SITE OBSERVATION REPORT

PROJECT No.: 170381202	**CLIENT:** 250 Seaport District, LLC c/o The Howard Hughes Corporation	**DATE:**	Thursday, July 21, 2022
PROJECT: 250 Water Street		**WEATHER:**	Overcast/Rain, 81.1 – 89.0 ˚F Wind: WSW @ 0.8 – 4.9 mph
LOCATION: New York, NY		**TIME:**	6:00 AM – 4:30 PM
BCP SITE ID: C231127		**MONITOR:**	Elsah Boak, Brian Kenneally

EQUIPMENT:
MiniRAE 3000 PID
DustTrak II
Jerome J405®
Jerome J505®
Hand tools
CAT 374F
Komatsu 969
Komatsu 228
Takeuchi TB290

PRESENT AT SITE: **Day 44**
Langan (Environmental/Geotechnical) – Elsah Boak, Brian Kenneally, Lisa Cristiano, Ava Sann, Kevin Leong
LendLease (Construction Manager) – Marty Cohen
Civetta Cousins JV, LLC (CCJV) (Foundation Contractor) – Jack Dettra, George Washburn
New York State Department of Environmental Conservation (NYSDEC) – Rafi Alam
UBS (Fence Contractor)

OBSERVATIONS, DISCUSSIONS, TEST RESULTS, ETC.:

Langan was present to document remediation activities in accordance with the NYSDEC-approved November 2021 Remedial Action Work Plan (RAWP) at the 250 Water Street site (NYSDEC Brownfield Cleanup Program [BCP] Site No. C231127).

Site Activities

- CCJV completed installation of support-of-excavation (SOE) soldier piles SP1 through SP21 along the northern boundary of the site.
- CCJV installed odor neutralizing sleeves on the interior of the perimeter construction fencing along the eastern and southern boundaries of the site.
- UBS installed additional plywood panels atop the perimeter construction fence along Pearl Street to extend the fence to a height of about 10 feet above grade surface.
- CCJV continued demolishing concrete surrounding the four previously identified underground storage tanks (USTs) using an excavator with a jackhammer attachment. The four USTs were removed from the excavation area in the eastern part of the site and were placed on and covered with polyethylene sheeting in the southeastern part of the site in preparation for additional cleaning activities at a later date.
    - Demolished concrete (about 55 cubic yards [CY]) was stockpiled on polyethylene sheeting. Atmos® AC-645 dust/vapor suppressing foam was applied to the demolished concrete and the stockpile was covered with polyethylene sheeting in preparation for off-site disposal.
    - Following removal of the USTs, CCJV temporarily backfilled the excavation area using excavated soil/fill originating from the same location, which was previously contained within two roll-off containers located in the east-central part of the site.
- CCJV excavated two test pits along the eastern boundary of the site for future installation of SOE soldier piles **SP30** and **SP31.** Each test pit consisted of an about 3-foot-long by 2-foot-wide area and was excavated to a maximum depth of about 4 feet below grade surface (bgs).

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- Excavated soil/fill was temporarily stockpiled adjacent to each respective work area on polyethylene sheeting and was screened for odors, staining, organic vapors, and mercury vapor using a handheld PID and handheld Jerome® J505 mercury vapor analyzer, respectively. No odors, staining, or instrumental evidence (PID and Jerome® J505) of contamination was recorded.
- Subsurface utilities or obstructions were not identified. Excavated soil/fill from each test pit was covered with polyethylene sheeting and will be temporarily backfilled into each respective test pit following installation of SOE soldier piles SP30 and SP31.

