

## SITE OBSERVATION REPORT

<b>PROJECT No.:</b> 170381202  <b>PROJECT:</b> 250 Water Street  <b>LOCATION:</b> New York, NY  <b>BCP SITE ID:</b> C231127	<b>CLIENT:</b> 250 Seaport District, LLC	<b>DATE:</b> Thursday, July 9, 2020 Sunny, 76-88 °F <b>WEATHER:</b> Wind: SSE @ 1.1 mph (7:33am) to S @ 7.0 mph (5:45pm)  <b>TIME:</b> 6:00 am – 7:35 pm
<b>CONTRACTOR:</b> AARCO Environmental Services Corp.		<b>LANGAN REP. :</b> Thomas Schiefer Adrian Heath
<b>EQUIPMENT:</b> Geoprobe 7720 DT Bosch RH540M Hammer Drill Jerome J505 and J405 MultiRAE MiniRAE 3000 Dusttrak DRX	<b>PRESENT AT SITE:</b> <b>RI Day 4</b> Thomas Schiefer, Adrian Heath – Langan Nick Turro, Jose Romoro – AARCO Environmental Services Corp.	
<b>OBSERVATIONS, DISCUSSIONS, TEST RESULTS, ETC.:</b>  Langan continued implementing the May 13, 2020 Remedial Investigation Work Plan (RIWP) for New York State Department of Environmental Conservation (NYSDEC) Brownfield Cleanup Program (BCP) Site No. C231127 located at 250 Water Street (Block 98, Lot 1).  <b>Site Activities</b> <ul style="list-style-type: none"> <li>• AARCO used a Bosch RH540M Hammer Drill to install to soil vapor points in Voids 1 and 3. After installation and prior to sampling, the sample tubing was purged with a MultiRAE and mercury vapor readings were taken with a Jerome J505.           <ul style="list-style-type: none"> <li>○ Sub-slab soil vapor probe V1 (Void 1) was installed to about 1.5 feet bgs in Void 1. No PID readings above background were observed. A maximum mercury vapor concentration of 0.23 micrograms per cubic meter (<math>\mu\text{g}/\text{m}^3</math>) was observed.</li> <li>○ Sub-slab soil vapor probe V3 (Void 3) was installed to about 1.5 feet bgs in Void 3. No PID readings or mercury vapor concentrations above background were observed.</li> </ul> </li> <li>• Sub-slab soil vapor probe V5 (Void 5) was purged with a MultiRAE and a mercury vapor readings were taken with a Jerome J505. No PID readings above background were observed. A maximum mercury vapor concentration of 0.12 <math>\mu\text{g}/\text{m}^3</math> was observed.</li> <li>• AARCO used a Geoprobe 7720 DT drill rig with a closed point sampler to install nine soil vapor probes. After installation and prior to sampling, the sample tubing was purged with a MultiRAE and a mercury vapor reading was taken with a Jerome J505           <ul style="list-style-type: none"> <li>○ Soil vapor probe SV12 was installed to about 8 feet bgs. No PID readings or mercury vapor concentrations above background were observed.</li> <li>○ Soil vapor probe SV14 was installed to about 7 feet bgs. No PID readings above background were observed. A maximum mercury vapor concentration of 0.55 micrograms per cubic meter (<math>\mu\text{g}/\text{m}^3</math>) was observed.</li> <li>○ Soil vapor probe SV17 was installed to about 7 feet bgs. No PID readings above background were observed. A maximum mercury vapor concentration of 0.17 <math>\mu\text{g}/\text{m}^3</math> was observed.</li> </ul> </li> </ul>		
<b>Cc:</b>	J. Yanowitz, P. McMahon, M. Raygorodetsky	<b>By:</b> Adrian Heath  <b>LANGAN</b>

