

## 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> Tuesday, July 26, 2022</p> <p><b>WEATHER:</b> Sunny, 72.1 – 82.9 °F Wind: NNE @ 0.5 – 7.4 mph</p> <p><b>TIME:</b> 6:00 AM – 5:30 PM</p> <p><b>MONITOR:</b> Brian Kenneally, Maitland Robinson</p>
<p><b>EQUIPMENT:</b> MiniRAE 3000 PID DustTrak II Jerome J405® Jerome J505® Hand tools CAT 374F Komatsu 969 Komatsu 228 Takeuchi TB290</p>	<p><b>PRESENT AT SITE:</b> <span style="float: right;"><b>Day 49</b></span>  <b>Langan</b> (Environmental/Geotechnical) – Brian Kenneally, Maitland Robinson, Kevin Leong, Eddie Cai  <b>LendLease</b> (Construction Manager) – Marty Cohen  <b>Civetta Cousins JV, LLC (CCJV)</b> (Foundation Contractor) – Jack Dettra, George Washburn  <b>New York State Department of Environmental Conservation (NYSDEC)</b> – Marnie Chancy  <b>Excel Environmental Resources, Inc</b> – Abby Lodge  <b>AKRF Inc. (AKRF)</b> (Archaeologist) – Elizabeth Meade</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 began installation of support-of-excavation (SOE) soldier piles SP23 through SP27 along the northern boundary of the site and SOE soldier piles SP29 through SP31 along the eastern boundary of the site.</li> <li>• CCJV temporarily backfilled an about 20-foot-long by 10-foot-wide area in the northeastern part of the site using previously excavated soil/fill originating from the same location.</li> <li>• CCJV installed T-brackets along the edges of soldier piles SP16 through SP21 to accommodate timber lagging installation.</li> <li>• CCJV installed timber lagging between soldier piles SP16 through SP21 to a depth of about 5 feet bgs for SOE system installation along the northern site boundary.</li> <li>• CCJV continued excavating an about 85-foot-long by 20-foot-wide area to a maximum depth of about 10 feet bgs for removal and off-site disposal of non-hazardous, mercury-impacted soil/fill in the north-central part of the site (waste characterization cells WC04 and WC05). Excavated soil/fill was either live-loaded into tri-axle dump trucks or temporarily stockpiled adjacent to the work area prior to being loaded for off-site disposal at the Clean Earth of North Jersey (CENJ) facility, located in Kearny, NJ.             <ul style="list-style-type: none"> <li>○ Excavated soil/fill was screened for odors, staining, organic vapors, and mercury vapor using a handheld PID and handheld Jerome® J505 mercury vapor analyzer, respectively. A maximum instantaneous mercury vapor concentration of 1.07 µg/m<sup>3</sup> was recorded during screening of excavated soil/fill.</li> <li>○ Instantaneous mercury vapor concentrations ranging from 1.12 µg/m<sup>3</sup> to 2.51 µg/m<sup>3</sup> were recorded during screening of ambient air in the work zone. Work was periodically halted and Mercon-X® and/or Atmos® AC-645 dust/vapor suppressing foam was applied to the excavation area until mercury vapor</li> </ul> </li> </ul>		
<p>Cc:</p>	<p>M. Raygorodetsky, P. McMahon, M. Au</p>	<p>By: Maitland Robinson</p> <p style="text-align: center;"><b>LANGAN</b></p>

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concentrations returned to background conditions. There were no 15-minute time-weighted average (TWA) concentrations for mercury vapor exceeding the action level established in the community air monitoring plan (CAMP) at any perimeter or work zone CAMP station.

- Mercon-X<sup>®</sup> and/or Atmos<sup>®</sup> AC-645 dust/vapor suppressing foam was actively applied to exposed soil/fill and stockpiles during excavation activities.
- After excavation was complete, Mercon-X<sup>®</sup> and Atmos<sup>®</sup> AC-645 dust/vapor suppressing foam was applied to exposed soil/fill and stockpiles were covered with polyethylene sheeting.
- CCJV installed timber lagging between soldier piles SP05 through SP11 to a depth of about 10 feet bgs for SOE system installation along the northern site boundary.
- CCJV continued installation of perimeter construction fencing, consisting of concrete jersey barriers and plywood panels, along the northern sidewalk of Water Street.
- CCJV covered all exposed soil/fill and construction and demolition (C&D) debris with polyethylene sheeting and/or Atmos<sup>®</sup> AC-645 dust/vapor suppressing foam to create a temporary overnight cover at the end of the work day.