- CCJV excavated an about 10-foot-long by 2-foot-wide area to a maximum depth of about 8 feet bgs in the northeastern part of the site to investigate the extents of a previously identified steam line.
  - Construction & demolition (C&D) debris, consisting of demolished concrete, was removed from the excavation area and stockpiled in the northeastern part of the site in preparation for off-site disposal.
  - Excavated soil/fill was temporarily stockpiled adjacent to the work area on polyethylene sheeting and was screened for odors, staining, organic vapors, and mercury vapor using a handheld PID and handheld Jerome® J505 mercury vapor analyzer, respectively. No odors, staining, or instrumental evidence (PID or Jerome® J505) of contamination was recorded. The excavated soil/fill was covered with polyethylene sheeting and will be temporarily backfilled into the excavation area at a later date.
- CCJV excavated an about 10-foot-long by 5-foot-wide area to a maximum depth of about 4 feet bgs in the north-central part of the site to facilitate demolition of a previously identified concrete foundation wall prior to SOE lagging installation between soldier piles SP01 through SP03.
  - CCJV demolished the previously identified concrete foundation wall and demolished concrete was temporarily stockpiled adjacent to the excavation area in preparation for off-site disposal.
  - Excavated soil/fill was temporarily stockpiled adjacent to the excavation area on polyethylene sheeting and was screened for odors, staining, organic vapors, and mercury vapor using a handheld PID and handheld Jerome® J505 mercury vapor analyzer, respectively.
    - A maximum instantaneous mercury vapor concentration of 63.1 µg/m^3 was recorded at 3:36pm during screening of the excavated soil/fill using the handheld Jerome® J505 mercury vapor analyzer. Work was immediately halted across the site and Mercon-X® was applied to exposed soil/fill and stockpiles as a proactive measure and in advance of a 15-minute time-weighted average (TWA) exceedance of the action level established in the community air monitoring plan (CAMP).
    - During application of Mercon-X® across the excavation area, the 15-minute TWA action level for mercury vapor (1.00 µg/m^3) was exceeded at perimeter CAMP station PM-6, which was located about 30 feet from the work area, for a duration of about 6 minutes (from 3:48pm to 3:53pm). The maximum 15-minute TWA concentration of mercury vapor was recorded at 1.08 µg/m^3 and was caused by instantaneous mercury vapor concentrations ranging from 1.0 µg/m^3 to 3.4 µg/m^3. During this time, off-site CAMP station WZ-1 was located on the northern sidewalk of Pearl Street and no instantaneous mercury vapor concentrations above background conditions were recorded.
    - Following application of Mercon-X®, exposed soil/fill and stockpiles were covered with polyethylene sheeting. As an additional measure, Atmos® AC-645 odor/vapor suppressing foam was sprayed atop the polyethylene sheeting and mercury vapor concentrations returned to background conditions at approximately 4:00pm. Construction activities ceased for the

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remainder of the work day, however, CAMP was implemented until at least 4:30pm before implementing shutdown protocols (ie. collecting background readings at each CAMP station).

- CCJV covered all exposed soil/fill and C&D debris with polyethylene sheeting and/or Atmos® AC-645 dust/vapor suppressing foam to create a temporary overnight cover at the end of the work day.

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Material Tracking

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

Material Import Summary						
Facility Name Location Type of Material	**Stone Industries, Inc. Haledon, NJ 1.5/2.5-inch Virgin Stone**		**Stone Industries, Inc. Haledon, NJ 0.75-inch Virgin Stone**		**Impact Reuse & Recovery or Impact Materials Jersey City, Lyndhurst/Jersey City, NJ 1.5 inch Clean Bluestone**	
Quantities	No. of Loads	Approx. Volume (Tons)	No. of Loads	Approx. Volume (Tons)	No. of Loads	Approx. Volume (Tons)
Today	0	0	0	0	0	0
Total	7	161.51	0	0	2	41.23
NYSDEC Approved:	1,000 CY				400 CY	

Material Export Summary						
Facility Name Location Type of Material	**Allocco Recycling Brooklyn, NY Construction & Demolition (C&D) Debris**		**IRRC Lyndhurst, NJ Construction & Demolition (C&D) Debris**		**Clean Earth of North Jersey Kearny, NJ Hazardous Lead-Impacted Soil/Fill**	
Quantities	No. of Loads	Approx. Volume (CY)	No. of Loads	Approx. Volume (CY)	No. of Loads	Approx. Volume (CY)
Today	0	0	0	0	0	0
Total	1	25	3	60	14	280

Sampling Activities

- No samples were collected.

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CAMP Activities

Langan performed air monitoring at the perimeter of the site and at the work zone at eight total locations for mercury vapor, volatile organic compounds (VOCs), and particulate matter less than 10 microns in diameter (PM10), during ground-intrusive activities. There were no fifteen-minute average concentrations for VOCs that approached or exceeded the action level established by the CAMP (5.0 ppm).

Background Concentrations

Prior to implementation of ground-intrusive work, instantaneous background concentrations of mercury vapor and VOCs were recorded using a handheld Jerome® J505 mercury vapor analyzer and a handheld PID, respectively.

