, some medium sand (wet) [SP]	0.0	29	R8	MACROCORE	24/24		0.06	<LOD	
			0.0	30					0.02	<LOD	End of boring at 30 feet below grade surface. Borehole backfilled with soil cuttings and clean sand to grade and sealed with asphalt.
				31							
				32							
				33							
				34							
				35							
				36							
				37							
				38							
				39							
				40							
				41							
				42							
				43							
				44							
				45							

LANGAN

Log of Boring **SB4N1** Sheet 1 of 2

Project: 250 Water Street	Project No.: 170381202
Location: 250 Water Street	Elevation and Datum: N/A
Drilling Company: AARCO Environmental Services, Corp.	Date Started: 7/28/20 — Date Finished: 7/28/20
Drilling Equipment: Geoprobe 7822 DT	Completion Depth: 30 ft — Rock Depth: N/A
Size and Type of Bit: 2-inch diameter closed point macro core	Number of Samples: Disturbed 8 — Undisturbed N/A — Core N/A
Casing Diameter (in): N/A — Casing Depth (ft): N/A	Water Level (ft.): First ▽ 18 — Completion ▼ N/A — 24 HR. ▼ N/A
Casing Hammer: N/A — Weight (lbs): N/A — Drop (in): N/A	Drilling Foreman: Nick Turro
Sampler: 4-foot long acetate liner	Field Engineer: Ashley Stappenbeck
Sampler Hammer: N/A — Weight (lbs): N/A — Drop (in): N/A	

Material Symbol	Elev. (ft)	Sample Description	PID (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	Jerome (ug/m³)	XRF (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Asphalt	0.0	0							
		R1A (0-34"): Dark brown fine SAND, trace coarse sand, brick, coal, concrete (dry) [FILL]	0.0	1	R1	MACROCORE	34/48		0.23	63.0	
			0.0	2							
			0.0	3					0.00	<LOD	
			0.0	4							
		R2A (0-3"): Dark brown fine SAND, trace coarse sand, brick, coal, concrete (dry) [FILL]	0.0	5							
		R2B (3-10"): Brown fine SAND, trace silt (dry)	0.0	6	R2	MACROCORE	30/48		0.06	<LOD	
		R2C (10-30"): Brown fine SAND, trace medium sand (dry) [SP]	0.0	7							
			0.0	8					0.00	<LOD	
		R3A (0-34"): Brown fine SAND, some medium sand (dry) [SP]	0.0	9							
			0.0	10	R3	MACROCORE	34/48		0.08	<LOD	
			0.0	11							
			0.0	12					0.02	<LOD	
		R4A (0-24"): Brown fine SAND, some medium sand (dry) [SP]	0.0	13							
			0.0	14	R4	MACROCORE	28/48		0.00	<LOD	
			0.0	15							
			0.0	16					0.00	<LOD	
		R5A (0-24") Brown fine SAND, some medium sand (dry) [SP]	0.0	17							
		▽	0.0	18	R5	MACROCORE	44/48		0.06	<LOD	
		R5B (24-44"): Brown fine SAND, some medium sand, trace coarse sand (wet) [SP]	0.0	19							
			0.0	20							

LANGAN

Log of Boring **SB4N1** Sheet 2 of 2

Project	Project No.
250 Water Street	170381202
Location	**Elevation and Datum**
250 Water Street	N/A

Material Symbol	Elev. (ft)	Sample Description	PID (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	Jerome (ug/m^3)	XRF (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		R6A (0-39") Brown fine SAND, some medium sand, trace coarse sand (wet) [SP]	0.0	20	R6	MACROCORE	39/48		0.00	<LOD	
			0.0	21							
			0.0	22					0.02	<LOD	
			0.0	23							
		R7A (0-42"): Brown fine SAND, trace medium sand, trace coarse sand (wet) [SP]	0.0	24	R7	MACROCORE	42/48		0.00	0.1	
			0.0	25							
			0.0	26					0.07	<LOD	
			0.0	27							
		R8A (0-20"): Brown fine SAND, trace medium sand, trace coarse sand (wet) [SP]	0.0	28	R8	MACROCORE	20/24		0.00	<LOD	
			0.0	29							
			0.0	30					0.00	<LOD	End of boring at 30 feet below grade surface. Borehole backfilled with soil cuttings and clean sand to grade and sealed with asphalt.
				31							
				32							
				33							
				34							
				35							
				36							
				37							
				38							
				39							
				40							
				41							
				42							
				43							
				44							
				45							

LANGAN

Log of Boring **SB4N3** Sheet 1 of 1

Project: 250 Water Street	Project No.: 170381202
Location: 250 Water Street	Elevation and Datum: N/A
Drilling Company: AARCO Environmental Services, Corp.	Date Started: 8/26/20 — Date Finished: 8/26/20
Drilling Equipment: AMS Power Probe 9580-VTR	Completion Depth: 12 ft — Rock Depth: N/A
Size and Type of Bit: 2-inch diameter closed point macro core	Number of Samples: Disturbed 3 — Undisturbed N/A — Core N/A
Casing Diameter (in): N/A — Casing Depth (ft): N/A	Water Level (ft.): First N/A — Completion N/A — 24 HR. N/A
Casing Hammer: N/A — Weight (lbs): N/A — Drop (in): N/A	Drilling Foreman: Rohn Dixon
Sampler: 4-foot long acetate liner	Field Engineer: Tyler Zorn
Sampler Hammer: N/A — Weight (lbs): N/A — Drop (in): N/A	

Material Symbol	Elev. (ft)	Sample Description	PID (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	Jerome (ug/m^3)	XRF (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		R1A (0"-28"): Reddish brown to grey fine SAND, some fine gravel, trace medium sand, brick, concrete (dry) [FILL]	0.0 0.0 0.0 0.0 0.0	0 1 2 3 4	R1	MACROCORE	28/48				
		R2A (26"-48"): Light brown to brown fine SAND, some medium sand (moist) [SP]	0.0 0.0 0.0 0.0	5 6 7 8	R2	MACROCORE	22/48				
		R3A (14"-48"): Light brown to brown fine SAND, some medium sand (moist) [SP]	0.0 0.0 0.0 0.0 0.0 0.0 0.0	9 10 11 12	R3	MACROCORE	34/48				End of boring at 12 feet below grade surface. Borehole backfilled with soil cuttings and clean sand to grade and sealed with concrete.
				13 14 15 16 17 18 19 20							

LANGAN

Log of Boring **SB4NE3** Sheet 1 of 1

Project: 250 Water Street	Project No.: 170381202
Location: 250 Water Street	Elevation and Datum: N/A
Drilling Company: AARCO Environmental Services, Corp.	Date Started: 8/26/20 — Date Finished: 8/26/20
Drilling Equipment: AMS Power Probe 9580-VTR	Completion Depth: 16 ft — Rock Depth: N/A
Size and Type of Bit: 2-inch diameter closed point macro core	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 — Completion ▼ N/A — 24 HR. ▼ N/A
Casing Hammer: N/A — Weight (lbs): N/A — Drop (in): N/A	Drilling Foreman: Rohn Dixon
Sampler: 4-foot long acetate liner	Field Engineer: Tyler Zorn
Sampler Hammer: N/A — Weight (lbs): N/A — Drop (in): N/A	

Material Symbol	Elev. (ft)	Sample Description	PID (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	Jerome (ug/m³)	XRF (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		R1A (0"-44"): Tan to dark brownish grey fine SAND, some fine gravel, some medium sand, brick, concrete (dry) [FILL]	0.0	0	R1	MACROCORE	44/48				
			0.0	1							
			0.0	2							
			0.0	3							
			0.0	4							
		R2A (10"-48"): Brown to dark grey fine SAND, some fine gravel, some medium sand, brick, concrete (dry) [FILL]	0.0	5	R2	MACROCORE	38/48				
			0.0	6							
			0.0	7							
			0.0	8							
		R3A (18"-48"): Light brown to grey fine SAND, some fine gravel, some medium sand, brick, concrete (moist) [FILL]	0.0	9	R3	MACROCORE	30/48				
			0.0	10							
			0.0	11							
		▽	0.0	12							Petroleum-like odors from 12 to 13.5 feet below grade surface (bgs).
			6.3	13	R4	MACROCORE	36/48				
		R4A (12"-48"): Brown fine SAND, some medium sand (moist) [SP]	8.2	14							
			0.6	15							
			0.0	16							End of boring at 16 feet bgs. Borehole backfilled with soil cuttings and clean sand to grade and sealed with concrete.
			0.0	17							
			0.0	18							
				19							
				20							

LANGAN

Log of Boring **SB4NW3** Sheet 1 of 1

Project: 250 Water Street	Project No.: 170381202
Location: 250 Water Street	Elevation and Datum: N/A
Drilling Company: AARCO Environmental Services, Corp.	Date Started: 8/26/20 — Date Finished: 8/26/20
Drilling Equipment: AMS Power Probe 9580-VTR	Completion Depth: 16 ft — Rock Depth: N/A
Size and Type of Bit: 2-inch diameter closed point macro core	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 ▽ N/A — Completion ▼ N/A — 24 HR. ▼ N/A
Casing Hammer: N/A — Weight (lbs): N/A — Drop (in): N/A	Drilling Foreman: Rohn Dixon
Sampler: 4-foot long acetate liner	Field Engineer: Lexi Haley
Sampler Hammer: N/A — Weight (lbs): N/A — Drop (in): N/A	

Material Symbol	Elev. (ft)	Sample Description	PID (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	Jerome (ug/m³)	XRF (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Asphalt	0.0	0							
		R1A (6"-32"): Red to greyish brown fine SAND, some fine gravel, brick, concrete (dry) [FILL]	0.0	1	R1	MACROCORE	32/48				
			0.0	2							
			0.0	3							
			0.0	4							
		R2A (6"-12"): Red to greyish brown fine SAND, some fine gravel, brick, concrete (dry) [FILL]	0.0	5	R2	MACROCORE	42/48				
		R2B (12"-27"): Brown fine SAND, trace silt (dry) [SP-SM]	0.0	6							
		R2C (27"-48"): Light brown fine SAND, trace medium sand (dry) [SP]	0.0	7							
			0.0	8							
		R3A (12"-28"): Grey medium sand, trace fine sand (dry) [SP]	0.0	9	R3	MACROCORE	36/48				
		R3B (16"-48"): Grey fine SAND, trace medium sand (dry) [SP]	0.0	10							
			0.0	11							
			0.0	12							
		R4A (6"-29"): Grey medium SAND, trace fine sand (dry) [SP]	0.0	13	R4	MACROCORE	42/48				
		R4B (29"-48"): Grey fine SAND, trace medium sand (dry) [SP]	0.0	14							
			0.0	15							
			0.0	16							End of boring at 16 feet below grade surface. Borehole backfilled with soil cuttings and clean sand to grade and sealed with concrete.
				17							
				18							
				19							
				20							

LANGAN

Log of Boring **SB4R** Sheet 1 of 2

Project: 250 Water Street	Project No.: 170381202
Location: 250 Water Street	Elevation and Datum: N/A
Drilling Company: AARCO Environmental Services, Corp.	Date Started: 7/27/20 — Date Finished: 7/27/20
Drilling Equipment: Geoprobe 7822 DT	Completion Depth: 30 ft — Rock Depth: N/A
Size and Type of Bit: 2-inch diameter closed point macro core	Number of Samples: Disturbed 8 — Undisturbed N/A — Core N/A
Casing Diameter (in): N/A — Casing Depth (ft): N/A	Water Level (ft.): First ▽ 15.5 — Completion ▼ N/A — 24 HR. ▼ N/A
Casing Hammer: N/A — Weight (lbs): N/A — Drop (in): N/A	Drilling Foreman: Nick Turro
Sampler: 4-foot long acetate liner	Field Engineer: Ashley Stappenbeck
Sampler Hammer: N/A — Weight (lbs): N/A — Drop (in): N/A	

Material Symbol	Elev. (ft)	Sample Description	PID (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	Jerome (ug/m³)	XRF (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Asphalt	317	0							
		R1A (0"- 40"): Brown (plus yellow and reddish brown speckles) fine SAND, trace coarse sand, brick, coal, mortar (dry) [FILL]	287.5	1							
			262.7								
			473.4	2	R1	MACROCORE	40/48				
			360						0.00	0.43	Gold and rust colored flecks
			333.3	3							
			189								
			288.5	4					0.00	1.17	
			492.6								
			109.6	5							
			498.9						0.00	3.34	
		R2A (0"-32"): Brown to black fine SAND, trace coarse sand (dry) [FILL]		6	R2	MACROCORE	32/48				
				7							
			331.6	8					0.00	2.247	
			396.2								
			570.5	9							
				10	R3	MACROCORE	12/48				
		R3A (0"-12"): Tan to black fine SAND, trace clay, trace silt, trace coarse sand, brick fragments (dry) [FILL]		11							
			8	12					0.00	6.63	
			9.3								
			291.1	13							
			20.2								
				14	R4	MACROCORE	19/48				
		R4A (0"-6") Tan to black fine SAND, trace silt, trace coarse sand, brick (dry) [FILL]		15							
		R4B (6"-19"): Brown medium SAND, some fine sand, trace coarse sand (wet) [SP] ▽									
				16							
				17							
				18	R5	MACROCORE	25/48				
		R5A (0"-25"): Brown fine SAND, trace medium sand, trace coarse sand (wet) [SP]		19							
				20							

LANGAN

Log of Boring **SB4R** Sheet 2 of 2

Project	Project No.
250 Water Street	170381202
Location	**Elevation and Datum**
250 Water Street	N/A

MATERIAL SYMBOL	Elev. (ft)	Sample Description	PID (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	Jerome (ug/m^3)	XRF (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		R6A (0"-43"): Brown fine SAND, trace medium sand, trace coarse sand (wet) [SP]		20	R6	MACROCORE	43/48				
		R7A (0"-31"): Brown fine SAND, trace medium sand, trace coarse sand (wet) [SP]		24	R7	MACROCORE	31/48				
		R8A (0"-20"): Brown fine SAND, trace medium sand, trace coarse sand (wet) [SP]		28	R8	MACROCORE	20/24				
				30							End of boring at 30 feet below grade surface. Borehole backfilled with soil cuttings and clean sand to grade and sealed with asphalt.
				45							

LANGAN

Log of Boring **SB4S2** Sheet 1 of 2

Project: 250 Water Street	Project No.: 170381202
Location: 250 Water Street	Elevation and Datum: N/A
Drilling Company: AARCO Environmental Services, Corp.	Date Started: 7/29/20 — Date Finished: 7/29/20
Drilling Equipment: Geoprobe 7822 DT	Completion Depth: 30 ft — Rock Depth: N/A
Size and Type of Bit: 2-inch diameter closed point macro core	Number of Samples: Disturbed 8 — Undisturbed N/A — Core N/A
Casing Diameter (in): N/A — Casing Depth (ft): N/A	Water Level (ft.): First ▽ 16 — Completion ▼ N/A — 24 HR. ▼ N/A
Casing Hammer: N/A — Weight (lbs): N/A — Drop (in): N/A	Drilling Foreman: Nick Turro
Sampler: 4-foot long acetate liner	Field Engineer: Ashley Stappenbeck
Sampler Hammer: N/A — Weight (lbs): N/A — Drop (in): N/A	

Material Symbol	Elev. (ft)	Sample Description	PID (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	Jerome (ug/m^3)	XRF (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Asphalt	0.0	0							
		R1A (0-38"): Dark brown fine SAND, trace coarse sand, trace medium sand, brick, coal (dry) [FILL]	0.0	1	R1	MACROCORE	41/48		0.00	<LOD	
			6.6								
			0.0	2							
			0.0								
			0.0	3							
			0.0						0.78	<LOD	
				4							
		R2A (0-22"): Brown fine SAND, trace medium sand, trace coarse sand, trace silt, brick (dry) [FILL]	0.0	5	R2	MACROCORE	29/48		0.88	28.0	
			0.0	6							
			0.0								
		R2B (22-29"): Brown fine SAND, some medium sand, trace coarse sand, brick (dry) [FILL]	0.0	7							
			0.0								
			0.0	8					0.44	<LOD	
		R3A (0-12"): Brown fine SAND, trace medium sand, trace coarse sand, brick (dry) [FILL]	0.0	9	R3	MACROCORE	29/48				
			0.0	10					0.76	<LOD	
		R3B (12-29"): Brown fine SAND, some medium sand (dry) [SP]	0.0								
			0.0	11							
			0.0								
			0.0	12					0.69	<LOD	
				13							
		R4A (0-23"): Brown fine SAND, some medium sand (dry) [SP]	0.0	14	R4	MACROCORE	26/48		0.27	<LOD	
			0.0								
			0.0	15							
			1.0								
		R4B (23-26"): Brown fine SAND, some medium sand (wet) [SP] ▽	1.2	16					0.23	<LOD	
		R5A (0-22"): Grey to brown fine SAND, trace medium sand (wet) [SP]	16.2	17	R5	MACROCORE	42/48				
			18.9								
			27.9	18					0.00	<LOD	
		R5B (23-32"): Dark grey fine SAND, trace medim sand (wet) [SP]	42.7								
			14	19							
		R5C (32-42"): Brown fine SAND, trace medium sand (wet) [SP]	11.7								
				20							

LANGAN

Log of Boring **SB4S2** Sheet 2 of 2

Project	Project No.
250 Water Street	170381202
Location	**Elevation and Datum**
250 Water Street	N/A

Material Symbol	Elev. (ft)	Sample Description	PID (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	Jerome (ug/m^3)	XRF (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		R6A (0-40"): Brown fine SAND, trace medium sand (wet) [SP]	7.7 10 3.9 0.0 0.6 0.0 0.0 0.0	20 21 22 23	R6	MACROCORE	40/48		0.12 0.00	<LOD <LOD	
		R7A (0-36"): Brown fine SAND, trace medium sand (wet) [SP]	0.0 0.0 0.0 0.0 0.0 0.0	24 25 26 27	R7	MACROCORE	36/48		0.02 0.00	<LOD <LOD	
		R8A (0-24"): Brown fine SAND, trace medium sand (wet) [SP]	0.0 0.0 0.0 0.0 0.0	28 29 30	R8	MACROCORE	24/24		0.00 0.00	<LOD 1.0	End of boring at 30 feet below grade surface. Borehole backfilled with soil cuttings and clean sand to grade and sealed with asphalt.
				31 32 33 34 35 36 37 38 39 40 41 42 43 44 45							

\\LANGAN.COM\DATA\NY\DATA2\170381202\PROJECT DATA_DISCIPLINE\ENVIRONMENTAL\GINTLOGS\170381202_ENTERPRISE_LH_UPDATED_TM.GPJ ... 1/25/2021 8:43:18 AM ... Report: Log - LANGAN

LANGAN

Log of Boring **SB4S3** Sheet 1 of 1

Project: 250 Water Street	Project No.: 170381202
Location: 250 Water Street	Elevation and Datum: N/A
Drilling Company: AARCO Environmental Services, Corp.	Date Started: 8/26/20 — Date Finished: 8/26/20
Drilling Equipment: AMS Power Probe 9580-VTR	Completion Depth: 16 ft — Rock Depth: N/A
Size and Type of Bit: 2-inch diameter closed point macro core	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 — Completion ▼ N/A — 24 HR. ▼ N/A
Casing Hammer: N/A — Weight (lbs): N/A — Drop (in): N/A	Drilling Foreman: Rohn Dixon
Sampler: 4-foot long acetate liner	Field Engineer: Tyler Zorn
Sampler Hammer: N/A — Weight (lbs): N/A — Drop (in): N/A	

Material Symbol	Elev. (ft)	Sample Description	PID (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	Jerome (ug/m³)	XRF (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		R1A (0"-36"): Reddish brown to grey fine SAND, some fine gravel, trace medium sand, brick, concrete (dry) [FILL]	0.0	0	R1	MACROCORE	36/48				
			0.0	1							
			0.0	2							
			0.0	3							
			0.0	4							
		R2A (12"-48"): Reddish brown to grey fine SAND, some fine gravel, trace medium sand, brick, concrete (dry) [FILL]	0.0	5	R2	MACROCORE	36/48				
			0.0	6							
			0.0	7							
			0.0	8							
		R3A (0"-20"): Reddish brown to grey fine SAND, some fine gravel, trace medium sand, brick, concrete (dry) [FILL]	0.0	9	R3	MACROCORE	48/48				
			0.0	10							
		R3B (20"-48"): Light brown to brown fine SAND, some medium sand (moist) [SP]	1.2	11							
			1.7	12							
			0.6	13							
		R4A (10"-48"): Brown to dark grey fine SAND, some medium sand (wet) [SP]	0.0	14	R4	MACROCORE	38/48				Pertroleum-like odors and staining from 14 to 16 feet below grade surface (bgs).
			0.0	15							
			0.0	16							End of boring at 16 feet bgs. Borehole backfilled with soil cuttings and clean sand to grade and sealed with concrete.
			18.6	17							
			56.2	18							
			102.8	19							
				20							

LANGAN

Log of Boring **SB4SE3** Sheet 1 of 1

Project: 250 Water Street	Project No.: 170381202
Location: 250 Water Street	Elevation and Datum: N/A
Drilling Company: AARCO Environmental Services, Corp.	Date Started: 8/26/20 — Date Finished: 8/26/20
Drilling Equipment: AMS Power Probe 9580-VTR	Completion Depth: 16 ft — Rock Depth: N/A
Size and Type of Bit: 2-inch diameter closed point macro core	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 — Completion ▼ N/A — 24 HR. ▼ N/A
Casing Hammer: N/A — Weight (lbs): N/A — Drop (in): N/A	Drilling Foreman: Rohn Dixon
Sampler: 4-foot long acetate liner	Field Engineer: Tyler Zorn
Sampler Hammer: N/A — Weight (lbs): N/A — Drop (in): N/A	

