

## SITE OBSERVATION REPORT

<p><b>PROJECT No.:</b> 170381202</p> <p><b>PROJECT:</b> 250 Water Street</p> <p><b>LOCATION:</b> New York, NY</p> <p><b>BCP SITE ID:</b> C231127</p>	<p><b>CLIENT:</b>                  250 Seaport District,                  LLC                  c/o The Howard                  Hughes Corporation</p>	<p><b>DATE:</b> Saturday, November 18, 2023</p> <p><b>WEATHER:</b> Sunny, 42 – 50 °F                  Wind: SSE @ 0.2 – 2.1 mph</p> <p><b>TIME:</b> 8:00am – 3:30pm</p> <p><b>MONITOR</b> Lisa Cristiano</p>
<p><b>EQUIPMENT:</b>                  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</p>	<p><b>PRESENT AT SITE:</b> <b>Day 253</b>  <b>Langan</b> (Environmental/Geotechnical) Lisa Cristiano, JN Stanley, Pradeep Pandey  <b>Suffolk Construction (Suffolk)</b> (General Contractor) Anthony Galu, Wyatt Favia  <b>East Coast Drilling, Inc. (ECD)</b> (Foundation Contractor) Daniel Rogers, Mike Brosnan  <b>New York State Department of Environmental Conservation (NYSDEC)</b> Meghan Medwid</p>	
<p><b>OBSERVATIONS, DISCUSSIONS, TEST RESULTS, ETC.:</b></p>		
<p>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).</p>		
<p><b>Site Activities</b></p>		
<ul style="list-style-type: none"> <li>• ECD used a Bauer BG45 drill rig to install one deep soil mix column in the northern part of the site (along Pearl Street) for the support-of-excavation (SOE) system installation. 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 110 feet below grade surface (bgs).                         <ul style="list-style-type: none"> <li>○ No drilling spoils were generated during installation of the soil mix columns.</li> <li>○ Excess grout was contained within a temporary containment area in the northern part of the site and will be managed as construction and demolition (C&amp;D) debris at a later date.</li> </ul> </li> <li>• ECD graded soil/fill in an about 50-foot-long by 30-foot-wide area in the northern part of the site to stabilize the surface for equipment access.                         <ul style="list-style-type: none"> <li>○ 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 the soil/fill generated from grading activities was stockpiled in the northeast part of the site for future off-site disposal.</li> </ul> </li> </ul>		
<p>Cc:</p>	<p>M. Raygorodetsky, P. McMahon, M. Au, J. Frey, S. Simpson</p>	<p>By: Lisa Cristiano  <b>LANGAN</b></p>

## SITE OBSERVATION REPORT

### 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	300	5,980	142	2,840

### 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	398	7,980	267	5,340	66	1,320

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## SITE OBSERVATION REPORT

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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### 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 8:57am to 2:40pm. 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  $\text{mg}/\text{m}^3$ , 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 ( $\text{mg}/\text{m}^3$ )	Organic Vapor (ppm)	Mercury Vapor ( $\mu\text{g}/\text{m}^3$ )
PM-1	0.003	0.00	* 0.02
PM-2	0.002	0.00	0.02
PM-3	0.002	0.00	0.00
PM-4	0.003	0.00	0.02
WZ-1	0.002	0.00	0.00
WZ-2	0.001	0.00	0.00
WZ-3	0.001	0.00	** 0.00
WZ-4	0.002	0.00	0.01

#### Maximum 15-Minute-Average Concentrations

Station ID	Particulate ( $\text{mg}/\text{m}^3$ )	Organic Vapor (ppm)	Mercury Vapor ( $\mu\text{g}/\text{m}^3$ )
PM-1	0.006	0.03	* 0.05
PM-2	0.002	0.01	0.18
PM-3	0.002	0.01	0.01
PM-4	0.008	0.04	0.04
WZ-1	0.004	0.00	0.01
WZ-2	0.002	0.00	0.00
WZ-3	0.002	0.00	** 0.02
WZ-4	0.005	0.00	0.02

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

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### Equipment Troubleshooting

\* PM10 and VOC data were not recorded at perimeter CAMP Station PM-1 from 10:54am to 11:24am due to a depleted battery. The battery was replaced at 11:24am and data logging continued for the remainder of the day. PM10 and VOCs were not recorded above background conditions at off-site CAMP station WZ-1, and fugitive dust or odors were not observed migrating off-site during this time. The daily average and maximum 15-minute time-weighted 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 unit within CAMP station PM-1 is provided as a separate attachment to this daily field report.

\*\* Mercury vapor data from CAMP station WZ-3 was manually downloaded from the Jerome® J505 unit due to a datalogging issue which resulted in mercury vapor data not being transmitted to the remote telemetry system from 10:17am to 10:48 am. The daily average and maximum 15-minute time-weighted 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 unit within CAMP station WZ-3 is provided as a separate attachment 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  $\mu\text{g}/\text{m}^3$  to 0.10  $\mu\text{g}/\text{m}^3$ .
- 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 8:34am to 2:45pm.
- CAMP station WZ-2 was placed on the southern sidewalk of Water Street from about 9:07am to 2:56pm.
- CAMP station WZ-3 was placed on the eastern sidewalk of Peck Slip from about 8:44am to 2:53pm.
- CAMP station WZ-4 was placed on the northern sidewalk of Pearl Street from about 8:40am to 2:50pm.