- Background concentrations of mercury vapor at each CAMP station ranged from 0.00 to 0.07 µg/m^3.
- Background concentrations of VOCs at each CAMP station were recorded at 0.0 ppm.

Perimeter and Work Zone Concentrations

Daily Average Concentrations

Station ID	Particulate (mg/m^3)	Organic Vapor (ppm)	Mercury Vapor (µg/m^3)
PM-1	0.042	0.0	0.01
PM-2	0.055	0.0	0.01
PM-3	0.040	0.0	0.00
PM-4	0.050	0.2	0.00
PM-5	0.042	0.1	0.01
PM-6	0.048	0.1	0.05
WZ-1	0.055	0.0	0.01
WZ-2	0.026	0.0	0.01
WZ-3	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)
Action Level	**0.100 mg/m^3**	**5.0 ppm**	**1.00 µg/m^3**
PM-1	0.069	0.0	0.05
PM-2	0.076	0.2	0.02
PM-3	0.052	0.2	0.00
PM-4	**0.143 @ 2:01pm	0.9	0.01
PM-5	0.056	0.3	0.02
PM-6	0.097	0.9	*1.08 @ 3:51pm
WZ-1	0.067	0.0	0.03
WZ-2	0.052	0.0	0.03
WZ-3	N/A	N/A	N/A

●mg/m^3 = milligrams per cubic meter ●ppm = parts per million ●µg/m^3 = micrograms per cubic meter

- * During application of Mercon-X® across the excavation area in the north-central part of the site, the 15-minute TWA action level for mercury vapor (1.00 µg/m^3) was exceeded at perimeter CAMP station PM-6, which was located about 30 feet from the work area, for a duration of about 6 minutes (from 3:48pm to 3:53pm). Work was previously halted across the site at 3:36pm due to an instantaneous mercury vapor reading of 63.1 µg/m^3,

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which was recorded during screening of excavated soil/fill using the handheld Jerome® J505 unit. The maximum 15-minute TWA concentration of mercury vapor was recorded at 1.08 µg/m^3 and was caused by instantaneous mercury vapor concentrations ranging from 1.0 µg/m^3 to 3.4 µg/m^3. During this time, off-site CAMP station WZ-1 was located on the northern sidewalk of Pearl Street and no instantaneous mercury vapor concentrations above background conditions were recorded.

  - Following application of Mercon-X®, exposed soil/fill and stockpiles were covered with polyethylene sheeting. As an additional measure, Atmos® AC-645 odor/vapor suppressing foam was sprayed atop the polyethylene sheeting and mercury vapor concentrations returned to background conditions at approximately 4:00pm. Construction activities ceased for the remainder of the work day, however, CAMP was implemented until at least 4:30pm before implementing shutdown protocols (ie. collecting background readings at each CAMP station).

- ** PM10 concentrations at perimeter CAMP station PM-4 exceeded the action level established in the CAMP (0.100 mg/m^3) for a duration of about 15 minutes (1:53pm to 2:07pm). The maximum 15-minute TWA concentration of PM10 was recorded at 142.6 mg/m^3 and was caused by instantaneous PM10 concentrations ranging from 0.153 mg/m3 to 1.022 mg/m3. Prior to the exceedance, CCJV was in the process of removing the asphalt cover along the eastern boundary of the site to facilitate excavation of a test pit for SOE soldier pile installation. Heavy rain was ongoing and fugitive dust was not observed migrating off-site during this time. PM10 concentrations returned to background conditions at 2:08pm.

<u>Ambient Air (Handheld Jerome® J505 and Handheld PID)</u>

- The dedicated mobile monitor (Langan) used a handheld Jerome® J505 mercury vapor analyzer to monitor ambient air conditions at various heights throughout the site. With the exception of the 15-minute TWA mercury vapor exceedance previously described, instantaneous mercury vapor concentrations throughout the site ranged from 0.00 µg/m^3 to 0.40 µg/m^3.
- The dedicated mobile monitor (Langan) used a handheld PID to monitor VOC concentrations throughout the site. With the exception of ambient air screening during removal of the USTs, instantaneous VOC concentrations were at or below background concentrations throughout the work day. A maximum instantaneous VOC concentration of 8.1 ppm was observed at 9:26am during removal of the USTs in the eastern part of the site, however, VOC concentrations at the nearest perimeter CAMP station (PM-4) were not recorded above background conditions.