## SITE OBSERVATION REPORT

- Soil vapor probe SV23 was installed to about 7 feet bgs. No PID readings above background were observed. A maximum mercury vapor concentration of 0.23  $\mu\text{g}/\text{m}^3$  was observed.
- Soil vapor probe SV28 was installed to about 7 feet bgs. No PID readings above background were observed. A maximum mercury vapor concentration of 0.16  $\mu\text{g}/\text{m}^3$  was observed.
- Soil vapor probe SV29 was installed to about 8 feet bgs. No PID readings or mercury vapor concentrations above background were observed. No PID readings above background were observed. A maximum mercury vapor concentration of 0.08  $\mu\text{g}/\text{m}^3$  was observed.
- Soil vapor probe SV30 was installed to about 7 feet bgs. No PID readings or mercury vapor concentrations above background were observed.
- Soil vapor probe SV32 was installed to about 7 feet bgs. No PID readings or mercury vapor concentrations above background were observed.
- Soil vapor probe SV37 was installed to about 7 feet bgs. No PID readings above background were observed. A maximum mercury vapor concentration of 1.13  $\mu\text{g}/\text{m}^3$  was observed in the tubing after installation, prior to purging. After purging, and prior to sampling, no mercury vapor concentrations above background were observed.
- Soil vapor point SV19 was purged with a MultiRAE and a mercury vapor readings were taken with a Jerome J505. No PID readings or mercury vapor concentrations above background were observed.
- Soil vapor point SV21 was purged with a MultiRAE and a mercury vapor readings were taken with a Jerome J505. No PID readings above background were observed. A maximum mercury vapor concentration of 0.31  $\mu\text{g}/\text{m}^3$  was observed.
- Soil vapor point SV24 was purged with a MultiRAE and a mercury vapor readings were taken with a Jerome J505. No PID readings above background were observed. A maximum mercury vapor concentration of 0.10  $\mu\text{g}/\text{m}^3$  was observed.
- AARCO installed all soil vapor probes by backfilling with one foot of No.2 sand, followed by backfilling to grade with bentonite, before finishing the boring with a bentonite seal.
- All areas of intrusive work were patched with cold patch asphalt after sampling was completed.

### **Material Tracking**

- No material was imported to the site.
- No material was exported from the site.
- No investigation derived waste (i.e. soil cutting or groundwater) was generated during site activities.

### **Sampling**

- The following samples were collected and relinquished to Alpha Analytical, Inc, a New York State Department of Environmental Health (NYSDOH) Environmental Laboratory Approval Program (ELAP)-certified laboratory in Westborough, Massachusetts (ELAP No. 11148) for analyses proposed in the RIWP.
  - SV12, SV14, SV17, SV19, SV21, SV23, SV24, SV28, SV29, SV30, SV32, and SV37: Twelve, two-hour soil vapor samples were collected in 6-liter summa canisters and in sorbent tubes for analyses by Alpha Analytical, Inc. for volatile organic compounds (VOCs) by USEPA Method TO-15 and for mercury vapor by NIOSH Method 6009.
  - V1, V3, and V5: Three, two-hour void space soil vapor samples were collected in sorbent tubes for mercury vapor by NIOSH Method 6009.

Cc:	J. Yanowitz, P. McMahon, M. Raygorodetsky	By:	Adrian Heath <b>LANGAN</b>
-----	---	-----	-------------------------------

## SITE OBSERVATION REPORT

- AA02: One ambient air sample was in a 6-liter summa canister and sorbent tube for analyses by Alpha Analytical, Inc. for VOCs by USEPA Method TO-15 and for mercury vapor by NIOSH Method 6009.
- Quality Assurance/Quality Control (QA/QC): One, two-hour soil vapor duplicate was collected in a 6-liter summa canister and sorbent tube for analyses by Alpha Analytical, Inc. for VOCs by USEPA Method TO-15 (air canister) and for mercury vapor by NIOSH Method 6009. Additionally, one field blank was collected in a sorbent tube for analysis of mercury vapor by NIOSH Method 6009.