Material Symbol	Elev. (ft)	Sample Description	PID (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	Jerome (ug/m³)	XRF (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		R1A (0"-42"): Light brown to grey fine SAND, some fine gravel, trace medium sand, brick, concrete (dry) [FILL]	0.0	0	R1	MACROCORE	42/48				
			0.0	1							
			0.0	2							
			0.0	3							
			0.0	4							
		R2A (0"-48"): Reddish brown to grey fine SAND, some fine gravel, trace medium sand, brick, concrete (dry) [FILL]	0.0	5	R2	MACROCORE	48/48				
			0.0	6							
			0.0	7							
			0.0	8							
		R3A (7"-48"): Reddish brown to light grey fine SAND, some fine gravel, trace medium sand, brick, concrete (moist) [FILL]	0.0	9	R3	MACROCORE	41/48				
			0.0	10							
			0.0	11							
		▽	0.0	12							
			41.1								
		R4A (8"-48"): Brown to dark grey fine SAND, some medium sand (wet) [SP]	62.0	13	R4	MACROCORE	40/48				
			218.0	14							Petroleum-like odors and staining from 12 to 16 feet below grade surface (bgs).
			11.7	15							
			9.1	16							End of boring at 16 feet bgs. Borehole backfilled with soil cuttings and clean sand to grade and sealed with concrete.
				17							
				18							
				19							
				20							

LANGAN

Log of Boring **SB4SW3** Sheet 1 of 1

Project: 250 Water Street	Project No.: 170381202
Location: 250 Water Street	Elevation and Datum: N/A
Drilling Company: AARCO Environmental Services, Corp.	Date Started: 8/26/20 — Date Finished: 8/26/20
Drilling Equipment: AMS Power Probe 9580-VTR	Completion Depth: 12 ft — Rock Depth: N/A
Size and Type of Bit: 2-inch diameter closed point macro core	Number of Samples: Disturbed 3 — Undisturbed N/A — Core N/A
Casing Diameter (in): N/A — Casing Depth (ft): N/A	Water Level (ft.): First ▽ 12 — Completion ▼ N/A — 24 HR. ▼ N/A
Casing Hammer: N/A — Weight (lbs): N/A — Drop (in): N/A	Drilling Foreman: Rohn Dixon
Sampler: 4-foot long acetate liner	Field Engineer: Tyler Zorn
Sampler Hammer: N/A — Weight (lbs): N/A — Drop (in): N/A	

Material Symbol	Elev. (ft)	Sample Description	PID (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	Jerome (ug/m^3)	XRF (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		R1A (0"-10"): Reddish brown to grey fine SAND, some fine gravel, some medium sand, brick, concrete (dry) [FILL]	0.0	0							
		R1B (10"-38"): Brown to dark brown fine SAND, trace medium sand (dry) [FILL]	0.0	1							
			0.0	2	R1	MACROCORE	38/48				
			0.0	3							
			0.0	4							
		R2A (0"-36"): Brown to dark brown fine SAND, trace medium sand (dry) [FILL]	0.0	5							
			0.0	6	R2	MACROCORE	48/48				
			0.0	7							
		R2B (36"-48"): Light brown medium sand (dry) [SP]	0.0	8							
		R3A (0"-48"): Light brown medium sand (dry) [SP]	0.0	9							
			0.0	10	R3	MACROCORE	48/48				
			0.0	11							
		▽	0.0	12							End of boring at 12 feet below grade surface. Borehole backfilled with soil cuttings and clean sand to grade and sealed with concrete.
				13							
				14							
				15							
				16							
				17							
				18							
				19							
				20							

LANGAN

Log of Boring **SB4W1** Sheet 1 of 2

Project: 250 Water Street	Project No.: 170381202
Location: 250 Water Street	Elevation and Datum: N/A
Drilling Company: AARCO Environmental Services, Corp.	Date Started: 7/27/20 — Date Finished: 7/27/20
Drilling Equipment: Geoprobe 7822 DT	Completion Depth: 30 ft — Rock Depth: N/A
Size and Type of Bit: 2-inch diameter closed point macro core	Number of Samples: Disturbed 8 — Undisturbed N/A — Core N/A
Casing Diameter (in): N/A — Casing Depth (ft): N/A	Water Level (ft.): First ▽ 18 — Completion ▼ N/A — 24 HR. ▼ N/A
Casing Hammer: N/A — Weight (lbs): N/A — Drop (in): N/A	Drilling Foreman: Nick Turro
Sampler: 4-foot long acetate liner	Field Engineer: Adrian Heath
Sampler Hammer: N/A — Weight (lbs): N/A — Drop (in): N/A	

Material Symbol	Elev. (ft)	Sample Description	PID (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	Jerome (ug/m^3)	XRF (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Asphalt	0.0	0							
		R1A (3"-15"): Brown fine SAND, trace coarse sand, brick, concrete (dry) [FILL]	0.0	1					0.15	<LOD	
		R1B (15"-30"): Light brown fine SAND (dry) [FILL]	0.0	2	R1	MACROCORE	30/48				
			0.0	3					0.09	<LOD	
			0.0	4							
				5							
		R2A (0-10"): Light brown fine SAND (dry) [SP]	0.0	6	R2	MACROCORE	28/48		0.09	<LOD	
		R2B (10"-28"): Grey brown fine SAND, some medium sand (dry) [SP]	0.0	7							
			0.0	8					0.02	<LOD	
		R3A (0"-32"): Grey brown fine SAND, some medium sand (dry) [SP]	0.0	9							
			0.0	10	R3	MACROCORE	32/48		0.02	<LOD	
			0.0	11							
			0.0	12					0.03	<LOD	
		R4A (0"-32"): Grey brown fine SAND, some medium sand, trace fine gravel (dry) [SP]	0.0	13							
			0.0	14	R4	MACROCORE	32/48		0.05	<LOD	
			0.0	15							
			0.0	16					0.12	<LOD	
			0.0	17							
		R5A (0"-24"): Grey brown fine SAND, some medium sand, trace fine gravel (dry) [SP] ▽	0.0	18	R5	MACROCORE	48/48		0.06	<LOD	
			0.0	19							
			0.0	20							

LANGAN

Log of Boring **SB4W1** Sheet 2 of 2

Project	Project No.
250 Water Street	170381202
Location	**Elevation and Datum**
250 Water Street	N/A

Material Symbol	Elev. (ft)	Sample Description	PID (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	Jerome (ug/m^3)	XRF (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		R6A (0"-42"): Brown medium SAND, some fine sand (wet) [SP]	0.0	20	R6	MACROCORE	42/48		0.05	<LOD	
			0.0	21							
			0.0	22					0.06	<LOD	
			0.0	23							
			0.0	24					0.03	<LOD	
		R7A (0"-36"): Brown medium SAND, some fine sand (wet) [SP]	0.0	25	R7	MACROCORE	36/48				
			0.0	26					0.02	<LOD	
			0.0	27							
			0.0	28					0.00	<LOD	
		R8A (0"-12"): Brown medium SAND, some fine sand (wet) [SP]	0.0	29	R8	MACROCORE	12/24				
			0.0	30					0.05	<LOD	End of boring at 30 feet below grade surface. Borehole backfilled with soil cuttings and clean sand to grade and sealed with asphalt.
				31							
				32							
				33							
				34							
				35							
				36							
				37							
				38							
				39							
				40							
				41							
				42							
				43							
				44							
				45							

LANGAN

Log of Boring **SB4W2** Sheet 1 of 2

Project: 250 Water Street	Project No.: 170381202
Location: 250 Water Street	Elevation and Datum: N/A
Drilling Company: AARCO Environmental Services, Corp.	Date Started: 7/29/20 — Date Finished: 7/29/20
Drilling Equipment: Geoprobe 7822 DT	Completion Depth: 30 ft — Rock Depth: N/A
Size and Type of Bit: 2-inch diameter closed point macro core	Number of Samples: Disturbed 8 — Undisturbed N/A — Core N/A
Casing Diameter (in): N/A — Casing Depth (ft): N/A	Water Level (ft.): First ▽ 15.5 — Completion ▼ N/A — 24 HR. ▼ N/A
Casing Hammer: N/A — Weight (lbs): N/A — Drop (in): N/A	Drilling Foreman: Nick Turro
Sampler: 4-foot long acetate liner	Field Engineer: Ashley Stappenbeck
Sampler Hammer: N/A — Weight (lbs): N/A — Drop (in): N/A	

Material Symbol	Elev. (ft)	Sample Description	PID (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	Jerome (ug/m^3)	XRF (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Asphalt		0							
		R1A (0-31"): Brown fine SAND, trace coarse sand, brick, concrete, coal (dry) [FILL]	0.0	0							
			0.0	1							
			0.0		R1	MACROCORE	31/48		1.15	61.0	
			0.0	2							
			0.0						1.79	179.0	
				3							
				4							
		R2A (0-6"): Brown fine SAND, trace medium sand, coal, brick (dry) [FILL]	0.0						1.00	<LOD	
			0.0	5							
		R2B (6-40"): Light brown fine medium SAND, some fine sand (dry) [SP]	0.0								
			0.0	6	R2	MACROCORE	40/48		1.46	<LOD	
			0.0								
			0.0	7							
			0.0								
			0.0	8					0.32	<LOD	
		R3A (0-26"): Brown fine SAND, trace clay (dry)		9							
			0.0								
			0.0	10	R3	MACROCORE	34/48				
			0.0								
			0.0	11							
		R3B (26-29"): Light brown medium SAND, trace fine sand (dry) [SP]	0.0								
		R3C (29-34"): Brown fine SAND, trace medium sand (dry) [SP]	0.0	12					0.30	<LOD	
		R4A (0-31"): Light brown fine SAND, trace medium sand (wet) [SP]		13							
			0.0								
			0.0	14	R4	MACROCORE	31/48		1.26	<LOD	
			0.0								
			0.0	15							
		▽	0.0								
			0.0	16					1.72	1.0	
		R5A (0-34"): Brown fine SAND, trace medium sand, trace coarse sand (wet) [SP]		17							
			0.0								
			0.0	18	R5	MACROCORE	34/48		0.10	<LOD	
			0.0								
			0.0	19							
			0.0								
				20							

LANGAN

Log of Boring **SB4W2** Sheet 2 of 2

Project	Project No.
250 Water Street	170381202
Location	**Elevation and Datum**
250 Water Street	N/A

Material Symbol	Elev. (ft)	Sample Description	PID (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	Jerome (ug/m^3)	XRF (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		R6A (0-27"): Brown fine SAND, trace medium sand, trace coarse sand (wet) [SP]	0.0	20	R6	MACROCORE	27/48		0.13	<LOD	
			0.0	21							
			0.0	22					0.11	<LOD	
			0.0	23							
			0.0	24					0.34	<LOD	
		R7A (0-40"): Brown fine SAND, trace medium sand, trace coarse sand (wet) [SP]	0.0	25	R7	MACROCORE	40/48				
			0.0	26					0.41	<LOD	
			0.0	27							
		R7A (0-24"): Brown fine SAND, trace medium sand, trace coarse sand (wet) [SP]	0.0	28					0.06	<LOD	
			0.0	29	R8	MACROCORE	24/24				
			0.0	30					0.02	<LOD	End of boring at 30 feet below grade surface. Borehole backfilled with soil cuttings and clean sand to grade and sealed with asphalt.
				31							
				32							
				33							
				34							
				35							
				36							
				37							
				38							
				39							
				40							
				41							
				42							
				43							
				44							
				45							

LANGAN

Log of Boring **SB4W3** Sheet 1 of 1

Project: 250 Water Street	Project No.: 170381202
Location: 250 Water Street	Elevation and Datum: N/A
Drilling Company: AARCO Environmental Services, Corp.	Date Started: 8/26/20 — Date Finished: 8/26/20
Drilling Equipment: AMS Power Probe 9580-VTR	Completion Depth: 12 ft — Rock Depth: N/A
Size and Type of Bit: 2-inch diameter closed point macro core	Number of Samples: Disturbed 3 — Undisturbed N/A — Core N/A
Casing Diameter (in): N/A — Casing Depth (ft): N/A	Water Level (ft.): First N/A — Completion N/A — 24 HR. N/A
Casing Hammer: N/A — Weight (lbs): N/A — Drop (in): N/A	Drilling Foreman: Rohn Dixon
Sampler: 4-foot long acetate liner	Field Engineer: Tyler Zorn
Sampler Hammer: N/A — Weight (lbs): N/A — Drop (in): N/A	

Material Symbol	Elev. (ft)	Sample Description	PID (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	Jerome (ug/m^3)	XRF (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		R1A (0"-42"): Reddish brown to grey fine SAND, some fine gravel, trace medium sand, brick, concrete (dry) [FILL]	0.0	0	R1	MACROCORE	42/48				
		R2A (2"-10"): Reddish brown to grey fine sand, some fine gravel, some fine sand, trace medium sand, concrete, brick, shells (dry) [FILL]	0.0	4	R2	MACROCORE	46/48				
		R2B (10"-36"): Brown fine SAND, trace medium sand (dry) [SP]	0.0	5							
		R2C (36"-48"): Light brown medium sand (dry) [SP]	0.0	7							
		R3A (0"-48"): Light brown medium sand (dry) [SP]	0.0	8	R3	MACROCORE	48/48				
			0.0	12							End of boring at 12 feet below grade surface. Borehole backfilled with soil cuttings and clean sand to grade and sealed with concrete.
				20							

APPENDIX D

MONITORING WELL CONSTRUCTION LOGS

WELL CONSTRUCTION AND DEVELOPMENT SUMMARY

Well No. MW11

PROJECT			PROJECT NO.	
250 Water Street			170381202	
LOCATION			**ELEVATION AND DATUM**	
New York, New York			N/A	
DRILLING AGENCY			**DATE STARTED**	**DATE FINISHED**
AARCO Environmental Services Corp.			8/19/2020	8/19/2020
DRILLING EQUIPMENT			**DRILLER**	
Geoprobe® 7822 DT			Rohn Dixon	
SIZE AND TYPE OF BIT			**INSPECTOR**	
2-inch Direct Push			Tyler Zorn	
BOREHOLE DIAMETER			**TYPE OF WELL (OVERBURDEN / BEDROCK)**	
2-inch			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 below grade surface (bgs). The borehole was backfilled with clean sand to about 15 feet bgs and a 2-inch PVC monitoring well was installed, which consisted of 10 feet of 20-slot (0.020-inch) well screen between 5 and 15 feet bgs and a solid 2-inch riser to grade surface. The annulus was filled with sand to one foot above the screened interval and sealed with bentonite to grade. The well was developed by AARCO Environmental Services, Corp. on 08/20/2020.

WELL DEVELOPMENT DATA

SURGE BLOCK DIAMETER	N/A	**TYPE PUMP**	Whale Pump	**DEVELOPMENT CONFIRMATION**
DRILLER OR LANGAN	Driller	**MAX PUMP RATE**	2.2 gpm	Confirmed by Langan on 08/20/2020
NUMBER OF SURGE CYCLES	N/A	**TOTAL VOLUME**	5 gallons	

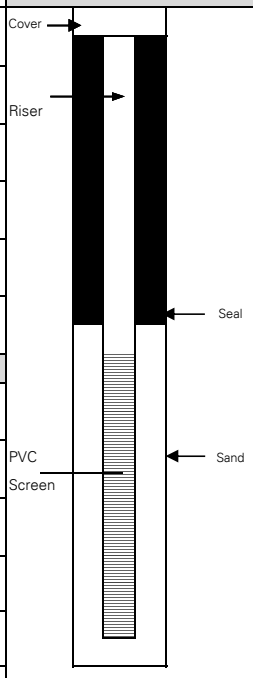
	ELEVATION	DEPTH (ft)
TOP OF CASING		0
TOP OF SEAL	N/A	0
TOP OF FILTER	N/A	4
TOP OF SCREEN	N/A	5
BOTTOM OF BORING	N/A	15
SCREEN LENGTH		10'
SLOT SIZE		No. 20 Slot; 0.020 Inches

GROUNDWATER ELEVATIONS

ELEVATION	DATE	DEPTH TO WATER
	9/3/2020	9.62

*MEASURED FROM TOP OF MONITORING WELL CASING

WELL DETAILS



SUMMARY SOIL CLASSIFICATION	DEPTH (FT)
	0.00
	5.00
	15.00

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. MW17

PROJECT		PROJECT NO.	
250 Water Street		170381202	
LOCATION		**ELEVATION AND DATUM**	
New York, New York		N/A	
DRILLING AGENCY		**DATE STARTED**	**DATE FINISHED**
AARCO Environmental Services Corp.		7/31/2020	7/31/2020
DRILLING EQUIPMENT		**DRILLER**	
Geoprobe® 7822 DT		Sergio Magana	
SIZE AND TYPE OF BIT		**INSPECTOR**	
2-inch Direct Push		Ashley Stappenbeck	
BOREHOLE DIAMETER		**TYPE OF WELL (OVERBURDEN / BEDROCK)**	
2-inch		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 30 feet below grade surface (bgs). The borehole was backfilled with clean sand to about 17 feet bgs and a 2-inch PVC monitoring well was installed, which consisted of 10 feet of 20-slot (0.020-inch) well screen between 7 and 17 feet bgs and a solid 2-inch riser to grade surface. The annulus was filled with clean sand to one foot above the screened interval, followed by a with a two-foot thick bentonite layer, and clean sand to grade. The well was developed by AARCO Environmental Services, Corp. on August 3, 2020.

WELL DEVELOPMENT DATA

SURGE BLOCK DIAMETER	N/A	**TYPE PUMP**	Whale Pump	**DEVELOPMENT CONFIRMATION**
DRILLER OR LANGAN	Driller	**MAX PUMP RATE**	2.2 gpm	Confirmed by Langan on 8/3/2020
NUMBER OF SURGE CYCLES	N/A	**TOTAL VOLUME**	5 gallons	

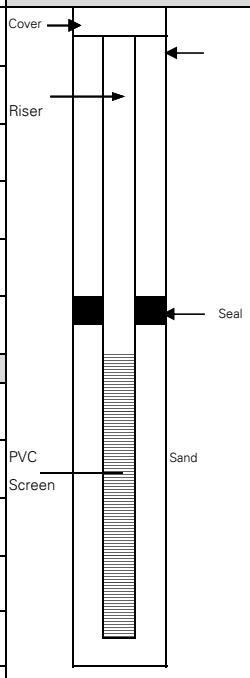
	ELEVATION	DEPTH (ft)
TOP OF CASING		0
TOP OF SEAL	N/A	4
TOP OF FILTER	N/A	6
TOP OF SCREEN	N/A	7
BOTTOM OF BORING	N/A	17
SCREEN LENGTH		10'
SLOT SIZE		No. 20 Slot; 0.020 Inches

GROUNDWATER ELEVATIONS

ELEVATION	DATE	DEPTH TO WATER
	9/3/2020	9.53

***MEASURED FROM TOP OF MONITORING WELL CASING**

WELL DETAILS



SUMMARY SOIL CLASSIFICATION	DEPTH (FT)
	0.00
	4.00
	7.00
	17.00

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. MW15

PROJECT		PROJECT NO.	
250 Water Street		170381202	
LOCATION		**ELEVATION AND DATUM**	
New York, New York		N/A	
DRILLING AGENCY		**DATE STARTED**	**DATE FINISHED**
AARCO Environmental Services Corp.		8/19/2020	8/19/2020
DRILLING EQUIPMENT		**DRILLER**	
Geoprobe® 7822 DT		Rohn Dixon	
SIZE AND TYPE OF BIT		**INSPECTOR**	
2-inch Direct Push		Tyler Zorn	
BOREHOLE DIAMETER		**TYPE OF WELL (OVERBURDEN / BEDROCK)**	
2-inch		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 below grade surface (bgs). The borehole was advanced to about 22 feet bgs and a 2-inch PVC monitoring well was installed, which consisted of 10 feet of 20-slot (0.020-inch) well screen between 12 and 22 feet bgs and a solid 2-inch riser to grade surface. The annulus was filled with clean sand to one foot above the screened interval, followed by a with a two-foot thick bentonite layer, and clean sand to grade. The well was developed by AARCO Environmental Services, Corp. on 08/20/2020.

