SITE OBSERVATION REPORT

PROJECT No.: 170381202	**CLIENT:** 250 Seaport District, LLC c/o The Howard Hughes Corporation	**DATE:**	Wednesday, July 5, 2023
PROJECT: 250 Water Street		**WEATHER:**	Partly Sunny, 75 – 90˚F Wind: E @ 0.1 – 2.2 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: **Day 153**
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) Rafi Alam

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 applied Mercon-X® to the northwestern part of the site to verify the equipment was operational prior to the commencement of remedial activities.
- ECD demolished existing asphalt and concrete in the northwestern part of the site. The construction and demolition (C&D) debris was temporarily stockpiled on and covered with polyethylene sheeting adjacent to the work area pending future off-site disposal.
- ECD removed previously imported 1.5-inch virgin stone from the existing tracking pad and excavated an about 30-foot-long by 25-foot-wide area to a maximum depth of about 1 foot below grade surface (bgs) for the installation of a stabilized construction entrance in the northwestern part of the site.
    - 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. Evidence of impacts was not observed and the soil/fill was temporarily stockpiled on and covered with polyethylene sheeting adjacent to the work area for future off-site disposal.
    - ECD backfilled the area to grade using the previously imported 1.5-inch virgin stone. A layer of filter fabric was placed atop the stone, followed by polyethylene sheeting and reusable, plastic tracking pads for installation of the stabilized construction entrance.
- ECD excavated an about 4-foot-long by 4-foot-wide area to a maximum depth of about 4 feet bgs to create a temporary sump pit for the collection of excess fluids generated during truck washing operations in the northwestern part of the site. Excavated soil/fill was temporarily stockpiled on and covered with polyethylene sheeting adjacent to the work area for future off-site disposal.
    - 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. Mercon-X® was applied to exposed soil/fill and stockpiles as a proactive measure.

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	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 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	42	840	95	1,900	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	0	0	0	0
Project Total	261	5,220	267	5,340	66	1,320

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 and at the northern sidewalk of Pearl Street at five total locations for mercury vapor, volatile organic compounds (VOCs), and particulate matter less than 10 microns in diameter (PM10) from about 7:00 am to 4:00 pm. There were no fifteen-minute average concentrations for mercury vapor or VOCs that approached or exceeded the action levels established by the CAMP (1.00 µg/m^3 and 5.0 parts per million [ppm], 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 photoionization detector (PID), respectively.

- Background concentrations of mercury vapor at each CAMP station were recorded at 0.00 µg/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 (µg/m^3)
PM-1	0.018	0.00	0.01
PM-2	0.019	0.00	0.01
PM-3	0.018	0.00	0.02
PM-4	0.025	0.01	0.01
WZ-1	-	-	-
WZ-2	-	-	-
WZ-3	-	-	-
WZ-4	0.020	0.00	0.00

*****See note above regarding background particulate concentrations

Maximum 15-Minute-Average Concentrations

Station ID	Particulate (mg/m^3)	Organic Vapor (ppm)	Mercury Vapor (µg/m^3)
PM-1	0.045	0.01	0.03
PM-2	0.051	0.01	0.02
PM-3	0.058	0.02	0.08
PM-4	*****0.175	0.08	0.03
WZ-1	-	-	-
WZ-2	-	-	-
WZ-3	-	-	-
WZ-4	0.049	0.05	0.01

●mg/m^3 = milligrams per cubic meter ●ppm = parts per million ●µg/m^3 = micrograms per cubic meter

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

SITE OBSERVATION REPORT

*****PM10 was detected at concentrations exceeding the 15-minute time-weighted-average (TWA) action level at perimeter CAMP station PM-4 between 9:36am and 9:49am. Perimeter CAMP station PM-4 was located adjacent to the work area in the northwestern part of the site and ECD was in the process of demolishing the existing asphalt and concrete cover for the installation of a stabilized construction entrance. Work was halted and the work area was saturated using hydrant water prior to resuming work. Concentrations of PM10 were not detected above background conditions at off-site CAMP station WZ-4 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/m^3 to 0.28 µg/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.

Equipment Troubleshooting

- Mercury vapor, VOC and PM10 data were not recorded at perimeter CAMP station PM-4 from 2:09 pm to 2:19 pm due to a network issue with the equipment rental vendor. No ground-intrusive activities were ongoing during this time; however, Langan continuously monitored the surrounding area using a handheld Jerome® J505 mercury vapor analyzer and handheld PID. Mercury vapor and VOC concentrations were not detected at concentrations above background conditions during this time. The equipment rental vendor was notified of the issue and a spare CAMP station was placed at the location of perimeter CAMP station PM-4.
- Raw data obtained from the spare CAMP station was reviewed and there were no 15-minute time-weighted average exceedances of the action levels established in the CAMP. Data from the spare CAMP station will be reported in a revised Daily Field Report.