Cc:	J. Yanowitz, P. McMahon, M. Raygorodetsky	By:	Adrian Heath
			<b>LANGAN</b>

## SITE OBSERVATION REPORT

### CAMP Activities

Langan performed air monitoring during ground-intrusive activities. Fifteen-minute average concentrations of mercury vapor, particulate matter smaller than 10 microns in diameter (PM10), and volatile organic compounds (VOCs) did not exceed action levels for the duration of work activities. Daily background concentrations for PM10, VOCs, and mercury vapor based on the June 16, 2020 baseline air monitoring event were 0.025 milligrams per cubic meter (mg/m<sup>3</sup>) for PM10, 0.5 parts per million (ppm) for VOCs, and 0.0 micrograms per cubic meter (µg/m<sup>3</sup>) for mercury vapor.

Daily Average Concentrations			
Station ID	Particulate (mg/m <sup>3</sup> )	Organic Vapor (ppm)	Mercury Vapor (µg/m <sup>3</sup> )
PM-1	0.018	0.0	0.1
PM-2	0.035	0.0	0.0
PM-3	0.019	0.1	0.0
PM-4	0.013	0.0	0.2
PM-5	0.012	0.0	0.0
PM-6	0.013	0.3	0.0
WZ-1	0.008	0.0	0.0

mg/m<sup>3</sup> = milligrams per cubic meter

ppm = parts per million

µg/m<sup>3</sup> = micrograms per cubic meter

Max 15 Minute Average Concentration			
Station ID	Particulate (mg/m <sup>3</sup> )	Organic Vapor (ppm)	Mercury Vapor (µg/m <sup>3</sup> )
PM-1	0.029	0.0	0.4
PM-2	0.041	0.0	0.0
PM-3	0.038	0.5	0.0
PM-4	0.027	0.0	0.5
PM-5	0.025	0.0	0.0
PM-6	0.029	1.6	0.0
WZ-1	0.028	0.0	0.0

