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SITE OBSERVATION REPORT

PROJECT No.: 170381202		**DATE:**	Friday, July 31, 2020
PROJECT: 250 Water Street	**CLIENT:** 250 Seaport District, LLC	**WEATHER:**	Rain/Overcast, 70-85 ^{0}F Wind: SSE @ 0.4 mph (7:40am) to E @ 4.0 mph (1:40pm)
LOCATION: New York, NY		**TIME:**	6:00 am – 4:30 pm
BCP SITE ID: C231127			
CONTRACTOR: AARCO Environmental Services Corp.		**LANGAN REP. :**	Ashley Stappenbeck Adrian Heath

EQUIPMENT:	**PRESENT AT SITE:** **RI Day 9**
Geoprobe 7822 DT Niton XL3t XRF Jerome J505 and J405 MiniRAE 3000 Dusttrak DRX	Ashley Stappenbeck, Adrian Heath – Langan Sergio Magana, Jose Romero – AARCO Environmental Services Corp.

OBSERVATIONS, DISCUSSIONS, TEST RESULTS, ETC.:

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).

Site Activities

- AARCO used a Geoprobe 7822 DT drill rig with 4-foot-long Macro-Core® samplers to advance three soil borings. Langan documented the work, screened the soil samples for environmental impacts, and collected soil samples for laboratory analysis.
    - Boring SB17: Boring was advanced to 32 feet below grade surface (bgs). Petroleum-like odors, staining, and photoionization detector (PID) readings up to 57.1 parts per million (ppm) were observed from about 9.5 feet to 28 feet bgs. Visual evidence of elemental mercury was not identified. A maximum mercury vapor concentration above background of 0.14 micrograms per cubic meter (µg/m^3) was identified with a Jerome J505 unit from 12 to 14 feet bgs. Total mercury concentrations evaluated with the Niton XL3t XRF (XRF) were less than the limit of detection (LOD).
    - Boring SB23: Boring was advanced to 28 feet bgs. Petroleum-like odors, staining, and PID readings up to 93 ppm were observed from about 6 to 24 feet bgs. Visual evidence of elemental mercury was not identified. A maximum mercury vapor concentration above background of 0.04 µg/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 the LOD.
    - Boring SB22 Re-drill: Additional step-off borings were attempted, and refusal was encountered at 10 feet bgs. Wood or concrete were encountered in the cutting shoe at refusal depths. 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 0.05 µg/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 the LOD.
- AARCO used a Geoprobe 7822 DT drill rig to install monitoring well MW17.
    - MW17 consists of a 2-inch diameter polyvinyl chloride (PVC) monitoring well with 20-slot well screen from about 7 to 17 feet bgs. MW17 will be developed on Monday August 3, 2020.

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- 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 SB17 and SB23 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):
  - SB17: 0-2, 14-16, and 30-32 feet bgs
  - SB23: 0-2, 9-11, and 26-28 feet bgs
- Four quality assurance/quality control soil samples (one equipment blank, one trip blank, one equipment blank, and soil duplicate) 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^3) for PM10, 0.5 ppm for VOCs, and 0.0 $\mu g/m^3$ for mercury vapor.

Daily Average Concentrations			
Station ID	Particulate (mg/m^3)	Organic Vapor (ppm)	Mercury Vapor ($\mu g/m^3$)
PM-1	0.014	0.0	0.0
PM-2	0.023	0.0	0.0
PM-3	0.016	0.0	0.0
PM-4	0.010	0.0	0.0
PM-5	0.011	0.8	0.0
PM-6	0.009	0.0	0.0
WZ-1	0.010	0.0	0.0

mg/m^3 = milligrams per cubic meter
ppm = parts per million
$\mu g/m^3$ = micrograms per cubic meter

Maximum 15-Minute-Average Concentration			
Station ID	Particulate (mg/m^3)	Organic Vapor (ppm)	Mercury Vapor ($\mu g/m^3$)
PM-1	0.018	0.0	0.0
PM-2	0.032	0.0	0.0
PM-3	0.021	0.0	0.3
PM-4	0.021	1.1	0.0
PM-5	0.017	1.7	0.0
PM-6	0.020	0.0	0.0
WZ-1	0.023	0.0	0.0