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### Material Tracking

- No material was imported to the site.
- CCJV exported the four underground storage tank (UST) carcasses for off-site disposal as scrap metal at Sal's Metal Corp, located in the Bronx, NY.
- CCJV exported 20 truckloads (about 400 cubic yards [CY]) of non-hazardous, mercury-impacted soil/fill from waste characterization cells WC04 and WC05 for off-site disposal at the CENJ facility, located in Kearny, NJ.
- CCJV exported 4 truckloads (about 80 CY) of C&D debris, consisting of concrete and asphalt from the former site cover, for off-site disposal at the Impact Reuse & Recovery Center (IRCC) facility, located in Lyndhurst, NJ.

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 or Impact Materials Jersey City, Lyndhurst/Jersey City, NJ 1.5 inch Clean Bluestone	
Quantities	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
Total	7	161.51	0	0	2	41.23
NYSDEC Approved:	1,000 CY				400 CY	

Material Export Summary								
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	4	80	0	0	20	400
Total	5	85	10	200	14	280	38	760

### Sampling Activities

- No samples were collected.

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### CAMP Activities

Langan performed air monitoring at the perimeter of the site and at work zones at nine total locations for mercury vapor, volatile organic compounds (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 or VOCs that approached or exceeded the action level established by the CAMP (1.00  $\mu\text{g}/\text{m}^3$  and 5.0 ppm, respectively).

### Background Concentrations

Prior to implementation of ground-intrusive work, 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 ranged from at 0.00 to 0.03  $\mu\text{g}/\text{m}^3$ .
- 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	0.014	0.0	0.01
PM-2	0.026	0.0	0.01
PM-3	0.028	0.2	0.00
PM-4	0.012	0.0	0.02
PM-5	0.028	0.2	0.02
PM-6	0.027	0.0	0.06
WZ-1	0.018	0.0	0.01
WZ-2	0.011	0.1	0.00
WZ-3	0.012	0.4	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	0.034	0.0	0.05
PM-2	0.055	0.0	0.04
PM-3	**0.129 at 3:05pm	1.0	0.00
PM-4	0.034	0.1	0.04
PM-5	0.092	0.8	0.08
PM-6	*0.195 a 8:43am	0.0	0.32
WZ-1	0.027	0.0	0.02
WZ-2	0.019	0.3	0.01
WZ-3	0.018	1.0	0.22

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

- \* PM10 concentrations at perimeter CAMP station PM-6 exceeded the action level established in the CAMP (0.100  $\text{mg}/\text{m}^3$ ) from 8:34am to 8:48am (15 minutes). The exceedance was caused by active spraying of Mercon-X® in proximity to perimeter CAMP station PM-6 and was not the result of ground-intrusive activities at the site. During this time, work was temporarily halted due to instantaneous mercury vapor concentrations above

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background conditions recorded during screening of the ambient air in the north-central part of the site. Fugitive dust was not observed migrating from the site during this time.

- \*\* PM10 concentrations at perimeter CAMP station PM-3 exceeded the action level established in the CAMP (0.100 mg/m<sup>3</sup>) from 3:02pm to 3:10pm (9 minutes). During this time, CCJV was loading C&D debris into a truck for off-site disposal. Dust suppression was implemented by spraying the C&D debris with water and concentrations of PM10 returned to background conditions. Fugitive dust was not observed migrating from the site during this time.

### Equipment Troubleshooting

- PM10 concentrations at perimeter CAMP station PM-6 were not recorded from 7:41am to 7:48am due to a malfunction with the remote telemetry system. During this time, the dedicated mobile monitor visually monitored the PM10 concentrations on the DustTrak unit while restarting the telemetry system, however, the data was not able to be recovered. PM10 concentrations did not approach or exceed the action level established in CAMP (0.100 mg/m<sup>3</sup>). Fugitive dust was not observed migrating from the site during this time and data logging resumed at 7:49am.

