DOMINION DIAMOND

APPENDIX 7A

SUMMARY OF RESULTS OF AIR QUALITY MODELLING

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Tables

Abbreviations

Abbreviation	Definition
CAMS	continuous air monitoring station
CDD	chlorinated dibenzo-p-dioxin
CDF	chlorinated dibenzofuran
CO	carbon monoxide
HpCDD	heptachlorodibenzo-p-dioxin
HxCDD	hexachlorodibenzo-p-dioxin
NO_2	nitrogen dioxide
NWT	Northwest Territories
PCDD	polychlorinated dibenzo-p-dioxin
PCDF	polychlorinated dibenzofuran
PeCDD	pentachlorodibenzo-p-dioxin
$PM_{2.5}$	particulate matter of mean aerodynamic diameter less than 2.5 microns
PM_{10}	particulate matter of mean aerodynamic diameter less than 10 microns
SO_2	sulphur dioxide
TCDD	tetrachlorodibenzo-p-dioxin
TCDF	tetrachlorodibenzofuran
TEQ	toxic equivalency

Units of Measure

Unit	Definition
µg/m³	micrograms per cubic metre

7A1 INTRODUCTION

This appendix summarizes the air quality dispersion modelling results for the Jay Project. The air dispersion modelling results for deposition of potential acid input, metals, and total suspended particulates provided for water quality modelling and presented in Section 8 of the Developer's Assessment Report were provided as raw data, and so are not summarized in this appendix.

7A2 PREDICTED AIR QUALITY AT SELECTED LOCATIONS

This section summarizes the air dispersion modelling results concentrations for locations as assessed in the human health risk assessment and the wildlife risk assessment. Results include the following compounds: sulphur dioxide (SO_2), nitrogen dioxide (NO_2), carbon monoxide (CO), particulate matter of mean aerodynamic diameter less than 2.5 microns ($PM_{2.5}$) and particulate matter of mean aerodynamic diameter less than 10 microns (PM_{10}), total suspended particulates, volatile organic compounds, dioxins and furans, polycyclic aromatic hydrocarbons, and metals. The results are provided in Tables 7A2-1 to 7A2-18.

Table 7A2-1 Sulphur Dioxide Predictions at Selected Locations

Location	Maximum 1-Hour[a] (µg/m³)		Maximum 24-Hour[b] (µg/m³)		Annual[c] (µg/m³)	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
13DDJPA	0.1	2.4	0.0	1.0	0.0	0.1
13DDJPB	0.1	2.3	0.1	0.6	0.0	0.1
CAMS Polar Explosives	0.8	0.8	0.2	0.2	0.0	0.0
Courageous Lake Lodge	0.0	0.0	0.0	0.0	0.0	0.0
Diavik Camp	3.0	3.0	1.4	1.4	0.1	0.1
Diavik Traditional Knowledge Camp	0.9	0.9	0.4	0.4	0.0	0.0
Ekati Airport Station	0.4	0.3	0.1	0.2	0.0	0.0
Ekati Camp/Administration	0.5	0.4	0.2	0.3	0.0	0.0
Koala Station	0.2	0.2	0.1	0.1	0.0	0.0
Lac de Gras Winter Road Rest Stop	0.3	0.3	0.2	0.2	0.0	0.0
Lac de Gras Hunting Camp	0.2	0.2	0.1	0.1	0.0	0.0
Misery Camp	0.5	0.5	0.1	0.2	0.0	0.0
Pellatt Lake Cabin	0.0	0.0	0.0	0.0	0.0	0.0
Polar Lake Station	0.3	0.1	0.1	0.0	0.0	0.0
Salmita Airstrip	0.0	0.0	0.0	0.0	0.0	0.0
Treeline Lodge	0.0	0.0	0.0	0.0	0.0	0.0
TSP1	0.5	0.4	0.2	0.2	0.0	0.0
TSP2	0.4	0.2	0.2	0.1	0.0	0.0
TSP3	0.6	0.6	0.1	0.1	0.0	0.0
Jay Pit Boundary	0.3	4.4	0.1	2.9	0.0	0.3
Maximum point of impingement	15.6	15.6	5.9	5.9	0.4	0.4

a) The 1-hour Northwest Territories (NWT) Standard for SO_2 is 450 µg/m³ (GNWT-ENR 2014).

b) The 24-hour NWT Standard for SO_2 is 150 µg/m³ (GNWT-ENR 2014).

c) The annual NWT Standard for SO_2 is 30 µg/m³ (GNWT-ENR 2014).

CAMS = continuous air monitoring station; SO_2 = sulphur dioxide gas; µg/m³ = micrograms per cubic metre.

Table 7A2-2 Nitrogen Dioxide Predictions at Selected Locations

Location	Maximum 1-Hour[a] (µg/m³)		Maximum 24-Hour[b] (µg/m³)		Annual[c] (µg/m³)	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
13DDJPA	71.1	278.2	18.6	154.9	2.1	26.7
13DDJPB	73.2	253.6	31.7	104.7	2.2	24.7
CAMS Polar Explosives	104.3	104.3	71.4	71.3	5.5	5.7
Courageous Lake Lodge	16.7	19.6	3.8	4.4	0.3	0.3
Diavik Camp	494.7	494.7	96.0	96.1	22.9	23.1
Diavik Traditional Knowledge Camp	92.1	92.1	62.8	62.9	7.1	8.3
Ekati Airport Station	122.6	122.6	82.9	82.9	10.3	11.6
Ekati Camp/Administration	121.1	121.0	64.7	75.1	7.8	9.4
Koala Station	90.5	90.5	65.1	64.6	5.4	5.7
Lac de Gras Winter Road Rest Stop	88.2	88.2	48.7	48.8	3.7	4.2
Lac de Gras Hunting Camp	77.3	81.3	22.2	58.0	2.3	3.9
Misery Camp	84.8	104.6	51.7	73.8	7.1	10.0
Pellatt Lake Cabin	14.1	19.1	3.9	5.0	0.3	0.4
Polar Lake Station	89.5	89.2	39.8	38.7	4.3	3.5
Salmita Airstrip	25.0	28.3	11.5	12.8	0.4	0.4
Treeline Lodge	25.8	29.5	10.7	12.0	0.4	0.4
TSP1	122.0	121.9	63.4	74.7	7.6	9.1
TSP2	94.1	94.0	33.5	28.8	4.8	3.9
TSP3	92.3	92.4	56.3	57.0	3.8	3.3
Jay Pit Boundary	79.6	456.6	34.1	320.9	2.9	77.8
Maximum point of impingement	499.9	500.4	140.3	320.9	42.1	77.8

a) The 1-hour Northwest Territories (NWT) Standard for NO_2 is 400 µg/m³ (GNWT-ENR 2014).
b) The 24-hour NWT Standard for NO_2 is 200 µg/m³ (GNWT-ENR 2014).
c) The annual NWT Standard for NO_2 is 60 µg/m³ (GNWT-ENR 2014).
CAMS = continuous air monitoring station; NO_2 = nitrogen dioxide gas; µg/m³ = micrograms per cubic metre.

Table 7A2-3 Carbon Monoxide Predictions at Selected Locations

Location	Maximum 1-Hour[a] (µg/m³)		Maximum 8-Hour[b] (µg/m³)	
	Base Case	Application Case	Base Case	Application Case
13DDJPA	33.2	1,340.3	19.0	896.5
13DDJPB	37.7	1,295.5	21.9	698.7
CAMS Polar Explosives	156.8	156.9	67.4	67.5
Courageous Lake Lodge	5.7	7.6	2.7	3.2
Diavik Camp	1,266.0	1,266.0	362.3	362.3
Diavik Traditional Knowledge Camp	135.4	138.9	77.6	77.9
Ekati Airport Station	177.9	178.1	81.0	80.7
Ekati Camp/Administration	152.8	152.4	53.1	94.0
Koala Station	69.6	69.7	33.3	32.9
Lac de Gras Winter Road Rest Stop	55.9	55.9	31.4	31.5
Lac de Gras Hunting Camp	37.0	63.6	23.4	44.4
Misery Camp	123.5	275.6	71.2	159.2
Pellatt Lake Cabin	4.7	12.0	2.7	6.0
Polar Lake Station	53.2	52.1	28.5	23.6
Salmita Airstrip	8.6	10.9	5.6	6.7
Treeline Lodge	8.9	12.1	5.9	7.0
TSP1	155.2	154.8	52.8	93.1
TSP2	78.0	77.7	30.8	26.4
TSP3	83.5	82.4	33.0	33.4
Jay Pit Boundary	51.5	2,407.2	30.1	1,949.4
Maximum point of impingement	1,418.8	2,407.2	981.9	1,949.4

a) The 1-hour Northwest Territories (NWT) Standard for CO is 15,000 µg/m³ (GNWT-ENR 2014).

b) The 8-hour NWT Standard for CO is 6,000 µg/m³ (GNWT-ENR 2014).

CAMS = continuous air monitoring station; CO = carbon monoxide; µg/m³ = micrograms per cubic metre.

Table 7A2-4 $PM_{2.5}$ Predictions at Selected Locations

Location	Maximum 24-Hour[(a)] (µg/m³)		Maximum Annual[(b)] (µg/m³)	
	Base Case	Application Case	Base Case	Application Case
13DDJPA	4.6	132.5	2.2	16.8
13DDJPB	5.2	96.4	2.2	11.8
CAMS Polar Explosives	7.5	5.2	2.6	2.3
Courageous Lake Lodge	2.3	2.3	1.9	1.9
Diavik Camp	30.9	31.0	5.5	5.6
Diavik Traditional Knowledge Camp	10.0	10.5	2.6	2.7
Ekati Airport Station	7.5	6.1	3.0	2.6
Ekati Camp/Administration	9.5	6.8	3.1	2.7
Koala Station	5.4	4.3	2.4	2.3
Lac de Gras Winter Road Rest Stop	5.0	5.0	2.2	2.2
Lac de Gras Hunting Camp	7.7	8.7	2.2	2.3
Misery Camp	25.1	19.9	3.7	3.3
Pellatt Lake Cabin	2.7	2.8	1.9	1.9
Polar Lake Station	6.4	3.8	2.4	2.1
Salmita Airstrip	2.6	2.7	1.9	1.9
Treeline Lodge	2.6	2.7	1.9	1.9
TSP1	9.3	6.6	3.1	2.7
TSP2	7.1	4.4	2.5	2.2
TSP3	7.4	4.7	2.4	2.1
Jay Pit Boundary	6.2	324.5	2.3	39.4
Maximum point of impingement	93.7	324.5	14.0	39.4

a) The 24-hour Northwest Territories (NWT) Standard for $PM_{2.5}$ is 28 µg/m³ (GNWT-ENR 2014).

b) The annual NWT Standard for $PM_{2.5}$ is 10 µg/m³ (GNWT-ENR 2014).

CAMS = continuous air monitoring station; $PM_{2.5}$ = particulate matter of particle diameter less than 2.5 µm; µg/m³ = micrograms per cubic metre.

Table 7A2-5 PM_{10} Predictions at Selected Locations

Location	Maximum 24-Hour[(a)] ($\mu g/m^3$)	
	Base Case	Application Case
13DDJPA	8.6	867.8
13DDJPB	6.6	567.5
CAMS Polar Explosives	22.1	3.9
Courageous Lake Lodge	0.3	0.5
Diavik Camp	48.9	48.6
Diavik Traditional Knowledge Camp	13.4	13.9
Ekati Airport Station	27.2	5.3
Ekati Camp/Administration	38.2	5.8
Koala Station	13.8	4.5
Lac de Gras Winter Road Rest Stop	2.6	4.7
Lac de Gras Hunting Camp	6.8	12.5
Misery Camp	127.3	77.6
Pellatt Lake Cabin	0.5	1.2
Polar Lake Station	16.9	4.7
Salmita Airstrip	0.5	0.7
Treeline Lodge	0.5	0.7
TSP1	37.9	5.8
TSP2	19.2	5.4
TSP3	14.6	3.9
Jay Pit Boundary	15.3	1,825.3
Maximum point of impingement	576.6	1,825.3

a) There is no Northwest Territories standard for PM_{10}.

CAMS = continuous air monitoring station; PM_{10} = particulate matter of particle diameter less than 10 μm; $\mu g/m^3$ = micrograms per cubic metre.

Table 7A2-6 Total Suspended Particulate Predictions at Selected Locations

Location	Maximum 24-Hour[a] (µg/m³)		Maximum Annual[b] (µg/m³)	
	Base Case	Application Case	Base Case	Application Case
13DDJPA	14.5	1,301.5	0.7	119.2
13DDJPB	10.4	784.7	0.7	90.0
CAMS Polar Explosives	43.8	5.9	4.6	0.9
Courageous Lake Lodge	0.3	0.5	0.0	0.0
Diavik Camp	109.0	109.0	9.4	9.4
Diavik Traditional Knowledge Camp	8.1	14.7	0.9	1.0
Ekati Airport Station	43.3	7.5	7.5	1.5
Ekati Camp/Administration	60.7	16.4	10.5	2.7
Koala Station	17.5	4.7	1.9	0.5
Lac de Gras Winter Road Rest Stop	3.1	7.4	0.3	0.4
Lac de Gras Hunting Camp	4.4	10.0	0.4	0.6
Misery Camp	135.6	63.7	13.7	3.8
Pellatt Lake Cabin	0.3	0.7	0.0	0.0
Polar Lake Station	24.5	5.3	2.8	0.3
Salmita Airstrip	0.3	0.4	0.0	0.0
Treeline Lodge	0.3	0.4	0.0	0.0
TSP1	60.6	17.9	10.4	2.8
TSP2	27.9	5.9	2.6	0.4
TSP3	20.7	5.5	3.0	0.4
Jay Pit Boundary	22.4	5,152.2	1.3	607.6
Maximum point of impingement	1,093.4	5,152.2	191.0	607.6

a) The 24-hour Northwest Territories (NWT) Standard for TSP is 120 µg/m³ (GNWT-ENR 2014).
b) The annual NWT Standard for TSP is 60 µg/m³ (GNWT-ENR 2014).
CAMS = continuous air monitoring station; µg/m³ = micrograms per cubic metre.

