

## SITE OBSERVATION REPORT

<b>PROJECT No.:</b> 170381202  <b>PROJECT:</b> 250 Water Street  <b>LOCATION:</b> New York, NY  <b>BCP SITE ID:</b> C231127	<b>CLIENT:</b> 250 Seaport District, LLC	<b>DATE:</b> Saturday, April 23, 2022  <b>WEATHER:</b> Partly Cloudy, 53.7-60.4 °F Wind: SW @ 0.7-6.1 mph  <b>TIME:</b> 6:30 am – 2:00 pm
<b>CONTRACTOR:</b> AARCO Environmental Services Corp. (AARCO)		<b>LANGAN REP. :</b> Laura Grose
<b>EQUIPMENT:</b> Geoprobe® 7822DT Drill Rig MiniRAE 3000 PID DustTrak II Jerome J405® Jerome J505®	<b>PRESENT AT SITE:</b> <b>Langan</b> Laura Grose, Ali Reach, Padmanabhan Krishnaswamy, Michael Au <b>AARCO</b> Julio Galovza, William Cabrera	
<b>OBSERVATIONS, DISCUSSIONS, TEST RESULTS, ETC.:</b>  Langan was present to document remediation and construction activities in accordance with the New York State Department of Environmental Conservation (NYSDEC)-approved November 2021 Remedial Action Work Plan (RAWP) at the 250 Water Street site (NYSDEC Brownfield Cleanup Program [BCP] Site No. C231127).  <b>Site Activities</b> <ul style="list-style-type: none"> <li>• AARCO used a Geoprobe® 7822DT direct-push drill rig with 4-foot-long Macro-Core® samplers to advance five soil borings to delineate previously identified hazardous lead-impacted soil in the southwestern portion of the site. Langan documented the work, screened the soil samples for environmental impacts, and collected soil samples:             <ul style="list-style-type: none"> <li>○ Soil borings <b>WC03A_N1, WC03A_S1, WC03C_NW1, WC03C_E1, and WC03C_SW1</b> were advanced to a depth of about 12 feet below grade surface (bgs). Material was screened for odors, staining, and organic vapors using a photoionization detector (PID). No evidence of impacts were observed.</li> </ul> </li> <li>• AARCO used a Geoprobe® 7822DT direct-push drill rig with 4-foot-long Macro-Core® samplers to advance four soil borings for waste characterization soil sampling in the southwestern portion of the site. Langan documented the work, screened the soil samples for environmental impacts, and collected soil samples:             <ul style="list-style-type: none"> <li>○ <b>WC11A</b> was advanced to a depth of about 12 feet below grade surface (bgs). Material was screened for odors, staining and organic vapors using a photoionization detector (PID). No evidence of impacts were observed.</li> <li>○ <b>WC11B</b> was advanced to a depth of about 20 feet bgs. Material was screened for odors, staining and organic vapors using a PID. No evidence of impacts were observed.</li> <li>○ <b>WC11C</b> was advanced to a depth of about 12 feet bgs. Material was screened for odors, staining and organic vapors using a PID. A maximum PID reading of 21.6 parts per million (ppm) was recorded at about 7.5 to 8 feet bgs.</li> <li>○ <b>WC11D</b> was advanced to a depth of about 12 feet bgs. Material was screened for odors, staining and organic vapors using a PID. A maximum PID reading of 142 ppm was recorded at about 7.5 to 10 feet bgs.</li> </ul> </li> </ul>		
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- Soil borings were backfilled with clean drill cuttings or clean sand and patched with cold patch asphalt after sampling was completed.

