SITE OBSERVATION REPORT

PROJECT No.: 170381202	**CLIENT:** 250 Seaport District, LLC c/o The Howard Hughes Corporation	**DATE:**	Friday, May 20, 2022
PROJECT: 250 Water Street		**WEATHER:**	Fog/Rain, 57.7 – 71.4 ˚F Wind: SSW @ 0.5 – 8.3mph
LOCATION: New York, NY		**TIME:**	6:00 AM – 6:30 PM
BCP SITE ID: C231127		**MONITOR:**	Lauren Roper, Brian Kenneally

EQUIPMENT:
MiniRAE 3000 PID
DustTrak II
Jerome J405®
Jerome J505®
Hand tools
CAT 374F
Komatsu 969
APE Model 150

PRESENT AT SITE: **Day 19**
Langan (Environmental/Geotechnical) – Brian Kenneally, Joe Como, Elsah Boak, Daniel Arnstein
LendLease (Construction Manager) – Marty Cohen
Civetta Cousins JV, LLC (CCJV) (Foundation Contractor) – George Washburn
New York State Department of Environmental Conservation (NYSDEC) – Rafi Alam

OBSERVATIONS, DISCUSSIONS, TEST RESULTS, ETC.:

Langan was present to document remediation and construction 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 welded four steel walers along the interior of the steel sheet pile wall for support-of-excavation (SOE) around the future pile cap area.
- CCJV excavated an approximately 10-foot-long by 5-foot-wide area to a maximum depth of about 5 feet below grade surface (bgs) in the southwestern portion of the site to provide access for a Komatsu 969 excavator for future excavation and removal of soil/fill within the previously installed sheet pile wall.
    - Excavated material consisted of hazardous lead-impacted soil/fill and was screened for visual, olfactory and instrumental evidence of impacts using a handheld photoionization detector (PID) and a handheld Jerome® J505 mercury analyzer. No evidence of impacts were observed. Excavated material was live-loaded directly into trucks and exported to the Clean Earth of North Jersey (CENJ) facility located in Kearny, NJ. Trucks were covered and washed using municipally supplied water before exiting the site.
- CCJV removed soil from the previously installed dewatering well in the southwestern portion of the site.
    - Removed soil was screened for visual, olfactory and instrumental evidence of impacts using a handheld PID and a handheld Jerome® J505 mercury analyzer. No evidence of impacts were observed. Removed soil was temporarily graded into the adjacent area in preparation for off-site disposal at a later date.
- CCJV installed polyvinyl chloride (PVC) piping from the previously installed dewatering well to the dewatering treatment system in the southwestern portion of the site.
- CCJV covered exposed soil/fill, stockpiled 2.5-inch virgin stone, roll-off containers and the dewatering tank with polyethylene sheeting during periods of inactivity and at the conclusion of site activities.

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Material Tracking

- CCJV imported 3 truckloads (69.48 tons) of 2.5-inch virgin stone from the Stone Industries, Inc. facility, located in Haledon, NJ, for tracking pad construction. Imported 2.5-inch virgin stone was temporarily stockpiled atop geotextile fabric in the southwestern portion of the site and covered with polyethylene sheeting for construction of the future tracking pad.
- CCJV exported 4 truckloads (about 80 cubic yards [CY] of hazardous lead-impacted soil/fill to the CENJ facility, located in Kearny, NJ.

Material Import Summary		
Facility Name Location Type of Material	**Stone Industries, Inc. Haledon, NJ 2.5-inch Virgin Stone**	
Quantities	No. of Loads	Approx. Volume (Tons)
Today	3	69.48
Total	5	115.55

Material Export Summary				
Facility Name Location Type of Material	**Allocco Recycling Brooklyn, NY Construction & Demolition (C&D) Debris**		**Clean Earth of North Jersey Kearny, NJ Hazardous Lead Soil**	
Quantities	No. of Loads	Approx. Volume (CY)	No. of Loads	Approx. Volume (CY)
Today	0	0	4	80
Total	1	5	9	180

Sampling

- No samples were collected.

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CAMP Activities

Langan performed air monitoring at the perimeter of the site at six locations for particulate matter less than 10 microns in diameter (PM10), volatile organic compounds (VOCs), and mercury vapor, during ground-intrusive activities. Fifteen-minute average concentrations of VOCs and mercury vapor did not exceed the action levels established in the site community air monitoring plan (CAMP) for the duration of work activities. Prior to implementation of ground-intrusive work, 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 0.01 µg/m^3 to 0.08 µg/m^3.
- Background concentration of VOCs at each CAMP station were recorded at 0.0 parts per million (ppm).

