LANGAN

SITE OBSERVATION REPORT

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.:

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).

Site Activities

- 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:
    - TP04 (about 5 feet long by 5 feet wide) was excavated to a maximum depth of about 8 feet below grade surface (bgs).
        - 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/m^3 to 0.06 µg/m^3 (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/m^3 was observed.

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.

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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/m^3 = milligrams per cubic meter ●ppm = parts per million ●µg/m^3 = 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. 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/m^3 to 0.06 µg/m^3.
    - The work zone station (WZ-1) and nearby perimeter stations PM-3 and PM-6 remained at 0.0 µg/m^3 throughout this time period.
    - Instantaneous readings on the PM-5 Jerome® J405 unit during this time period ranged from 0.0 µg/m^3 to 23.8 µg/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 µg/m^3

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was recorded. The CAMP monitor collected Jerome® J505 readings at the station intake, and the Jerome® J505 unit read 0.00 µg/m^3 at the same time the PM-5 station Jerome® J405 unit recorded a reading of 14.81 µg/m^3.
    - 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.
    - 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/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 µg/m^3 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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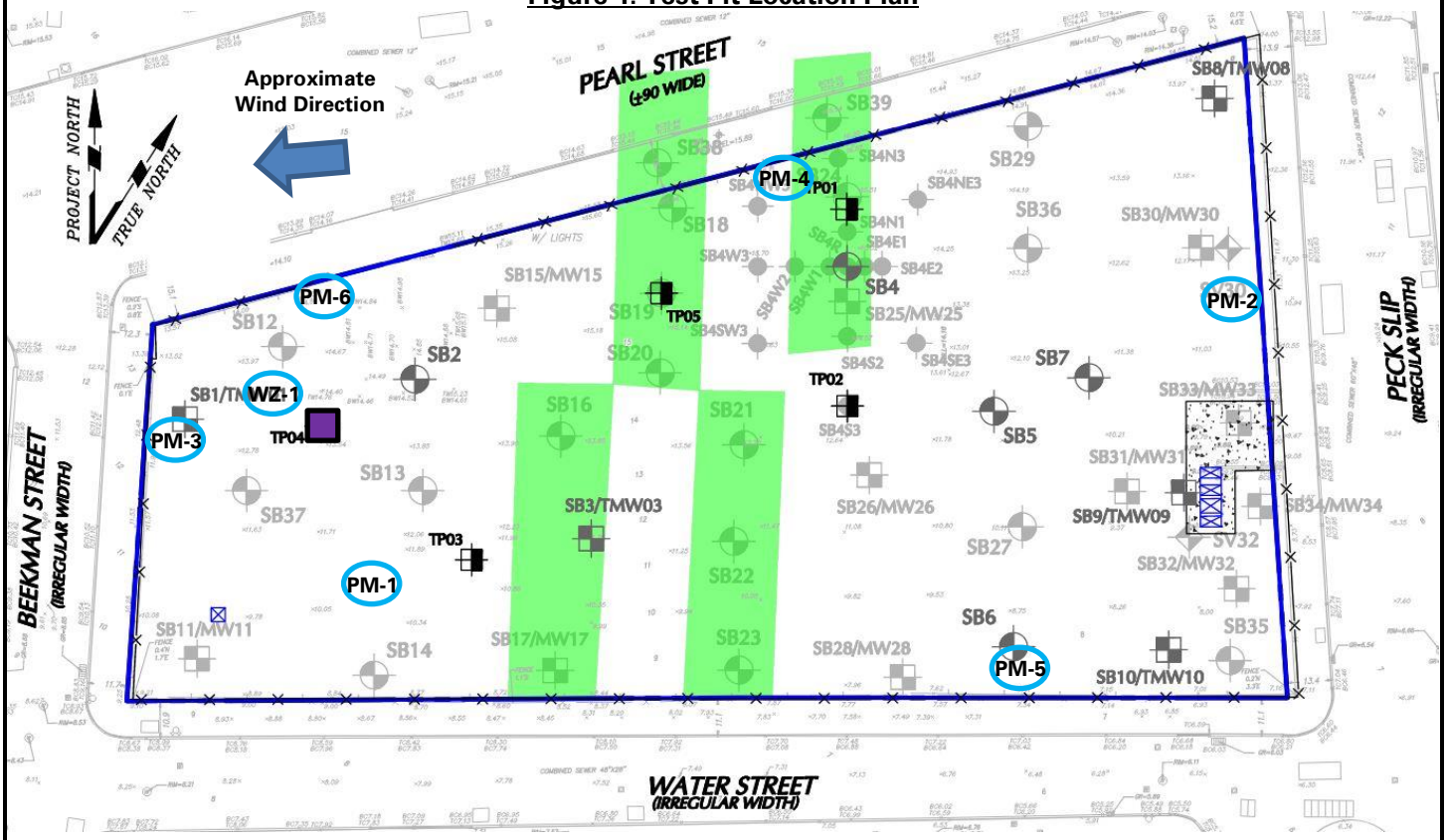
Figure 1: Test Pit Location Plan



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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Select Site Photographs:

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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