Table 7A2-7 Maximum 1-Hour Volatile Organic Compound Predictions at Selected Locations Part A

Maximum 1-hour (µg/m³)	13DDJPA		13DDJPB		CAMS Polar Explosives		Courageous Lake Lodge		Diavik Camp		Diavik Traditional Knowledge Camp		Ekati Airport Station	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
Methacrolein	0.09809	4.06861	0.08708	3.98576	0.14907	0.20940	0.00814	0.01733	1.87473	1.88909	0.34305	0.36219	0.15735	0.29573
Acrolein	0.08342	3.45833	0.07407	3.38790	0.12671	0.17799	0.00693	0.01474	1.59357	1.60578	0.29171	0.30798	0.13375	0.25137
Benzaldehyde	0.09319	3.86518	0.08273	3.78647	0.14162	0.19893	0.00774	0.01647	1.78099	1.79464	0.32590	0.34408	0.14948	0.28094
2,5-dimethylbenzaldehyde	0.10054	4.17033	0.08926	4.08541	0.15280	0.21464	0.00835	0.01777	1.92159	1.93632	0.35162	0.37124	0.16129	0.30312
Butanal	0.03188	1.32230	0.02830	1.29537	0.04845	0.06806	0.00265	0.00563	0.60929	0.61396	0.11149	0.11771	0.05114	0.09611
Formaldehyde	1.57377	22.68261	1.61768	22.22346	0.88283	1.25957	0.18484	0.21836	20.17052	20.17052	6.93732	6.93732	1.01636	1.80905
Acetaldehyde	1.02521	42.51703	0.91018	41.65123	1.55781	2.18826	0.08512	0.18115	19.59106	19.74119	3.58524	3.78526	1.64433	3.09034
Propanal	0.34332	14.24014	0.30480	13.95017	0.52175	0.73291	0.02851	0.06067	6.56154	6.61183	1.20067	1.26766	0.55073	1.03504
Crotonaldehyde	0.32861	13.62985	0.29173	13.35231	0.49939	0.70150	0.02728	0.05807	6.28034	6.32846	1.14921	1.21334	0.52713	0.99068
Hexanal	0.05395	2.23774	0.04790	2.19217	0.08199	0.11517	0.00448	0.00953	1.03110	1.03900	0.18868	0.19920	0.08654	0.16265
Heptanal	0.07847	3.25489	0.06967	3.18861	0.11926	0.16752	0.00652	0.01387	1.49978	1.51128	0.27444	0.28975	0.12588	0.23658
Octanal	0.07602	3.15318	0.06749	3.08897	0.11553	0.16229	0.00631	0.01343	1.45291	1.46405	0.26586	0.28070	0.12195	0.22919
Nonanal	0.10790	4.47547	0.09579	4.38434	0.16398	0.23034	0.00896	0.01907	2.06220	2.07800	0.37735	0.39841	0.17309	0.32530
Decanal	0.06866	2.84803	0.06096	2.79003	0.10435	0.14658	0.00570	0.01213	1.31231	1.32237	0.24013	0.25353	0.11015	0.20701
Undecanal	0.06376	2.64460	0.05661	2.59075	0.09690	0.13611	0.00529	0.01127	1.21857	1.22791	0.22298	0.23542	0.10228	0.19222
Dodecanal	0.02943	1.22058	0.02613	1.19573	0.04472	0.06282	0.00244	0.00520	0.56242	0.56673	0.10291	0.10866	0.04721	0.08872
Tridecanal	0.04905	2.03431	0.04354	1.99288	0.07454	0.10470	0.00407	0.00867	0.93736	0.94455	0.17152	0.18109	0.07868	0.14786
1,2,4-trimethylbenzene	0.02158	0.89509	0.01916	0.87687	0.03280	0.04607	0.00179	0.00381	0.41244	0.41560	0.07547	0.07968	0.03462	0.06506
1,3,5-trimethylbenzene	0.00638	0.26446	0.00566	0.25907	0.00969	0.01361	0.00053	0.00113	0.12186	0.12279	0.02230	0.02354	0.01023	0.01922
Benzene	0.07215	2.78777	0.06586	2.73028	0.14758	0.14804	0.00660	0.01289	1.29132	1.30116	0.24857	0.26094	0.16624	0.20333
Ethylbenzene	0.01174	0.47806	0.01072	0.46833	0.01759	0.02467	0.00115	0.00223	0.22091	0.22260	0.04191	0.04294	0.01859	0.03490
Propylbenzene	0.00245	0.10172	0.00218	0.09964	0.00373	0.00524	0.00020	0.00043	0.04687	0.04723	0.00858	0.00905	0.00393	0.00739
Indanone	0.00170	0.07069	0.00151	0.06925	0.00259	0.00364	0.00014	0.00030	0.03257	0.03282	0.00596	0.00629	0.00273	0.00514
Toluene	0.29432	4.04857	0.30148	3.96637	0.16080	0.22793	0.03457	0.04055	3.78734	3.78734	1.29804	1.29804	0.18359	0.32486
3-ethyl-toluene	0.00515	0.21360	0.00457	0.20925	0.00783	0.01099	0.00043	0.00091	0.09842	0.09918	0.01801	0.01901	0.00826	0.01553
4-ethyl-toluene	0.01275	0.52892	0.01132	0.51815	0.01938	0.02722	0.00106	0.00225	0.24371	0.24558	0.04460	0.04708	0.02046	0.03844
Acetone	0.53951	22.37737	0.47897	21.92170	0.81990	1.15171	0.04480	0.09534	10.31100	10.39001	1.88677	1.99204	0.86544	1.62649
Acetophenone	0.12507	5.18748	0.11103	5.08185	0.19007	0.26699	0.01038	0.02210	2.39028	2.40859	0.43739	0.46179	0.20062	0.37705
Methyl ethyl ketone	0.18392	7.62865	0.16328	7.47331	0.27951	0.39263	0.01527	0.03250	3.51511	3.54205	0.64322	0.67911	0.29504	0.55449
Xylene	0.05821	2.37016	0.05189	2.32171	0.08688	0.12199	0.00485	0.01020	1.09331	1.10168	0.20274	0.21389	0.09176	0.17235
o-Xylene	0.02071	0.84424	0.01889	0.82706	0.03105	0.04355	0.00201	0.00392	0.39007	0.39305	0.07381	0.07576	0.03278	0.06161
Ethylene	0.20992	8.70683	0.18636	8.52953	0.31901	0.44812	0.01743	0.03709	4.01192	4.04266	0.73412	0.77509	0.33673	0.63285
1,1,1-trichloroethane (methyl chloroform)	0.01032	0.01032	0.01014	0.01014	0.00566	0.00566	0.00111	0.00111	0.14199	0.14199	0.04556	0.04556	0.00556	0.00556
Butane	0.09392	3.89570	0.08338	3.81637	0.14274	0.20050	0.00780	0.01660	1.79505	1.80881	0.32847	0.34680	0.15066	0.28316
2,2-dimethylbutane	0.00760	0.31532	0.00675	0.30890	0.01155	0.01623	0.00063	0.00134	0.14529	0.14640	0.02659	0.02807	0.01219	0.02292

Table 7A2-7 Maximum 1-Hour Volatile Organic Compound Predictions at Selected Locations
Part A

Maximum 1-hour (µg/m³)	13DDJPA		13DDJPB		CAMS Polar Explosives		Courageous Lake Lodge		Diavik Camp		Diavik Traditional Knowledge Camp		Ekati Airport Station	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
2,3-dimethylbutane	0.01398	0.57978	0.01241	0.56797	0.02124	0.02984	0.00116	0.00247	0.26715	0.26920	0.04888	0.05161	0.02242	0.04214
Isobutene	0.02796	1.15955	0.02482	1.13594	0.04249	0.05968	0.00232	0.00494	0.53430	0.53839	0.09777	0.10322	0.04485	0.08428
Cis-2-butene	0.00638	0.26446	0.00566	0.25907	0.00969	0.01361	0.00053	0.00113	0.12186	0.12279	0.02230	0.02354	0.01023	0.01922
Trans-2-butene	0.01275	0.52892	0.01132	0.51815	0.01938	0.02722	0.00106	0.00225	0.24371	0.24558	0.04460	0.04708	0.02046	0.03844
2-methyl-1-butene	0.00638	0.26446	0.00566	0.25907	0.00969	0.01361	0.00053	0.00113	0.12186	0.12279	0.02230	0.02354	0.01023	0.01922
3-methyl-1-butene	0.00392	0.16274	0.00348	0.15943	0.00596	0.00838	0.00033	0.00069	0.07499	0.07556	0.01372	0.01449	0.00629	0.01183
1,3-butadiene	0.00760	0.31532	0.00675	0.30890	0.01155	0.01623	0.00063	0.00134	0.14529	0.14640	0.02659	0.02807	0.01219	0.02292
Cyclopentane	0.01005	0.41703	0.00893	0.40854	0.01528	0.02146	0.00083	0.00178	0.19216	0.19363	0.03516	0.03712	0.01613	0.03031
Methylcyclopentane	0.01520	0.63064	0.01350	0.61779	0.02311	0.03246	0.00126	0.00269	0.29058	0.29281	0.05317	0.05614	0.02439	0.04584
Pentane	0.04561	1.89190	0.04049	1.85338	0.06932	0.09737	0.00379	0.00806	0.87175	0.87843	0.15952	0.16842	0.07317	0.13751
Isopentane	0.06719	2.78700	0.05965	2.73025	0.10211	0.14344	0.00558	0.01187	1.28419	1.29403	0.23499	0.24810	0.10779	0.20257
2-methylpentane	0.02281	0.94595	0.02025	0.92669	0.03466	0.04869	0.00189	0.00403	0.43587	0.43921	0.07976	0.08421	0.03658	0.06876
3-methylpentane	0.01643	0.68149	0.01459	0.66762	0.02497	0.03507	0.00136	0.00290	0.31402	0.31642	0.05746	0.06067	0.02636	0.04953
2,3-dimethylpentane	0.01766	0.73235	0.01568	0.71744	0.02683	0.03769	0.00147	0.00312	0.33745	0.34004	0.06175	0.06519	0.02832	0.05323
2,4-dimethylpentane	0.01005	0.41703	0.00893	0.40854	0.01528	0.02146	0.00083	0.00178	0.19216	0.19363	0.03516	0.03712	0.01613	0.03031
2,2,4-trimethylpentane	0.03041	1.26127	0.02700	1.23559	0.04621	0.06491	0.00252	0.00537	0.58117	0.58562	0.10635	0.11228	0.04878	0.09167
2,3,4-trimethylpentane	0.00760	0.31532	0.00675	0.30890	0.01155	0.01623	0.00063	0.00134	0.14529	0.14640	0.02659	0.02807	0.01219	0.02292
2-methyl-2-pentene	0.00515	0.21360	0.00457	0.20925	0.00783	0.01099	0.00043	0.00091	0.09842	0.09918	0.01801	0.01901	0.00826	0.01553
Trans-2-pentene	0.00123	0.05086	0.00109	0.04982	0.00186	0.00262	0.00010	0.00022	0.02343	0.02361	0.00429	0.00453	0.00197	0.00370
Cyclohexane	0.00515	0.21360	0.00457	0.20925	0.00783	0.01099	0.00043	0.00091	0.09842	0.09918	0.01801	0.01901	0.00826	0.01553
Methylcyclohexane	0.01275	0.52892	0.01132	0.51815	0.01938	0.02722	0.00106	0.00225	0.24371	0.24558	0.04460	0.04708	0.02046	0.03844
Pentylcyclohexane	0.00206	0.08534	0.00183	0.08360	0.00313	0.00439	0.00017	0.00036	0.03932	0.03962	0.00720	0.00760	0.00330	0.00620
Dodecylcyclohexane	0.00041	0.01709	0.00037	0.01674	0.00063	0.00088	0.00003	0.00007	0.00787	0.00793	0.00144	0.00152	0.00066	0.00124
Tridecylcyclohexane	0.00040	0.01678	0.00036	0.01644	0.00061	0.00086	0.00003	0.00007	0.00773	0.00779	0.00142	0.00149	0.00065	0.00122
Tetradecylcyclohexane	0.00039	0.01617	0.00035	0.01584	0.00059	0.00083	0.00003	0.00007	0.00745	0.00751	0.00136	0.00144	0.00063	0.00118
Pentadecylcyclohexane	0.00031	0.01302	0.00028	0.01275	0.00048	0.00067	0.00003	0.00006	0.00600	0.00605	0.00110	0.00116	0.00050	0.00095
2-methylhexane	0.01398	0.57978	0.01241	0.56797	0.02124	0.02984	0.00116	0.00247	0.26715	0.26920	0.04888	0.05161	0.02242	0.04214
3-methylhexane	0.00760	0.31532	0.00675	0.30890	0.01155	0.01623	0.00063	0.00134	0.14529	0.14640	0.02659	0.02807	0.01219	0.02292
3-ethylhexane	0.00515	0.21360	0.00457	0.20925	0.00783	0.01099	0.00043	0.00091	0.09842	0.09918	0.01801	0.01901	0.00826	0.01553
2,3-dimethylhexane	0.00392	0.16274	0.00348	0.15943	0.00596	0.00838	0.00033	0.00069	0.07499	0.07556	0.01372	0.01449	0.00629	0.01183
2,4-dimethylhexane	0.00123	0.05086	0.00109	0.04982	0.00186	0.00262	0.00010	0.00022	0.02343	0.02361	0.00429	0.00453	0.00197	0.00370
2,5-dimethylhexane	0.00123	0.05086	0.00109	0.04982	0.00186	0.00262	0.00010	0.00022	0.02343	0.02361	0.00429	0.00453	0.00197	0.00370
Cis-2-hexene	0.00245	0.10172	0.00218	0.09964	0.00373	0.00524	0.00020	0.00043	0.04687	0.04723	0.00858	0.00905	0.00393	0.00739
Trans-2-hexene	0.00392	0.16274	0.00348	0.15943	0.00596	0.00838	0.00033	0.00069	0.07499	0.07556	0.01372	0.01449	0.00629	0.01183
Heptane	0.01153	0.47806	0.01023	0.46833	0.01752	0.02460	0.00096	0.00204	0.22028	0.22197	0.04031	0.04256	0.01849	0.03475

Table 7A2-7 Maximum 1-Hour Volatile Organic Compound Predictions at Selected Locations
Part A