WELL DEVELOPMENT DATA

SURGE BLOCK DIAMETER	N/A	**TYPE PUMP**	Whale Pump	**DEVELOPMENT CONFIRMATION**
DRILLER OR LANGAN	Driller	**MAX PUMP RATE**	2.2 gpm	Confirmed by Langan on 08/20/2020
NUMBER OF SURGE CYCLES	N/A	**TOTAL VOLUME**	5 gallons	

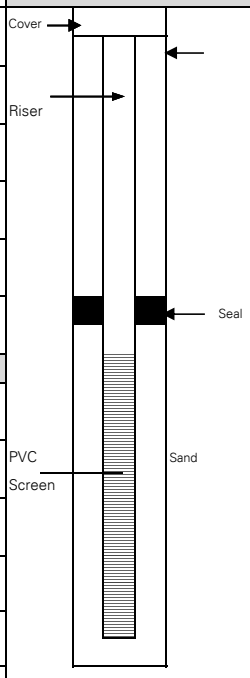
TOP OF CASING **ELEVATION**		**DEPTH (ft)** 0
TOP OF SEAL **ELEVATION**	N/A	**DEPTH (ft)** 9
TOP OF FILTER **ELEVATION**	N/A	**DEPTH (ft)** 11
TOP OF SCREEN **ELEVATION**	N/A	**DEPTH (ft)** 12
BOTTOM OF BORING **ELEVATION**	N/A	**DEPTH (ft)** 22
SCREEN LENGTH		10'
SLOT SIZE		No. 20 Slot; 0.020 Inches

GROUNDWATER ELEVATIONS

ELEVATION	DATE	DEPTH TO WATER
	9/3/2020	15.39

*MEASURED FROM TOP OF MONITORING WELL CASING

WELL DETAILS



SUMMARY SOIL CLASSIFICATION	DEPTH (FT)
	0.00
	9.00
	12.00
	22.00

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. MW25

PROJECT		PROJECT NO.	
250 Water Street		170381202	
LOCATION		**ELEVATION AND DATUM**	
New York, New York		N/A	
DRILLING AGENCY		**DATE STARTED**	**DATE FINISHED**
AARCO Environmental Services Corp.		7/28/2020	7/28/2020
DRILLING EQUIPMENT		**DRILLER**	
Geoprobe® 7822 DT		Nick Turro	
SIZE AND TYPE OF BIT		**INSPECTOR**	
2-inch Direct Push		Ashley Stappenbeck	
BOREHOLE DIAMETER		**TYPE OF WELL (OVERBURDEN / BEDROCK)**	
2-inch		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 30 feet below grade surface (bgs). The borehole was backfilled with clean sand to about 22 feet bgs and a 2-inch PVC monitoring well was installed, which consisted of 10 feet of 20-slot (0.020-inch) well screen between 12 and 22 feet bgs and a solid 2-inch riser to grade surface. The annulus was filled with clean sand to one foot above the screened interval, followed by a with a two-foot thick bentonite layer, and clean sand to grade. The well was developed by AARCO Environmental Services, Corp. on August 3, 2020.

WELL DEVELOPMENT DATA

SURGE BLOCK DIAMETER	N/A	**TYPE PUMP**	Whale Pump	**DEVELOPMENT CONFIRMATION**
DRILLER OR LANGAN	Driller	**MAX PUMP RATE**	2.2 gpm	Confirmed by Langan on 8/3/2020
NUMBER OF SURGE CYCLES	N/A	**TOTAL VOLUME**	5 gallons	

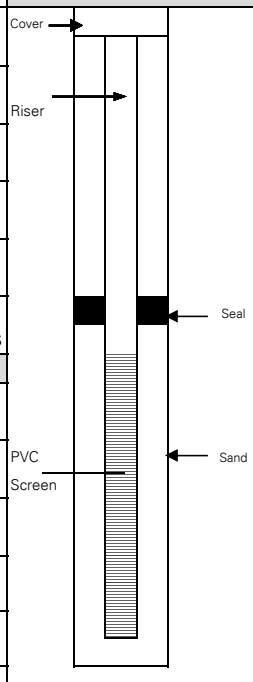
TOP OF CASING	**ELEVATION**	**DEPTH (ft)**
		0
TOP OF SEAL	**ELEVATION**	**DEPTH (ft)**
	N/A	9
TOP OF FILTER	**ELEVATION**	**DEPTH (ft)**
	N/A	11
TOP OF SCREEN	**ELEVATION**	**DEPTH (ft)**
	N/A	12
BOTTOM OF BORING	**ELEVATION**	**DEPTH (ft)**
	N/A	22
SCREEN LENGTH		
		10'
SLOT SIZE		
		No. 20 Slot; 0.020 Inches

GROUNDWATER ELEVATIONS

ELEVATION	DATE	DEPTH TO WATER
	9/3/2020	15.18

*MEASURED FROM TOP OF MONITORING WELL CASING

WELL DETAILS



SUMMARY SOIL CLASSIFICATION	DEPTH (FT)
	0.00
	9.00
	12.00
	22.00

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. MW26

PROJECT		PROJECT NO.	
250 Water Street		170381202	
LOCATION		**ELEVATION AND DATUM**	
New York, New York		N/A	
DRILLING AGENCY		**DATE STARTED**	**DATE FINISHED**
AARCO Environmental Services Corp.		8/24/2020	8/24/2020
DRILLING EQUIPMENT		**DRILLER**	
AMS Power Probe 9580-VTR		Rohn Dixon	
SIZE AND TYPE OF BIT		**INSPECTOR**	
2-inch Direct Push		Lexi Haley	
BOREHOLE DIAMETER		**TYPE OF WELL (OVERBURDEN / BEDROCK)**	
2-inch		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

An AMS Power Probe 9580-VTR was used to advance the boring to approximately 20 feet below grade surface (bgs). The borehole was advanced to about 21 feet bgs and a 2-inch PVC monitoring well was installed, which consisted of 10 feet of 20-slot (0.020-inch) well screen between 11 and 21 feet bgs and a solid 2-inch riser to grade surface. The annulus was filled with clean sand to one foot above the screened interval, followed by a with a two-foot thick bentonite layer, and clean sand to grade. The well was developed by AARCO Environmental Services, Corp. on 08/26/2020.

WELL DEVELOPMENT DATA

SURGE BLOCK DIAMETER	N/A	**TYPE PUMP**	Whale Pump	**DEVELOPMENT CONFIRMATION**
DRILLER OR LANGAN	Driller	**MAX PUMP RATE**	2.2 gpm	Confirmed by Langan on 08/26/2020
NUMBER OF SURGE CYCLES	N/A	**TOTAL VOLUME**	5 gallons	

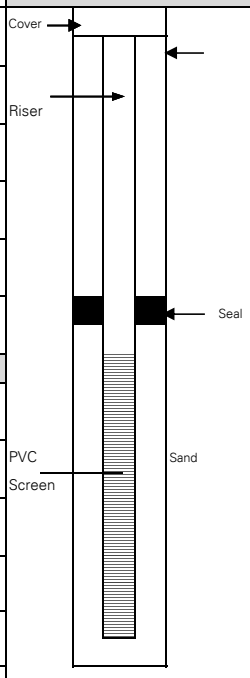
TOP OF CASING	**ELEVATION**	**DEPTH (ft)**
		0
TOP OF SEAL	**ELEVATION**	**DEPTH (ft)**
	N/A	8
TOP OF FILTER	**ELEVATION**	**DEPTH (ft)**
	N/A	10
TOP OF SCREEN	**ELEVATION**	**DEPTH (ft)**
	N/A	11
BOTTOM OF BORING	**ELEVATION**	**DEPTH (ft)**
	N/A	21
SCREEN LENGTH		
		10'
SLOT SIZE		
		No. 20 Slot; 0.020 Inches

GROUNDWATER ELEVATIONS

ELEVATION	DATE	DEPTH TO WATER
	9/3/2020	12.24

*MEASURED FROM TOP OF MONITORING WELL CASING

WELL DETAILS



SUMMARY SOIL CLASSIFICATION	DEPTH (FT)
	0.00
	8.00
	11.00
	21.00

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. MW28

PROJECT		PROJECT NO.	
250 Water Street		170381202	
LOCATION		**ELEVATION AND DATUM**	
New York, New York		N/A	
DRILLING AGENCY		**DATE STARTED**	**DATE FINISHED**
AARCO Environmental Services Corp.		8/18/2020	8/18/2020
DRILLING EQUIPMENT		**DRILLER**	
Geoprobe® 7822 DT		Rohn Dixon	
SIZE AND TYPE OF BIT		**INSPECTOR**	
2-inch Direct Push		Thomas Schiefer	
BOREHOLE DIAMETER		**TYPE OF WELL (OVERBURDEN / BEDROCK)**	
2-inch		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 below grade surface (bgs). The borehole was backfilled with clean sand to about 14 feet bgs and a 2-inch PVC monitoring well was installed, which consisted of 10 feet of 20-slot (0.020-inch) well screen between 4 and 14 feet bgs and a solid 2-inch riser to grade surface. The annulus was filled with sand to one foot above the screened interval and sealed with bentonite to grade. The well was developed by AARCO Environmental Services, Corp. on 08/20/2020

WELL DEVELOPMENT DATA

SURGE BLOCK DIAMETER	N/A	**TYPE PUMP**	Whale Pump	**DEVELOPMENT CONFIRMATION**
DRILLER OR LANGAN	Driller	**MAX PUMP RATE**	2.2 gpm	Confirmed by Langan on 08/20/2020
NUMBER OF SURGE CYCLES	N/A	**TOTAL VOLUME**	5 gallons	

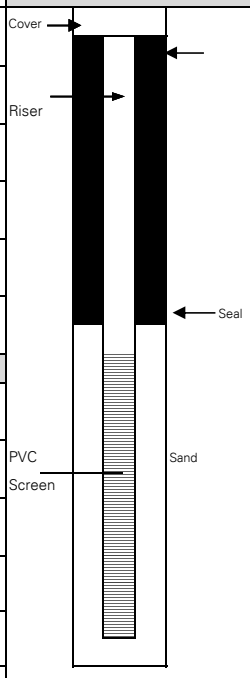
	ELEVATION	DEPTH (ft)
TOP OF CASING		0
TOP OF SEAL	N/A	0
TOP OF FILTER	N/A	3
TOP OF SCREEN	N/A	4
BOTTOM OF BORING	N/A	14
SCREEN LENGTH		10'
SLOT SIZE		No. 20 Slot; 0.020 Inches

GROUNDWATER ELEVATIONS

ELEVATION	DATE	DEPTH TO WATER
	9/3/2020	8.12

*MEASURED FROM TOP OF MONITORING WELL CASING

WELL DETAILS



SUMMARY SOIL CLASSIFICATION	DEPTH (FT)
	0.00
	4.00
	14.00

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. MW30

PROJECT		PROJECT NO.	
250 Water Street		170381202	
LOCATION		**ELEVATION AND DATUM**	
New York, New York		N/A	
DRILLING AGENCY		**DATE STARTED**	**DATE FINISHED**
AARCO Environmental Services Corp.		8/26/2020	8/26/2020
DRILLING EQUIPMENT		**DRILLER**	
AMS Power Probe 9580-VTR		Rohn Dixon	
SIZE AND TYPE OF BIT		**INSPECTOR**	
2-inch Direct Push		Tyler Zorn	
BOREHOLE DIAMETER		**TYPE OF WELL (OVERBURDEN / BEDROCK)**	
2-inch		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

An AMS Power Probe 9580-VTR was used to advance the boring to approximately 32 feet below grade surface (bgs). The borehole was backfilled with clean sand to about 22 feet bgs and a 2-inch PVC monitoring well was installed, which consisted of 10 feet of 20-slot (0.020-inch) well screen between 12 and 22 feet bgs and a solid 2-inch riser to grade surface. The annulus was filled with clean sand to one foot above the screened interval, followed by a with a two-foot thick bentonite layer, and clean sand to grade. The well was developed by AARCO Environmental Services, Corp. on 08/26/2020.

WELL DEVELOPMENT DATA

SURGE BLOCK DIAMETER	N/A	**TYPE PUMP**	Whale Pump	**DEVELOPMENT CONFIRMATION**
DRILLER OR LANGAN	Driller	**MAX PUMP RATE**	2.2 gpm	Confirmed by Langan on 08/26/2020
NUMBER OF SURGE CYCLES	N/A	**TOTAL VOLUME**	5 gallons	

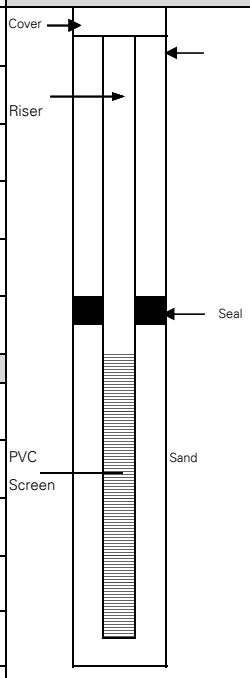
TOP OF CASING	**ELEVATION**	**DEPTH (ft)**
		0
TOP OF SEAL	**ELEVATION**	**DEPTH (ft)**
	N/A	9
TOP OF FILTER	**ELEVATION**	**DEPTH (ft)**
	N/A	11
TOP OF SCREEN	**ELEVATION**	**DEPTH (ft)**
	N/A	12
BOTTOM OF BORING	**ELEVATION**	**DEPTH (ft)**
	N/A	22
SCREEN LENGTH		
		10'
SLOT SIZE		
		No. 20 Slot; 0.020 Inches

GROUNDWATER ELEVATIONS

ELEVATION	DATE	DEPTH TO WATER
	9/3/2020	12.52

*MEASURED FROM TOP OF MONITORING WELL CASING

WELL DETAILS



SUMMARY SOIL CLASSIFICATION	DEPTH (FT)
	0.00
	9.00
	12.00
	22.00

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. MW31

PROJECT		PROJECT NO.	
250 Water Street		170381202	
LOCATION		**ELEVATION AND DATUM**	
New York, New York		N/A	
DRILLING AGENCY		**DATE STARTED**	**DATE FINISHED**
AARCO Environmental Services Corp.		8/24/2020	8/24/2020
DRILLING EQUIPMENT		**DRILLER**	
AMS Power Probe 9580-VTR		Rohn Dixon	
SIZE AND TYPE OF BIT		**INSPECTOR**	
2-inch Direct Push		Lexi Haley	
BOREHOLE DIAMETER		**TYPE OF WELL (OVERBURDEN / BEDROCK)**	
2-inch		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

An AMS Power Probe 9580-VTR was used to advance the boring to approximately 32 feet below grade surface (bgs). The borehole was backfilled with clean sand to about 18 feet bgs and a 2-inch PVC monitoring well was installed, which consisted of 10 feet of 20-slot (0.020-inch) well screen between 8 and 18 feet bgs and a solid 2-inch riser to grade surface. The annulus was filled with clean sand to one foot above the screened interval, followed by a with a two-foot thick bentonite layer, and clean sand to grade. The well was developed by AARCO Environmental Services, Corp. on 08/26/2020.

WELL DEVELOPMENT DATA

SURGE BLOCK DIAMETER	N/A	**TYPE PUMP**	Whale Pump	**DEVELOPMENT CONFIRMATION**
DRILLER OR LANGAN	Driller	**MAX PUMP RATE**	2.2 gpm	Confirmed by Langan on 08/26/2020
NUMBER OF SURGE CYCLES	N/A	**TOTAL VOLUME**	5 gallons	

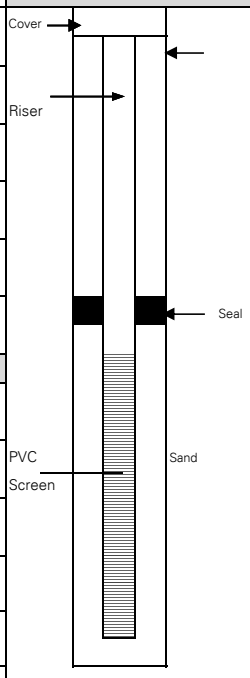
	ELEVATION	DEPTH (ft)
TOP OF CASING		0
TOP OF SEAL	N/A	5
TOP OF FILTER	N/A	7
TOP OF SCREEN	N/A	8
BOTTOM OF BORING	N/A	18
SCREEN LENGTH		10'
SLOT SIZE		No. 20 Slot; 0.020 Inches

GROUNDWATER ELEVATIONS

ELEVATION	DATE	DEPTH TO WATER
	9/3/2020	10.21

*MEASURED FROM TOP OF MONITORING WELL CASING

WELL DETAILS



SUMMARY SOIL CLASSIFICATION	DEPTH (FT)
	0.00
	5.00
	8.00
	18.00

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. MW32

PROJECT			PROJECT NO.	
250 Water Street			170381202	
LOCATION			**ELEVATION AND DATUM**	
New York, New York			N/A	
DRILLING AGENCY			**DATE STARTED**	**DATE FINISHED**
AARCO Environmental Services Corp.			8/21/2020	8/21/2020
DRILLING EQUIPMENT			**DRILLER**	
Geoprobe® 7822 DT			Rohn Dixon	
SIZE AND TYPE OF BIT			**INSPECTOR**	
2-inch Direct Push			Tyler Zorn	
BOREHOLE DIAMETER			**TYPE OF WELL (OVERBURDEN / BEDROCK)**	
2-inch			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 28 feet below grade surface (bgs). The borehole was backfilled with clean sand to about 19 feet bgs and a 2-inch PVC monitoring well was installed, which consisted of 10 feet of 20-slot (0.020-inch) well screen between 9 and 19 feet bgs and a solid 2-inch riser to grade surface. The annulus was filled with clean sand to one foot above the screened interval, followed by a with a two-foot thick bentonite layer, and clean sand to grade. The well was developed by AARCO Environmental Services, Corp. on 08/26/2020.

WELL DEVELOPMENT DATA

SURGE BLOCK DIAMETER	N/A	**TYPE PUMP**	Whale Pump	**DEVELOPMENT CONFIRMATION**
DRILLER OR LANGAN	Driller	**MAX PUMP RATE**	2.2 gpm	Confirmed by Langan on 08/26/2020
NUMBER OF SURGE CYCLES	N/A	**TOTAL VOLUME**	5 gallons	

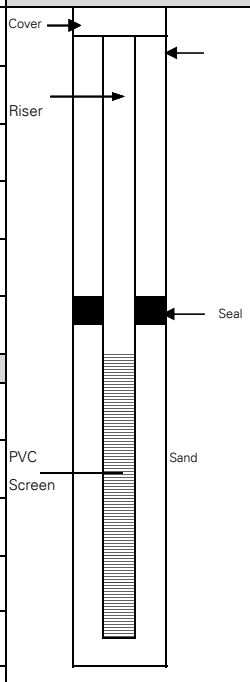
TOP OF CASING	**ELEVATION**	**DEPTH (ft)**
		0
TOP OF SEAL	**ELEVATION**	**DEPTH (ft)**
	N/A	6
TOP OF FILTER	**ELEVATION**	**DEPTH (ft)**
	N/A	8
TOP OF SCREEN	**ELEVATION**	**DEPTH (ft)**
	N/A	9
BOTTOM OF BORING	**ELEVATION**	**DEPTH (ft)**
	N/A	19
SCREEN LENGTH		
		10'
SLOT SIZE		
		No. 20 Slot; 0.020 Inches

GROUNDWATER ELEVATIONS

ELEVATION	DATE	DEPTH TO WATER
	9/3/2020	8.65

*MEASURED FROM TOP OF MONITORING WELL CASING

WELL DETAILS



SUMMARY SOIL CLASSIFICATION	DEPTH (FT)
	0.00
	6.00
	9.00
	19.00

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. MW33

PROJECT			PROJECT NO.	
250 Water Street			170381202	
LOCATION			**ELEVATION AND DATUM**	
New York, New York			N/A	
DRILLING AGENCY			**DATE STARTED**	**DATE FINISHED**
AARCO Environmental Services Corp.			8/21/2020	8/21/2020
DRILLING EQUIPMENT			**DRILLER**	
Geoprobe® 7822 DT			Rohn Dixon	
SIZE AND TYPE OF BIT			**INSPECTOR**	
2-inch Direct Push			Tyler Zorn	
BOREHOLE DIAMETER			**TYPE OF WELL (OVERBURDEN / BEDROCK)**	
2-inch			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 below grade surface (bgs). The borehole was backfilled with clean sand to about 19 feet bgs and a 2-inch PVC monitoring well was installed, which consisted of 10 feet of 20-slot (0.020-inch) well screen between 9 and 19 feet bgs and a solid 2-inch riser to grade surface. The annulus was filled with clean sand to one foot above the screened interval, followed by a with a two-foot thick bentonite layer, and clean sand to grade. The well was developed by AARCO Environmental Services, Corp. on 08/26/2020.

