SITE OBSERVATION REPORT

PROJECT No.: 170381202	**CLIENT:** 250 Seaport District, LLC c/o The Howard Hughes Corporation	**DATE:**	Wednesday, July 27, 2022
PROJECT: 250 Water Street		**WEATHER:**	Sunny, 75.2 – 78.0 ˚F Wind: N @ 0.5 – 4.0 mph
LOCATION: New York, NY		**TIME:**	6:00 AM – 5:30 PM
BCP SITE ID: C231127		**MONITOR:**	Brian Kenneally, Elsah Boak

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

PRESENT AT SITE: **Day 50**
Langan (Environmental/Geotechnical) – Brian Kenneally, Elsah Boak, Kevin Leong, Eddie Cai
LendLease (Construction Manager) – Marty Cohen
Civetta Cousins JV, LLC (CCJV) (Foundation Contractor) – Jack Dettra
New York State Department of Environmental Conservation (NYSDEC) – Marnie Chancy
AKRF Inc. (AKRF) (Archaeologist) – Elizabeth Meade
Lakewood Environmental Services Corp (Lakewood) (Drilling Contractor) – Tim Kelly
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 SP23 through SP28 along the northern boundary of the site and SOE soldier piles SP29 through 31 along the eastern boundary of the site.
- CCJV continued excavating an about 90-foot-long by 25-foot-wide area to a maximum depth of about 10 feet below grade surface (bgs) for removal and off-site disposal of non-hazardous, mercury-impacted soil/fill in the north-central part of the site (waste characterization cells WC04 and WC05). Excavated soil/fill was either live-loaded into tri-axle dump trucks or temporarily stockpiled adjacent to the work area prior to being loaded for off-site disposal at the Clean Earth of North Jersey (CENJ) facility, located in Kearny, NJ.
    - Excavated soil/fill was screened for odors, staining, organic vapors, and mercury vapor using a handheld photoionization detector (PID) and handheld Jerome® J505 mercury vapor analyzer, respectively. A maximum instantaneous mercury vapor concentration of 0.89 µg/m^3 was recorded during screening of excavated soil/fill.
    - Mercon-X® and/or Atmos® AC-645 dust/vapor suppressing foam was actively applied to exposed soil/fill and stockpiles during excavation activities.
- CCJV excavated an about 30-foot-long by 15-foot-wide area to a maximum depth of about 10 feet bgs for removal and off-site disposal of non-hazardous soil/fill in the northeastern part of the site (waste characterization cell WC07). Excavated soil/fill was either live-loaded into tri-axle dump trucks or temporarily stockpiled adjacent to the work area prior to being loaded for off-site disposal at the Middlesex County Landfill in East Brunswick NJ.

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  - Excavated soil/fill 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 handheld Jerome® J505) of contamination was recorded.
  - CCJV removed construction and demolition (C&D) debris, consisting of concrete and brick, from the excavation area and stockpiled it on polyethylene sheeting in the east-central part of the site in preparation for off-site disposal.

- CCJV excavated two about 4-foot-long by 3-foot-wide test pits to a maximum depth of about 4 feet bgs to locate potential subsurface utilities and/or obstructions prior to installation of SOE soldier piles along the southern boundary of the site.
  - Excavated soil/fill was temporarily stockpiled on and covered with polyethylene sheeting adjacent to the excavation area 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.
  - A subsurface electrical line was identified during excavation activities. Con Edison is scheduled to investigate the electrical line on July 28, 2022.
- CCJV installed timber lagging between soldier piles SP11 through SP16 to a depth of about 10 feet bgs for SOE system installation along the northern site boundary.
- CCJV installed T-brackets along the edges of soldier piles SP21 through SP27 to accommodate timber lagging installation.
- CCJV placed concrete in previously installed SOE soldier piles along the northern boundary of the site.
- UBS continued installation of perimeter construction fencing, consisting of concrete jersey barriers and plywood panels, along the northern sidewalk of Water Street.
- Lakewood used a Geoprobe® direct-push drill rig with a 4-foot-long Macro-Core® samplers to advance 8 soil borings to determine the extents of previously identified hazardous lead-impacted soil/fill in the south-central part of the site. Langan observed and documented the work, screened the soil samples for environmental impacts, and collected soil samples:
  - Soil borings **SB28_N3, SB28_NW3, SB28_NE3, SB28_NE3a, SB28_NE3b, SB28_NE3c, SB28_NE4a,** and **SB28_NE5a** were advanced to depths ranging between 10 and 12 feet bgs. Material was screened for odors, staining, and organic vapors using a PID. No odors, staining, or instrumental evidence of contamination was recorded.
  - Soil borings were backfilled with non-impacted drilling cuttings and/or clean sand and patched with cold patch asphalt after sampling was completed.
- CCJV covered all exposed soil/fill and construction and demolition (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.
- CCJV exported 18 truckloads (about 360 cubic yards [CY]) of non-hazardous, mercury-impacted soil/fill from waste characterization cells WC04 and WC05 for off-site disposal at the CENJ facility, located in Kearny, NJ.
- CCJV exported 20 truckloads (about 400 CY) of non-hazardous soil/fill from waste characterization cell WC07 for off-site disposal at the Middlesex County Landfill located in East Brunswick, NJ.

