
REMEDIAL DESIGN REPORT

for

250 WATER STREET
New York, New York
NYSDEC BCP No. C231127

Prepared for:

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LANGAN

May 9, 2022
Langan Project No. 170381202

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1.0 INTRODUCTION

In accordance with the New York State Department of Environmental Conservation (NYSDEC)-approved February 11, 2022 Remedial Design Investigation Work Plan (RDIWP), this Remedial Design Report summarizes the results of the test pit investigation completed at 250 Water Street, New York, NY (the site). The objective of the test pit investigation was to evaluate whether vapor and dust controls presented in the NYSDEC-approved November 2021 Remedial Action Work Plan (RAWP) are adequate and effective during remedial excavation by monitoring ambient air under exposed soil conditions. The RDIWP was implemented under the New York State Brownfield Cleanup Program (BCP) (Site No. C231127), pursuant to the August 1, 2019 Brownfield Cleanup Agreement (BCA).

2.0 SITE BACKGROUND AND REGULATORY STATUS

The site is approximately 48,057 square feet (1.10 acres) in area and is located at 250 Water Street in the South Street Seaport neighborhood of New York, NY (Block 98, Lot 1 on the Borough of Manhattan Tax Map). The site occupies the entire city block bordered by Pearl Street to the northwest (project north), Peck Slip to the northeast (project east), Water Street to the southeast (project south), and Beekman Street to the southwest (project west). The site is currently occupied by an open-air, asphalt-covered commercial parking lot; a parking attendant kiosk and temporary storage shed are located near the center of the lot. The perimeter of the site is fenced with one automated barrier ingress/egress gate on Pearl Street.

All directions described herein are referenced to the project north arrow, unless otherwise noted. A site location map is provided as Figure 1.

The Remedial Investigation (RI) was implemented between June 15 and October 12, 2020 and included the advancement of soil borings; installation of groundwater monitoring wells and soil vapor probes; and collection of soil, groundwater, and soil vapor samples. The results of the RI are documented in the June 23, 2021 Remedial Investigation Report (RIR) prepared by Langan. Langan submitted a final RAWP to the NYSDEC, which accounted for public and DEC comments on the proposed RAWP. NYSDEC approved the final RAWP and issued a Decision Document (DD) on November 15, 2021. The RAWP and DD called for a remedial design phase of the remedy that includes performance of a test pit investigation and a waste characterization study. The test pit investigation was implemented between February 12 and 13, 2022 and the waste characterization study was implemented between February 21 and 25, 2022. This Remedial Design Report presents the findings of the test pit investigation; a separate Remedial Design Report will be prepared to document the findings of the waste characterization study.

3.0 TEST PIT INVESTIGATION METHODOLOGY

Langan and AARCO Environmental Services Corp. (AARCO) mobilized to the site on February 12 and 13, 2022 with an excavator and dust and vapor mitigation controls (i.e., pressurized water, Mercon-X[®], and Biosolve[®] Pinkwater). Access to test pit work zones was restricted by chain-link fencing affixed with Echo Barrier H9[™] acoustic curtains.

Air monitoring was implemented in accordance with the community air monitoring plan (CAMP) included in the construction health and safety plan (CHASP) of the NYSDEC-approved RDIWP. Six perimeter and one work zone CAMP stations were used to monitor ambient air to evaluate whether excavation and open test pits result in an increase in mercury or volatile organic compound (VOC) vapor or particulate (dust) concentrations above background concentrations. Each air monitoring station was equipped with a Jerome[®] J405 to monitor mercury vapor, a photoionization detector (PID) (MiniRAE 3000 or ppbRAE 3000) to monitor VOCs, and a DustTRAK unit to monitor dust. A total of seven CAMP stations, one weather station, one handheld mercury vapor analyzer (Jerome[®] J505), and one handheld PID (RKI GX-6000) was used for community air monitoring. Perimeter and work zone air monitoring stations used a wireless telemetry system to monitor real-time concentrations.

Prior to each test pit excavation, dust and vapor controls and CAMP equipment were confirmed to be in working order and the work zone monitoring station was placed downwind of the test pit location.

Under observation by Langan, AARCO excavated five test pits (TP01 through TP05) to a depth of about 8 feet bgs:

- TP01 (about 6 feet long by 4 feet wide) was excavated within the former 302 Pearl Street thermometer factory footprint, near the soil boring location (SB24 from 2-4 feet bgs) with the highest mercury concentration (730 milligrams per kilogram [mg/kg]) that was identified during the RI¹.
- TP02 (about 6 feet long by 4 feet wide) was excavated down-gradient of the former 302 Pearl Street thermometer factory footprint, around RI mercury delineation boring SB4S3.
- TP03 (about 5 feet long by 5 feet wide) was excavated outside of the former thermometer factory and workshop footprints, near former RI soil boring SB13 and a surficial void space that was identified during the geophysical survey.
- TP04 (about 5 feet long by 5 feet wide) was excavated outside of the former thermometer factory and workshop footprints, near a previously repaired area of subsidence.

¹ Results of the RI are documented in the June 23, 2021 RIR, prepared by Langan.

- TP05 (about 5 feet long by 5 feet wide) was excavated within the former 298 Pearl Street thermometer factory/workshop footprint, near RI soil boring SB19.

A test pit location map is provided as Figure 2.

Excavated soil and historic fill were temporarily placed on polyethylene sheeting within each established work zone and ambient air conditions across the site were monitored for one hour. Excavated soil was field screened for mercury vapor using a handheld Jerome® J505 mercury vapor analyzer and VOCs using a PID during excavation of each test pit. Each test pit was documented by Langan personnel using sketches and photographs. A photograph log is provided as Appendix A.

After completion of 1 hour of monitoring, the test pits were backfilled with excavated material in the same order of excavation, to the extent practical, and compacted in lifts before being restored to match the surrounding grade using cold patch asphalt. Excess soil and fill generated during the test pit investigation were containerized in sealed and labeled 55-gallon drums, which were staged in the southern part of the site, pending receipt of laboratory data for off-site disposal to an appropriate facility. Off-site disposal of the drums is anticipated to be completed in May 2022.

Prior to discontinuing the CAMP at the conclusion of ground-intrusive activities, VOC and mercury vapor concentrations were confirmed to return to background conditions at each perimeter air monitoring station.

Daily field reports were prepared for each day of the test pit investigation and are provided as Appendix D.

4.0 FIELD OBSERVATIONS

4.1 Subsurface Observations

The site stratigraphy consists of historic fill, characterized as brown fine-grained sand with varying amounts of gravel, brick, concrete, ceramic, metal, plastic and wood to depths between 2 and 8 feet bgs (the test pit termination depth). Native soil, consisting of brown fine sand with varying amounts of gravel, was observed beneath the historic fill material in test pit TP01. Remnant brick from the former buildings was observed in each test pit to depths between 2 and 4 feet bgs and wood within an apparent void space was observed in test pit TP05. Neither groundwater nor bedrock were encountered during the test pit investigation. Test pit logs are provided as Appendix B and a summary of subsurface observations within each test pit is provided below (depths and thicknesses are approximate):

Test Pit TP01

A 2-inch-thick asphalt cover was underlain by historic fill, consisting of brown fine sand with varying amounts of gravel, brick, concrete and ceramics, to a depth of about 2 feet bgs. A 1-foot-thick brick structure from a former building was observed in the eastern portion of the test pit. The historic fill and remnant brick was underlain by apparent native soil, consisting of brown fine sand with varying amounts of gravel, to the test pit termination depth of about 8 feet bgs.

Test Pit TP02

A 5-inch-thick asphalt cover was underlain by historic fill, consisting of brown fine sand with varying amounts of gravel, asphalt, brick and concrete, to the test pit termination depth of about 8 feet bgs.

Test Pit TP03

A 4-inch-thick asphalt cover was underlain by an 8-inch-thick layer of apparent 3/4-inch gravel. The gravel layer was underlain by historic fill, consisting of brown fine sand with varying amounts of gravel, brick, and concrete to the test pit termination depth of about 8 feet bgs. A 2-foot-thick brick structure from a former building was observed in the southeastern corner of the test pit and an abandoned utility pipe measuring about 3 inches in diameter was observed along the southern portion of the test pit. An apparent void space, containing wood and brick fragments, was observed in the southwestern portion of the test pit to a depth of about 4.5 bgs.

Test Pit TP04

A 4-inch-thick asphalt cover was underlain by a 1-foot-thick layer of historic fill, consisting of brown fine sand with varying amounts of gravel, asphalt, brick, plastic and vegetation, followed by an additional 5-inch-thick layer of asphalt. The asphalt was underlain by historic fill consisting of brown fine sand with varying amounts of gravel, brick, wooden planks, metal and plastic to the test pit termination depth of about 8 feet bgs. A remnant brick wall was observed along the north side of the test pit.

Test Pit TP05

A 2-inch-thick asphalt cover was underlain by a 5-inch-thick layer of historic fill, consisting of light brown fine sand with varying amounts of gravel, brick and concrete, followed by a 3-foot-thick layer of demolished brick from the former building. Historic fill was observed beneath the demolished brick to the test pit termination depth of about 8 feet bgs.

4.2 Ambient Air Monitoring Results

Mercury Vapor Monitoring Results

Ambient air between the work zone and CAMP stations was screened using a handheld Jerome® J505. In addition, the Jerome® J505 was used to screen excavated soil/fill from each test pit for mercury vapor.

A summary of average and maximum mercury vapor concentrations detected from the handheld Jerome® J505 unit during each 1-hour timeframe is provided below:

Jerome® J505 Mercury Vapor Monitoring Results		
Test Pit ID	Maximum Instantaneous Concentration	Average Concentration (over 1 hour)
TP01	0.09 µg/m ³	0.02 µg/m ³
TP02	0.36 µg/m ³	0.03 µg/m ³
TP03	0.06 µg/m ³	0.01 µg/m ³
TP04	0.06 µg/m ³	0.00 µg/m ³
TP05	0.13 µg/m ³	0.02 µg/m ³

µg/m³ = micrograms per cubic meter

Mercury vapor was not detected at concentrations that approached or exceeded the action level established in the CAMP (1.0 µg/m³).

VOC Monitoring Results

Ambient air between the work zone and CAMP stations were screened for total VOCs using an RKI GX-6000 PID. In addition, the RKI GX-6000 PID was used to screen excavated soil/fill from each test pit for total VOCs. Total VOCs were not detected at concentrations that approached or exceeded background concentrations during the test pit investigation.

Vapor Mitigation Controls

Mercury vapor and VOCs were not detected at concentrations approaching or exceeding the action levels established in the CAMP (1.0 µg/m³ and 5 parts per million [ppm], respectively) during excavation of the test pits or during each 1-hour timeframe. As such, vapor mitigation controls, such as covering soil stockpiles or use of Mercon-X® and Biosolve® Pinkwater, were not warranted and were not implemented during this investigation.

4.3 CAMP Results

Air monitoring was implemented in accordance with the CAMP included in the CHASP of the NYSDEC-approved RDIWP. CAMP data is provided as Appendix C

Mercury Vapor Monitoring Results

Mercury vapor was monitored at each perimeter CAMP station and the work zone station using a Jerome® J405 mercury vapor analyzer.

Generally, the 15-minute-average mercury vapor concentrations did not exceed the action level established in the CAMP as a result of field activities. There were two instances of equipment complications that resulted in erroneous exceedances of the action level established in the CAMP ($1.0 \mu\text{g}/\text{m}^3$). The maximum 15-minute average concentration recorded during the test pit investigation was $0.1 \mu\text{g}/\text{m}^3$ (at perimeter CAMP Station PM-2 on February 12, 2022) and the daily average concentration was $0.0 \mu\text{g}/\text{m}^3$ at each CAMP station, with the exception of the erroneous exceedances observed at perimeter stations PM-2 and PM-5 on February 12 and 13, 2022, respectively. The two erroneous exceedances are discussed in further detail below and are summarized in the daily field reports provided as Appendix D.

The erroneous exceedances of CAMP action levels were determined to be false positive readings or due to potential unknown interference (e.g. exhaust from nearby vehicles) and not a result of ground-intrusive activities associated with the test pitting operations. The Jerome® J405 mercury vapor analyzers, which were used in each CAMP station, operate using a gold film sensor that is susceptible to false positive readings. The handheld Jerome® J505 mercury vapor analyzer, which operates using a fluorescent spectroscopy sensor, is generally resistant to external interferences and was used to confirm the validity of each exceedance. The erroneous exceedances occurred at two perimeter CAMP stations and are detailed below:

- CAMP Station PM-2 – The erroneous exceedance was recorded at $1.3 \mu\text{g}/\text{m}^3$ for a duration of about 14 minutes on February 12, 2022 between 12:48pm and 1:01pm and was caused by instantaneous mercury vapor concentrations ranging from 4.5 to $14.3 \mu\text{g}/\text{m}^3$. During the exceedances, AARCO was in the process of backfilling test pit TP02. The instantaneous mercury vapor concentrations within the work zone recorded on the Jerome® J505 mercury vapor analyzer ranged from 0.00 to $0.05 \mu\text{g}/\text{m}^3$ during backfilling of test pit TP02. The perimeter PM-2 station was located about 120 feet from the work area, and was located upwind of the work area during the erroneous exceedances. The handheld Jerome® J505 mercury vapor analyzer was used to check the erroneous exceedances at the PM-2 station and concentrations of $0.00 \mu\text{g}/\text{m}^3$ were recorded. Additionally, the independent community monitor conducted continuous monitoring with a Jerome® J405 unit throughout the day on February 12, 2022 and reported that mercury vapor was not detected, with all readings measured at $0.00 \mu\text{g}/\text{m}^3$.

- CAMP Station PM-5 – The erroneous exceedances ranged from 1.1 to 6.1 $\mu\text{g}/\text{m}^3$ for a duration of about 19 minutes on February 13, 2022 between 10:52am and 11:10am and were caused by instantaneous mercury vapor concentrations ranging from 1.0 to 23.8 $\mu\text{g}/\text{m}^3$. During the exceedances, AARCO was in the process of backfilling test pit TP04. The instantaneous mercury vapor concentrations within the work zone recorded on the Jerome[®] J505 mercury vapor analyzer ranged from 0.00 to 0.06 $\mu\text{g}/\text{m}^3$ during backfilling of test pit TP04. The perimeter PM-5 station was located about 200 feet from the work area, and was located upwind of the work area during the erroneous exceedances. The handheld Jerome[®] J505 mercury vapor analyzer was used to check the erroneous exceedances at CAMP Station PM-5 and concentrations of 0.00 $\mu\text{g}/\text{m}^3$ were recorded.

VOC Monitoring Results

Total VOCs were monitored at each perimeter CAMP station and the work zone station using a MiniRAE 3000 PID. No VOCs were detected at concentrations exceeding the action level established in the CAMP (5 ppm) during the test pit investigation. The maximum 15-minute average concentration recorded during the test pit investigation was 3.5 parts per million (ppm) (at work zone station WZ-1 on February 12, 2022) and the maximum daily average concentration was 0.2 ppm at CAMP stations WZ-1 (work zone) and PM-3 (perimeter) on February 12, 2022.

Particulate Monitoring Results

Particulate matter smaller than 10 microns in diameter (PM10) was monitored at each perimeter CAMP station and the work zone station using a DustTrak II aerosol monitor. Concentrations of PM10 exceeded the action level established in the CAMP (100 $\mu\text{g}/\text{m}^3$) during one instance at work zone station WZ-1 due to exhaust from a vibratory plate tamper in proximity to the air monitoring station during test pit restoration activities. The 15-minute average PM10 concentrations did not exceed the CAMP action level for the remainder of the operation.

5.0 CONCLUSIONS AND RECOMMENDATIONS

The test pit investigation was implemented between February 12 and 13, 2022 in accordance with the NYSDEC-approved RDIWP. The findings of the test pit investigation are based on qualitative data obtained from field observations and quantitative data obtained from field instruments and are intended to inform the adequacy and effectiveness of air monitoring controls presented in the NYSDEC-approved November 2021 RAWP for remedial excavation.

