# SITE OBSERVATION REPORT – RAWP Implementation – Day 33

LANGAN

| | | | | | |
|---|---|---|---|---|---|
| **PROJECT No.:** | 170390001 | **CLIENT:** | | **DATE:** | Wednesday, 18 December 2024 |
| **PROJECT:** | 141 3rd Street | | Third Street Owner LLC and 155 Third St., LLC | **WEATHER:** | Sunny 38 - 50 $^0$F<br>Wind: WSW @ 0.3 – 5.7 mph |
| **LOCATION:** | Brooklyn, New York | | | **TIME:** | 7:00 a.m. – 5:00 p.m. |
| **BCP SITE ID:** | C224336 | | | **MONITOR:** | Andrew Ashley, JN Stanley |

**EQUIPMENT:**
Hyundai HX520L
PC 400 Komatsu
Liebherr LRB 355-450
Geoprobe 7288DT (x2)
ISGS Mixture Trailer

**PRESENT AT SITE:**
**Langan**: Andrew Ashley, JN Stanley, Paul McMahon
**Monadnock Construction (Construction Management)**: John Henry
**New York State Department of Environmental Conservation (NYSDEC):** Scott Deyette, Heidi Dudek, Aaron Fischer
**WSP:** Chris Descalfani
**AARCO Environmental Services Corp. (AARCO):** Michael Martin
**Innovative Environmental Technologies (IET):** Ian Conner

**OBSERVATIONS, DISCUSSIONS, TEST RESULTS, ETC.:**

Langan was onsite to document implementation of the New York State Department of Environmental Conservation (NYSDEC)-approved Remedial Action Work Plan (RAWP) dated 12 December 2024, and In-Situ Geochemical Stabilization (ISGS) Pilot Test Work Plan dated 9 September 2024.

**Site Activities**

- AARCO used a direct-push Geoprobe 7288DT drill rig to advance core locations C01, C02 and C03 to about 35 feet below grade surface (bgs) to evaluate the radius of influence from the sodium permanganate solution injections within the ISGS pilot test area. The following observations were made in each core:
    - **C01:** Dense non-aqueous phase liquid (DNAPL), coal tar-like odors and a maximum photoionization detector (PID) reading of 68.5 parts per million (ppm) was observed from 29.5 to 30 feet bgs (elevation [el.] -23.5± to -24±). Visual evidence of the sodium permanganate solution was not observed along the core. IET sprayed the core with a dilute hydrogen peroxide mixture, and no effervescent reaction was observed.
    - **C02**: DNAPL, coal tar-like odors, and a maximum PID reading of 83 ppm was observed from 29 to 30 feet bgs (el. -23± to -24±). The sodium permanganate solution was observed from 13 to 17 feet bgs (el. -7± to -11±). IET sprayed the core with a dilute hydrogen peroxide mixture, and an effervescent reaction was observed from 20 to 22.5 feet bgs (el. -14± to -16.5±) and 25 to 28 feet bgs (el. -19± to - 22±).
    - **C03**: DNAPL, coal tar-like odors, and a maximum PID reading of 58.2 ppm was observed from 29 to 31.5 feet bgs (el. -23± to -24.5±). Visual evidence of the sodium permanganate solution was not observed along the core. IET sprayed the core with a dilute hydrogen peroxide mixture, and an effervescent reaction was observed from 20 to 22 feet bgs (el. -14± to -16±) and 27 to 31 feet bgs (el. - 18± to - 25±).

  Samples were collected from each core as detailed in the Sampling section below. After coring, each core location was restored to surface grade with bentonite. Recovered soil from ISGS cores C01 and C02 were containerized in a 55-gallon drum for future off-site disposal. ISGS core C03 was retained on site in wood core boxes for inspection.
- Langan inspected the Gowanus Canal for discoloration associated with daylighting of the sodium permanganate solution (NYSDEC Spill No. 2407940 and EPA Spill No. 1419190). Discoloration of the canal was not observed.

**Sampling**

- Langan collected and relinquished the following soil samples to Pace Analytical for the analysis of manganese:
  - C01_ISGS_27-29
  - C02_ISGS_26-28
  - C03_ISGS_28-30

**Community Air Monitoring Plan (CAMP) Activities**

- Langan performed continuous air monitoring for volatile organic compounds (VOC) and particulate matter smaller than 10 microns in diameter (PM10) using two perimeter air monitoring stations at upwind and downwind locations. The PM10 and VOC action levels were not exceeded during the monitoring period. Recorded air monitoring data is presented on CAMP summary data sheet appended to the end of this Daily Field Report. The graphs on the CAMP summary data sheet show PM10 and VOC concentration as site contribution (downwind concentrations subtracted by upwind concentration).

