

## 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> Wednesday, September 21, 2022</p> <p><b>WEATHER:</b> Clear, 65.3 – 80.7 °F Wind: W @ 0.4 – 6.1 mph</p> <p><b>TIME:</b> 6:00 AM – 6:00 PM</p> <p><b>MONITOR:</b> Brian Kenneally, Eddie Cai</p>
<p><b>EQUIPMENT:</b> MiniRAE 3000 PID DustTrak II Jerome J405® Jerome J505® Hand tools CAT 374F Komatsu 969 Komatsu 228 Takeuchi TB290 JCB 110W Hydradig</p>	<p><b>PRESENT AT SITE:</b> <b>Day 106</b>  <b>Langan</b> (Environmental/Geotechnical) – Brian Kenneally, Eddie Cai, Michael Au  <b>Civetta Cousins JV, LLC (CCJV)</b> (Foundation Contractor) – Jack Dettra  <b>Lendlease</b> (General Contractor) – Marty Cohen  <b>Tristate Groundwater</b> (Dewatering Contractor) – John Ratcliff  <b>New York State Department of Environmental Conservation (NYSDEC)</b> – Aaron Fischer  <b>AKRF Inc. (AKRF)</b> (Archaeologist) – Theresa Imbriolo  <b>New York City Fire Department (FDNY)</b>  <b>New York City Department of Environmental Protection (NYCDEP)</b></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>• CCJV excavated an about 45-foot-long by 40-foot-wide area to a maximum depth of about 7 feet below the existing grade surface for removal and off-site disposal of petroleum-impacted soil/fill in the southeastern part of site (waste characterization cells WC09 and WC10). Excavated soil/fill was live-loaded into tri-axle dump trucks for off-site disposal at the Bayshore Soil Management facility, located in Keasbey, NJ. Trucks were covered with tight-fitting covers and were inspected and washed before leaving the site.             <ul style="list-style-type: none"> <li>○ 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. Petroleum-like odor and a maximum instantaneous PID reading of 33.8 parts per million (ppm) was recorded. Excavated soil/fill was actively sprayed with Atmos® AC-645 dust/vapor suppressing foam during excavation and loading for off-site disposal.</li> </ul> </li> <li>• CCJV installed odor neutralizing sleeves on the interior of the perimeter construction fencing along the eastern and southern boundaries of the site (Peck Slip and Water Street, respectively).</li> <li>• CCJV pumped groundwater from the previously installed dewatering wells to facilitate excavation in the southeastern part of the site. Groundwater was pumped directly into the dewatering system, consisting of a settling tank, oil-water separator, and filtration system, before being discharged to the NYCDEP combined sewer beneath Peck Slip in accordance with a NYCDEP temporary discharge permit (Permit No. C001712214).</li> <li>• CCJV continued welding for installation of additional bracing required for the support-of-excavation (SOE) system in the southeast corner of the site (Peck Slip and Water Street).</li> <li>• FDNY and NYCDEP conducted site visits in response to complaints received via 311 for odors and noise, respectively. No adverse conditions were noted and no further action was required as a result of the site visits.</li> </ul>		
<p>Cc:</p>	<p>M. Raygorodetsky, P. McMahon, M. Au</p>	<p>By: Eddie Cai</p> <p><b>LANGAN</b></p>

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- CCJV covered all exposed soil/fill that has not been confirmed to meet Track 2 remediation criteria and construction and demolition (C&D) debris with Atmos® AC-645 dust/vapor suppressing foam to create a temporary overnight cover.

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### Material Tracking

- CCJV exported 21 truckloads (about 420 cubic yards [CY]) of petroleum-impacted soil/fill from waste characterization cells WC09 and WC10 for off-site disposal at the Bayshore Soil Management facility, located in Keasbey, NJ
- 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	8	184.42	0	0	7	149.95	20	476.26
NYSDEC Approved:	1,800 tons*				720 tons*		7,500 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 5,000 CY and a conversion factor of 1.5 is applied.

### Material Export Summary (1 of 2)

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	
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	35	700	77	1,540	216	4,320

### Material Export Summary (2 of 2)

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	21	420	0	0
Project Total	261	5,220	179	3,580	42	840

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## SITE OBSERVATION REPORT

### Sampling Activities

- Langan collected one groundwater sample from the influent of the dewatering system for laboratory analysis of NYSDEC Part 375/target compound list (TCL) volatile organic compounds (VOCs) and semivolatile organic compounds (SVOCs).
- The sample was relinquished to Alpha Analytical, Inc., an Environmental Laboratory Accredited Program (ELAP)-certified laboratory under standard chain-of-custody protocols.

