

SITE OBSERVATION REPORT

PROJECT No.: 170381202	CLIENT: 250 Seaport District, LLC c/o The Howard Hughes Corporation	DATE: Friday, July 14, 2023
PROJECT: 250 Water Street		WEATHER: Overcast/Rain, 70 – 80°F Wind: SW @ 0.2 – 2.3 mph
LOCATION: New York, NY		TIME: 5:45am – 3:15pm
BCP SITE ID: C231127		MONITOR Jack Millman

EQUIPMENT: CAT 335 Excavator Komatsu PC138 Excavator ABI Mobilram Drill Rig Jerome J505 Mercury Vapor Analyzer RKI GX-6000 Photoionization Detector (PID) Aeroqual ASQ1 Air Monitoring Station	PRESENT AT SITE: Langan (Environmental/Geotechnical) Jack Millman, Gabriella DeGennaro, Pradeep Pandey Suffolk Construction (Suffolk) (General Contractor) Anthony Galu East Coast Drilling, Inc. (ECD) (Foundation Contractor) Danny Rodgers New York State Department of Environmental Conservation (NYSDEC) Rob Strang, Mike Sollecito TRC Companies Inc. (TRC) (NYSDEC Consultant) Earth Efficient (Soil Broker) Mike DiGaetano	Day 160
-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------

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 demolished existing asphalt and concrete in the northern and southern parts of the site. The construction and demolition (C&D) debris was temporarily stockpiled on and covered with polyethylene sheeting in the northwestern part of the site pending future off-site disposal.
- ECD excavated an about 10-foot-long by 5-foot-wide area and an about 2-foot-long by 2-foot-wide area to a maximum depth of about 4 feet below grade surface (bgs) to identify potential subsurface utilities and/or obstructions prior to support-of-excavation (SOE) installation in the southern and northern parts of the site (along Water and Pearl Streets, respectively).
 - Excavated soil/fill was temporarily stockpiled adjacent to the work area and was screened for odors, staining, organic vapors, and mercury vapor using a handheld photoionization detector (PID) and handheld Jerome® J505 mercury vapor analyzer, respectively. No evidence of impacts was observed. The excavated soil/fill was temporarily backfilled into the original location following removal of concrete obstructions.
- ECD continued constructing wooden formwork in preparation for concrete guide wall installation in the eastern part of the site. The concrete guide wall will be used to facilitate installation of SOE along the perimeter of the site.
- ECD advanced two boreholes to a maximum depth of about 12 feet bgs in the western and southwestern parts of the site to verify that the drill rig was operational prior to installation of SOE along the perimeter of the site. No drilling spoils were generated during advancement of the borehole.
- TRC continued implementation of the off-site investigation administered by the NYSDEC.

Cc:	M. Raygorodetsky, P. McMahon, M. Au, J. Frey, S. Simpson	By:	Jack Millman
		LANGAN	

SITE OBSERVATION REPORT

Material Tracking

- ECD exported one truckload (about 20 cubic yards [CY]) of C&D (previously demolished concrete and asphalt) for off-site disposal at the Earth Efficient MSM facility located in East Stroudsburg, PA.
- 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	15	339.65	336	8,216.79
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 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	1	20	0	0
Project Total	5	85	42	840	11	220	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	263	5,260	267	5,340	66	1,320

Cc:	M. Raygorodetsky, P. McMahon, M. Au, J. Frey, S. Simpson	By:	Jack Millman LANGAN
-----	-------------------------------------------------------------	-----	-------------------------------

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	
Quantities	No. of Loads	Approx. Volume (CY)
Today	0	0
Project Total	216	4,320

Sampling

- No samples were collected.