WELL DEVELOPMENT DATA

SURGE BLOCK DIAMETER	N/A	**TYPE PUMP**	Whale Pump	**DEVELOPMENT CONFIRMATION**
DRILLER OR LANGAN	Driller	**MAX PUMP RATE**	2.2 gpm	Confirmed by Langan on 08/26/2020
NUMBER OF SURGE CYCLES	N/A	**TOTAL VOLUME**	5 gallons	

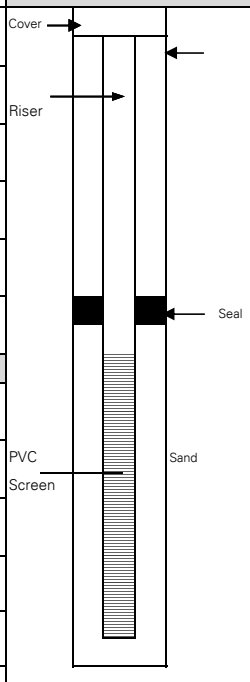
TOP OF CASING	**ELEVATION**	**DEPTH (ft)**
		0
TOP OF SEAL	**ELEVATION**	**DEPTH (ft)**
	N/A	6
TOP OF FILTER	**ELEVATION**	**DEPTH (ft)**
	N/A	8
TOP OF SCREEN	**ELEVATION**	**DEPTH (ft)**
	N/A	9
BOTTOM OF BORING	**ELEVATION**	**DEPTH (ft)**
	N/A	19
SCREEN LENGTH		
		10'
SLOT SIZE		
		No. 20 Slot; 0.020 Inches

GROUNDWATER ELEVATIONS

ELEVATION	DATE	DEPTH TO WATER
	9/3/2020	10.39

*MEASURED FROM TOP OF MONITORING WELL CASING

WELL DETAILS



SUMMARY SOIL CLASSIFICATION	DEPTH (FT)
	0.00
	6.00
	9.00
	19.00

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. MW34

PROJECT		PROJECT NO.	
250 Water Street		170381202	
LOCATION		**ELEVATION AND DATUM**	
New York, New York		N/A	
DRILLING AGENCY		**DATE STARTED**	**DATE FINISHED**
AARCO Environmental Services Corp.		8/25/2020	8/25/2020
DRILLING EQUIPMENT		**DRILLER**	
AMS Power Probe 9580-VTR		Rohn Dixon	
SIZE AND TYPE OF BIT		**INSPECTOR**	
2-inch Direct Push		Tyler Zorn	
BOREHOLE DIAMETER		**TYPE OF WELL (OVERBURDEN / BEDROCK)**	
2-inch		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

An AMS Power Probe 9580-VTR was used to advance the boring to approximately 20 feet below grade surface (bgs). The borehole was backfilled with clean sand to about 19 feet bgs and a 2-inch PVC monitoring well was installed, which consisted of 10 feet of 20-slot (0.020-inch) well screen between 9 and 19 feet bgs and a solid 2-inch riser to grade surface. The annulus was filled with clean sand to one foot above the screened interval, followed by a with a two-foot thick bentonite layer, and clean sand to grade. The well was developed by AARCO Environmental Services, Corp. on 08/26/2020.

WELL DEVELOPMENT DATA

SURGE BLOCK DIAMETER	N/A	**TYPE PUMP**	Whale Pump	**DEVELOPMENT CONFIRMATION**
DRILLER OR LANGAN	Driller	**MAX PUMP RATE**	2.2 gpm	Confirmed by Langan on 08/26/2020
NUMBER OF SURGE CYCLES	N/A	**TOTAL VOLUME**	5 gallons	

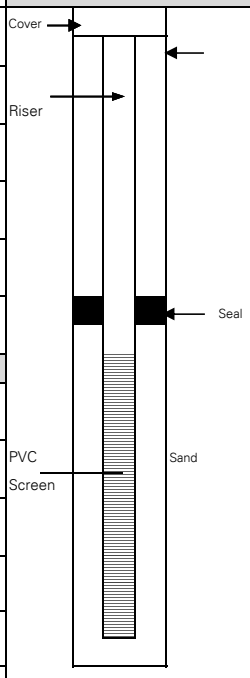
TOP OF CASING **ELEVATION**		**DEPTH (ft)** 0
TOP OF SEAL **ELEVATION**	N/A	**DEPTH (ft)** 6
TOP OF FILTER **ELEVATION**	N/A	**DEPTH (ft)** 8
TOP OF SCREEN **ELEVATION**	N/A	**DEPTH (ft)** 9
BOTTOM OF BORING **ELEVATION**	N/A	**DEPTH (ft)** 19
SCREEN LENGTH		10'
SLOT SIZE		No. 20 Slot; 0.020 Inches

GROUNDWATER ELEVATIONS

ELEVATION	DATE	DEPTH TO WATER
	9/3/2020	9.43

***MEASURED FROM TOP OF MONITORING WELL CASING**

WELL DETAILS



SUMMARY SOIL CLASSIFICATION	DEPTH (FT)
	0.00
	6.00
	9.00
	19.00

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

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

APPENDIX E

GROUNDWATER SAMPLING LOGS

Project Information		Well Information		Equipment Information		Sampling Conditions		Sampling Information	
Project Name:	250 Water Street	**Well No:**	MW-11	**Water Quality Device Model:**	Horiba U52	**Weather:**	dy, 70s, wind ESE 5		MW11_090120
Project Number:	170381202	**Well Depth:**	15'	**Pine Number:**	21356	**Background PID (ppm):**	0.0	**Sample(s):**	
Site Location:	New York	**Well Diameter:**	2"	**Pump Make and Model:**	Peristaltic	**PID Beneath Inner Cap (ppm):**	0.0		
Sampling	Lexi Haley	**Well Screen**	5'-15'	**Pine Number:**	24459	**Pump Intake Depth:**	12'	**Sample Date:**	9/1/2020
Personnel:		**Interval:**		**Tubing Diameter:**	1/4" ID x 3/8" OD	**Depth to Water Before Purge:**		**Sample Time:**	11:30

STABILIZATION = 3 successive readings within limits

TIME	TEMP °Celsius (+/- 3%)	PH (+/- 0.1)	ORP mV (+/- 10mV)	CONDUCTIVITY mS/cm (+/- 3%)	TURBIDITY ntu (+/- 10%) above 5 NTU	DO mg/l (+/- 10%) above 0.5 mg/l	DTW ft Drawdown < 0.33 ft	Flow Rate (gpm) <0.13 gpm)	Cumulative Discharge Volume (Gal)	NOTES color, odor etc.	Stabilized?
BEGIN PURGING											
11:05	24.18	7.37	-89	0.672	227.0	0.15	0.00		0.3	light brown color	**N/A**
11:10	23.84	7.74	-121	0.667	5.5	0.00	0.00	0.05	0.55	clear , sulfur-like odor	**N/A**
11:15	23.71	7.96	-138	0.673	0.0	0.00	0.00	0.09	1.0		**N**
11:20	23.66	8.00	-144	0.679	0.0	0.00	0.00	0.1	1.5		**N**
11:25	23.66	8.05	-147	0.680	0.0	0.00	0.00	0.3			**Y**
11:30											**N**
11:35											**N**
11:40											**N**
11:45											**N**
11:50											**N**
11:55											**N**
12:00											**N**
12:05											**N**
12:10											**N**
12:15											**N**
12:20											**N**
12:25											**N**
12:30											**N**
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N

Notes:

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

Project Information		Well Information		Equipment Information		Sampling Conditions		Sampling Information	
Project Name:	250 Water Street	**Well No:**	MW15	**Water Quality Device Model:**	Horiba U-52	**Weather:**	dy, 70s, wind ESE 5		MW15_090120
Project Number:	170381202	**Well Depth:**	22'	**Pine Number:**	21418	**Background PID (ppm):**	0.0	**Sample(s):**	
Site Location:	New York	**Well Diameter:**	2"	**Pump Make and Model:**	Peri pump	**PID Beneath Inner Cap (ppm):**	0.0		
Sampling	Tyler Zorn	**Well Screen**	12'-22'	**Pine Number:**	A01785	**Pump Intake Depth:**	18'	**Sample Date:**	9/1/2020
Personnel:		**Interval:**		**Tubing Diameter:**	1/4" ID x 3/8" OD	**Depth to Water Before Purge:**		**Sample Time:**	13:15

STABILIZATION = 3 successive readings within limits

TIME	TEMP °Celsius (+/- 3%)	PH (+/- 0.1)	ORP mV (+/- 10mV)	CONDUCTIVITY mS/cm (+/- 3%)	TURBIDITY ntu (+/- 10%) above 5 NTU	DO mg/l (+/- 10%) above 0.5 mg/l	DTW ft Drawdown < 0.33 ft	Flow Rate (gpm) <0.13 gpm)	Cumulative Discharge Volume (Gal)	NOTES color, odor etc.	Stabilized?
BEGIN PURGING											
12:50	24.79	7.54	93	1.350	10.4	0.00		0.0	0		**N/A**
12:55	24.70	7.58	80	1.440	18.8	0.00		0.2	1		**N/A**
13:00	24.74	7.54	73	1.570	7.3	0.00		0.1	1.5	clear, no odors	**N**
13:05	24.76	7.52	71	1.600	1.5	0.00		0.15	2.25		**N**
13:10	24.81	7.51	71	1.610	0.6	0.00		0.15	3		**N**
13:15	24.88	7.51	72	1.610	0.4	0.00		0.1	3.5		**Y**
13:20								0.7			**N**
13:25											**N**
13:30											**N**
13:35											**N**
13:40											**N**
13:45											**N**
13:50											**N**
13:55											**N**
14:00											**N**
14:05											**N**
14:10											**N**
14:15											**N**
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N

Notes:

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

Project Information		Well Information		Equipment Information		Sampling Conditions		Sampling Information	
Project Name:	250 Water Street	**Well No:**	MW17	**Water Quality Device Model:**	Horiba U-52	**Weather:**	dy, 70s, wind ESE 5		MW17_090120
Project Number:	170381202	**Well Depth:**	17'	**Pine Number:**	21418	**Background PID (ppm):**	0.0	**Sample(s):**	
Site Location:	New York	**Well Diameter:**	2"	**Pump Make and Model:**	Peri pump	**PID Beneath Inner Cap (ppm):**	0.0		
Sampling	Tyler Zorn	**Well Screen**	7'-17'	**Pine Number:**	A01785	**Pump Intake Depth:**	12'	**Sample Date:**	9/1/2020
Personnel:		**Interval:**		**Tubing Diameter:**	1/4" ID x 3/8" OD	**Depth to Water Before Purge:**		**Sample Time:**	10:35

STABILIZATION = 3 successive readings within limits

TIME	TEMP °Celsius (+/- 3%)	PH (+/- 0.1)	ORP mV (+/- 10mV)	CONDUCTIVITY mS/cm (+/- 3%)	TURBIDITY ntu (+/- 10%) above 5 NTU	DO mg/l (+/- 10%) above 0.5 mg/l	DTW ft Drawdown < 0.33 ft	Flow Rate (gpm) <0.13 gpm)	Cumulative Discharge Volume (Gal)	NOTES color, odor etc.	Stabilized?
BEGIN PURGING											
9:40	22.91	6.14	152	1.250	151.0	0.00		0.0	0		**N/A**
9:45	23.64	6.41	48	1.200	26.3	0.00		0.2	1	slightly yellow, no odors	**N/A**
9:50	22.62	6.53	25	1.190	27.3	0.00		0.1	1.5		**N**
9:55	22.57	6.58	8	1.180	28.1	0.00		0.15	2.25		**N**
10:00	22.57	6.59	0	1.180	26.6	0.00		0.15	3		**N**
10:05	22.59	6.60	-6	1.180	27.0	0.00		0.1	3.5		**N**
10:10	22.57	6.65	-11	1.170	27.8	0.00		0.1	4		**N**
10:15	22.54	6.67	-18	1.180	23.3	0.00		0.1	4.5	clear, no odors	**N**
10:20	22.54	6.68	-21	1.200	20.0	0.00		0.15	5.25		**N**
10:25	22.53	6.68	-24	1.200	17.0	0.00		0.15	6		**N**
10:30	22.59	6.69	-25	1.210	17.5	0.00		0.3	7.5		**N**
10:35	22.61	6.69	-28	1.230	15.9	0.00		0.15	8.25		**Y**
10:40								1.65			**N**
10:45											**N**
10:50											**N**
10:55											**N**
11:00											**N**
11:05											**N**
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N

Notes:

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

Project Information		Well Information		Equipment Information		Sampling Conditions		Sampling Information	
Project Name:	250 Water Street	**Well No:**	MW-25	**Water Quality Device Model:**	Horiba U52	**Weather:**	dy, 70s, wind ESE 5		MW25_090120
Project Number:	170381202	**Well Depth:**	22'	**Pine Number:**	21356	**Background PID (ppm):**	0.0	**Sample(s):**	
Site Location:	New York	**Well Diameter:**	2"	**Pump Make and Model:**	Peristaltic	**PID Beneath Inner Cap (ppm):**	0.2		
Sampling	Lexi Haley	**Well Screen**	12'-22'	**Pine Number:**	24459	**Pump Intake Depth:**	18'	**Sample Date:**	9/1/2020
Personnel:		**Interval:**		**Tubing Diameter:**	1/4" ID x 3/8" OD	**Depth to Water Before Purge:**		**Sample Time:**	15:40

STABILIZATION = 3 successive readings within limits

TIME	TEMP °Celsius (+/- 3%)	PH (+/- 0.1)	ORP mV (+/- 10mV)	CONDUCTIVITY mS/cm (+/- 3%)	TURBIDITY ntu (+/- 10%) above 5 NTU	DO mg/l (+/- 10%) above 0.5 mg/l	DTW ft Drawdown < 0.33 ft	Flow Rate (gpm) <0.13 gpm)	Cumulative Discharge Volume (Gal)	NOTES color, odor etc.	Stabilized?
BEGIN PURGING											
14:35	31.00	7.59	94	1.060	800.0	0.44			0.25	light brown color	**N/A**
14:40	31.10	7.65	101	1.050	443.0	0.15		0.2	1.25	clear	**N/A**
14:45	31.21	7.69	99	1.040	252.0	0.06		0.05	1.5		**N**
14:50	31.21	7.73	96	1.030	129.0	0.00		0.1	2		**N**
14:55	31.21	7.76	94	1.020	63.2	0.00		0.1	2.5		**N**
15:00	30.98	7.75	94	1.030	53.3	0.00		0.08	2.9		**N**
15:05	30.89	7.72	92	1.020	32.4	0.00		0.12	3.5		**N**
15:10	30.84	7.77	91	1.010	23.9	0.00		0.08	3.9		**N**
15:15	30.87	7.77	90	0.998	21.5	0.00		0.07	4.25		**N**
15:20	30.96	7.80	90	0.991	15.7	0.00		0.15	5		**N**
15:25	31.04	7.84	88	0.986	15.4	0.00		0.1	5.5		**N**
15:30	31.12	7.92	87	0.982	14.6	0.00		0.14	6.2		**N**
15:35	31.11	8.26	85	0.868	14.5	0.00		0.1	6.7		**N**
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N

Notes:

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

Project Information		Well Information		Equipment Information		Sampling Conditions		Sampling Information	
Project Name:	250 Water Street	**Well No:**	MW26	**Water Quality Device Model:**	Horiba U-52	**Weather:**	y/rainy, 70s, wind S		MW26_090220
Project Number:	170381202	**Well Depth:**	21'	**Pine Number:**	21356	**Background PID (ppm):**	0.0	**Sample(s):**	
Site Location:	New York	**Well Diameter:**	2"	**Pump Make and Model:**	Peri pump	**PID Beneath Inner Cap (ppm):**	12.7		
Sampling	Tyler Zorn	**Well Screen**	11'-21'	**Pine Number:**	A01785	**Pump Intake Depth:**	17'	**Sample Date:**	9/2/2020
Personnel:		**Interval:**		**Tubing Diameter:**	1/4" ID x 3/8" OD	**Depth to Water Before Purge:**		**Sample Time:**	13:00

STABILIZATION = 3 successive readings within limits

TIME	TEMP °Celsius (+/- 3%)	PH (+/- 0.1)	ORP mV (+/- 10mV)	CONDUCTIVITY mS/cm (+/- 3%)	TURBIDITY ntu (+/- 10%) above 5 NTU	DO mg/l (+/- 10%) above 0.5 mg/l	DTW ft Drawdown < 0.33 ft	Flow Rate (gpm) <0.13 gpm)	Cumulative Discharge Volume (Gal)	NOTES color, odor etc.	Stabilized?
BEGIN PURGING											
12:10	24.39	8.03	-76	1.740	133.0	0.55		0.0	0		**N/A**
12:15	24.04	7.95	-92	1.770	114.0	0.00		0.15	0.75	yellowish color, no odors	**N/A**
12:20	24.07	7.92	-95	1.740	71.6	0.00		0.1	1.25		**N**
12:25	24.11	7.93	-94	1.700	33.7	0.00		0.1	1.75		**N**
12:30	24.15	7.94	-91	1.680	20.0	0.00		0.1	2.25		**N**
12:35	24.21	7.88	-88	1.650	12.9	0.00		0.05	2.5		**N**
12:40	24.25	7.82	-86	1.650	9.1	0.00		0.1	3		**N**
12:45	24.30	7.79	-85	1.630	7.5	0.00		0.1	3.5	clear, no odors	**N**
12:50	24.36	7.79	-84	1.630	4.1	0.00		0.1	4		**N**
12:55	24.45	7.80	-84	1.610	3.6	0.00		0.1	4.5		**N**
13:00	24.45	7.74	-84	1.600	1.4	0.00		0.1	5		**Y**
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N

Notes:

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

Project Information		Well Information		Equipment Information		Sampling Conditions		Sampling Information	
Project Name:	250 Water Street	**Well No:**	MW28	**Water Quality Device Model:**	Horiba U-52	**Weather:**	dy, 70s, wind ESE 5		MW28_090120
Project Number:	170381202	**Well Depth:**	14'	**Pine Number:**	21418	**Background PID (ppm):**	0.0	**Sample(s):**	
Site Location:	New York	**Well Diameter:**	2"	**Pump Make and Model:**	Peri pump	**PID Beneath Inner Cap (ppm):**	0.0		
Sampling	Tyler Zorn	**Well Screen**	4'-14'	**Pine Number:**	A01785	**Pump Intake Depth:**	10'	**Sample Date:**	9/1/2020
Personnel:		**Interval:**		**Tubing Diameter:**	1/4" ID x 3/8" OD	**Depth to Water Before Purge:**		**Sample Time:**	15:55

STABILIZATION = 3 successive readings within limits

TIME	TEMP °Celsius (+/- 3%)	PH (+/- 0.1)	ORP mV (+/- 10mV)	CONDUCTIVITY mS/cm (+/- 3%)	TURBIDITY ntu (+/- 10%) above 5 NTU	DO mg/l (+/- 10%) above 0.5 mg/l	DTW ft Drawdown < 0.33 ft	Flow Rate (gpm) <0.13 gpm)	Cumulative Discharge Volume (Gal)	NOTES color, odor etc.	Stabilized?
BEGIN PURGING											
14:50	27.04	7.23	-60	1.620	210.0	0.00		0.0	0		**N/A**
14:55	24.50	6.92	-82	1.630	367.0	0.00		0.1	0.5	slightly brown, no odors	**N/A**
15:00	23.76	6.85	-91	1.750	443.0	0.00		0.15	1.25		**N**
15:05	23.65	6.76	-91	1.840	283.0	0.00		0.1	1.75		**N**
15:10	23.53	6.74	-91	1.840	105.0	0.00		0.15	2.5		**N**
15:15	23.62	6.72	-91	1.840	109.0	0.00		0.1	3		**N**
15:20	23.64	6.71	-90	1.850	50.2	0.00		0.1	3.5		**N**
15:25	23.87	6.72	-91	1.850	39.4	0.00		0.1	4		**N**
15:30	23.96	6.74	-93	1.840	36.1	0.00		0.1	4.5	clear, no odors	**N**
15:35	24.15	6.75	-93	1.840	28.4	0.00		0.1	5		**N**
15:40	24.15	6.75	-94	1.840	16.8	0.00		0.1	5.5		**N**
15:45	24.05	6.74	-94	1.840	19.2	0.00		0.1	6		**N**
15:50	24.00	6.77	-94	1.840	15.0	0.00		0.1	6.5		**N**
15:55	23.86	6.75	-95	1.830	12.9	0.00		0.1	7		**N**
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N

Notes:

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

Project Information		Well Information		Equipment Information		Sampling Conditions		Sampling Information	
Project Name:	250 Water Street	**Well No:**	MW-32	**Water Quality Device Model:**	Horiba U52	**Weather:**	Rainy, 70s, wind W		MW30_090220
Project Number:	170381202	**Well Depth:**	22'	**Pine Number:**	21418	**Background PID (ppm):**	0.0	**Sample(s):**	
Site Location:	New York	**Well Diameter:**	2"	**Pump Make and Model:**	Peristaltic	**PID Beneath Inner Cap (ppm):**			
Sampling	Lexi Haley	**Well Screen**	12-22'	**Pine Number:**	24459	**Pump Intake Depth:**	18'	**Sample Date:**	9/2/2020
Personnel:		**Interval:**		**Tubing Diameter:**	1/4" ID x 3/8" OD	**Depth to Water Before Purge:**		**Sample Time:**	14:05

STABILIZATION = 3 successive readings within limits

TIME	TEMP °Celsius (+/- 3%)	PH (+/- 0.1)	ORP mV (+/- 10mV)	CONDUCTIVITY mS/cm (+/- 3%)	TURBIDITY ntu (+/- 10%) above 5 NTU	DO mg/l (+/- 10%) above 0.5 mg/l	DTW ft Drawdown < 0.33 ft	Flow Rate (gpm) <0.13 gpm)	Cumulative Discharge Volume (Gal)	NOTES color, odor etc.	Stabilized?
BEGIN PURGING											
12:55	30.04	7.47	-69	2.090	1.3	0.00			0.25	petroleum-like odors	**N/A**
13:00	30.16	7.54	-145	1.790	77.6	0.00		0.09	0.7	grey color	**N/A**
13:05	30.15	7.59	-163	1.650	60.9	0.00		0.03	0.9		**N**
13:10	30.12	7.61	-175	1.600	48.6	0.00		0.03	1		**N**
13:15	30.07	7.63	-186	1.540	41.9	0.00		0.05	1.25		**N**
13:20	30.15	7.66	-196	1.480	28.3	0.00		0.05	1.5		**N**
13:25	30.26	7.69	-205	1.410	21.7	0.00		0.04	1.7		**N**
13:30	30.24	7.71	-212	1.380	19.0	0.00		0.03	1.85		**N**
13:35	30.22	7.74	-220	1.330	15.4	0.00		0.05	2.1		**N**
13:40	30.18	7.76	-227	1.290	12.2	0.00		0.04	2.3		**N**
13:45	30.13	7.78	-233	1.240	12.0	0.00		0.09	2.75		**N**
13:50	30.17	7.80	-238	1.210	10.2	0.00		0.05	3		**N**
13:55	30.17	7.80	-242	1.210	7.8	0.00		0.04	3.2		**N**
14:00	30.19	7.81	-245	1.200	6.8	0.00		0.05	3.45		**N**
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N