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## SITE OBSERVATION REPORT

### 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, 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, and 0.100  $\text{mg}/\text{m}^3$ , respectively).

### Background Concentrations

Prior to implementation of ground-intrusive work each day, 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 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	0.017	0.0	0.00
PM-2	0.028	0.0	0.01
PM-3	0.018	0.0	0.00
PM-4	0.000	0.3	0.00
PM-5	0.018	0.0	0.02
PM-6	0.014	0.4	0.02
WZ-1	0.021	0.0	0.01
WZ-2	0.007	0.0	0.01
WZ-3	0.014	0.0	0.01

#### Maximum 15-Minute-Average Concentrations

Station ID	Particulate ( $\text{mg}/\text{m}^3$ )	Organic Vapor (ppm)	Mercury Vapor ( $\mu\text{g}/\text{m}^3$ )
<b>Action Level</b>	<b>0.100 <math>\text{mg}/\text{m}^3</math></b>	<b>5.0 ppm</b>	<b>1.00 <math>\mu\text{g}/\text{m}^3</math></b>
PM-1	0.033	0.0	0.01
PM-2	0.052	0.0	0.03
PM-3	0.035	0.1	0.01
PM-4	0.000	1.5	0.02
PM-5	0.034	0.7	0.04
PM-6	0.027	0.9	0.04
WZ-1	0.037	0.0	0.03
WZ-2	0.019	0.1	0.03
WZ-3	0.026	0.0	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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## SITE OBSERVATION 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 0.16  $\mu\text{g}/\text{m}^3$ .
- The dedicated mobile monitor (Langan) used a handheld PID to monitor VOC concentrations throughout the site. Instantaneous VOC concentrations of ambient air around the excavation area in the southeastern part of the site ranged from 0.0 ppm to 33.8 ppm. Exposed soil/fill was actively sprayed with Atmos® AC-645 dust/vapor suppressing foam during excavation and loading of trucks, and during periods of inactivity. VOC concentrations at perimeter and off-site CAMP stations did not exceed the action level established in the CAMP (5.0 ppm) throughout the work day.

### CAMP Station Relocation

- CAMP station WZ-1 was relocated to the northern sidewalk of Pearl Street from 6:52am to 5:10pm due to exposed soil/fill within 20 feet of the northern site boundary.
- CAMP station WZ-2 was relocated to the eastern sidewalk of Peck Slip from 6:52am to 5:10pm during excavation activities in the southeastern part of the site.
- CAMP station WZ-3 was relocated to the southern sidewalk of Water Street from 7:06am to 5:08pm during excavation activities in the southeastern part 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 sequentially from 4:57pm to 5:10pm at the conclusion of ground-intrusive activities.

- Mercury vapor concentrations at each CAMP station ranged from 0.00  $\mu\text{g}/\text{m}^3$  to 0.07  $\mu\text{g}/\text{m}^3$ .
- VOC concentrations at each CAMP station were recorded at 0.0 ppm.

### Anticipated Activities

- CCJV will continue excavation and off-site disposal of soil/fill in the central and southern parts of the site.
- CCJV will continue welding brackets and bracing for SOE system installation in the southeastern part of the site.
- Langan will continue collection of confirmation endpoint soil samples across the site.

