



2023 Reporting Year Annual Summary Reports

**Technical Standards to Manage Air Pollution
Petroleum Refining – Industry Standard
Shell Canada Limited
Corunna Facility**

Prepared by:

**Shell Canada Limited
150 St. Clair Parkway
Corunna, Ontario
N0N 1G0**

March 31, 2024



LEGEND

● Ambient Air Monitor

☒ Sensitive Receptor

Last Revised March 2018: added land use designations; receptor locations; and updated drawing title names.



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LEHDER PROJECT NUMBER:
165178

Sarnia Manufacturing Centre
Shell Canada Products

DATE:
January 2017

Location of Property Line
Monitoring Stations

LEHDER DRAWING NUMBER:
B-164255B-2



SCALE: 1:15000 (1mm=15meter)



2023 Property Line Benzene Monitoring Results

Sample Deployment Date		21-Dec-22	4-Jan-23	18-Jan-23	1-Feb-23	15-Feb-23	1-Mar-23	15-Mar-23	29-Mar-23	12-Apr-23	26-Apr-23	10-May-23	24-May-23	7-Jun-23
Sample Retrieval Date		4-Jan-23	18-Jan-23	1-Feb-23	15-Feb-23	1-Mar-23	15-Mar-23	29-Mar-23	12-Apr-23	26-Apr-23	10-May-23	24-May-23	7-Jun-23	21-Jun-23
UTM Coordinates	Location	ug/m3	ug/m3	ug/m3	ug/m3	Event #5	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3
382166mE, 4752034mN	Station #1	2.97	2.40	2.31	2.64	2.26	1.20	2.62	1.94	3.68	2.02	2.82	1.12	1.49
382511mE, 4752034mN	Station #2	2.52	1.93	1.49	1.94	1.91	1.13	1.72	1.32	2.25	1.41	1.78	1.25	1.23
383172mE, 4752033mN	Station #3	1.26	1.20	0.94	1.21	1.16	1.23	1.43	0.88	1.38	1.20	1.69	2.18	1.74
383332mE, 4751409mN	Station #4	1.07	1.31	0.96	1.10	1.19	1.20	1.18	0.80	1.26	1.12	1.51	2.06	1.72
382517mE, 4751245mN	Station #5	1.62	1.77	1.78	1.64	1.96	1.88	1.76	1.26	1.77	1.40	1.29	1.88	1.94
382125mE, 4750795mN	Station #6	1.18	1.97	1.95	1.44	1.71	2.34	1.30	1.34	1.71	1.38	1.20	2.47	1.92
381748mE, 4750810mN	Station #7	1.09	2.02	1.40	1.32	2.02	3.13	1.38	1.23	1.58	1.79	1.62	2.53	2.36
381455mE, 4750820mN	Station #8	4.08	7.05	3.05	1.67	3.88	14.90	5.72	3.80	3.02	7.51	8.51	18.70	13.20
381051mE, 4750852mN	Station #9	2.29	0.79	1.32	0.64	2.14	2.95	1.11	1.06	1.42	2.15	1.15	1.75	1.84
381112mE, 4751494mN	Station #10	2.24	3.58	1.49	1.05	2.23	2.40	0.97	2.14	1.54	3.34	1.07	1.11	1.68
381438mE, 4751966mN	Station #11	4.95	8.48	2.50	2.64	4.69	1.50	1.50	4.40	3.18	4.35	2.48	1.14	1.61
381773mE, 4752076mN	Station #12	8.24	2.90	3.45	12.40	5.43	1.76	8.21	4.36	4.06	1.62	3.40	1.24	1.67

Field QA/QC Data

Field Blank #1	Location	Station #4	Station #5	Station #6	Station #1	Station #2	Station #3	Station #4	Station #5	Station #6	Station #1	Station #2	Station #3	Station #4
	Value (ug/m3)	<0.308	<0.309	<0.310	<0.310	<0.309	<0.309	<0.307	<0.306	<0.303	<0.305	<0.302	<0.301	<0.301
Field Duplicate	Location	Station #4	Station #5	Station #6	Station #1	Station #2	Station #3	Station #4	Station #5	Station #6	Station #1	Station #2	Station #3	Station #4
	Value (ug/m3)	1.15	1.76	1.91	2.83	1.86	1.09	1.23	1.28	1.71	1.78	1.77	2.20	1.67
	RPD (%)	7.48%	0.56%	2.05%	7.20%	2.62%	11.38%	4.24%	1.59%	0.00%	11.88%	0.56%	0.92%	2.91%
Field Blank #2	Location	Station #10	Station #11	Station #12	Station #7	Station #8	Station #9	Station #10	Station #11	Station #12	Station #7	Station #8	Station #9	Station #10
	Value (ug/m3)	<0.308	<0.309	<0.310	<0.310	<0.309	<0.309	<0.307	<0.306	<0.303	<0.305	<0.302	<0.301	<0.301