Notes:

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

Project Information		Well Information		Equipment Information		Sampling Conditions		Sampling Information	
Project Name:	250 Water Street	**Well No:**	MW-31	**Water Quality Device Model:**	Horiba U52	**Weather:**	Rainy, 70s, wind W		MW31_090220
Project Number:	170381202	**Well Depth:**	18'	**Pine Number:**	21418	**Background PID (ppm):**	0.0	**Sample(s):**	
Site Location:	New York	**Well Diameter:**	2"	**Pump Make and Model:**	Peristaltic	**PID Beneath Inner Cap (ppm):**	360.3		
Sampling	Lexi Haley	**Well Screen**	8-18'	**Pine Number:**	24459	**Pump Intake Depth:**	15'	**Sample Date:**	9/2/2020
Personnel:		**Interval:**		**Tubing Diameter:**	1/4" ID x 3/8" OD	**Depth to Water Before Purge:**		**Sample Time:**	9:20

STABILIZATION = 3 successive readings within limits

TIME	TEMP °Celsius (+/- 3%)	PH (+/- 0.1)	ORP mV (+/- 10mV)	CONDUCTIVITY mS/cm (+/- 3%)	TURBIDITY ntu (+/- 10%) above 5 NTU	DO mg/l (+/- 10%) above 0.5 mg/l	DTW ft Drawdown < 0.33 ft	Flow Rate (gpm) <0.13 gpm)	Cumulative Discharge Volume (Gal)	NOTES color, odor etc.	Stabilized?
BEGIN PURGING											
8:15	24.18	6.77	-93	2.190	0.0	0.00			0.3	petroleum-like odors	**N/A**
8:20	24.04	7.40	-89	2.080	0.0	0.00		0.06	0.6		**N/A**
8:25	24.06	7.53	-103	2.050	0.0	0.00		0.08	1.0		**N**
8:30	24.07	7.57	-122	2.050	0.0	0.00		0.08	1.4		**N**
8:35	24.07	7.58	-131	2.030	0.0	0.00		0.07	1.75		**N**
8:40	24.07	7.60	-140	2.050	0.0	0.00		0.05	2		**N**
8:45	24.09	7.61	-151	2.070	0.0	0.00		0.08	2.4		**N**
8:50	24.05	7.62	-159	2.060	0.0	0.00		0.04	2.6		**N**
8:55	23.99	7.63	-169	2.070	0.0	0.00		0.08	3		**N**
9:00	24.01	7.64	-182	2.090	0.0	0.00		0.08	3.4		**N**
9:05	24.03	7.64	-185	2.100	0.0	0.00		0.06	3.7		**N**
9:10	24.04	7.64	-194	2.110	0.0	0.00		0.06	4		**N**
9:15	24.03	7.65	-201	2.120	0.0	0.00		0.05	4.25		**N**
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N

Notes:

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

Project Information		Well Information		Equipment Information		Sampling Conditions		Sampling Information	
Project Name:	250 Water Street	**Well No:**	MW-32	**Water Quality Device Model:**	Horiba U52	**Weather:**	Rainy, 70s, wind W		MW32_090220
Project Number:	170381202	**Well Depth:**	19'	**Pine Number:**	21418	**Background PID (ppm):**	0.1	**Sample(s):**	
Site Location:	New York	**Well Diameter:**	2"	**Pump Make and Model:**	Peristaltic	**PID Beneath Inner Cap (ppm):**	32.0		
Sampling	Lexi Haley	**Well Screen**	9'-19'	**Pine Number:**	24459	**Pump Intake Depth:**	15'	**Sample Date:**	9/2/2020
Personnel:		**Interval:**		**Tubing Diameter:**	1/4" ID x 3/8" OD	**Depth to Water Before Purge:**		**Sample Time:**	11:15

STABILIZATION = 3 successive readings within limits

TIME	TEMP °Celsius (+/- 3%)	PH (+/- 0.1)	ORP mV (+/- 10mV)	CONDUCTIVITY mS/cm (+/- 3%)	TURBIDITY ntu (+/- 10%) above 5 NTU	DO mg/l (+/- 10%) above 0.5 mg/l	DTW ft Drawdown < 0.33 ft	Flow Rate (gpm) <0.13 gpm)	Cumulative Discharge Volume (Gal)	NOTES color, odor etc.	Stabilized?
BEGIN PURGING											
10:35	23.09	7.47	-80	2.600	2.8	0.00			0.3	petroleum-like odors	**N/A**
10:40	23.10	7.40	-106	2.570	11.0	0.00		0.06	0.6		**N/A**
10:45	23.19	7.39	-125	2.420	14.6	0.00		0.03	0.8		**N**
10:50	23.27	7.39	-140	2.550	15.3	0.00		0.05	1		**N**
10:55	23.30	7.37	-146	2.570	5.7	0.00		0.05	1.25		**N**
11:00	23.29	7.37	-147	2.570	3.2	0.00		0.05	1.5		**N**
11:05	23.34	7.35	-148	2.590	0.4	0.00		0.05	1.75		**N**
11:10	23.33	7.34	-149	2.600	0.0	0.00		0.05	2		**Y**
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N

Notes:

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

Project Information		Well Information		Equipment Information		Sampling Conditions		Sampling Information	
Project Name:	250 Water Street	**Well No:**	MW33	**Water Quality Device Model:**	Horiba U-52	**Weather:**	y/rainy, 70s, wind S		MW33_090220
Project Number:	170381202	**Well Depth:**	19'	**Pine Number:**	21356	**Background PID (ppm):**	0.0	**Sample(s):**	
Site Location:	New York	**Well Diameter:**	2"	**Pump Make and Model:**	Peri pump	**PID Beneath Inner Cap (ppm):**	0.0		
Sampling	Tyler Zorn	**Well Screen**	9'-19'	**Pine Number:**	A01785	**Pump Intake Depth:**	15'	**Sample Date:**	9/2/2020
Personnel:		**Interval:**		**Tubing Diameter:**	1/4" ID x 3/8" OD	**Depth to Water Before Purge:**		**Sample Time:**	8:50

STABILIZATION = 3 successive readings within limits

TIME	TEMP °Celsius (+/- 3%)	PH (+/- 0.1)	ORP mV (+/- 10mV)	CONDUCTIVITY mS/cm (+/- 3%)	TURBIDITY ntu (+/- 10%) above 5 NTU	DO mg/l (+/- 10%) above 0.5 mg/l	DTW ft Drawdown < 0.33 ft	Flow Rate (gpm) <0.13 gpm)	Cumulative Discharge Volume (Gal)	NOTES color, odor etc.	Stabilized?
BEGIN PURGING											
8:05	22.87	6.55	-122	2.260	94.0	0.31		0.0	0	slightly yellow,	**N/A**
8:10	22.75	7.95	-204	2.220	26.9	0.00		0.15	0.75	strong petroleum-	**N/A**
8:15	22.74	8.34	-214	2.170	18.7	0.00		0.1	1.25	like odors	**N**
8:20	22.73	8.42	-216	2.140	22.5	0.00		0.1	1.75		**N**
8:25	22.70	8.44	-217	2.110	18.4	0.00		0.1	2.25		**N**
8:30	22.70	8.44	-217	2.110	10.9	0.00		0.15	3	clear, strong	**N**
8:35	22.71	8.47	-218	2.090	5.2	0.00		0.1	3.5	petroleum-like	**N**
8:40	22.70	8.50	-218	2.060	3.0	0.00		0.1	4	odors	**N**
8:45	22.70	8.50	-217	2.030	1.9	0.00		0.1	4.5		**N**
8:50	22.68	8.50	-216	2.010	0.0	0.00		0.1	5		**Y**
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N

Notes:

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

Project Information		Well Information		Equipment Information		Sampling Conditions		Sampling Information	
Project Name:	250 Water Street	**Well No:**	MW34	**Water Quality Device Model:**	Horiba U-52	**Weather:**	y/rainy, 70s, wind S	**Sample(s):**	MW34_090220
Project Number:	170381202	**Well Depth:**	19'	**Pine Number:**	21356	**Background PID (ppm):**	0.0		
Site Location:	New York	**Well Diameter:**	2"	**Pump Make and Model:**	Peri pump	**PID Beneath Inner Cap (ppm):**	0.0		
Sampling Personnel:	Tyler Zorn	**Well Screen Interval:**	9'-19'	**Pine Number:**	A01785	**Pump Intake Depth:**	15'	**Sample Date:**	9/2/2020
				Tubing Diameter:	1/4" ID x 3/8" OD	**Depth to Water Before Purge:**		**Sample Time:**	10:35

STABILIZATION = 3 successive readings within limits

TIME	TEMP °Celsius (+/- 3%)	PH (+/- 0.1)	ORP mV (+/- 10mV)	CONDUCTIVITY mS/cm (+/- 3%)	TURBIDITY ntu (+/- 10%) above 5 NTU	DO mg/l (+/- 10%) above 0.5 mg/l	DTW ft Drawdown < 0.33 ft	Flow Rate (gpm) <0.13 gpm)	Cumulative Discharge Volume (Gal)	NOTES color, odor etc.	Stabilized?
BEGIN PURGING											
10:00	22.29	8.67	-170	1.420	69.4	1.00		0.0	0	slightly yellow, strong petroleum-like odors	**N/A**
10:05	22.00	8.86	-216	1.400	30.0	0.00		0.1	0.5		**N/A**
10:10	22.01	8.94	-222	1.320	49.0	0.00		0.15	1.25		**N**
10:15	22.03	8.98	-224	1.160	49.1	0.00		0.15	2		**N**
10:20	22.05	8.98	-225	1.110	48.2	0.00		0.05	2.25	clear, strong petroleum-like odors	**N**
10:25	22.09	9.01	-225	1.060	43.2	0.00		0.05	2.5		**N**
10:30	22.07	8.96	-226	1.080	39.9	0.00		0.1	3		**N**
10:35	22.06	9.04	-225	1.080	40.0	0.00		0.1	3.5		**Y**
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N
											N

Notes:

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

APPENDIX F

SOIL VAPOR CONSTRUCTION AND SAMPLE LOGS

SOIL VAPOR SAMPLING LOG SHEET

Sample Number: AA02

PROJECT: 250 Water Street	**PROJECT NO.:** 170381202
LOCATION: New York, New York	**SURFACE ELEVATION AND DATUM:** N/A
DRILLING FIRM OR LANGAN INSTALLER: N/A	**INSTALLATION DATE STARTED:** N/A **DATE FINISHED:** N/A
INSTALLATION FOREMAN: N/A	**SAMPLE DATE STARTED:** 7/9/2020 **DATE FINISHED:** 7/9/2020
INSTALLATION EQUIPMENT: N/A	**TYPE OF SAMPLING DEVICE:** 6-Liter Summa Canister; Sorbent Tube
INSPECTOR: Thomas Schiefer	**SAMPLER:** Thomas Schiefer
POTENTIAL SAMPLE INTERFERENCES: Vehicle exhaust from on and off-site traffic	**WEATHER CONDITIONS (PRECIP., TEMP., PRESS., WIND SPEED AND DIR.):** Temp: 76-80 °F; Wind: SE 0-10 mph; Precipitation: N/A; Pressure: 30.07 in. Hg
METHOD OF INSTALLATION: N/A	

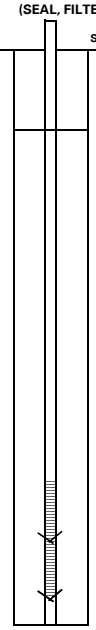
TUBING TYPE/DIAMETER: N/A	**TYPE OF MATERIAL ABOVE SEAL:** N/A
IMPLANT SCREEN TYPE/LENGTH/DIAMETER: N/A	**SEAL MATERIAL (Bentonite, Beeswax, Modeling Clay, etc.):** N/A
BOREHOLE DIAMETER: N/A	**FILTER PACK MATERIAL (Sand or Glass Beads):** N/A

PURGE VOLUME (L):	N/A
PURGE FLOW RATE (ML/MIN):	
PID AFTER PURGE (PPM):	
HELIUM TESTS	
HELIUM TEST IN BUCKET(%):	
HELIUM TEST IN TUBE (PPM):	

SORBENT TUBE	
SAMPLE START DATE/TIME - SORBENT TUBE:	11:47
SAMPLE STOP DATE/TIME - SORBENT TUBE:	13:47
TOTAL SAMPLE TIME - SORBENT TUBE (MIN):	120
FLOW RATE - SORBENT TUBE (L/MIN):	0.20152
VOLUME OF SAMPLE - SORBENT TUBE (LITERS):	24.1872

SUMMA CANISTER	
SAMPLE START DATE/TIME - SUMMA:	11:47
SAMPLE STOP DATE/TIME - SUMMA:	13:47
TOTAL SAMPLE TIME - SUMMA (MIN):	120
FLOW RATE - SUMMA (L/MIN):	0.05
VOLUME OF SAMPLE - SUMMA (LITERS):	6
PID AFTER SAMPLE (PPM):	N/A
SAMPLE MOISTURE CONTENT:	N/A
CAN SERIAL NUMBER:	1942
REGULATOR SERIAL NUMBER:	426
CAN START VACUUM PRESS. (" HG):	-29.95
CAN STOP VACUUM PRESS. (" HG):	-6.28

IMPLANT/PROBE DETAILS (SEAL, FILTER, ETC.)	**DEPTH (FEET FROM SURFACE)**	**NOTES**
SURFACE / SURFACE	N/A	



SAMPLE LOCATION SKETCH

See Sample Location Map

NOTES

Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
21 Penn Plaza, 360 West 31st Street, 8th Floor, New York, New York 10001-2727

SOIL VAPOR SAMPLING LOG SHEET

Sample Number: SV12

PROJECT: 250 Water Street	**PROJECT NO.:** 170381202
LOCATION: New York, New York	**SURFACE ELEVATION AND DATUM:** N/A
DRILLING FIRM OR LANGAN INSTALLER: AARCO Environmental Services, Corp.	**INSTALLATION DATE STARTED:** 7/9/2020 **DATE FINISHED:** 7/9/2020
INSTALLATION FOREMAN: Nick Turro	**SAMPLE DATE STARTED:** 7/9/2020 **DATE FINISHED:** 7/9/2020
INSTALLATION EQUIPMENT: Geoprobe 7720 DT	**TYPE OF SAMPLING DEVICE:** 6-Liter Summa Canister; Sorbent Tube
INSPECTOR: Thomas Schiefer	**SAMPLER:** Thomas Schiefer
POTENTIAL SAMPLE INTERFERENCES: N/A	**WEATHER CONDITIONS (PRECIP., TEMP., PRESS., WIND SPEED AND DIR.):** Temp: 76-80 °F; Wind: SE 0-10 mph; Precipitation: N/A; Pressure: 30.07 in. Hg

METHOD OF INSTALLATION:

A expendable point was advanced to 8 feet below grade surface (bgs) with a Geoprobe 7720 DT and a 2-inch soil vapor pore was installed. The annulus was backfilled with one foot of No. 2 sand and sealed to surface with hydrated bentonite. Initial mercury vapor concentrations above background levels were not observed. Sample consisted of a 6L Summa canister fitted with an 2-hour flow control valve and a sorbent tube connected to a SKC air sampling pump with a flow rate of 0.22808 L/min. The flow controller was zeroed and valve opened to initiate the 2-hour sample collection. The summa canister sample and flow controller were checked each hour during sampling to ensure proper operation. Sorbent tube sample collection took place over a period of 2 hours with a total volume of 24.378 L passing through the tube.

TUBING TYPE/DIAMETER: 3/16-inch ID, 1/4-inch OD Teflon-Lined Polyethylene Tubing	**TYPE OF MATERIAL ABOVE SEAL:** No. 2 Sand
IMPLANT SCREEN TYPE/LENGTH/DIAMETER: 2-Inch Polyethylene Probe	**SEAL MATERIAL (Bentonite, Beeswax, Modeling Clay, etc.):** Bentonite
BOREHOLE DIAMETER: 2-inch	**FILTER PACK MATERIAL (Sand or Glass Beads):** No. 2 Sand

PURGE VOLUME (L):	0.80
PURGE FLOW RATE (ML/MIN):	200
PID AFTER PURGE (PPM):	0.0
HELIUM TESTS	Pre-sampling
HELIUM TEST IN BUCKET(%):	12.9%
HELIUM TEST IN TUBE (PPM):	0.0%
SORBENT TUBE	
SAMPLE START DATE/TIME - SORBENT TUBE:	13:52
SAMPLE STOP DATE/TIME - SORBENT TUBE:	17:52
TOTAL SAMPLE TIME - SORBENT TUBE (MIN):	120
FLOW RATE - SORBENT TUBE (L/MIN):	0.22808
VOLUME OF SAMPLE - SORBENT TUBE (LITERS):	27.366
SUMMA CANISTER	
SAMPLE START DATE/TIME - SUMMA:	13:52
SAMPLE STOP DATE/TIME - SUMMA:	17:52
TOTAL SAMPLE TIME - SUMMA (MIN):	120
FLOW RATE - SUMMA (L/MIN):	0.05
VOLUME OF SAMPLE - SUMMA (LITERS):	6
PID AFTER SAMPLE (PPM):	0.0
SAMPLE MOISTURE CONTENT:	N/A
CAN SERIAL NUMBER:	1942
REGULATOR SERIAL NUMBER:	426
CAN START VACUUM PRESS. (" HG):	-30.06
CAN STOP VACUUM PRESS. (" HG):	-3.25

IMPLANT/PROBE DETAILS (SEAL, FILTER, ETC.)	DEPTH (FEET FROM SURFACE)	NOTES
Top of Seal	0	
Top of Pack	7	
	8	

SAMPLE LOCATION SKETCH

See Sample Location Map

NOTES

SOIL VAPOR SAMPLING LOG SHEET

Sample Number: SV14

PROJECT: 250 Water Street	**PROJECT NO.:** 170381202
LOCATION: New York, New York	**SURFACE ELEVATION AND DATUM:** N/A
DRILLING FIRM OR LANGAN INSTALLER: AARCO Environmental Services, Corp.	**INSTALLATION DATE STARTED:** 7/9/2020 **DATE FINISHED:** 7/9/2020
INSTALLATION FOREMAN: Nick Turro	**SAMPLE DATE STARTED:** 7/9/2020 **DATE FINISHED:** 7/9/2020
INSTALLATION EQUIPMENT: Geoprobe 7720 DT	**TYPE OF SAMPLING DEVICE:** 6-Liter Summa Canister; Sorbent Tube
INSPECTOR: Thomas Schiefer	**SAMPLER:** Thomas Schiefer
POTENTIAL SAMPLE INTERFERENCES: N/A	**WEATHER CONDITIONS (PRECIP., TEMP., PRESS., WIND SPEED AND DIR.):** Temp: 76-80 °F; Wind: SE 0-10 mph; Precipitation: N/A; Pressure: 30.07 in. Hg

METHOD OF INSTALLATION:

A expendable point was advanced to 7 feet below grade surface (bgs) with a Geoprobe 7720 DT and a 2-inch soil vapor pore was installed. The annulus was backfilled with one foot of No. 2 sand and sealed to surface with hydrated bentonite. A maxiumum initial mercury vapor concentration of 0.55 micrograms per cubic meter (µg/m3) was observed. Sample consisted of a 6L Summa canister fitted with an 2-hour flow control valve and a sorbent tube connected to a SKC air sampling pump with a flow rate of 0.17217L/min. The flow controller was zeroed and valve opened to initiate the 2-hour sample collection. The summa cannister sample and flow controller were checked each hour during sampling to ensure proper operation. Sorbent tube sample collection took place over a period of 2 hours with a total volume of 20.6604 L passing through the tube.

