LANGAN
ENGINEERING & ENVIRONMENTAL SERVICES

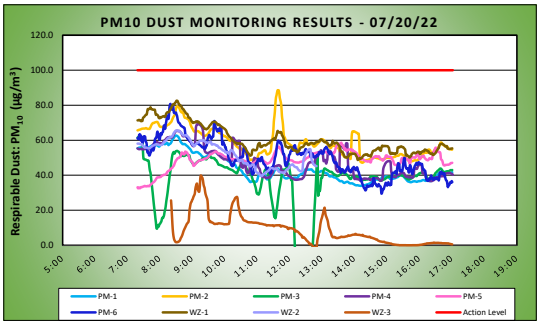
DAILY AIR MONITORING REPORT
250 Water Street Remediation Site
Manhattan, New York

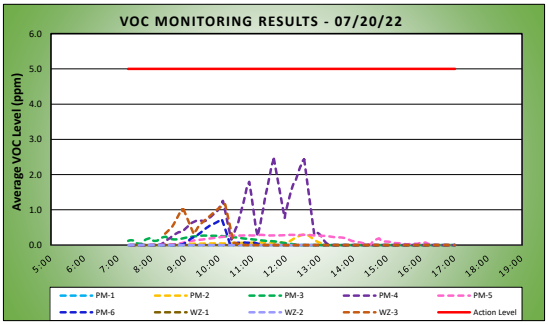
07/20/22	
Project number: 170381202	
Page 1 of 2	Rev. No. 0
Submitted By:	
Dust Action Level (µg/m³)	100
VOC Action Level (ppm)	5
Hg Action Level (µg/m³)	1.0

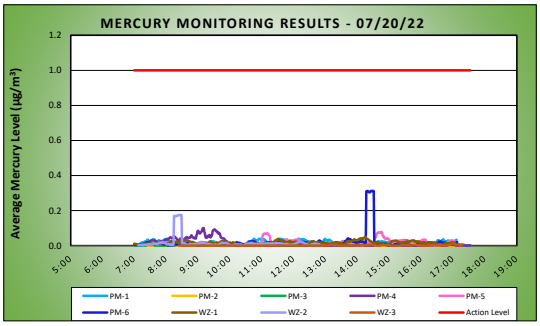
Weather Data Range for Work Day		Wind Direction	N	Relative Humidity (%)	37.2 - 61.0	Daily Rain (in)	0.00	Readings in the summary table and graphs below are the reported downwind concentrations.
Temp (°F)	79.1 - 95.3	Wind Speed (MPH)	0.9 - 6.2	Barometer (inHg)	29.78 - 29.88			

Station Location Work Area	Daily Avg. Dust Concentration (µg/m³)	Max 15 Minute Dust Concentration (µg/m³)	Time of Maximum 15 Minute Avg Dust Reading	Daily Avg. VOC Concentration (ppm)	Max 15 Minute VOC Concentration (ppm)	Time of Max 15 Minute Avg VOC Reading
PM-1	43.9	62.7	8:30	0.0	0.0	7:18
PM-2	58.9	88.6	11:38	0.0	0.3	12:33
PM-3	35.5	61.8	7:21	0.1	0.3	9:34
PM-4	47.7	69.2	9:10	0.5	2.4	11:38
PM-5	48.6	58.5	13:36	0.1	0.3	12:35
PM-6	50.0	80.7	8:20	0.1	0.7	10:05
WZ-1	60.7	82.6	8:31	0.0	0.0	7:27
WZ-2	52.4	65.6	8:32	0.0	0.0	7:19
WZ-3	9.0	39.9	9:16	0.2	1.2	10:11

Station Location Work Area	Daily Avg. Mercury Concentration (µg/m³)	Max 15 Minute Mercury Concentration (µg/m³)	Time of Max 15 Minute Avg Mercury Reading
PM-1	0.0	0.0	12:10
PM-2	0.0	0.0	14:30
PM-3	0.0	0.0	15:50
PM-4	0.0	0.1	9:10
PM-5	0.0	0.1	14:46
PM-6	0.0	0.3	14:28
WZ-1	0.0	0.1	14:15
WZ-2	0.0	0.2	8:27
WZ-3	0.0	0.0	16:58







Air Monitoring Notes:

Langan performed air monitoring at the perimeter of the site and at the work zone 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, VOCs, or PM10 that approached or exceeded the action level established by the community air monitoring plan (CAMP) (1.0 µg/m³, 5.0 ppm, and 0.1 mg/m³, 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 0.00 to 0.03 µg/m³.
- Background concentrations of VOCs at each CAMP station were recorded at 0.0 ppm.