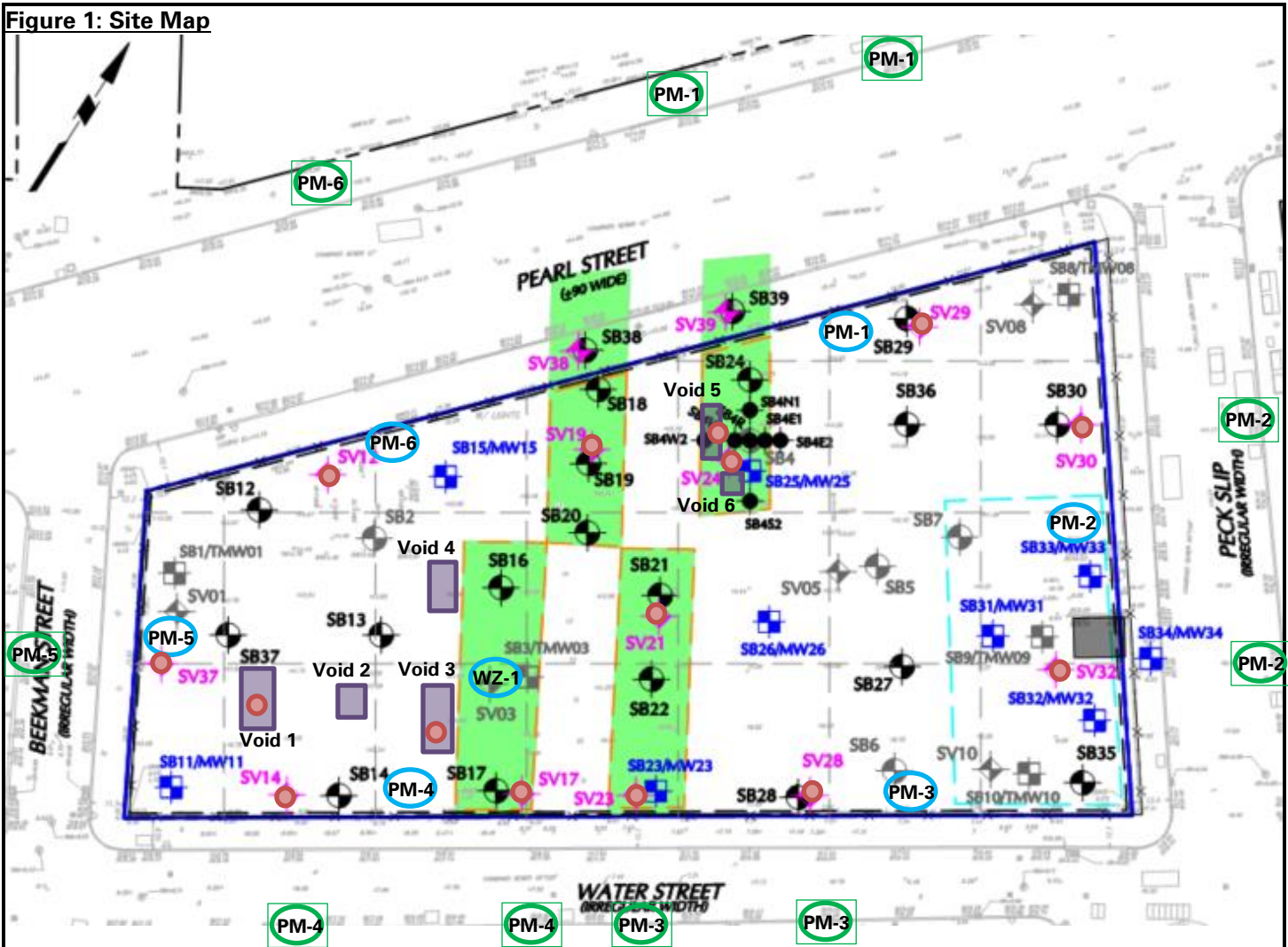
### Anticipated Activities

- The results of the soil vapor sampling will be evaluated and interpreted alongside previously collected data and available information from historical maps and other data sources.
- No field work is scheduled at this time. Phase 3 of the RIWP (soil vapor sampling) is anticipated to be initiated during the week of July 27, 2020 after the results are evaluated, interpreted and shared

Cc:	J. Yanowitz, P. McMahon, M. Raygorodetsky	By:	Adrian Heath
			<b>LANGAN</b>

## SITE OBSERVATION REPORT

Figure 1: Site Map



**Legend:**

- Site Boundary
- Approximate area of suspected void space
- Approximate location of soil vapor probes installed and/or sampled today
- PM-1 Approximate location of air monitoring station (on-site)
- PM-1 Approximate location of air monitoring station (off-site)
- WZ-1 Approximate locations of wok zone air monitoring station

**Notes:**

1) Air monitoring station were relocated based on work area and wind direction. Locations shown above identify the predominant area of the air monitoring station.

Cc:	J. Yanowitz, P. McMahon, M. Raygorodetsky	By:	Adrian Heath <b>LANGAN</b>
-----	---	-----	-------------------------------

## SITE OBSERVATION REPORT

### Select Site Photographs:



Photo 1: AARCO installing a soil vapor probe at SV-28 (facing north)



Photo 2: AARCO installing sub-slab vapor probe at Void 1 (facing south)

Cc: J. Yanowitz, P. McMahon, M. Raygorodetsky

By: Adrian Heath

**LANGAN**

## SITE OBSERVATION REPORT



Photo 3: View of helium tracer test at SV-17



Photo 3: View of soil vapor sampling equipment at SV-37 (facing south)

Cc:	J. Yanowitz, P. McMahon, M. Raygorodetsky	By:	Adrian Heath
			<b>LANGAN</b>