Anticipated Activities

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

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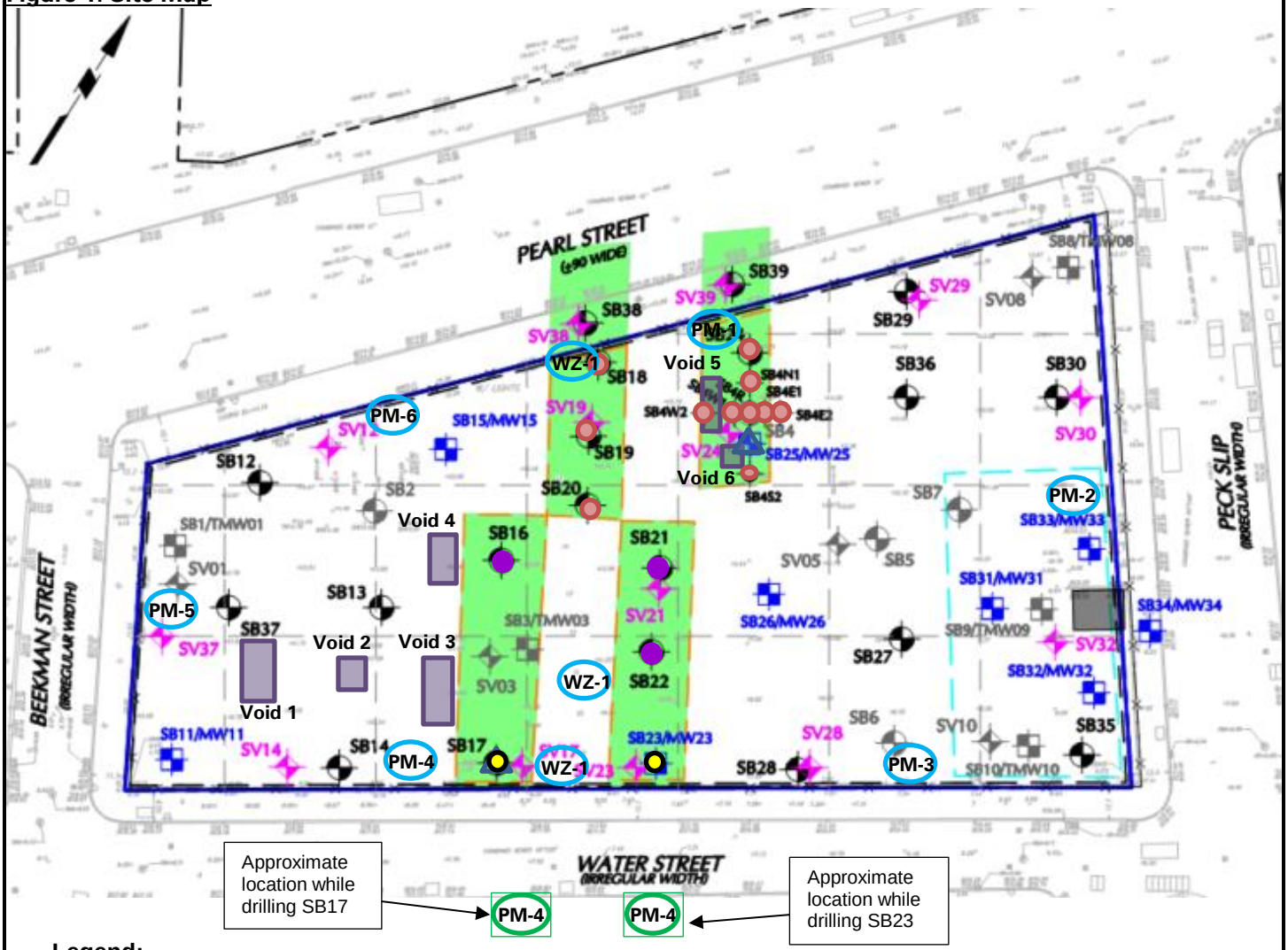
Figure 1: Site Map



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 completed 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 SB17 in the southern part of the site (facing south)

Photo 2: AARCO installing monitoring well MW17 (facing northwest)

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Photo 3: Work zone station WZ-1 and perimeter station PM-4 while AARCO advances boring SB-23 (facing south)

Photo 4: AARCO advancing SB-23 (facing southeast)

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