### **Material Tracking**

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

### **Sampling**

- Langan collected two composite soil samples for laboratory analysis of Target Compound List (TCL) and NYSDEC Part 375-list semivolatile organic compounds (SVOCs), polychlorinated biphenyls (PCBs), pesticides, herbicides, NYSDEC Part 375-list and target analyte list (TAL) metals, hexavalent chromium, trivalent chromium, total cyanide, Resource Conservation and Recovery Act (RCRA) characteristics, paint filter, and Toxicity Characteristic Leaching Procedure (TCLP) SVOCs, pesticides, herbicides, and metals.
- Langan collected two grab soil samples for laboratory analysis of TCL and NYSDEC Part 375-list volatile organic compounds (VOCs), TCLP VOCs and New Jersey Department of Environmental Protection (NJDEP)-list Extractable Petroleum Hydrocarbons (EPH).
- Langan collected fifteen grab soil samples (three from each of the five hazardous lead delineation borings) for laboratory analysis of total and TCLP lead. Twelve grab soil samples were placed on hold with the laboratory, pending the initial analytical results.
- Samples were relinquished to Alpha Analytical, Inc., an Environmental Laboratory Accredited Program (ELAP)-certified laboratory under standard chain-of-custody protocols.

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### CAMP Activities

Langan performed air monitoring at the perimeter of the site at six locations for particulate matter less than 10 microns in diameter (PM10), VOCs and mercury vapor, during ground-intrusive activities. Fifteen-minute average concentrations of PM10 and VOCs did not exceed action levels established in the site community air monitoring plan (CAMP) for the duration of work activities.

#### Daily Average Concentrations

Station ID	Particulate (mg/m <sup>3</sup> )	Organic Vapor (ppm)	Mercury Vapor (µg/m <sup>3</sup> )
PM-1	0.008	0.0	0.0
PM-2	0.006	0.0	0.0
PM-3	0.006	0.0	0.0
PM-4	0.008	0.0	0.0
PM-5	0.005	0.3	0.2
PM-6	0.010	0.6	0.0

#### Maximum 15-Minute-Average Concentrations

Station ID	Particulate (mg/m <sup>3</sup> )	Organic Vapor (ppm)	Mercury Vapor (µg/m <sup>3</sup> )
PM-1	0.012	0.0	0.1
PM-2	0.021	0.0	0.0
PM-3	0.013	0.0	0.0
PM-4	0.014	0.0	0.0
PM-5	0.018	0.7	* 1.7 @ 10:15am
PM-6	0.025	1.4	0.0

●mg/m<sup>3</sup> = milligrams per cubic meter   ●ppm = parts per million   ●µg/m<sup>3</sup> = micrograms per cubic meter

- \* Mercury vapor concentrations exceeded the action level established in the CAMP from 10:09am to 10:23am at perimeter station PM-5, located along Pearl Street. The exceedances were determined to be erroneous high readings resulting from an equipment malfunction and not a result of ground-intrusive activities associated with drilling activities.
  - Two instantaneous mercury vapor concentrations causing the erroneous exceedance were recorded at 2.1 µg/m<sup>3</sup> and 23.6 µg/m<sup>3</sup>. During the time of the exceedance, AARCO was in the process of advancing waste characterization soil boring WC11B.
  - Drilling activities were immediately halted to investigate the validity of the exceedance. Langan used a Jerome® J505 mercury vapor analyzer to collect readings from the station intake and instantaneous mercury vapor concentrations ranged from 0.00 µg/m<sup>3</sup> to 0.07 µg/m<sup>3</sup>.
  - The Jerome® J405 at perimeter station PM-5 was temporarily disconnected from the remote telemetry system to troubleshoot the issue and was replaced with the spare unit. The Jerome® J505 was used during the equipment replacement and instantaneous mercury vapor concentrations ranged from 0.00 µg/m<sup>3</sup> to 0.06 µg/m<sup>3</sup>.
  - The spare Jerome® J405 unit at perimeter station PM-5 continued to read 0.00 µg/m<sup>3</sup> for the remainder of the day.
- Langan used a Jerome® J505 mercury analyzer to monitor ambient air conditions throughout the site. Instantaneous mercury vapor concentrations ranged from 0.00 µg/m<sup>3</sup> to 0.10 µg/m<sup>3</sup>.
- Perimeter air monitoring station PM-1 was relocated to the western sidewalk of Beekman Street from 11:39am to 11:59am during advancement of soil borings WC03A\_N1 and WC03A\_S1.

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- 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. CAMP was discontinued at 12:15pm, after AARCO demobilized from the site.