Maximum 1-hour (µg/m³)	13DDJPA		13DDJPB		CAMS Polar Explosives		Courageous Lake Lodge		Diavik Camp		Diavik Traditional Knowledge Camp		Ekati Airport Station	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
2-methylheptane	0.00245	0.10172	0.00218	0.09964	0.00373	0.00524	0.00020	0.00043	0.04687	0.04723	0.00858	0.00905	0.00393	0.00739
Octane	0.00638	0.26446	0.00566	0.25907	0.00969	0.01361	0.00053	0.00113	0.12186	0.12279	0.02230	0.02354	0.01023	0.01922
Nonane	0.00392	0.16274	0.00348	0.15943	0.00596	0.00838	0.00033	0.00069	0.07499	0.07556	0.01372	0.01449	0.00629	0.01183
Dodecane	0.01234	0.51163	0.01095	0.50121	0.01875	0.02633	0.00102	0.00218	0.23575	0.23755	0.04314	0.04555	0.01979	0.03719
Tridecane	0.01170	0.48518	0.01038	0.47530	0.01778	0.02497	0.00097	0.00207	0.22356	0.22527	0.04091	0.04319	0.01876	0.03527
Tetradecane	0.01543	0.63979	0.01369	0.62676	0.02344	0.03293	0.00128	0.00273	0.29480	0.29706	0.05394	0.05695	0.02474	0.04650
n-Pentadecane	0.00976	0.40483	0.00866	0.39658	0.01483	0.02084	0.00081	0.00172	0.18654	0.18796	0.03413	0.03604	0.01566	0.02942
Hexadecane	0.01744	0.72320	0.01548	0.70847	0.02650	0.03722	0.00145	0.00308	0.33323	0.33579	0.06098	0.06438	0.02797	0.05257
n-Heptadecane	0.01506	0.62453	0.01337	0.61181	0.02288	0.03214	0.00125	0.00266	0.28777	0.28998	0.05266	0.05560	0.02415	0.04539
n-Octadecane	0.01474	0.61131	0.01308	0.59886	0.02240	0.03146	0.00122	0.00260	0.28168	0.28384	0.05154	0.05442	0.02364	0.04443
n-Nonadecane	0.01008	0.41805	0.00895	0.40954	0.01532	0.02152	0.00084	0.00178	0.19263	0.19410	0.03525	0.03721	0.01617	0.03039
n-Eicosane	0.00505	0.20953	0.00448	0.20527	0.00768	0.01078	0.00042	0.00089	0.09655	0.09729	0.01767	0.01865	0.00810	0.01523
n-Heneicosane	0.00161	0.06693	0.00143	0.06557	0.00245	0.00344	0.00013	0.00029	0.03084	0.03108	0.00564	0.00596	0.00259	0.00486
Farnesane	0.01064	0.44144	0.00945	0.43246	0.01617	0.02272	0.00088	0.00188	0.20341	0.20497	0.03722	0.03930	0.01707	0.03209
Pristine	0.01086	0.45060	0.00964	0.44142	0.01651	0.02319	0.00090	0.00192	0.20763	0.20922	0.03799	0.04011	0.01743	0.03275
Aldehyde	3.17881	131.82320	2.82221	129.13870	4.82996	6.78466	0.26394	0.56168	60.74188	61.20735	11.11646	11.73662	5.09822	9.58153
Ketone	0.85021	35.26419	0.75480	34.54610	1.29206	1.81497	0.07059	0.15024	16.24896	16.37348	2.97333	3.13923	1.36383	2.56316
Trimethylbenzenes	0.02796	1.15955	0.02482	1.13594	0.04249	0.05968	0.00232	0.00494	0.53430	0.53839	0.09777	0.10322	0.04485	0.08428
Xylene	0.07892	3.21440	0.07078	3.14877	0.11793	0.16555	0.00686	0.01412	1.48338	1.49473	0.27453	0.28965	0.12454	0.23396
C_2-C_6 Aliphatic	0.73280	29.76462	0.65334	29.15590	1.09109	1.53203	0.06091	0.12813	13.73153	13.83662	2.55113	2.69114	1.15103	2.16405
C_7-C_8 Aliphatic	0.13193	5.47228	0.11713	5.36085	0.20050	0.28165	0.01095	0.02331	2.52151	2.54083	0.46140	0.48715	0.21164	0.39775
C_9-C_{10} Aliphatic	0.00392	0.16274	0.00348	0.15943	0.00596	0.00838	0.00033	0.00069	0.07499	0.07556	0.01372	0.01449	0.00629	0.01183
C_{11}-C_{12} Aliphatic	0.01476	0.61212	0.01310	0.59966	0.02243	0.03150	0.00123	0.00261	0.28205	0.28421	0.05161	0.05449	0.02367	0.04449
C_{13}-C_{16} Aliphatic	0.08486	3.51976	0.07534	3.44808	0.12896	0.18115	0.00705	0.01500	1.62183	1.63426	0.29677	0.31333	0.13613	0.25583
C_{17}-C_{21} Aliphatic	0.08416	3.49057	0.07471	3.41949	0.12789	0.17965	0.00699	0.01487	1.60837	1.62070	0.29431	0.31073	0.13500	0.25371
C_6-C_8 Aromatic	0.33346	7.31440	0.36876	7.16498	0.27514	0.38264	0.04046	0.05127	4.00157	4.00157	1.46893	1.46893	0.30058	0.55883
C_9-C_{10} Aromatic	0.02035	0.84424	0.01807	0.82705	0.03093	0.04345	0.00169	0.00360	0.38901	0.39199	0.07118	0.07515	0.03265	0.06136

CAMS = continuous air monitoring station; C = carbon; µg/m^3 = micrograms per cubic metre.

Table 7A2-7 Maximum 1-Hour Volatile Organic Compound Predictions at Selected Locations Part B

Maximum 1-hour (µg/m³)	Ekati Camp/Administration		Koala Station		Lac de Gras Winter Road Rest Stop		Lac de Gras Hunting Camp		Misery Camp		Pellatt Lake Cabin		Polar Lake Station	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
Methacrolein	0.19247	0.40645	0.12344	0.12186	0.10762	0.11778	0.10891	0.19535	0.34358	0.85405	0.01555	0.04762	0.10355	0.10522
Acrolein	0.16361	0.34549	0.10493	0.10358	0.09151	0.10014	0.09263	0.16604	0.29215	0.72595	0.01322	0.04048	0.08802	0.08944
Benzaldehyde	0.18285	0.38613	0.11727	0.11577	0.10224	0.11189	0.10346	0.18558	0.32640	0.81135	0.01477	0.04523	0.09838	0.09996
2,5-dimethylbenzaldehyde	0.19729	0.41662	0.12653	0.12491	0.11031	0.12073	0.11163	0.20023	0.35217	0.87541	0.01593	0.04881	0.10614	0.10785
Butanal (butyraldehyde)	0.06255	0.13210	0.04012	0.03960	0.03498	0.03828	0.03539	0.06349	0.11166	0.27757	0.00505	0.01548	0.03365	0.03420
Formaldehyde	1.22132	2.46319	1.09798	1.22862	3.96052	3.96480	2.76590	2.84391	6.37109	6.06525	0.31397	0.50057	1.36727	1.43415
Acetaldehyde	2.01136	4.24746	1.28997	1.27344	1.12474	1.23091	1.13827	2.04136	3.59076	8.92488	0.16248	0.49761	1.08213	1.09960
Propanal	0.67366	1.42259	0.43205	0.42651	0.37667	0.41223	0.38117	0.68371	1.20253	2.98919	0.05441	0.16665	0.36244	0.36828
Crotonaldehyde	0.64479	1.36162	0.41353	0.40823	0.36053	0.39457	0.36484	0.65441	1.15100	2.86108	0.05208	0.15951	0.34690	0.35250
Hexanal	0.10586	0.22355	0.06789	0.06702	0.05919	0.06478	0.05990	0.10744	0.18897	0.46973	0.00855	0.02619	0.05695	0.05787
Heptanal	0.15398	0.32516	0.09875	0.09749	0.08610	0.09422	0.08713	0.15628	0.27486	0.68324	0.01244	0.03809	0.08284	0.08418
Octanal	0.14917	0.31500	0.09567	0.09444	0.08341	0.09128	0.08440	0.15139	0.26627	0.66189	0.01205	0.03690	0.08025	0.08155
Nonanal	0.21172	0.44710	0.13579	0.13405	0.11838	0.12956	0.11980	0.21488	0.37794	0.93946	0.01710	0.05238	0.11391	0.11575
Decanal	0.13473	0.28452	0.08641	0.08530	0.07533	0.08245	0.07623	0.13674	0.24051	0.59784	0.01088	0.03333	0.07249	0.07366
Undecanal	0.12511	0.26420	0.08024	0.07921	0.06995	0.07656	0.07079	0.12697	0.22333	0.55514	0.01010	0.03095	0.06731	0.06840
Dodecanal	0.05774	0.12194	0.03703	0.03656	0.03229	0.03533	0.03267	0.05860	0.10307	0.25622	0.00466	0.01428	0.03107	0.03157
Tridecanal	0.09624	0.20323	0.06172	0.06093	0.05381	0.05889	0.05445	0.09767	0.17179	0.42703	0.00777	0.02381	0.05178	0.05261
1,2,4-trimethylbenzene	0.04234	0.08942	0.02716	0.02681	0.02368	0.02591	0.02396	0.04298	0.07559	0.18789	0.00342	0.01048	0.02278	0.02315
1,3,5-trimethylbenzene	0.01251	0.02642	0.00802	0.00792	0.00700	0.00766	0.00708	0.01270	0.02233	0.05551	0.00101	0.00310	0.00673	0.00684
Benzene	0.14385	0.28004	0.08555	0.08434	0.08543	0.08657	0.09206	0.13388	0.26157	0.58562	0.01296	0.03493	0.07124	0.07237
Ethylbenzene	0.02275	0.04814	0.01472	0.01450	0.01597	0.01617	0.01649	0.02295	0.04497	0.10043	0.00226	0.00603	0.01227	0.01239
Propylbenzene	0.00481	0.01016	0.00309	0.00305	0.00269	0.00294	0.00272	0.00488	0.00859	0.02135	0.00039	0.00119	0.00259	0.00263
Indanone	0.00334	0.00706	0.00214	0.00212	0.00187	0.00205	0.00189	0.00339	0.00597	0.01484	0.00027	0.00083	0.00180	0.00183
Toluene	0.22038	0.44161	0.20521	0.22853	0.74223	0.74300	0.51693	0.52875	1.19105	1.13646	0.05862	0.09193	0.25524	0.26718
3-ethyl-toluene (m-ethyltoluene)	0.01010	0.02134	0.00648	0.00640	0.00565	0.00618	0.00572	0.01026	0.01804	0.04484	0.00082	0.00250	0.00544	0.00552
4-ethyl-toluene (p-ethyltoluene)	0.02502	0.05284	0.01605	0.01584	0.01399	0.01531	0.01416	0.02539	0.04467	0.11103	0.00202	0.00619	0.01346	0.01368
Acetone	1.05861	2.23550	0.67893	0.67023	0.59191	0.64780	0.59899	1.07440	1.88969	4.69730	0.08550	0.26189	0.56954	0.57873
Acetophenone	0.24540	0.51823	0.15739	0.15537	0.13722	0.15017	0.13886	0.24907	0.43807	1.08892	0.01982	0.06071	0.13203	0.13416
Methyl ethyl ketone	0.36089	0.76210	0.23145	0.22849	0.20179	0.22084	0.20420	0.36627	0.64421	1.60135	0.02915	0.08928	0.19416	0.19730
Xylene	0.11221	0.23685	0.07198	0.07106	0.06360	0.06952	0.06501	0.11381	0.20294	0.49759	0.00927	0.02795	0.06036	0.06135
o-Xylene	0.04015	0.08499	0.02598	0.02559	0.02788	0.02823	0.02887	0.04053	0.07910	0.17734	0.00397	0.01062	0.02163	0.02188
Ethylene	0.41190	0.86981	0.26416	0.26078	0.23031	0.25205	0.23306	0.41804	0.73526	1.82768	0.03327	0.10190	0.22160	0.22518
1,1,1-trichloroethane (methyl chloroform)	0.00535	0.00535	0.00662	0.00662	0.02595	0.02595	0.01749	0.01749	0.04029	0.04029	0.00189	0.00189	0.00781	0.00781
Butane	0.18429	0.38918	0.11820	0.11668	0.10305	0.11278	0.10428	0.18704	0.32898	0.81776	0.01489	0.04559	0.09915	0.10075
2,2-dimethylbutane	0.01492	0.03150	0.00957	0.00944	0.00834	0.00913	0.00844	0.01514	0.02663	0.06619	0.00120	0.00369	0.00803	0.00815

Table 7A2-7 Maximum 1-Hour Volatile Organic Compound Predictions at Selected Locations Part B

