



Proactive by Design

GEOTECHNICAL
ENVIRONMENTAL
ECOLOGICAL
WATER
CONSTRUCTION
MANAGEMENT



MEMORANDUM

To: Joseph Martella, RIDEM

From: Dave Rusczyk, GZA

Cc: Kenneth Lento, National Grid

Date: May 6, 2022

Re: Site Response Action Report
Period April 17, 2022 through April 30, 2022
Former Tidewater Facility
Pawtucket, Rhode Island
RIDEM Case No. 95-022 / Site Remediation File No. SR-26-0934

SITE ACTIVITIES PERFORMED

- Charter Contracting Company, LLC (Charter) continued activities related to implementation of the remedial construction work. These activities included:
 - Continued regrading of the ground surface south of the proposed stadium in preparation for installation of the engineered cap as weather conditions permitted.
 - Continued installation of the engineered cap above the geotextile warning barrier in the northwestern portion of the Site.
 - Initial installation of the underdrain piping system above the impermeable liner in the eastern portion of the Site between the top of the revetment and the porous pavement maintenance path.
 - Final grading of the subgrade within the field area of the proposed stadium in preparation for the deployment of the impermeable liner.
 - Installation of sleeves for the foundations of future soccer and rugby goal posts and football field goal posts in the field of the proposed stadium.

- Perimeter air monitoring was performed during the period covered by this report with 11 air monitoring stations (4 solar powered units located proximate to the river and 7 electrically powered units). These stations measured and recorded respirable dust and total volatile organic compounds (TVOC) concentrations continuously 24 hours per day/7 days per week with the exception of the following periods:
 - Repeated communication problems were observed between Station 2 and the central control system that logs the air monitoring data between Saturday, April 16, 2022 and Monday, April 18, 2022. The communication problems were addressed on April 18, 2022.
 - The electrical power to Station 7 was temporarily de-energized during the period covered by this report to allow completion of the landscaping work in the southern portion of the Site.
 - Station 9 ran out of calibration gas on Saturday, April 16, 2022. The calibration gas was replaced on Monday, April 18, 2022.



As indicated in the attached weekly perimeter air monitoring graphs, no exceedances of the total volatile organic compound (0.5 ppmv) and respirable dust ($150 \mu\text{g}/\text{m}^3$) perimeter threshold levels were observed during the monitoring period covered by this report.

- GZA collected ambient air samples from upwind and downwind locations on April 20 and 26, 2022 for laboratory analysis for benzene, toluene, ethylbenzene, xylenes, and naphthalene. The analytical results from these samples indicated there were no exceedances of the project action levels. The analytical results were posted to the project website and the bulletin boards at the ends of Tidewater Street and Bowles Court and are also attached to this report.

ANTICIPATED SITE ACTIVITIES TO BE PERFORMED WITHIN NEXT 2 WEEKS

- Continued regrading south of the proposed stadium to the subgrade elevations for the engineered cap depending on weather conditions.
- Continued deployment of the impermeable liner beneath the proposed stadium footprint and initial installation of the engineered cap on top of the impermeable liner.
- Continued installation of the engineered cap in the northwestern portion of the Site depending on weather conditions.
- Initial placement of the topsoil engineered cap between the east side of the porous pavement maintenance path and the top of the revetment cap depending on weather conditions.
- We also note that the engineered cap in the southern portion of the Site is complete and two of the perimeter air monitoring stations in the southern portion of the Site will be demobilized in the next 2 weeks consistent with the RIDEM approved Remedial Action Workplan Addendum dated August 12, 2021.

Please contact Kenneth Lento at 781-907-3655 if you have any questions or comments.

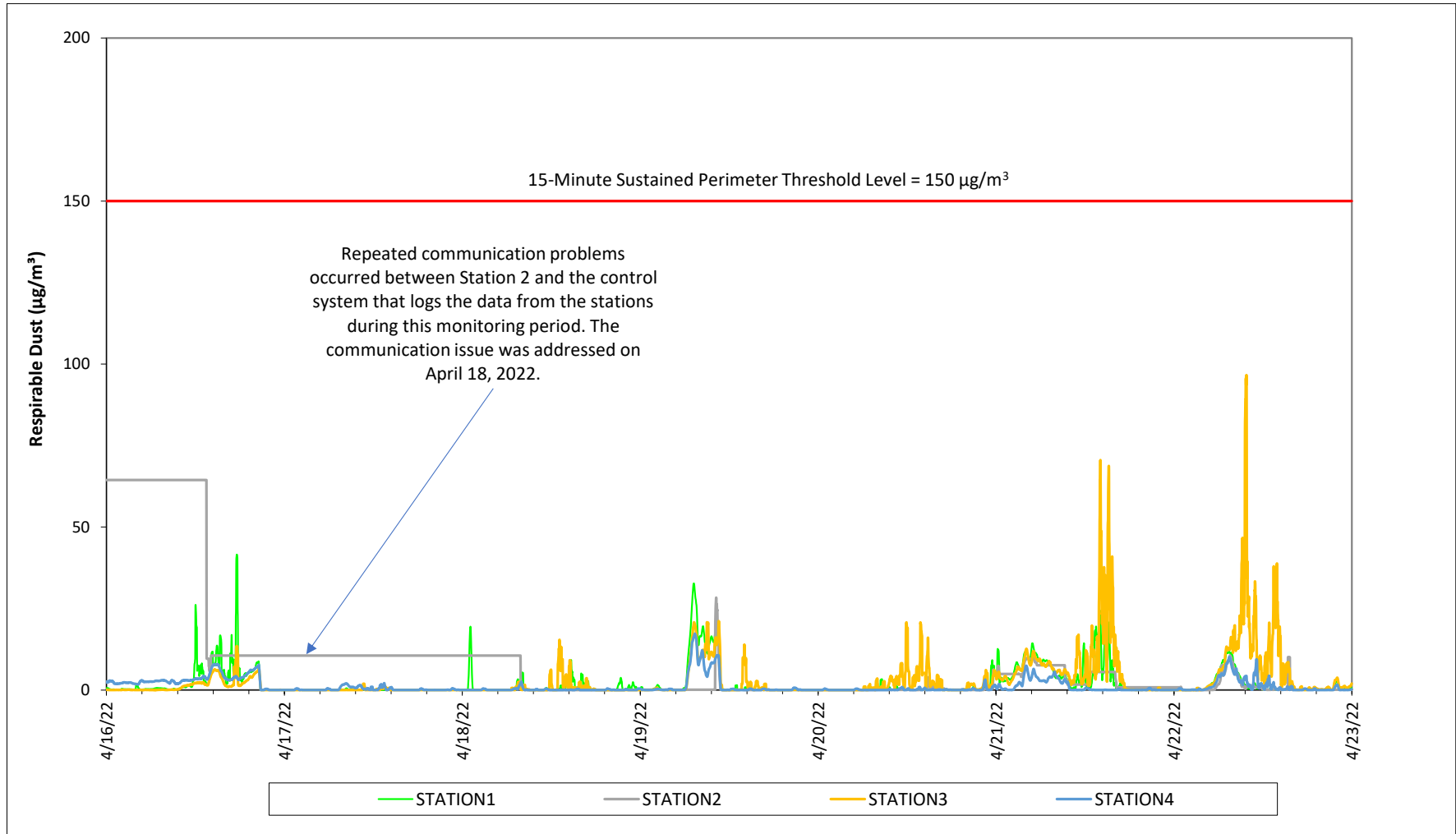
Attachments:

Weekly Perimeter Air Monitoring Results

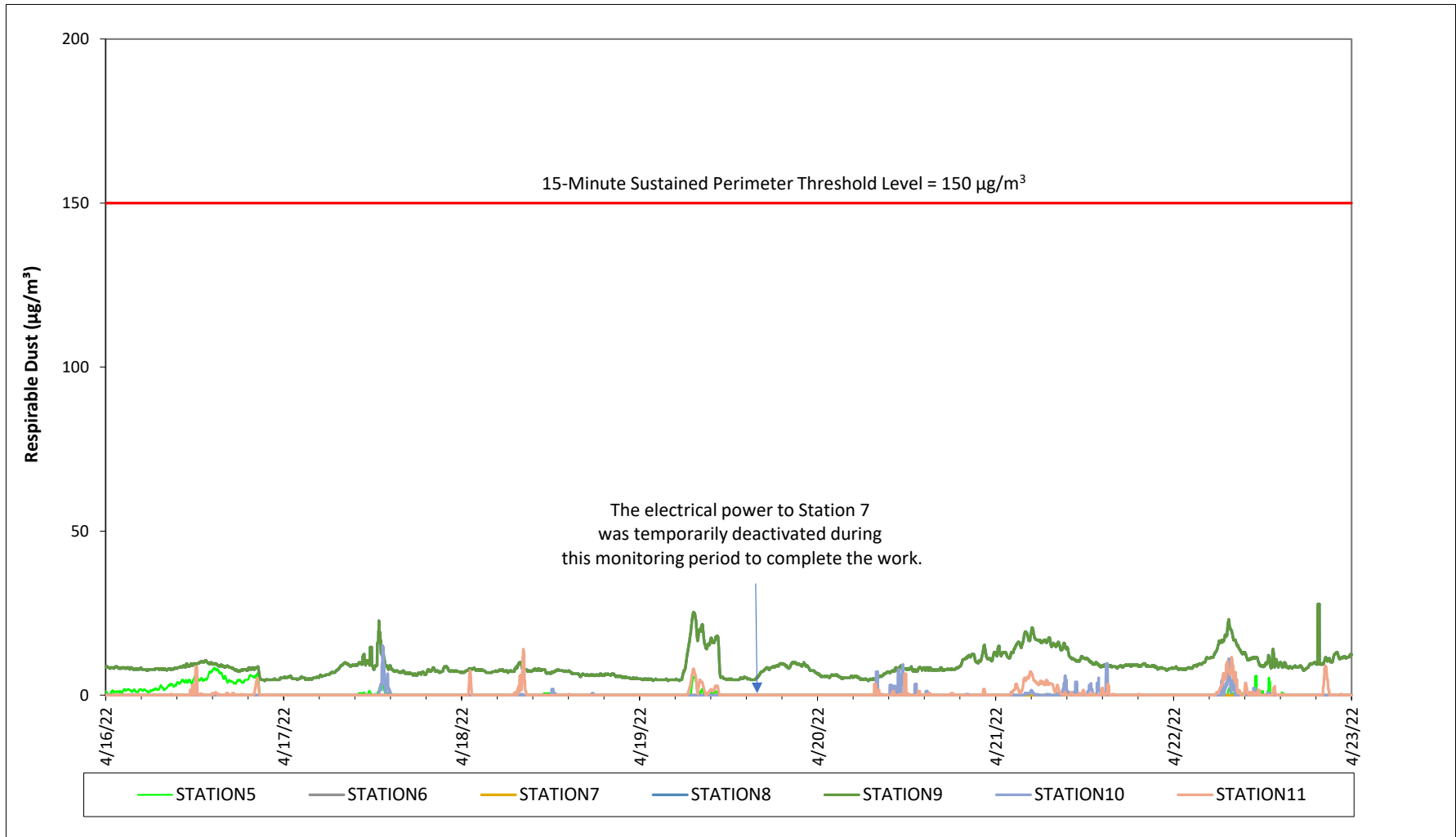
Air Monitoring Station Locations

Weekly Ambient Air Sampling Results

Prepared by National Grid for the Businesses and Residents Located Near the Former
Tidewater Facility
Air Quality Monitoring - Respirable Dust