### 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<sup>3</sup> to 0.63 µg/m<sup>3</sup>, with the exception of ambient air screening in the north-central part of the site during excavation in the mercury-impacted area. During this time, the maximum instantaneous mercury vapor concentration was recorded at 2.51 µg/m<sup>3</sup>, however, there were no 15-minute TWA concentrations for mercury vapor exceeding the action level established in the CAMP at any perimeter or work zone CAMP station.
- The dedicated mobile monitor (Langan) used a handheld PID to monitor VOC concentrations throughout the site. VOC concentrations were at or below background concentrations throughout the work day.

### Off-Site CAMP Station Relocation

- CAMP station WZ-1 was relocated to the northern sidewalk of Pearl Street from 7:07am to 5:21pm during excavation/backfilling activities and SOE soldier pile installation along the northern boundary of the site.
- CAMP station WZ-2 was relocated to the eastern sidewalk of Peck Slip from 7:07am to 5:21pm during installation of SOE soldier piles along the eastern boundary of the site.
- CAMP station WZ-3 was relocated to the southern sidewalk of Water Street from 7:07am to 5:21pm during installation of the perimeter construction fence along the southern boundary 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 at 5:21pm at the conclusion of ground-intrusive activities.

- Mercury vapor concentrations at each CAMP station were recorded at 0.03 µg/m<sup>3</sup>.
- VOC concentrations at each CAMP station were recorded at 0.0 ppm.

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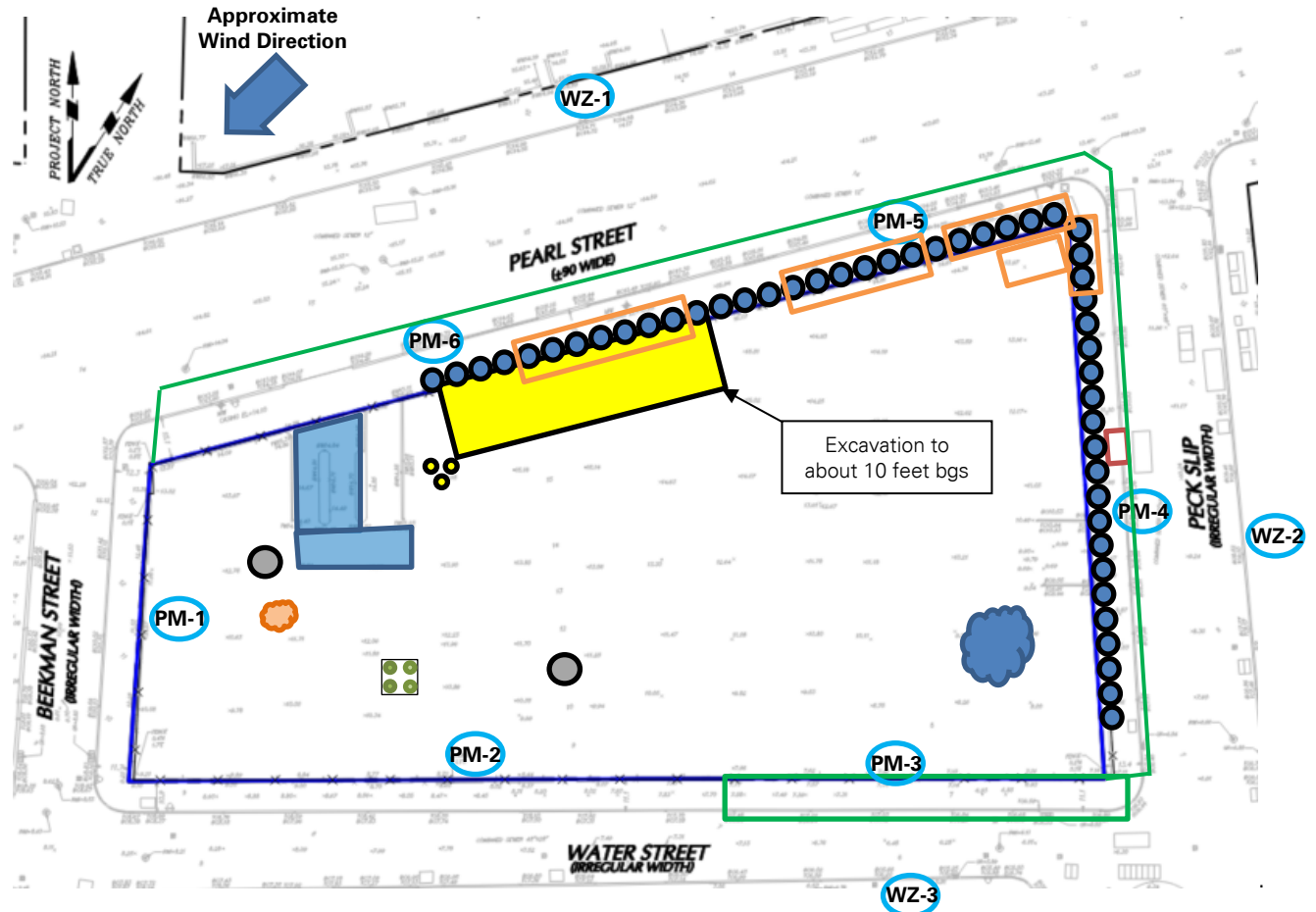
### Anticipated Activities