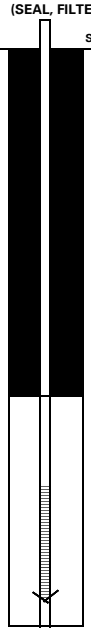
TUBING TYPE/DIAMETER: 3/16-inch ID, 1/4-inch OD Teflon-Lined Polyethylene Tubing	**TYPE OF MATERIAL ABOVE SEAL:** N/A
IMPLANT SCREEN TYPE/LENGTH/DIAMETER: 2-Inch Polyethylene Probe	**SEAL MATERIAL (Bentonite, Beeswax, Modeling Clay, etc.):** Bentonite
BOREHOLE DIAMETER: 2-inch	**FILTER PACK MATERIAL (Sand or Glass Beads):** No. 2 Sand

PURGE VOLUME (L):	0.80
PURGE FLOW RATE (ML/MIN):	200
PID AFTER PURGE (PPM):	0.0
HELIUM TESTS	Pre-sampling
HELIUM TEST IN BUCKET(%):	14.2%
HELIUM TEST IN TUBE (PPM):	0.0%

SORBENT TUBE	
SAMPLE START DATE/TIME - SORBENT TUBE:	13:03
SAMPLE STOP DATE/TIME - SORBENT TUBE:	15:03
TOTAL SAMPLE TIME - SORBENT TUBE (MIN):	120
FLOW RATE - SORBENT TUBE (L/MIN):	0.17217
VOLUME OF SAMPLE - SORBENT TUBE (LITERS):	20.660

SUMMA CANISTER	
SAMPLE START DATE/TIME - SUMMA:	15:20
SAMPLE STOP DATE/TIME - SUMMA:	17:20
TOTAL SAMPLE TIME - SUMMA (MIN):	120
FLOW RATE - SUMMA (L/MIN):	0.05
VOLUME OF SAMPLE - SUMMA (LITERS):	6
PID AFTER SAMPLE (PPM):	0.0
SAMPLE MOISTURE CONTENT:	N/A
CAN SERIAL NUMBER:	638
REGULATOR SERIAL NUMBER:	1453
CAN START VACUUM PRESS. (" HG):	-30.28
CAN STOP VACUUM PRESS. (" HG):	-2.48

IMPLANT/PROBE DETAILS (SEAL, FILTER, ETC.)	**DEPTH (FEET FROM SURFACE)**	**NOTES**
SURFACE / SURFACE		
Top of Seal	0	
Top of Pack	6	
	7	



SAMPLE LOCATION SKETCH	**NOTES**
See Sample Location Map	

Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
21 Penn Plaza, 360 West 31st Street, 8th Floor, New York, New York 10001-2727

SOIL VAPOR SAMPLING LOG SHEET

Sample Number: SV17

PROJECT: 250 Water Street	**PROJECT NO.:** 170381202
LOCATION: New York, New York	**SURFACE ELEVATION AND DATUM:** N/A
DRILLING FIRM OR LANGAN INSTALLER: AARCO Environmental Services, Corp.	**INSTALLATION DATE STARTED:** 7/9/2020 — **DATE FINISHED:** 7/9/2020
INSTALLATION FOREMAN: Nick Turro	**SAMPLE DATE STARTED:** 7/9/2020 — **DATE FINISHED:** 7/9/2020
INSTALLATION EQUIPMENT: Geoprobe 7720 DT	**TYPE OF SAMPLING DEVICE:** 6-Liter Summa Canister; Sorbent Tube
INSPECTOR: Thomas Schiefer	**SAMPLER:** Thomas Schiefer
POTENTIAL SAMPLE INTERFERENCES: N/A	**WEATHER CONDITIONS (PRECIP., TEMP., PRESS., WIND SPEED AND DIR.):** Temp: 76-80 °F; Wind: SE 0-10 mph; Precipitation: N/A; Pressure: 30.07 in. Hg

METHOD OF INSTALLATION:

A expendable point was advanced to 7 feet below grade surface (bgs) with a Geoprobe 7720 DT and a 2-inch soil vapor pore was installed. The annulus was backfilled with one foot of No. 2 sand and sealed to surface with hydrated bentonite. A maxiumum initial mercury vapor concentration of 0.17 micrograms per cubic meter (µg/m3) was observed. Sample consisted of a 6L Summa canister fitted with an 2-hour flow control valve and a sorbent tube connected to a SKC air sampling pump with a flow rate of 0.19415 L/min. The flow controller was zeroed and valve opened to initiate the 2-hour sample collection. The summa cannister sample and flow controller were checked each hour during sampling to ensure proper operation. Sorbent tube sample collection took place over a period of 2 hours and 2 minutes with a total volume of 23.248 L passing through the tube.

TUBING TYPE/DIAMETER: 3/16-inch ID, 1/4-inch OD Teflon-Lined Polyethylene Tubing	**TYPE OF MATERIAL ABOVE SEAL:** N/A
IMPLANT SCREEN TYPE/LENGTH/DIAMETER: 2-Inch Polyethylene Probe	**SEAL MATERIAL (Bentonite, Beeswax, Modeling Clay, etc.):** Bentonite
BOREHOLE DIAMETER: 2-inch	**FILTER PACK MATERIAL (Sand or Glass Beads):** No. 2 Sand

PURGE VOLUME (L):	0.80
PURGE FLOW RATE (ML/MIN):	200
PID AFTER PURGE (PPM):	0.0
HELIUM TESTS	Pre-sampling
HELIUM TEST IN BUCKET(%):	17.6%
HELIUM TEST IN TUBE (PPM):	0.0%
SORBENT TUBE	
SAMPLE START DATE/TIME - SORBENT TUBE:	11:12
SAMPLE STOP DATE/TIME - SORBENT TUBE:	13:14
TOTAL SAMPLE TIME - SORBENT TUBE (MIN):	122
FLOW RATE - SORBENT TUBE (L/MIN):	0.19415
VOLUME OF SAMPLE - SORBENT TUBE (LITERS):	23.248
SUMMA CANISTER	
SAMPLE START DATE/TIME - SUMMA:	15:20
SAMPLE STOP DATE/TIME - SUMMA:	17:20
TOTAL SAMPLE TIME - SUMMA (MIN):	120
FLOW RATE - SUMMA (L/MIN):	0.05
VOLUME OF SAMPLE - SUMMA (LITERS):	6
PID AFTER SAMPLE (PPM):	0.0
SAMPLE MOISTURE CONTENT:	N/A
CAN SERIAL NUMBER:	1821
REGULATOR SERIAL NUMBER:	1834
CAN START VACUUM PRESS. (" HG):	-30.68
CAN STOP VACUUM PRESS. (" HG):	-8.36

IMPLANT/PROBE DETAILS (SEAL, FILTER, ETC.)	DEPTH (FEET FROM SURFACE)	NOTES
SURFACE / SURFACE		
Top of Seal	0	
Top of Pack	6	
	7	

SAMPLE LOCATION SKETCH

See Sample Location Map

NOTES

Sorbent tube and summa cannister samples for DUP01_070920 collected in tandem with

Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
21 Penn Plaza, 360 West 31st Street, 8th Floor, New York, New York 10001-2727

SOIL VAPOR SAMPLING LOG SHEET

Sample Number: SV19

PROJECT: 250 Water Street	**PROJECT NO.:** 170381202
LOCATION: New York, New York	**SURFACE ELEVATION AND DATUM:** N/A
DRILLING FIRM OR LANGAN INSTALLER: AARCO Environmental Services, Corp.	**INSTALLATION DATE STARTED:** 7/8/2020 **DATE FINISHED:** 7/8/2020
INSTALLATION FOREMAN: Nick Turro	**SAMPLE DATE STARTED:** 7/9/2020 **DATE FINISHED:** 7/9/2020
INSTALLATION EQUIPMENT: Geoprobe 7720 DT	**TYPE OF SAMPLING DEVICE:** 6-Liter Summa Canister; Sorbent Tube
INSPECTOR: Thomas Schiefer	**SAMPLER:** Thomas Schiefer
POTENTIAL SAMPLE INTERFERENCES: N/A	**WEATHER CONDITIONS (PRECIP., TEMP., PRESS., WIND SPEED AND DIR.):** Temp: 76-80 °F; Wind: SE 0-10 mph; Precipitation: N/A; Pressure: 30.07 in. Hg

METHOD OF INSTALLATION:

A expendable point was advanced to 7 feet below grade surface (bgs) with a Geoprobe 7720 DT and a 2-inch soil vapor pore was installed. The annulus was backfilled with one foot of No. 2 sand and sealed to surface with hydrated bentonite. Initial mercury vapor concentrations above background levels were not observed. Sample consisted of a 6L Summa canister fitted with an 2-hour flow control valve and a sorbent tube connected to a SKC air sampling pump with a flow rate of 0.18900 L/min. The flow controller was zeroed and valve opened to initiate the 2-hour sample collection. The summa cannister sample and flow controller were checked each hour during sampling to ensure proper operation. Sorbent tube sample collection took place over a period of 2 hours and 4 minutes with a total volume of 23.426 L passing through the tube.

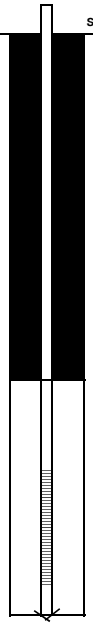
TUBING TYPE/DIAMETER: 3/16-inch ID, 1/4-inch OD Teflon-Lined Polyethylene Tubing	**TYPE OF MATERIAL ABOVE SEAL:** N/A
IMPLANT SCREEN TYPE/LENGTH/DIAMETER: 2-Inch Polyethylene Probe	**SEAL MATERIAL (Bentonite, Beeswax, Modeling Clay, etc.):** Bentonite
BOREHOLE DIAMETER: 2-inch	**FILTER PACK MATERIAL (Sand or Glass Beads):** No. 2 Sand

PURGE VOLUME (L):	0.80
PURGE FLOW RATE (ML/MIN):	200
PID AFTER PURGE (PPM):	0.0
HELIUM TESTS	Pre-sampling
HELIUM TEST IN BUCKET(%):	12.2%
HELIUM TEST IN TUBE (PPM):	0.0%

SORBENT TUBE	
SAMPLE START DATE/TIME - SORBENT TUBE:	16:21
SAMPLE STOP DATE/TIME - SORBENT TUBE:	18:24
TOTAL SAMPLE TIME - SORBENT TUBE (MIN):	124
FLOW RATE - SORBENT TUBE (L/MIN):	0.189
VOLUME OF SAMPLE - SORBENT TUBE (LITERS):	23.436

SUMMA CANISTER	
SAMPLE START DATE/TIME - SUMMA:	16:20
SAMPLE STOP DATE/TIME - SUMMA:	18:21
TOTAL SAMPLE TIME - SUMMA (MIN):	120
FLOW RATE - SUMMA (L/MIN):	0.05
VOLUME OF SAMPLE - SUMMA (LITERS):	6
PID AFTER SAMPLE (PPM):	0.0
SAMPLE MOISTURE CONTENT:	N/A
CAN SERIAL NUMBER:	2637
REGULATOR SERIAL NUMBER:	1078
CAN START VACUUM PRESS. (" HG):	-30.15
CAN STOP VACUUM PRESS. (" HG):	-7.74

IMPLANT/PROBE DETAILS (SEAL, FILTER, ETC.)	**DEPTH (FEET FROM SURFACE)**	**NOTES**
SURFACE / SURFACE		
Top of Seal	0	
Top of Pack	6	
	7	



SAMPLE LOCATION SKETCH

See Sample Location Map

NOTES

SOIL VAPOR SAMPLING LOG SHEET

Sample Number: SV21

PROJECT: 250 Water Street	**PROJECT NO.:** 170381202
LOCATION: New York, New York	**SURFACE ELEVATION AND DATUM:** N/A
DRILLING FIRM OR LANGAN INSTALLER: AARCO Environmental Services, Corp.	**INSTALLATION DATE STARTED:** 7/8/2020 — **DATE FINISHED:** 7/8/2020
INSTALLATION FOREMAN: Nick Turro	**SAMPLE DATE STARTED:** 7/9/2020 — **DATE FINISHED:** 7/9/2020
INSTALLATION EQUIPMENT: Geoprobe 7720 DT	**TYPE OF SAMPLING DEVICE:** 6-Liter Summa Canister; Sorbent Tube
INSPECTOR: Thomas Schiefer	**SAMPLER:** Thomas Schiefer
POTENTIAL SAMPLE INTERFERENCES: N/A	**WEATHER CONDITIONS (PRECIP., TEMP., PRESS., WIND SPEED AND DIR.):** Temp: 76-80 °F; Wind: SE 0-10 mph; Precipitation: N/A; Pressure: 30.07 in. Hg

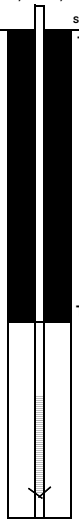
METHOD OF INSTALLATION:

A expendable point was advanced to 7 feet below grade surface (bgs) with a Geoprobe 7720 DT and a 2-inch soil vapor pore was installed. The annulus was backfilled with one foot of No. 2 sand and sealed to surface with hydrated bentonite. Initial mercury vapor concentrations above background levels were not observed. Sample consisted of a 6L Summa canister fitted with an 2-hour flow control valve and a sorbent tube connected to a SKC air sampling pump with a flow rate of 0.16265 L/min. The flow controller was zeroed and valve opened to initiate the 2-hour sample collection. The summa cannister sample and flow controller were checked each hour during sampling to ensure proper operation. Sorbent tube sample collection took place over a period of 2 hours with a total volume of 19.518 L passing through the tube.

TUBING TYPE/DIAMETER: 3/16-inch ID, 1/4-inch OD Teflon-Lined Polyethylene Tubing	**TYPE OF MATERIAL ABOVE SEAL:** N/A
IMPLANT SCREEN TYPE/LENGTH/DIAMETER: 2-Inch Polyethylene Probe	**SEAL MATERIAL (Bentonite, Beeswax, Modeling Clay, etc.):** Bentonite
BOREHOLE DIAMETER: 2-inch	**FILTER PACK MATERIAL (Sand or Glass Beads):** No. 2 Sand

PURGE VOLUME (L):	0.80
PURGE FLOW RATE (ML/MIN):	200
PID AFTER PURGE (PPM):	0.0
HELIUM TESTS	Pre-sampling
HELIUM TEST IN BUCKET(%):	15.2%
HELIUM TEST IN TUBE (PPM):	0.0%
SORBENT TUBE	
SAMPLE START DATE/TIME - SORBENT TUBE:	10:19
SAMPLE STOP DATE/TIME - SORBENT TUBE:	12:19
TOTAL SAMPLE TIME - SORBENT TUBE (MIN):	120
FLOW RATE - SORBENT TUBE (L/MIN):	0.16265
VOLUME OF SAMPLE - SORBENT TUBE (LITERS):	19.518
SUMMA CANISTER	
SAMPLE START DATE/TIME - SUMMA:	10:29
SAMPLE STOP DATE/TIME - SUMMA:	12:29
TOTAL SAMPLE TIME - SUMMA (MIN):	120
FLOW RATE - SUMMA (L/MIN):	0.05
VOLUME OF SAMPLE - SUMMA (LITERS):	6
PID AFTER SAMPLE (PPM):	0.0
SAMPLE MOISTURE CONTENT:	N/A
CAN SERIAL NUMBER:	1554
REGULATOR SERIAL NUMBER:	938
CAN START VACUUM PRESS. (" HG):	-30.48
CAN STOP VACUUM PRESS. (" HG):	-5.45

IMPLANT/PROBE DETAILS (SEAL, FILTER, ETC.)	DEPTH (FEET FROM SURFACE)	NOTES
SURFACE		
Top of Seal	0	
Top of Pack	6	
	7	



SAMPLE LOCATION SKETCH

See Sample Location Map

NOTES

Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
21 Penn Plaza, 360 West 31st Street, 8th Floor, New York, New York 10001-2727

SOIL VAPOR SAMPLING LOG SHEET

Sample Number: SV23

PROJECT: 250 Water Street	**PROJECT NO.:** 170381202
LOCATION: New York, New York	**SURFACE ELEVATION AND DATUM:** N/A
DRILLING FIRM OR LANGAN INSTALLER: AARCO Environmental Services, Corp.	**INSTALLATION DATE STARTED:** 7/9/2020 **DATE FINISHED:** 7/9/2020
INSTALLATION FOREMAN: Nick Turro	**SAMPLE DATE STARTED:** 7/9/2020 **DATE FINISHED:** 7/9/2020
INSTALLATION EQUIPMENT: Geoprobe 7720 DT	**TYPE OF SAMPLING DEVICE:** 6-Liter Summa Canister; Sorbent Tube
INSPECTOR: Thomas Schiefer	**SAMPLER:** Thomas Schiefer
POTENTIAL SAMPLE INTERFERENCES: N/A	**WEATHER CONDITIONS (PRECIP., TEMP., PRESS., WIND SPEED AND DIR.):** Temp: 76-80 °F; Wind: SE 0-10 mph; Precipitation: N/A; Pressure: 30.07 in. Hg

METHOD OF INSTALLATION:

A expendable point was advanced to 7 feet below grade surface (bgs) with a Geoprobe 7720 DT and a 2-inch soil vapor pore was installed. The annulus was backfilled with one foot of No. 2 sand and sealed to surface with hydrated bentonite. A maxiumum initial mercury vapor concentration of 0.23 micrograms per cubic meter (µg/m3) was observed. Sample consisted of a 6L Summa canister fitted with an 2-hour flow control valve and a sorbent tube connected to a SKC air sampling pump with a flow rate of 0.21170 L/min. The flow controller was zeroed and valve opened to initiate the 2-hour sample collection. The summa cannister sample and flow controller were checked each hour during sampling to ensure proper operation. Sorbent tube sample collection took place over a period of 2 hours with a total volume of 25.404 L passing through the tube.

TUBING TYPE/DIAMETER: 3/16-inch ID, 1/4-inch OD Teflon-Lined Polyethylene Tubing	**TYPE OF MATERIAL ABOVE SEAL:** N/A
IMPLANT SCREEN TYPE/LENGTH/DIAMETER: 2-Inch Polyethylene Probe	**SEAL MATERIAL (Bentonite, Beeswax, Modeling Clay, etc.):** Bentonite
BOREHOLE DIAMETER: 2-inch	**FILTER PACK MATERIAL (Sand or Glass Beads):** No. 2 Sand

PURGE VOLUME (L):	0.80
PURGE FLOW RATE (ML/MIN):	200
PID AFTER PURGE (PPM):	0.0
HELIUM TESTS	Pre-sampling
HELIUM TEST IN BUCKET(%):	10.8%
HELIUM TEST IN TUBE (PPM):	0.0%
SORBENT TUBE	
SAMPLE START DATE/TIME - SORBENT TUBE:	15:48
SAMPLE STOP DATE/TIME - SORBENT TUBE:	17:48
TOTAL SAMPLE TIME - SORBENT TUBE (MIN):	120
FLOW RATE - SORBENT TUBE (L/MIN):	0.2117
VOLUME OF SAMPLE - SORBENT TUBE (LITERS):	25.404
SUMMA CANISTER	
SAMPLE START DATE/TIME - SUMMA:	15:48
SAMPLE STOP DATE/TIME - SUMMA:	17:48
TOTAL SAMPLE TIME - SUMMA (MIN):	120
FLOW RATE - SUMMA (L/MIN):	0.05
VOLUME OF SAMPLE - SUMMA (LITERS):	6
PID AFTER SAMPLE (PPM):	0.0
SAMPLE MOISTURE CONTENT:	N/A
CAN SERIAL NUMBER:	2886
REGULATOR SERIAL NUMBER:	1924
CAN START VACUUM PRESS. (" HG):	-30.28
CAN STOP VACUUM PRESS. (" HG):	-9.44

IMPLANT/PROBE DETAILS (SEAL, FILTER, ETC.)	DEPTH (FEET FROM SURFACE)	NOTES
SURFACE / SURFACE		
Top of Seal	0	
Top of Pack	6	
	7	

SAMPLE LOCATION SKETCH

See Sample Location Map

NOTES

Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
21 Penn Plaza, 360 West 31st Street, 8th Floor, New York, New York 10001-2727

SOIL VAPOR SAMPLING LOG SHEET

Sample Number: SV24

PROJECT: 250 Water Street	**PROJECT NO.:** 170381202
LOCATION: New York, New York	**SURFACE ELEVATION AND DATUM:** N/A
DRILLING FIRM OR LANGAN INSTALLER: AARCO Environmental Services, Corp.	**INSTALLATION DATE STARTED:** 7/8/2020 **DATE FINISHED:** 7/8/2020
INSTALLATION FOREMAN: Nick Turro	**SAMPLE DATE STARTED:** 7/9/2020 **DATE FINISHED:** 7/9/2020
INSTALLATION EQUIPMENT: Geoprobe 7720 DT	**TYPE OF SAMPLING DEVICE:** 6-Liter Summa Canister; Sorbent Tube
INSPECTOR: Thomas Schiefer	**SAMPLER:** Thomas Schiefer
POTENTIAL SAMPLE INTERFERENCES: N/A	**WEATHER CONDITIONS (PRECIP., TEMP., PRESS., WIND SPEED AND DIR.):** Temp: 76-80 °F; Wind: SE 0-10 mph; Precipitation: N/A; Pressure: 30.07 in. Hg

METHOD OF INSTALLATION:

A expendable point was advanced to 7 feet below grade surface (bgs) with a Geoprobe 7720 DT and a 2-inch soil vapor pore was installed. The annulus was backfilled with one foot of No. 2 sand and sealed to surface with hydrated bentonite. Initial mercury vapor concentrations above background levels were not observed. Sample consisted of a 6L Summa canister fitted with an 2-hour flow control valve and a sorbent tube connected to a SKC air sampling pump with a flow rate of 0.19632 L/min. The flow controller was zeroed and valve opened to initiate the 2-hour sample collection. The summa cannister sample and flow controller were checked each hour during sampling to ensure proper operation. Sorbent tube sample collection took place over a period of 2 hours with a total volume of 23.558 L passing through the tube.