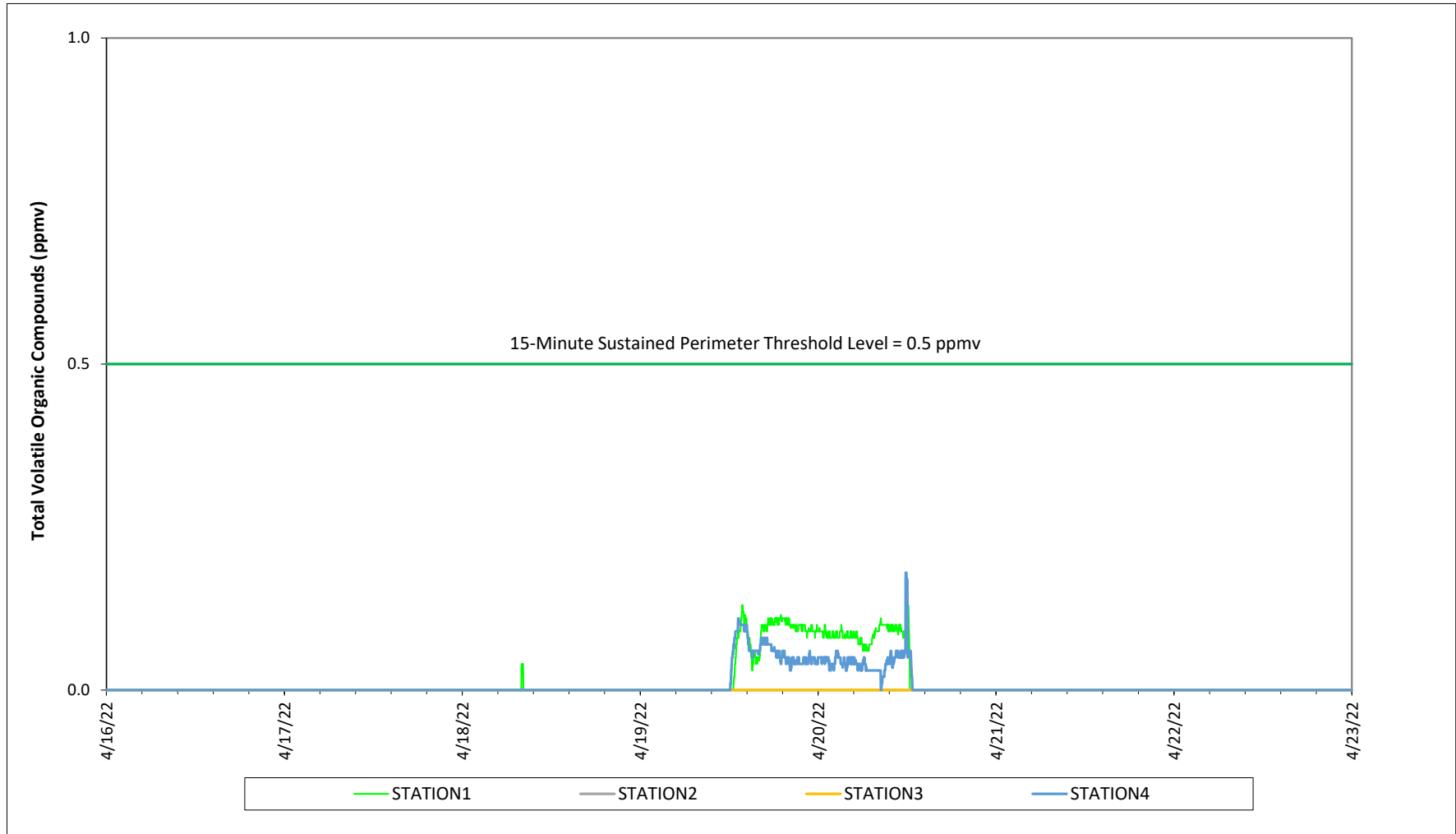


Prepared by National Grid for the Businesses and Residents Located Near the Former
Tidewater Facility
Air Quality Monitoring - Respirable Dust



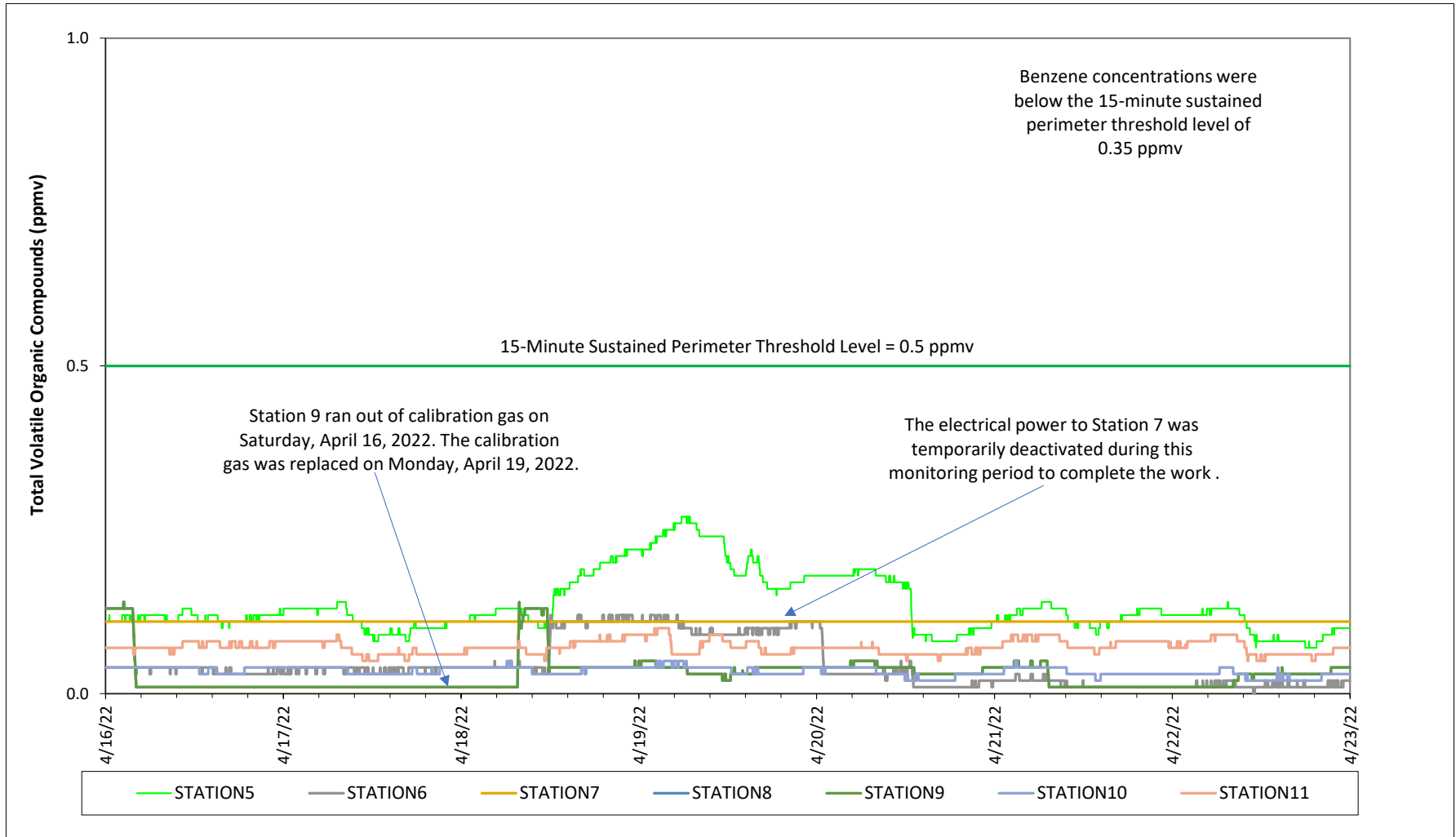
Prepared by National Grid for the Businesses and Residents Located Near the Former
Tidewater Facility