- UBS will continue relocation of the perimeter construction fence along the northern sidewalk of Water Street.
- CCJV will continue installation of SOE soldier piles along the eastern and southern boundaries of the site.
- CCJV will continue installation of T-brackets along the edges of soldier piles to accommodate timber lagging installation.
- CCJV will continue installation of timber lagging between soldier piles.
- CCJV will continue excavation of soil/fill in the mercury-impacted area for off-site disposal to the Clean Earth of North Jersey (CENJ) facility, located in Kearny, NJ.

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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 Work Area
- Approximate Location of Installed Pile Cap
- Approximate Location of Foundation Piles Completed
- Approximate Location of Truck Tracking Pad
- Approximate Location of C&D Stockpile
- Approximate Location of Soil/Fill Container
- Approximate Location of Soil/Fill Stockpile
- Approximate location of USTs

- Approximate Location of Stockpiled Virgin Stone
- Approximate Location of 55-gallon drum
- Approximate Location of Test Pile
- Approximate Location of Soldier Pile
- Approximate Perimeter Construction Fence Location
- Approximate Fence Relocation Area
- Approximate Excavation Area

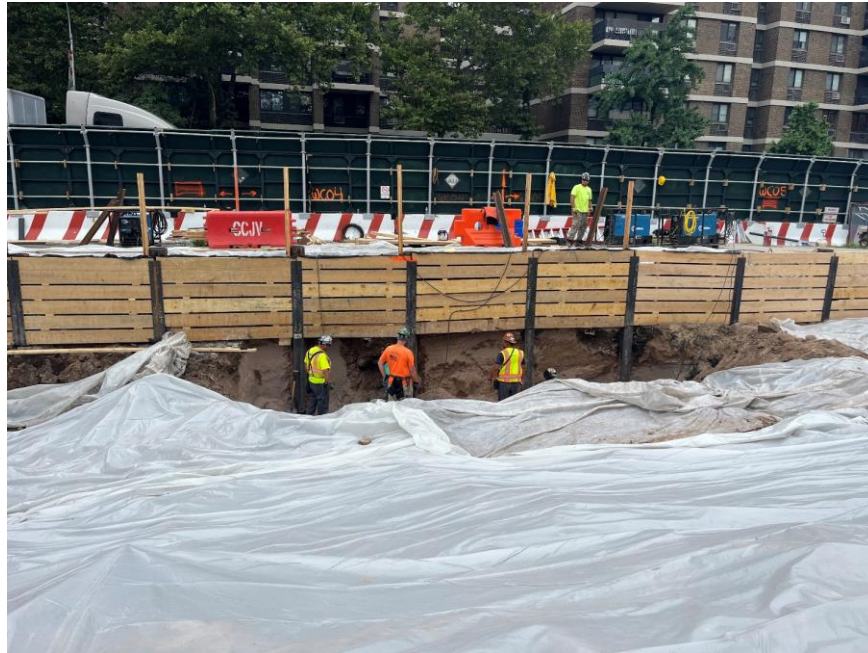
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### Select Site Photographs:



**Photo 1:** SOE lagging installation progress along the northern boundary of the site (facing southeast)



**Photo 2:** CCJV excavating soil/fill in the north-central part of the site and actively applying Mercon-X® (facing northeast)

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## SITE OBSERVATION REPORT



**Photo 3:** CCJV applying Atmos<sup>®</sup> AC-645 dust/vapor suppressing foam to create a temporary overnight cover at the end of the work day (facing northeast)

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