TUBING TYPE/DIAMETER: 3/16-inch ID, 1/4-inch OD Teflon-Lined Polyethylene Tubing	**TYPE OF MATERIAL ABOVE SEAL:** N/A
IMPLANT SCREEN TYPE/LENGTH/DIAMETER: 2-Inch Polyethylene Probe	**SEAL MATERIAL (Bentonite, Beeswax, Modeling Clay, etc.):** Bentonite
BOREHOLE DIAMETER: 2-inch	**FILTER PACK MATERIAL (Sand or Glass Beads):** No. 2 Sand

PURGE VOLUME (L):	0.80
PURGE FLOW RATE (ML/MIN):	200
PID AFTER PURGE (PPM):	0.0
HELIUM TESTS	Pre-sampling
HELIUM TEST IN BUCKET(%):	14.6%
HELIUM TEST IN TUBE (PPM):	0.0%
SORBENT TUBE	
SAMPLE START DATE/TIME - SORBENT TUBE:	10:57
SAMPLE STOP DATE/TIME - SORBENT TUBE:	12:57
TOTAL SAMPLE TIME - SORBENT TUBE (MIN):	120
FLOW RATE - SORBENT TUBE (L/MIN):	0.19632
VOLUME OF SAMPLE - SORBENT TUBE (LITERS):	23.558
SUMMA CANISTER	
SAMPLE START DATE/TIME - SUMMA:	11:01
SAMPLE STOP DATE/TIME - SUMMA:	13:01
TOTAL SAMPLE TIME - SUMMA (MIN):	120
FLOW RATE - SUMMA (L/MIN):	0.05
VOLUME OF SAMPLE - SUMMA (LITERS):	6
PID AFTER SAMPLE (PPM):	0.0
SAMPLE MOISTURE CONTENT:	N/A
CAN SERIAL NUMBER:	905
REGULATOR SERIAL NUMBER:	1532
CAN START VACUUM PRESS. (" HG):	-30.16
CAN STOP VACUUM PRESS. (" HG):	-7.47

IMPLANT/PROBE DETAILS (SEAL, FILTER, ETC.)	DEPTH (FEET FROM SURFACE)	NOTES
SURFACE / SURFACE		
Top of Seal	0	
Top of Pack	6	
	7	

SAMPLE LOCATION SKETCH

See Sample Location Map

NOTES

Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
21 Penn Plaza, 360 West 31st Street, 8th Floor, New York, New York 10001-2727

SOIL VAPOR SAMPLING LOG SHEET

Sample Number: SV28

PROJECT: 250 Water Street	**PROJECT NO.:** 170381202
LOCATION: New York, New York	**SURFACE ELEVATION AND DATUM:** N/A
DRILLING FIRM OR LANGAN INSTALLER: AARCO Environmental Services, Corp.	**INSTALLATION DATE STARTED:** 7/9/2020 **DATE FINISHED:** 7/9/2020
INSTALLATION FOREMAN: Nick Turro	**SAMPLE DATE STARTED:** 7/9/2020 **DATE FINISHED:** 7/9/2020
INSTALLATION EQUIPMENT: Geoprobe 7720 DT	**TYPE OF SAMPLING DEVICE:** 6-Liter Summa Canister; Sorbent Tube
INSPECTOR: Thomas Schiefer	**SAMPLER:** Thomas Schiefer
POTENTIAL SAMPLE INTERFERENCES: N/A	**WEATHER CONDITIONS (PRECIP., TEMP., PRESS., WIND SPEED AND DIR.):** Temp: 76-80 °F; Wind: SE 0-10 mph; Precipitation: N/A; Pressure: 30.07 in. Hg

METHOD OF INSTALLATION:

A expendable point was advanced to 7 feet below grade surface (bgs) with a Geoprobe 7720 DT and a 2-inch soil vapor pore was installed. The annulus was backfilled with one foot of No. 2 sand and sealed to surface with hydrated bentonite. A maxiumum initial mercury vapor concentration of 0.16 micrograms per cubic meter (µg/m3) was observed. Sample consisted of a 6L Summa canister fitted with an 2-hour flow control valve and a sorbent tube connected to a SKC air sampling pump with a flow rate of 0.18567 L/min. The flow controller was zeroed and valve opened to initiate the 2-hour sample collection. The summa cannister sample and flow controller were checked each hour during sampling to ensure proper operation. Sorbent tube sample collection took place over a period of 2 hours and 1 minute with a total volume of 22.4661 L passing through the tube.

TUBING TYPE/DIAMETER: 3/16-inch ID, 1/4-inch OD Teflon-Lined Polyethylene Tubing	**TYPE OF MATERIAL ABOVE SEAL:** N/A
IMPLANT SCREEN TYPE/LENGTH/DIAMETER: 2-Inch Polyethylene Probe	**SEAL MATERIAL (Bentonite, Beeswax, Modeling Clay, etc.):** Bentonite
BOREHOLE DIAMETER: 2-inch	**FILTER PACK MATERIAL (Sand or Glass Beads):** No. 2 Sand

PURGE VOLUME (L):	0.80
PURGE FLOW RATE (ML/MIN):	200
PID AFTER PURGE (PPM):	0.0
HELIUM TESTS	Pre-sampling
HELIUM TEST IN BUCKET(%):	16.2%
HELIUM TEST IN TUBE (PPM):	0.0%
SORBENT TUBE	
SAMPLE START DATE/TIME - SORBENT TUBE:	16:06
SAMPLE STOP DATE/TIME - SORBENT TUBE:	18:07
TOTAL SAMPLE TIME - SORBENT TUBE (MIN):	121
FLOW RATE - SORBENT TUBE (L/MIN):	0.18567
VOLUME OF SAMPLE - SORBENT TUBE (LITERS):	22.466
SUMMA CANISTER	
SAMPLE START DATE/TIME - SUMMA:	16:06
SAMPLE STOP DATE/TIME - SUMMA:	18:06
TOTAL SAMPLE TIME - SUMMA (MIN):	120
FLOW RATE - SUMMA (L/MIN):	0.05
VOLUME OF SAMPLE - SUMMA (LITERS):	6
PID AFTER SAMPLE (PPM):	0.0
SAMPLE MOISTURE CONTENT:	N/A
CAN SERIAL NUMBER:	2950
REGULATOR SERIAL NUMBER:	341
CAN START VACUUM PRESS. (" HG):	-30.22
CAN STOP VACUUM PRESS. (" HG):	-5.49

IMPLANT/PROBE DETAILS (SEAL, FILTER, ETC.)	DEPTH (FEET FROM SURFACE)	NOTES
SURFACE / SURFACE		
Top of Seal	0	
Top of Pack	6	
	7	

SAMPLE LOCATION SKETCH

See Sample Location Map

NOTES

Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
21 Penn Plaza, 360 West 31st Street, 8th Floor, New York, New York 10001-2727

SOIL VAPOR SAMPLING LOG SHEET

Sample Number: SV29

PROJECT: 250 Water Street	**PROJECT NO.:** 170381202
LOCATION: New York, New York	**SURFACE ELEVATION AND DATUM:** N/A
DRILLING FIRM OR LANGAN INSTALLER: AARCO Environmental Services, Corp.	**INSTALLATION DATE STARTED:** 7/9/2020 **DATE FINISHED:** 7/9/2020
INSTALLATION FOREMAN: Nick Turro	**SAMPLE DATE STARTED:** 7/9/2020 **DATE FINISHED:** 7/9/2020
INSTALLATION EQUIPMENT: Geoprobe 7720 DT	**TYPE OF SAMPLING DEVICE:** 6-Liter Summa Canister; Sorbent Tube
INSPECTOR: Thomas Schiefer	**SAMPLER:** Thomas Schiefer
POTENTIAL SAMPLE INTERFERENCES: N/A	**WEATHER CONDITIONS (PRECIP., TEMP., PRESS., WIND SPEED AND DIR.):** Temp: 76-80 °F; Wind: SE 0-10 mph; Precipitation: N/A; Pressure: 30.07 in. Hg

METHOD OF INSTALLATION:

A expendable point was advanced to 8 feet below grade surface (bgs) with a Geoprobe 7720 DT and a 2-inch soil vapor pore was installed. The annulus was backfilled with one foot of No. 2 sand and sealed to surface with hydrated bentonite. A maxiumum initial mercury vapor concentration of 0.08 micrograms per cubic meter (µg/m3) was observed. Sample consisted of a 6L Summa canister fitted with an 2-hour flow control valve and a sorbent tube connected to a SKC air sampling pump with a flow rate of 0.20968 L/min. The flow controller was zeroed and valve opened to initiate the 2-hour sample collection. The summa cannister sample and flow controller were checked each hour during sampling to ensure proper operation. Sorbent tube sample collection took place over a period of 2 hours with a total volume of 25.1616 L passing through the tube.

TUBING TYPE/DIAMETER: 3/16-inch ID, 1/4-inch OD Teflon-Lined Polyethylene Tubing	**TYPE OF MATERIAL ABOVE SEAL:** N/A
IMPLANT SCREEN TYPE/LENGTH/DIAMETER: 2-Inch Polyethylene Probe	**SEAL MATERIAL (Bentonite, Beeswax, Modeling Clay, etc.):** Bentonite
BOREHOLE DIAMETER: 2-inch	**FILTER PACK MATERIAL (Sand or Glass Beads):** No. 2 Sand

PURGE VOLUME (L):	0.80
PURGE FLOW RATE (ML/MIN):	200
PID AFTER PURGE (PPM):	0.0
HELIUM TESTS	Pre-sampling
HELIUM TEST IN BUCKET(%):	13.1%
HELIUM TEST IN TUBE (PPM):	0.0%
SORBENT TUBE	
SAMPLE START DATE/TIME - SORBENT TUBE:	14:37
SAMPLE STOP DATE/TIME - SORBENT TUBE:	16:37
TOTAL SAMPLE TIME - SORBENT TUBE (MIN):	120
FLOW RATE - SORBENT TUBE (L/MIN):	0.20968
VOLUME OF SAMPLE - SORBENT TUBE (LITERS):	25.1616
SUMMA CANISTER	
SAMPLE START DATE/TIME - SUMMA:	14:32
SAMPLE STOP DATE/TIME - SUMMA:	16:35
TOTAL SAMPLE TIME - SUMMA (MIN):	123
FLOW RATE - SUMMA (L/MIN):	0.048
VOLUME OF SAMPLE - SUMMA (LITERS):	5.904
PID AFTER SAMPLE (PPM):	0.0
SAMPLE MOISTURE CONTENT:	N/A
CAN SERIAL NUMBER:	2252
REGULATOR SERIAL NUMBER:	1746
CAN START VACUUM PRESS. (" HG):	-30.51
CAN STOP VACUUM PRESS. (" HG):	-6.52

IMPLANT/PROBE DETAILS (SEAL, FILTER, ETC.)	DEPTH (FEET FROM SURFACE)	NOTES
SURFACE / SURFACE		
Top of Seal	0	
Top of Pack	7	
	8	

SAMPLE LOCATION SKETCH	NOTES
See Sample Location Map	

Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
21 Penn Plaza, 360 West 31st Street, 8th Floor, New York, New York 10001-2727

SOIL VAPOR SAMPLING LOG SHEET

Sample Number: SV30

PROJECT: 250 Water Street	**PROJECT NO.:** 170381202
LOCATION: New York, New York	**SURFACE ELEVATION AND DATUM:** N/A
DRILLING FIRM OR LANGAN INSTALLER: AARCO Environmental Services, Corp.	**INSTALLATION DATE STARTED:** 7/9/2020 **DATE FINISHED:** 7/9/2020
INSTALLATION FOREMAN: Nick Turro	**SAMPLE DATE STARTED:** 7/9/2020 **DATE FINISHED:** 7/9/2020
INSTALLATION EQUIPMENT: Geoprobe 7720 DT	**TYPE OF SAMPLING DEVICE:** 6-Liter Summa Canister; Sorbent Tube
INSPECTOR: Thomas Schiefer	**SAMPLER:** Thomas Schiefer
POTENTIAL SAMPLE INTERFERENCES: N/A	**WEATHER CONDITIONS (PRECIP., TEMP., PRESS., WIND SPEED AND DIR.):** Temp: 76-80 °F; Wind: SE 0-10 mph; Precipitation: N/A; Pressure: 30.07 in. Hg

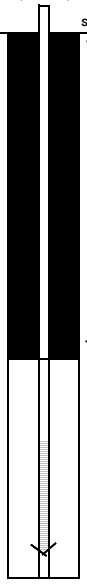
METHOD OF INSTALLATION:

A expendable point was advanced to 7 feet below grade surface (bgs) with a Geoprobe 7720 DT and a 2-inch soil vapor pore was installed. The annulus was backfilled with one foot of No. 2 sand and sealed to surface with hydrated bentonite. Initial mercury vapor concentrations above background levels were not observed. Sample consisted of a 6L Summa canister fitted with an 2-hour flow control valve and a sorbent tube connected to a SKC air sampling pump with a flow rate of 0.17218 L/min. The flow controller was zeroed and valve opened to initiate the 2-hour sample collection. The summa cannister sample and flow controller were checked each hour during sampling to ensure proper operation. Sorbent tube sample collection took place over a period of 2 hours and 1 minute with a total volume of 20.833 L passing through the tube.

TUBING TYPE/DIAMETER: 3/16-inch ID, 1/4-inch OD Teflon-Lined Polyethylene Tubing	**TYPE OF MATERIAL ABOVE SEAL:** N/A
IMPLANT SCREEN TYPE/LENGTH/DIAMETER: 2-Inch Polyethylene Probe	**SEAL MATERIAL (Bentonite, Beeswax, Modeling Clay, etc.):** Bentonite
BOREHOLE DIAMETER: 2-inch	**FILTER PACK MATERIAL (Sand or Glass Beads):** No. 2 Sand

PURGE VOLUME (L):	0.80
PURGE FLOW RATE (ML/MIN):	200
PID AFTER PURGE (PPM):	0.0
HELIUM TESTS	Pre-sampling
HELIUM TEST IN BUCKET(%):	18.8%
HELIUM TEST IN TUBE (PPM):	0.0%
SORBENT TUBE	
SAMPLE START DATE/TIME - SORBENT TUBE:	15:33
SAMPLE STOP DATE/TIME - SORBENT TUBE:	17:34
TOTAL SAMPLE TIME - SORBENT TUBE (MIN):	121
FLOW RATE - SORBENT TUBE (L/MIN):	0.17218
VOLUME OF SAMPLE - SORBENT TUBE (LITERS):	20.833
SUMMA CANISTER	
SAMPLE START DATE/TIME - SUMMA:	15:13
SAMPLE STOP DATE/TIME - SUMMA:	17:13
TOTAL SAMPLE TIME - SUMMA (MIN):	120
FLOW RATE - SUMMA (L/MIN):	0.05
VOLUME OF SAMPLE - SUMMA (LITERS):	6
PID AFTER SAMPLE (PPM):	0.0
SAMPLE MOISTURE CONTENT:	N/A
CAN SERIAL NUMBER:	2729
REGULATOR SERIAL NUMBER:	954
CAN START VACUUM PRESS. (" HG):	-27.51
CAN STOP VACUUM PRESS. (" HG):	-4.98

IMPLANT/PROBE DETAILS (SEAL, FILTER, ETC.)	DEPTH (FEET FROM SURFACE)	NOTES
SURFACE / SURFACE		
Top of Seal	0	
Top of Pack	6	
	7	



SAMPLE LOCATION SKETCH	NOTES
See Sample Location Map	

Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
21 Penn Plaza, 360 West 31st Street, 8th Floor, New York, New York 10001-2727

SOIL VAPOR SAMPLING LOG SHEET

Sample Number: SV32

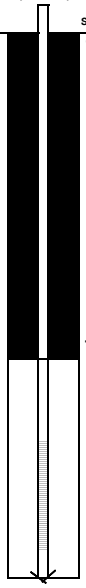
PROJECT: 250 Water Street	**PROJECT NO.:** 170381202
LOCATION: New York, New York	**SURFACE ELEVATION AND DATUM:** N/A
DRILLING FIRM OR LANGAN INSTALLER: AARCO Environmental Services, Corp.	**INSTALLATION DATE STARTED:** 7/9/2020 **DATE FINISHED:** 7/9/2020
INSTALLATION FOREMAN: Nick Turro	**SAMPLE DATE STARTED:** 7/9/2020 **DATE FINISHED:** 7/9/2020
INSTALLATION EQUIPMENT: Geoprobe 7720 DT	**TYPE OF SAMPLING DEVICE:** 6-Liter Summa Canister; Sorbent Tube
INSPECTOR: Thomas Schiefer	**SAMPLER:** Thomas Schiefer
POTENTIAL SAMPLE INTERFERENCES: N/A	**WEATHER CONDITIONS (PRECIP., TEMP., PRESS., WIND SPEED AND DIR.):** Temp: 76-80 °F; Wind: SE 0-10 mph; Precipitation: N/A; Pressure: 30.07 in. Hg

METHOD OF INSTALLATION:

A expendable point was advanced to 7 feet below grade surface (bgs) with a Geoprobe 7720 DT and a 2-inch soil vapor pore was installed. The annulus was backfilled with one foot of No. 2 sand and sealed to surface with hydrated bentonite. Initial mercury vapor concentrations above background levels were not observed. Sample consisted of a 6L Summa canister fitted with an 2-hour flow control valve and a sorbent tube connected to a SKC air sampling pump with a flow rate of 0.19249 L/min. The flow controller was zeroed and valve opened to initiate the 2-hour sample collection. The summa cannister sample and flow controller were checked each hour during sampling to ensure proper operation. Sorbent tube sample collection took place over a period of 2 hours and 4 minutes with a total volume of 23.099 L passing through the tube.

TUBING TYPE/DIAMETER: 3/16-inch ID, 1/4-inch OD Teflon-Lined Polyethylene Tubing	**TYPE OF MATERIAL ABOVE SEAL:** N/A
IMPLANT SCREEN TYPE/LENGTH/DIAMETER: 2-Inch Polyethylene Probe	**SEAL MATERIAL (Bentonite, Beeswax, Modeling Clay, etc.):** Bentonite
BOREHOLE DIAMETER: 2-inch	**FILTER PACK MATERIAL (Sand or Glass Beads):** No. 2 Sand

PURGE VOLUME (L):	0.80
PURGE FLOW RATE (ML/MIN):	200
PID AFTER PURGE (PPM):	0.0
HELIUM TESTS	Pre-sampling
HELIUM TEST IN BUCKET(%):	13.8%
HELIUM TEST IN TUBE (PPM):	0.0%
SORBENT TUBE	
SAMPLE START DATE/TIME - SORBENT TUBE:	15:33
SAMPLE STOP DATE/TIME - SORBENT TUBE:	17:33
TOTAL SAMPLE TIME - SORBENT TUBE (MIN):	120
FLOW RATE - SORBENT TUBE (L/MIN):	0.19249
VOLUME OF SAMPLE - SORBENT TUBE (LITERS):	23.099
SUMMA CANISTER	
SAMPLE START DATE/TIME - SUMMA:	15:33
SAMPLE STOP DATE/TIME - SUMMA:	17:33
TOTAL SAMPLE TIME - SUMMA (MIN):	120
FLOW RATE - SUMMA (L/MIN):	0.05
VOLUME OF SAMPLE - SUMMA (LITERS):	6
PID AFTER SAMPLE (PPM):	0.0
SAMPLE MOISTURE CONTENT:	N/A
CAN SERIAL NUMBER:	629
REGULATOR SERIAL NUMBER:	1195
CAN START VACUUM PRESS. (" HG):	-29.97
CAN STOP VACUUM PRESS. (" HG):	-6.1



IMPLANT/PROBE DETAILS (SEAL, FILTER, ETC.)	DEPTH (FEET FROM SURFACE)	NOTES
Top of Seal	0	
Top of Pack	6	
	7	

SAMPLE LOCATION SKETCH

See Sample Location Map

NOTES

Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
21 Penn Plaza, 360 West 31st Street, 8th Floor, New York, New York 10001-2727

SOIL VAPOR SAMPLING LOG SHEET

Sample Number: SV37

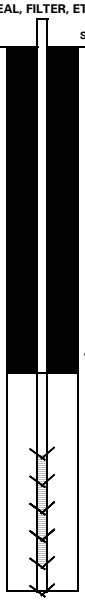
PROJECT: 250 Water Street	**PROJECT NO.:** 170381202
LOCATION: New York, New York	**SURFACE ELEVATION AND DATUM:** N/A
DRILLING FIRM OR LANGAN INSTALLER: AARCO Environmental Services, Corp.	**INSTALLATION DATE STARTED:** 7/9/2020 **DATE FINISHED:** 7/9/2020
INSTALLATION FOREMAN: Nick Turro	**SAMPLE DATE STARTED:** 7/9/2020 **DATE FINISHED:** 7/9/2020
INSTALLATION EQUIPMENT: Geoprobe 7720 DT	**TYPE OF SAMPLING DEVICE:** 6-Liter Summa Canister; Sorbent Tube
INSPECTOR: Thomas Schiefer	**SAMPLER:** Thomas Schiefer
POTENTIAL SAMPLE INTERFERENCES: N/A	**WEATHER CONDITIONS (PRECIP., TEMP., PRESS., WIND SPEED AND DIR.):** Temp: 76-80 °F; Wind: SE 0-10 mph; Precipitation: N/A; Pressure: 30.07 in. Hg

METHOD OF INSTALLATION:

A expendable point was advanced to 7 feet below grade surface (bgs) with a Geoprobe 7720 DT and a 2-inch soil vapor pore was installed. The annulus was backfilled with one foot of No. 2 sand and sealed to surface with hydrated bentonite. A maxiumum initial mercury vapor concentration of 1.13 micrograms per cubic meter (µg/m3) was observed; however subsequent readings after purging, and prior to sampling, were not observed above background. Sample consisted of a 6L Summa canister fitted with an 2-hour flow control valve and a sorbent tube connected to a SKC air sampling pump with a flow rate of 0.2205 L/min. The flow controller was zeroed and valve opened to initiate the 2-hour sample collection. The summa cannister sample and flow controller were checked each hour during sampling to ensure proper operation. Sorbent tube sample collection took place over a period of 2 hours with a total