Air Quality Monitoring - Total Volatile Organic Compounds

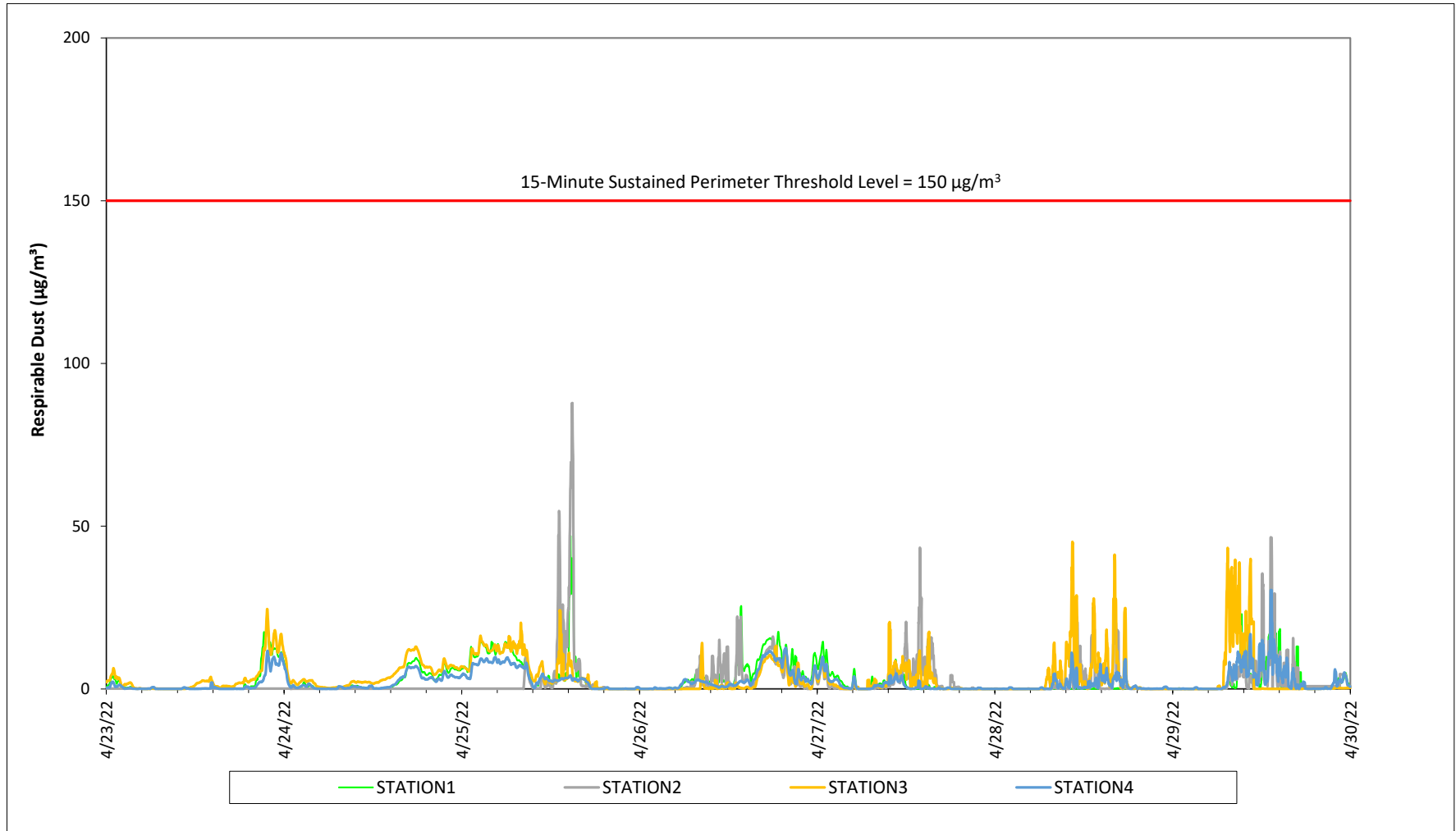


Prepared by National Grid for the Businesses and Residents Located Near the Former
Tidewater Facility

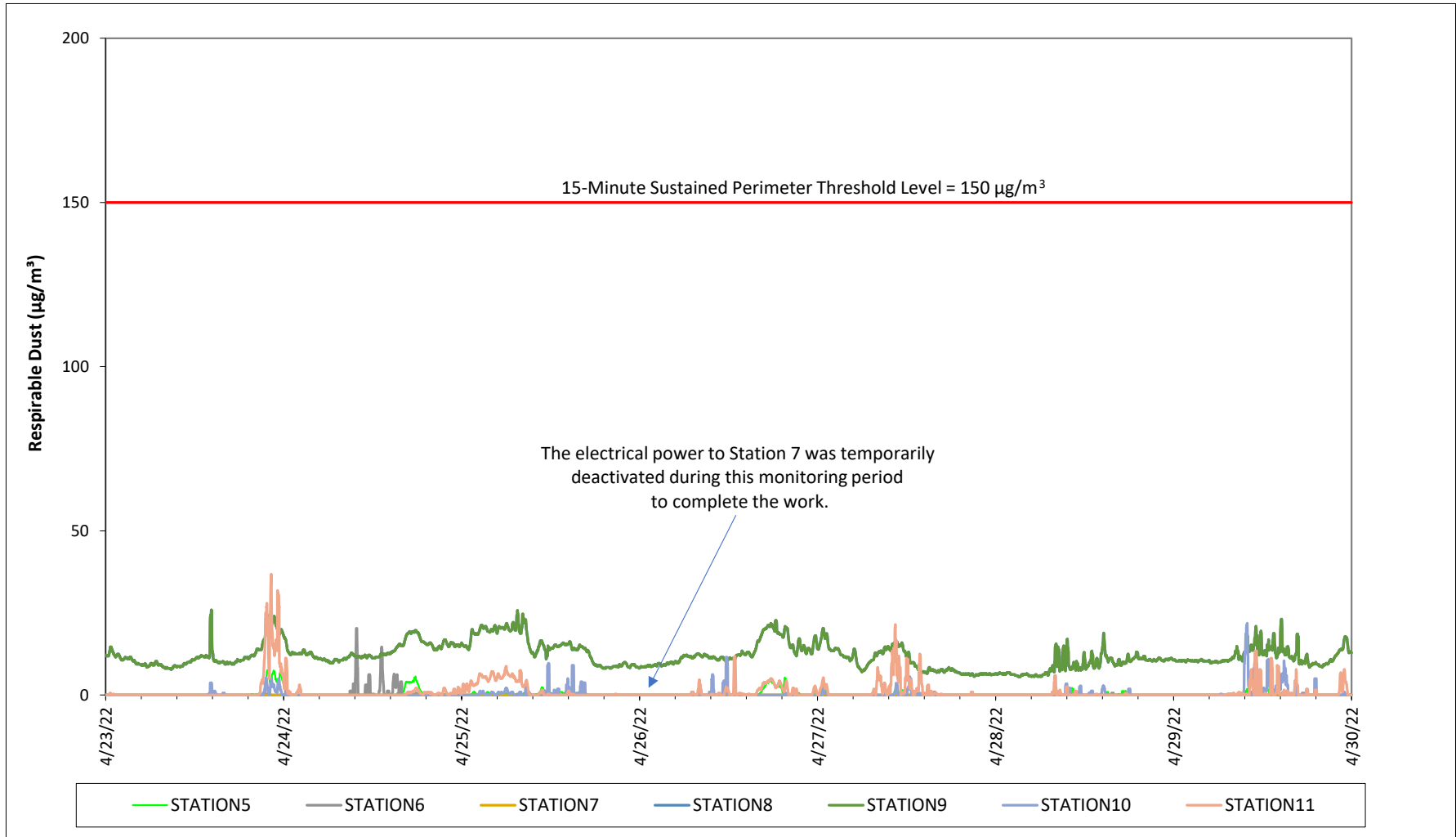
Air Quality Monitoring - Total Volatile Organic Compounds



Prepared by National Grid for the Businesses and Residents Located Near the Former
Tidewater Facility
Air Quality Monitoring - Respirable Dust