**Material Tracking**

- No material was exported from site.
- No material was imported to site.

| **Material Import Summary** | | | | |
|---|---|---|---|---|
| **Facility** | **NYSDEC Approved Quantity** | **Imported** | **Today** | **Total** |
| **Tilcon - Haverstraw<br>Haverstraw, NY<br>ASTM #3 Virgin Stone (1.5-Inch)** | 400 CY (560 tons) | **No. Loads** | 0 | **4** |
| | | **Quantity (tons)** | 0 | **89.95** |
| **Impact Materials Jersey City (IMJC)<br>Jersey City, NJ<br>0.75-inch Stone** | 2,000 CY (2,800 tons) | **No. Loads** | 0 | **0** |
| | | **Quantity (tons)** | 0 | **0** |
| **IMJC<br>Jersey City, NJ<br>1.5-inch Stone** | 400 CY (560 tons) | **No. Loads** | 0 | **2** |
| | | **Quantity (tons)** | 0 | **49.65** |

Drums

- One 55-gallon drum containing purged groundwater an DNAPL is staged in the east-central part of the site.
- One 55-gallon drum containing decontamination fluid and purged groundwater is staged in the east-central part of the site.
- Six 55-gallon drums containing soil cuttings are staged in the eastern part of the site.
- One 55-gallon drum containing soil cuttings is staged in the southern part of the site.

**Anticipated Activities**

- Langan will gauge existing monitoring well for DNAPL accumulation and remove product, if identified, during the week of 12/23.