<u>Off-Site CAMP Station Relocation</u>

- CAMP station WZ-1 was relocated to the northern sidewalk of Pearl Street from 7:07am to 4:44pm during excavation of test pits and installation of SOE soldier piles along the northern boundary of the site.
- CAMP station WZ-2 was relocated to the eastern sidewalk of Peck Slip from 7:16am to 4:44pm during excavation of test pits and demolition of concrete along the eastern boundary of the site.

<u>Prior to CAMP Shutdown</u>

Prior to discontinuing CAMP and approximately 30 minutes after mercury vapor readings returned to background concentrations at perimeter CAMP station PM-6, air quality at each CAMP station was verified using the handheld PID and handheld Jerome® J505 mercury vapor analyzer and no readings above background concentrations were recorded. Additionally, areas of exposed soil/fill were covered with polyethylene sheeting and/or Atmos® AC-645 dust/vapor suppressing foam. CAMP stations were discontinued at 4:44pm at the conclusion of ground-intrusive activities.

- Mercury vapor concentrations at each CAMP station ranged from 0.00 to 0.08 µg/m^3.
- VOC concentrations at each CAMP station ranged from 0.0 ppm to 0.1 ppm.

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Anticipated Activities

- CCJV will export previously stockpiled C&D debris to the Impact Reuse & Recovery Center (IRRC) facility, located in Lyndhurst, NJ.
- UBS will begin relocation of the perimeter construction fence along the northern sidewalk of Water Street.
- CCJV will continue excavating test pits to identify potential subsurface utilities and/or obstructions prior to SOE soldier pile installation along the eastern boundary of the site.
- CCJV will continue installation of SOE soldier piles along the eastern boundary of the site.

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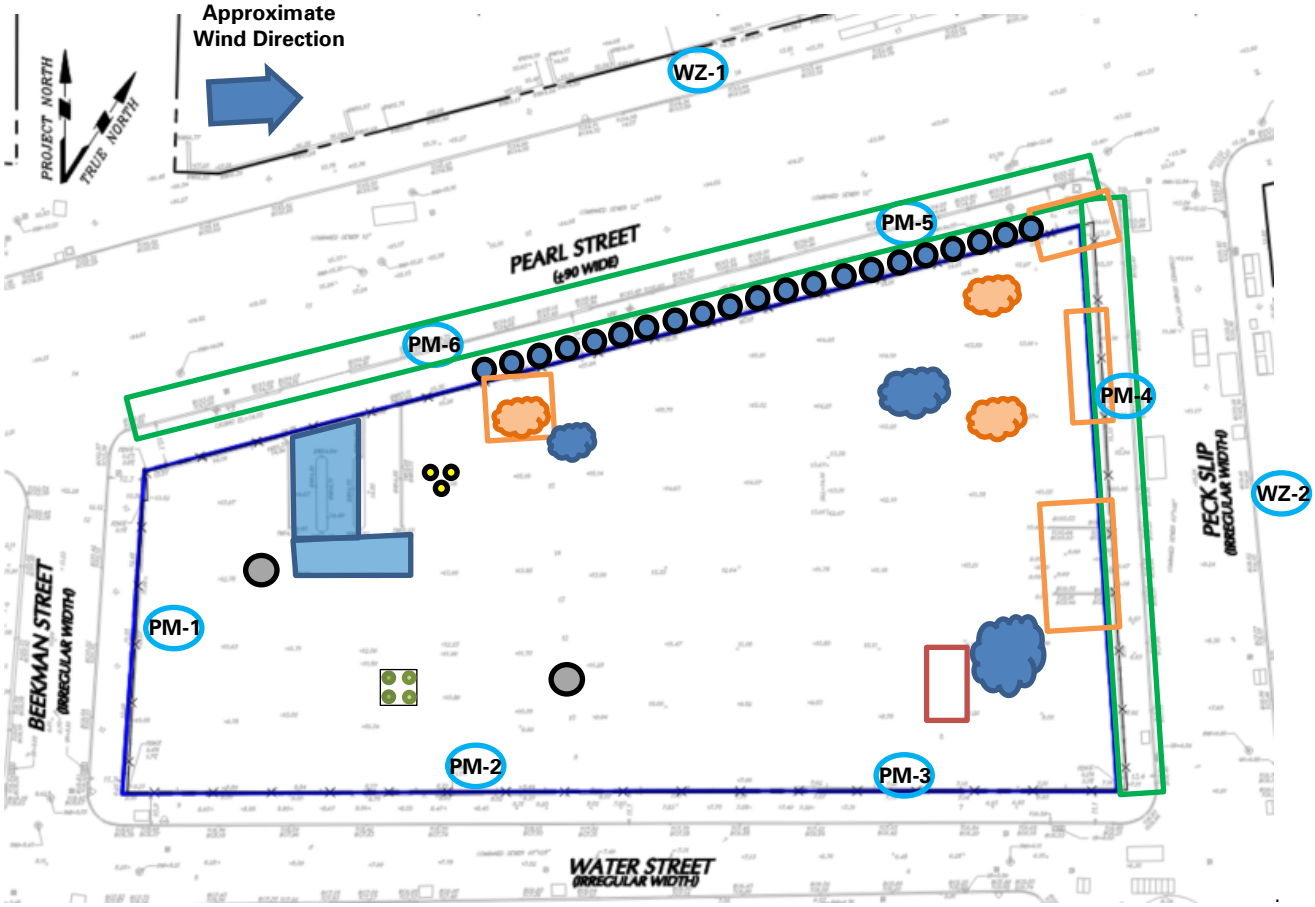
Site Map



