LANGAN
ENGINEERING & ENVIRONMENTAL SERVICES

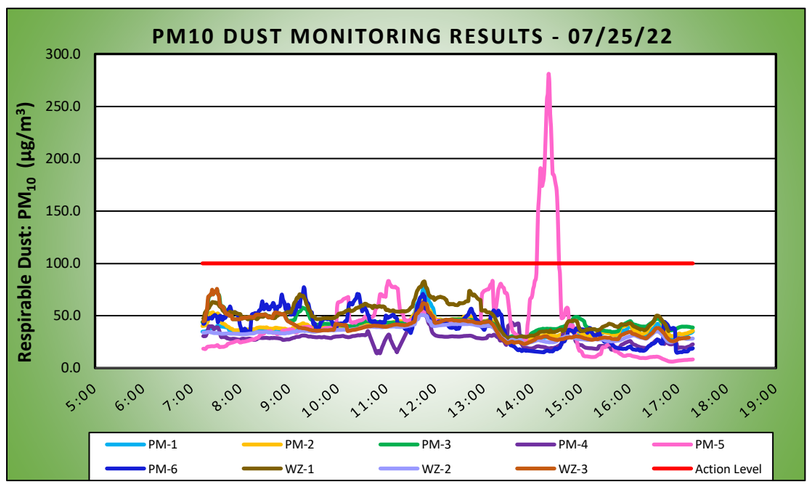
DAILY AIR MONITORING REPORT
250 Water Street Remediation Site
Manhattan, New York

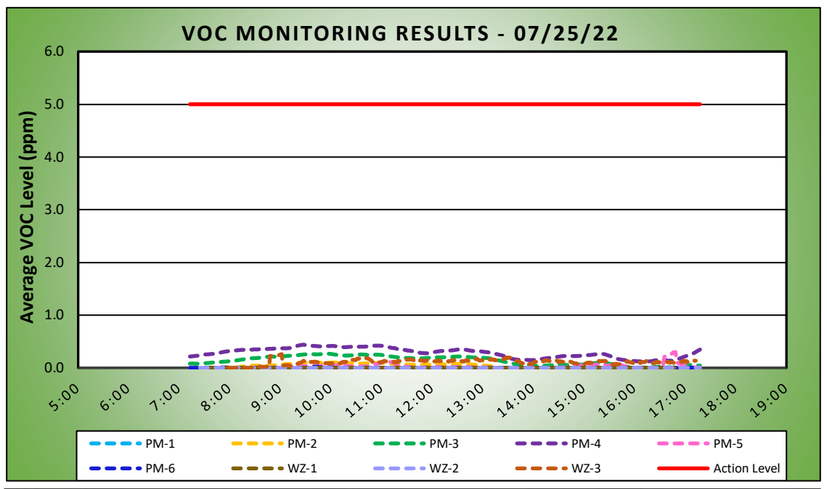
07/25/22	
Project number: 170381202	
Page 1 of 2	Rev. No. 0
Submitted By:	
Dust Action Level (µg/m^3)	100
VOC Action Level (ppm)	5
Hg Action Level (µg/m^3)	1.0

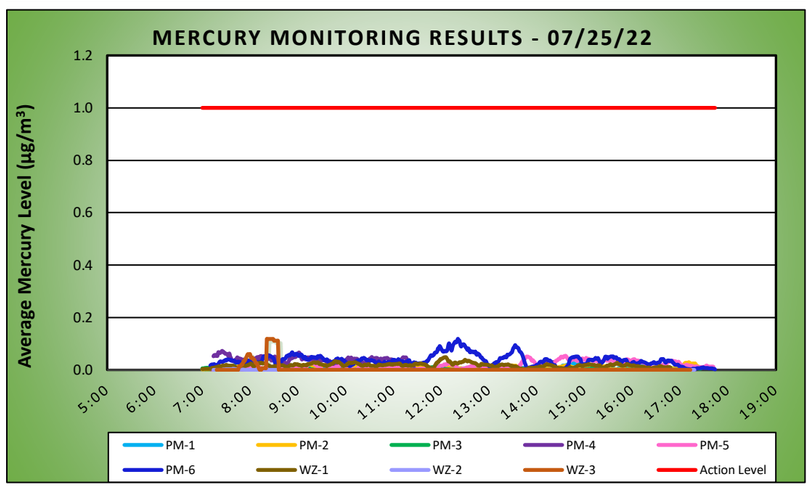
Weather Data Range for Work Day		Wind Direction	WSW	Relative Humidity (%)	55.0 - 73.7	Daily Rain (in)	0.19	Readings in the summary table and graphs below are the reported downwind concentrations.
Temp (°F)	78.9 - 88.3	Wind Speed (MPH)	0.4 - 7.7	Barometer (inHg)	29.91 - 29.95			