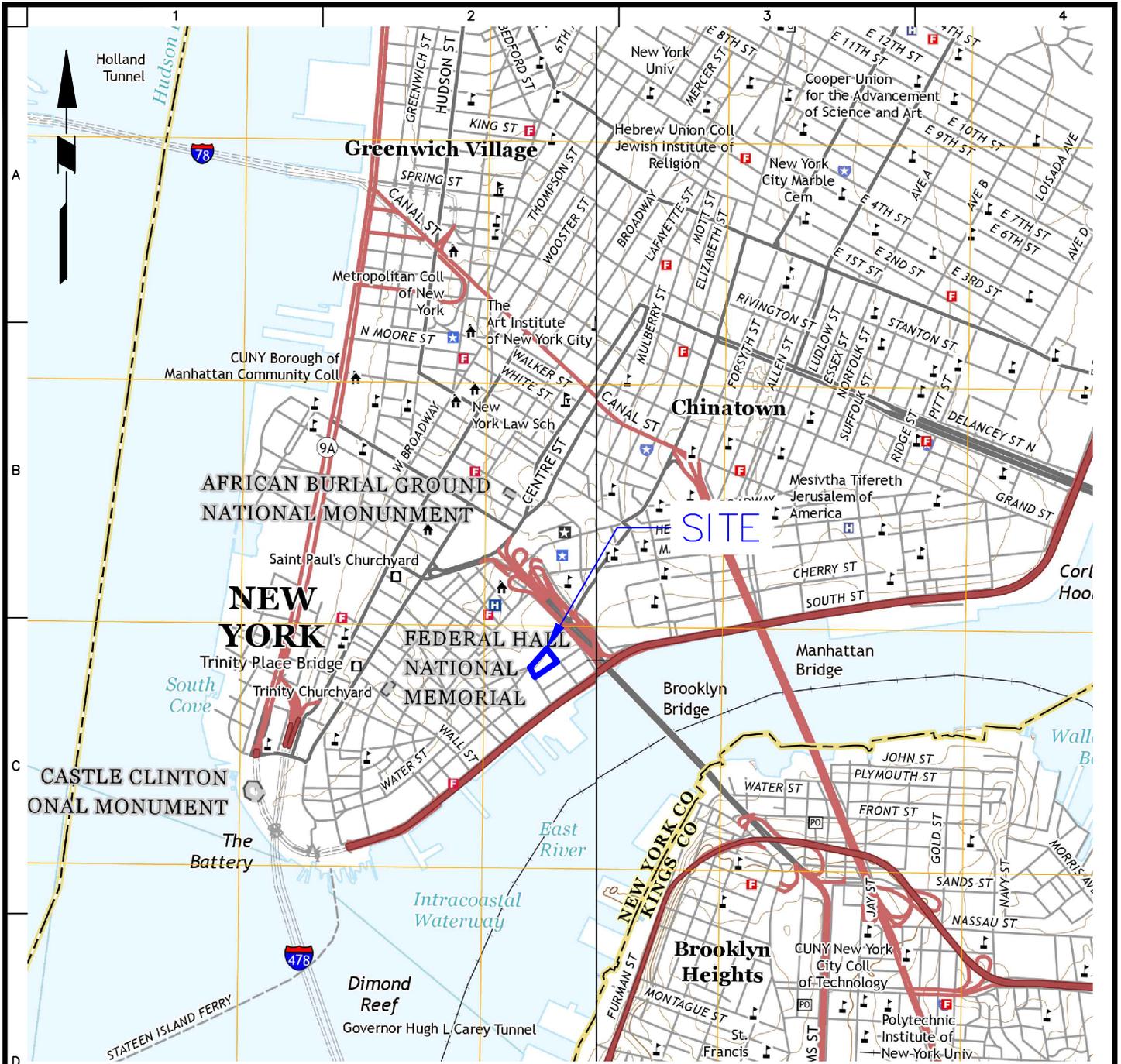
Mercury vapor, total VOCs and PM10 were not detected at concentrations exceeding the action levels established in the CAMP as a result of excavation activities or under exposed soil conditions. No changes to the CAMP action levels or mitigation measures presented in the RAWP and CHASP are proposed based on the results of the test pit investigation.

The following modifications to the CAMP will be implemented during the remedial action:

1. The dedicated CAMP monitor will periodically screen the ambient air quality using the Jerome® J505 and PID at various heights between the ground surface and the breathing zone (3 to 5 feet above grade surface) and the results of ambient air monitoring will be summarized in daily field reports.
2. If work is occurring while schools adjoining the site are in session, CAMP stations on the perimeter adjoining the schools will be set to a height of about 3 feet above ground surface.
3. When off-site relocation of a CAMP station is required as a result of ground-intrusive activities at the site boundary (along Peck Slip, Water Street, Beekman Street and Pearl Street), the time periods of off-site relocation will be recorded and reported in daily field reports.
4. Prior to discontinuing CAMP monitoring at the end of each work day, mercury vapor and VOC concentrations will be recorded using the handheld Jerome® J505 mercury vapor analyzer and a PID at each CAMP station to verify that ambient air concentrations have either returned to background concentrations or show a decreasing trend over a period of 15 minutes. The concentrations of mercury vapor and VOCs will be documented in daily air monitoring reports.
5. The time of shut-down for each CAMP station will be recorded by Langan field personnel and reported in daily field reports.
6. Mercury vapor concentrations will be monitored and recorded with the handheld Jerome® J505 mercury vapor analyzer and reported in daily field reports.
7. Raw CAMP data will be provided with daily field reports.
8. An extra mercury vapor analyzer (Jerome® J405, Jerome® J505, or equivalent) will be kept on-site for use in the event of an equipment complications or battery depletion and extra batteries for each CAMP station will be kept on-site during implementation of the RAWP.

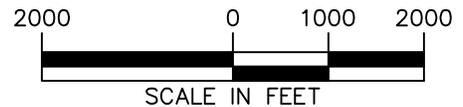
The CAMP included in the RAWP and incorporated into the revised CHASP is appropriate for air quality monitoring during remedial excavation activity at the site to inform measures that may need to be implemented to protect the surrounding community and receptors. After completion of the mercury-impacted soil hotspot excavation and off-site disposal, potential modifications to the CAMP will be evaluated in coordination with the NYSDEC and the New York State Department of Health (NYSDOH) for approval prior to implementation of the remaining remedial activities.

Figures



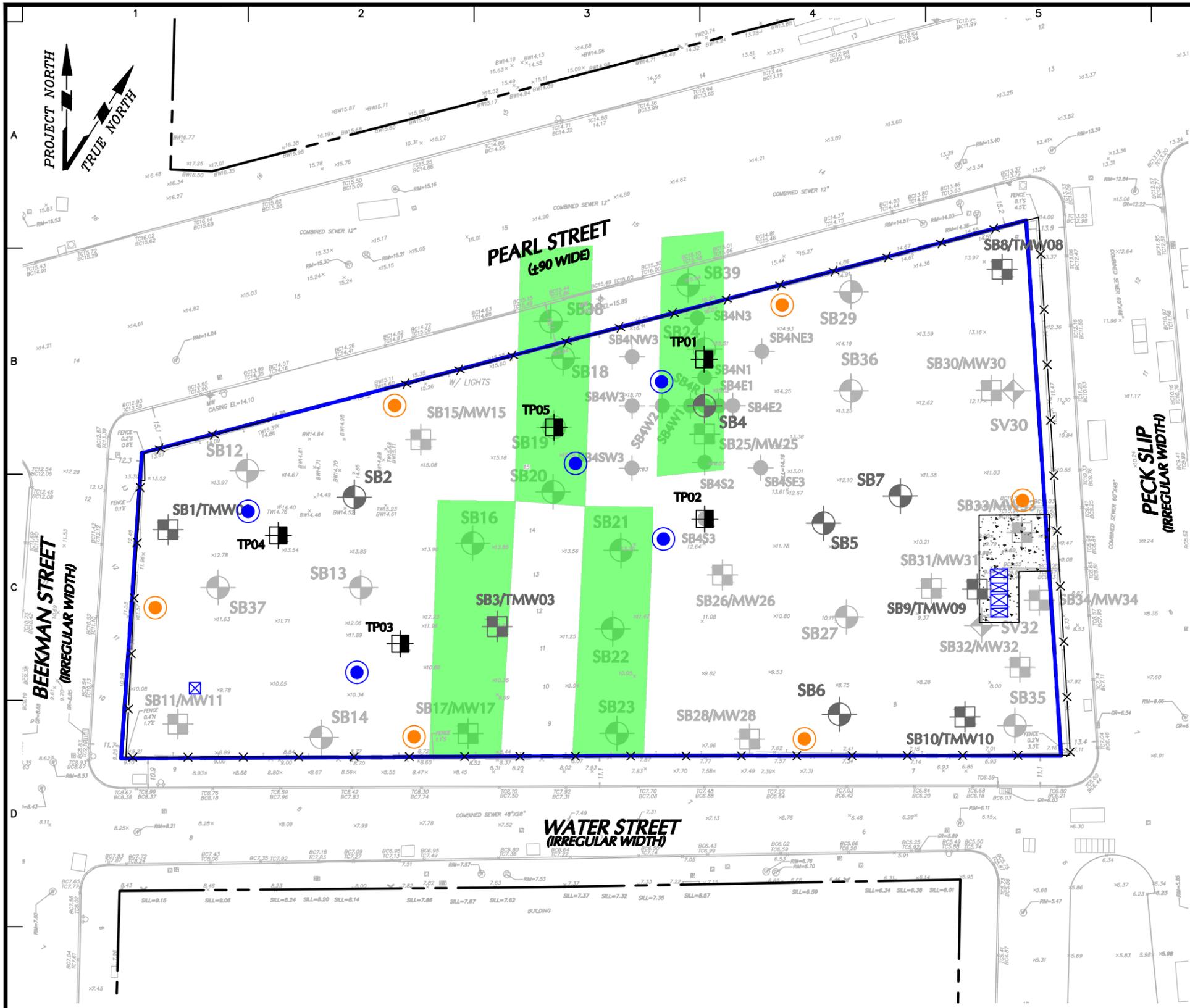
NOTES:

1. BASE MAP REFERENCE: USGS 7.5 MINUTE SERIES QUADRANGLE MAP OF JERSEY CITY, NJ, AND BROOKLYN, NY, DATED 2016



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

<p>LANGAN Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C. 21 Penn Plaza, 360 West 31st Street, 8th Floor New York, NY 10001 T: 212.479.5400 F: 212.479.5444 www.langan.com</p>	<p>Project</p> <p>250 WATER STREET</p> <p>BLOCK No. 98, LOT No.1</p> <p>NEW YORK NEW YORK</p>	<p>Drawing Title</p> <p>SITE LOCATION MAP</p>	<p>Project No.</p> <p>170381202</p>	<p>Drawing No.</p> <p>1</p>
			<p>Date</p> <p>12/23/2020</p>	
			<p>Drawn By</p> <p>JFY</p>	
			<p>Checked By</p> <p>PM</p>	



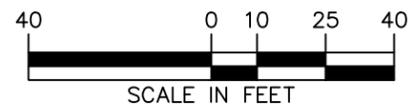
LEGEND

- SITE BOUNDARY
- APPROXIMATE LOCATION OF SITE FENCE
- SB02** PHASE II ESI AND RI SOIL BORING LOCATION
- SB01/TMW01** PHASE II ESI SOIL BORING LOCATION WITH TEMPORARY MONITORING WELL
- SB15/MW15** RI SOIL BORING LOCATION WITH MONITORING WELL
- SB4E1** MERCURY DELINEATION SOIL BORING LOCATION
- TP01** APPROXIMATE TEST PIT LOCATION
- APPROXIMATE PERIMETER AIR MONITORING LOCATION
- APPROXIMATE WORK ZONE AIR MONITORING LOCATION
- APPROXIMATE UST LOCATION
- APPROXIMATE EXTENT OF HISTORICAL THERMOMETER FACTORY/WORKSHOPS

NOTES:

1. BASE MAP IS FROM THE SURVEY DRAWING ALTA/NSPS LAND TITLE SURVEY, COMPLETED BY LANGAN, DATED JUNE 07, 2018.
2. ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
3. TEST PIT LOCATIONS ARE APPROXIMATE AND BASED ON FIELD MEASUREMENTS.
4. UST = UNDERGROUND STORAGE TANK

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Project
250 WATER STREET
 BLOCK No. 98, LOT No. 1
 CITY NEW YORK

Figure Title
TEST PIT LOCATION MAP

Project No.
 170381202
 Date
 02/24/2022
 Drawn By
 MA
 Checked By
 PM

Figure No.
2

Appendix A
Photograph Log



Photo 1: Sign posted at the entrance to the site (facing west) (02/12/2022)



Photo 2: Work zone fencing with chain-link fence and Echo Barrier H9™ acoustic curtains (facing northwest) (02/12/2022)

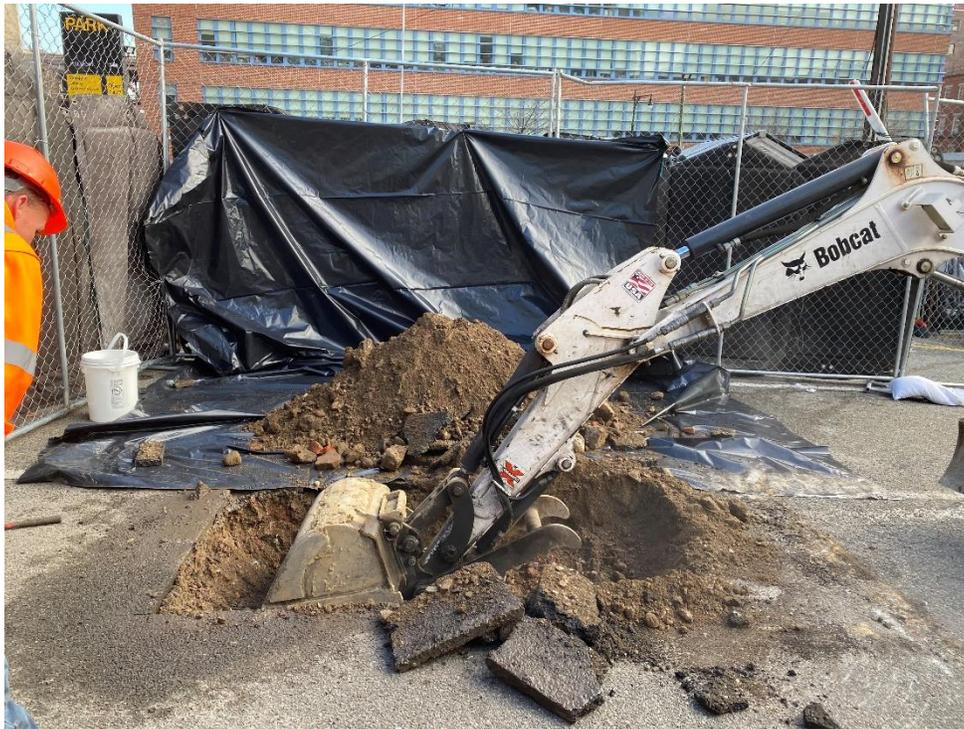


Photo 3: View of AARCO excavating test pit TP01 (facing east) (02/12/2022)



Photo 4: View of Langan screening excavated soil/fill from test pit TP01 using a Jerome® J505 mercury analyzer (02/12/2022)



Photo 5: View of test pit TP01 (facing east) (02/12/2022)



Photo 6: View of test pit TP02 (facing northeast) (02/12/2022)



Photo 7: View of test pit TP03 (facing southwest) (02/12/2022)



Photo 8: View of test pit TP04 (facing northeast) (02/13/2022)



Photo 9: Work zone around test pit TP05 (facing northwest) (02/12/2022)



Photo 10: View of test pit TP05 (facing south) (02/12/2022)

