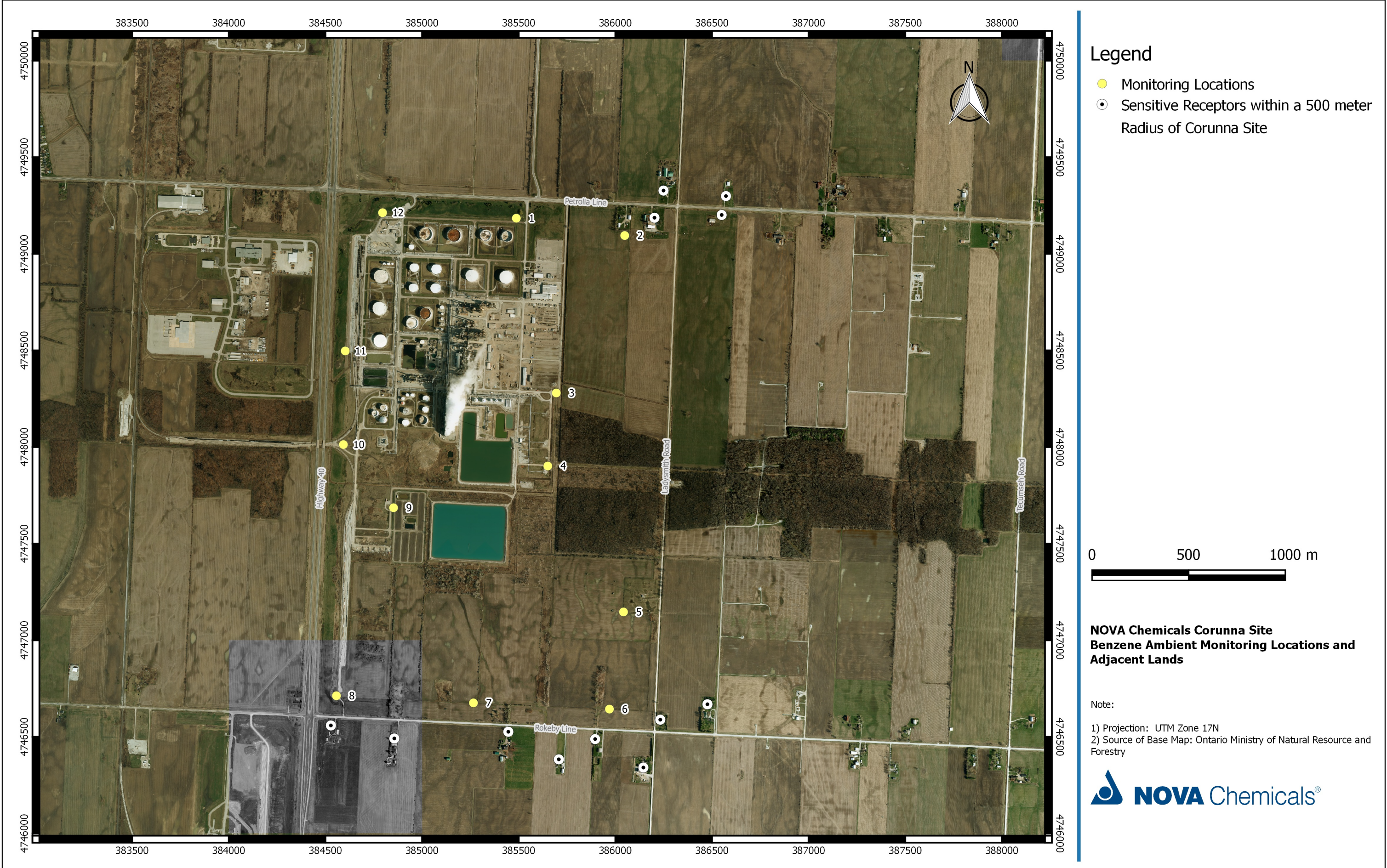




NOVA Chemicals Corunna Site Benzene Ambient Monitoring Results - 2018

Ambient Monitoring Location ID		1	2	3	4	5	6	7	8	9	10	11	12
Location (UTM Coordinates)	Easting (m) →	385487	386047	385694	385650	386041	385968	385265	384556	384852	384592	384602	384795
	Northing (m) →	4749184	4749094	4748280	4747902	4747146	4746643	4746676	4746713	4747686	4748013	4748497	4749212
Two-Week Measured Benzene Concentration (µg/m ³) 2018 Monitoring (MM/DD/YY to MM/DD/YY)	Date Range ↓												
	12/27/17 to 01/10/18	4.03	2.04	3.74	2.54	1.60	0.89	0.83	0.67	0.87	0.89	1.17	3.60
	01/10/18 to 01/24/18 ¹	14.80	3.73	2.60	2.19	1.61	1.27	3.84	2.50	6.94	10.20	19.50	118.00
	01/24/18 to 02/07/18	4.29	1.15	1.76	1.61	1.01	0.87	0.89	0.78	2.05	1.19	1.44	5.98
	02/07/18 to 02/21/18	4.34	1.09	1.61	0.97	0.72	0.73	0.95	0.82	3.35	1.22	1.52	6.54
	02/21/18 to 03/07/18	2.78	0.91	0.79	0.73	0.65	0.77	0.93	1.07	5.14	1.59	2.22	2.85
	03/07/18 to 03/21/18	1.71	1.02	2.40	2.24	1.95	0.92	0.66	0.81	3.39	1.32	1.21	1.17
	03/21/18 to 04/04/18	2.17	0.81	1.87	2.49	1.08	0.82	1.07	1.10	5.02	1.59	4.30	1.95
	04/04/18 to 04/18/18	5.49	1.62	5.24	2.87	0.80	0.76	0.83	1.12	4.81	5.42	4.92	2.25
	04/18/18 to 05/02/18	2.20	0.87	1.07	1.15	0.78	0.76	1.13	1.24	6.65	1.53	2.14	4.12
	05/02/18 to 05/16/18	2.79	0.66	0.76	0.69	0.51	0.49	0.70	1.08	2.73	1.59	1.44	3.08
