

SITE OBSERVATION REPORT

PROJECT No.: 170381202	CLIENT: 250 Seaport District, LLC c/o The Howard Hughes Corporation	DATE: Friday, August 4, 2023
PROJECT: 250 Water Street		WEATHER: Partly Sunny, 74 – 82° F Wind: W @ 0.3 – 2.3 mph
LOCATION: New York, NY		TIME: 5:45am – 4:45pm
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, Aron Farber, Tom Keane Suffolk Construction (Suffolk) (General Contractor) Anthony Galu East Coast Drilling, Inc. (ECD) (Foundation Contractor) Ryan Nugent New York State Department of Environmental Conservation (NYSDEC) Jared Donaldson	Day 175
---	--	----------------

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 an ABI Mobilram drill rig to install three soil mix columns to about 35 feet below grade surface (bgs) for support-of-excavation (SOE) installation in the southwestern part of the site (Water Street). ECD’s drill rig advanced steel rods with a soil mixing paddle at the bottom of the rods, while concurrently injecting grout through the top of the paddle and spinning and advancing the paddle downward.
 - No drilling spoils were generated during installation of the soil mix columns.
 - Excess grout was contained within a temporary trench adjacent to the drilling area and will be managed as construction and demolition (C&D) debris at a later date.
- ECD excavated an about 10-foot-long by 10-foot-wide area to a maximum depth of about 8 feet bgs to identify to identify potential subsurface utilities and/or obstructions prior to SOE installation in the southwestern part of the site (along Water Street).
 - 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.

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

SITE OBSERVATION REPORT

Material Tracking

- No material was exported from the site.
- 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	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	14	280	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, 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 7:09am to 3:42pm. 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 g/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	0.021	0.00	0.01
PM-2	0.017	* 0.09	0.01
PM-3	0.016	0.00	0.00
PM-4	0.017	0.00	0.01
WZ-1	0.017	0.00	0.01
WZ-2	0.017	0.00	0.00
WZ-3	0.017	0.00	0.00
WZ-4	0.018	0.00	0.01

Maximum 15-Minute-Average Concentrations

Station ID	Particulate (mg/m^3)	Organic Vapor (ppm)	Mercury Vapor ($\mu\text{g}/\text{m}^3$)
PM-1	0.080	0.01	0.02
PM-2	0.022	* 5.04	0.02
PM-3	0.021	0.00	0.01
PM-4	0.023	0.00	0.06
WZ-1	0.020	0.00	0.03
WZ-2	0.026	0.01	0.01
WZ-3	0.021	0.00	0.00
WZ-4	0.032	0.00	0.02

• 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

Equipment Calibration

* Routine maintenance was conducted for perimeter CAMP station PM-2 for monthly calibration of the VOC module within the station using 5 ppm isobutylene gas. No ground-intrusive activities were completed during this time and the VOC detections were the result of calibration activities that were not reflective of the work completed during this time.

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 0.15 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 6:38am to 4:05pm.
- CAMP station WZ-2 was placed on the southern sidewalk of Water Street from 6:40am to 4:01pm.
- CAMP station WZ-3 was placed on the eastern sidewalk of Peck Slip from 6:43am to 2:13pm.
- CAMP station WZ-4 was placed on the northern sidewalk of Pearl Street from 6:48am to 2:24pm.

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 3:42pm and 3:54pm.