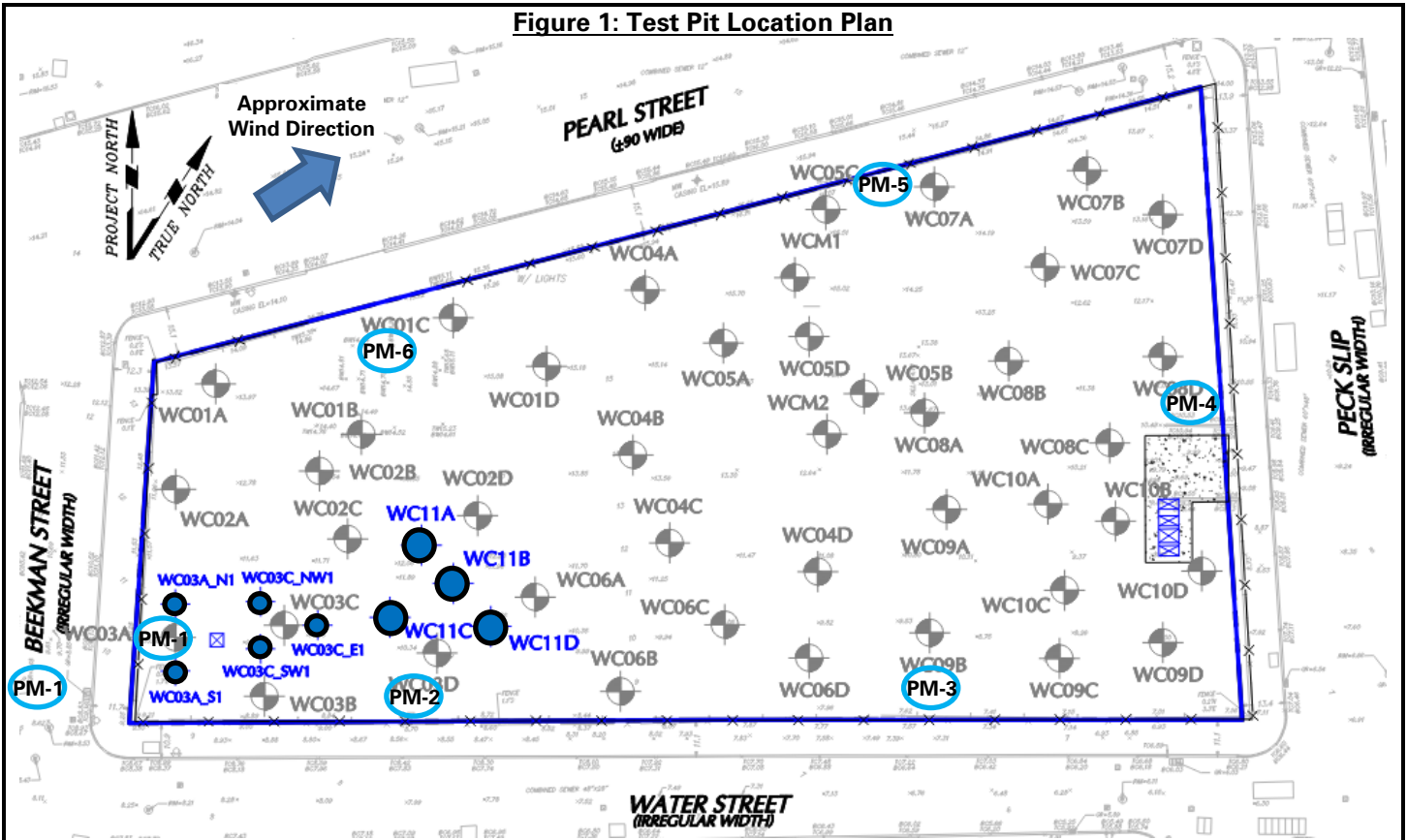
### Anticipated Activities

- None.

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**Figure 1: Test Pit Location Plan**



**Legend:**

- Approximate location of soil borings completed today
- PM-1 Approximate location of 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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### Select Site Photographs:



Photo 1: View of AARCO advancing a delineation soil boring in the southwestern portion of the site (facing west).



Photo 2: View of soil/fill recovered from waste characterization soil boring WC11A.

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