	05/16/18 to 05/30/18	3.42	0.70	0.64	0.51	0.46	0.46	0.74	0.50	3.67	1.62	2.51	2.41
	05/30/18 to 06/13/18	1.14	0.57	1.03	0.69	0.39	0.37	0.66	0.91	3.89	1.87	2.09	2.02
	06/13/18 to 06/27/18	1.54	0.65	1.11	1.03	0.78	0.63	0.83	1.35	5.68	1.64	3.16	2.52
	6/27/18 to 07/11/18	2.48	0.52	0.77	0.58	0.45	0.41	0.82	0.78	3.41	1.05	1.64	3.49
	07/11/18 to 07/25/18	2.00	0.88	1.06	0.78	0.60	0.50	0.65	0.81	3.00	1.32	3.37	5.15
	07/25/18 to 08/08/18	2.32	0.60	1.12	0.68	0.38	0.33	0.40	0.47	1.05	0.78	1.04	2.87
	08/08/18 to 08/22/18	1.51	0.86	1.51	0.91	0.53	0.46	0.66	0.61	1.63	1.07	2.12	1.96
	08/22/18 to 09/05/18	4.12	0.69	1.33	0.62	0.5	0.47	0.47	0.52	1.02	0.69	1.01	4.59
	09/05/18 to 09/19/18	0.95	0.41	0.44	0.42	0.44	0.41	0.56	0.93	6.16	4.18	2.01	1.17
	09/19/18 to 10/03/18	2.33	0.63	0.99	0.65	0.43	0.44	0.37	0.48	1.3	1.39	2.09	2.91
	10/03/18 to 10/17/18	2.16	0.63	1.61	0.89	0.4	0.43	0.37	0.58	2.26	0.63	1.06	2.94
	10/17/18 to 10/31/18	2.02	0.86	1.17	1.12	0.85	0.55	0.48	0.43	0.7	1.52	0.66	1.67
	10/31/18 to 11/14/18	1.64	0.88	2.05	1.14	0.68	0.85	0.59	0.61	1.43	1.07	1.98	2.08
	11/14/18 to 11/28/18	1.43	0.81	1.15	1.00	0.84	0.6	0.51	0.54	0.87	0.8	1.08	1.07
	11/28/18 to 12/12/18	2.15	1.12	1.54	1.15	0.97	0.83	0.69	0.68	0.71	0.76	1.33	1.83
	12/12/18 to 12/27/18	1.88	1.14	2.05	1.31	1.06	1.05	0.96	0.87	1.88	1.01	2.29	4.26
	2018 Average	2.99	0.99	1.59	1.19	0.79	0.66	0.83	0.86	3.06	1.84	2.67	7.40