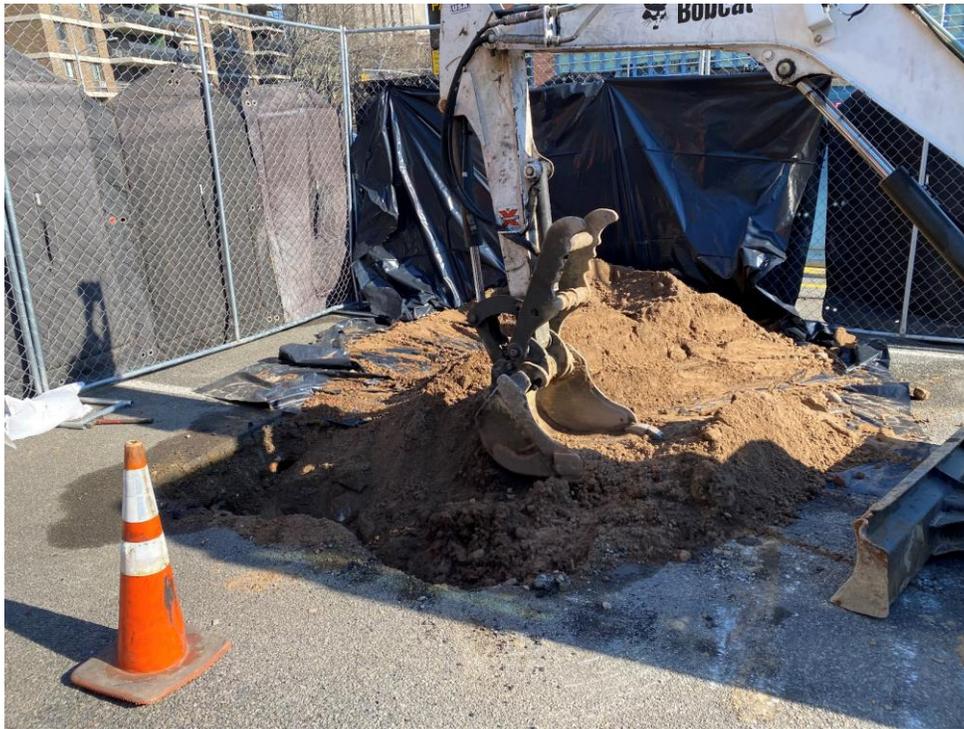


Photo 11: View of AARCO backfilling test pit TP01 (facing northeast) (02/12/2022)



Photo 12: View of Mercon-X® staged within the work zone (facing west) (02/12/2022)



Photo 13: View of the RKI GX-6000 PID and Jerome® J505 used for work zone and ambient air screening (02/12/2022)

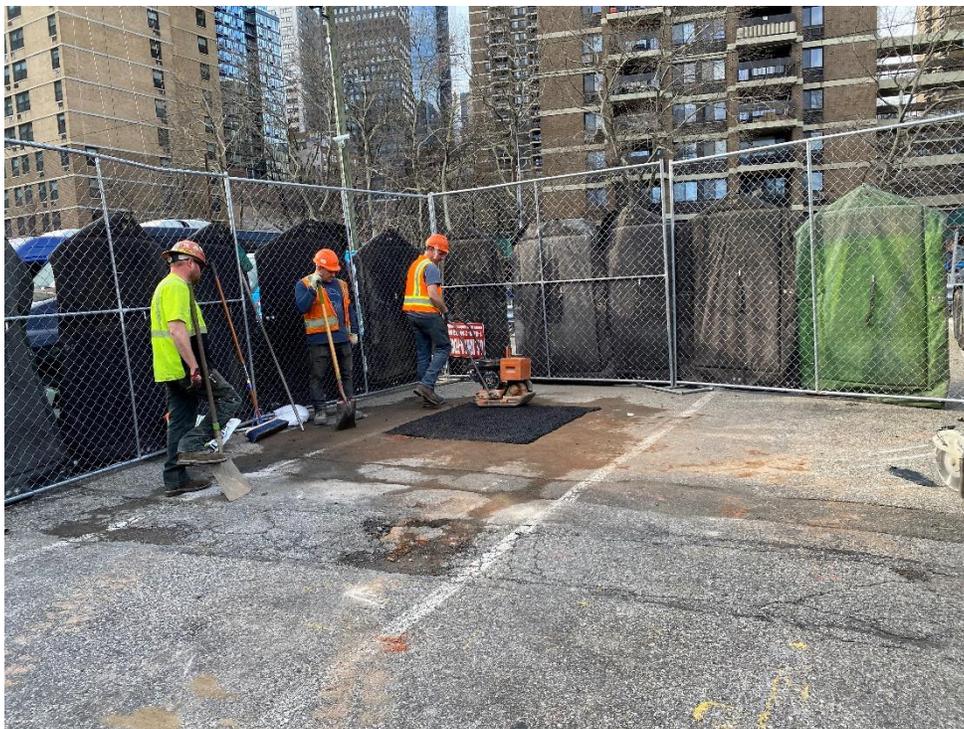


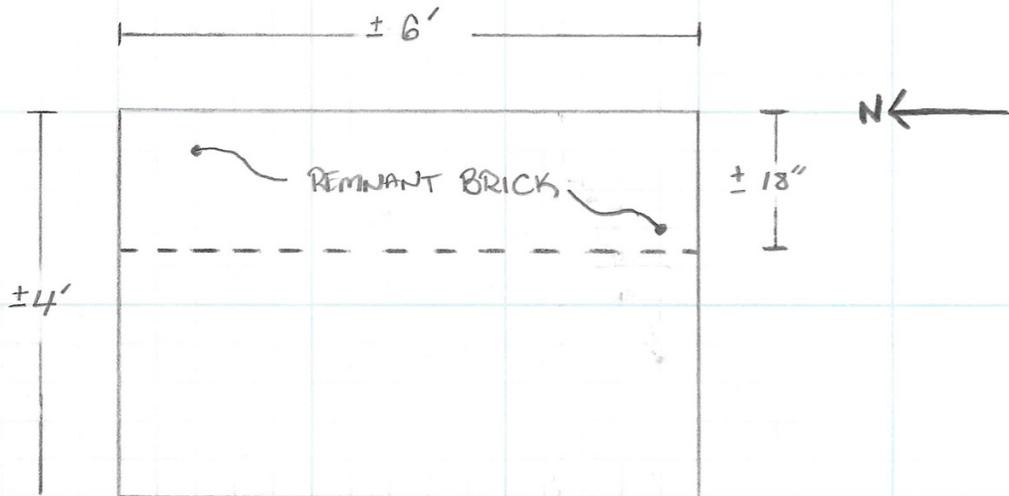
Photo 14: View of AARCO using a vibratory plate tamper to restore test pit TP05 to match the surrounding grade (facing northwest) (02/12/2022)



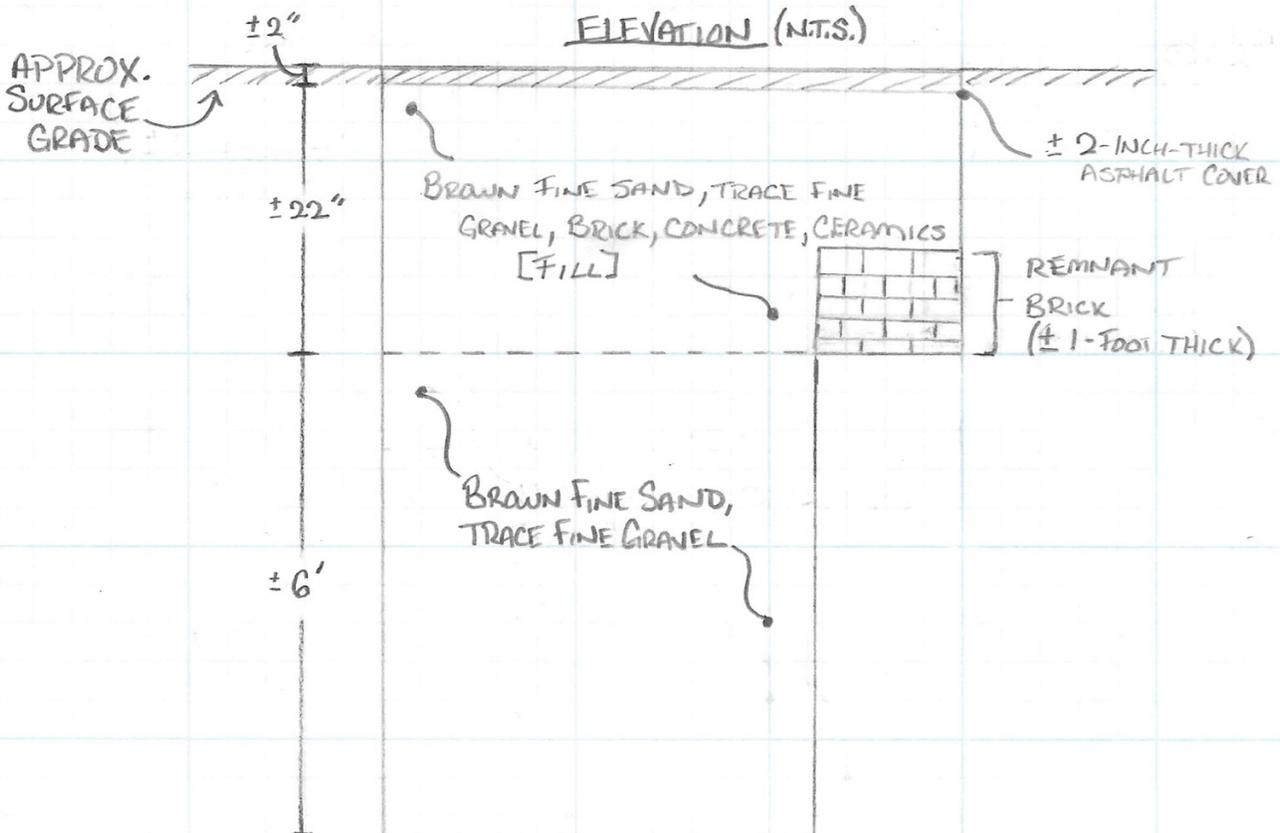
Photo 15: View of test pit TP05, restored to match the surrounding grade surface using cold patch asphalt (facing north) (02/12/2022)

Appendix B
Test Pit Logs

PLAN (N.T.S.)

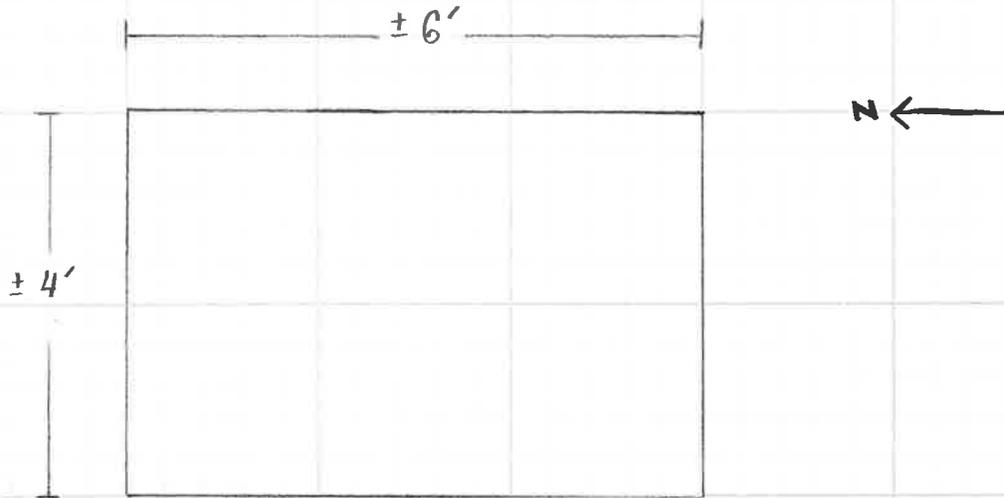


ELEVATION (N.T.S.)

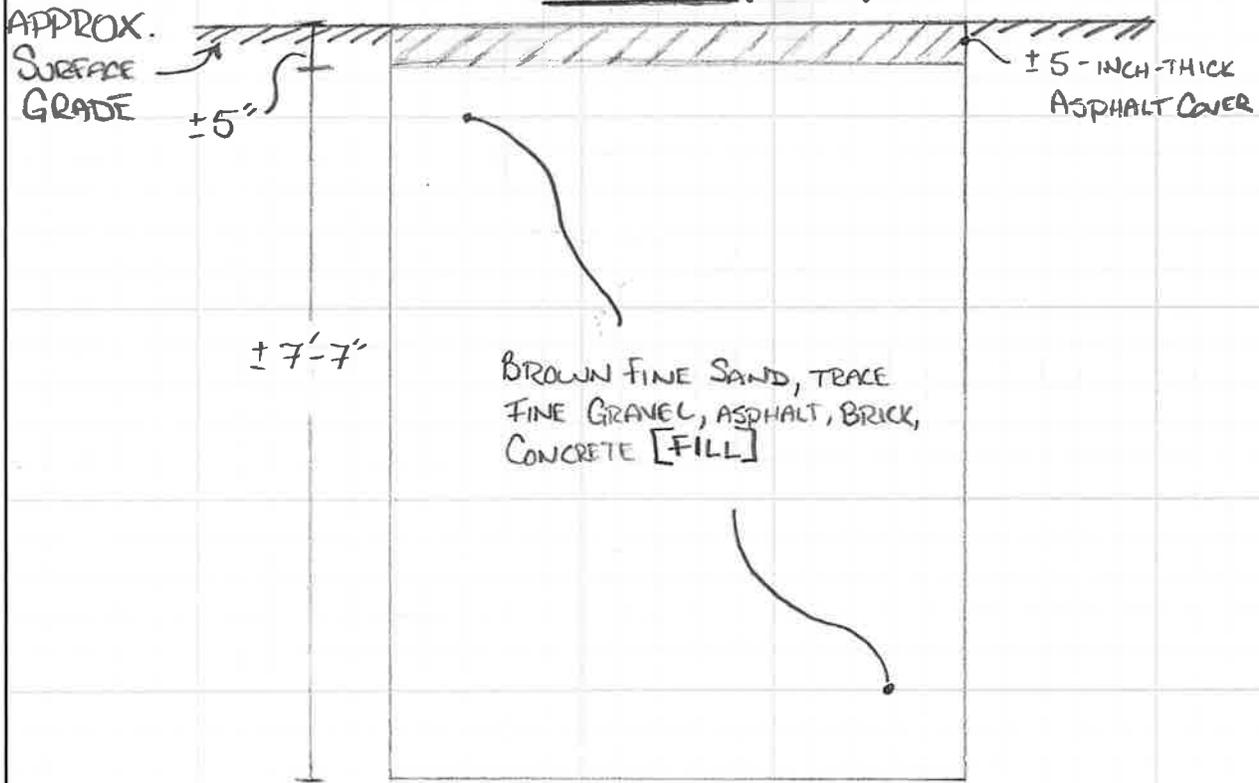


TEST PIT LOG - TPO1	BY MA	DATE 2/12/22	PROJ. NO. 170381202
	CKD. DM	DATE 3/4/22	SHEET 1 OF 5

PLAN (N.T.S.)

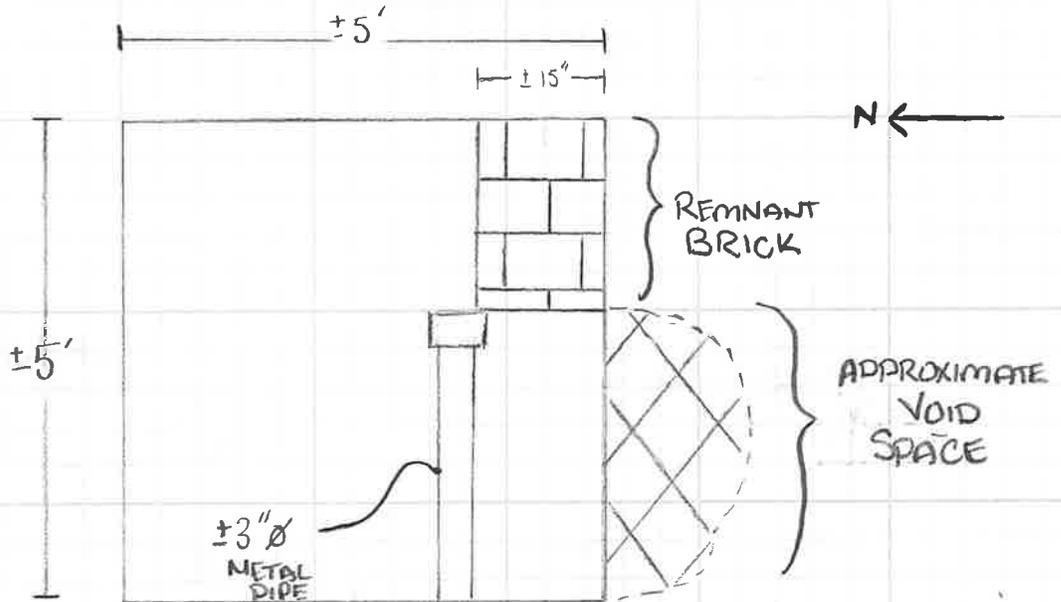


ELEVATION (N.T.S.)