Maximum 1-hour (µg/m³)	Ekati Camp/Administration		Koala Station		Lac de Gras Winter Road Rest Stop		Lac de Gras Hunting Camp		Misery Camp		Pellatt Lake Cabin		Polar Lake Station	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
2,3-dimethylbutane	0.02743	0.05792	0.01759	0.01736	0.01534	0.01678	0.01552	0.02784	0.04896	0.12170	0.00222	0.00679	0.01476	0.01499
Isobutene	0.05486	0.11584	0.03518	0.03473	0.03067	0.03357	0.03104	0.05567	0.09792	0.24341	0.00443	0.01357	0.02951	0.02999
Cis-2-butene	0.01251	0.02642	0.00802	0.00792	0.00700	0.00766	0.00708	0.01270	0.02233	0.05551	0.00101	0.00310	0.00673	0.00684
Trans-2-butene	0.02502	0.05284	0.01605	0.01584	0.01399	0.01531	0.01416	0.02539	0.04467	0.11103	0.00202	0.00619	0.01346	0.01368
2-methyl-1-butene	0.01251	0.02642	0.00802	0.00792	0.00700	0.00766	0.00708	0.01270	0.02233	0.05551	0.00101	0.00310	0.00673	0.00684
3-methyl-1-butene	0.00770	0.01626	0.00494	0.00487	0.00430	0.00471	0.00436	0.00781	0.01374	0.03416	0.00062	0.00190	0.00414	0.00421
1,3-butadiene	0.01492	0.03150	0.00957	0.00944	0.00834	0.00913	0.00844	0.01514	0.02663	0.06619	0.00120	0.00369	0.00803	0.00815
Cyclopentane	0.01973	0.04166	0.01265	0.01249	0.01103	0.01207	0.01116	0.02002	0.03522	0.08754	0.00159	0.00488	0.01061	0.01079
Methylcyclopentane	0.02983	0.06300	0.01913	0.01889	0.01668	0.01826	0.01688	0.03028	0.05325	0.13238	0.00241	0.00738	0.01605	0.01631
Pentane	0.08950	0.18900	0.05740	0.05666	0.05004	0.05477	0.05064	0.09084	0.15976	0.39714	0.00723	0.02214	0.04815	0.04893
Isopentane	0.13184	0.27842	0.08456	0.08347	0.07372	0.08068	0.07460	0.13381	0.23535	0.58503	0.01065	0.03262	0.07093	0.07208
2-methylpentane	0.04475	0.09450	0.02870	0.02833	0.02502	0.02738	0.02532	0.04542	0.07988	0.19857	0.00361	0.01107	0.02408	0.02446
3-methylpentane	0.03224	0.06808	0.02068	0.02041	0.01803	0.01973	0.01824	0.03272	0.05755	0.14305	0.00260	0.00798	0.01735	0.01763
2,3-dimethylpentane	0.03465	0.07316	0.02222	0.02193	0.01937	0.02120	0.01960	0.03516	0.06184	0.15373	0.00280	0.00857	0.01864	0.01894
2,4-dimethylpentane	0.01973	0.04166	0.01265	0.01249	0.01103	0.01207	0.01116	0.02002	0.03522	0.08754	0.00159	0.00488	0.01061	0.01079
2,2,4-trimethylpentane	0.05967	0.12600	0.03827	0.03778	0.03336	0.03651	0.03376	0.06056	0.10651	0.26476	0.00482	0.01476	0.03210	0.03262
2,3,4-trimethylpentane	0.01492	0.03150	0.00957	0.00944	0.00834	0.00913	0.00844	0.01514	0.02663	0.06619	0.00120	0.00369	0.00803	0.00815
2-methyl-2-pentene	0.01010	0.02134	0.00648	0.00640	0.00565	0.00618	0.00572	0.01026	0.01804	0.04484	0.00082	0.00250	0.00544	0.00552
Trans-2-pentene	0.00241	0.00508	0.00154	0.00152	0.00135	0.00147	0.00136	0.00244	0.00429	0.01068	0.00019	0.00060	0.00129	0.00132
Cyclohexane	0.01010	0.02134	0.00648	0.00640	0.00565	0.00618	0.00572	0.01026	0.01804	0.04484	0.00082	0.00250	0.00544	0.00552
Methylcyclohexane	0.02502	0.05284	0.01605	0.01584	0.01399	0.01531	0.01416	0.02539	0.04467	0.11103	0.00202	0.00619	0.01346	0.01368
Pentylcyclohexane	0.00404	0.00853	0.00259	0.00256	0.00226	0.00247	0.00228	0.00410	0.00721	0.01791	0.00033	0.00100	0.00217	0.00221
Dodecylcyclohexane	0.00081	0.00171	0.00052	0.00051	0.00045	0.00049	0.00046	0.00082	0.00144	0.00359	0.00007	0.00020	0.00043	0.00044
Tridecylcyclohexane	0.00079	0.00168	0.00051	0.00050	0.00044	0.00049	0.00045	0.00081	0.00142	0.00352	0.00006	0.00020	0.00043	0.00043
Tetradecylcyclohexane	0.00077	0.00162	0.00049	0.00048	0.00043	0.00047	0.00043	0.00078	0.00137	0.00339	0.00006	0.00019	0.00041	0.00042
Pentadecylcyclohexane	0.00062	0.00130	0.00040	0.00039	0.00034	0.00038	0.00035	0.00063	0.00110	0.00273	0.00005	0.00015	0.00033	0.00034
2-methylhexane	0.02743	0.05792	0.01759	0.01736	0.01534	0.01678	0.01552	0.02784	0.04896	0.12170	0.00222	0.00679	0.01476	0.01499
3-methylhexane	0.01492	0.03150	0.00957	0.00944	0.00834	0.00913	0.00844	0.01514	0.02663	0.06619	0.00120	0.00369	0.00803	0.00815
3-ethylhexane	0.01010	0.02134	0.00648	0.00640	0.00565	0.00618	0.00572	0.01026	0.01804	0.04484	0.00082	0.00250	0.00544	0.00552
2,3-dimethylhexane	0.00770	0.01626	0.00494	0.00487	0.00430	0.00471	0.00436	0.00781	0.01374	0.03416	0.00062	0.00190	0.00414	0.00421
2,4-dimethylhexane	0.00241	0.00508	0.00154	0.00152	0.00135	0.00147	0.00136	0.00244	0.00429	0.01068	0.00019	0.00060	0.00129	0.00132
2,5-dimethylhexane	0.00241	0.00508	0.00154	0.00152	0.00135	0.00147	0.00136	0.00244	0.00429	0.01068	0.00019	0.00060	0.00129	0.00132
Cis-2-hexene	0.00481	0.01016	0.00309	0.00305	0.00269	0.00294	0.00272	0.00488	0.00859	0.02135	0.00039	0.00119	0.00259	0.00263
Trans-2-hexene	0.00770	0.01626	0.00494	0.00487	0.00430	0.00471	0.00436	0.00781	0.01374	0.03416	0.00062	0.00190	0.00414	0.00421
Heptane	0.02262	0.04776	0.01450	0.01432	0.01265	0.01384	0.01280	0.02295	0.04037	0.10035	0.00183	0.00559	0.01217	0.01236

Table 7A2-7 Maximum 1-Hour Volatile Organic Compound Predictions at Selected Locations Part B

Maximum 1-hour (µg/m³)	Ekati Camp/Administration		Koala Station		Lac de Gras Winter Road Rest Stop		Lac de Gras Hunting Camp		Misery Camp		Pellatt Lake Cabin		Polar Lake Station	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
2-methylheptane	0.00481	0.01016	0.00309	0.00305	0.00269	0.00294	0.00272	0.00488	0.00859	0.02135	0.00039	0.00119	0.00259	0.00263
Octane	0.01251	0.02642	0.00802	0.00792	0.00700	0.00766	0.00708	0.01270	0.02233	0.05551	0.00101	0.00310	0.00673	0.00684
Nonane	0.00770	0.01626	0.00494	0.00487	0.00430	0.00471	0.00436	0.00781	0.01374	0.03416	0.00062	0.00190	0.00414	0.00421
Dodecane	0.02420	0.05111	0.01552	0.01532	0.01353	0.01481	0.01369	0.02456	0.04321	0.10740	0.00195	0.00599	0.01302	0.01323
Tridecane	0.02295	0.04847	0.01472	0.01453	0.01283	0.01405	0.01299	0.02329	0.04097	0.10185	0.00185	0.00568	0.01235	0.01255
Tetradecane	0.03027	0.06391	0.01941	0.01916	0.01692	0.01852	0.01713	0.03072	0.05403	0.13430	0.00244	0.00749	0.01628	0.01655
n-Pentadecane	0.01915	0.04044	0.01228	0.01212	0.01071	0.01172	0.01084	0.01944	0.03419	0.08498	0.00155	0.00474	0.01030	0.01047
Hexadecane	0.03421	0.07225	0.02194	0.02166	0.01913	0.02094	0.01936	0.03472	0.06107	0.15181	0.00276	0.00846	0.01841	0.01870
n-Heptadecane	0.02954	0.06239	0.01895	0.01871	0.01652	0.01808	0.01672	0.02999	0.05274	0.13110	0.00239	0.00731	0.01590	0.01615
n-Octadecane	0.02892	0.06107	0.01855	0.01831	0.01617	0.01770	0.01636	0.02935	0.05162	0.12832	0.00234	0.00715	0.01556	0.01581
n-Nonadecane	0.01978	0.04176	0.01268	0.01252	0.01106	0.01210	0.01119	0.02007	0.03530	0.08775	0.00160	0.00489	0.01064	0.01081
n-Eicosane	0.00991	0.02093	0.00636	0.00628	0.00554	0.00607	0.00561	0.01006	0.01769	0.04398	0.00080	0.00245	0.00533	0.00542
n-Heneicosane	0.00317	0.00669	0.00203	0.00200	0.00177	0.00194	0.00179	0.00321	0.00565	0.01405	0.00026	0.00078	0.00170	0.00173
Farnesane	0.02088	0.04410	0.01339	0.01322	0.01168	0.01278	0.01182	0.02119	0.03728	0.09266	0.00169	0.00517	0.01124	0.01142
Pristane	0.02132	0.04501	0.01367	0.01350	0.01192	0.01304	0.01206	0.02163	0.03805	0.09459	0.00172	0.00527	0.01147	0.01165
Aldehyde	6.23621	13.16916	3.99954	3.94827	3.48735	3.81654	3.52946	6.32920	11.13354	27.67140	0.50380	1.54287	3.35513	3.40929
Ketone	1.66825	3.52289	1.06991	1.05620	0.93279	1.02085	0.94393	1.69313	2.97794	7.40241	0.13474	0.41270	0.89753	0.91202
Trimethylbenzenes	0.05486	0.11584	0.03518	0.03473	0.03067	0.03357	0.03104	0.05567	0.09792	0.24341	0.00443	0.01357	0.02951	0.02999
Xylene	0.15236	0.32184	0.09796	0.09665	0.08712	0.09514	0.09274	0.15434	0.28204	0.67493	0.01324	0.03857	0.08196	0.08322
C_2-C_6 Aliphatic	1.40884	2.97440	0.90388	0.89230	0.79804	0.87236	0.81889	1.42921	2.55157	6.24852	0.11679	0.35138	0.75760	0.77047
C_7-C_8 Aliphatic	0.25888	0.54668	0.16603	0.16390	0.14475	0.15842	0.14648	0.26274	0.46212	1.14870	0.02091	0.06404	0.13928	0.14153
C_9-C_{10} Aliphatic	0.00770	0.01626	0.00494	0.00487	0.00430	0.00471	0.00436	0.00781	0.01374	0.03416	0.00062	0.00190	0.00414	0.00421
C_{11}-C_{12} Aliphatic	0.02896	0.06115	0.01857	0.01833	0.01619	0.01772	0.01638	0.02939	0.05169	0.12849	0.00234	0.00716	0.01558	0.01583
C_{13}-C_{16} Aliphatic	0.16651	0.35162	0.10679	0.10542	0.09310	0.10189	0.09422	0.16899	0.29723	0.73884	0.01345	0.04119	0.08958	0.09103
C_{17}-C_{21} Aliphatic	0.16513	0.34871	0.10590	0.10455	0.09233	0.10105	0.09343	0.16759	0.29477	0.73271	0.01334	0.04085	0.08884	0.09027
C_6-C_8 Aromatic	0.36389	0.76980	0.24412	0.28157	0.82847	0.82876	0.59545	0.67108	1.34665	1.54313	0.07309	0.13074	0.30626	0.32782
C_9-C_{10} Aromatic	0.03994	0.08434	0.02561	0.02529	0.02233	0.02444	0.02260	0.04053	0.07129	0.17722	0.00323	0.00988	0.02149	0.02183

CAMS = continuous air monitoring station; C = carbon; µg/m^3 = micrograms per cubic metre.

Table 7A2-7 Maximum 1-Hour Volatile Organic Compound Predictions at Selected Locations Part C

Maximum 1-hour (µg/m³)	Salmita Airstrip		Treeline Lodge		TSP1		TSP2		TSP3		Jay Pit Boundary		Maximum Point of Impingement	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
Methacrolein	0.01508	0.02613	0.01268	0.02312	0.19207	0.40970	0.12132	0.10536	0.09128	0.13375	0.15476	7.25326	8.73640	8.74125
Acrolein	0.01284	0.02222	0.01079	0.01966	0.16326	0.34825	0.10312	0.08956	0.07760	0.11369	0.13159	6.16528	7.42612	7.43024
Benzaldehyde	0.01433	0.02482	0.01205	0.02197	0.18247	0.38921	0.11525	0.10009	0.08672	0.12706	0.14702	6.89059	8.29958	8.30418
2,5-dimethylbenzaldehyde	0.01546	0.02678	0.01300	0.02370	0.19688	0.41994	0.12435	0.10800	0.09357	0.13709	0.15863	7.43459	8.95481	8.95978
Butanal (butyraldehyde)	0.00490	0.00849	0.00412	0.00752	0.06242	0.13315	0.03943	0.03424	0.02967	0.04347	0.05030	2.35731	2.83933	2.84090
Formaldehyde	0.41711	0.47293	0.42316	0.48243	1.23120	2.48219	1.40992	1.47452	0.83967	1.04919	2.75804	40.51395	55.61077	55.72333
Acetaldehyde	0.15768	0.27308	0.13257	0.24166	2.00717	4.28138	1.26780	1.10105	0.95394	1.39765	1.61738	75.79655	91.29596	91.34659
Propanal	0.05279	0.09145	0.04439	0.08093	0.67226	1.43395	0.42462	0.36877	0.31949	0.46811	0.54165	25.38639	30.57740	30.59436
Crotonaldehyde	0.05052	0.08754	0.04249	0.07746	0.64345	1.37250	0.40642	0.35297	0.30580	0.44805	0.51844	24.29841	29.26694	29.28317
Hexanal	0.00829	0.01437	0.00698	0.01272	0.10564	0.22534	0.06673	0.05795	0.05021	0.07356	0.08512	3.98929	4.80502	4.80768
Heptanal	0.01207	0.02090	0.01015	0.01850	0.15366	0.32776	0.09706	0.08429	0.07303	0.10700	0.12381	5.80260	6.98912	6.99300
Octanal	0.01169	0.02025	0.00983	0.01792	0.14886	0.31752	0.09402	0.08166	0.07075	0.10365	0.11994	5.62127	6.77071	6.77447
Nonanal	0.01659	0.02874	0.01395	0.02544	0.21128	0.45067	0.13345	0.11590	0.10041	0.14712	0.17023	7.97858	9.61004	9.61537
Decanal	0.01056	0.01829	0.00888	0.01619	0.13445	0.28679	0.08492	0.07375	0.06390	0.09362	0.10833	5.07728	6.11548	6.11887
Undecanal	0.00980	0.01698	0.00824	0.01503	0.12485	0.26631	0.07886	0.06849	0.05933	0.08693	0.10059	4.71462	5.67866	5.68181
Dodecanal	0.00452	0.00784	0.00381	0.00694	0.05762	0.12291	0.03640	0.03161	0.02739	0.04012	0.04643	2.17598	2.62092	2.62237
Tridecanal	0.00754	0.01306	0.00634	0.01156	0.09604	0.20485	0.06066	0.05268	0.04564	0.06687	0.07738	3.62663	4.36820	4.37062
1,2,4-trimethylbenzene	0.00332	0.00575	0.00279	0.00509	0.04226	0.09013	0.02669	0.02318	0.02008	0.02942	0.03405	1.59572	1.92201	1.92307
1,3,5-trimethylbenzene	0.00098	0.00170	0.00082	0.00150	0.01248	0.02663	0.00789	0.00685	0.00593	0.00869	0.01006	0.47146	0.56787	0.56818
Benzene	0.01401	0.02027	0.01126	0.01854	0.14601	0.28227	0.08350	0.07249	0.07830	0.09263	0.11184	4.96978	6.00227	6.00559
Ethylbenzene	0.00222	0.00356	0.00213	0.00338	0.02268	0.04852	0.01437	0.01241	0.01110	0.01592	0.01854	0.85241	1.02663	1.02720
Propylbenzene	0.00038	0.00065	0.00032	0.00058	0.00480	0.01024	0.00303	0.00263	0.00228	0.00334	0.00387	0.18133	0.21841	0.21853
Indanone	0.00026	0.00045	0.00022	0.00040	0.00334	0.00712	0.00211	0.00183	0.00159	0.00232	0.00269	0.12603	0.15180	0.15188
Toluene	0.07793	0.08789	0.07908	0.08966	0.22213	0.44501	0.26315	0.27468	0.15643	0.19165	0.51574	7.23179	10.40997	10.43006
3-ethyl-toluene (m-ethyltoluene)	0.00079	0.00137	0.00067	0.00121	0.01008	0.02151	0.00637	0.00553	0.00479	0.00702	0.00812	0.38080	0.45866	0.45892
4-ethyl-toluene (p-ethyltoluene)	0.00196	0.00340	0.00165	0.00301	0.02497	0.05326	0.01577	0.01370	0.01187	0.01739	0.02012	0.94292	1.13573	1.13636
Acetone	0.08295	0.14371	0.06976	0.12718	1.05641	2.25335	0.66726	0.57950	0.50206	0.73560	0.85117	39.89290	48.05021	48.07685
Acetophenone	0.01923	0.03332	0.01617	0.02948	0.24489	0.52237	0.15468	0.13434	0.11639	0.17053	0.19732	9.24790	11.13891	11.14509
Methyl ethyl ketone	0.02828	0.04899	0.02378	0.04336	0.36014	0.76819	0.22748	0.19756	0.17116	0.25077	0.29017	13.59986	16.38075	16.38984
Xylene	0.00943	0.01544	0.00757	0.01366	0.11191	0.23874	0.07070	0.06143	0.05338	0.07799	0.09131	4.22523	5.09340	5.09622
o-Xylene	0.00390	0.00625	0.00373	0.00593	0.04005	0.08567	0.02535	0.02191	0.01957	0.02810	0.03272	1.50531	1.81293	1.81393
Ethylene	0.03227	0.05592	0.02714	0.04948	0.41104	0.87676	0.25963	0.22548	0.19535	0.28622	0.33118	15.52197	18.69590	18.70627
1,1,1-trichloroethane (methyl chloroform)	0.00251	0.00251	0.00254	0.00254	0.00536	0.00536	0.00801	0.00801	0.00483	0.00483	0.01761	0.01761	0.36603	0.36603
Butane	0.01444	0.02502	0.01214	0.02214	0.18391	0.39229	0.11616	0.10088	0.08740	0.12806	0.14818	6.94499	8.36510	8.36974
2,2-dimethylbutane	0.00117	0.00203	0.00098	0.00179	0.01489	0.03175	0.00940	0.00817	0.00707	0.01037	0.01199	0.56213	0.67707	0.67745