Off-site CAMP Stations

- CAMP station WZ-4 was relocated to the northern sidewalk of Pearl Street from 6:24am to 4:26pm due to ground-intrusive activities along the northern boundary of the site.

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 3:59pm and 4:26pm.

- Background concentrations of mercury vapor at each CAMP station ranged from 0.0 to 0.01 µg/m^3.
- Background concentrations of VOCs at each CAMP station were recorded at 0.0 ppm.

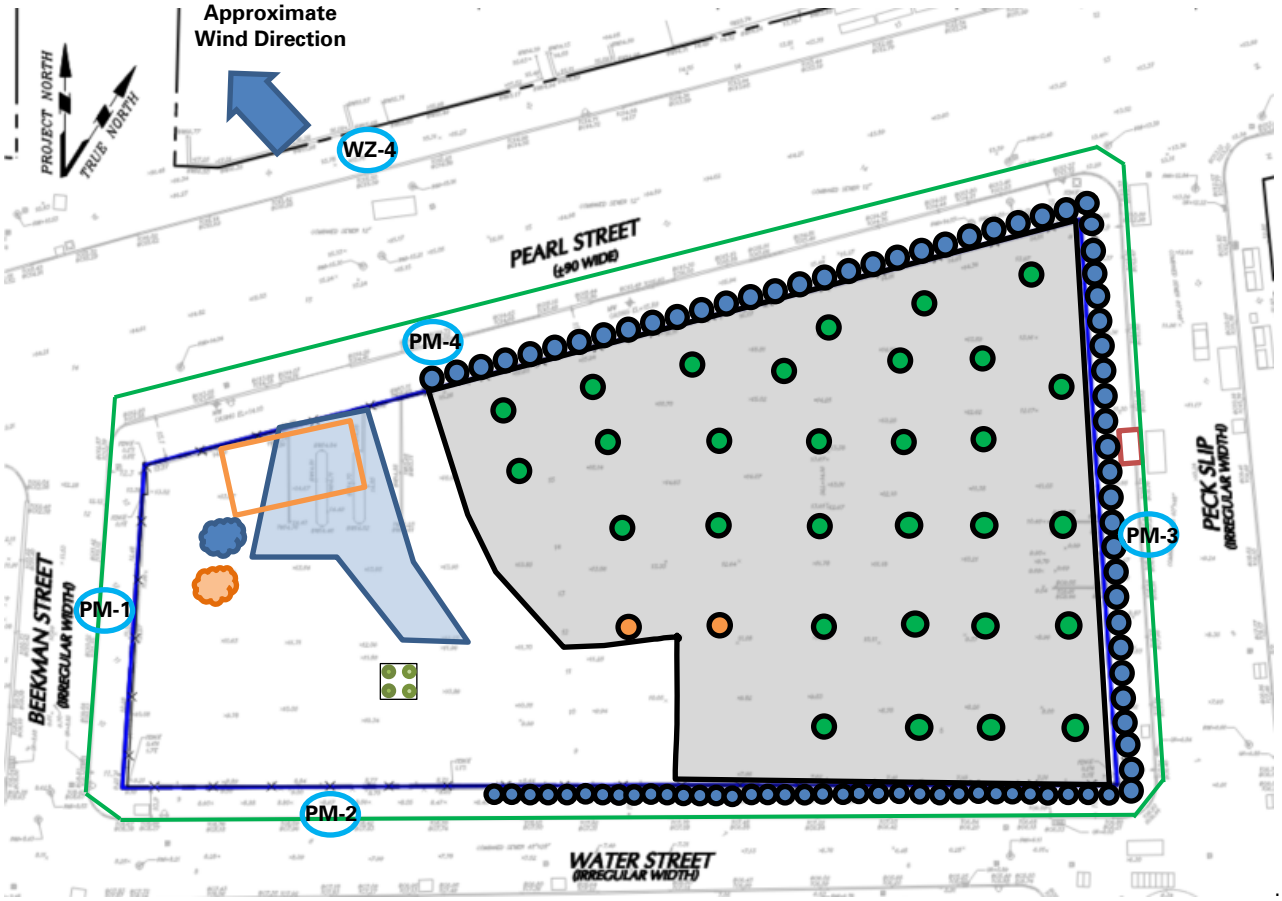
Anticipated Activities

- ECD will excavate soil/fill along Pearl and Beekman Streets to identify potential subsurface utilities and/or obstructions prior to support-of-excavation (SOE) installation.

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

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 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: Stabilized construction entrance in the northwestern part of the site (facing west)

Photo 2: Soil/fill stockpile on and covered with polyethylene sheeting in the northwestern part of the site (facing northeast)

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