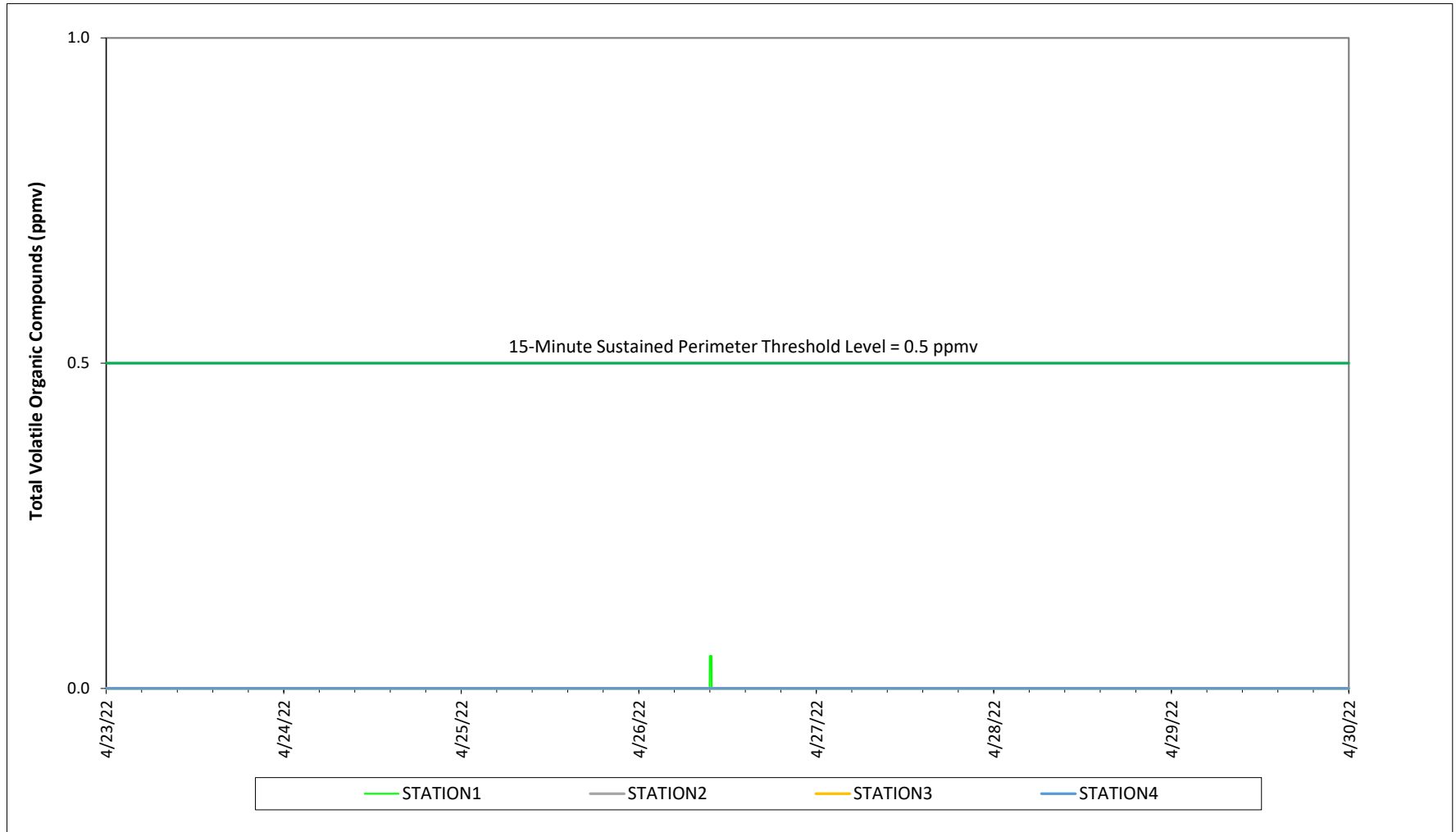


Prepared by National Grid for the Businesses and Residents Located Near the Former
Tidewater Facility
Air Quality Monitoring - Respirable Dust



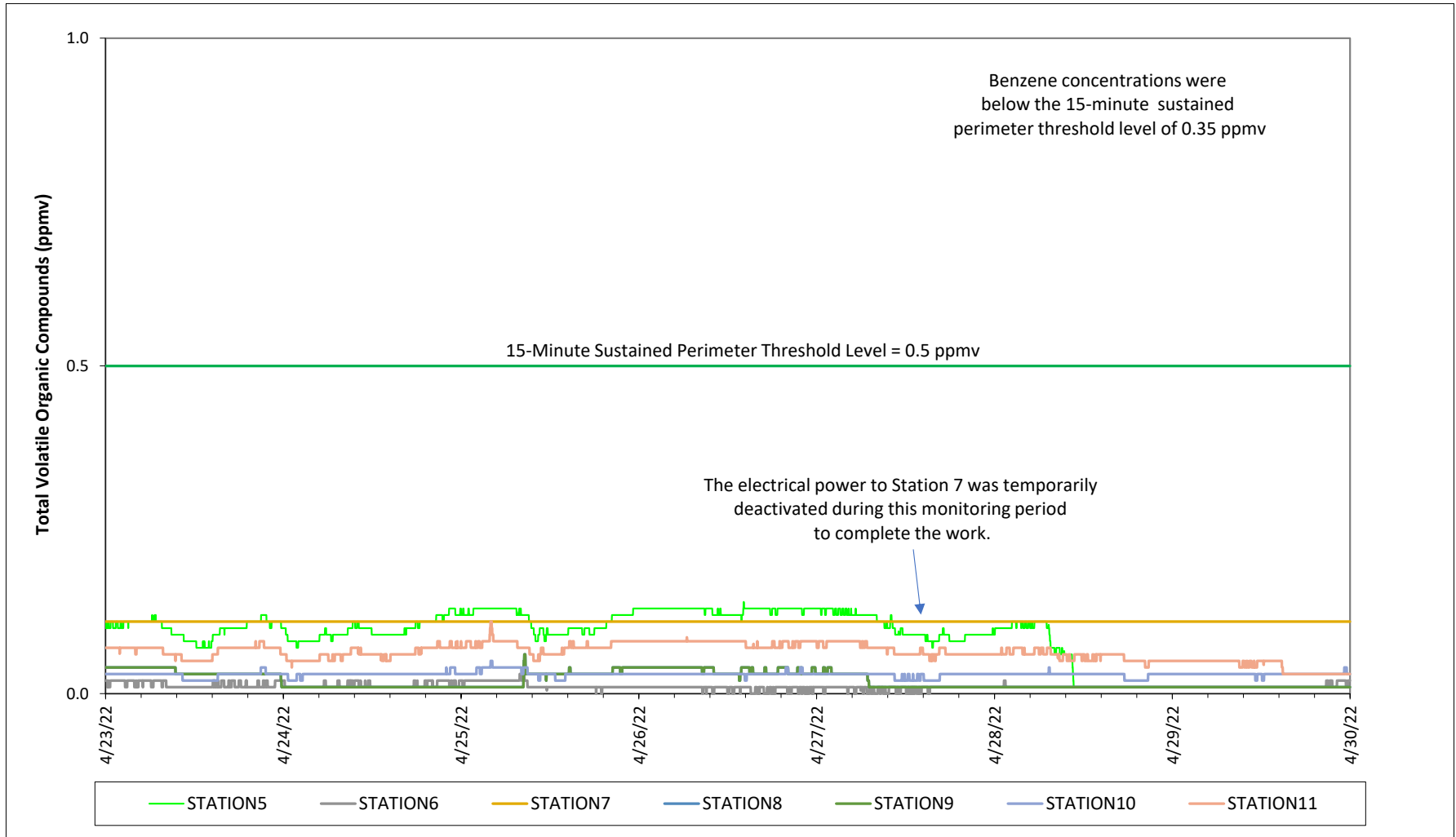
Prepared by National Grid for the Businesses and Residents Located Near the Former
Tidewater Facility