Table 7A2-7 Maximum 1-Hour Volatile Organic Compound Predictions at Selected Locations Part C

Maximum 1-hour (µg/m³)	Salmita Airstrip		Treeline Lodge		TSP1		TSP2		TSP3		Jay Pit Boundary		Maximum Point of Impingement	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
2,3-dimethylbutane	0.00215	0.00372	0.00181	0.00330	0.02737	0.05838	0.01729	0.01501	0.01301	0.01906	0.02205	1.03359	1.24494	1.24563
Isobutene	0.00430	0.00745	0.00361	0.00659	0.05474	0.11676	0.03458	0.03003	0.02602	0.03812	0.04411	2.06718	2.48987	2.49126
Cis-2-butene	0.00098	0.00170	0.00082	0.00150	0.01248	0.02663	0.00789	0.00685	0.00593	0.00869	0.01006	0.47146	0.56787	0.56818
Trans-2-butene	0.00196	0.00340	0.00165	0.00301	0.02497	0.05326	0.01577	0.01370	0.01187	0.01739	0.02012	0.94292	1.13573	1.13636
2-methyl-1-butene	0.00098	0.00170	0.00082	0.00150	0.01248	0.02663	0.00789	0.00685	0.00593	0.00869	0.01006	0.47146	0.56787	0.56818
3-methyl-1-butene	0.00060	0.00105	0.00051	0.00092	0.00768	0.01639	0.00485	0.00421	0.00365	0.00535	0.00619	0.29013	0.34946	0.34965
1,3-butadiene	0.00117	0.00203	0.00098	0.00179	0.01489	0.03175	0.00940	0.00817	0.00707	0.01037	0.01199	0.56213	0.67707	0.67745
Cyclopentane	0.00155	0.00268	0.00130	0.00237	0.01969	0.04199	0.01244	0.01080	0.00936	0.01371	0.01586	0.74346	0.89548	0.89598
Methylcyclopentane	0.00234	0.00405	0.00197	0.00358	0.02977	0.06350	0.01880	0.01633	0.01415	0.02073	0.02399	1.12425	1.35414	1.35489
Pentane	0.00701	0.01215	0.00590	0.01075	0.08931	0.19051	0.05641	0.04899	0.04245	0.06219	0.07196	3.37276	4.06243	4.06468
Isopentane	0.01033	0.01790	0.00869	0.01584	0.13157	0.28064	0.08310	0.07217	0.06253	0.09162	0.10601	4.96848	5.98444	5.98775
2-methylpentane	0.00351	0.00608	0.00295	0.00538	0.04466	0.09526	0.02821	0.02450	0.02122	0.03110	0.03598	1.68638	2.03121	2.03234
3-methylpentane	0.00253	0.00438	0.00212	0.00387	0.03217	0.06862	0.02032	0.01765	0.01529	0.02240	0.02592	1.21492	1.46335	1.46416
2,3-dimethylpentane	0.00271	0.00470	0.00228	0.00416	0.03457	0.07375	0.02184	0.01897	0.01643	0.02407	0.02786	1.30559	1.57255	1.57342
2,4-dimethylpentane	0.00155	0.00268	0.00130	0.00237	0.01969	0.04199	0.01244	0.01080	0.00936	0.01371	0.01586	0.74346	0.89548	0.89598
2,2,4-trimethylpentane	0.00468	0.00810	0.00393	0.00717	0.05954	0.12701	0.03761	0.03266	0.02830	0.04146	0.04798	2.24851	2.70828	2.70979
2,3,4-trimethylpentane	0.00117	0.00203	0.00098	0.00179	0.01489	0.03175	0.00940	0.00817	0.00707	0.01037	0.01199	0.56213	0.67707	0.67745
2-methyl-2-pentene	0.00079	0.00137	0.00067	0.00121	0.01008	0.02151	0.00637	0.00553	0.00479	0.00702	0.00812	0.38080	0.45866	0.45892
Trans-2-pentene	0.00019	0.00033	0.00016	0.00029	0.00240	0.00512	0.00152	0.00132	0.00114	0.00167	0.00193	0.09067	0.10921	0.10927
Cyclohexane	0.00079	0.00137	0.00067	0.00121	0.01008	0.02151	0.00637	0.00553	0.00479	0.00702	0.00812	0.38080	0.45866	0.45892
Methylcyclohexane	0.00196	0.00340	0.00165	0.00301	0.02497	0.05326	0.01577	0.01370	0.01187	0.01739	0.02012	0.94292	1.13573	1.13636
Pentylcyclohexane	0.00032	0.00055	0.00027	0.00049	0.00403	0.00859	0.00254	0.00221	0.00191	0.00281	0.00325	0.15214	0.18325	0.18335
Dodecylcyclohexane	0.00006	0.00011	0.00005	0.00010	0.00081	0.00172	0.00051	0.00044	0.00038	0.00056	0.00065	0.03046	0.03669	0.03671
Tridecylcyclohexane	0.00006	0.00011	0.00005	0.00010	0.00079	0.00169	0.00050	0.00043	0.00038	0.00055	0.00064	0.02992	0.03604	0.03606
Tetradecylcyclohexane	0.00006	0.00010	0.00005	0.00009	0.00076	0.00163	0.00048	0.00042	0.00036	0.00053	0.00062	0.02883	0.03473	0.03475
Pentadecylcyclohexane	0.00005	0.00008	0.00004	0.00007	0.00061	0.00131	0.00039	0.00034	0.00029	0.00043	0.00050	0.02321	0.02796	0.02797
2-methylhexane	0.00215	0.00372	0.00181	0.00330	0.02737	0.05838	0.01729	0.01501	0.01301	0.01906	0.02205	1.03359	1.24494	1.24563
3-methylhexane	0.00117	0.00203	0.00098	0.00179	0.01489	0.03175	0.00940	0.00817	0.00707	0.01037	0.01199	0.56213	0.67707	0.67745
3-ethylhexane	0.00079	0.00137	0.00067	0.00121	0.01008	0.02151	0.00637	0.00553	0.00479	0.00702	0.00812	0.38080	0.45866	0.45892
2,3-dimethylhexane	0.00060	0.00105	0.00051	0.00092	0.00768	0.01639	0.00485	0.00421	0.00365	0.00535	0.00619	0.29013	0.34946	0.34965
2,4-dimethylhexane	0.00019	0.00033	0.00016	0.00029	0.00240	0.00512	0.00152	0.00132	0.00114	0.00167	0.00193	0.09067	0.10921	0.10927
2,5-dimethylhexane	0.00019	0.00033	0.00016	0.00029	0.00240	0.00512	0.00152	0.00132	0.00114	0.00167	0.00193	0.09067	0.10921	0.10927
Cis-2-hexene	0.00038	0.00065	0.00032	0.00058	0.00480	0.01024	0.00303	0.00263	0.00228	0.00334	0.00387	0.18133	0.21841	0.21853
Trans-2-hexene	0.00060	0.00105	0.00051	0.00092	0.00768	0.01639	0.00485	0.00421	0.00365	0.00535	0.00619	0.29013	0.34946	0.34965
Heptane	0.00177	0.00307	0.00149	0.00272	0.02257	0.04814	0.01426	0.01238	0.01073	0.01572	0.01818	0.85226	1.02653	1.02710

Table 7A2-7 Maximum 1-Hour Volatile Organic Compound Predictions at Selected Locations Part C

Maximum 1-hour (µg/m³)	Salmita Airstrip		Treeline Lodge		TSP1		TSP2		TSP3		Jay Pit Boundary		Maximum Point of Impingement	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
2-methylheptane	0.00038	0.00065	0.00032	0.00058	0.00480	0.01024	0.00303	0.00263	0.00228	0.00334	0.00387	0.18133	0.21841	0.21853
Octane	0.00098	0.00170	0.00082	0.00150	0.01248	0.02663	0.00789	0.00685	0.00593	0.00869	0.01006	0.47146	0.56787	0.56818
Nonane	0.00060	0.00105	0.00051	0.00092	0.00768	0.01639	0.00485	0.00421	0.00365	0.00535	0.00619	0.29013	0.34946	0.34965
Dodecane	0.00190	0.00329	0.00160	0.00291	0.02415	0.05152	0.01526	0.01325	0.01148	0.01682	0.01946	0.91210	1.09860	1.09921
Tridecane	0.00180	0.00312	0.00151	0.00276	0.02290	0.04886	0.01447	0.01256	0.01089	0.01595	0.01845	0.86495	1.04182	1.04239
Tetradecane	0.00237	0.00411	0.00199	0.00364	0.03020	0.06443	0.01908	0.01657	0.01435	0.02103	0.02434	1.14057	1.37380	1.37456
n-Pentadecane	0.00150	0.00260	0.00126	0.00230	0.01911	0.04077	0.01207	0.01048	0.00908	0.01331	0.01540	0.72170	0.86927	0.86975
Hexadecane	0.00268	0.00464	0.00225	0.00411	0.03414	0.07282	0.02156	0.01873	0.01623	0.02377	0.02751	1.28927	1.55289	1.55376
n-Heptadecane	0.00232	0.00401	0.00195	0.00355	0.02948	0.06289	0.01862	0.01617	0.01401	0.02053	0.02376	1.11337	1.34104	1.34178
n-Octadecane	0.00227	0.00393	0.00191	0.00347	0.02886	0.06156	0.01823	0.01583	0.01372	0.02010	0.02325	1.08980	1.31264	1.31337
n-Nonadecane	0.00155	0.00268	0.00130	0.00238	0.01974	0.04210	0.01247	0.01083	0.00938	0.01374	0.01590	0.74527	0.89767	0.89816
n-Eicosane	0.00078	0.00135	0.00065	0.00119	0.00989	0.02110	0.00625	0.00543	0.00470	0.00689	0.00797	0.37354	0.44992	0.45017
n-Heneicosane	0.00025	0.00043	0.00021	0.00038	0.00316	0.00674	0.00200	0.00173	0.00150	0.00220	0.00255	0.11932	0.14371	0.14379
Farnesane	0.00164	0.00284	0.00138	0.00251	0.02084	0.04445	0.01316	0.01143	0.00990	0.01451	0.01679	0.78698	0.94790	0.94843
Pristane	0.00167	0.00289	0.00140	0.00256	0.02127	0.04537	0.01344	0.01167	0.01011	0.01481	0.01714	0.80330	0.96756	0.96809
Aldehyde	0.48900	0.84673	0.41106	0.74930	6.22319	13.27433	3.93078	3.41379	2.95772	4.33341	5.01484	235.00560	283.06189	283.21890
Ketone	0.13072	0.22648	0.10994	0.20042	1.66478	3.55102	1.05153	0.91322	0.79119	1.15922	1.34135	62.86669	75.72166	75.76366
Trimethylbenzenes	0.00430	0.00745	0.00361	0.00659	0.05474	0.11676	0.03458	0.03003	0.02602	0.03812	0.04411	2.06718	2.48987	2.49126
Xylene	0.01316	0.02164	0.01104	0.01943	0.15194	0.32441	0.09605	0.08334	0.07295	0.10609	0.12403	5.73054	6.90633	6.91015
C_2-C_6 Aliphatic	0.11906	0.19412	0.09532	0.17169	1.40502	2.99814	0.88747	0.77155	0.67062	0.97950	1.14866	53.06033	63.96936	64.00480
C_7-C_8 Aliphatic	0.02028	0.03514	0.01706	0.03110	0.25834	0.55105	0.16318	0.14171	0.12278	0.17989	0.20815	9.75563	11.75046	11.75698
C_9-C_{10} Aliphatic	0.00060	0.00105	0.00051	0.00092	0.00768	0.01639	0.00485	0.00421	0.00365	0.00535	0.00619	0.29013	0.34946	0.34965
C_{11}-C_{12} Aliphatic	0.00227	0.00393	0.00191	0.00348	0.02890	0.06164	0.01825	0.01585	0.01373	0.02012	0.02328	1.09125	1.31439	1.31512
C_{13}-C_{16} Aliphatic	0.01305	0.02261	0.01097	0.02000	0.16616	0.35443	0.10495	0.09115	0.07897	0.11570	0.13388	6.27479	7.55786	7.56205
C_{17}-C_{21} Aliphatic	0.01294	0.02242	0.01088	0.01984	0.16478	0.35149	0.10408	0.09039	0.07831	0.11474	0.13277	6.22275	7.49518	7.49933
C_6-C_8 Aromatic	0.09092	0.10924	0.09247	0.11158	0.36722	0.77581	0.31655	0.33738	0.21485	0.28455	0.57977	13.05399	15.73532	15.74403
C_9-C_{10} Aromatic	0.00313	0.00542	0.00263	0.00480	0.03986	0.08501	0.02517	0.02186	0.01894	0.02775	0.03211	1.50505	1.81280	1.81381

CAMS = continuous air monitoring station; C = carbon; µg/m^3 = micrograms per cubic metre.