¹ On January 11, 2018 a drain line froze and cracked due to extreme weather temperatures. The incident resulted in a release of benzene. Once identified, the release was immediately isolated. The incident was reported to the Ministry of Environment and Climate Change, St. Clair Township Fire Department, Aamjiwnaang First Nation Emergency Response and the CAER Information Line. The incident location was closest to monitor 12 and elevated the sample results for the two-week reporting period.

NOVA Chemicals Corunna Site Benzene Ambient Monitoring Results - 2019

Ambient Monitoring Location ID		1	2	3	4	5	6	7	8	9	10	11	12
Location (UTM Coordinates)	Easting (m) →	385487	386047	385694	385650	386041	385968	385265	384556	384852	384592	384602	384795
	Northing (m) →	4749184	4749094	4748280	4747902	4747146	4746643	4746676	4746713	4747686	4748013	4748497	4749212
Two-Week Measured Benzene Concentration (µg/m ³) 2019 Monitoring (MM/DD/YY to MM/DD/YY)	Date Range ↓												
	12/27/18 to 01/09/19	3.04	1.03	1.44	1.21	1.17	0.83	0.97	0.68	1.64	0.93	3.30	6.66
	01/09/19 to 01/23/19	1.25	1.03	1.40	1.25	1.68	1.25	1.02	0.85	1.78	1.93	1.47	2.08
	01/23/19 to 02/06/19	3.89	1.69	1.71	1.20	0.97	0.88	0.89	0.67	1.11	1.05	1.37	2.28
	02/06/19 to 02/20/19 ²	1.08	0.85	1.50	0.84	0.88		0.86	0.97	1.47	1.78	1.50	1.60
	02/20/19 to 03/06/19	1.20	0.96	1.74	1.48	0.95	0.88	0.86	0.68	1.48	1.17	2.44	2.21
	03/06/19 to 03/20/19	2.61	1.47	1.95	1.34	0.75	0.70	0.55	0.53	0.54	0.58	2.12	5.57
	03/20/19 to 04/03/19	3.50	0.78	1.11	0.97	1.11	0.74	1.23	0.69	3.48	0.95	1.06	2.86
	04/03/19 to 04/17/19	0.80	0.60	1.05	0.70	0.55	0.50	0.53	0.62	3.10	2.26	2.45	1.51
	04/17/19 to 05/01/19	0.78	0.40	0.74	0.87	0.59	0.55	0.99	0.76	5.39	1.48	2.72	4.12
	05/01/19 to 05/15/19	1.51	0.55	0.93	0.47	0.37	0.35	0.92	1.00	5.44	1.92	1.52	1.17
	05/15/19 to 05/29/19	3.09	1.70	2.81	1.99	0.91	0.70	0.81	1.34	4.16	2.34	3.57	6.07
	05/29/19 to 06/12/19	2.92	0.86	1.85	1.03	0.73	0.74	0.87	0.96	3.26	1.55	2.77	4.05
	06/12/19 to 06/26/19	2.20	0.62	0.93	0.57	0.36	0.47	0.68	1.27	4.43	1.18	2.15	3.02
	06/26/19 to 07/10/19	1.54	0.64	0.92	0.79	0.51	0.54	0.81	1.23	5.08	1.44	1.78	3.34
	07/10/19 to 07/24/19	3.37	0.76	1.17	0.81	0.75	0.73	0.7	0.71	2.52	0.88	0.9	4.98
	07/24/19 to 08/07/19	3.9	0.94	1.39	0.91	0.69	0.62	0.58	0.87	3.71	0.91	1.03	5.15
	08/07/19 to 08/21/19	1.58	0.72	1.34	1.59	0.56	0.5	0.43	0.55	2.53	1.04	1.42	5.79
	08/21/19 to 09/04/19	1.28	0.72	0.89	0.77	0.37	0.49	0.40	0.52	2.22	1.42	1.92	1.79
	09/04/19 to 09/18/09	1.74	0.74	0.75	0.55	0.52	0.50	0.50	0.57	2.12	1.49	2.62	3.00
	9/18/19 to 10/02/19	2.69	0.60	1.00	0.76	0.40	0.32	0.33	0.38	1.31	0.77	2.47	13.00
	10/02/19 to 10/16/19	1.26	0.46	1.53	0.58	<0.31	<0.31	<0.31	0.39	1.54	1.00	4.32	1.44
	10/16/19 to 10/30/19	1.82	0.99	0.90	0.92	1.01	0.64	0.55	0.55	0.89	0.81	2.46	2.64
	10/30/19 to 11/13/19	4.40	0.81	2.72	1.97	0.89	0.63	0.81	0.60	1.62	1.14	0.74	2.58
	11/13/19 to 11/27/19	2.03	1.14	0.96	1.03	0.77	0.63	0.55	0.62	0.93	1.31	1.93	2.75
	11/27/19 to 12/11/19	1.50	0.90	1.08	1.05	0.77	0.79	0.66	0.57	1.17	0.71	0.97	1.88
	12/11/19 to 12/24/19	2.51	0.89	1.25	0.97	0.79	0.79	0.62	0.67	1.27	1.67	1.52	3.68
	2019 Average	2.21	0.88	1.35	1.02	0.76	0.66	0.72	0.74	2.47	1.30	2.02	3.66