Cc:	M. Raygorodetsky, P. McMahon, M. Au, J. Frey, S. Simpson	By:	Jack Millman LANGAN
-----	-------------------------------------------------------------	-----	-------------------------------

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, and at the southern sidewalk of Water Street at seven total locations for mercury vapor, volatile organic compounds (VOCs), and particulate matter less than 10 microns in diameter (PM10) from about 6:45am to 2:25pm. 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	0.007	0.00	0.00
PM-2	0.008	0.00	0.00
PM-3	0.007	0.00	0.00
PM-4	0.007	0.00	0.01
WZ-1	0.007	0.00	0.01
WZ-2	0.008	0.00	0.00
WZ-3	-	-	-
WZ-4	0.008	0.00	0.00

Maximum 15-Minute-Average Concentrations

Station ID	Particulate (mg/m^3)	Organic Vapor (ppm)	Mercury Vapor ($\mu\text{g}/\text{m}^3$)
PM-1	0.013	0.00	0.02
PM-2	0.014	0.00	0.01
PM-3	0.012	0.00	0.01
PM-4	0.013	0.00	0.02
WZ-1	0.013	0.00	0.23
WZ-2	0.014	0.00	0.01
WZ-3	-	-	-
WZ-4	0.014	0.03	0.01

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

Cc:	M. Raygorodetsky, P. McMahon, M. Au, J. Frey, S. Simpson	By:	Jack Millman
	LANGAN		

SITE OBSERVATION REPORT

- Two instantaneous mercury vapor concentrations of 2.25 µg/m³ and 1.12 µg/m³ were detected at off-site CAMP station WZ-1, located west of perimeter CAMP station PM-1, between 7:25am and 7:26am, respectively. The 15-minute time-weighted-average action level established in the CAMP (1.00 µg/m³) was not exceeded as a result of the instantaneous detections. Perimeter CAMP station PM-1 was located between the work zone and CAMP station WZ-1 during this time, and mercury vapor was not detected at concentrations above 0.00 µg/m³. Additionally, the dedicated CAMP monitor used a handheld Jerome® J505 mercury vapor analyzer to monitor ambient air conditions surrounding CAMP station WZ-1 following the instantaneous detections, and mercury vapor readings were recorded at 0.00 µg/m³. As such, the instantaneous mercury vapor detections were attributed to an off-site source or external interference. As a precautionary measure, the dedicated CAMP monitor replaced the internal filter in the Jerome® J505 unit within off-site CAMP station WZ-1.

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 0.16 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 6:23am to 2:43pm.
- CAMP station WZ-2 was placed on the southern sidewalk of Water Street from 6:25am to 2:46pm.
- CAMP station WZ-4 was placed on the northern sidewalk of Pearl Street from 6:21am to 2:38pm.

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. CAMP stations were discontinued sequentially between 2:25pm and 2:46pm.