**SITE PHOTOGRAPHS:**



**Photo 1:** AARCO advancing core C01 in the southeastern part of site (facing southwest).



**Photo 2:** Recovered soil and observed sodium permanganate solution on core C02.

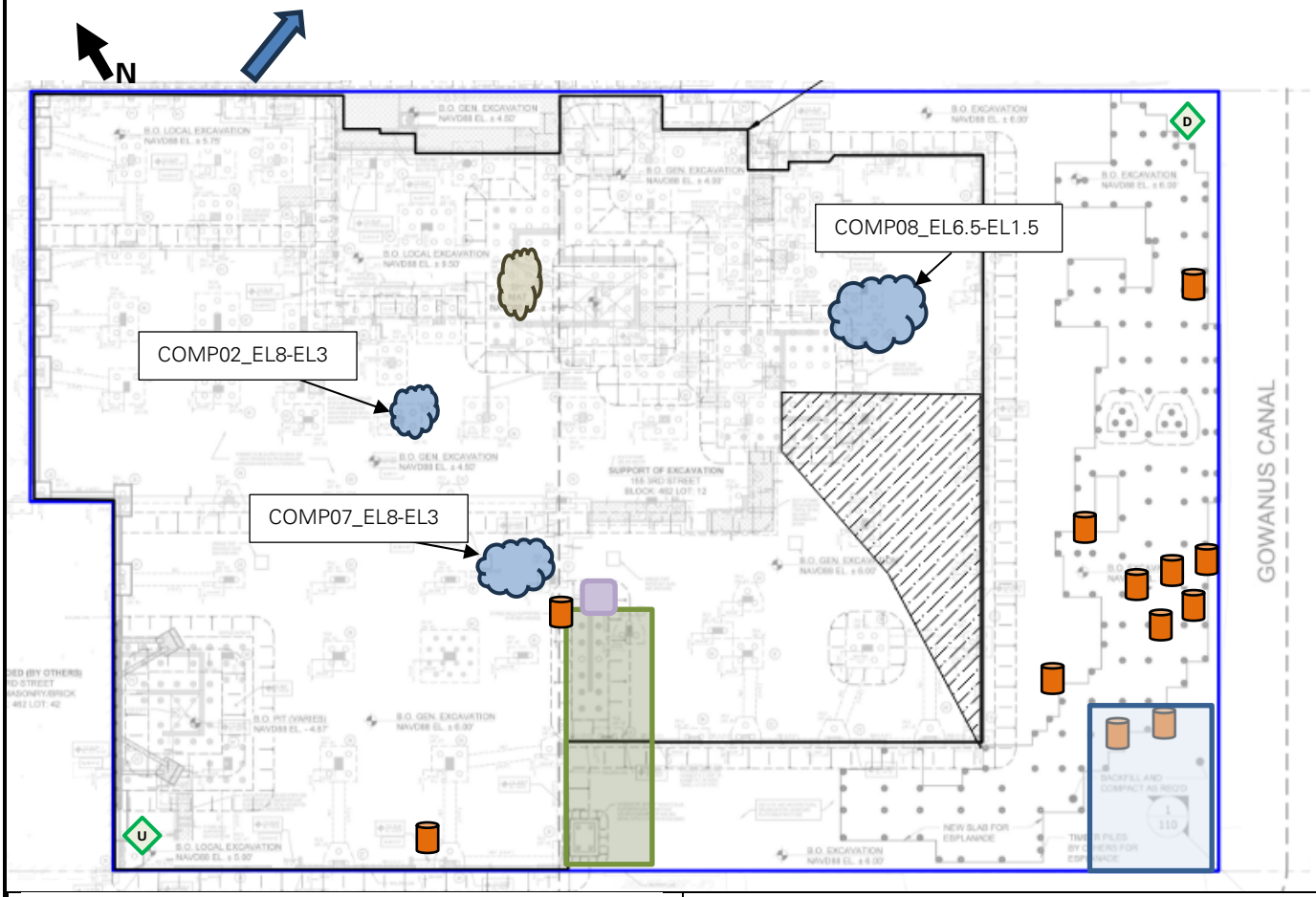



**Photo 3:** 55-gallon drum containing ISGS soil from cores C01 and C02 (facing southeast).




**Photo 4:** Gowanus Canal where permanganate solution was previously observed (facing north).

**FIGURE 1 - SITE MAP:**




**LEGEND:**

- APPROXIMATE SITE BOUNDARY
- PROPOSED BUILDING FOOTPRINT
- APPROXIMATE PROPOSED EXTENT OF ISS AREA TO BE EXCAVATED TO 4 FEET BGS (EL. 3.5± FEET NAVD88)

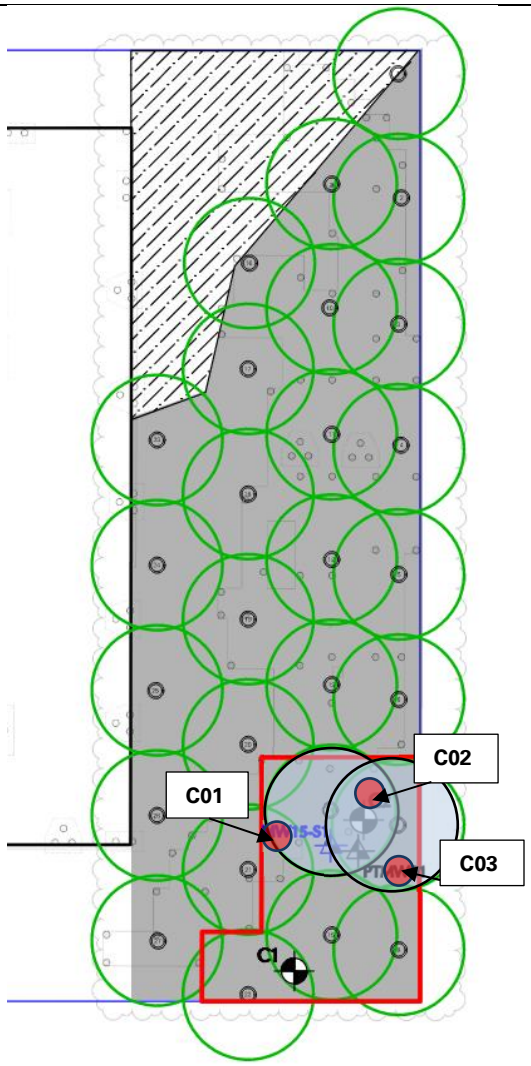
**COMPLETED WORK KEY**

- Approximate work area
- Approximate location of upwind CAMP station
- Approximate location of downwind CAMP station
- Approximate location of drum
- Approximate wind direction
- Stockpiled soil/fill
- Stockpiled C&D debris
- Stockpiled imported stone
- Temporary stabilized construction entrance
- Truck wash catch basin

Base map includes Figure 5 – Pre-ISS Excavation Plan from the NYSDEC-approved RDD for ISS, prepared by Langan Engineering, dated 4/5/2024

