

SITE OBSERVATION REPORT

PROJECT No.: 170381202	CLIENT: 250 Seaport District, LLC c/o The Howard Hughes Corporation	DATE: Thursday, September 21, 2023
PROJECT: 250 Water Street		WEATHER: Sunny, 58 – 70° F Wind: NNE @ 0.2 – 2.0 mph
LOCATION: New York, NY		TIME: 5:45am – 6:00pm
BCP SITE ID: C231127		MONITOR Jack Millman

EQUIPMENT: CAT 335 Excavator CAT 328 Excavator Komatsu PC138 Excavator Delmag Drill Rig Bauer RTG RG 27S Bauer BG45 Drill Rig Jerome J505 Mercury Vapor Analyzer RKI GX-6000 Photoionization Detector (PID) Aeroqual ASQ1 Air Monitoring Station	PRESENT AT SITE: Day 208 Langan (Environmental/Geotechnical) Jack Millman, Michael Cole, Olivia O'Donnell, Pradeep Pandey Suffolk Construction (Suffolk) (General Contractor) Anthony Galu, Wyatt Favia East Coast Drilling, Inc. (ECD) (Foundation Contractor) Danny Rodgers New York State Department of Environmental Conservation (NYSDEC) Marnie Chancey
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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

- ECD excavated an about 10-foot-long by 15-foot-wide area to a maximum depth of about 8 feet below grade surface (bgs) in the northern part of the site (waste characterization cell WC01) to install timber lagging for the support-of-excavation (SOE) system.
 - 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. Evidence of impacts was not observed and the excavated soil/fill was temporarily backfilled into the original location for future off-site disposal.
 - Mercon-X® mercury vapor suppressant was actively applied to the soil/fill during excavation as a precautionary measure.
- ECD used a Bauer BG45 drill rig to install one deep soil mix column for SOE system installation in the eastern part of the site (along Peck Slip). ECD's drill rig advanced a steel rod with two cutter blades at the bottom of the rod, while concurrently injecting grout through the cutting head and spinning and advancing the blades downward to a depth of about 78 feet bgs.
 - No drilling spoils were generated during installation of the soil mix column.
 - Atmos® AC-645 odor/vapor suppressing foam was actively applied to the drilling area as a precautionary measure.
 - Excess grout was contained within a temporary containment area in the eastern part of the site and will be managed as construction and demolition (C&D) debris at a later date.

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Material Tracking

- No material was exported from the site.
- No material was imported to 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 Center or Impact Materials Jersey City, Lyndhurst/Jersey City, NJ 1.5-inch Clean Bluestone		Impact Reuse & Recovery Center, Lyndhurst, NJ General Fill	
Quantities	No. of Loads	Approx. Volume (Tons)	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	0	0
Project Total	12	283.91	0	0	15	339.65	374	9,157.85
NYSDEC Approved:	1,800 tons*			720 tons*		19,500 tons*		

*0.75-inch, 1.5-inch, and 2.5-inch virgin stone from the Stone Industries, Inc. facility and 1.5-inch clean bluestone from the Impact Reuse & Recovery Center (IRRC) facility were approved for import of 1,000 cubic yards (CY) and 400 CY, respectively. Assuming a conversion factor of 1.8, each quantity was converted to tons in order to accurately compare with import weight tickets. General fill from the IRRC facility was approved for import of 13,000 CY and a conversion factor of 1.5 is applied.

Material Export Summary (1 of 3)

Facility Name Location Type of Material	Allocco Recycling Brooklyn, NY Construction & Demolition (C&D) Debris		IRRC Lyndhurst, NJ C&D Debris		Earth Efficient MSM East Stroudsburg, PA 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)	No. of Loads	Approx. Volume (CY)
Today	0	0	0	0	0	0	0	0
Project Total	5	85	42	840	59	1,180	95	1,900

Material Export Summary (2 of 3)

Facility Name Location Type of Material	Middlesex County Landfill East Brunswick, NJ Non-hazardous Soil/Fill		Bayshore Soil Management Keasbey, NJ Petroleum-Impacted Soil/Fill		Clean Earth of Carteret, NJ Carteret, NJ Non-hazardous 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
Project Total	284	5,680	267	5,340	66	1,320

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Material Export Summary (3 of 3)				
Facility Name Location Type of Material	Clean Earth of North Jersey Kearny, NJ Non-hazardous Soil/Fill		Cycle Chem, Inc. Elizabeth, NJ Hazardous Lead - Impacted Soil/Fill	
Quantities	No. of Loads	Approx. Volume (CY)	No. of Loads	Approx. Volume (CY)
Today	0	0	0	0
Project Total	201	4,020	10	200

Sampling

- No samples were collected.

