LANGAN
ENGINEERING & ENVIRONMENTAL SERVICES

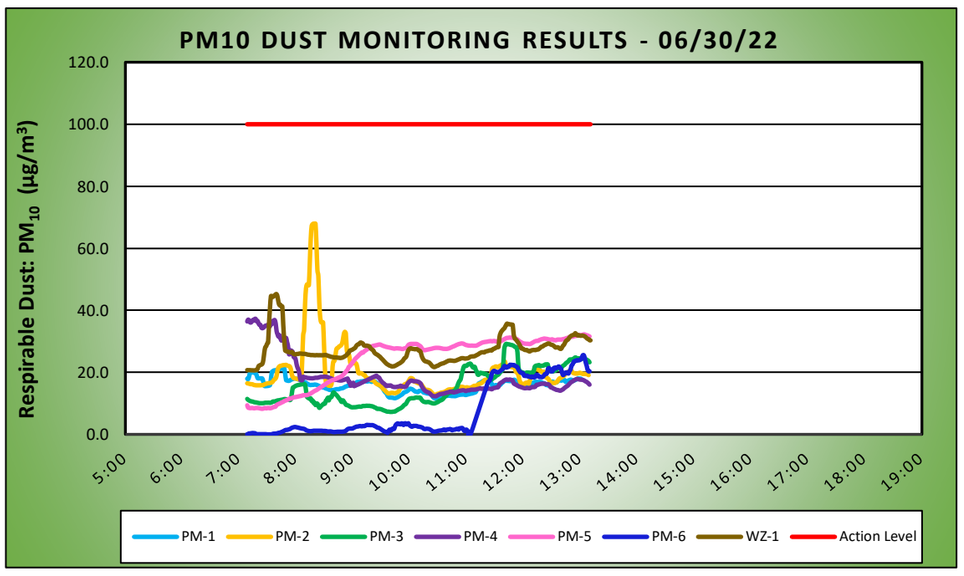
# DAILY AIR MONITORING REPORT
## 250 Water Street Remediation Site
### Manhattan, New York

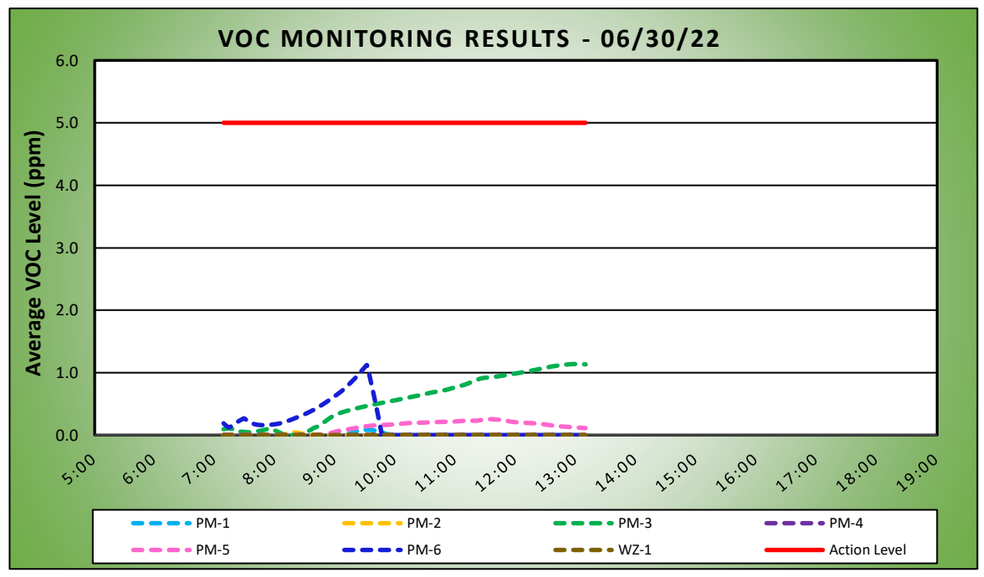
| | |
|---|---|
| 06/30/22 | |
| Project number: 170381202 | |
| Page 1 of 2 | Rev. No. 0 |
| Submitted By: | |
| Dust Action Level (µg/m$^3$) | 100 |
| VOC Action Level (ppm) | 5 |
| Hg Action Level (µg/m$^3$) | 1.0 |