### 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 2:40pm and 2:43pm.

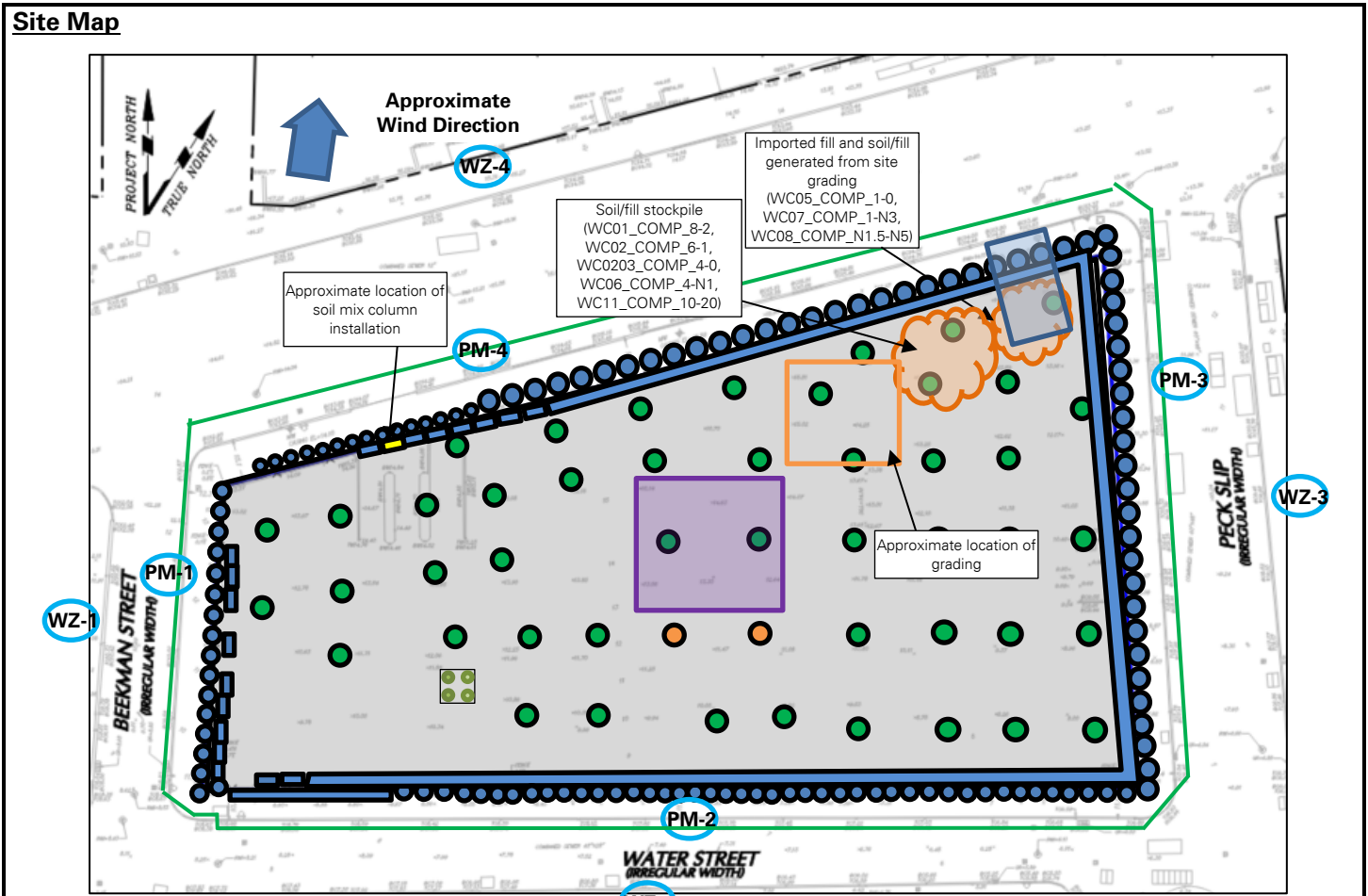
- Background concentrations of mercury vapor at each CAMP station were recorded at 0.00  $\mu\text{g}/\text{m}^3$ .
- Background concentrations of VOCs at each CAMP station were recorded at 0.0 ppm.

### 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, Pearl and Water Streets.
- ECD will continue installing tiebacks for the SOE system along Beekman and Pearl Streets.

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## SITE OBSERVATION REPORT



**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

**Notes:**

1) Locations of air monitoring stations are approximate.

- 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

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## SITE OBSERVATION REPORT

### Select Site Photographs:



**Photo 1:** ECD grading soil/fill in the northeast part of site (facing southeast)



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

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