Air Quality Monitoring - Total Volatile Organic Compounds

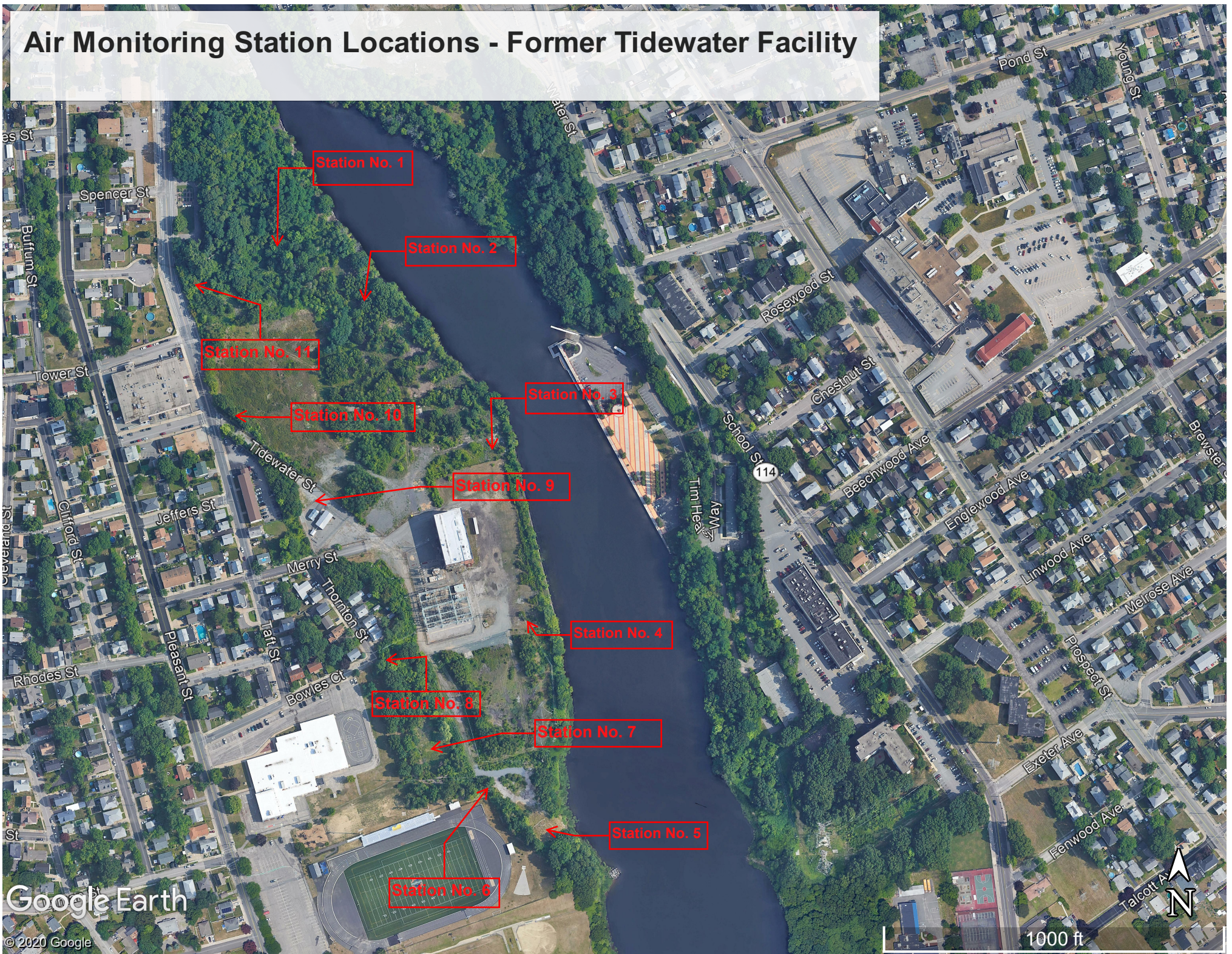


Prepared by National Grid for the Businesses and Residents Located Near the Former
Tidewater Facility

Air Quality Monitoring - Total Volatile Organic Compounds



Air Monitoring Station Locations - Former Tidewater Facility



**Prepared by National Grid for the Businesses and Residents Located Near the Former Tidewater Facility
Weekly Ambient Air Sampling Results**