² During the February 6-20, 2019 sampling period, there was no reportable data for Location 6 due to a technical issue with the laboratory analysis of the sample

NOVA Chemicals Corunna Site Benzene Ambient Monitoring Results - 2020

Ambient Monitoring Location ID		1	2	3	4	5	6	7	8	9	10	11	12	
Location (UTM Coordinates)	Easting (m) →	385487	386047	385694	385650	386041	385968	385265	384556	384852	384592	384602	384795	
	Northing (m) →	4749184	4749094	4748280	4747902	4747146	4746643	4746676	4746713	4747686	4748013	4748497	4749212	
Two-Week Measured Benzene Concentration (µg/m³) 2020 Monitoring (MM/DD/YY to MM/DD/YY)	Date Range ↓													
	12/24/19 to 01/08/20	3.88	1.10	1.32	0.83	0.78	0.65	0.49	0.59	0.71	0.59	2.06	2.67	
	01/08/20 to 01/22/20	2.02	0.80	1.32	1.04	1.39	0.81	0.63	0.67	1.73	0.64	2.00	2.30	
	01/22/20 to 02/05/20	2.13	0.83	1.34	1.15	0.89	0.79	0.78	0.75	1.77	0.99	1.52	2.98	
	02/05/20 to 02/19/20	1.92	0.80	0.88	0.86	0.65	0.70	0.86	0.55	1.46	0.81	1.34	3.63	
	02/19/20 to 03/04/20	3.44	1.37	1.95	1.69	1.21	0.93	0.91	1.27	3.08	1.40	1.69	2.79	
	03/04/20 to 03/18/20	2.23	0.77	1.14	1.10	0.73	0.64	0.85	0.67	3.05	0.97	1.50	4.58	
	03/18/20 to 04/02/20	1.50	0.95	1.26	1.10	1.12	0.79	1.08	1.32	4.12	1.87	3.19	3.57	
	04/02/20 to 04/15/20	1.09	0.88	1.60	1.22	0.80	0.74	0.94	0.91	2.57	0.95	1.70	2.47	
	04/15/20 to 04/29/20	1.36	0.58	0.72	0.66	0.57	0.38	0.33	0.71	3.32	0.78	2.06	3.00	
	04/29/20 to 05/13/20	1.91	0.74	1.18	1.12	0.70	0.74	0.99	1.10	7.10	1.10	1.88	2.59	
	05/13/20 to 05/27/20	1.27	0.51	0.49	0.37	0.39	0.45	0.38	0.53	1.85	2.12	4.59	4.44	
	05/27/20 to 06/10/20	2.13	0.76	0.87	0.72	0.49	0.34	0.67	0.85	3.38	0.86	1.44	2.89	
	06/10/20 to 06/24/20	1.40	0.62	1.35	0.42	0.37	0.30	0.61	0.93	3.00	1.23	1.63	2.41	
	06/24/20 to 07/08/20	1.79	0.84	1.17	0.71	0.36	0.3	0.62	0.8	3.99	0.99	1.03	1.22	