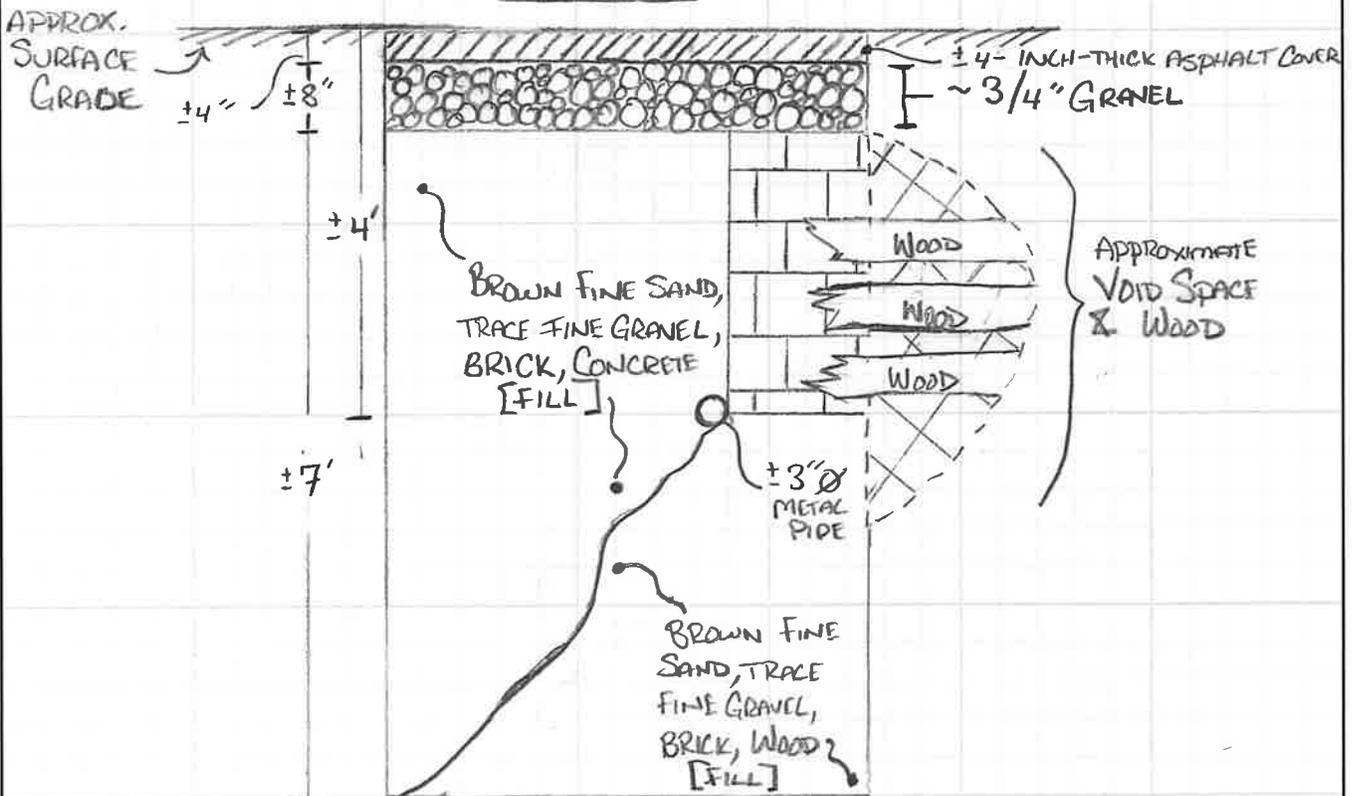


TEST PIT LOG - TPO2	BY MA	DATE 2/12/22	PROJ. NO. 170381202
	CKD. PM	DATE 3/4/22	SHEET 2 OF 5

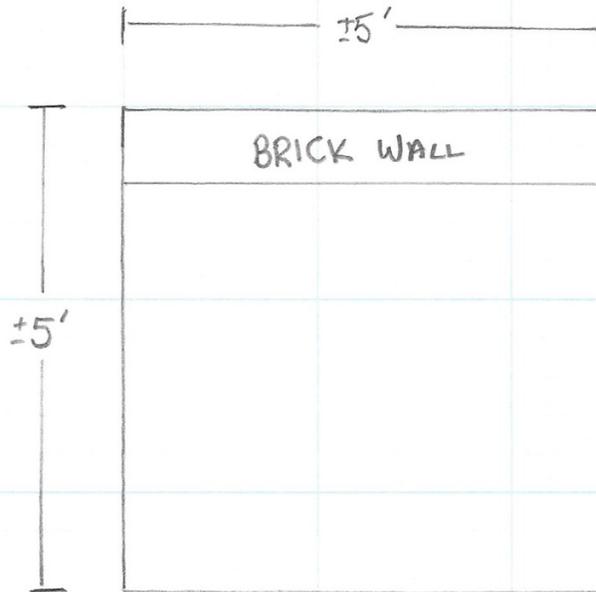
PLAN (N.T.S.)



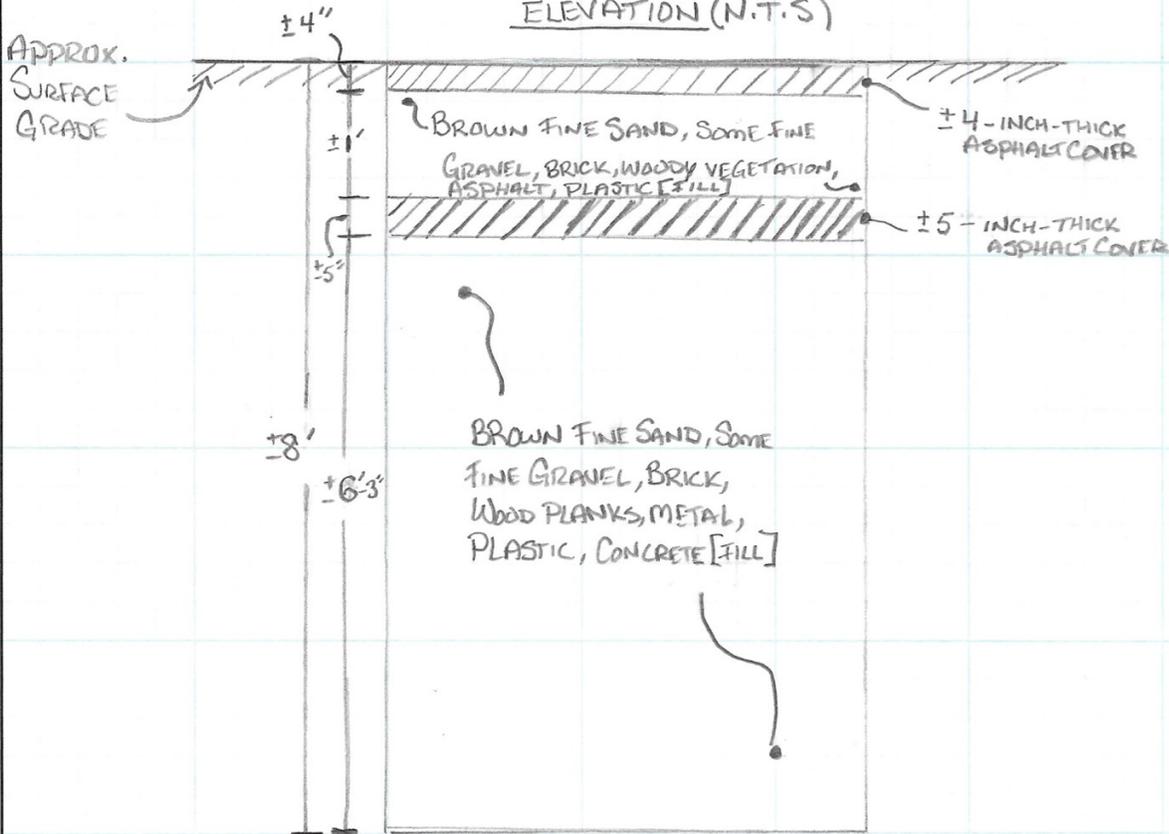
ELEVATION (N.T.S.)



PLAN (N.T.S)

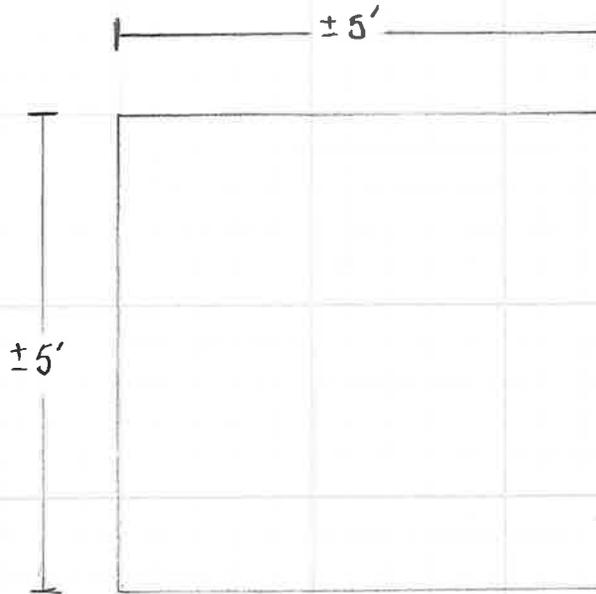


ELEVATION (N.T.S)

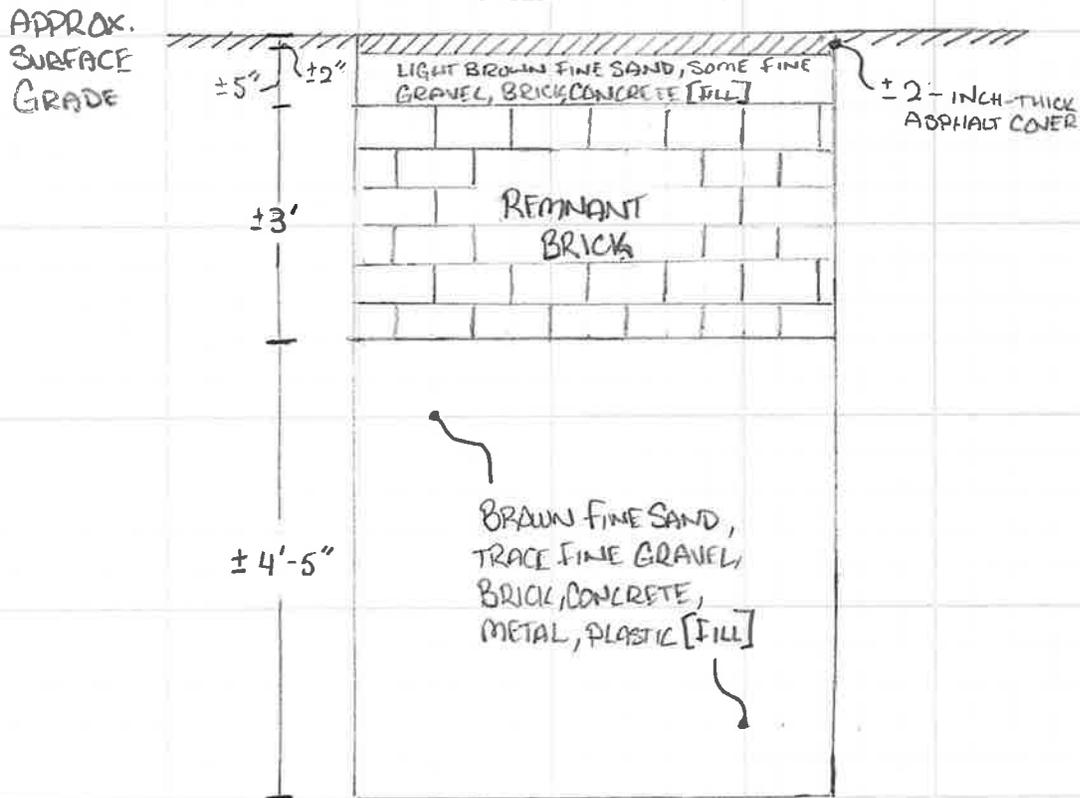


TEST PIT LOG - TPO4	BY MA	DATE 2/13/22	PROJ. NO. 170381202
	CKD. PM	DATE 3/4/22	SHEET 4 OF 5

PLAN (N.T.S.)



ELEVATION (N.T.S.)



TEST PIT LOG - TPOS	BY MA	DATE 2/12/22	PROJ. NO. 170381202
	CKD. PM	DATE 3/4/22	SHEET 5 OF 5

Appendix C

Community Air Monitoring Program Data



DAILY AIR MONITORING REPORT

250 Water Street Remediation Site

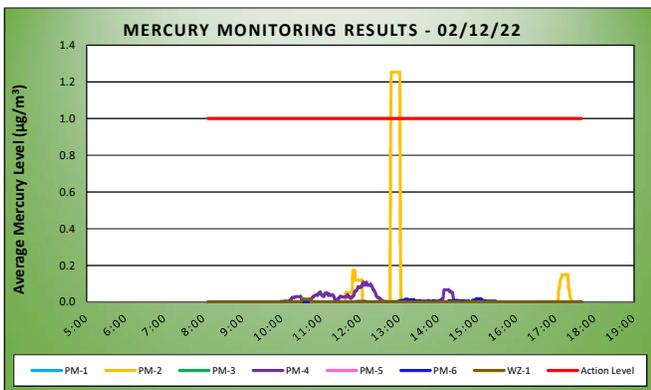
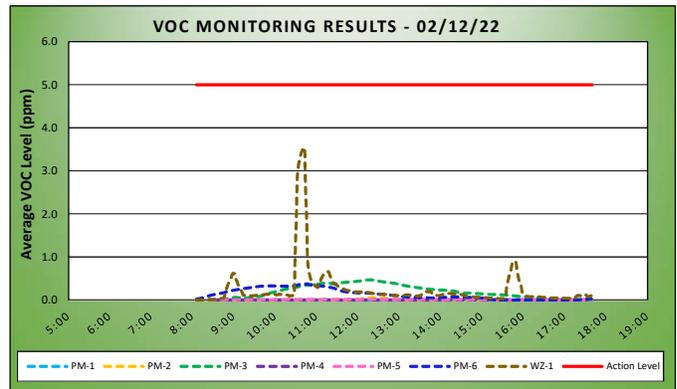
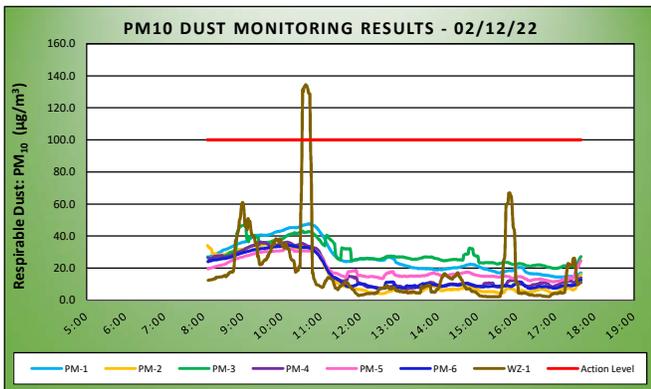
Manhattan, New York

02/12/22	
Project number: 170381202	
Page 1 of 2	Rev. No. 0
Submitted By: Michael Au	
Dust Background & Action Level ($\mu\text{g}/\text{m}^3$)	100
VOC Background & Action Level (ppm)	5
Hg Background & Action Level ($\mu\text{g}/\text{m}^3$)	1.0

Weather Data Range for Work Day		Wind Direction	SSW	Relative Humidity (%)	30.4 - 48.0	Daily Rain (in)	0.00	Readings in the summary table and graphs below are the reported downwind concentrations.
Temp (°F)	53.4 - 59.3 <th>Wind Speed (MPH)</th> <td>1.1 - 6.0</td> <th>Barometer (inHg)</th> <td>29.95 - 30.01</td>	Wind Speed (MPH)	1.1 - 6.0	Barometer (inHg)	29.95 - 30.01			

