

## 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> Thursday, July 30, 2020  <b>WEATHER:</b> Sunny, 80-92 °F Wind: SSW @ 1.0 mph (9:16am) to S @ 5.6 mph (10:21am)  <b>TIME:</b> 5:45 am – 4:30 pm
<b>CONTRACTOR:</b> AARCO Environmental Services Corp.		<b>LANGAN REP. :</b> Ashley Stappenbeck Adrian Heath
<b>EQUIPMENT:</b> Geoprobe 7822 DT Niton XL3t XRF Jerome J505 and J405 MiniRAE 3000 Dusttrak DRX	<b>PRESENT AT SITE:</b> <span style="float: right;"><b>RI Day 8</b></span> Ashley Stappenbeck, Adrian Heath – Langan Sergio Magana, Jose Romero – AARCO Environmental Services Corp.	
<b>OBSERVATIONS, DISCUSSIONS, TEST RESULTS, ETC.:</b>  Langan continued implementing Phase 3 of the May 13, 2020 Remedial Investigation Work Plan (RIWP) for New York State Department of Environmental Conservation (NYSDEC) Brownfield Cleanup Program (BCP) Site No. C231127 located at 250 Water Street (Manhattan Block 98, Lot 1).  <b>Site Activities</b> <ul style="list-style-type: none"> <li>• AARCO used a Geoprobe 7822 DT drill rig with 4-foot-long Macro-Core® samplers to advance five soil borings. Langan documented the work, screened the soil samples for environmental impacts, and collected soil samples.           <ul style="list-style-type: none"> <li>○ Boring SB18: Boring was advanced to 20 feet below grade surface (bgs). No petroleum-like odors, staining, or photoionization detector (PID) readings above background were observed. Visual evidence of elemental mercury was not identified. A maximum mercury vapor concentration above background of 0.21 micrograms per cubic meter (<math>\mu\text{g}/\text{m}^3</math>) was identified with a Jerome J505 unit from 8 to 10 feet bgs. Total mercury concentrations evaluated with the Niton XL3t XRF (XRF) were less than the limit of detection (LOD).</li> <li>○ Boring SB20: Boring was advanced to 32 feet bgs. Petroleum-like odors, staining, and PID readings up to 370.4 parts per million (ppm) were observed from 17 to 24 feet bgs. Visual evidence of elemental mercury was not identified. A maximum mercury vapor concentration above background of 0.03 <math>\mu\text{g}/\text{m}^3</math> was identified with a Jerome J505 unit from 6 to 8 feet bgs. Total mercury concentrations evaluated with the XRF were less than the LOD.</li> <li>○ Boring SB16: Boring was advanced to refusal at 10 feet bgs. Wood with a creosote-like odor was identified in the cutting shoe at the refusal depth. Four step-off borings were attempted around the original boring location. No petroleum-like odors, staining, or PID readings above background were observed in soil. Visual evidence of elemental mercury was not identified. A maximum mercury vapor concentration above background of 0.07 <math>\mu\text{g}/\text{m}^3</math> was identified with a Jerome J505 unit from 4 to 6 feet bgs. Total mercury concentrations evaluated with the XRF were less than the LOD.</li> <li>○ Boring SB21: Boring was advanced to refusal 10 feet bgs. Wood with a creosote-like odor was identified in the cutting shoe at the refusal depth. Four step-off borings were attempted around the original boring location. Petroleum-like odors, staining, and PID readings up to 42.9 ppm were observed from 6 to 8 feet bgs. Visual evidence of elemental mercury was not identified. A maximum mercury vapor concentration</li> </ul> </li> </ul>		
<b>Cc:</b>	J. Yanowitz, P. McMahon, M. Raygorodetsky	<b>By:</b> Ashley Stappenbeck  <b>LANGAN</b>

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above background of 0.08  $\mu\text{g}/\text{m}^3$  was identified with a Jerome J505 unit from 8 to 10 feet bgs. Total mercury concentrations evaluated with the XRF were less than the LOD.

- Boring SB22: Boring was advanced to refusal at 9.5 feet bgs. Wood with a creosote-like odor was identified in the cutting shoe at the refusal depth. Three step-off borings were attempted around the original boring location. No petroleum-like odors, staining, or PID readings above background were observed in soil. Visual evidence of elemental mercury was not identified. A maximum mercury vapor concentration above background of 0.14  $\mu\text{g}/\text{m}^3$  was identified with a Jerome J505 unit from 2 to 4 feet bgs. Total mercury concentrations evaluated with the XRF were less than LOD.
- All soil borings were backfilled with drill cuttings from the borehole, clean sand, and/or bentonite and then 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.
- Impacted soil cutting from borings SB20 and SB21 were containerized and sealed in a 55-gallon drum; the drum was stored on site for future off-site disposal.