Daily Average Concentrations

Station ID	Particulate (mg/m^3)	Organic Vapor (ppm)	Mercury Vapor (µg/m^3)
PM-1	0.052	0.0	0.1
PM-2	0.058	0.0	0.0
PM-3	0.054	0.0	0.1
PM-4	0.033	0.0	0.1
PM-5	0.029	0.0	0.0
PM-6	0.052	0.1	0.0
WZ-1	-	0.0	0.0

Maximum 15-Minute-Average Concentrations

Station ID	Particulate (mg/m^3)	Organic Vapor (ppm)	Mercury Vapor (µg/m^3)
PM-1	*0.103	0.2	0.2
PM-2	*0.110	0.0	0.0
PM-3	0.096	0.2	0.2
PM-4	0.058	0.0	**0.9
PM-5	0.035	0.1	0.1
PM-6	*0.123	0.3	0.0
WZ-1	-	0.1	0.0

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

- *Particulate concentrations exceeded the action level established in the CAMP from 7:10am to 7:20am at perimeter CAMP stations PM-1, PM-2, and PM-6, upon starting community air monitoring for the day. Elevated background concentrations of PM10 were attributed to poor air quality in New York City, which was listed as "Moderate" to "Unhealthy for Sensitive Groups" in the air quality index (AQI). Maintenance was performed on all perimeter air monitoring stations and site work did not begin until about 8:35am, when background concentrations returned to below the action level.
- **Instantaneous mercury vapor concentrations were recorded at concentrations ranging from 0.7 µg/m^3 to 1.3 µg/m^3 at perimeter CAMP station PM-4, which was located over 200 feet away from the work area along Peck Slip, from 10:24am to 10:34am. During this time, no ground-intrusive activities were ongoing at the site, however, work was immediately halted and Mercon-X® was sprayed on exposed soil/fill in the southwestern portion of the site as a proactive measure. The instantaneous mercury vapor concentrations did not result in a 15-minute time-weighted average exceedance of the CAMP action levels and the dedicated

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CAMP monitor investigated the elevated mercury vapor readings upon notification via the remote telemetry system.
    - The elevated readings were determined to be erroneous and caused by pinched tubing connected to the Jerome® J405 mercury vapor analyzer within the perimeter CAMP station. The dedicated CAMP monitor removed the tubing and reconnected it to the Jerome® J405 mercury vapor analyzer and mercury vapor concentrations returned to background conditions prior to resuming work.
    - Instantaneous mercury vapor concentrations were recorded at perimeter station PM-4 using the handheld Jerome® J505 mercury vapor analyzer during equipment troubleshooting and concentrations ranged from 0.04 µg/m^3 to 0.11 µg/m^3 between 10:35am to 10:44am.
    - Instantaneous mercury vapor concentrations within the work zone ranged from 0.00 µg/m^3 to 0.01 µg/m^3 between 10:24am and 10:44am.
- Langan used two handheld Jerome® J505 mercury analyzers to monitor ambient air conditions throughout the site and within the work zone.
    - Instantaneous mercury vapor concentrations throughout the site ranged from 0.00 µg/m^3 to 0.59 µg/m^3, with the exception of two instantaneous readings discussed below.
        - Two instantaneous mercury vapor concentrations were recorded at 10.75 µg/m^3 (at 11:34am) and at 1.93 µg/m^3 (at 12:36pm) while CCJV was using acetylene gas to weld steel walers to the previously installed sheet pile wall. In coordination with NYSDEC (on site), each instance was the result of direct screening of the fumes generated by welding activities to confirm interference with the handheld Jerome® J505 unit.
    - Instantaneous mercury vapor concentrations within the work zone ranged from 0.00 µg/m^3 to 0.05 µg/m^3.
- Langan used a handheld PID to monitor VOC concentrations within the work zone and throughout the site. VOC concentrations were not detected above background concentrations throughout the work day.
- The DustTrak unit within perimeter CAMP station PM-4 was recalibrated at 9:52am due to negative PM10 concentrations being recorded. Data logging resumed at 9:54am and readings returned to normal conditions.
- Perimeter air monitoring station PM-2 was relocated to the southern sidewalk of Water Street from 6:55am to 4:47pm.
- A dedicated CAMP monitor was stationed with the work zone air monitoring station, which was located between the work zone and perimeter CAMP station PM-2 (across from Water Street), to monitor the units for potential exceedances of the action levels established in the CAMP.
    - PM10, VOCs and mercury vapor concentrations did not exceed the action level established in the CAMP.
    - The work zone station was located upwind from the work area.
    - Elevated concentrations of PM10, VOCs and mercury vapor were not observed at perimeter CAMP station PM-2, which was located across Water Street, during ground-intrusive activities.
    - Fugitive dust or odors were not observed to be migrating off-site.
- 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. CAMP stations were discontinued at 4:47pm at the conclusion of ground-intrusive activities.
    - Mercury vapor concentrations at each CAMP station were recorded ranging from 0.00 µg/m^3 to 0.04 µg/m^3.
    - VOC concentrations at each CAMP station were recorded at 0.0 ppm.