Station Location Area	Work	Daily Avg. Dust Concentration ($\mu\text{g}/\text{m}^3$)	Max 15 Minute Dust Concentration ($\mu\text{g}/\text{m}^3$)	Time of Maximum 15 Minute Avg Dust Reading	Daily Avg. VOC Concentration (ppm)	Max 15 Minute VOC Concentration (ppm)	Time of Max 15 Minute Avg VOC Reading
PM-1		26.5	47.6	10:42 AM	0.0	0.0	8:06 AM
PM-2		15.0	34.9	9:34 AM	0.0	0.1	12:24 PM
PM-3		28.9	48.0	9:04 AM	0.2	0.5	12:18 PM
PM-4		17.2	36.4	9:27 AM	0.0	0.0	9:24 AM
PM-5		19.3	32.2	10:09 AM	0.0	0.0	12:21 PM
PM-6		16.1	34.1	10:10 AM	0.1	0.4	10:45 AM
WZ-1		17.3	134.4	10:37 AM	0.2	3.5	10:42 AM

Station Location Area	Work	Daily Avg. Mercury Concentration ($\mu\text{g}/\text{m}^3$)	Max 15 Minute Mercury Concentration ($\mu\text{g}/\text{m}^3$)	Time of Max 15 Minute Avg Mercury Reading
PM-1		0.0	0.0	8:32 AM
PM-2		0.0	* 1.3	12:48 PM
PM-3		0.0	0.0	8:07 AM
PM-4		0.0	0.1	12:05 PM
PM-5		0.0	0.0	8:07 AM
PM-6		0.0	0.0	2:58 PM
WZ-1		0.0	0.0	10:30 AM

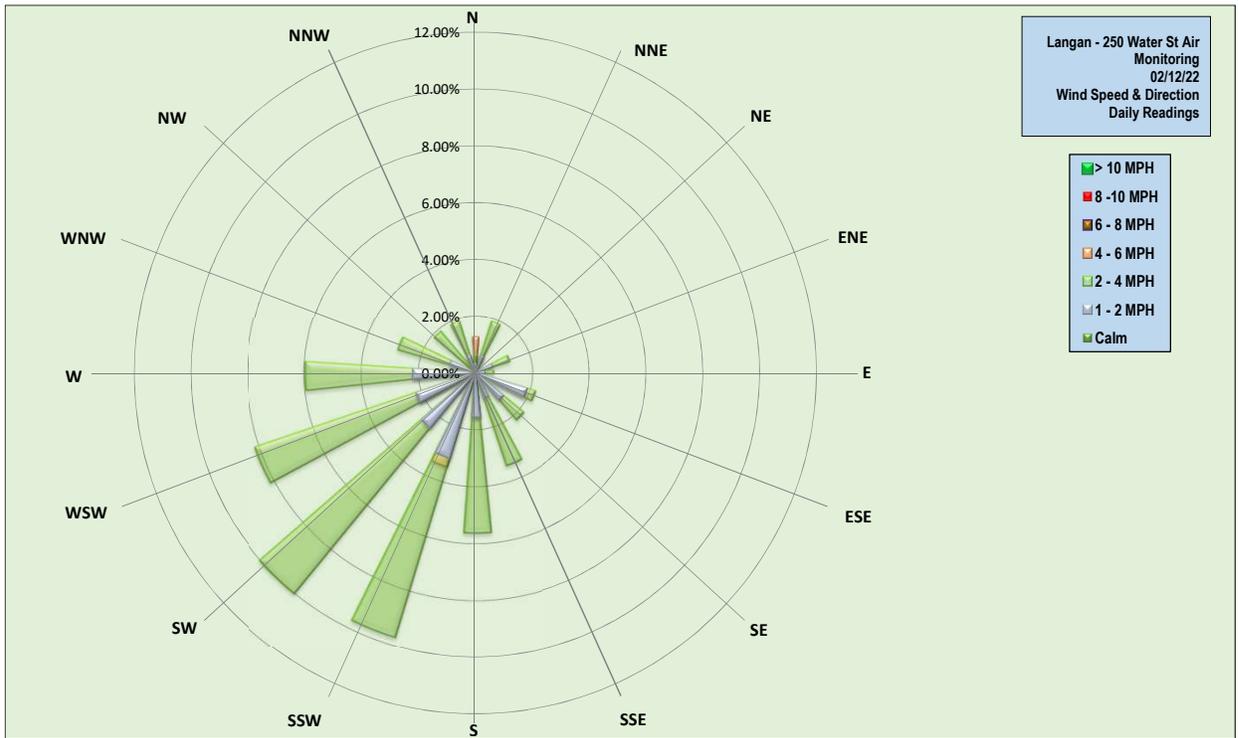


Air Monitoring Notes:

*Mercury vapor concentrations exceeded the action level established in the CAMP from 12:48pm to 1:01pm at perimeter station PM-2, which was located along Pearl Street, next to the parking lot entrance. **The exceedance was determined to be an erroneous high reading resulting from an equipment malfunction or unknown interference and mercury vapor data from the Jerome® J505 mercury analyzer indicate the erroneously high reading is not a result of ground-intrusive activities.** During this time, AARCO was in the process of backfilling test pit TP-02 after the test pit was open for one hour. Perimeter station PM-2 was located about 120 feet and in an upwind direction from the TP-02 work zone.

- Instantaneous mercury vapor concentrations within the work zone during this time were collected using the Jerome® J505 mercury analyzer and readings ranged from 0.00 $\mu\text{g}/\text{m}^3$ to 0.05 $\mu\text{g}/\text{m}^3$.
- The work zone station (WZ-1) was located between TP-02 and PM-2 and Jerome® J405 15-minute average mercury concentrations remained at 0.0 $\mu\text{g}/\text{m}^3$ throughout this time period.
- Two instantaneous readings of 14.30 $\mu\text{g}/\text{m}^3$ and 4.50 $\mu\text{g}/\text{m}^3$ were recorded at PM-2 before returning to the daily average of 0.0 $\mu\text{g}/\text{m}^3$. The instantaneous readings were immediately checked at the perimeter station using the - Jerome® J505 mercury analyzer and a maximum concentration of 0.01 $\mu\text{g}/\text{m}^3$ was recorded.
- Additionally, the independent community monitoring conducted continuous monitoring with a Jerome® J405 throughout the day and reported that mercury vapor was not detected, with all readings measured at 0.0 $\mu\text{g}/\text{m}^3$.





J505 TEST RESULTS

DATE: 12-Feb-22

TIME: 18:32:49

SERIAL NUMBER: 50500264

DATE	TIME	RESULT	UNIT	ALARM	SITE	APPROXIMATE LOCATION OF MEASUREMENT
12-Feb-22	8:00:24	0.000	µg/m ³	N/A	250 WATER STREET	TP-01 Work Zone
12-Feb-22	8:01:29	0.040	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	8:02:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	8:03:29	0.020	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	8:04:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	8:05:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	8:06:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	8:07:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	8:08:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	8:09:29	0.050	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	8:10:29	0.020	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	8:11:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	8:12:01	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	8:13:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	8:14:29	0.010	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	8:15:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	8:16:23	0.010	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	8:17:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	8:18:27	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	8:19:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	8:20:09	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	8:21:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	8:22:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	8:23:24	0.010	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	8:24:29	0.010	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	8:25:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	8:26:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	8:27:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	8:28:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	8:29:29	0.020	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	8:30:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	8:31:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	8:32:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	8:33:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	8:34:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	8:35:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	8:36:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	8:37:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	8:38:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	8:39:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	8:40:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	8:41:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	8:42:29	0.010	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	8:43:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	8:44:29	0.000	µg/m ³	N/A	250 WATER STREET	

12-Feb-22	8:45:29	0.020	µg/m ³	N/A	250 WATER STREET	TP-01 Work Zone
12-Feb-22	8:46:23	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	8:47:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	8:48:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	8:49:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	8:50:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	8:51:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	8:52:29	0.020	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	8:53:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	8:54:22	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	8:55:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	8:56:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	8:57:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	8:58:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	8:59:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	9:00:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	9:01:07	0.010	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	9:02:29	0.070	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	9:03:29	0.070	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	9:04:29	0.030	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	9:05:29	0.070	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	9:06:29	0.030	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	9:07:29	0.040	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	9:08:29	0.040	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	9:09:29	0.020	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	9:10:29	0.040	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	9:11:29	0.020	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	9:12:29	0.040	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	9:13:29	0.020	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	9:14:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	9:15:29	0.090	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	9:16:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	9:17:29	0.040	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	9:18:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	9:19:29	0.040	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	9:20:29	0.030	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	9:21:29	0.040	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	9:22:29	0.050	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	9:23:29	0.070	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	9:24:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	9:25:29	0.020	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	9:26:29	0.010	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	9:27:29	0.050	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	9:28:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	9:29:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	9:30:29	0.020	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	9:31:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	9:32:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	9:33:29	0.010	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	9:34:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	9:35:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	9:36:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	9:37:23	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	9:38:29	0.000	µg/m ³	N/A	250 WATER STREET	
Central Part of the Site						
PM-5						
PM-4						
PM-2						
PM-6						
PM-1						
PM-3						
Eastern Part of the Site						

12-Feb-22	9:39:14	0.000	µg/m ³	N/A	250 WATER STREET	Western Part of the Site
12-Feb-22	9:40:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	9:41:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	9:42:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	9:43:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	9:44:29	0.010	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	9:45:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	9:46:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	9:47:29	0.000	µg/m ³	N/A	250 WATER STREET	TP-01 Stockpile
12-Feb-22	9:48:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	9:49:08	0.000	µg/m ³	N/A	250 WATER STREET	TP-01 Work Zone
12-Feb-22	9:50:29	0.040	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	9:51:29	0.030	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	9:52:29	0.040	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	9:53:29	0.020	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	9:54:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	9:55:29	0.010	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	9:56:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	9:57:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	9:58:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	9:59:07	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	10:00:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	10:01:03	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	10:02:09	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	10:03:29	0.010	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	10:04:29	0.040	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	10:05:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	10:06:01	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	10:06:48	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	10:07:29	0.050	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	10:08:27	0.030	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	10:09:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	10:10:03	0.040	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	10:11:29	0.050	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	10:12:29	0.010	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	10:13:06	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	10:14:29	0.020	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	10:15:18	0.010	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	10:16:01	0.050	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	10:17:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	10:17:58	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	10:18:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	10:19:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	10:20:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	10:21:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	10:22:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	10:23:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	10:24:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	10:25:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	10:26:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	10:27:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	10:28:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	10:29:04	0.020	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	10:29:41	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	10:30:29	0.070	µg/m ³	N/A	250 WATER STREET	TP-01 Work Zone
12-Feb-22	10:31:05	0.020	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	10:32:13	0.030	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	10:33:23	0.050	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	10:34:29	0.050	µg/m ³	N/A	250 WATER STREET	

12-Feb-22	11:33:29	0.110	µg/m ³	N/A	250 WATER STREET	TP-02 Work Zone	
12-Feb-22	11:34:29	0.110	µg/m ³	N/A	250 WATER STREET		
12-Feb-22	11:35:29	0.050	µg/m ³	N/A	250 WATER STREET		
12-Feb-22	11:36:29	0.110	µg/m ³	N/A	250 WATER STREET		
12-Feb-22	11:37:29	0.030	µg/m ³	N/A	250 WATER STREET		
12-Feb-22	11:38:29	0.020	µg/m ³	N/A	250 WATER STREET		
12-Feb-22	11:39:29	0.000	µg/m ³	N/A	250 WATER STREET		
12-Feb-22	11:40:29	0.020	µg/m ³	N/A	250 WATER STREET		
12-Feb-22	11:41:29	0.010	µg/m ³	N/A	250 WATER STREET		
12-Feb-22	11:42:29	0.000	µg/m ³	N/A	250 WATER STREET		
12-Feb-22	11:43:29	0.000	µg/m ³	N/A	250 WATER STREET		
12-Feb-22	11:44:29	0.360	µg/m ³	N/A	250 WATER STREET		
12-Feb-22	11:45:29	0.070	µg/m ³	N/A	250 WATER STREET	TP-02 Stockpile	
12-Feb-22	11:46:29	0.040	µg/m ³	N/A	250 WATER STREET	PM-1	
12-Feb-22	11:47:29	0.000	µg/m ³	N/A	250 WATER STREET	Central Part of the Site	
12-Feb-22	11:48:29	0.000	µg/m ³	N/A	250 WATER STREET		
12-Feb-22	11:49:29	0.020	µg/m ³	N/A	250 WATER STREET	PM-5	
12-Feb-22	11:50:29	0.000	µg/m ³	N/A	250 WATER STREET	PM-4	
12-Feb-22	11:51:29	0.000	µg/m ³	N/A	250 WATER STREET		
12-Feb-22	11:52:29	0.000	µg/m ³	N/A	250 WATER STREET	PM-2	
12-Feb-22	11:53:29	0.000	µg/m ³	N/A	250 WATER STREET	Western Part of the Site	
12-Feb-22	11:54:29	0.000	µg/m ³	N/A	250 WATER STREET		
12-Feb-22	11:55:23	0.020	µg/m ³	N/A	250 WATER STREET	PM-3	
12-Feb-22	11:56:29	0.000	µg/m ³	N/A	250 WATER STREET		
12-Feb-22	11:57:29	0.010	µg/m ³	N/A	250 WATER STREET	PM-6	
12-Feb-22	11:58:29	0.000	µg/m ³	N/A	250 WATER STREET		
12-Feb-22	11:59:29	0.030	µg/m ³	N/A	250 WATER STREET	Eastern Part of the Site	
12-Feb-22	12:00:29	0.040	µg/m ³	N/A	250 WATER STREET		
12-Feb-22	12:01:29	0.000	µg/m ³	N/A	250 WATER STREET	Central Part of the Site	
12-Feb-22	12:02:29	0.000	µg/m ³	N/A	250 WATER STREET		
12-Feb-22	12:03:29	0.010	µg/m ³	N/A	250 WATER STREET		
12-Feb-22	12:04:10	0.130	µg/m ³	N/A	250 WATER STREET		
12-Feb-22	12:04:50	0.070	µg/m ³	N/A	250 WATER STREET		
12-Feb-22	12:05:22	0.080	µg/m ³	N/A	250 WATER STREET		
12-Feb-22	12:06:01	0.010	µg/m ³	N/A	250 WATER STREET	TP-02 Work Zone	
12-Feb-22	12:06:34	0.030	µg/m ³	N/A	250 WATER STREET		
12-Feb-22	12:07:29	0.010	µg/m ³	N/A	250 WATER STREET		
12-Feb-22	12:08:29	0.030	µg/m ³	N/A	250 WATER STREET		
12-Feb-22	12:09:29	0.000	µg/m ³	N/A	250 WATER STREET		
12-Feb-22	12:10:29	0.020	µg/m ³	N/A	250 WATER STREET		
12-Feb-22	12:11:29	0.000	µg/m ³	N/A	250 WATER STREET		
12-Feb-22	12:12:29	0.050	µg/m ³	N/A	250 WATER STREET		
12-Feb-22	12:13:29	0.000	µg/m ³	N/A	250 WATER STREET		
12-Feb-22	12:14:29	0.000	µg/m ³	N/A	250 WATER STREET		
12-Feb-22	12:15:29	0.000	µg/m ³	N/A	250 WATER STREET		TP-02 Work Zone
12-Feb-22	12:16:29	0.000	µg/m ³	N/A	250 WATER STREET		
12-Feb-22	12:17:29	0.000	µg/m ³	N/A	250 WATER STREET		
12-Feb-22	12:18:29	0.000	µg/m ³	N/A	250 WATER STREET		
12-Feb-22	12:19:29	0.010	µg/m ³	N/A	250 WATER STREET		
12-Feb-22	12:20:29	0.030	µg/m ³	N/A	250 WATER STREET		
12-Feb-22	12:21:29	0.060	µg/m ³	N/A	250 WATER STREET		
12-Feb-22	12:22:29	0.050	µg/m ³	N/A	250 WATER STREET		
12-Feb-22	12:23:29	0.060	µg/m ³	N/A	250 WATER STREET		
12-Feb-22	12:24:29	0.000	µg/m ³	N/A	250 WATER STREET	TP-02 Work Zone	
12-Feb-22	12:25:29	0.000	µg/m ³	N/A	250 WATER STREET		
12-Feb-22	12:26:29	0.000	µg/m ³	N/A	250 WATER STREET		
12-Feb-22	12:27:29	0.020	µg/m ³	N/A	250 WATER STREET		
12-Feb-22	12:28:29	0.000	µg/m ³	N/A	250 WATER STREET		
12-Feb-22	12:29:29	0.000	µg/m ³	N/A	250 WATER STREET		