### **Sampling**

The following samples were collected and relinquished to Eurofins Lancaster Laboratories Environmental, Inc. (Eurofins) a New York State Department of Environmental Health (NYSDOH) Environmental Laboratory Approval Program (ELAP)-certified laboratory in Lancaster, Pennsylvania (ELAP No. 10670) for analyses proposed in the RIWP:

- The following sample depths were submitted for analysis of volatile organic compounds (VOC), semivolatile organic compounds (SVOC), polychlorinated biphenyls (PCB), pesticides, herbicides, metals including mercury and hexavalent and trivalent chromium, total cyanide, 1,4-dioxane, and per- and polyfluoroalkyl substances (PFAS):
  - SB18: 0-2, 7-8, and 18-20 feet bgs
  - SB20: 0-2, 10-12, and 20-22 feet bgs
- The following sample depths were submitted for analysis of VOCs, SVOCs, and metals including mercury and hexavalent and trivalent chromium:
  - SB20: 30-32 feet bgs
- Three quality assurance/quality control soil samples (one field blank, one trip blank, and one equipment blank) were collected and submitted for analysis.

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### CAMP Activities

Langan performed air monitoring during ground-intrusive activities. Fifteen-minute average concentrations of mercury vapor, particulate matter smaller than 10 microns in diameter (PM10), and VOCs did not exceed action levels for the duration of work activities. Daily background concentrations for PM10, VOCs, and mercury vapor based on the June 16, 2020 baseline air monitoring event were 0.025 milligrams per cubic meter (mg/m<sup>3</sup>) for PM10, 0.5 ppm for VOCs, and 0.0 µg/m<sup>3</sup> for mercury vapor.

Daily Average Concentrations			
Station ID	Particulate (mg/m <sup>3</sup> )	Organic Vapor (ppm)	Mercury Vapor (µg/m <sup>3</sup> )
PM-1	0.027	0.4	0.1
PM-2	0.036	0.0	0.0
PM-3	0.030	0.0	0.0
PM-4	0.019	0.0	0.0
PM-5	0.018	0.5	0.0
PM-6	0.020	0.0	0.0
WZ-1	0.018	0.3	0.1

mg/m<sup>3</sup> = milligrams per cubic meter

ppm = parts per million

µg/m<sup>3</sup> = micrograms per cubic meter

Maximum 15-Minute-Average Concentration			
Station ID	Particulate (mg/m <sup>3</sup> )	Organic Vapor (ppm)	Mercury Vapor (µg/m <sup>3</sup> )
PM-1	0.035	0.7	0.6
PM-2	0.043	0.0	0.0
PM-3	0.048	0.0	0.1
PM-4	0.030	0.3	0.0
PM-5	0.026	1.6	0.0
PM-6	0.034	0.0	0.0
WZ-1	0.030	0.7	0.3