**FIGURE 2 - ISGS PROGRESS MAP**

N




**LEGEND:**

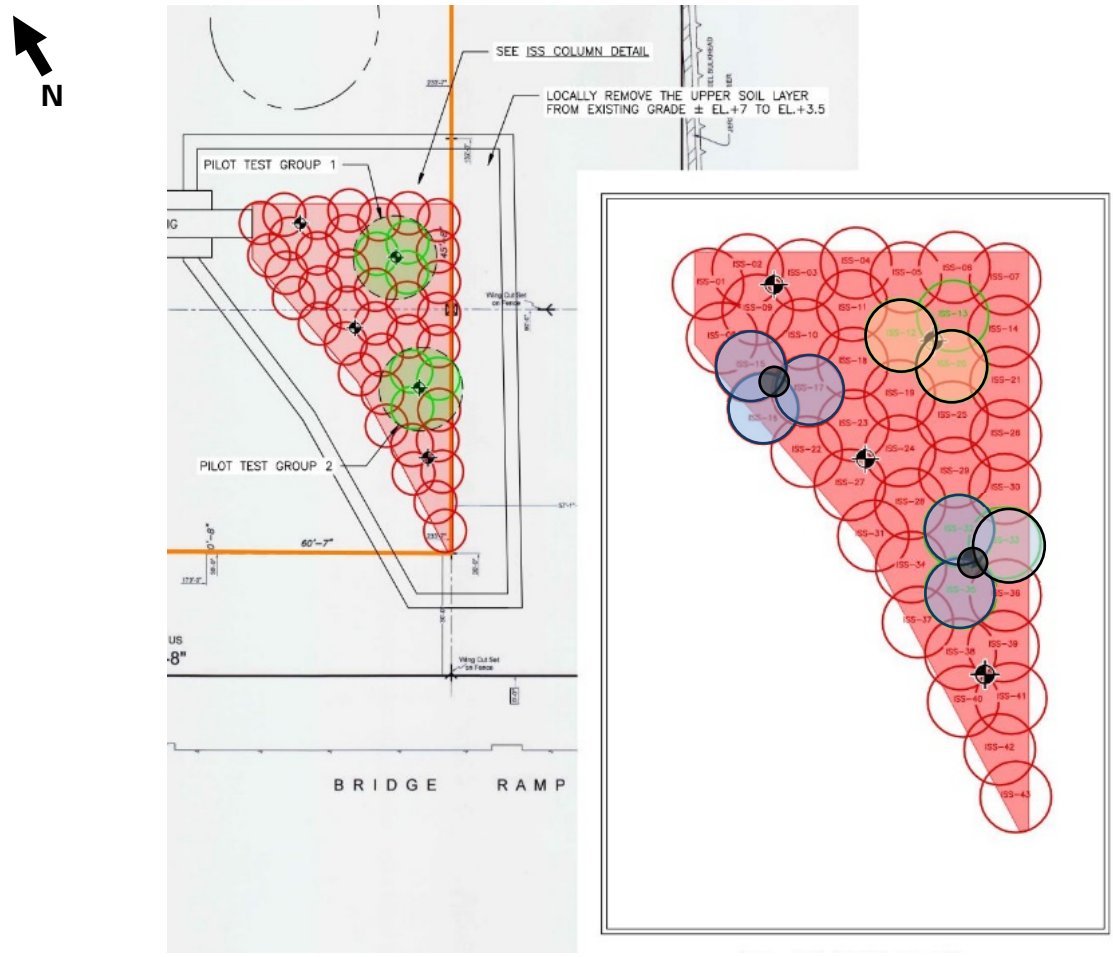
- APPROXIMATE SITE BOUNDARY
- PROPOSED BUILDING FOOTPRINT
- APPROXIMATE PROPOSED EXTENT OF ISGS AREA BETWEEN EL. -19± TO EL. -23±
- APPROXIMATE PROPOSED EXTENT OF ISGS SUPPORT/LAYDOWN AREA
- APPROXIMATE PROPOSED TEMPORARY DIRECT-PUSH INJECTION POINT LOCATION
- APPROXIMATE ROI (13-FOOT RADIUS, 25-FOOT SPACING)
- C1 — APPROXIMATE PROPOSED PILOT TEST QA/QC CORE LOCATION
- APPROXIMATE ISGS PILOT TEST AREA
- MW15-S1 — EXISTING MONITORING WELL LOCATION
- PTWM01 — PROPOSED MONITORING WELL LOCATION