12-Feb-22	13:27:29	0.060	µg/m ³	N/A	250 WATER STREET	TP-02 Work Zone
12-Feb-22	13:28:29	0.060	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	13:29:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	13:30:29	0.010	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	13:31:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	13:32:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	13:33:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	13:34:29	0.010	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	13:35:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	13:36:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	13:37:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	13:38:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	13:39:29	0.040	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	13:40:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	13:41:29	0.020	µg/m ³	N/A	250 WATER STREET	TP-05 Work Zone
12-Feb-22	13:42:29	0.080	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	13:43:29	0.070	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	13:44:29	0.040	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	13:45:29	0.010	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	13:46:29	0.050	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	13:47:29	0.020	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	13:48:29	0.030	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	13:49:29	0.070	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	13:50:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	13:51:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	13:52:29	0.010	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	13:53:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	13:54:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	13:55:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	13:56:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	13:57:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	13:58:27	0.100	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	13:59:21	0.130	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	14:00:29	0.110	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	14:01:29	0.020	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	14:02:29	0.040	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	14:03:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	14:04:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	14:05:29	0.020	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	14:06:29	0.040	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	14:07:29	0.010	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	14:08:29	0.060	µg/m ³	N/A	250 WATER STREET	Western Part of the Site
12-Feb-22	14:09:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	14:10:29	0.000	µg/m ³	N/A	250 WATER STREET	PM-2
12-Feb-22	14:11:29	0.000	µg/m ³	N/A	250 WATER STREET	PM-4
12-Feb-22	14:12:03	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	14:13:29	0.000	µg/m ³	N/A	250 WATER STREET	West-Central Part of the Site
12-Feb-22	14:14:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	14:15:29	0.000	µg/m ³	N/A	250 WATER STREET	PM-5
12-Feb-22	14:16:29	0.000	µg/m ³	N/A	250 WATER STREET	Central Part of the Site
12-Feb-22	14:17:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	14:18:29	0.000	µg/m ³	N/A	250 WATER STREET	PM-1
12-Feb-22	14:19:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	14:20:29	0.000	µg/m ³	N/A	250 WATER STREET	PM-3
12-Feb-22	14:21:29	0.010	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	14:22:29	0.050	µg/m ³	N/A	250 WATER STREET	East-Central Part of the Site
12-Feb-22	14:23:29	0.020	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	14:24:29	0.000	µg/m ³	N/A	250 WATER STREET	TP-05 Work Zone
12-Feb-22	14:25:29	0.000	µg/m ³	N/A	250 WATER STREET	

12-Feb-22	14:26:29	0.000	µg/m ³	N/A	250 WATER STREET	TP-05 Work Zone
12-Feb-22	14:27:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	14:28:29	0.020	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	14:29:29	0.040	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	14:30:29	0.010	µg/m ³	N/A	250 WATER STREET	West-Central Part of the Site
12-Feb-22	14:31:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	14:32:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	14:33:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	14:34:29	0.040	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	14:35:29	0.040	µg/m ³	N/A	250 WATER STREET	South-Central Part of the Site
12-Feb-22	14:36:29	0.030	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	14:37:29	0.050	µg/m ³	N/A	250 WATER STREET	TP-05 Work Zone
12-Feb-22	14:38:29	0.020	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	14:39:29	0.090	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	14:40:29	0.050	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	14:41:29	0.020	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	14:42:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	14:43:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	14:44:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	14:45:29	0.020	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	14:46:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	14:47:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	14:48:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	14:49:29	0.050	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	14:50:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	14:51:29	0.020	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	14:52:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	14:53:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	14:54:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	14:55:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	14:56:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	14:57:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	14:58:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	14:59:29	0.010	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	15:00:29	0.030	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	15:01:29	0.030	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	15:02:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	15:03:29	0.060	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	15:04:00	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	15:04:30	0.010	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	15:05:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	15:06:15	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	15:07:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	15:08:22	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	15:09:29	0.030	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	15:10:01	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	15:11:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	15:12:29	0.000	µg/m ³	N/A	250 WATER STREET	TP-05 Work Zone
12-Feb-22	15:13:29	0.040	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	15:14:29	0.010	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	15:15:29	0.030	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	15:16:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	15:17:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	15:18:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	15:19:29	0.010	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	15:20:24	0.010	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	15:21:29	0.040	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	15:22:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	15:23:29	0.040	µg/m ³	N/A	250 WATER STREET	

12-Feb-22	15:24:29	0.000	µg/m ³	N/A	250 WATER STREET	TP-05 Work Zone
12-Feb-22	15:25:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	15:26:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	15:27:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	15:28:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	15:29:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	15:30:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	15:31:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	15:32:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	15:33:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	15:34:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	15:35:02	0.060	µg/m ³	N/A	250 WATER STREET	TP-03 Work Zone
12-Feb-22	15:36:09	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	15:37:05	0.040	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	15:38:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	15:38:59	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	15:39:29	0.020	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	15:40:29	0.020	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	15:41:29	0.020	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	15:42:29	0.020	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	15:43:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	15:44:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	15:45:29	0.000	µg/m ³	N/A	250 WATER STREET	TP-03 Work Zone
12-Feb-22	15:46:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	15:47:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	15:48:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	15:49:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	15:50:29	0.010	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	15:51:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	15:52:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	15:53:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	15:54:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	15:55:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	15:56:29	0.010	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	15:57:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	15:58:29	0.030	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	15:59:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	16:00:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	16:01:29	0.010	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	16:02:29	0.050	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	16:03:29	0.010	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	16:04:29	0.020	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	16:05:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	16:06:29	0.020	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	16:07:29	0.060	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	16:08:29	0.060	µg/m ³	N/A	250 WATER STREET	TP-03 Work Zone
12-Feb-22	16:09:29	0.020	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	16:10:29	0.020	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	16:11:29	0.010	µg/m ³	N/A	250 WATER STREET	TP-03 Stockpile
12-Feb-22	16:12:21	0.030	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	16:13:29	0.040	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	16:14:24	0.030	µg/m ³	N/A	250 WATER STREET	PM-2
12-Feb-22	16:15:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	16:16:29	0.000	µg/m ³	N/A	250 WATER STREET	West-Central Part of the Site
12-Feb-22	16:17:29	0.000	µg/m ³	N/A	250 WATER STREET	
12-Feb-22	16:18:29	0.000	µg/m ³	N/A	250 WATER STREET	PM-4
12-Feb-22	16:19:29	0.000	µg/m ³	N/A	250 WATER STREET	PM-5
12-Feb-22	16:20:29	0.000	µg/m ³	N/A	250 WATER STREET	Central Part of the Site
12-Feb-22	16:21:29	0.000	µg/m ³	N/A	250 WATER STREET	

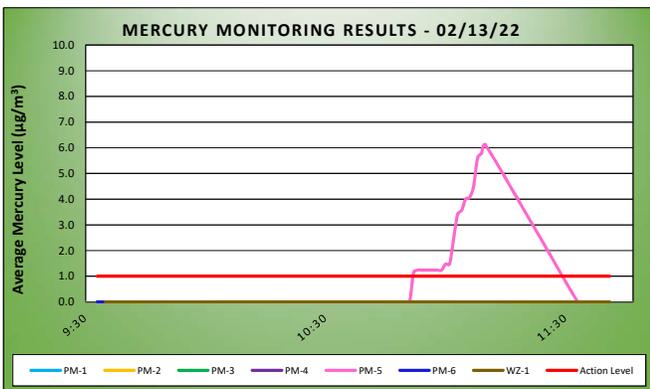
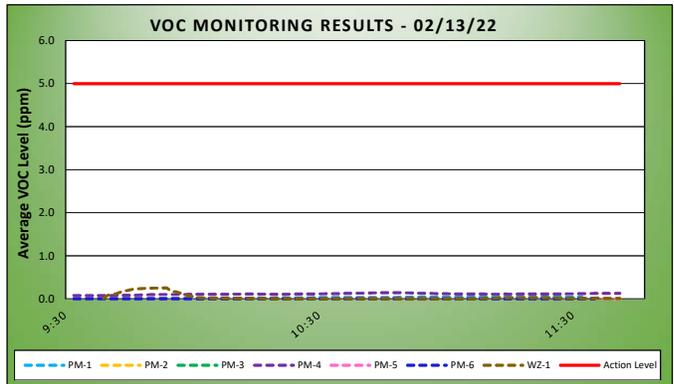
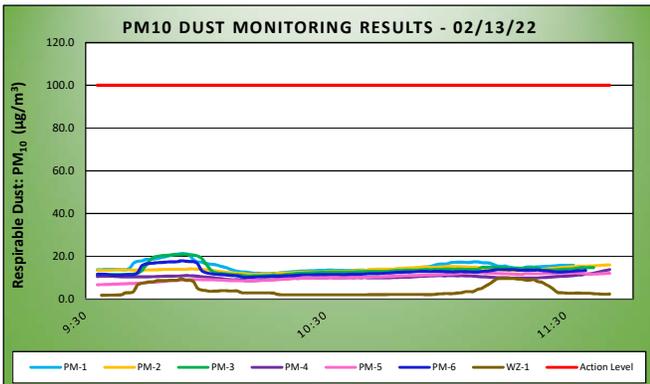
12-Feb-22	17:21:29	0.030	$\mu\text{g}/\text{m}^3$	N/A	250 WATER STREET	CAMP Shut-Down
12-Feb-22	17:22:29	0.010	$\mu\text{g}/\text{m}^3$	N/A	250 WATER STREET	
12-Feb-22	17:23:29	0.040	$\mu\text{g}/\text{m}^3$	N/A	250 WATER STREET	
12-Feb-22	17:24:29	0.000	$\mu\text{g}/\text{m}^3$	N/A	250 WATER STREET	
12-Feb-22	17:25:29	0.010	$\mu\text{g}/\text{m}^3$	N/A	250 WATER STREET	
12-Feb-22	17:26:29	0.000	$\mu\text{g}/\text{m}^3$	N/A	250 WATER STREET	
12-Feb-22	17:27:29	0.030	$\mu\text{g}/\text{m}^3$	N/A	250 WATER STREET	
12-Feb-22	17:28:18	0.010	$\mu\text{g}/\text{m}^3$	N/A	250 WATER STREET	
12-Feb-22	17:29:08	0.000	$\mu\text{g}/\text{m}^3$	N/A	250 WATER STREET	
12-Feb-22	17:30:29	0.060	$\mu\text{g}/\text{m}^3$	N/A	250 WATER STREET	
12-Feb-22	17:31:02	0.000	$\mu\text{g}/\text{m}^3$	N/A	250 WATER STREET	
12-Feb-22	17:32:11	0.000	$\mu\text{g}/\text{m}^3$	N/A	250 WATER STREET	
12-Feb-22	17:33:29	0.040	$\mu\text{g}/\text{m}^3$	N/A	250 WATER STREET	
12-Feb-22	17:34:08	0.000	$\mu\text{g}/\text{m}^3$	N/A	250 WATER STREET	
12-Feb-22	17:35:00	0.000	$\mu\text{g}/\text{m}^3$	N/A	250 WATER STREET	
12-Feb-22	17:36:12	0.000	$\mu\text{g}/\text{m}^3$	N/A	250 WATER STREET	
12-Feb-22	17:37:24	0.000	$\mu\text{g}/\text{m}^3$	N/A	250 WATER STREET	

	DAILY AIR MONITORING REPORT				02/13/22	
	250 Water Street Remediation Site				Project number: 170381202	
	Manhattan, New York				Page 1 of 2	
					Submitted By: Farielle Brazier	
					Rev. No. 0	
					Dust Background & Action Level ($\mu\text{g}/\text{m}^3$)	
				100		
				VOC Background & Action Level (ppm)		
				5		
				Hg Background & Action Level ($\mu\text{g}/\text{m}^3$)		
				1.0		

Weather Data Range for Work Day		Wind Direction	NE	Relative Humidity (%)	86.8 - 88.8	Daily Rain (in)	0.00	Readings in the summary table and graphs below are the reported downwind concentrations.
Temp (°F)	31.4 - 32.1	Wind Speed (MPH)	6.6 - 7.5	Barometer (inHg)	30.23 - 30.26			

Station Location Area	Work	Daily Avg. Dust Concentration ($\mu\text{g}/\text{m}^3$)	Max 15 Minute Dust Concentration ($\mu\text{g}/\text{m}^3$)	Time of Maximum 15 Minute Avg Dust Reading	Daily Avg. VOC Concentration (ppm)	Max 15 Minute VOC Concentration (ppm)	Time of Max 15 Minute Avg VOC Reading
PM-1		15.1	21.3	9:54 AM	0.0	0.0	11:32 AM
PM-2		13.8	16.0	11:41 AM	0.0	0.0	10:41 AM
PM-3		13.7	20.9	9:55 AM	0.0	0.0	9:32 AM
PM-4		10.5	13.8	11:41 AM	0.1	0.1	10:47 AM
PM-5		10.0	12.3	11:07 AM	0.0	0.0	11:39 AM
PM-6		12.7	17.9	9:54 AM	0.0	0.0	9:32 AM
WZ-1		3.8	9.7	11:15 AM	0.0	0.3	9:53 AM

Station Location Area	Work	Daily Avg. Mercury Concentration ($\mu\text{g}/\text{m}^3$)	Max 15 Minute Mercury Concentration ($\mu\text{g}/\text{m}^3$)	Time of Max 15 Minute Avg Mercury Reading
PM-1		0.0	0.0	9:33 AM
PM-2		0.0	0.0	9:33 AM
PM-3		0.0	0.0	9:33 AM
PM-4		0.0	0.0	9:33 AM
PM-5		* 0.8	* 6.1	11:10 AM
PM-6		0.0	0.0	9:33 AM
WZ-1		0.0	0.0	9:35 AM

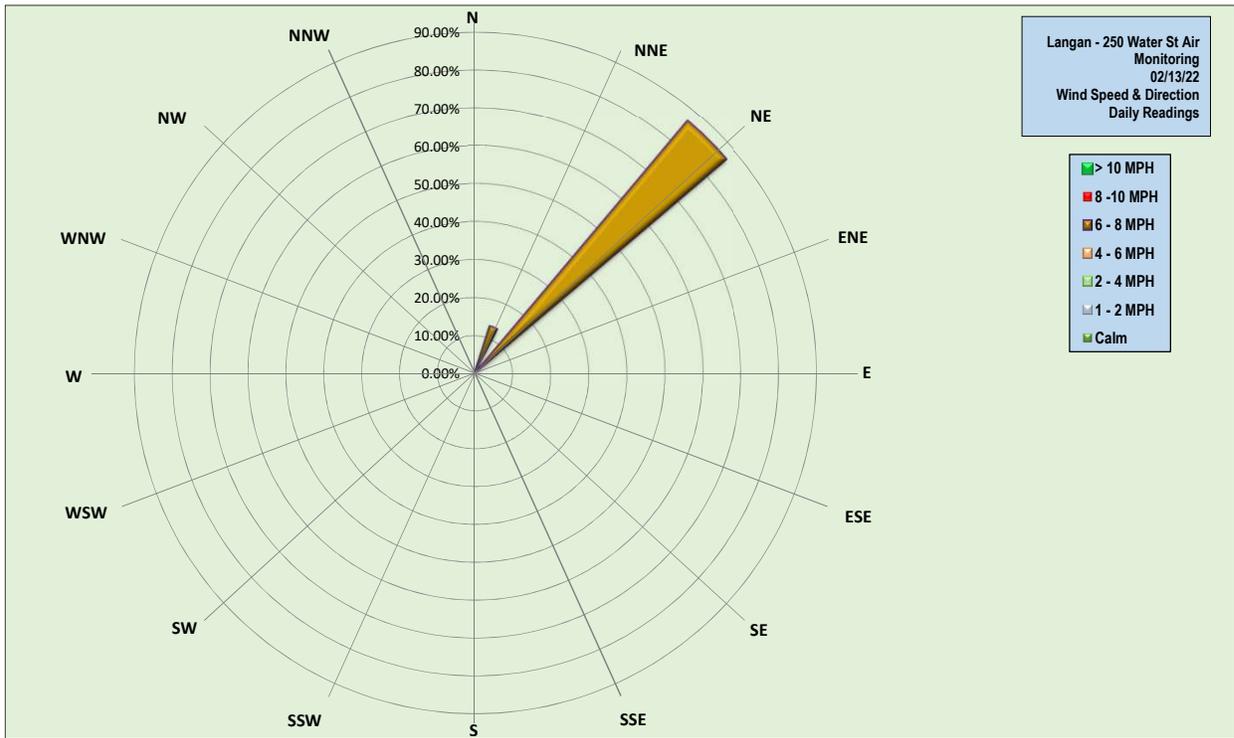


Air Monitoring Notes:

* Mercury vapor concentrations exceeded the action level established in the CAMP from 10:52am to 11:10am at perimeter station PM-5, located along Water Street, closer to Peck Slip. **The exceedances were determined to be erroneous high readings resulting from an equipment malfunction and not a result of ground-intrusive activities associated with test pitting operations.** During this time, AARCO was in the process of backfilling test pit TP-04 after the test pit was open for one hour. Perimeter station PM-5 was located about 200 feet and in an upwind direction from the TP-04 work zone.