Anticipated Activities

- CCJV will continue torch-cutting piles to the final cut-off elevation for installation of the future pile cap.
- CCJV will continue excavation for removal of soil/fill within the steel sheet pile wall.

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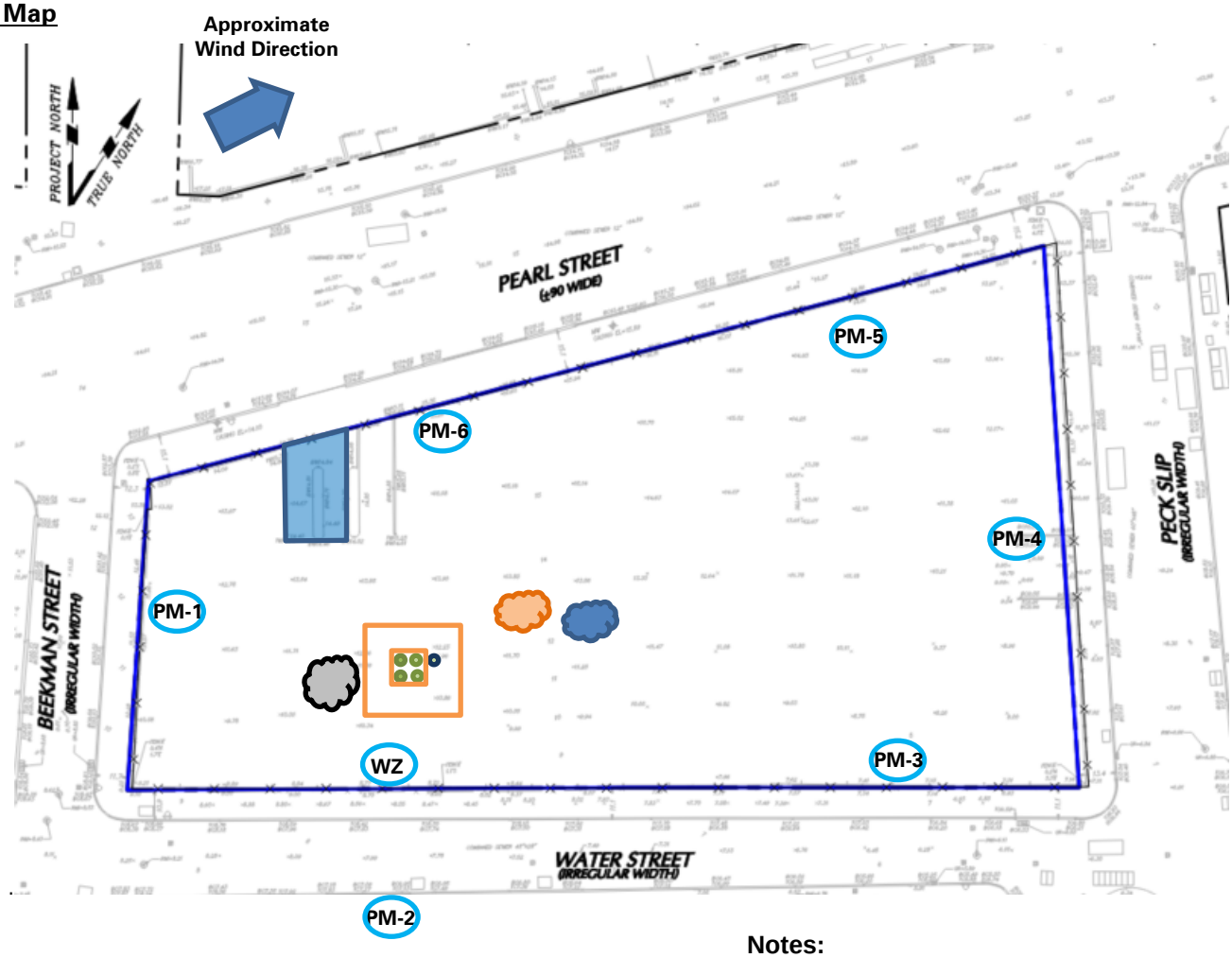
Site Map



Legend:

- PM-1 — Approximate Location of Air Monitoring Station
- Approximate Work Area
- Approximate Location of Future Pile Cap
- Approximate Location of Foundation Piles Completed
- Approximate Location of Settling Tanks
- Approximate Location of Truck Tracking Pad
- Approximate Location of Dewatering Well
- Approximate Location of C&D Container
- Approximate Location of Soil Container
- Approximate Location of Stockpiled Virgin Stone

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

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Select Site Photographs:

Photo 1: View of CCJV washing a truck prior to exiting the site (facing east)

Photo 2: View of exposed soil/fill, imported 2.5-inch virgin stone, and roll-off containers covered with polyethylene sheeting at the end of the work day (facing northeast)

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