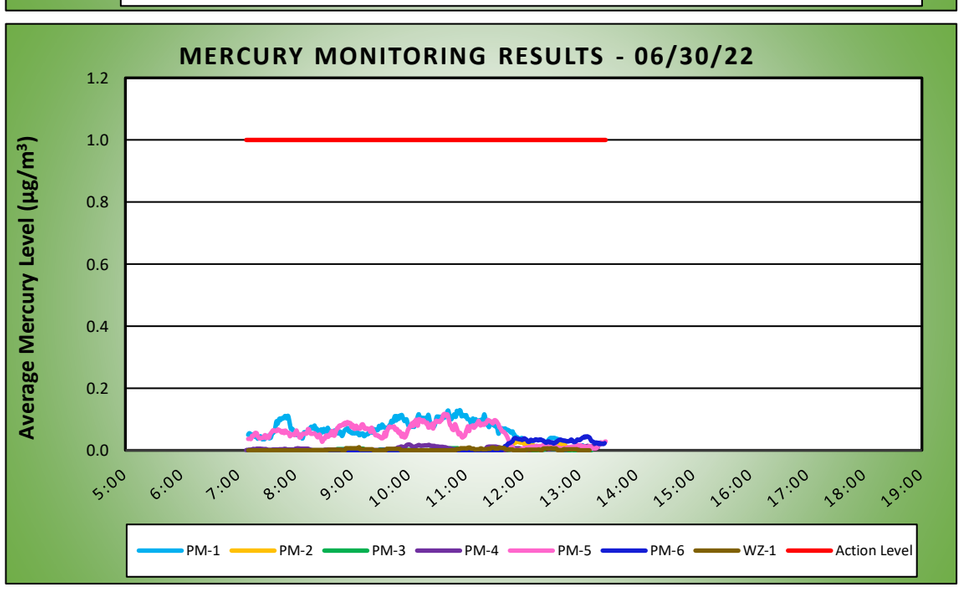
| Weather Data Range for Work Day | | Wind Direction | ENE | Relative Humidity (%) | 32.7 - 53.3 | Daily Rain (in) | 0.00 | Readings in the summary table and graphs below are the reported downwind concentrations. |
|---|---|---|---|---|---|---|---|---|
| Temp (°F) | 73.0 - 84.5 | Wind Speed (MPH) | 1.0 - 5.8 | Barometer (inHg) | 30.25 - 30.29 | | | |

| 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 | 15.8 | 21.4 | 7:48 | 0.0 | 0.1 | 9:28 |
| PM-2 | 20.0 | 68.0 | 8:20 | 0.0 | 0.0 | 8:17 |
| PM-3 | 15.2 | 29.2 | 11:42 | 0.6 | 1.1 | 12:59 |
| PM-4 | 18.8 | 37.2 | 7:17 | 0.0 | 0.0 | 9:37 |
| PM-5 | 24.2 | 32.2 | 13:04 | 0.1 | 0.3 | 11:37 |
| PM-6 | 7.6 | 25.5 | 13:03 | 0.2 | 1.1 | 9:32 |
| WZ-1 | 27.2 | 45.2 | 7:39 | 0.0 | 0.0 | 8:01 |

| 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 | 0.1 | 0.1 | 10:53 |
| PM-2 | 0.0 | 0.0 | 11:54 |
| PM-3 | 0.0 | 0.0 | 10:42 |
| PM-4 | 0.0 | 0.0 | 9:59 |
| PM-5 | 0.1 | 0.1 | 10:37 |
| PM-6 | 0.0 | 0.0 | 13:05 |
| WZ-1 | 0.0 | 0.0 | 7:28 |





**Air Monitoring Notes:**

Langan performed air monitoring at the perimeter of the site and at the work zone at seven locations for particulate matter less than 10 microns in diameter (PM10), volatile organic compounds (VOCs), and mercury vapor, during ground-intrusive activities. Fifteen-minute average concentrations of PM10, VOCs, and mercury vapor did not exceed the action levels established in the site community air monitoring plan (CAMP) for the duration of work activities.

Background Concentrations

Prior to implementation of ground-intrusive work, 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 0.01 µg/m$^3$ to 0.09 µg/m$^3$.
- Background concentrations of VOCs at each CAMP station were recorded at 0.0 ppm.

Ambient Air (Handheld Jerome® J505 and Handheld PID)

- 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 0.24 µg/m$^3$.
- Langan used a handheld PID to monitor VOC concentrations throughout the site. Instantaneous VOC concentrations were not detected above background concentrations throughout the work day.

Off-Site CAMP Station Relocation

- Air monitoring station WZ-1 was relocated to the southern sidewalk of Water Street from 6:28am to 1:10pm.

Equipment Troubleshooting

- Drilling activities were halted between 9:03am and 9:09am during battery replacement at perimeter CAMP station PM-4. PM10 concentrations were not recorded during this time and fugitive dust was not observed migrating from the site. Data logging resumed at 9:10am.
- The DustTrak unit at perimeter CAMP station PM-6 was recalibrated at 11:04am due to negative readings being recorded. PM10 readings returned to background conditions following equipment recalibration and data logging resumed at 11:08am.