- Instantaneous mercury vapor concentrations within the work zone during this time were collected using the Jerome® J505 mercury analyzer and readings ranged from 0.00 $\mu\text{g}/\text{m}^3$ to 0.06 $\mu\text{g}/\text{m}^3$.
- The work zone station (WZ-1) and nearby perimeter stations PM-3 and PM-6 remained at 0.00 $\mu\text{g}/\text{m}^3$ throughout this time period.
- Instantaneous readings on the PM-5 Jerome® J405 unit during this time period ranged from 0.0 $\mu\text{g}/\text{m}^3$ to 23.8 $\mu\text{g}/\text{m}^3$. After notification of the elevated readings, the CAMP monitor collected Jerome® J505 readings in between the work zone and station PM-5, and a maximum concentration of 0.00 $\mu\text{g}/\text{m}^3$ was recorded. The CAMP monitor collected Jerome® J505 readings at the station intake, and the Jerome® J505 unit read 0.00 $\mu\text{g}/\text{m}^3$ at the same time the PM-5 station Jerome® J405 unit recorded a reading of 14.81 $\mu\text{g}/\text{m}^3$.
- To diagnose the equipment malfunction, the CAMP monitor ran a warm-up function on the Jerome® J405 unit. After running the 5-minute warmup, elevated readings were still observed. The CAMP monitor disconnected the Jerome® J405 from the CAMP unit tubing, and walked towards the work area collecting readings, and the Jerome® J405 unit readings returned to 0.0 $\mu\text{g}/\text{m}^3$ after being disconnected from the CAMP station. The Jerome® J405 unit was reconnected to the CAMP station, and continued to read 0.0 $\mu\text{g}/\text{m}^3$ for the remainder of the operation.





J505 TEST RESULTS

DATE: 13-Feb-22

TIME: 12:09:59

SERIAL NUMBER: 50500264

DATE	TIME	RESULT	UNIT	ALARM	SITE	APPROXIMATE LOCATION OF MEASUREMENT
13-Feb-22	7:34:43	0.050	µg/m ³	N/A	250 WATER STREET	Inside of Storage Room
13-Feb-22	7:35:29	0.000	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	7:36:29	0.050	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	7:37:29	0.000	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	7:38:29	0.000	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	7:39:29	0.000	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	7:40:29	0.000	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	7:41:29	0.000	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	7:42:29	0.040	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	7:44:29	0.000	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	8:38:36	0.000	µg/m ³	N/A	250 WATER STREET	TP-04 Work Zone
13-Feb-22	8:39:07	0.000	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	8:39:38	0.000	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	8:40:08	0.000	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	8:40:43	0.000	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	8:41:16	0.000	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	8:42:18	0.050	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	8:42:50	0.000	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	8:43:20	0.000	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	8:43:43	0.000	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	9:29:43	0.000	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	9:30:29	0.000	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	9:31:29	0.000	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	9:32:29	0.000	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	9:33:29	0.000	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	9:34:29	0.000	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	9:35:29	0.000	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	9:36:29	0.000	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	9:37:29	0.000	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	9:38:29	0.000	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	9:39:29	0.000	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	9:40:29	0.000	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	9:41:29	0.000	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	9:42:29	0.000	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	9:43:29	0.000	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	9:44:29	0.000	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	9:45:29	0.000	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	9:46:29	0.010	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	9:47:29	0.050	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	9:48:29	0.000	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	9:49:29	0.000	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	9:50:29	0.000	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	9:51:29	0.050	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	9:52:29	0.030	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	9:53:29	0.040	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	9:54:29	0.000	µg/m ³	N/A	250 WATER STREET	

13-Feb-22	10:52:29	0.010	µg/m ³	N/A	250 WATER STREET	PM-5
13-Feb-22	10:53:29	0.000	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	10:54:29	0.030	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	10:55:12	0.000	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	10:56:29	0.020	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	10:57:29	0.060	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	10:58:29	0.000	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	10:59:23	0.000	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	11:00:11	0.000	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	11:00:50	0.000	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	11:01:29	0.010	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	11:02:29	0.000	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	11:03:29	0.000	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	11:04:29	0.000	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	11:05:15	0.030	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	11:06:29	0.020	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	11:07:29	0.010	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	11:08:29	0.040	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	11:09:20	0.000	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	11:10:29	0.000	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	11:11:14	0.000	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	11:12:01	0.000	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	11:13:07	0.000	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	11:14:29	0.000	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	11:15:29	0.000	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	11:16:29	0.000	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	11:17:29	0.000	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	11:18:29	0.000	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	11:19:29	0.000	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	11:20:29	0.000	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	11:21:29	0.000	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	11:22:29	0.000	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	11:23:29	0.000	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	11:24:29	0.000	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	11:25:29	0.000	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	11:26:29	0.000	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	11:27:29	0.000	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	11:28:29	0.000	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	11:29:29	0.000	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	11:30:29	0.000	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	11:31:24	0.000	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	11:32:29	0.000	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	11:33:01	0.000	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	11:34:29	0.020	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	11:35:29	0.000	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	11:36:17	0.010	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	11:37:29	0.000	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	11:38:29	0.000	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	11:39:29	0.000	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	11:40:29	0.000	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	11:41:29	0.000	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	11:42:29	0.020	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	11:43:29	0.000	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	11:44:29	0.020	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	11:45:29	0.000	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	11:46:29	0.000	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	11:47:29	0.000	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	11:48:29	0.000	µg/m ³	N/A	250 WATER STREET	
13-Feb-22	11:48:29	0.000	µg/m ³	N/A	250 WATER STREET	

TP-04 Work Zone

CAMP Shut-Down

Appendix D
Daily Field Reports

SITE OBSERVATION REPORT

PROJECT No.: 170381202		DATE: Saturday, February 12, 2022	
PROJECT: 250 Water Street	CLIENT: 250 Seaport District, LLC	WEATHER: Partly Cloudy, 53.4-59.3 °F Wind: SSW @ 1.1-6.0 mph	
LOCATION: New York, NY		TIME: 6:30 am – 7:00 pm	
BCP SITE ID: C231127			
CONTRACTOR: AARCO Environmental Services Corp. (AARCO)		LANGAN REP. : Michael Au	
EQUIPMENT: Bobcat E35i Excavator Jerome J405 Jerome J505 RKI GX-6000 PID MiniRAE 3000 PID DustTrak II		PRESENT AT SITE: Remedial Design Investigation Day 1 Langan Mimi Raygorodetsky, Paul McMahon, Michael Au, Gabriel Enriquez Castro AARCO Brian Wyble, Will Scheiner, Juan Torres Excel Environmental Resources, Inc. (Excel) Abby Lodge	
OBSERVATIONS, DISCUSSIONS, TEST RESULTS, ETC.:			
<p>Langan began implementation of the New York State Department of Environmental Conservation (NYSDEC)-approved February 11, 2022 Remedial Design Investigation Work Plan (RDIWP) at the 250 Water Street site (NYSDEC Brownfield Cleanup Program [BCP] Site No. C231127).</p> <p>Site Activities</p> <ul style="list-style-type: none"> • AARCO used a Bobcat E35i excavator to excavate four test pits in the north-central, central and southwestern parts of the site. Langan conducted ambient air monitoring across the site during ground-intrusive activities: <ul style="list-style-type: none"> ○ TP01 (about 6 feet long by 4 feet wide) was excavated to a maximum depth of about 8 feet below grade surface (bgs). <ul style="list-style-type: none"> ▪ Excavated material consisted of historic fill with varying amounts of brick, concrete and pottery fragments to about 4 feet bgs followed by an apparent native layer consisting of medium- to fine-grained brown sand with varying amounts of gravel to about 8 feet bgs (the test pit termination depth). ▪ Ambient air between the work zone and CAMP stations was screened using a photoionization detector (PID) and handheld Jerome® J505 mercury analyzer. Instantaneous VOC readings did not exceed background concentrations. Instantaneous mercury vapor readings throughout the site ranged from 0.00 µg/m³ to 0.09 µg/m³ (maximum mercury vapor reading observed within the work zone). ▪ Excavated soil/fill was screened using a PID and a handheld Jerome® J505 mercury analyzer. A maximum PID reading of 0.0 parts per million (ppm) and a maximum mercury vapor reading of 0.00 µg/m³ was observed. ○ TP02 (about 6 feet long by 4 feet wide) was excavated to a maximum depth of about 8 feet bgs. <ul style="list-style-type: none"> ▪ Excavated material consisted of historic fill with varying amounts of brick and concrete to about 8 feet bgs (the test pit termination depth). ▪ Ambient air between the work zone and CAMP stations was screened using a PID and handheld Jerome® J505 mercury analyzer. Instantaneous VOC readings did not exceed 			
Cc:	M. Raygorodetsky, P. McMahon, M. Au	By:	Michael Au
		LANGAN	

SITE OBSERVATION REPORT

background concentrations. Instantaneous mercury vapor readings throughout the site ranged from 0.00 $\mu\text{g}/\text{m}^3$ to 0.16 $\mu\text{g}/\text{m}^3$ (maximum mercury vapor reading observed within the work zone).

- Excavated soil/fill was screened using a photoionization detector (PID) and a handheld Jerome® J505 mercury analyzer. A maximum PID reading of 0.0 ppm and a maximum mercury vapor reading of 0.36 $\mu\text{g}/\text{m}^3$ was observed.
- TP03 (about 5 feet long by 5 feet wide) was excavated to a maximum depth of about 8 feet bgs.
 - Excavated material consisted of an about 1-foot-thick layer of gravel followed by historic fill with varying amounts of brick, wood, and abandoned utility piping to about 8 feet bgs (the test pit termination depth).
 - Ambient air between the work zone and CAMP stations was screened using a PID and handheld Jerome® J505 mercury analyzer. Instantaneous VOC readings did not exceed background concentrations. Instantaneous mercury vapor readings throughout the site ranged from 0.00 $\mu\text{g}/\text{m}^3$ to 0.06 $\mu\text{g}/\text{m}^3$ (maximum mercury vapor reading observed within the work zone).
 - Excavated soil/fill was screened using a photoionization detector (PID) and a handheld Jerome® J505 mercury analyzer. A maximum PID reading of 0.0 ppm and a maximum mercury vapor reading of 0.04 $\mu\text{g}/\text{m}^3$ was observed.
- TP05 (about 5 feet long by 5 feet wide) was excavated to a maximum depth of about 8 feet bgs.
 - Excavated material consisted of historic fill, primarily consisting of brick, to about 4 feet bgs followed by an apparent native layer consisting of medium- to fine-grained brown sand with varying amounts of silt and gravel to about 8 feet bgs (the test pit termination depth).
 - Ambient air between the work zone and CAMP stations was screened using a PID and handheld Jerome® J505 mercury analyzer. Instantaneous VOC readings did not exceed background concentrations. Instantaneous mercury vapor readings throughout the site ranged from 0.00 $\mu\text{g}/\text{m}^3$ to 0.09 $\mu\text{g}/\text{m}^3$ (maximum mercury vapor reading observed within the work zone).
 - Excavated soil/fill was screened using a photoionization detector (PID) and a handheld Jerome® J505 mercury analyzer. A maximum PID reading of 0.0 ppm and a maximum mercury vapor reading of 0.13 $\mu\text{g}/\text{m}^3$ was observed.

Prior to excavation, access to each test pit work zone was restricted by chain-link fencing and Echo Barrier H9™ acoustic curtains. Excavated soil/fill was temporarily stockpiled on polyethylene sheeting within the established work zone, before being backfilled after completion of one hour of ambient air monitoring. Test pits were restored to match the surrounding grade using cold patch asphalt immediately after backfilling. Excess soil/fill (about 2 cubic yards) was temporarily stockpiled on and covered with polyethylene sheeting in the north-central part of the site and will be containerized in sealed 55-gallon drums on February 13, 2022.

Material Tracking

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

Sampling

- None

Cc:	M. Raygorodetsky, P. McMahon, M. Au	By:	Michael Au LANGAN
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SITE OBSERVATION REPORT

CAMP Activities

Langan performed air monitoring during field activities and to monitor ambient air conditions as a component of the Remedial Design Investigation (RDI).

Daily Average Concentrations

Station ID	Particulate (mg/m ³)	Organic Vapor (ppm)	Mercury Vapor (µg/m ³)
PM-1	0.027	0.0	0.0
PM-2	0.015	0.0	0.0
PM-3	0.029	0.2	0.0
PM-4	0.017	0.0	0.0
PM-5	0.019	0.0	0.0
PM-6	0.016	0.1	0.0
WZ-1	0.017	0.2	0.0
WZ-2	N/A	N/A	N/A

Maximum 15-Minute-Average Concentrations

Station ID	Particulate (mg/m ³)	Organic Vapor (ppm)	Mercury Vapor (µg/m ³)
PM-1	0.048	0.0	0.0
PM-2	0.035	0.1	1.3* @ 12:48pm
PM-3	0.048	0.5	0.0
PM-4	0.036	0.0	0.1
PM-5	0.032	0.0	0.0
PM-6	0.034	0.4	0.0
WZ-1	0.134	3.5	0.0
WZ-2	N/A	N/A	N/A

●mg/m³ = milligrams per cubic meter ●ppm = parts per million ●µg/m³ = micrograms per cubic meter

- Concentrations of particulate matter smaller than 10 microns in diameter (PM10) exceeded the action level established in the CAMP from 10:32am to 10:43am at work zone station WZ-1 due to exhaust from the vibratory plate tamper in close proximity to the work zone station during restoration of test pit TP-01. No ground-intrusive activities were completed at the time of the exceedance.
- * Mercury vapor concentrations exceeded the action level established in the CAMP from 12:48pm to 1:01pm at perimeter station PM-2, which was located along Pearl Street, next to the parking lot entrance. The exceedance was determined to be an erroneous high reading resulting from an equipment malfunction or unknown interference and mercury vapor data from the work zone station (WZ-1) and mobile monitoring data from the Jerome® J505 mercury analyzer indicate the erroneously high reading is not a result of ground-intrusive activities. During this time, AARCO was in the process of backfilling test pit TP-02 after the test pit was open for one hour. Perimeter station PM-2 was located about 120 feet and in an upwind direction from the TP-02 work zone.
 - Instantaneous mercury vapor concentrations within the work zone during this time were collected using the Jerome® J505 mercury analyzer and readings ranged from 0.00 µg/m³ to 0.05 µg/m³.
 - The work zone station (WZ-1) was located between TP-02 and PM-2 and Jerome® J405 15-minute average mercury concentrations remained at 0.0 µg/m³ throughout this time period.
 - Two instantaneous readings of 14.30 µg/m³ and 4.50 µg/m³ were recorded at PM-2 before returning to the daily average of 0.0 µg/m³. The instantaneous readings were immediately checked at the

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perimeter station using the Jerome® J505 mercury analyzer and a maximum concentration of 0.01 $\mu\text{g}/\text{m}^3$ was recorded.