Station Location Work Area	Daily Avg. Dust Concentration (µg/m^3)	Max 15 Minute Dust Concentration (µg/m^3)	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	37.6	76.8	11:46	0.0	0.0	8:27
PM-2	39.2	64.3	11:45	0.0	0.1	10:04
PM-3	43.5	74.9	7:31	0.1	0.3	9:56
PM-4	27.6	62.9	11:45	0.3	0.4	9:27
PM-5	43.1	* 281.0	14:20	0.0	0.3	16:48
PM-6	39.6	77.2	9:18	0.0	0.0	9:44
WZ-1	49.6	82.7	11:47	0.0	0.0	7:35
WZ-2	33.6	50.7	11:43	0.0	0.0	8:05
WZ-3	38.7	75.6	7:31	0.1	0.3	9:02

Station Location Work Area	Daily Avg. Mercury Concentration (µg/m^3)	Max 15 Minute Mercury Concentration (µg/m^3)	Time of Max 15 Minute Avg Mercury Reading
PM-1	0.01	0.03	14:44
PM-2	0.01	0.03	17:11
PM-3	0.00	0.01	11:56
PM-4	0.02	0.07	7:25
PM-5	0.02	0.05	14:36
PM-6	0.04	0.12	12:21
WZ-1	0.02	0.05	12:06
WZ-2	0.00	0.00	7:38
WZ-3	0.00	0.12	8:21







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 or VOCs that approached or exceeded the action level established by the Community Air Monitoring Plan (CAMP) (1.00 µg/m^3 and 5.0 ppm, 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 at 0.00 to 0.03 µg/m^3.
- Background concentrations of VOCs at each CAMP station were recorded at 0.0 ppm.

Perimeter and Work Zone Concentrations

- * PM10 concentrations at perimeter CAMP station PM-5 exceeded the action level established in the CAMP (0.100 mg/m3) from 2:06pm to 2:32pm (26 minutes). The exceedance was caused by welding activities in proximity to perimeter CAMP station PM-5 and was not a result of ground-intrusive activities at the site. Work was temporarily halted and dust suppression was implemented by spraying the work area with water. Fugitive dust was not observed migrating from the site during this time.
- A Jerome® J405 mercury vapor analyzer was used at off-site CAMP station WZ-3 throughout the work day due to a malfunction of two Jerome® J505 units which required maintenance by the equipment manufacturer. Four additional Jerome® J505 units are anticipated to be delivered to the site on July 26, 2022.

Equipment Troubleshooting

- PM10 concentrations were not recorded at perimeter CAMP station PM-4 from 11:14am to 11:26am due to a malfunction with the remote telemetry system. Work was halted and troubleshooting measures were implemented to restart the system. Fugitive dust was not observed migrating from the site during this time and data logging resumed at 11:27am.
- PM10 concentrations were not recorded at perimeter CAMP station PM-6 from 1:53pm to 1:58pm due to a depleted battery. During this time, CCJV was in the process of welding T-brackets to the edges of previously installed soldier piles along the northern boundary of the site. Data logging resumed at 1:59pm following replacement of the battery at perimeter CAMP station PM-6. Fugitive dust was not observed migrating from the site 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 0.74 µg/m^3 (mercury vapor concentrations above background concentrations are associated with ambient air screening in the north-central part of the site during excavation activities in the mercury-impacted area).
- The dedicated mobile monitor (Langan) used a handheld PID to monitor VOC concentrations throughout the site. VOC concentrations were at or below background concentrations throughout the work day.

Off-Site CAMP Station Relocation

- CAMP station WZ-1 was relocated to the northern sidewalk of Pearl Street from 7:20am to 4:48pm during excavation and demolition activities along the northern boundary of the site.
- CAMP station WZ-2 was relocated to the eastern sidewalk of Peck Slip from 7:10am to 5:18pm during excavation activities and installation of SOE soldier piles along the eastern boundary of the site.
- CAMP station WZ-3 was relocated to the southern sidewalk of Water Street from 7:44am to 5:13pm during installation of SOE soldier piles 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 Atmos® AC-645 dust/vapor suppressing foam. CAMP stations were discontinued between 4:48pm and 5:44pm at the conclusion of ground-intrusive activities.