TUBING TYPE/DIAMETER: 3/16-inch ID, 1/4-inch OD Teflon-Lined Polyethylene Tubing	**TYPE OF MATERIAL ABOVE SEAL:** N/A
IMPLANT SCREEN TYPE/LENGTH/DIAMETER: 2-Inch Polyethylene Probe	**SEAL MATERIAL (Bentonite, Beeswax, Modeling Clay, etc.):** Bentonite
BOREHOLE DIAMETER: 2-inch	**FILTER PACK MATERIAL (Sand or Glass Beads):** No. 2 Sand

PURGE VOLUME (L):	0.80
PURGE FLOW RATE (ML/MIN):	200
PID AFTER PURGE (PPM):	0.0
HELIUM TESTS	Pre-sampling
HELIUM TEST IN BUCKET(%):	12.0%
HELIUM TEST IN TUBE (PPM):	0.0%
SORBENT TUBE	
SAMPLE START DATE/TIME - SORBENT TUBE:	13:20
SAMPLE STOP DATE/TIME - SORBENT TUBE:	15:20
TOTAL SAMPLE TIME - SORBENT TUBE (MIN):	120
FLOW RATE - SORBENT TUBE (L/MIN):	0.2205
VOLUME OF SAMPLE - SORBENT TUBE (LITERS):	26.460
SUMMA CANISTER	
SAMPLE START DATE/TIME - SUMMA:	13:20
SAMPLE STOP DATE/TIME - SUMMA:	15:20
TOTAL SAMPLE TIME - SUMMA (MIN):	120
FLOW RATE - SUMMA (L/MIN):	0.05
VOLUME OF SAMPLE - SUMMA (LITERS):	6
PID AFTER SAMPLE (PPM):	0.0
SAMPLE MOISTURE CONTENT:	N/A
CAN SERIAL NUMBER:	925
REGULATOR SERIAL NUMBER:	1794
CAN START VACUUM PRESS. (" HG):	-29.88
CAN STOP VACUUM PRESS. (" HG):	-6.99



IMPLANT/PROBE DETAILS (SEAL, FILTER, ETC.)	DEPTH (FEET FROM SURFACE)	NOTES
Top of Seal	0	
Top of Pack	6	
	7	

SAMPLE LOCATION SKETCH

See Sample Location Map

NOTES

Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
21 Penn Plaza, 360 West 31st Street, 8th Floor, New York, New York 10001-2727

SOIL VAPOR SAMPLING LOG SHEET

Sample Number: SV38

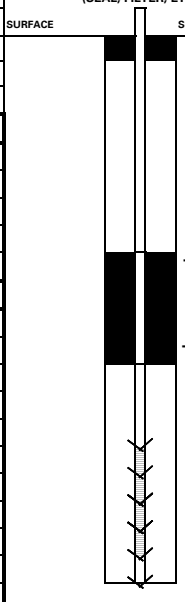
PROJECT: 250 Water Street	**PROJECT NO.:** 170381202
LOCATION: New York, New York	**SURFACE ELEVATION AND DATUM:** N/A
DRILLING FIRM OR LANGAN INSTALLER: AARCO Environmental Services, Corp.	**INSTALLATION DATE STARTED:** 8/3/3030 **DATE FINISHED:** 8/3/2020
INSTALLATION FOREMAN: Sergio Magana	**SAMPLE DATE STARTED:** 8/3/2020 **DATE FINISHED:** 8/3/2020
INSTALLATION EQUIPMENT: Geoprobe® 7822 DT	**TYPE OF SAMPLING DEVICE:** 2.7-Liter Summa Canister
INSPECTOR: Adrian Heath	**SAMPLER:** Adrian Heath
POTENTIAL SAMPLE INTERFERENCES: N/A	**WEATHER CONDITIONS (PRECIP., TEMP., PRESS., WIND SPEED AND DIR.):** Temp: Low to Mid 90s °F; Wind: SW 0-20 mph; Precipitation: N/A; Pressure: 30.07 in. Hg

METHOD OF INSTALLATION:

Soil boring SB38 was advanced to 24 feet below grade surface (bgs) with a Geoprobe 7822 DT. The annulus was backfilled to 15 feet bgs and a 2-inch soil vapor probe was installed. No. 2 sand was backfilled to 10 feet bgs, a one-foot hydrated bentonite seal was installed and the boring was backfill with No. 2 sand to 1 foot bgs. The surface was sealed with hydrated bentonite. Sample consisted of 2.7L Summa canister fitted with an 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 hour during sampling to ensure proper operation.

TUBING TYPE/DIAMETER: 3/16-inch ID, 1/4-inch OD Teflon-Lined Polyethylene Tubing	**TYPE OF MATERIAL ABOVE SEAL:** No. 2 Sand
IMPLANT SCREEN TYPE/LENGTH/DIAMETER: 2-Inch Polyethylene Probe	**SEAL MATERIAL (Bentonite, Beeswax, Modeling Clay, etc.):** Bentonite
BOREHOLE DIAMETER: 2-inch	**FILTER PACK MATERIAL (Sand or Glass Beads):** No. 2 Sand

PURGE VOLUME (L):	0.80
PURGE FLOW RATE (ML/MIN):	200
PID AFTER PURGE (PPM):	0.9
HELIUM TESTS	Pre-sampling
HELIUM TEST IN BUCKET(%):	29.4%
HELIUM TEST IN TUBE (PPM):	0.0%
SORBENT TUBE	
SAMPLE START DATE/TIME - SORBENT TUBE:	14:09
SAMPLE STOP DATE/TIME - SORBENT TUBE:	16:09
TOTAL SAMPLE TIME - SORBENT TUBE (MIN):	120
FLOW RATE - SORBENT TUBE (L/MIN):	0.23996
VOLUME OF SAMPLE - SORBENT TUBE (LITERS):	28.795
SUMMA CANISTER	
SAMPLE START DATE/TIME - SUMMA:	11:35
SAMPLE STOP DATE/TIME - SUMMA:	13:56
TOTAL SAMPLE TIME - SUMMA (MIN):	141
FLOW RATE - SUMMA (L/MIN):	0.02
VOLUME OF SAMPLE - SUMMA (LITERS):	2.7
PID AFTER SAMPLE (PPM):	0.0
SAMPLE MOISTURE CONTENT:	N/A
CAN SERIAL NUMBER:	232
REGULATOR SERIAL NUMBER:	808
CAN START VACUUM PRESS. (" HG):	-30.32
CAN STOP VACUUM PRESS. (" HG):	-8.59



DEPTH (FEET FROM SURFACE)	NOTES
0	
9	
10	
15	

SAMPLE LOCATION SKETCH

See Sample Location Map

NOTES

Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
21 Penn Plaza, 360 West 31st Street, 8th Floor, New York, New York 10001-2727

SOIL VAPOR SAMPLING LOG SHEET

Sample Number: SV39

PROJECT: 250 Water Street	**PROJECT NO.:** 170381202
LOCATION: New York, New York	**SURFACE ELEVATION AND DATUM:** N/A
DRILLING FIRM OR LANGAN INSTALLER: AARCO Environmental Services, Corp.	**INSTALLATION DATE STARTED:** 8/3/3030 **DATE FINISHED:** 8/3/2020
INSTALLATION FOREMAN: Sergio Magana	**SAMPLE DATE STARTED:** 8/3/2020 **DATE FINISHED:** 8/3/2020
INSTALLATION EQUIPMENT: Geoprobe® 7822 DT	**TYPE OF SAMPLING DEVICE:** 2.7-Liter Summa Canister
INSPECTOR: Adrian Heath	**SAMPLER:** Adrian Heath
POTENTIAL SAMPLE INTERFERENCES: N/A	**WEATHER CONDITIONS (PRECIP., TEMP., PRESS., WIND SPEED AND DIR.):** Temp: Low to Mid 90s °F; Wind: SW 0-20 mph; Precipitation: N/A; Pressure: 30.07 in. Hg

METHOD OF INSTALLATION:

Soil boring SB39 was advanced to 28 feet below grade surface (bgs) with a Geoprobe 7822 DT. The annulus was backfilled to 15 feet bgs and a 2-inch soil vapor probe was installed. No. 2 sand was backfilled to 10 feet bgs, a one-foot hydrated bentonite seal was installed and the boring was backfill with No. 2 sand to 1 foot bgs. The surface was sealed with hydrated bentonite. Sample consisted of 2.7L Summa canister fitted with an 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 hour during sampling to ensure proper operation.

TUBING TYPE/DIAMETER: 3/16-inch ID, 1/4-inch OD Teflon-Lined Polyethylene Tubing	**TYPE OF MATERIAL ABOVE SEAL:** No. 2 Sand
IMPLANT SCREEN TYPE/LENGTH/DIAMETER: 2-Inch Polyethylene Probe	**SEAL MATERIAL (Bentonite, Beeswax, Modeling Clay, etc.):** Bentonite
BOREHOLE DIAMETER: 2-inch	**FILTER PACK MATERIAL (Sand or Glass Beads):** No. 2 Sand

PURGE VOLUME (L):	0.80
PURGE FLOW RATE (ML/MIN):	200
PID AFTER PURGE (PPM):	2.5
HELIUM TESTS	Pre-sampling
HELIUM TEST IN BUCKET(%):	29.0%
HELIUM TEST IN TUBE (PPM):	0.0%
SORBENT TUBE	
SAMPLE START DATE/TIME - SORBENT TUBE:	14:04
SAMPLE STOP DATE/TIME - SORBENT TUBE:	16:04
TOTAL SAMPLE TIME - SORBENT TUBE (MIN):	120
FLOW RATE - SORBENT TUBE (L/MIN):	0.21742
VOLUME OF SAMPLE - SORBENT TUBE (LITERS):	26.090
SUMMA CANISTER	
SAMPLE START DATE/TIME - SUMMA:	11:51
SAMPLE STOP DATE/TIME - SUMMA:	13:48
TOTAL SAMPLE TIME - SUMMA (MIN):	117
FLOW RATE - SUMMA (L/MIN):	0.02
VOLUME OF SAMPLE - SUMMA (LITERS):	2.7
PID AFTER SAMPLE (PPM):	0.0
SAMPLE MOISTURE CONTENT:	N/A
CAN SERIAL NUMBER:	332
REGULATOR SERIAL NUMBER:	1534
CAN START VACUUM PRESS. (" HG):	-30.45
CAN STOP VACUUM PRESS. (" HG):	-5.98

IMPLANT/PROBE DETAILS (SEAL, FILTER, ETC.)	DEPTH (FEET FROM SURFACE)	NOTES
SURFACE / SURFACE	0	
Top of Seal	9	
Top of Pack	10	
	15	

SAMPLE LOCATION SKETCH

See Sample Location Map

NOTES

Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
21 Penn Plaza, 360 West 31st Street, 8th Floor, New York, New York 10001-2727

SOIL VAPOR SAMPLING LOG SHEET

Sample Number: V1

PROJECT: 250 Water Street	**PROJECT NO.:** 170381202
LOCATION: New York, New York	**SURFACE ELEVATION AND DATUM:** N/A
DRILLING FIRM OR LANGAN INSTALLER: AARCO Environmental Services, Corp.	**INSTALLATION DATE STARTED:** 7/9/2020 **DATE FINISHED:** 7/9/2020
INSTALLATION FOREMAN: Nick Turro	**SAMPLE DATE STARTED:** 7/9/2020 **DATE FINISHED:** 7/9/2020
INSTALLATION EQUIPMENT: Bosch RH540M Hammer Drill	**TYPE OF SAMPLING DEVICE:** Sorbent Tube
INSPECTOR: Thomas Schiefer	**SAMPLER:** Thomas Schiefer
POTENTIAL SAMPLE INTERFERENCES: N/A	**WEATHER CONDITIONS (PRECIP., TEMP., PRESS., WIND SPEED AND DIR.):** Temp: 76-80 °F; Wind: SE 0-10 mph; Precipitation: N/A; Pressure: 30.07 in. Hg

METHOD OF INSTALLATION:

Sub-slab vapor point V1 was advanced to 1.5 feet below grade surface (bgs) with a Bosch RH540M Hammer Drill. A 2-inch soil vapor probe was installed in the voids space and the surafce was sealed with hydrated bentonite. A maximum initial mercury vapor concentration of 0.23 micrograms per cubic meter (µg/m3) was observed. Sample consisted of a sorbent tube connected to a SKC air sampling pump with a flow rate of 0.20315 L/min. Sample collection took place over a period of 2 hours with a total volume of 24.378 L passing through the tube.

TUBING TYPE/DIAMETER: 3/16-inch ID, 1/4-inch OD Teflon-Lined Polyethylene Tubing	**TYPE OF MATERIAL ABOVE SEAL:** N/A
IMPLANT SCREEN TYPE/LENGTH/DIAMETER: 2-Inch Polyethylene Probe	**SEAL MATERIAL (Bentonite, Beeswax, Modeling Clay, etc.):** Bentonite
BOREHOLE DIAMETER: 2-inch	**FILTER PACK MATERIAL (Sand or Glass Beads):** N/A

PURGE VOLUME (L):	0.80
PURGE FLOW RATE (ML/MIN):	200
PID AFTER PURGE (PPM):	0.3
HELIUM TESTS	Pre-sampling
HELIUM TEST IN BUCKET(%):	16.0%
HELIUM TEST IN TUBE (PPM):	0.0%
SAMPLE START DATE/TIME:	14:07
SAMPLE STOP DATE/TIME:	16:07
TOTAL SAMPLE TIME (MIN):	120
FLOW RATE (L/MIN):	0.20315
VOLUME OF SAMPLE (LITERS):	24.378
PID AFTER SAMPLE (PPM):	N/A
SAMPLE MOISTURE CONTENT:	N/A
CAN SERIAL NUMBER:	N/A
REGULATOR SERIAL NUMBER:	N/A
CAN START VACUUM PRESS. (" HG):	N/A
CAN STOP VACUUM PRESS. (" HG):	N/A

IMPLANT/PROBE DETAILS (SEAL, FILTER, ETC.)	**DEPTH (FEET FROM SURFACE)**	**NOTES**
SURFACE / SURFACE — **Top of Seal**	0	
	1.5	

SAMPLE LOCATION SKETCH

See Sample Location Map

NOTES

Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
21 Penn Plaza, 360 West 31st Street, 8th Floor, New York, New York 10001-2727

SOIL VAPOR SAMPLING LOG SHEET

Sample Number: V3

PROJECT: 250 Water Street	**PROJECT NO.:** 170381202
LOCATION: New York, New York	**SURFACE ELEVATION AND DATUM:** N/A
DRILLING FIRM OR LANGAN INSTALLER: AARCO Environmental Services, Corp.	**INSTALLATION DATE STARTED:** 7/9/2020 **DATE FINISHED:** 7/9/2020
INSTALLATION FOREMAN: Nick Turro	**SAMPLE DATE STARTED:** 7/9/2020 **DATE FINISHED:** 7/9/2020
INSTALLATION EQUIPMENT: Bosch RH540M Hammer Drill	**TYPE OF SAMPLING DEVICE:** Sorbent Tube
INSPECTOR: Thomas Schiefer	**SAMPLER:** Thomas Schiefer
POTENTIAL SAMPLE INTERFERENCES: N/A	**WEATHER CONDITIONS (PRECIP., TEMP., PRESS., WIND SPEED AND DIR.):** Temp: 76-80 °F; Wind: SE 0-10 mph; Precipitation: N/A; Pressure: 30.07 in. Hg

METHOD OF INSTALLATION:

Sub-slab vapor point V3 was advanced to 1.5 feet below grade surface (bgs) with a Bosch RH540M Hammer Drill. A 2-inch soil vapor probe was installed in the voids space and the surafce was sealed with hydrated bentonite. Mercury vapor concentrations above background levels were not observed. Sample consisted of a sorbent tube connected to a SKC air sampling pump with a flow rate of 0.17628 L/min. Sample collection took place over a period of 2 hours with a total volume of 21.154 L passing through the tube.

TUBING TYPE/DIAMETER: 3/16-inch ID, 1/4-inch OD Teflon-Lined Polyethylene	**TYPE OF MATERIAL ABOVE SEAL:** N/A
IMPLANT SCREEN TYPE/LENGTH/DIAMETER: 2-Inch Polyethylene Probe	**SEAL MATERIAL (Bentonite, Beeswax, Modeling Clay, etc.):** Bentonite
BOREHOLE DIAMETER: 2-inch	**FILTER PACK MATERIAL (Sand or Glass Beads):** N/A

PURGE VOLUME (L):	0.80
PURGE FLOW RATE (ML/MIN):	200
PID AFTER PURGE (PPM):	0.3
HELIUM TESTS	Pre-sampling
HELIUM TEST IN BUCKET(%):	18.3%
HELIUM TEST IN TUBE (PPM):	0.0%
SAMPLE START DATE/TIME:	12:20
SAMPLE STOP DATE/TIME:	14:20
TOTAL SAMPLE TIME (MIN):	120
FLOW RATE (L/MIN):	0.17628
VOLUME OF SAMPLE (LITERS):	21.154
PID AFTER SAMPLE (PPM):	N/A
SAMPLE MOISTURE CONTENT:	N/A
CAN SERIAL NUMBER:	N/A
REGULATOR SERIAL NUMBER:	N/A
CAN START VACUUM PRESS. (" HG):	N/A
CAN STOP VACUUM PRESS. (" HG):	N/A

IMPLANT/PROBE DETAILS (SEAL, FILTER, ETC.)	DEPTH (FEET FROM SURFACE)	NOTES
SURFACE / SURFACE — Top of Seal	0	
	1.5	

SAMPLE LOCATION SKETCH

See Sample Location Map

NOTES

Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
21 Penn Plaza, 360 West 31st Street, 8th Floor, New York, New York 10001-2727

SOIL VAPOR SAMPLING LOG SHEET

Sample Number: V5

PROJECT: 250 Water Street	**PROJECT NO.:** 170381202
LOCATION: New York, New York	**SURFACE ELEVATION AND DATUM:** N/A
DRILLING FIRM OR LANGAN INSTALLER: AARCO Environmental Services, Corp.	**INSTALLATION DATE STARTED:** 7/8/2020 **DATE FINISHED:** 7/8/2020
INSTALLATION FOREMAN: Nick Turro	**SAMPLE DATE STARTED:** 7/9/2020 **DATE FINISHED:** 7/9/2020
INSTALLATION EQUIPMENT: Bosch RH540M Hammer Drill	**TYPE OF SAMPLING DEVICE:** Sorbent Tube
INSPECTOR: Thomas Schiefer	**SAMPLER:** Thomas Schiefer
POTENTIAL SAMPLE INTERFERENCES: N/A	**WEATHER CONDITIONS (PRECIP., TEMP., PRESS., WIND SPEED AND DIR.):** Temp: 76-80 °F; Wind: SE 0-10 mph; Precipitation: N/A; Pressure: 30.07 in. Hg

METHOD OF INSTALLATION:

Sub-slab vapor point V5 was advanced to 1.5 feet below grade surface (bgs) with a Bosch RH540M Hammer Drill. A 2-inch soil vapor probe was installed in the voids space and the surafce was sealed with hydrated bentonite. A maxiumum initial mercury vapor concentration of 0.12 micrograms per cubic meter (µg/m3) was observed. Sample consisted of a sorbent tube connected to a SKC air sampling pump with a flow rate of 0.20315 L/min. Sample collection took place over a period of 2 hours and 2 minutes with a total volume of 30.40 L passing through the tube.

TUBING TYPE/DIAMETER: 3/16-inch ID, 1/4-inch OD Teflon-Lined Polyethylene	**TYPE OF MATERIAL ABOVE SEAL:** N/A
IMPLANT SCREEN TYPE/LENGTH/DIAMETER: 2-Inch Polyethylene Probe	**SEAL MATERIAL (Bentonite, Beeswax, Modeling Clay, etc.):** Bentonite
BOREHOLE DIAMETER: 2-inch	**FILTER PACK MATERIAL (Sand or Glass Beads):** N/A

PURGE VOLUME (L):	0.80
PURGE FLOW RATE (ML/MIN):	200
PID AFTER PURGE (PPM):	0
HELIUM TESTS	Pre-sampling
HELIUM TEST IN BUCKET(%):	16.0%
HELIUM TEST IN TUBE (PPM):	0.0%
SAMPLE START DATE/TIME:	14:07
SAMPLE STOP DATE/TIME:	1:40
TOTAL SAMPLE TIME (MIN):	122
FLOW RATE (L/MIN):	0.24921
VOLUME OF SAMPLE (LITERS):	30.40
PID AFTER SAMPLE (PPM):	N/A
SAMPLE MOISTURE CONTENT:	N/A
CAN SERIAL NUMBER:	N/A
REGULATOR SERIAL NUMBER:	N/A
CAN START VACUUM PRESS. (" HG):	N/A
CAN STOP VACUUM PRESS. (" HG):	N/A

IMPLANT/PROBE DETAILS (SEAL, FILTER, ETC.)	DEPTH (FEET FROM SURFACE)	NOTES
SURFACE / SURFACE — Top of Seal	0	
	1.5	

SAMPLE LOCATION SKETCH

See Sample Location Map

NOTES

Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
21 Penn Plaza, 360 West 31st Street, 8th Floor, New York, New York 10001-2727