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**		**Clean Earth of North Jersey Kearny, NJ Non-hazardous Soil/Fill**		**Middlesex County Landfill East Brunswick, NJ Non-hazardous Soil/Fill**	
Quantities	No. of Loads	Approx. Volume (CY)	No. of Loads	Approx. Volume (CY)	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	18	360	20	400
Total	5	85	10	200	14	280	56	1,120	20	400

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Sampling Activities

- Langan collected two soil samples for laboratory analysis of total and toxicity characteristic leaching procedure (TCLP) lead.
    - An additional 18 soil samples were collected and placed on hold with the laboratory for potential analysis of total and TCLP lead pending receipt of the initial laboratory report.
- Langan collected one composite soil sample for laboratory analysis of NYSDEC Part 375/target compound list (TCL) semivolatile organic compounds (SVOCs), pesticides, herbicides, polychlorinated biphenyls (PCBs), Part 375/target analyte list (TAL) metals (including hexavalent/trivalent chromium and total cyanide), TCLP metals, Resource Conservation and Recovery Act (RCRA) characteristics, paint filter, and full TCLP (minus TCLP volatile organic compounds [VOCs]).
- 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 and at work zones at nine total locations for mercury vapor, VOCs, and particulate matter less than 10 microns in diameter (PM10), during ground-intrusive activities. There were no fifteen-minute average concentrations for mercury vapor or VOCs that approached or exceeded the action level established by the CAMP (1.00 µg/m^3 and 5.0 ppm, respectively).

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 at 0.00 to 0.03 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	0.011	0.0	0.01
PM-2	0.034	0.0	0.01
PM-3	0.031	0.1	0.00
PM-4	0.017	0.1	0.01
PM-5	0.038	0.1	0.02
PM-6	0.024	0.0	0.01
WZ-1	0.026	0.0	0.01
WZ-2	0.009	0.4	0.02
WZ-3	0.019	0.4	0.01

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	0.025	0.0	0.02
PM-2	0.073	0.2	0.02
PM-3	0.056	0.3	0.01
PM-4	0.047	0.4	0.03
PM-5	0.080	0.6	0.07
PM-6	*0.102 a 9:30am	0.1	0.05
WZ-1	0.097	0.0	0.03
WZ-2	0.019	0.6	0.08
WZ-3	0.042	1.6	0.03

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

- * PM10 concentrations at perimeter CAMP station PM-6 exceeded the action level established in the CAMP (0.100 mg/m3) from 9:29am to 9:34am (6 minutes). The exceedance was caused by exhaust from a truck

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exiting the site following delivery of tie-backs for the SOE system. Fugitive dust was not observed migrating from the site during this time.

Equipment Troubleshooting

- PM10 concentrations at off-site CAMP station WZ-2 (located along the Peck Slip sidewalk) were not recorded from 11:19am to 11:52am due to a depleted battery. Upon notification that off-site CAMP station WZ-2 was not transmitting data, the dedicated CAMP monitor investigated the station and observed that the telemetry case and Jerome® J505 unit was stolen. A Jerome® J405 unit was stationed with off-site CAMP station WZ-2 prior to the start of work and a spare Jerome® J505 was placed atop the station for the remainder of the day. The Daily Air Monitoring Report reflects mercury vapor data using the Jerome® J405 from 6:51am to 12:06pm and the Jerome® J505 from 12:06pm to 5:31pm. Following coordination with the New York City Police Department, the depleted battery at off-site CAMP station WZ-2 was replaced and data logging for PM10 resumed at 11:53am. Perimeter CAMP station PM-4 was located between the work area and off-site CAMP station WZ-2 during this time and PM10 concentrations were not recorded above background conditions.