Notes:
1) Locations of air monitoring stations are approximate.

Legend:

- PM-1 — Approximate Location of Air Monitoring Station
- Approximate Work Area
- Approximate Location of Installed Pile Cap
- Approximate Location of Foundation Piles Completed
- Approximate Location of Truck Tracking Pad
- Approximate Location of C&D Stockpile
- Approximate Location of Soil/Fill Container
- Approximate Location of Soil/Fill Stockpile
- Approximate location of USTs
- Approximate Location of Stockpiled Virgin Stone
- Approximate Location of 55-gallon drum
- Approximate Location of Test Pile
- Approximate Location of Soldier Pile
- Approximate Fence Relocation Area
- Approximate Location of Soil Boring Completed Today

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Select Site Photographs:

Photo 1: CCJV installing SOE soldier piles along the northern boundary of the site (facing northwest)

Photo 2: View of the excavation area in the north-central part of the site covered with polyethylene sheeting and/or Atmos® AC-645 dust/vapor suppressing foam (facing northwest)

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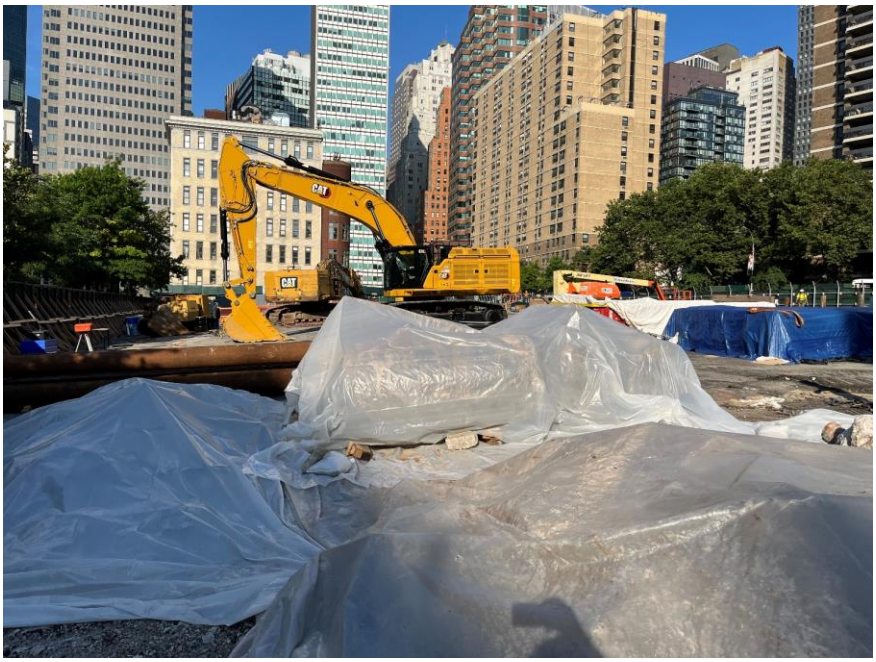

Photo 3: View of the four USTs placed on and covered with polyethylene sheeting (facing northwest)

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