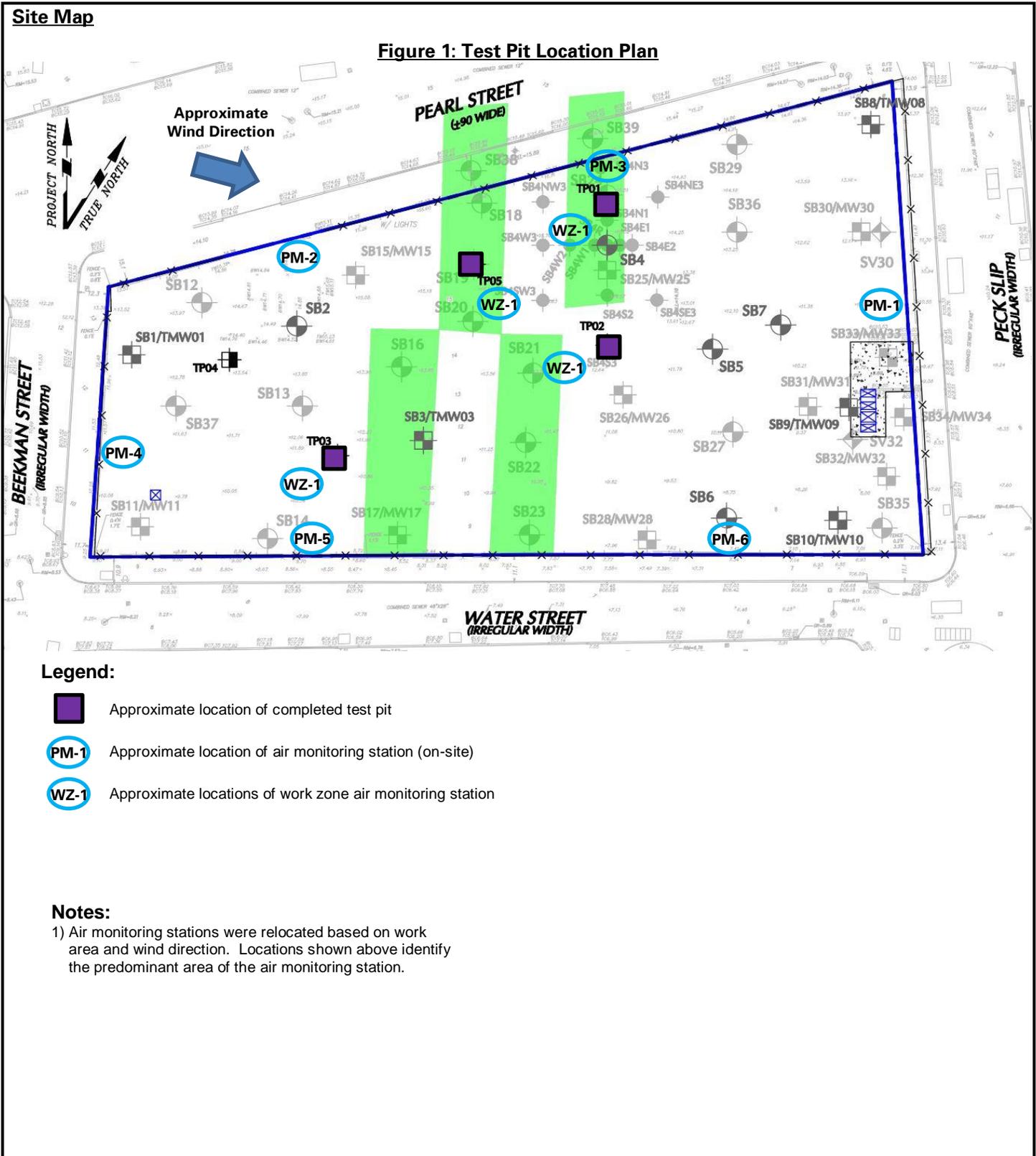
- Additionally, the independent community monitoring conducted continuous monitoring with a Jerome® J405 throughout the day and reported that mercury vapor was not detected, with all readings measured at 0.0 $\mu\text{g}/\text{m}^3$.
- Prior to discontinuing the CAMP at the conclusion of ground-intrusive activities, VOC and mercury vapor concentrations were confirmed to return to background conditions at each perimeter station.

Anticipated Activities

- AARCO will excavate test pit TP04 as part of the RDI on February 13, 2022.

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Select Site Photographs:



Photo 1: View of typical signage posted at the entrance to the site (facing west).



Photo 2: View of typical work zone fencing with chain-link fence and Echo Barrier H9™ acoustic curtains (facing northwest).

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Photo 3: View of AARCO excavating test pit TP03 and stockpiling excavated soil/fill on polyethylene sheeting (facing southeast).



Photo 4: View of test pit TP05, restored to the surrounding grade using cold patch asphalt (facing north).

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Photo 5: View of Langan screening excavated soil/fill from test pit TP01 using a Jerome® J505 mercury analyzer.

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PROJECT No.: 170381202		DATE: Sunday, February 13, 2022	
PROJECT: 250 Water Street	CLIENT: 250 Seaport District, LLC	WEATHER: Snow, 31.4-32.1 °F Wind: NE @ 6.6-7.5 mph	
LOCATION: New York, NY		TIME: 6:30 am – 1:00 pm	
BCP SITE ID: C231127			
CONTRACTOR: AARCO Environmental Services Corp. (AARCO)		LANGAN REP. : Farielle Brazier	
EQUIPMENT: Bobcat E35i Excavator Jerome J405 Jerome J505 RKI GX-6000 PID MiniRAE 3000 PID DustTrak II		PRESENT AT SITE: Remedial Design Investigation Day 2 Langan Mimi Raygorodetsky, Paul McMahon, Farielle Brazier AARCO Brian Wyble, Will Scheiner, Juan Torres	
OBSERVATIONS, DISCUSSIONS, TEST RESULTS, ETC.:			
<p>Langan continued implementation of the New York State Department of Environmental Conservation (NYSDEC)-approved February 11, 2022 Remedial Design Investigation Work Plan (RDIWP) at the 250 Water Street site (NYSDEC Brownfield Cleanup Program [BCP] Site No. C231127).</p> <p>Site Activities</p> <ul style="list-style-type: none"> • AARCO used a Bobcat E35i excavator to excavate one test pit in the northwest part of the site. Langan conducted ambient air monitoring across the site during ground-intrusive activities: <ul style="list-style-type: none"> ○ TP04 (about 5 feet long by 5 feet wide) was excavated to a maximum depth of about 8 feet below grade surface (bgs). <ul style="list-style-type: none"> ▪ Excavated material consisted of brown sand and debris including brick, asphalt, concrete, wood and metal. A brick wall was observed at the Pearl Street side of the test pit. ▪ Ambient air between the work zone and CAMP stations was screened using a photoionization detector (PID) and handheld Jerome® J505 mercury analyzer. Instantaneous VOC readings did not exceed background concentrations. Instantaneous mercury vapor readings throughout the site ranged from 0.00 µg/m³ to 0.06 µg/m³ (maximum mercury vapor reading observed within the work zone). ▪ Excavated soil/fill was screened using a PID and a handheld Jerome® J505 mercury analyzer. A maximum PID reading of 0.0 parts per million (ppm) and a maximum mercury vapor reading of 0.05 µg/m³ was observed. <p>Prior to excavation, access to the test pit work zone was restricted by chain-link fencing and Echo Barrier H9™ acoustic curtains. Excavated soil/fill was temporarily stockpiled on polyethylene sheeting, within the established work zone, before being backfilled after completion of one hour of ambient air monitoring. The test pit was restored to match the surrounding grade using cold patch asphalt immediately after backfilling. Excess soil generated from the test pit excavations was placed in six, sealed and labeled, 55-gallon drums staged in the southern part of the site pending off-site disposal to an appropriate facility.</p>			
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Material Tracking

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

Sampling

- None.

CAMP Activities

Langan performed air monitoring during field activities and to monitor ambient air conditions as a component of the Remedial Design Investigation (RDI).

Daily Average Concentrations

Station ID	Particulate (mg/m ³)	Organic Vapor (ppm)	Mercury Vapor (µg/m ³)
PM-1	0.015	0.0	0.0
PM-2	0.014	0.0	0.0
PM-3	0.014	0.0	0.0
PM-4	0.011	0.1	0.0
PM-5	0.010	0.0	0.8
PM-6	0.013	0.0	0.0
WZ-1	0.004	0.0	0.0
WZ-2	N/A	N/A	N/A

Maximum 15-Minute-Average Concentrations

Station ID	Particulate (mg/m ³)	Organic Vapor (ppm)	Mercury Vapor (µg/m ³)
PM-1	0.021	0.0	0.0
PM-2	0.016	0.0	0.0
PM-3	0.021	0.0	0.0
PM-4	0.014	0.1	0.0
PM-5	0.012	0.0	6.1* @ 11:10am
PM-6	0.018	0.0	0.0
WZ-1	0.010	0.3	0.0
WZ-2	N/A	N/A	N/A

•mg/m³ = milligrams per cubic meter •ppm = parts per million •µg/m³ = micrograms per cubic meter

- * Mercury vapor concentrations exceeded the action level established in the CAMP from 10:52am to 11:10am at perimeter station PM-5, located along Water Street, closer to Peck Slip. The exceedances were determined to be erroneous high readings resulting from an equipment malfunction and not a result of ground-intrusive activities associated with test pitting operations. During this time, AARCO was in the process of backfilling test pit TP-04 after the test pit was open for one hour. Perimeter station PM-5 was located about 200 feet and in an upwind direction from the TP-04 work zone.
 - Instantaneous mercury vapor concentrations within the work zone during this time were collected using the Jerome® J505 mercury analyzer and readings ranged from 0.00 µg/m³ to 0.06 µg/m³.
 - The work zone station (WZ-1) and nearby perimeter stations PM-3 and PM-6 remained at 0.0 µg/m³ throughout this time period.

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- Instantaneous readings on the PM-5 Jerome® J405 unit during this time period ranged from 0.0 µg/m³ to 23.8 µg/m³. After notification of the elevated readings, the CAMP monitor collected Jerome® J505 readings in between the work zone and station PM-5, and a maximum concentration of 0.00 µg/m³ was recorded. The CAMP monitor collected Jerome® J505 readings at the station intake, and the Jerome® J505 unit read 0.00 µg/m³ at the same time the PM-5 station Jerome® J405 unit recorded a reading of 14.81 µg/m³.
- To diagnose the equipment malfunction, the CAMP monitor ran a warm-up function on the Jerome® J405 unit. After running the 5-minute warmup, elevated readings were still observed. The CAMP monitor disconnected the Jerome® J405 from the CAMP unit tubing, and walked towards the work area collecting readings, and the Jerome® J405 unit readings returned to 0.0 µg/m³ after being disconnected from the CAMP station. The Jerome® J405 unit was reconnected to the CAMP station, and continued to read 0.0 µg/m³ for the remainder of the operation.
- Prior to discontinuing the CAMP at the conclusion of ground-intrusive activities, VOC and mercury vapor concentrations were confirmed to return to background conditions at each perimeter station.

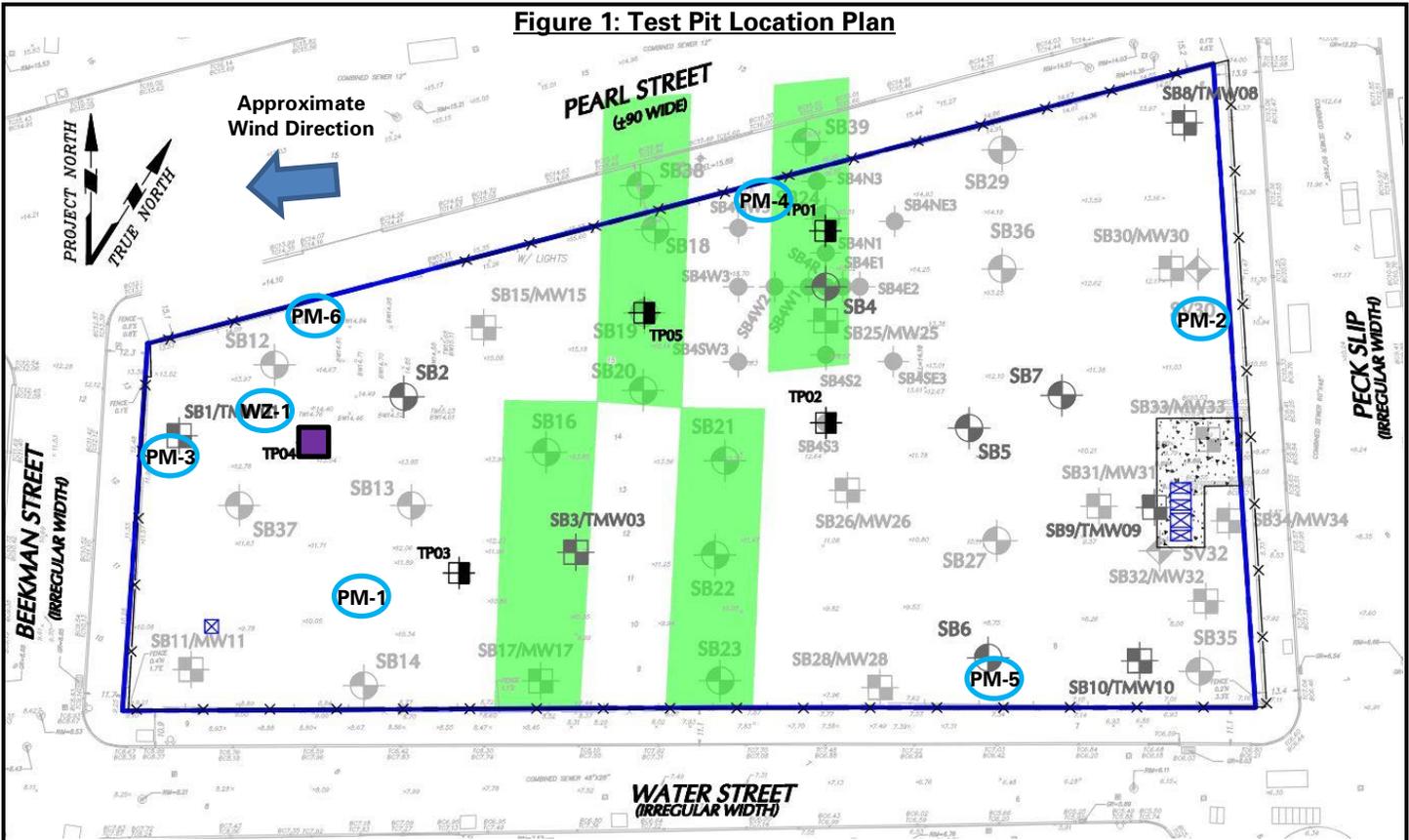
Anticipated Activities

- Langan and AARCO will return to the site on February 21, 2022, to begin advancement of waste characterization soil borings for the RDI.

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Figure 1: Test Pit Location Plan



Legend:

- Approximate location of completed test pit
- PM-1 Approximate location of air monitoring station (on-site)
- WZ-1 Approximate locations of work zone air monitoring station

Notes:

- 1) Air monitoring stations were relocated based on work area and wind direction. Locations shown above identify the predominant area of the air monitoring station.

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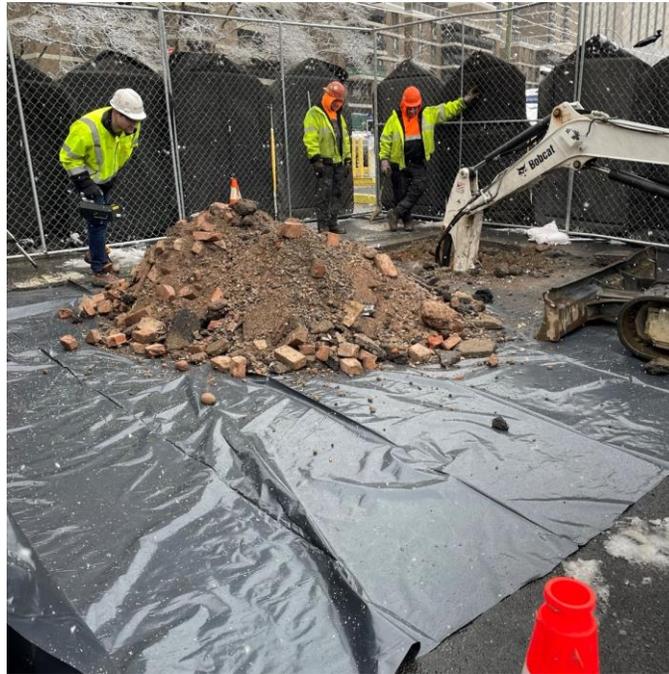


Photo 1: View of AARCO excavating test pit TP04 and stockpiling excavated soil/fill on polyethylene sheeting (facing north).



Photo 2: View of Langan screening test pit TP04 using a Jerome® J505 mercury analyzer.

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Photo 3: View of Jerome® J505 screening during backfilling of Test Pit TP04 (facing north)



Photo 4: View of test pit TP04, restored to the surrounding grade using cold patch asphalt (facing north).

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