Table 7A2-8 Maximum 24-Hour Volatile Organic Compound Predictions at Selected Locations
Part A

Maximum 24-hour (µg/m³)	13DDJPA		13DDJPB		CAMS Polar Explosives		Courageous Lake Lodge		Diavik Camp		Diavik Traditional Knowledge Camp		Ekati Airport Station	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
Methacrolein	0.02729	1.72078	0.02518	1.02053	0.06052	0.10422	0.00246	0.00476	0.84348	0.85576	0.12465	0.12489	0.10572	0.20792
Acrolein	0.02321	1.46267	0.02141	0.86746	0.05145	0.08859	0.00210	0.00405	0.71704	0.72748	0.10599	0.10619	0.08987	0.17674
Benzaldehyde	0.02593	1.63474	0.02392	0.96951	0.05749	0.09901	0.00234	0.00452	0.80131	0.81297	0.11841	0.11864	0.10043	0.19753
2,5-dimethylbenzaldehyde	0.02797	1.76380	0.02581	1.04605	0.06203	0.10683	0.00253	0.00488	0.86457	0.87715	0.12776	0.12801	0.10836	0.21312
Butanal	0.00887	0.55925	0.00818	0.33167	0.01967	0.03387	0.00080	0.00155	0.27413	0.27812	0.04051	0.04059	0.03436	0.06758
Formaldehyde	0.36759	9.69178	0.54304	5.74685	0.38401	0.60737	0.06565	0.07845	5.26067	5.32889	2.58432	2.58565	0.62964	1.18804
Acetaldehyde	0.28524	17.98219	0.26316	10.66460	0.63245	1.08915	0.02575	0.04975	8.81464	8.94293	1.30268	1.30520	1.10479	2.17282
Propanal	0.09552	6.02274	0.08813	3.57186	0.21182	0.36478	0.00862	0.01666	2.95218	2.99515	0.43626	0.43710	0.37002	0.72773
Crotonaldehyde	0.09143	5.76462	0.08435	3.41878	0.20274	0.34915	0.00825	0.01595	2.82566	2.86679	0.41756	0.41837	0.35416	0.69655
Hexanal	0.01501	0.94643	0.01385	0.56129	0.03329	0.05732	0.00136	0.00262	0.46391	0.47067	0.06856	0.06869	0.05815	0.11436
Heptanal	0.02183	1.37663	0.02014	0.81643	0.04842	0.08338	0.00197	0.00381	0.67478	0.68461	0.09972	0.09991	0.08458	0.16634
Octanal	0.02115	1.33361	0.01951	0.79091	0.04690	0.08077	0.00191	0.00369	0.65370	0.66321	0.09660	0.09679	0.08193	0.16114
Nonanal	0.03002	1.89286	0.02770	1.12259	0.06657	0.11465	0.00271	0.00524	0.92783	0.94133	0.13711	0.13738	0.11629	0.22872
Decanal	0.01910	1.20455	0.01763	0.71437	0.04236	0.07296	0.00172	0.00333	0.59044	0.59903	0.08725	0.08742	0.07400	0.14555
Undecanal	0.01774	1.11851	0.01637	0.66335	0.03934	0.06775	0.00160	0.00309	0.54826	0.55624	0.08102	0.08118	0.06872	0.13515
Dodecanal	0.00819	0.51623	0.00755	0.30616	0.01816	0.03127	0.00074	0.00143	0.25304	0.25673	0.03739	0.03747	0.03172	0.06238
Tridecanal	0.01365	0.86039	0.01259	0.51027	0.03026	0.05211	0.00123	0.00238	0.42174	0.42788	0.06232	0.06244	0.05286	0.10396
1,2,4-trimethylbenzene	0.00600	0.37857	0.00554	0.22452	0.01331	0.02293	0.00054	0.00105	0.18557	0.18827	0.02742	0.02748	0.02326	0.04574
1,3,5-trimethylbenzene	0.00177	0.11185	0.00164	0.06633	0.00393	0.00677	0.00016	0.00031	0.05483	0.05562	0.00810	0.00812	0.00687	0.01352
Benzene	0.02029	1.18012	0.01884	0.70065	0.04242	0.07166	0.00214	0.00371	0.58991	0.59832	0.10168	0.10185	0.07307	0.14301
Ethylbenzene	0.00335	0.20239	0.00307	0.12002	0.00727	0.01230	0.00039	0.00066	0.10026	0.10170	0.01830	0.01833	0.01252	0.02451
Propylbenzene	0.00068	0.04302	0.00063	0.02551	0.00151	0.00261	0.00006	0.00012	0.02109	0.02139	0.00312	0.00312	0.00264	0.00520
Indanone	0.00047	0.02990	0.00044	0.01773	0.00105	0.00181	0.00004	0.00008	0.01466	0.01487	0.00217	0.00217	0.00184	0.00361
Toluene	0.06871	1.73102	0.10154	1.02665	0.06998	0.10869	0.01225	0.01454	0.94791	0.96008	0.48058	0.48081	0.11312	0.21267
3-ethyl-toluene	0.00143	0.09034	0.00132	0.05358	0.00318	0.00547	0.00013	0.00025	0.04428	0.04493	0.00654	0.00656	0.00555	0.01092
4-ethyl-toluene	0.00355	0.22370	0.00327	0.13267	0.00787	0.01355	0.00032	0.00062	0.10965	0.11125	0.01620	0.01624	0.01374	0.02703
Acetone	0.15011	9.46430	0.13848	5.61293	0.33286	0.57323	0.01355	0.02618	4.63915	4.70667	0.68555	0.68688	0.58146	1.14358
Acetophenone	0.03480	2.19400	0.03210	1.30118	0.07716	0.13289	0.00314	0.00607	1.07544	1.09109	0.15892	0.15923	0.13479	0.26510
Methyl ethyl ketone	0.05117	3.22647	0.04721	1.91350	0.11348	0.19542	0.00462	0.00893	1.58153	1.60455	0.23371	0.23416	0.19823	0.38986
Xylene	0.01618	1.00256	0.01497	0.59477	0.03558	0.06074	0.00147	0.00280	0.49361	0.50076	0.07365	0.07379	0.06173	0.12126
o-Xylene	0.00590	0.35739	0.00541	0.21195	0.01271	0.02171	0.00068	0.00116	0.17686	0.17941	0.03210	0.03215	0.02207	0.04324
Ethylene	0.05841	3.68247	0.05388	2.18394	0.12951	0.22304	0.00527	0.01019	1.80505	1.83132	0.26674	0.26726	0.22624	0.44496
1,1,1-trichloroethane	0.00229	0.00229	0.00348	0.00348	0.00146	0.00146	0.00037	0.00037	0.02030	0.02030	0.01351	0.01351	0.00177	0.00177
Butane	0.02613	1.64765	0.02411	0.97716	0.05795	0.09979	0.00236	0.00456	0.80763	0.81939	0.11935	0.11958	0.10123	0.19909
2,2-dimethylbutane	0.00212	0.13336	0.00195	0.07909	0.00469	0.00808	0.00019	0.00037	0.06537	0.06632	0.00966	0.00968	0.00819	0.01611

Table 7A2-8 Maximum 24-Hour Volatile Organic Compound Predictions at Selected Locations
Part A

Maximum 24-hour (µg/m³)	13DDJPA		13DDJPB		CAMS Polar Explosives		Courageous Lake Lodge		Diavik Camp		Diavik Traditional Knowledge Camp		Ekati Airport Station	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
2,3-dimethylbutane	0.00389	0.24521	0.00359	0.14543	0.00862	0.01485	0.00035	0.00068	0.12020	0.12195	0.01776	0.01780	0.01507	0.02963
Isobutene	0.00778	0.49042	0.00718	0.29085	0.01725	0.02970	0.00070	0.00136	0.24039	0.24389	0.03552	0.03559	0.03013	0.05926
Cis-2-butene	0.00177	0.11185	0.00164	0.06633	0.00393	0.00677	0.00016	0.00031	0.05483	0.05562	0.00810	0.00812	0.00687	0.01352
Trans-2-butene	0.00355	0.22370	0.00327	0.13267	0.00787	0.01355	0.00032	0.00062	0.10965	0.11125	0.01620	0.01624	0.01374	0.02703
2-methyl-1-butene	0.00177	0.11185	0.00164	0.06633	0.00393	0.00677	0.00016	0.00031	0.05483	0.05562	0.00810	0.00812	0.00687	0.01352
3-methyl-1-butene	0.00109	0.06883	0.00101	0.04082	0.00242	0.00417	0.00010	0.00019	0.03374	0.03423	0.00499	0.00500	0.00423	0.00832
1,3-butadiene	0.00212	0.13336	0.00195	0.07909	0.00469	0.00808	0.00019	0.00037	0.06537	0.06632	0.00966	0.00968	0.00819	0.01611
Cyclopentane	0.00280	0.17638	0.00258	0.10460	0.00620	0.01068	0.00025	0.00049	0.08646	0.08772	0.01278	0.01280	0.01084	0.02131
Methylcyclopentane	0.00423	0.26672	0.00390	0.15818	0.00938	0.01615	0.00038	0.00074	0.13074	0.13264	0.01932	0.01936	0.01639	0.03223
Pentane	0.01269	0.80016	0.01171	0.47455	0.02814	0.04846	0.00115	0.00221	0.39222	0.39793	0.05796	0.05807	0.04916	0.09668
Isopentane	0.01870	1.17874	0.01725	0.69906	0.04146	0.07139	0.00169	0.00326	0.57778	0.58619	0.08538	0.08555	0.07242	0.14243
2-methylpentane	0.00635	0.40008	0.00585	0.23727	0.01407	0.02423	0.00057	0.00111	0.19611	0.19896	0.02898	0.02904	0.02458	0.04834
3-methylpentane	0.00457	0.28823	0.00422	0.17094	0.01014	0.01746	0.00041	0.00080	0.14128	0.14334	0.02088	0.02092	0.01771	0.03483
2,3-dimethylpentane	0.00491	0.30974	0.00453	0.18370	0.01089	0.01876	0.00044	0.00086	0.15183	0.15404	0.02244	0.02248	0.01903	0.03743
2,4-dimethylpentane	0.00280	0.17638	0.00258	0.10460	0.00620	0.01068	0.00025	0.00049	0.08646	0.08772	0.01278	0.01280	0.01084	0.02131
2,2,4-trimethylpentane	0.00846	0.53344	0.00781	0.31637	0.01876	0.03231	0.00076	0.00148	0.26148	0.26528	0.03864	0.03871	0.03277	0.06446
2,3,4-trimethylpentane	0.00212	0.13336	0.00195	0.07909	0.00469	0.00808	0.00019	0.00037	0.06537	0.06632	0.00966	0.00968	0.00819	0.01611
2-methyl-2-pentene	0.00143	0.09034	0.00132	0.05358	0.00318	0.00547	0.00013	0.00025	0.04428	0.04493	0.00654	0.00656	0.00555	0.01092
Trans-2-pentene	0.00034	0.02151	0.00031	0.01276	0.00076	0.00130	0.00003	0.00006	0.01054	0.01070	0.00156	0.00156	0.00132	0.00260
Cyclohexane	0.00143	0.09034	0.00132	0.05358	0.00318	0.00547	0.00013	0.00025	0.04428	0.04493	0.00654	0.00656	0.00555	0.01092
Methylcyclohexane	0.00355	0.22370	0.00327	0.13267	0.00787	0.01355	0.00032	0.00062	0.10965	0.11125	0.01620	0.01624	0.01374	0.02703
Pentylcyclohexane	0.00057	0.03609	0.00053	0.02141	0.00127	0.00219	0.00005	0.00010	0.01769	0.01795	0.00261	0.00262	0.00222	0.00436
Dodecylcyclohexane	0.00011	0.00723	0.00011	0.00429	0.00025	0.00044	0.00001	0.00002	0.00354	0.00359	0.00052	0.00052	0.00044	0.00087
Tridecylcyclohexane	0.00011	0.00710	0.00010	0.00421	0.00025	0.00043	0.00001	0.00002	0.00348	0.00353	0.00051	0.00052	0.00044	0.00086
Tetradecylcyclohexane	0.00011	0.00684	0.00010	0.00406	0.00024	0.00041	0.00001	0.00002	0.00335	0.00340	0.00050	0.00050	0.00042	0.00083
Pentadecylcyclohexane	0.00009	0.00551	0.00008	0.00327	0.00019	0.00033	0.00001	0.00002	0.00270	0.00274	0.00040	0.00040	0.00034	0.00067
2-methylhexane	0.00389	0.24521	0.00359	0.14543	0.00862	0.01485	0.00035	0.00068	0.12020	0.12195	0.01776	0.01780	0.01507	0.02963
3-methylhexane	0.00212	0.13336	0.00195	0.07909	0.00469	0.00808	0.00019	0.00037	0.06537	0.06632	0.00966	0.00968	0.00819	0.01611
3-ethylhexane	0.00143	0.09034	0.00132	0.05358	0.00318	0.00547	0.00013	0.00025	0.04428	0.04493	0.00654	0.00656	0.00555	0.01092
2,3-dimethylhexane	0.00109	0.06883	0.00101	0.04082	0.00242	0.00417	0.00010	0.00019	0.03374	0.03423	0.00499	0.00500	0.00423	0.00832
2,4-dimethylhexane	0.00034	0.02151	0.00031	0.01276	0.00076	0.00130	0.00003	0.00006	0.01054	0.01070	0.00156	0.00156	0.00132	0.00260
2,5-dimethylhexane	0.000341	0.02151	0.000315	0.01276	0.000757	0.00130	0.000031	0.00006	0.010544	0.01070	0.001558	0.00156	0.001322	0.00260
Cis-2-hexene	0.000682	0.04302	0.000629	0.02551	0.001513	0.00261	0.000062	0.00012	0.021087	0.02139	0.003116	0.00312	0.002643	0.00520
Trans-2-hexene	0.001092	0.06883	0.001007	0.04082	0.002421	0.00417	0.000099	0.00019	0.033739	0.03423	0.004986	0.00500	0.004229	0.00832
Heptane	0.003207	0.20219	0.002959	0.11991	0.007111	0.01225	0.000289	0.00056	0.099109	0.10055	0.014646	0.01467	0.012422	0.02443