Ambient Air (Handheld Jerome® J505 and Handheld PID)

- The dedicated mobile monitor (Langan) used a handheld Jerome® J505 mercury vapor analyzer to monitor ambient air conditions at various heights throughout the site. Instantaneous mercury vapor concentrations throughout the site ranged from 0.00 µg/m^3 to 0.85 µg/m^3 (mercury vapor concentrations above background conditions are associated with ambient air screening during excavation activities in the mercury-impacted area). There were no 15-minute time-weighted average (TWA) concentrations for mercury vapor that exceeded the action level established in the CAMP at any perimeter or work zone CAMP station.
- The dedicated mobile monitor (Langan) used a handheld PID to monitor VOC concentrations throughout the site. VOC concentrations were at or below background concentrations throughout the work day.

Off-Site CAMP Station Relocation

- CAMP station WZ-1 was relocated to the northern sidewalk of Pearl Street from 6:58am to 5:31pm during excavation activities and SOE soldier pile installation along the northern boundary of the site.
- CAMP station WZ-2 was relocated to the eastern sidewalk of Peck Slip from 6:58am to 5:31pm during installation of SOE soldier piles along the eastern boundary of the site.
- CAMP station WZ-3 was relocated to the southern sidewalk of Water Street from 7:00am to 5:31pm during test pit excavation and installation of the perimeter construction fence along the southern boundary of the site.

Prior to CAMP Shutdown

Prior to discontinuing CAMP, 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 between 5:17pm and 5:31pm at the conclusion of ground-intrusive activities.

- Mercury vapor concentrations at each CAMP station were recorded at 0.02 µg/m^3.
- VOC concentrations at each CAMP station were recorded at 0.0 ppm.

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Anticipated Activities

- UBS will continue relocation of the perimeter construction fence along the northern sidewalk of Water Street.
- CCJV will continue installation of SOE soldier piles along the eastern and southern boundaries of the site.
- CCJV will continue excavation of test pits along the southern boundaries of the site.
- CCJV will continue installation of T-brackets along the edges of soldier piles to accommodate timber lagging installation.
- CCJV will continue installation of timber lagging between soldier piles.
- CCJV will continue excavation and off-site disposal of soil/fill in the northeastern part of the site.