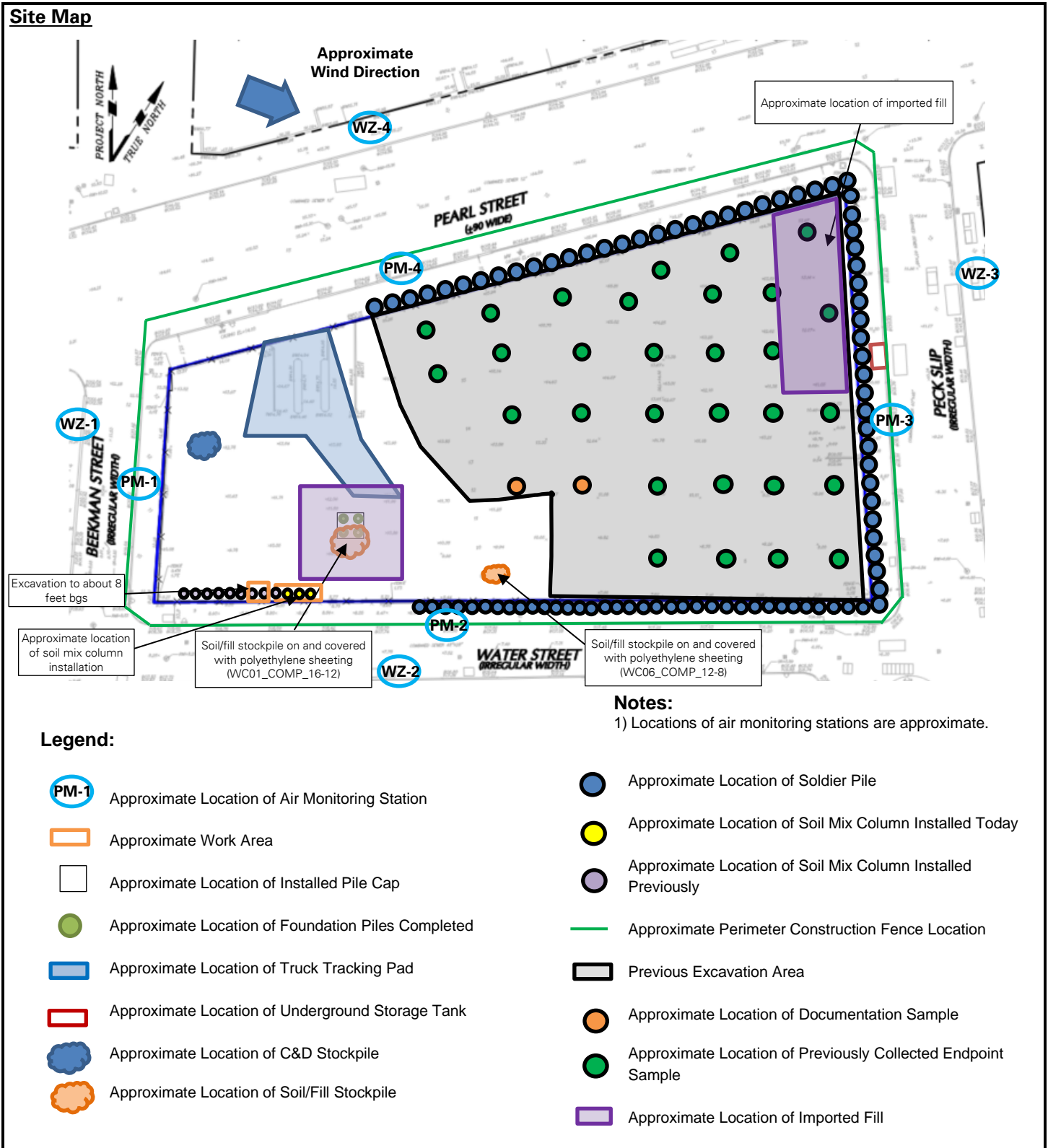
- Background concentrations of mercury vapor at each CAMP station were recorded at 0.00 µg/m³.
- Background concentrations of VOCs at each CAMP station were recorded at 0.0 ppm.

Anticipated Activities

- ECD will continue exporting C&D and soil/fill from the western part of the site for off-site disposal.
- ECD will continue installing soil mixing columns for SOE installation along Water Street.

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

SITE OBSERVATION REPORT



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 soil mix column in the southwestern part of the site (facing southeast)



Photo 2: ECD excavating soil/fill in the southwestern part of the site (facing southwest)

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