SITE OBSERVATION REPORT

PROJECT No.: 170381202	**CLIENT:** 250 Seaport District, LLC c/o The Howard Hughes Corporation	**DATE:**	Tuesday, November 21, 2023
PROJECT: 250 Water Street		**WEATHER:**	Rain, 36 – 47 °F Wind: SW @ 0.2 – 2.2 mph
LOCATION: New York, NY		**TIME:**	5:45am – 5:15pm
BCP SITE ID: C231127		**MONITOR**	Gabriella DeGennaro

EQUIPMENT:
CAT 335 Excavator
CAT 328 Excavator
Komatsu PC210 Excavator
Delmag Drill Rig
Bauer RTG RG 27S
Bauer BG 36H Drill Rig
Bauer BG45 Drill Rig
Casagrande M6A-1 Tieback Drill Rig
Jerome J505 Mercury Vapor Analyzer
RKI GX-6000 Photoionization Detector (PID)
Aeroqual ASQ1 Air Monitoring Station

PRESENT AT SITE: **Day 255**
Langan (Environmental/Geotechnical) Gabriella DeGennaro, Michael Cole, Pradeep Pandey
Suffolk Construction (Suffolk) (General Contractor) Anthony Galu, Wyatt Favia
East Coast Drilling, Inc. (ECD) (Foundation Contractor) Mike Brosnan
New York State Department of Environmental Conservation (NYSDEC) Marnie DeLuke
AKRF, Inc. (Archaeologist) Elizabeth Mead

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 used a Bauer RTG RG 27S drill rig to pre-drill two boreholes in the northern part of the site to loosen the underlying soil in preparation for soil mix column installation.
- ECD used a Bauer BG45 drill rig to install two deep soil mix columns in the northern part of the site (along Pearl Street) for the support-of-excavation (SOE) system. 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 120 feet bgs.
    - No drilling spoils were generated during installation of the soil mix columns.
    - Excess grout was contained within a temporary containment area in the southern part of the site and will be managed as construction and demolition (C&D) debris at a later date.
- ECD graded soil/fill in an about 20-foot-long by 20-foot-wide area in the southern part of the site to create a temporary berm for the containment of excess grout generated during soil mix column installation.
    - Graded soil/fill was screened for odors, staining, organic vapors, and mercury vapor using a handheld PID and handheld Jerome® J505 mercury vapor analyzer, respectively. Evidence of impacts was not observed.

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- ECD graded soil/fill in an about 50-foot-long by 20-foot-wide area in the eastern part of the site to stabilize the surface for staging of construction materials.
    - Graded soil/fill was screened for odors, staining, organic vapors, and mercury vapor using a handheld PID and handheld Jerome® J505 mercury vapor analyzer, respectively. Evidence of impacts was not observed and excess soil/fill was not generated from grading activities.
- ECD graded soil/fill in an about 10-foot-long by 10-foot-wide area in the southwest part of the site to stabilize the surface for SOE installation.
    - Graded soil/fill was screened for odors, staining, organic vapors, and mercury vapor using a handheld PID and handheld Jerome® J505 mercury vapor analyzer, respectively. Evidence of impacts was not observed.

Material Tracking

- No material was exported from site.
- No material was imported to 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	16	382.13	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	301	6,020	142	2,840

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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	407	8,140	267	5,340	66	1,320

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**		**Harmony Foul Rift (HFR) Belvidere, 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	201	4,020	17	340	135	2,700

Sampling

- No samples were collected.

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SITE OBSERVATION REPORT

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 6:57am to 4:43pm. 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 µg/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 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	0.007	0.01	0.02
PM-2	0.004	0.00	0.02
PM-3	0.004	0.00	0.00
PM-4	0.005	0.01	0.02
WZ-1	0.004	0.00	*****0.01
WZ-2	0.003	0.00	0.00
WZ-3	0.003	0.00	***** 0.01
WZ-4	0.003	0.00	0.02

Maximum 15-Minute-Average Concentrations

Station ID	Particulate (mg/m^3)	Organic Vapor (ppm)	Mercury Vapor (µg/m^3)
PM-1	0.067	0.05	0.06
PM-2	0.008	0.02	0.30
PM-3	0.011	0.02	0.01
PM-4	0.008	0.03	0.04
WZ-1	0.006	0.00	***** 0.02
WZ-2	0.005	0.00	0.01
WZ-3	0.005	0.03	***** 0.02
WZ-4	0.004	0.02	0.03

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

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SITE OBSERVATION REPORT

Equipment Troubleshooting

***** Mercury vapor data from off-site CAMP stations WZ-1 and WZ-3 were manually downloaded from the Jerome® J505 units due to a datalogging issue which resulted in mercury vapor data not being transmitted to the remote telemetry system. The daily average and maximum 15-minute time-wieghted average concentrations of mercury vapor calculated from the raw data are reflected in the above table and in the daily air monitoring report. Raw data from the Jerome® J505 units within off-site CAMP stations WZ-1 and WZ-3 are provided as separate attachments to this daily field report.

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 0.11 µg/m^3, with the exception of one instantaneous mercury vapor reading recorded at 2.92 µg/m^3 at 7:12am. During this time, ECD was in the process of grading along the northern boundary of the site. Mercury vapor readings at perimeter CAMP stations remained at background concentrations during this time and no source of mercury vapor was identified. The internal filter within the handheld Jerome® J505 unit will be replaced at the end of the work day.
- 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 6:46am to 4:48pm.
- CAMP station WZ-2 was placed on the southern sidewalk of Water Street from about 6:30am to 4:30pm.
- CAMP station WZ-3 was placed on the eastern sidewalk of Peck Slip from about 6:45am to 4:54pm.
- CAMP station WZ-4 was placed on the northern sidewalk of Pearl Street from about 6:37am to 4:45pm.