Notes:

Ontario Ministry of the Environment, Conservation and Parks (MECP)
 Petroleum Industry Refining Standard (PRIS)
 Shell Canada Products Sarnia Manufacturing Centre
 Sarnia, Ontario Canada



Sample Deployment Date	21-Jun-23	5-Jul-23	19-Jul-23	2-Aug-23	16-Aug-23	30-Aug-23	13-Sep-23	27-Sep-23	11-Oct-23	25-Oct-23	8-Nov-23	22-Nov-23	6-Dec-23	
Sample Retrieval Date	5-Jul-23	19-Jul-23	2-Aug-23	16-Aug-23	30-Aug-23	13-Sep-23	27-Sep-23	11-Oct-23	25-Oct-23	8-Nov-23	22-Nov-23	6-Dec-23	20-Dec-23	
UTM Coordinates	Location	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	
382166mE, 4752034mN	Station #1	1.57	1.73	1.84	1.22	1.72	1.40	0.96	1.89	1.47	2.24	2.00	2.08	3.47
382511mE, 4752034mN	Station #2	1.40	1.30	1.40	0.91	1.26	1.02	0.78	1.28	1.07	1.45	1.72	1.64	2.21
383172mE, 4752033mN	Station #3	1.59	1.15	1.08	1.08	1.00	0.95	0.72	1.14	0.87	1.23	1.30	1.22	1.27
383332mE, 4751409mN	Station #4	1.45	0.92	1.11	0.95	0.93	0.97	0.75	1.06	0.64	1.03	1.12	1.27	1.19
382517mE, 4751245mN	Station #5	1.81	1.32	1.37	1.27	1.42	1.46	1.10	1.26	1.43	1.68	2.76	1.90	1.77
382125mE, 4750795mN	Station #6	1.96	1.05	1.27	1.08	1.42	1.31	1.11	1.11	1.22	1.47	1.87	1.65	1.38
381748mE, 4750810mN	Station #7	2.16	1.18	1.46	1.60	1.40	1.68	1.31	1.23	2.33	1.76	2.08	1.71	1.60
381455mE, 4750820mN	Station #8	8.47	6.74	5.66	6.31	7.61	5.43	4.23	1.26	5.36	2.93	3.59	4.90	1.45
381051mE, 4750852mN	Station #9	1.86	1.38	0.95	1.40	1.73	0.90	2.05	1.29	1.84	1.54	1.06	1.70	0.83
381112mE, 4751494mN	Station #10	2.18	2.15	1.68	2.43	2.81	1.13	2.65	2.70	1.55	2.29	2.70	2.91	1.76
381438mE, 4751966mN	Station #11	2.30	2.17	2.26	0.92	1.70	1.72	2.13	2.08	2.81	2.38	3.41	2.82	3.28
381773mE, 4752076mN	Station #12	2.79	2.68	3.06	1.77	2.48	2.46	1.18	2.09	4.91	10.80	3.84	5.33	6.98

Field QA/QC Data

Field Blank #1	Location Value (ug/m3)	Station #5	Station #6	Station #1	Station #2	Station #3	Station #4	Station #5	Station #6	Station #1	Station #2	Station #3	Station #4	Station #5
		<0.301	<0.301	<0.301	<0.301	<0.301	<0.301	<0.301	<0.301	<0.306	<0.305	<0.306	<0.309	<0.307
Field Duplicate	Location Value (ug/m3)	Station #5	Station #6	Station #1	Station #2	Station #3	Station #4	Station #5	Station #6	Station #1	Station #2	Station #3	Station #4	Station #5
		1.66	1.19	2.05	0.98	1.02	0.97	1.18	1.22	1.46	1.56	1.22	1.19	1.76
	RPD (%)	8.29%	13.33%	11.41%	8.26%	2.00%	0.00%	7.27%	9.91%	0.68%	7.59%	6.15%	6.30%	0.56%
Field Blank #2	Location Value (ug/m3)	Station #11	Station #12	Station #7	Station #8	Station #9	Station #10	Station #11	Station #12	Station #7	Station #8	Station #9	Station #10	Station #11
		<0.301	<0.301	<0.301	<0.301	<0.301	<0.301	<0.301	<0.301	<0.306	<0.305	<0.306	<0.309	<0.307