**COMPLETED WORK KEY**

- ISGS injection point completed today
- ISGS injection point previously completed
- Core location completed today
- Core location previously completed

Base map includes Figure 2 – Project Implementation Plan In-Situ Stabilization/Solidification, prepared by Roux Environmental and Geology, D.P.C, dated October 2024

**FIGURE 3 - ISS PROGRESS MAP:**




LEGEND

- FOOTPRINT OF FORMER BUILDING
- PROPOSED ISS PRODUCTION COLUMNS 10.5 FOOT DIAMETER
- PROPOSED ISS PILOT TEST COLUMNS 10.5 FOOT DIAMETER
- PROPOSED QA/QC PRODUCTION CORE LOCATION
- PROPOSED EXTENT OF ISS AREA FROM EL. −16 TO −25±"

**COMPLETED WORK KEY**

- ISS cell mixed today
- ISS cell previously mixed
- ISS cell to be remixed
- Core location advanced

Base map includes Figure 2 – Project Implementation Plan In-Situ Stabilization/Solidification, prepared by Roux Environmental and Geology, D.P.C, dated October 2024

**TABLE 1 - ISS PROGRESS TABLE:**

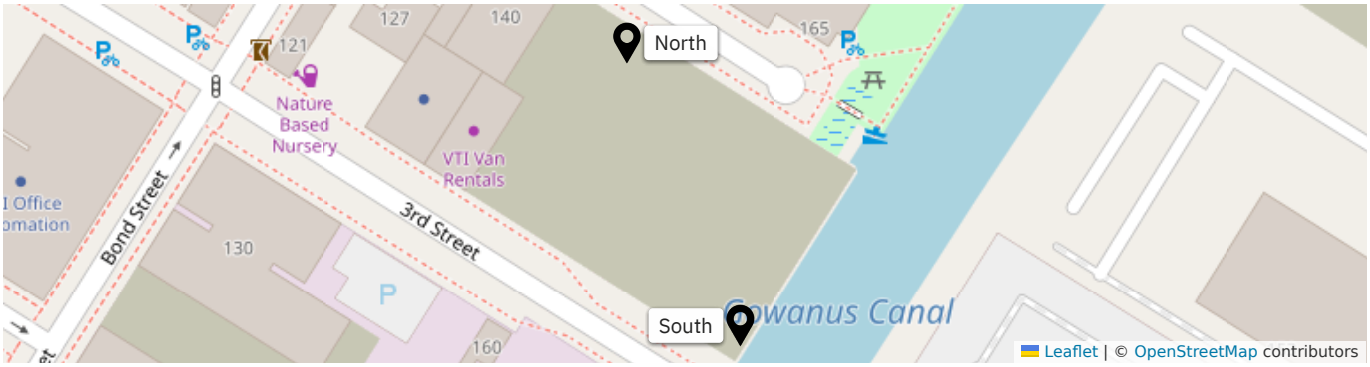
| ISS Column ID | Coordinates (N, E) | Interval (el) | Mixing Time Per Interval (min) | Reagent Additional Per Interval (gal/min) | Injection Pressure (psi) | Injection Rate (psi/min) | Rotational Speed (RPM) | Advance Rate (ft/min) | No. of Passes |
|---|---|---|---|---|---|---|---|---|---|
| ISS-20 | 98.87, 221.23 | 3.5± to -13.5± | 9.23 | 50 | 50 | 6.5 | 30 | 3.75 | 1 |
| | | -13.5± to -26.5± | 9.23 | 50 | 50 | 6.5 | 30 | 3.75 | 1 |
| ISS-12 | 103.418, 213.788 | 3.5± to -11.5± | 15 | 50 | N/A | N/A | 15 | 1.4 | 1 |
| | | -11.5± to -16.5± | 10 | 50 | N/A | N/A | 15 | 0.4 | 1 |
| | | -16.5± to -21.5± | 10 | 50 | N/A | N/A | 15 | 0.4 | N/A |
| ISS-16 | 92.59, 193.29 | 1.89± to -26.5± | 270 | 50 | N/A | N/A | 17 | 0.10 | 1 |
| ISS-17 | 95.14, 199.81 | 5.5± to -26.5± | 170 | 50 | N/A | N/A | 18 | 0.19 | 1 |
| ISS-15 | 98.75, 191.97 | 5.5± to -26.5± | 160 | 50 | N/A | N/A | 16 | 0.28 | 1 |
| ISS-35 | 65.47, 222.59 | 4.41± to -26.5± | 335 | 50 | N/A | N/A | 16 | 0.17 | 2 |
| ISS-32 | 74.47, 222.33 | 5.5± to -26.5± | 223 | 50 | N/A | N/A | 16 | 0.36 | 2 |
| ISS-33 | 74.47, 229.01 | 5.5± to -26.5± | 127 | 50 | N/A | N/A | 16 | 0.25 | 2 |