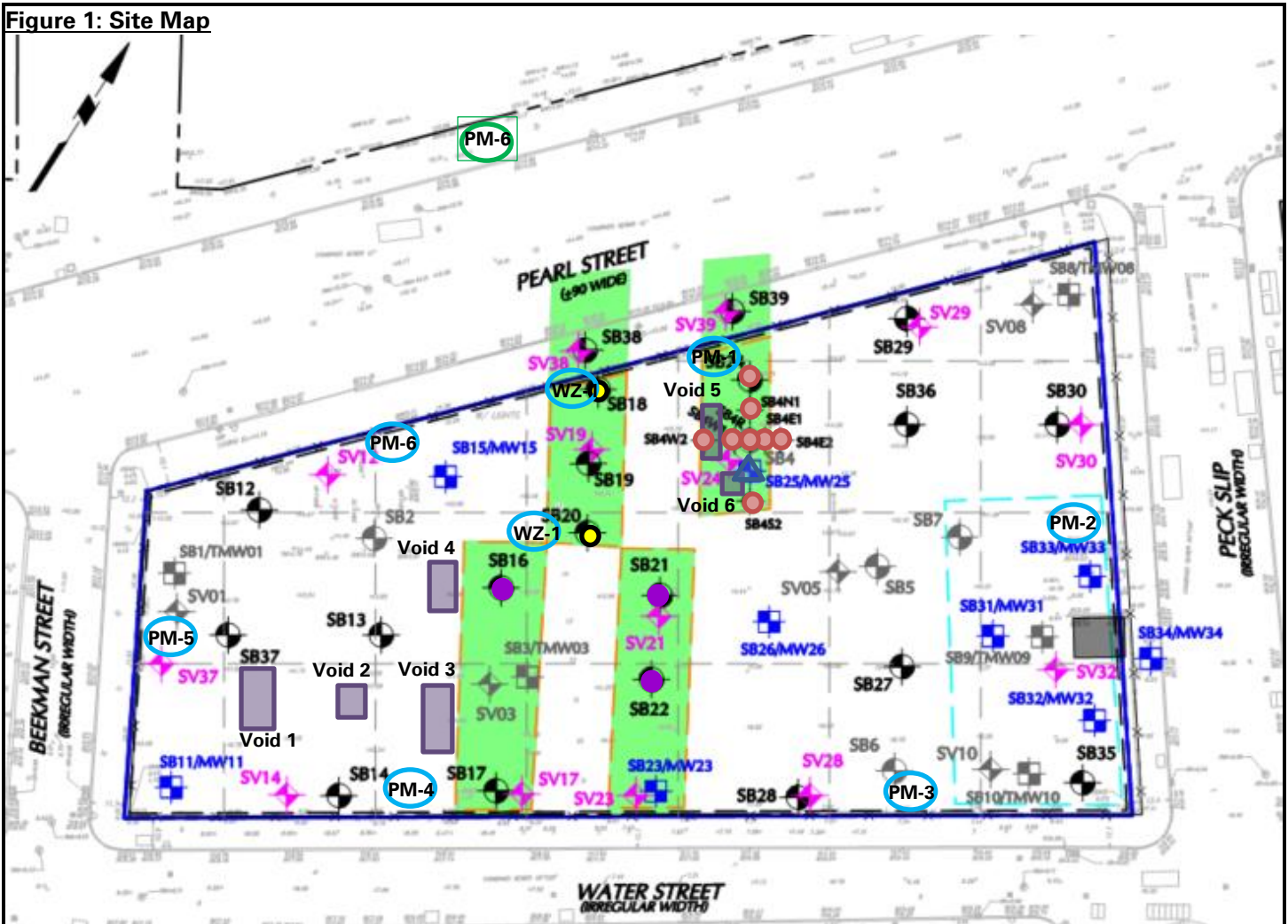
### Anticipated Activities

- AARCO and Langan will continue to advance and sample soil borings and install monitoring wells within the Phase 3 work area.

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Figure 1: Site Map



**Legend:**

- Site Boundary
- Approximate area of suspected void space
- Approximate location of soil borings sampled
- Approximate location of previously sampled soil borings
- Approximate location of soil borings advanced to refusal
- ▲ Approximate location of previously completed soil borings and monitoring well
- PM-1 Approximate location of air monitoring station (on-site)
- PM-1 Approximate location of air monitoring station (off-site)
- WZ-1 Approximate locations of work zone air monitoring station

**Notes:**

1) Air monitoring station 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:

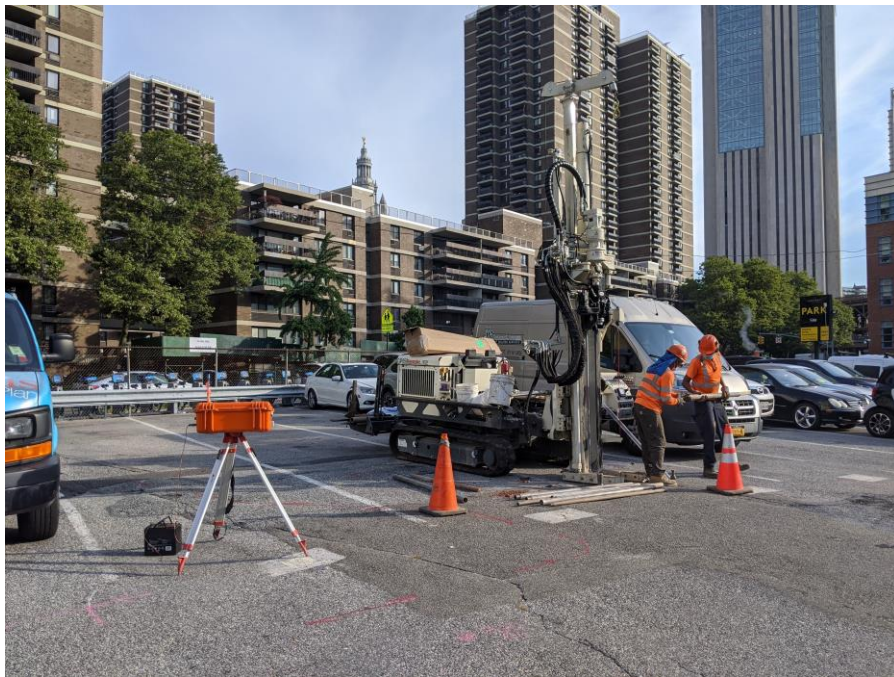


Photo 1: AARCO advancing soil boring SB20 in the northern part of the site (facing north)



Photo 2: View of soil from boring SB18

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Photo 3: View of Langan checking air monitoring station WZ-1 while AARCO advances soil boring SB16 (facing south)



Photo 4: View of wood found at refusal depth at boring SB16 (facing northwest)

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