Perimeter and Work Zone Concentrations
- Two instantaneous mercury vapor readings above background concentrations were recorded at off-site CAMP station WZ-2 (2.5 µg/m³ at 8:15am) and perimeter CAMP station PM-6 (4.4 µg/m³ at 2:17pm), respectively. There were no 15-minute average exceedances of the action level established in the CAMP, however, ou t of an abundance of caution, work was temporarily halted and Mercon-X® was applied to all stockpiles and exposed soil/fill throughout the site. In each instance, mercury vapor concentrations retu rned background conditions immediately following the instantaneous reading and work resumed following application of Mercon-X®.

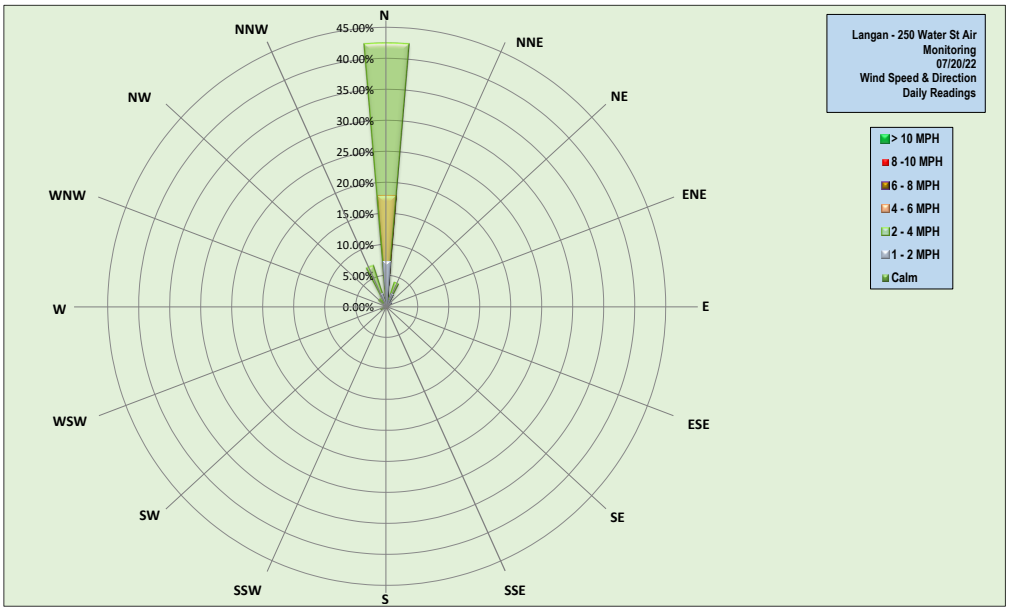
Ambient Air (Handheld Jerome® J505 and Handheld PID)
- The dedicated mobile monitor (Langan) used a handheld Jerome® J505 mercury vapor analyzer to monitor ambient air conditions at various heights throughout the site. Instantaneous mercury vapor concentrations throughout the site ranged from 0.00 µg/m³ 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 at or below background concentrations throughout the work day.

Equipment Troubleshooting
- The PID at off-site CAMP station WZ-1 was recalibrated at 8:58am due to persistent readings of 1.2 ppm, which was inconsistent with readings on the handheld unit (0.0 ppm). Data logging resumed at 9:00am and VOC concentrations returned to background conditions following equipment recalibration. Odorswere not observed migrating from the site during this time.
- The PID at perimeter CAMP station PM-4 was recalibrated at 11:39am and 12:33pm due to persistent readings ranging from 2.1 ppm to 2.7ppm, which was inconsistent with readings on the handheld unit (0.0 ppm). Data logging resumed at 11:42am and 12:35pm, respectively, and VOC concentrations returned to background conditions in each instance. Odors were not observed migrating from the site during this time.

Off-Site CAMP Station Relocation
- CAMP station WZ-1 was relocated to the northern sidewalk of Pearl Street from 7:12am to 5:01pm during excavation/backfill of test pits and installation of SOE soldier piles along the northern boundary of the site.
- CAMP station WZ-2 was relocated to the southern sidewalk of Water Street from 7:04am to 12:50pm during advancement of soil borings in the south-central part of the site.
- CAMP station WZ-3 was relocated to the eastern sidewalk of Peck Slip from 8:09am to 5:01pm during excavation/backfill of t est pits along the eastern 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 Atmoš AC-645 dust/vapor suppressing foam. CAMP stations were discontinued at 5:01pm at the conclusion of ground-intrusive activities.
- Mercury vapor concentrations at each CAMP station ranged from 0.00 to 0.02 µg/m³.
- VOC concentrations at each CAMP station were recorded at 0.0 ppm.

EMILCOTT
environmental, health & safety experts


Langan - 250 Water St Air Monitoring
07/20/22
Wind Speed & Direction
Daily Readings
> 10 MPH
8 -10 MPH
6 - 8 MPH
4 - 6 MPH
2 - 4 MPH
1 - 2 MPH
Calm
N
NNE
NE
ENE
E
ESE
SE
SSE
S
SSW
SW
WSW
W
WNW
NW
NNW
45.00%
40.00%
35.00%
30.00%
25.00%
20.00%
15.00%
10.00%
5.00%
0.00%