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CAMP Activities

Langan performed air monitoring at the perimeter of the site, at the northern sidewalk of Pearl Street, at the western sidewalk of Beekman Street, at the eastern sidewalk of Peck Slip, and at the southern sidewalk of Water Street at eight total locations for mercury vapor, volatile organic compounds (VOCs), and particulate matter less than 10 microns in diameter (PM10) from about 6:52am to 4:52pm. There were no fifteen-minute average concentrations for mercury vapor, VOCs or PM10 that approached or exceeded the action levels established by the CAMP (1.00 $\mu\text{g}/\text{m}^3$, 5.0 ppm, or 0.100 mg/m^3 , respectively).

Background Concentrations

Prior to implementation of CAMP, 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 were recorded at 0.00 $\mu\text{g}/\text{m}^3$.
- 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 ($\mu\text{g}/\text{m}^3$)
PM-1	0.005	0.00	0.02
PM-2	0.004	0.00	0.01
PM-3	0.008	0.00	0.00
PM-4	0.007	0.00	0.01
WZ-1	0.004	0.00	0.00
WZ-2	0.004	0.00	0.00
WZ-3	0.004	0.00	0.00
WZ-4	0.004	0.00	0.01

Maximum 15-Minute-Average Concentrations

Station ID	Particulate (mg/m^3)	Organic Vapor (ppm)	Mercury Vapor ($\mu\text{g}/\text{m}^3$)
PM-1	0.007	0.09	0.05
PM-2	0.005	0.07	0.01
PM-3	*0.137	0.01	0.01
PM-4	0.052	0.04	0.03
WZ-1	0.005	0.00	0.01
WZ-2	0.006	0.01	0.01
WZ-3	0.005	0.00	0.02
WZ-4	0.006	0.00	0.02

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

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* PM10 concentrations at perimeter CAMP station PM-3 exceeded the 15-minute time-weighted average (TWA) action level established in the CAMP (0.100 mg/m³) at about 12:30pm due to exhaust from a nearby active compressor. The exceedance was not the result of ground-intrusive activities associated with soil/fill at the site and fugitive dust was not observed migrating from the site during this time. The air compressor was relocated from the sidewalk along Peck Slip into the Phase 1 excavation area to mitigate interference with the perimeter CAMP station. PM10 concentrations were not recorded above background conditions at off-site CAMP station WZ-3 during this time.

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/m³ to 0.10 µg/m³.
- The dedicated mobile monitor (Langan) used a handheld PID to monitor VOC concentrations throughout the site. Instantaneous VOC concentrations were not detected above background concentrations throughout the workday.

Off-site CAMP Stations

- CAMP station WZ-1 was placed on the western sidewalk of Beekman Street from about 6:33am to 5:31pm.
- CAMP station WZ-2 was placed on the southern sidewalk of Water Street from about 6:33am to 5:35pm.
- CAMP station WZ-3 was placed on the eastern sidewalk of Peck Slip from about 6:35am to 5:44pm.
- CAMP station WZ-4 was placed on the northern sidewalk of Pearl Street from about 6:36am to 5:53pm.

Prior to CAMP Shutdown

Prior to discontinuing CAMP, mercury vapor and VOC concentrations were confirmed to return to background conditions at each perimeter station using the handheld Jerome® J505 mercury vapor analyzer and handheld PID, respectively. Perimeter CAMP stations were discontinued sequentially between 4:52pm and 5:09pm.