Sample Date	Compounds				
	Benzene	Toluene	Ethylbenzene	Total Xylenes	Naphthalene
	(ppb v/v)				
12-3-20 UP STREAM	0.13	0.22	0.079	0.054	< 0.5
12-3-20 DOWN STREAM	0.13	0.2	0.073	0.05	< 0.5
12-10-20 UP STREAM	0.25	0.23	< 0.2	0.14	< 0.5
12-10-20 DOWN STREAM	0.17	0.2	< 0.2	< 0.7	< 0.5
12-16-20 UP STREAM	0.19	0.2	0.083	0.12	< 0.5
12-16-20 DOWN STREAM	0.13	0.16	0.078	0.094	< 0.5
12-23-20 UP STREAM	0.15	0.16	< 0.2	0.1	< 0.5
12-23-20 DOWN STREAM	0.13	0.11	< 0.2	< 0.7	< 0.5
12-30-20 UP STREAM	0.21	0.22	< 0.2	< 0.7	< 0.5
12-30-20 DOWN STREAM	0.089	< 0.2	< 0.2	< 0.7	< 0.5
1/7/21 UP STREAM	0.29	1.5	0.22	2.1	< 0.5
1/7/21 DOWN STREAM	0.16	0.27	0.086	0.42	< 0.5
1/14/21 UP STREAM	0.43	0.44	< 0.2	0.23	< 0.5
1/14/21 DOWN STREAM	0.4	0.52	0.076	0.3	< 0.5
1-21-21 UPSTREAM	0.15	0.28	0.1	< 0.7	0.24
1-21-21 DOWNSTREAM	0.18	0.23	0.11	0.1	< 0.5
1-28-21 UPSTREAM	0.21	0.19	< 0.2	< 0.7	< 0.5
1-28-21 DOWNSTREAM	0.21	0.17	< 0.2	< 0.7	< 0.5
2-4-21 UPSTREAM	0.2	1.1	0.23	1.4	0.18
2-4-21 DOWNSTREAM	0.23	0.29	0.26	0.29	< 1.1
2-11-21 UPSTREAM	0.19	0.12	< 0.2	< 0.7	< 0.5
2-11-21 DOWNSTREAM	0.17	< 0.2	< 0.2	< 0.7	< 0.5
2-18-21 UPSTREAM	0.46	2.8	0.11	0.25	< 0.5
2-18-21 DOWNSTREAM	0.31	0.42	0.13	0.45	< 0.5
2-25-21 UPSTREAM	< 0.2	0.16	< 0.2	0.16	< 0.5
2-25-21 DOWNSTREAM	0.13	< 0.2	0.081	0.3	< 0.5
3-4-21 UPSTREAM	0.2	0.21	< 0.2	0.18	0.27
3-4-21 DOWNSTREAM	0.15	0.12	< 0.2	0.16	< 0.5
3-11-21 UPSTREAM	0.18	0.17	< 0.2	0.23	0.3
3-11-21 DOWNSTREAM	0.18	0.22	0.23	1.0	< 0.5
3-18-21 DOWNSTREAM	0.44	1.6	0.19	0.67	< 0.5
3-25-21 UPSTREAM	0.17	0.32	0.85	4.1	0.53
3-25-21 DOWNSTREAM	0.33	0.67	0.16	0.57	0.27
4-1-21 UPSTREAM	0.22	0.17	< 0.2	< 0.7	< 0.5
4-1-21 DOWNSTREAM	0.12	0.11	< 0.2	< 0.7	< 0.5
4-8-21 UPSTREAM	0.096	0.12	1.5	8.0	< 0.5
4-8-21 DOWNSTREAM	0.086	0.14	0.086	0.38	0.19
4-15-21 UPSTREAM	0.85	0.57	0.1	0.44	< 0.5
4-15-21 DOWNSTREAM	0.11	0.11	0.26	1.20	< 0.5
4-22-21 UPSTREAM	0.11	< 0.2	< 0.2	< 0.7	< 0.5
4-22-21 DOWNSTREAM	0.11	0.16	< 0.2	< 0.7	< 0.5
4-29-21 UPSTREAM	0.14	0.34	0.11	0.32	0.26
4-29-21 DOWNSTREAM	0.19	0.39	0.11	0.37	0.27
5-6-21 UPSTREAM	0.086	0.15	< 0.2	< 0.7	0.38
5-6-21 DOWNSTREAM	1.0	8.4	0.21	0.69	< 0.5
5-13-21 UPSTREAM	< 0.2	0.36	< 0.2	0.19	0.34
5-13-21 DOWNSTREAM	0.12	< 0.2	< 0.2	< 0.7	< 0.5
5-20-2021 UPSTREAM	0.38	2.5	< 0.2	< 0.7	< 0.5
5-20-2021 DOWNSTREAM	0.16	0.56	0.3	1.40	< 0.5
Project Action Levels	6.2	80	230	23	20

**Prepared by National Grid for the Businesses and Residents Located Near the Former Tidewater Facility
Weekly Ambient Air Sampling Results**

Sample Date	Compounds				
	Benzene	Toluene	Ethylbenzene	Total Xylenes	Naphthalene
	(ppb v/v)				
5-27-21 UPSTREAM	0.095	0.12	0.45	2.10	0.4
5-27-21 DOWNSTREAM	0.075	0.094	< 0.2	< 0.7	< 0.5
6-3-21 UPSTREAM	< 0.2	0.16	< 0.2	< 0.7	< 0.5
6-3-21 DOWNSTREAM	0.075	0.11	< 0.2	< 0.7	< 0.5
6-10-21 UPSTREAM	< 0.2	< 0.2	< 0.2	< 0.7	< 0.5
6-10-21 DOWNSTREAM	< 0.2	< 0.2	< 0.2	< 0.7	< 0.5
6-17-21 UPSTREAM	0.64	0.6	0.48	0.66	0.64
6-17-21 DOWNSTREAM	0.12	0.12	0.16	< 0.7	< 0.5
6-24-21 UPSTREAM	< 0.2	0.17	< 0.2	< 0.7	< 0.5
6-24-21 DOWNSTREAM	< 0.2	0.45	0.19	0.82	< 0.5
7-1-21 UPSTREAM	1.10	7.9	0.12	0.39	< 0.7
7-1-21 DOWNSTREAM	0.13	0.74	< 0.2	0.29	< 0.7
7-8-21 UPSTREAM	< 0.2	0.29	< 0.2	0.38	0.29
7-8-21 DOWNSTREAM	< 0.2	< 0.2	< 0.2	< 0.7	< 0.5
7-15-21 UPSTREAM	0.10	0.28	< 0.2	0.32	< 0.5
7-15-21 DOWNSTREAM	0.14	0.37	0.31	1.5	< 0.5
7-22-21 UPSTREAM	0.27	0.3	< 0.2	< 0.7	< 0.5
7-22-21 DOWNSTREAM	0.30	0.33	< 0.2	< 0.7	< 0.5
7-29-21 UPSTREAM	0.22	0.26	0.1	0.56	0.19
7-29-21 DOWNSTREAM	0.099	0.23	< 0.2	< 0.7	< 0.5
8-5-21 UPSTREAM	0.70	1.2	< 0.2	0.17	< 0.5
8-5-21 DOWNSTREAM	0.310	0.53	< 0.25	< 0.88	< 0.63
8-12-21 UPSTREAM	0.19	0.18	< 0.2	< 0.7	0.2
8-12-21 DOWNSTREAM	1.2	0.7	< 0.2	0.31	< 0.5
8-19-21 UPSTREAM	0.66	6.2	1.2	3.50	< 1.6
8-19-21 DOWNSTREAM	0.21	0.24	< 0.2	0.11	< 0.5
8-26-21 UPSTREAM	0.34	0.73	0.22	0.90	0.18
8-26-21 DOWNSTREAM	0.34	0.63	0.24	0.87	0.31
9-1-21 UPSTREAM	0.17	0.34	< 0.2	< 0.7	< 0.5
9-1-21 DOWNSTREAM	0.18	0.35	< 0.2	0.19	< 0.5
9-9-21 UPSTREAM	0.12	0.22	< 0.2	0.28	< 0.5
9-9-21 DOWNSTREAM	< 0.2	0.89	< 0.2	< 0.7	0.42
9-16-21 UPSTREAM	0.14	0.26	0.11	0.31	0.3
9-16-21 DOWNSTREAM	0.11	0.26	< 0.2	0.28	< 0.5
9-23-21 UPSTREAM	< 0.2	0.12	< 0.2	< 0.7	< 0.5
9-23-21 DOWNSTREAM	< 0.2	0.12	< 0.2	< 0.7	< 0.5
9-30-21 UPSTREAM	0.17	0.37	0.23	0.66	< 0.51
9-30-21 DOWNSTREAM	0.086	0.21	< 0.2	< 0.7	< 0.5
10-7-21 UPSTREAM	0.24	0.55	0.14	0.41	< 0.5
10-7-21 DOWNSTREAM	< 0.2	0.42	0.11	0.16	< 0.5
10-14-21 UPSTREAM	0.19	0.40	< 0.2	< 0.7	< 0.5
10-14-21 DOWNSTREAM	0.34	0.89	0.23	0.75	< 0.5
10-22-21 UPWIND	0.14	0.32	< 0.2	< 0.7	< 0.5
10-22-21 DOWNWIND	0.13	0.39	< 0.2	0.43	< 0.5
10-28-21 UPWIND	0.41	0.14	0.46	0.10	< 0.5
10-28-21 DOWNWIND	0.18	0.43	< 0.2	< 0.70	< 0.5
11-4-2021 UPWIND	0.20	0.31	< 0.2	< 0.70	< 0.5
11-4-2021 DOWNWIND	0.14	0.23	< 0.2	< 0.7	< 0.5
11-11-21 UPWIND	0.23	0.45	0.17	0.51	0.35
11-11-21 DOWNWIND	0.31	0.69	0.18	0.56	< 0.5
11-18-21 DOWNWIND	0.14	0.29	< 0.2	< 0.7	< 0.5
11-18-2021 UPWIND	0.29	0.54	0.32	0.26	2.4
11-23-21 DOWNWIND	0.13	0.24	< 0.2	0.33	< 0.5
11-23-21 UPWIND	0.27	1.0	< 0.2	0.30	0.23
12-02-21 DOWNWIND	0.28	0.82	0.22	1.0	0.95
12-02-21 UPWIND	0.36	0.67	< 0.2	0.42	< 0.5
12-9-21 DOWNWIND	0.17	0.27	< 0.2	< 0.7	< 0.5
12-9-21 UPWIND	0.18	0.39	0.13	0.43	< 0.5
Project Action Levels	6.2	80	230	23	20