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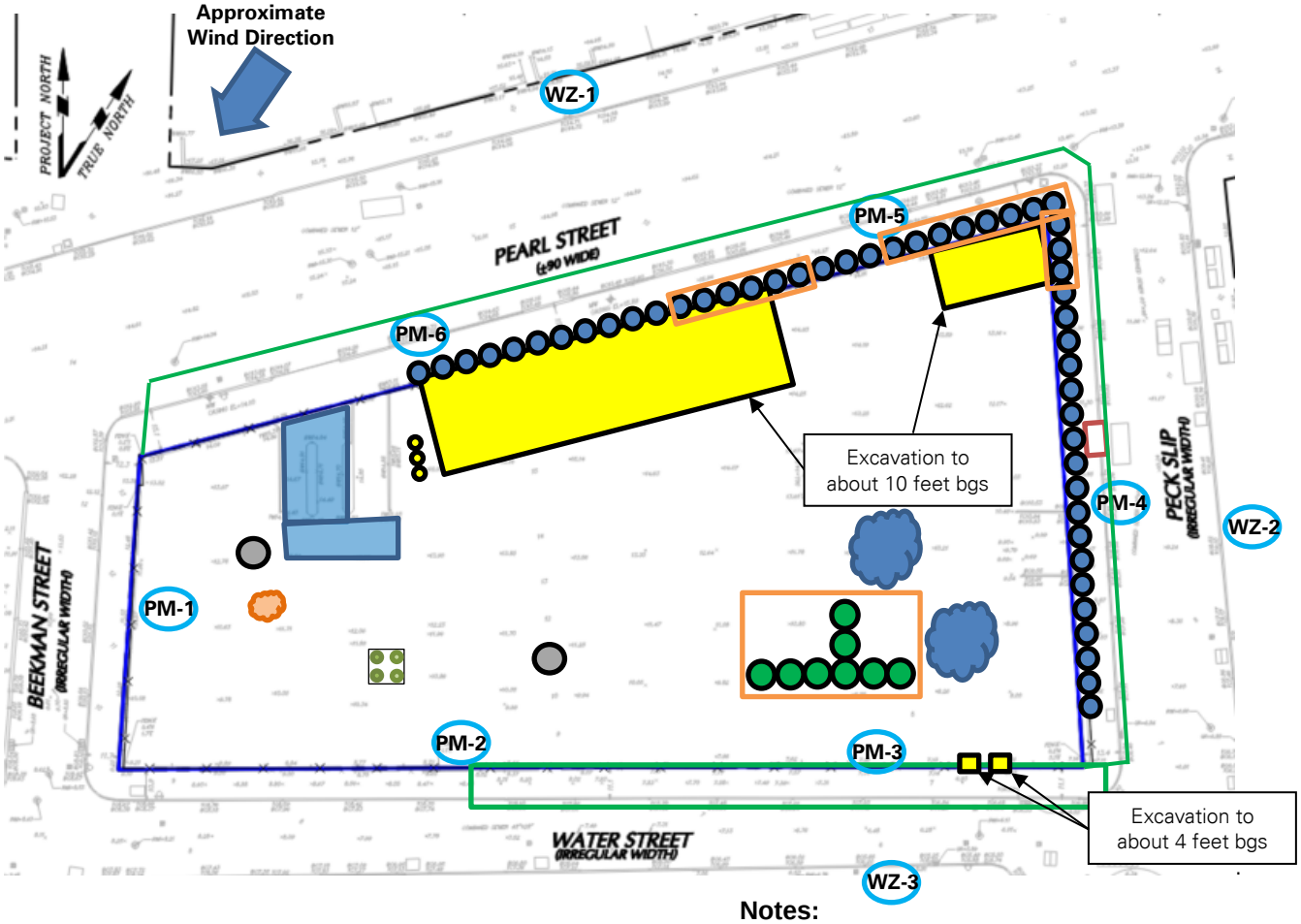
Site Map



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 Perimeter Construction Fence Location
- Approximate Fence Relocation Area
- Approximate Excavation Area
- Approximate Location of Soil Boring Completed Today

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Select Site Photographs:

Photo 1: Atmos® AC-645 dust/vapor suppressing foam and/or polyethylene sheeting applied to exposed soil/fill in the north-central part of the site (facing northwest)

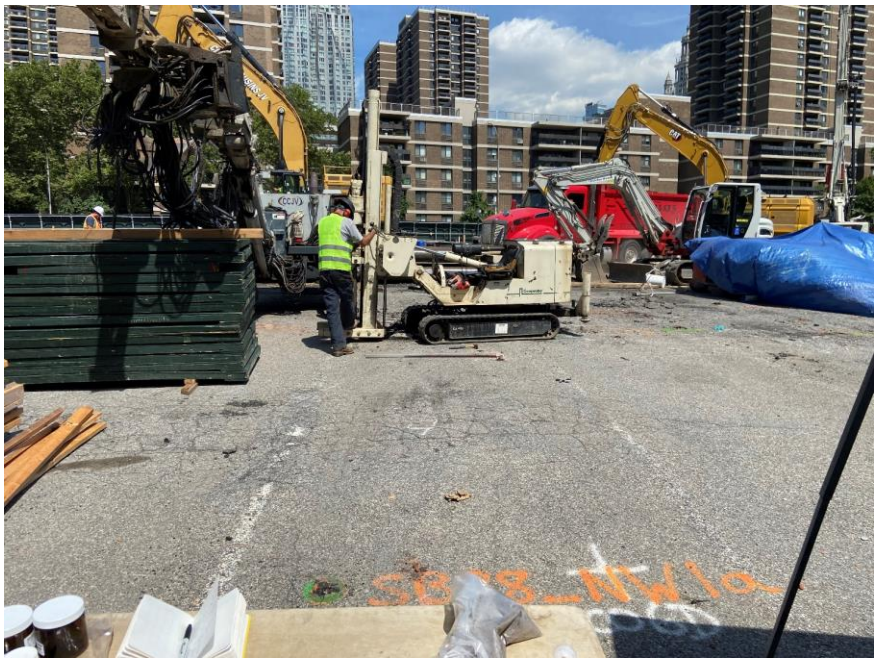

Photo 2: Lakewood advancing a soil boring in the south-central part of the site (facing north)

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