Prior to CAMP Shutdown

Prior to discontinuing CAMP at the conclusion of ground-intrusive activities, VOC and mercury vapor concentrations were confirmed to return to background conditions at each perimeter station using the handheld PID and handheld Jerome® J505 mercury vapor analyzer. CAMP stations were discontinued between 12:59pm and 1:10pm at the conclusion of ground-intrusive activities.

- Mercury vapor concentrations at each CAMP station ranged from 0.01 µg/m$^3$ to 0.08 µg/m$^3$.
- VOC concentrations at each CAMP station were recorded at 0.0 ppm.

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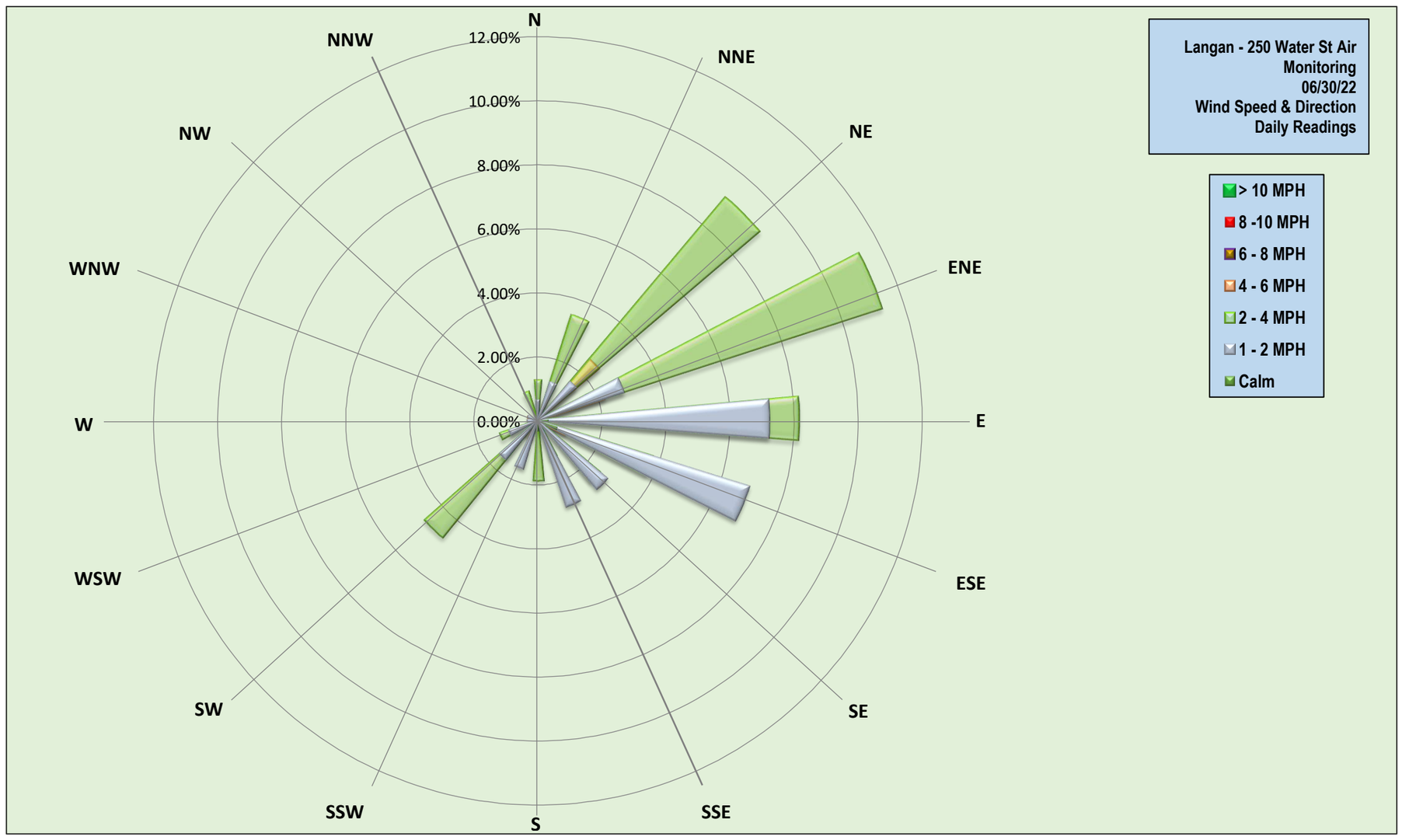
Langan - 250 Water St Air Monitoring
06/30/22
Wind Speed & Direction
Daily Readings
> 10 MPH
8 -10 MPH
6 - 8 MPH
4 - 6 MPH
2 - 4 MPH
1 - 2 MPH
Calm
N
NNE
NE
ENE
E
ESE
SE
SSE
S
SSW
SW
WSW
W
WNW
NW
NNW
12.00%
10.00%
8.00%
6.00%
4.00%
2.00%
0.00%