1. Coordinates were measured in northing and eastings from the project datum.

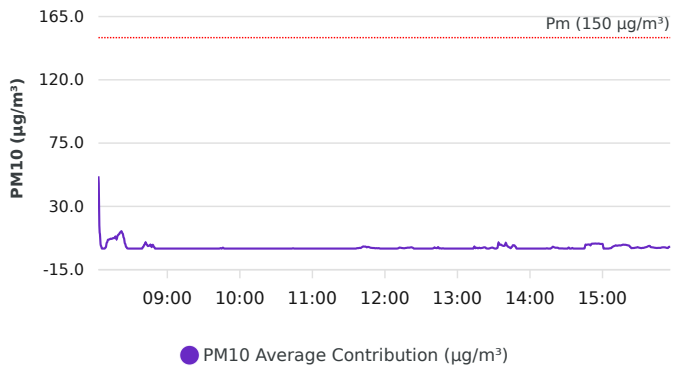
| LANGAN | Air Monitoring Report | 170390002 - 155 3rd St Brooklyn | |
|---|---|---|---|
| | | Report Period | |
| | | From: | 12/18/2024 06:00 |
| | | To: | 12/18/2024 18:00 |
| | | PM10 Action Level: | 150 µg/m³ |
| | | VOC Action Level: | 5 ppm |

| Daily Environmental Summary | Temp (°F) | Relative Humidity (%) | Barometer (inHg) | Windspeed (mph) | Prevailing wind direction |
|---|---|---|---|---|---|
| 12/18/2024 | - | - | - | 0.3-5.7 | WSW |

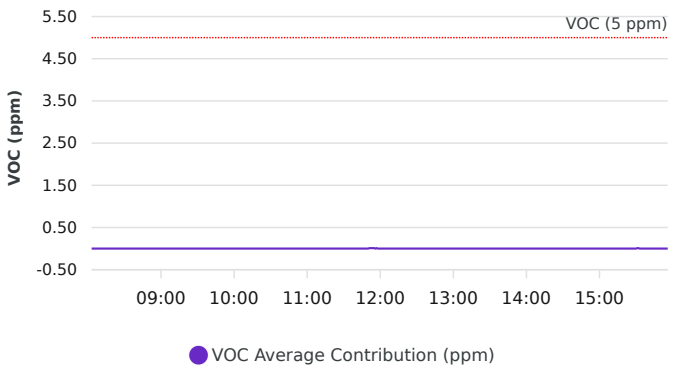
| Daily Monitoring Summary | PM10 (µg/m³) | Time | VOC (ppm) | Time |
|---|---|---|---|---|
| **Min Contribution (15 min avg.) - 12/18/2024** | 0.0 | 08:06 | 0.00 | 08:03 |
| **Max Contribution (15 min avg.) - 12/18/2024** | 51.4 | 08:03 | 0.01 | 11:51 |



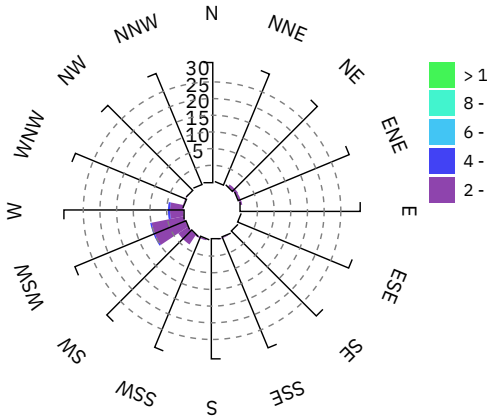

**PM10 Average Contribution (µg/m³)**




**VOC Average Contribution (ppm)**




**Contribution wind rose (mph)**




170390002 - 155 3rd St Brooklyn
Report date: 12/18/2024
A PM10 and VOC negative number filter has been applied to the averaged contribution data

Generated by OneView v1.130.0

aeroqual