Table 7A2-8 Maximum 24-Hour Volatile Organic Compound Predictions at Selected Locations
Part A

Maximum 24-hour (µg/m³)	13DDJPA		13DDJPB		CAMS Polar Explosives		Courageous Lake Lodge		Diavik Camp		Diavik Traditional Knowledge Camp		Ekati Airport Station	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
2-methylheptane	0.000682	0.04302	0.000629	0.02551	0.001513	0.00261	0.000062	0.00012	0.021087	0.02139	0.003116	0.00312	0.002643	0.00520
Octane	0.001774	0.11185	0.001637	0.06633	0.003934	0.00677	0.000160	0.00031	0.054826	0.05562	0.008102	0.00812	0.006872	0.01352
Nonane	0.001092	0.06883	0.001007	0.04082	0.002421	0.00417	0.000099	0.00019	0.033739	0.03423	0.004986	0.00500	0.004229	0.00832
Dodecane	0.003432	0.21639	0.003166	0.12833	0.007610	0.01311	0.000310	0.00060	0.106068	0.10761	0.015674	0.01570	0.013294	0.02615
Tridecane	0.003255	0.20520	0.003003	0.12170	0.007217	0.01243	0.000294	0.00057	0.100585	0.10205	0.014864	0.01489	0.012607	0.02479
Tetradecane	0.004292	0.27059	0.003959	0.16048	0.009517	0.01639	0.000387	0.00075	0.132637	0.13457	0.019601	0.01964	0.016625	0.03270
n-Pentadecane	0.002716	0.17122	0.002505	0.10154	0.006022	0.01037	0.000245	0.00047	0.083926	0.08515	0.012402	0.01243	0.010519	0.02069
Hexadecane	0.004851	0.30587	0.004476	0.18140	0.010758	0.01853	0.000438	0.00085	0.149929	0.15211	0.022156	0.02220	0.018792	0.03696
n-Heptadecane	0.004189	0.26414	0.003865	0.15665	0.009290	0.01600	0.000378	0.00073	0.129474	0.13136	0.019133	0.01917	0.016228	0.03192
n-Octadecane	0.004101	0.25855	0.003783	0.15334	0.009093	0.01566	0.000370	0.00072	0.126733	0.12858	0.018728	0.01876	0.015885	0.03124
n-Nonadecane	0.002804	0.17681	0.002587	0.10486	0.006219	0.01071	0.000253	0.00049	0.086668	0.08793	0.012807	0.01283	0.010863	0.02136
n-Eicosane	0.001406	0.08862	0.001297	0.05256	0.003117	0.00537	0.000127	0.00025	0.043439	0.04407	0.006419	0.00643	0.005445	0.01071
n-Heneicosane	0.000449	0.02831	0.000414	0.01679	0.000996	0.00171	0.000041	0.00008	0.013875	0.01408	0.002050	0.00205	0.001739	0.00342
Farnesane	0.002961	0.18670	0.002732	0.11073	0.006566	0.01131	0.000267	0.00052	0.091518	0.09285	0.013524	0.01355	0.011471	0.02256
Pristane	0.003023	0.19058	0.002789	0.11302	0.006703	0.01154	0.000273	0.00053	0.093416	0.09478	0.013805	0.01383	0.011709	0.02303
Aldehyde	0.884425	55.75343	0.815975	33.06543	1.960907	3.37688	0.079839	0.15425	27.329956	27.72772	4.039106	4.04691	3.425387	6.73678
Ketone	0.236551	14.91466	0.218236	8.84534	0.524556	0.90335	0.021354	0.04126	7.310767	7.41717	1.080355	1.08244	0.916320	1.80216
Trimethylbenzenes	0.007778	0.49042	0.007176	0.29085	0.017248	0.02970	0.000702	0.00136	0.240392	0.24389	0.035524	0.03559	0.030130	0.05926
Xylene	0.022083	1.35995	0.020387	0.80672	0.048288	0.08245	0.002148	0.00396	0.670476	0.68017	0.105754	0.10594	0.083796	0.16450
C_2-C_6 Aliphatic	0.203641	12.59003	0.188529	7.46954	0.443626	0.76273	0.018412	0.03521	6.199088	6.28889	0.926005	0.92777	0.774333	1.52195
C_7-C_8 Aliphatic	0.036708	2.31445	0.033866	1.37262	0.081400	0.14018	0.003314	0.00640	1.134482	1.15099	0.167649	0.16797	0.142194	0.27966
C_9-C_{10} Aliphatic	0.001092	0.06883	0.001007	0.04082	0.002421	0.00417	0.000099	0.00019	0.033739	0.03423	0.004986	0.00500	0.004229	0.00832
C_{11}-C_{12} Aliphatic	0.004106	0.25889	0.003788	0.15354	0.009105	0.01568	0.000371	0.00072	0.126902	0.12875	0.018753	0.01879	0.015906	0.03128
C_{13}-C_{16} Aliphatic	0.023610	1.48865	0.021782	0.88286	0.052356	0.09016	0.002131	0.00412	0.729695	0.74032	0.107831	0.10804	0.091459	0.17988
C_{17}-C_{21} Aliphatic	0.023415	1.47630	0.021602	0.87554	0.051922	0.08942	0.002114	0.00408	0.723644	0.73418	0.106937	0.10714	0.090700	0.17838
C_6-C_8 Aromatic	0.078337	3.11354	0.113837	1.84732	0.119674	0.19265	0.014780	0.01891	1.638070	1.66009	0.600563	0.60099	0.198710	0.38019
C_9-C_{10} Aromatic	0.005663	0.35706	0.005225	0.21176	0.012558	0.02163	0.000511	0.00099	0.175022	0.17757	0.025864	0.02591	0.021937	0.04314

CAMS = continuous air monitoring station; C = carbon; µg/m³ = micrograms per cubic metre.

Table 7A2-8 Maximum 24-Hour Volatile Organic Compound Predictions at Selected Locations Part B

Maximum 24-hour (µg/m³)	Ekati Camp/Administration		Koala Station		Lac de Gras Winter Road Rest Stop		Lac de Gras Hunting Camp		Misery Camp		Pellatt Lake Cabin		Polar Lake Station	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
Methacrolein	0.13784	0.27344	0.04651	0.06613	0.07165	0.07461	0.02444	0.13547	0.12422	0.25531	0.00259	0.00999	0.03829	0.03313
Acrolein	0.11716	0.23243	0.03953	0.05621	0.06094	0.06345	0.02079	0.11515	0.10561	0.21703	0.00220	0.00850	0.03255	0.02816
Benzaldehyde	0.13094	0.25977	0.04418	0.06282	0.06807	0.07088	0.02322	0.12870	0.11800	0.24254	0.00246	0.00949	0.03637	0.03147
2,5-dimethylbenzaldehyde	0.14128	0.28028	0.04767	0.06778	0.07344	0.07648	0.02505	0.13886	0.12732	0.26169	0.00265	0.01024	0.03924	0.03396
Butanal	0.04480	0.08887	0.01511	0.02149	0.02329	0.02425	0.00794	0.04403	0.04037	0.08298	0.00084	0.00325	0.01244	0.01077
Formaldehyde	0.81642	1.55230	0.32391	0.42107	1.43838	1.45454	0.43470	0.81309	1.11726	1.62178	0.06216	0.10374	0.34961	0.39504
Acetaldehyde	1.44040	2.85747	0.48599	0.69107	0.74884	0.77980	0.25542	1.41565	1.29813	2.66802	0.02705	0.10444	0.40011	0.34619
Propanal	0.48243	0.95704	0.16277	0.23146	0.25077	0.26114	0.08553	0.47414	0.43475	0.89358	0.00906	0.03498	0.13400	0.11595
Crotonaldehyde	0.46175	0.91603	0.15579	0.22154	0.24003	0.24995	0.08187	0.45382	0.41612	0.85528	0.00867	0.03348	0.12826	0.11098
Hexanal	0.07581	0.15039	0.02558	0.03637	0.03941	0.04104	0.01344	0.07451	0.06832	0.14042	0.00142	0.00550	0.02106	0.01822
Heptanal	0.11027	0.21875	0.03720	0.05290	0.05732	0.05969	0.01955	0.10837	0.09937	0.20425	0.00207	0.00800	0.03063	0.02650
Octanal	0.10682	0.21192	0.03604	0.05125	0.05553	0.05782	0.01894	0.10499	0.09627	0.19786	0.00201	0.00775	0.02967	0.02567
Nonanal	0.15162	0.30079	0.05116	0.07274	0.07881	0.08207	0.02688	0.14902	0.13664	0.28084	0.00285	0.01099	0.04212	0.03644
Decanal	0.09649	0.19141	0.03255	0.04629	0.05015	0.05223	0.01711	0.09483	0.08695	0.17872	0.00181	0.00700	0.02680	0.02319
Undecanal	0.08959	0.17774	0.03023	0.04298	0.04657	0.04850	0.01588	0.08805	0.08074	0.16595	0.00168	0.00650	0.02489	0.02153
Dodecanal	0.04135	0.08203	0.01395	0.01984	0.02149	0.02238	0.00733	0.04064	0.03726	0.07659	0.00078	0.00300	0.01149	0.00994
Tridecanal	0.06892	0.13672	0.02325	0.03307	0.03582	0.03731	0.01222	0.06773	0.06211	0.12765	0.00129	0.00500	0.01914	0.01656
1,2,4-trimethylbenzene	0.03032	0.06016	0.01023	0.01455	0.01576	0.01641	0.00538	0.02980	0.02733	0.05617	0.00057	0.00220	0.00842	0.00729
1,3,5-trimethylbenzene	0.00896	0.01777	0.00302	0.00430	0.00466	0.00485	0.00159	0.00881	0.00807	0.01660	0.00017	0.00065	0.00249	0.00215
Benzene	0.09513	0.18789	0.03271	0.04612	0.05925	0.06128	0.01961	0.09342	0.09041	0.17754	0.00216	0.00727	0.02685	0.02427
Ethylbenzene	0.01631	0.03221	0.00560	0.00790	0.01044	0.01079	0.00338	0.01604	0.01542	0.03039	0.00039	0.00127	0.00461	0.00424
Propylbenzene	0.00345	0.00684	0.00116	0.00165	0.00179	0.00187	0.00061	0.00339	0.00311	0.00638	0.00006	0.00025	0.00096	0.00083
Indanone	0.00239	0.00475	0.00081	0.00115	0.00124	0.00130	0.00042	0.00235	0.00216	0.00444	0.00004	0.00017	0.00067	0.00058
Toluene	0.14656	0.27771	0.05920	0.07610	0.26793	0.27081	0.08075	0.14583	0.20435	0.29184	0.01159	0.01901	0.06501	0.07311
3-ethyl-toluene	0.00724	0.01436	0.00244	0.00347	0.00376	0.00392	0.00128	0.00711	0.00652	0.01340	0.00014	0.00052	0.00201	0.00174
4-ethyl-toluene	0.01792	0.03555	0.00605	0.00860	0.00931	0.00970	0.00318	0.01761	0.01615	0.03319	0.00034	0.00130	0.00498	0.00431
Acetone	0.75810	1.50393	0.25578	0.36372	0.39407	0.41036	0.13441	0.74508	0.68318	1.40420	0.01424	0.05497	0.21058	0.18220
Acetophenone	0.17574	0.34864	0.05929	0.08432	0.09135	0.09513	0.03116	0.17272	0.15837	0.32552	0.00330	0.01274	0.04882	0.04224
Methyl Ethyl Ketone	0.25844	0.51270	0.08720	0.12399	0.13434	0.13990	0.04582	0.25400	0.23290	0.47870	0.00485	0.01874	0.07179	0.06211
Xylene	0.08044	0.15943	0.02727	0.03870	0.04264	0.04437	0.01458	0.07899	0.07301	0.14907	0.00154	0.00585	0.02241	0.01938
o-Xylene	0.02876	0.05683	0.00984	0.01389	0.01830	0.01891	0.00593	0.02830	0.02718	0.05363	0.00068	0.00223	0.00811	0.00747
Ethylene	0.29497	0.58516	0.09952	0.14152	0.15333	0.15967	0.05230	0.28990	0.26582	0.54636	0.00554	0.02139	0.08193	0.07089
1,1,1-trichloroethane	0.00171	0.00171	0.00182	0.00182	0.00743	0.00743	0.00246	0.00246	0.00443	0.00443	0.00034	0.00034	0.00182	0.00182
Butane	0.13198	0.26182	0.04453	0.06332	0.06860	0.07144	0.02340	0.12971	0.11894	0.24446	0.00248	0.00957	0.03666	0.03172
2,2-dimethylbutane	0.01068	0.02119	0.00360	0.00513	0.00555	0.00578	0.00189	0.01050	0.00963	0.01979	0.00020	0.00077	0.00297	0.00257

Table 7A2-8 Maximum 24-Hour Volatile Organic Compound Predictions at Selected Locations Part B