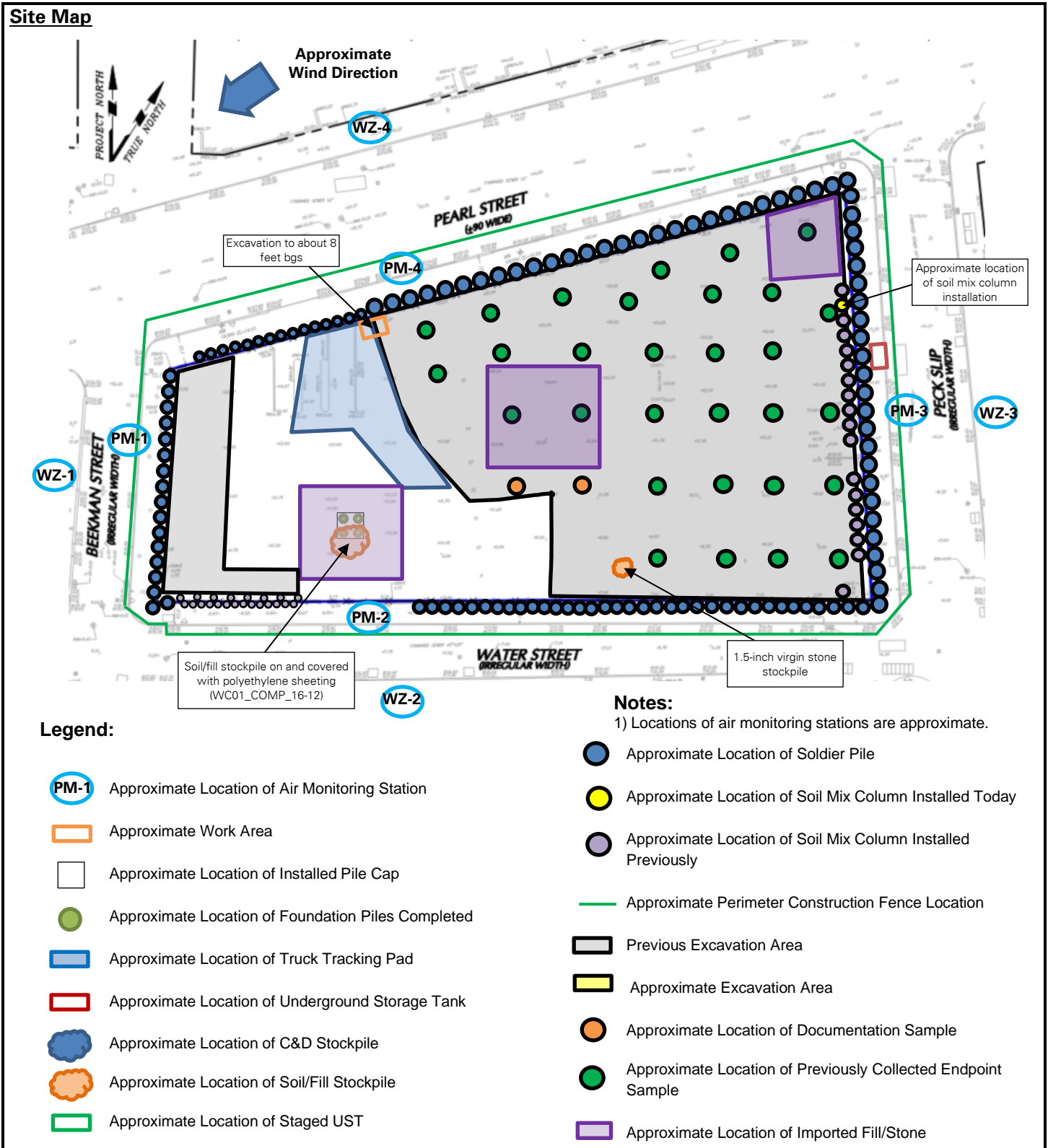
- Background concentrations of mercury vapor at each CAMP station were recorded at 0.00 µg/m³.
- Background concentrations of VOCs at each CAMP station were recorded at 0.0 ppm.

Anticipated Activities

- ECD will continue exporting C&D and soil/fill from the western part of the site for off-site disposal.
- ECD will continue installing soil mix columns and/or soldier piles for SOE installation along Pearl Street, Water Street, and Peck Slip.

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Select Site Photographs:



Photo 1: Atmos® AC-645 odor/vapor suppressing foam applied during soil mix column installation in the eastern part of the site (facing south)



Photo 2: Mercon-X® mercury vapor suppressant applied during excavation in the northern part of the site (facing west)

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