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 4:43 pm and 5:01pm.

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

Anticipated Activities

- ECD will continue exporting soil/fill across the site for off-site disposal.
- ECD will continue installing soil mix columns and/or secant piles for SOE system installation along Beekman and Pearl Streets.
- ECD will continue installing tiebacks for the SOE system along Beekman and Pearl Streets.

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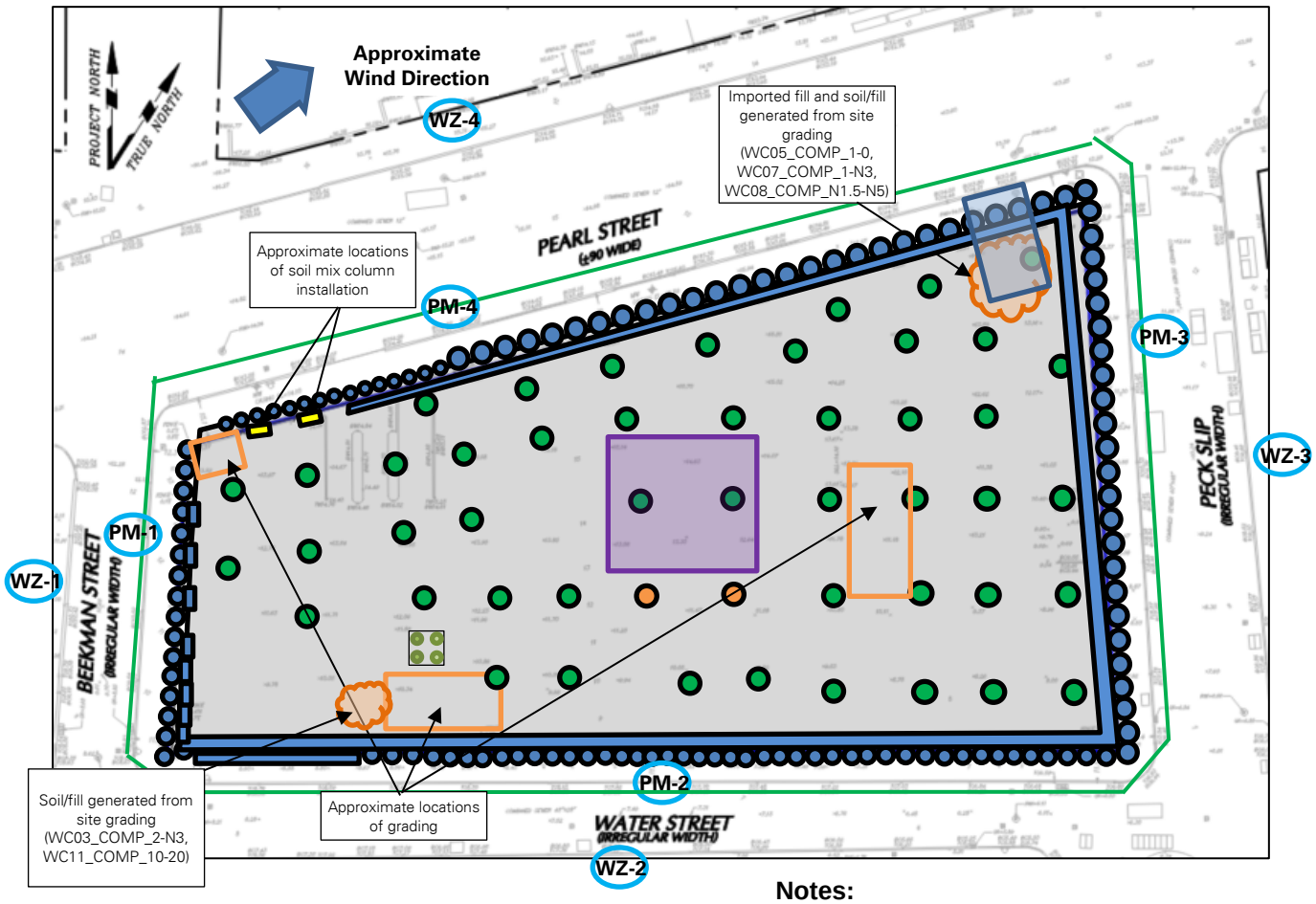
SITE OBSERVATION REPORT

Site MapM



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 Underground Storage Tank
- Approximate Location of C&D Stockpile
- Approximate Location of Soil/Fill Stockpile
- Approximate Perimeter Construction Fence Location
- Approximate Location of Soldier Pile
- Approximate Location of Soil Mix Column Installed Today
- Approximate Location of Soil Mix Column Installed Previously
- Approximate Previous Excavation Area
- Approximate Excavation Area
- Approximate Location of Documentation Sample
- Approximate Location of Confirmation Endpoint Sample
- Approximate Location of Imported Fill/Stone

Notes:

1) Locations of air monitoring stations are approximate.

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Select Site Photographs:

Photo 1: General view of the western part of site (facing north)

Photo 2: ECD installing a soil mix column in the northern part of site (facing west)

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