Notes:

1. The Project Action Levels are consistent with the Air Quality Monitoring Plan developed for the Site.
2. Air samples are collected in stainless steel summa canisters over an approximately 8-hour period.
3. Air samples are analyzed by EuroFins TestAmerica of Burlington, VT.
4. Results and action levels are listed in parts per billion volume/volume (ppb v/v).
5. An upstream ambient air sample was not collected on March 18, 2021 due to a problem with the sampling equipment.

**Prepared by National Grid for the Businesses and Residents Located Near the Former Tidewater Facility
Weekly Ambient Air Sampling Results**

Sample Date	Compounds				
	Benzene	Toluene	Ethylbenzene	Total Xylenes	Naphthalene
	(ppb v/v)				
12-16-21 DOWNWIND	0.15	0.21	< 0.2	0.38	0.89
12-16-21 UPWIND	0.13	0.16	< 0.2	< 0.7	< 0.5
12-22-21 DOWNWIND	0.27	0.39	< 0.2	< 0.7	< 0.5
12-22-21 UPWIND	0.29	0.47	0.12	< 0.5	< 0.5
12-29-21 UPWIND	0.19	0.28	< 0.2	< 0.7	< 0.5
12-29-21 DOWNWIND	0.26	0.53	0.19	1.0	< 0.5
01-05-2022 UPWIND	0.28	0.38	0.14	0.38	0.2
01-05-2022 DOWNWIND	0.40	1.10	0.16	0.5	0.71
1-13-22 UPWIND	0.49	0.91	0.15	0.59	< 0.5
1-13-22 DOWNWIND	0.83	1.40	0.19	0.79	< 0.5
1-20-22 DOWNWIND	0.18	0.32	0.11	0.34	0.17
1-20-22 UPWIND	0.14	1.40	< 0.2	< 0.7	< 0.5
UPWIND 012722	0.24	0.26	< 0.2	< 0.7	< 0.5
DOWNWIND 012722	0.30	1.0	< 0.2	0.4	< 0.5
2/3/22 UPWIND	0.27	0.50	0.1	0.28	< 0.5
2/3/22 DOWNWIND	0.30	0.49	0.12	0.46	0.22
2-10-22 UPWIND	0.17	0.27	< 0.2	< 0.7	< 0.5
2-10-22 DOWNWIND	0.19	0.22	< 0.2	< 0.7	< 0.5
2-17-22 UPWIND	< 0.2	0.11	< 0.2	< 0.7	< 0.5
2-17-22 DOWNWIND	0.18	0.66	0.26	1.5	1.1
2-24-22 UPWIND	< 0.2	0.11	< 0.2	< 0.7	0.17
2-24-22 DOWNWIND	< 0.2	< 0.2	< 0.2	< 0.7	< 0.5
3-03-22 UPWIND	0.11	< 0.2	< 0.2	< 0.7	< 0.5
3-03-22 DOWNWIND	0.14	< 0.2	< 0.2	< 0.7	< 0.5
3-10-22 UPWIND	0.16	0.31	0.13	0.4	0.26
3-10-22 DOWNWIND	0.14	0.18	< 0.2	< 0.7	< 0.5
3-17-22 UPWIND	0.22	0.61	0.14	0.49	< 0.5
3-17-22 DOWNWIND	0.19	0.25	< 0.2	0.12	< 0.5
3-24-22 UPWIND	0.18	< 0.3	< 0.3	< 1.1	< 0.75
3-24-22 DOWNWIND	< 0.2	< 0.2	< 0.2	< 0.7	< 0.5
3-31-22 UPWIND	0.14	0.22	< 0.2	< 0.7	< 0.5
3-31-22 DOWNWIND	0.17	0.37	0.12	0.40	< 0.5
4-7-22 UPWIND	0.11	0.16	< 0.2	< 0.7	< 0.5
4-7-22 DOWNWIND	0.15	0.24	< 0.2	< 0.7	< 0.5
4-15-22 UPWIND	0.13	0.29	< 0.2	0.095	< 0.5
4-15-22 DOWNWIND	0.095	0.19	0.1	< 0.7	< 0.5
4-20-22 UPWIND	0.19	0.22	0.13	0.42	< 0.5
4-20-22 DOWNWIND	0.13	0.14	< 0.2	< 0.7	0.18
4-26-22 UPWIND	< 0.2	< 0.2	< 0.2	< 0.7	< 0.5
4-26-22 DOWNWIND	0.22	0.13	< 0.2	< 0.7	< 0.5
Project Action Levels	6.2	80	230	23	20

Notes:

1. The Project Action Levels are consistent with the Air Quality Monitoring Plan developed for the Site.
2. Air samples are collected in stainless steel summa canisters over an approximately 8-hour period.
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