- Mercury vapor concentrations at each CAMP station ranged from 0.00 to 0.01 µg/m^3.

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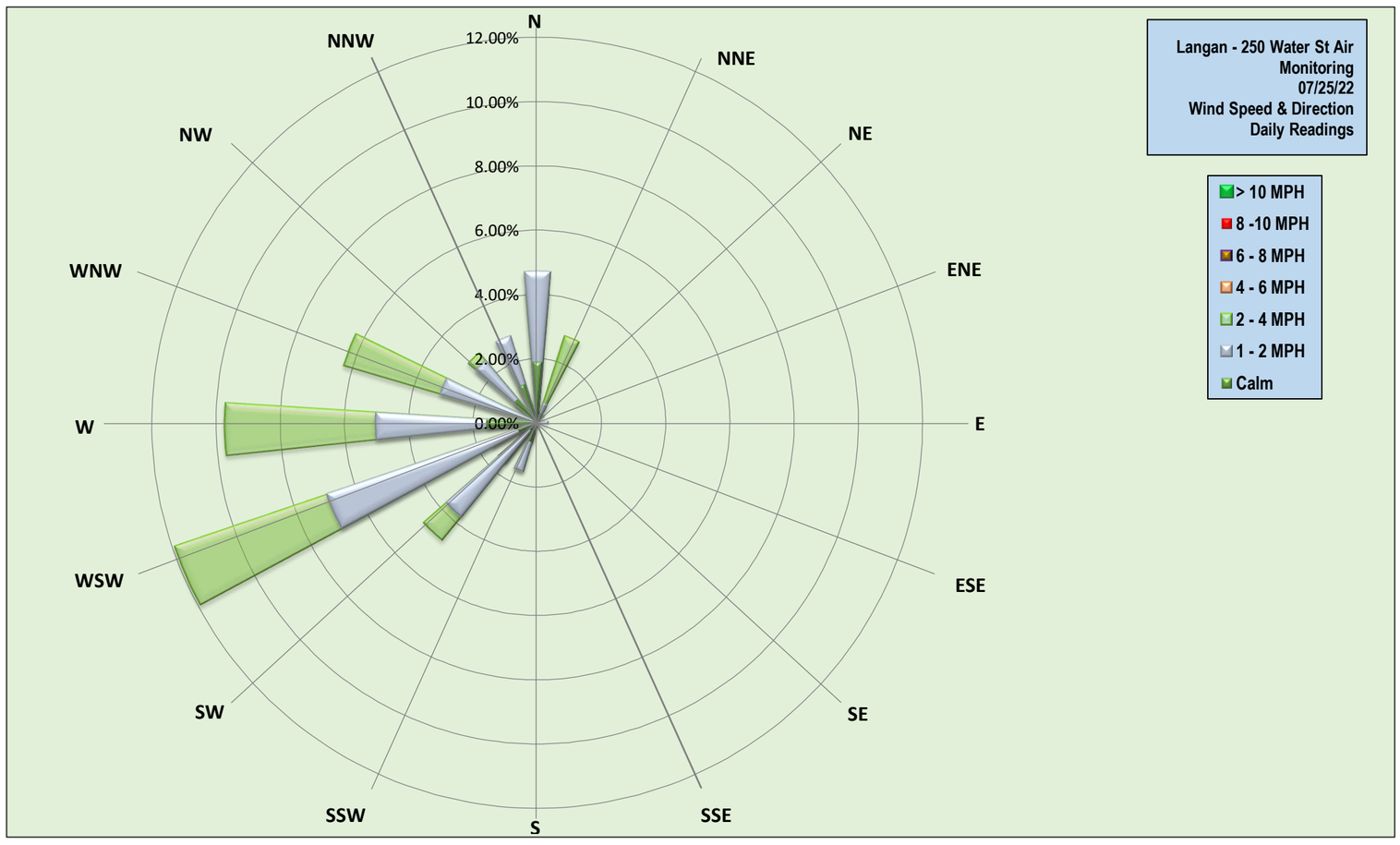
Langan - 250 Water St Air Monitoring
07/25/22
Wind Speed & Direction
Daily Readings
> 10 MPH
8 -10 MPH
6 - 8 MPH
4 - 6 MPH
2 - 4 MPH
1 - 2 MPH
Calm
N
NNE
NE
ENE
E
ESE
SE
SSE
S
SSW
SW
WSW
W
WNW
NW
NNW
12.00%
10.00%
8.00%
6.00%
4.00%
2.00%
0.00%