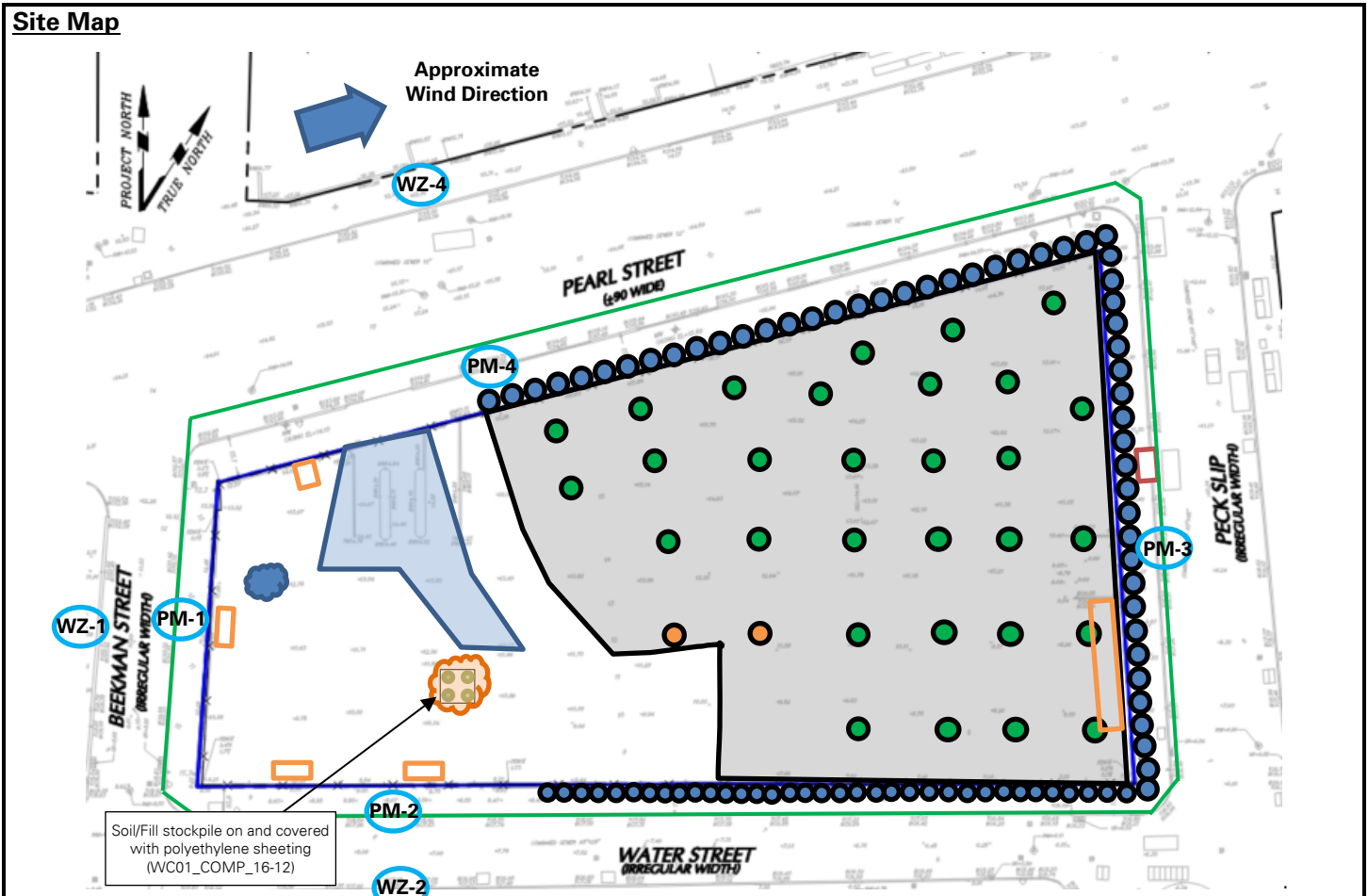
- Background concentrations of mercury vapor at each CAMP station ranged from 0.00 to 0.01 µg/m³.
- Background concentrations of VOCs at each CAMP station were recorded at 0.0 ppm.

Anticipated Activities

- ECD will continue excavating soil/fill along the perimeter of the site to identify potential subsurface utilities and/or obstructions prior to SOE installation.
- ECD will continue exporting C&D debris and soil/fill from the western part of the site for off-site disposal.
- ECD will continue constructing wooden formwork in preparation for concrete guide wall installation in the eastern part of the site.
- ECD will begin installing shallow soil mixing columns for SOE installation along the perimeter of the site.

Cc:	M. Raygorodetsky, P. McMahon, M. Au, J. Frey, S. Simpson	By:	Jack Millman LANGAN
-----	----------------------------------------------------------	-----	-------------------------------

SITE OBSERVATION REPORT



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 Underground Storage Tank
- Approximate Location of C&D Stockpile
- Approximate Location of Soil/Fill Stockpile
- Approximate Location of Soldier Pile
- Approximate Perimeter Construction Fence Location
- Previous Excavation Area
- Approximate Location of Documentation Sample
- Approximate Location of Previously Collected Endpoint Sample

Cc:	M. Raygorodetsky, P. McMahon, M. Au, J. Frey, S. Simpson	By:	Jack Millman LANGAN
-----	----------------------------------------------------------	-----	-------------------------------

SITE OBSERVATION REPORT

Select Site Photographs:



Photo 1: ECD advancing a borehole in the western part of the site (facing north)



Photo 2: View of CAMP station WZ-2 on the southern sidewalk of Water Street (facing east)

Cc:	M. Raygorodetsky, P. McMahon, M. Au, J. Frey, S. Simpson	By:	Jack Millman LANGAN
-----	----------------------------------------------------------	-----	-------------------------------