	07/08/20 to 07/22/20	3.04	0.87	1.34	1.38	0.75	0.44	0.59	0.39	2.68	2.53	2.63	3.64	
	07/22/20 to 08/05/20	2.21	0.88	1.42	0.82	0.61	0.6	0.57	0.87	3.31	1.01	1.29	1.02	
	08/05/20 to 08/19/20	1.7	0.41	1.25	0.83	0.48	0.3	0.3	0.4	1.5	1.45	1.52	1.75	
	08/19/20 to 09/02/20	3.72	1.27	1.28	0.97	0.77	0.50	0.62	0.58	1.08	0.76	1.15	3.65	
	09/02/20 to 09/16/20	1.86	0.53	0.89	0.62	0.37	0.32	0.49	0.49	2.85	1.19	1.38	2.27	
	09/16/20 to 09/30/20	2.19	0.80	0.66	0.48	0.40	0.48	0.58	0.55	1.89	0.57	1.05	2.79	
	09/30/20 to 10/14/20	2.36	0.81	0.99	0.85	0.75	0.49	0.37	0.41	0.90	0.68	1.03	1.33	
	10/14/20 to 10/28/20	1.50	0.58	0.89	0.64	0.56	0.58	0.53	0.52	1.03	0.98	0.98	1.56	
	10/28/20 to 11/11/20	3.43	0.69	0.96	0.78	0.65	0.62	0.58	0.64	1.45	0.54	0.55	3.52	
	11/11/20 to 11/25/20	1.92	0.91	1.55	0.98	0.77	0.76	0.64	0.57	0.80	0.88	1.37	1.69	
	11/25/20 to 12/9/20	2.61	1.02	1.29	1.13	1.06	0.90	0.72	0.64	0.78	0.59	0.85	1.88	
	12/9/20 to 12/22/20	2.42	0.85	0.94	0.94	0.82	0.58	0.6	0.60	1.15	1.34	1.38	3.65	
		2020 Avg.	2.19	0.81	1.16	0.90	0.71	0.58	0.64	0.70	2.33	1.07	1.65	2.70

Summary of Annual Average Benzene Concentrations

Ambient Monitoring Location ID		1	2	3	4	5	6	7	8	9	10	11	12
Location (UTM Coordinates)	Easting (m) →	385487	386047	385694	385650	386041	385968	385265	384556	384852	384592	384602	384795
	Northing (m) →	4749184	4749094	4748280	4747902	4747146	4746643	4746676	4746713	4747686	4748013	4748497	4749212
Annual Average Benzene Concentration (µg/m3)	2018	2.99	0.99	1.59	1.19	0.79	0.66	0.83	0.86	3.06	1.84	2.67	7.40
	2019	2.21	0.88	1.35	1.02	0.76	0.66	0.72	0.74	2.47	1.30	2.02	3.66
	2020	2.19	0.81	1.16	0.90	0.71	0.58	0.64	0.70	2.33	1.07	1.65	2.70
NOTE: Statistical analysis of the annual average results against the 3-year baseline is not applicable until the 2021 reporting year													