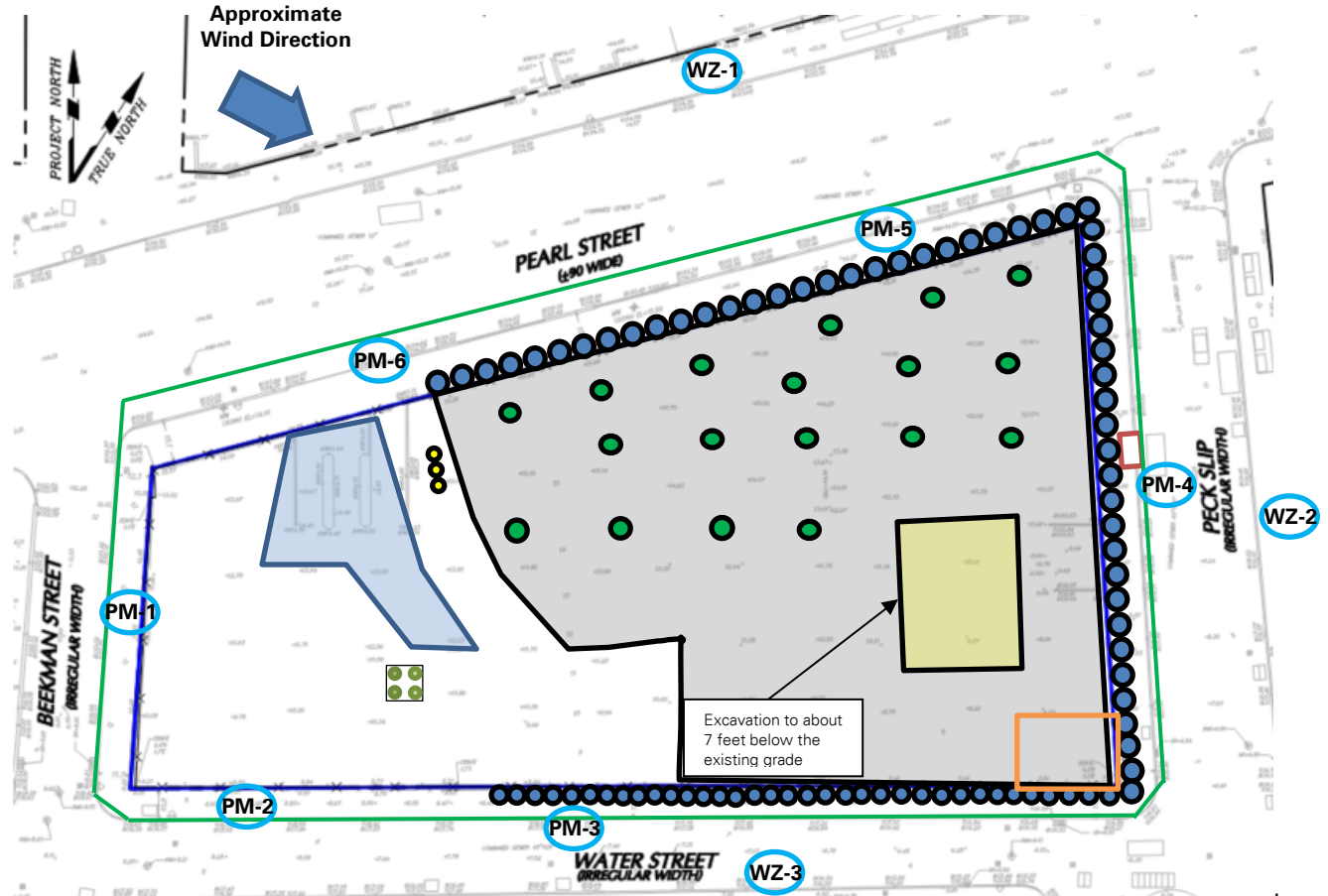
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## SITE OBSERVATION REPORT

### Site Map



### Notes:

1) Locations of air monitoring stations are approximate.

### Legend:

- |      |  |  |  |
|------|--|--|--|
| PM-1 | Approximate Location of Air Monitoring Station     |  | Approximate Location of 55-gallon drum                       |
|      | Approximate Work Area                              |  | Approximate Location of Soldier Pile                         |
|      | Approximate Location of Installed Pile Cap         |  | Approximate Perimeter Construction Fence Location            |
|      | Approximate Location of Foundation Piles Completed |  | Previous Excavation Area                                     |
|      | Approximate Location of Truck Tracking Pad         |  | Approximate Excavation Area                                  |
|      | Approximate Location of C&D Stockpile              |  | Approximate Backfill Area                                    |
|      | Approximate Location of General Fill Stockpile     |  | Approximate Endpoint Sample Location                         |
|      | Approximate Location of Stockpiled Virgin Stone    |  | Approximate Location of Previously Collected Endpoint Sample |
|      | Approximate Excavated Soil/Fill Stockpile          |  |  |

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## SITE OBSERVATION REPORT

### Select Site Photographs:



**Photo 1:** CCJV actively applying Atmos® AC-645 dust/vapor suppressing foam during excavation/loading in the southeastern part of the site (facing west)



**Photo 2:** CCJV applying Atmos® AC-645 dust/vapor suppressing foam to exposed soil/fill for the temporary overnight cover (facing southwest)

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