Maximum 24-hour (µg/m³)	Ekati Camp/Administration		Koala Station		Lac de Gras Winter Road Rest Stop		Lac de Gras Hunting Camp		Misery Camp		Pellatt Lake Cabin		Polar Lake Station	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
2,3-dimethylbutane	0.01964	0.03897	0.00663	0.00942	0.01021	0.01063	0.00348	0.01930	0.01770	0.03638	0.00037	0.00142	0.00546	0.00472
Isobutene	0.03928	0.07793	0.01325	0.01885	0.02042	0.02126	0.00696	0.03861	0.03540	0.07276	0.00074	0.00285	0.01091	0.00944
Cis-2-butene	0.00896	0.01777	0.00302	0.00430	0.00466	0.00485	0.00159	0.00881	0.00807	0.01660	0.00017	0.00065	0.00249	0.00215
Trans-2-butene	0.01792	0.03555	0.00605	0.00860	0.00931	0.00970	0.00318	0.01761	0.01615	0.03319	0.00034	0.00130	0.00498	0.00431
2-methyl-1-butene	0.00896	0.01777	0.00302	0.00430	0.00466	0.00485	0.00159	0.00881	0.00807	0.01660	0.00017	0.00065	0.00249	0.00215
3-methyl-1-butene	0.00551	0.01094	0.00186	0.00265	0.00287	0.00298	0.00098	0.00542	0.00497	0.01021	0.00010	0.00040	0.00153	0.00133
1,3-butadiene	0.01068	0.02119	0.00360	0.00513	0.00555	0.00578	0.00189	0.01050	0.00963	0.01979	0.00020	0.00077	0.00297	0.00257
Cyclopentane	0.01413	0.02803	0.00477	0.00678	0.00734	0.00765	0.00250	0.01389	0.01273	0.02617	0.00027	0.00102	0.00392	0.00340
Methylcyclopentane	0.02136	0.04238	0.00721	0.01025	0.01111	0.01156	0.00379	0.02100	0.01925	0.03957	0.00040	0.00155	0.00593	0.00513
Pentane	0.06409	0.12715	0.02162	0.03075	0.03332	0.03469	0.01136	0.06299	0.05776	0.11872	0.00120	0.00465	0.01780	0.01540
Isopentane	0.09442	0.18731	0.03186	0.04530	0.04908	0.05111	0.01674	0.09280	0.08509	0.17489	0.00177	0.00685	0.02623	0.02269
2-methylpentane	0.03205	0.06358	0.01081	0.01538	0.01666	0.01735	0.00568	0.03150	0.02888	0.05936	0.00060	0.00232	0.00890	0.00770
3-methylpentane	0.02309	0.04580	0.00779	0.01108	0.01200	0.01250	0.00409	0.02269	0.02081	0.04276	0.00043	0.00167	0.00641	0.00555
2,3-dimethylpentane	0.02481	0.04922	0.00837	0.01190	0.01290	0.01343	0.00440	0.02438	0.02236	0.04596	0.00047	0.00180	0.00689	0.00596
2,4-dimethylpentane	0.01413	0.02803	0.00477	0.00678	0.00734	0.00765	0.00250	0.01389	0.01273	0.02617	0.00027	0.00102	0.00392	0.00340
2,2,4-trimethylpentane	0.04273	0.08477	0.01442	0.02050	0.02221	0.02313	0.00758	0.04200	0.03851	0.07915	0.00080	0.00310	0.01187	0.01027
2,3,4-trimethylpentane	0.01068	0.02119	0.00360	0.00513	0.00555	0.00578	0.00189	0.01050	0.00963	0.01979	0.00020	0.00077	0.00297	0.00257
2-methyl-2-pentene	0.00724	0.01436	0.00244	0.00347	0.00376	0.00392	0.00128	0.00711	0.00652	0.01340	0.00014	0.00052	0.00201	0.00174
Trans-2-pentene	0.00172	0.00342	0.00058	0.00083	0.00090	0.00093	0.00031	0.00169	0.00155	0.00319	0.00003	0.00012	0.00048	0.00041
Cyclohexane	0.00724	0.01436	0.00244	0.00347	0.00376	0.00392	0.00128	0.00711	0.00652	0.01340	0.00014	0.00052	0.00201	0.00174
Methylcyclohexane	0.01792	0.03555	0.00605	0.00860	0.00931	0.00970	0.00318	0.01761	0.01615	0.03319	0.00034	0.00130	0.00498	0.00431
Pentylcyclohexane	0.00289	0.00574	0.00098	0.00139	0.00150	0.00156	0.00051	0.00284	0.00261	0.00536	0.00005	0.00021	0.00080	0.00069
Dodecylcyclohexane	0.00058	0.00115	0.00020	0.00028	0.00030	0.00031	0.00010	0.00057	0.00052	0.00107	0.00001	0.00004	0.00016	0.00014
Tridecylcyclohexane	0.00057	0.00113	0.00019	0.00027	0.00030	0.00031	0.00010	0.00056	0.00051	0.00105	0.00001	0.00004	0.00016	0.00014
Tetradecylcyclohexane	0.00055	0.00109	0.00018	0.00026	0.00028	0.00030	0.00010	0.00054	0.00049	0.00101	0.00001	0.00004	0.00015	0.00013
Pentadecylcyclohexane	0.00044	0.00088	0.00015	0.00021	0.00023	0.00024	0.00008	0.00043	0.00040	0.00082	0.00001	0.00003	0.00012	0.00011
2-methylhexane	0.01964	0.03897	0.00663	0.00942	0.01021	0.01063	0.00348	0.01930	0.01770	0.03638	0.00037	0.00142	0.00546	0.00472
3-methylhexane	0.01068	0.02119	0.00360	0.00513	0.00555	0.00578	0.00189	0.01050	0.00963	0.01979	0.00020	0.00077	0.00297	0.00257
3-ethylhexane	0.00724	0.01436	0.00244	0.00347	0.00376	0.00392	0.00128	0.00711	0.00652	0.01340	0.00014	0.00052	0.00201	0.00174
2,3-dimethylhexane	0.00551	0.01094	0.00186	0.00265	0.00287	0.00298	0.00098	0.00542	0.00497	0.01021	0.00010	0.00040	0.00153	0.00133
2,4-dimethylhexane	0.00172	0.00342	0.00058	0.00083	0.00090	0.00093	0.00031	0.00169	0.00155	0.00319	0.00003	0.00012	0.00048	0.00041
2,5-dimethylhexane	0.001723	0.00342	0.000581	0.00083	0.000896	0.00093	0.000305	0.00169	0.001553	0.00319	0.000032	0.00012	0.000479	0.00041
Cis-2-hexene	0.003446	0.00684	0.001163	0.00165	0.001791	0.00187	0.000611	0.00339	0.003105	0.00638	0.000065	0.00025	0.000957	0.00083
Trans-2-hexene	0.005513	0.01094	0.001860	0.00265	0.002866	0.00298	0.000978	0.00542	0.004969	0.01021	0.000104	0.00040	0.001531	0.00133
Heptane	0.016196	0.03213	0.005464	0.00777	0.008419	0.00877	0.002871	0.01592	0.014595	0.03000	0.000304	0.00117	0.004499	0.00389

Table 7A2-8 Maximum 24-Hour Volatile Organic Compound Predictions at Selected Locations Part B

Maximum 24-hour (µg/m³)	Ekati Camp/Administration		Koala Station		Lac de Gras Winter Road Rest Stop		Lac de Gras Hunting Camp		Misery Camp		Pellatt Lake Cabin		Polar Lake Station	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
2-methylheptane	0.003446	0.00684	0.001163	0.00165	0.001791	0.00187	0.000611	0.00339	0.003105	0.00638	0.000065	0.00025	0.000957	0.00083
Octane	0.008959	0.01777	0.003023	0.00430	0.004657	0.00485	0.001588	0.00881	0.008074	0.01660	0.000168	0.00065	0.002489	0.00215
Nonane	0.005513	0.01094	0.001860	0.00265	0.002866	0.00298	0.000978	0.00542	0.004969	0.01021	0.000104	0.00040	0.001531	0.00133
Dodecane	0.017333	0.03439	0.005848	0.00832	0.009010	0.00938	0.003073	0.01704	0.015620	0.03211	0.000326	0.00126	0.004815	0.00417
Tridecane	0.016437	0.03261	0.005546	0.00789	0.008544	0.00890	0.002914	0.01615	0.014813	0.03045	0.000309	0.00119	0.004566	0.00395
Tetradecane	0.021675	0.04300	0.007313	0.01040	0.011267	0.01173	0.003843	0.02130	0.019533	0.04015	0.000407	0.00157	0.006021	0.00521
n-Pentadecane	0.013715	0.02721	0.004627	0.00658	0.007129	0.00742	0.002432	0.01348	0.012359	0.02540	0.000258	0.00099	0.003810	0.00330
Hexadecane	0.024500	0.04860	0.008266	0.01175	0.012736	0.01326	0.004344	0.02408	0.022079	0.04538	0.000460	0.00178	0.006806	0.00589
n-Heptadecane	0.021158	0.04197	0.007139	0.01015	0.010998	0.01145	0.003751	0.02079	0.019067	0.03919	0.000397	0.00153	0.005877	0.00509
n-Octadecane	0.020710	0.04108	0.006987	0.00994	0.010765	0.01121	0.003672	0.02035	0.018663	0.03836	0.000389	0.00150	0.005753	0.00498
n-Nonadecane	0.014163	0.02810	0.004778	0.00679	0.007362	0.00767	0.002511	0.01392	0.012763	0.02623	0.000266	0.00103	0.003934	0.00340
n-Eicosane	0.007099	0.01408	0.002395	0.00341	0.003690	0.00384	0.001259	0.00698	0.006397	0.01315	0.000133	0.00051	0.001972	0.00171
n-Heneicosane	0.002267	0.00450	0.000765	0.00109	0.001179	0.00123	0.000402	0.00223	0.002043	0.00420	0.000043	0.00016	0.000630	0.00054
Farnesane	0.014955	0.02967	0.005046	0.00718	0.007774	0.00810	0.002652	0.01470	0.013477	0.02770	0.000281	0.00108	0.004154	0.00359
Pristane	0.015265	0.03028	0.005150	0.00732	0.007935	0.00826	0.002706	0.01500	0.013757	0.02828	0.000287	0.00111	0.004240	0.00367
Aldehyde	4.465927	8.85953	1.506818	2.14266	2.321914	2.41789	0.791979	4.38921	4.024942	8.27218	0.083887	0.32382	1.240527	1.07336
Ketone	1.194677	2.37002	0.403079	0.57317	0.621012	0.64669	0.211812	1.17416	1.076621	2.21285	0.022437	0.08662	0.331848	0.28713
Trimethylbenzenes	0.039283	0.07793	0.013254	0.01885	0.020420	0.02126	0.006965	0.03861	0.035401	0.07276	0.000738	0.00285	0.010912	0.00944
Xylene	0.109202	0.21626	0.037109	0.05259	0.060942	0.06328	0.020425	0.10729	0.100185	0.20270	0.002191	0.00808	0.030522	0.02677
C_2-C_6 Aliphatic	1.009221	2.00117	0.341368	0.48492	0.535984	0.55765	0.183528	0.99171	0.917763	1.87240	0.019252	0.07349	0.280793	0.24271
C_7-C_8 Aliphatic	0.185389	0.36778	0.062550	0.08894	0.096368	0.10035	0.032869	0.18221	0.167070	0.34339	0.003482	0.01344	0.051496	0.04456
C_9-C_{10} Aliphatic	0.005513	0.01094	0.001860	0.00265	0.002866	0.00298	0.000978	0.00542	0.004969	0.01021	0.000104	0.00040	0.001531	0.00133
C_{11}-C_{12} Aliphatic	0.020737	0.04114	0.006997	0.00995	0.010780	0.01123	0.003677	0.02038	0.018688	0.03841	0.000389	0.00150	0.005760	0.00498
C_{13}-C_{16} Aliphatic	0.119242	0.23655	0.040232	0.05721	0.061984	0.06455	0.021141	0.11719	0.107459	0.22087	0.002239	0.00865	0.033122	0.02866
C_{17}-C_{21} Aliphatic	0.118253	0.23459	0.039898	0.05673	0.061470	0.06401	0.020966	0.11622	0.106567	0.21904	0.002221	0.00857	0.032847	0.02842
C_6-C_8 Aromatic	0.258005	0.49781	0.095889	0.13012	0.337625	0.34288	0.103189	0.25529	0.310178	0.49977	0.014143	0.02755	0.085301	0.09786
C_9-C_{10} Aromatic	0.028601	0.05674	0.009650	0.01372	0.014867	0.01548	0.005071	0.02811	0.025775	0.05298	0.000537	0.00207	0.007945	0.00687

C = carbon; µg/m³ = micrograms per cubic metre.

Table 7A2-8 Maximum 24-Hour Volatile Organic Compound Predictions at Selected Locations Part C

Maximum 24-hour (µg/m³)	Salmita Airstrip		Treeline Lodge		TSP1		TSP2		TSP3		Jay Pit Boundary		Maximum Point of Impingement	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
Methacrolein	0.00373	0.00621	0.00320	0.00586	0.13562	0.26673	0.05298	0.03890	0.03443	0.03715	0.04417	4.76506	3.45943	4.76506
Acrolein	0.00317	0.00528	0.00272	0.00499	0.11528	0.22673	0.04504	0.03306	0.02927	0.03162	0.03756	4.05031	2.94058	4.05031
Benzaldehyde	0.00354	0.00590	0.00304	0.00557	0.12884	0.25340	0.05033	0.03695	0.03271	0.03529	0.04196	4.52681	3.28646	4.52681
2,5-dimethylbenzaldehyde	0.00382	0.00636	0.00328	0.00601	0.13901	0.27340	0.05431	0.03987	0.03529	0.03808	0.04527	4.88419	3.54592	4.88419
Butanal	0.00121	0.00202	0.00104	0.00191	0.04408	0.08669	0.01722	0.01264	0.01119	0.01207	0.01435	1.54865	1.12431	1.54865
Formaldehyde	0.12304	0.13808	0.11267	0.12751	0.80386	1.51531	0.38750	0.42288	0.31905	0.33635	0.65192	26.66726	19.67968	26.66726
Acetaldehyde	0.03896	0.06486	0.03346	0.06129	1.41721	2.78737	0.55369	0.40649	0.35977	0.38835	0.46161	49.79492	36.15126	49.79492
Propanal	0.01305	0.02172	0.01121	0.02052	0.47466	0.93356	0.18544	0.13614	0.12049	0.13003	0.15459	16.67772	12.10800	16.67772
Crotonaldehyde	0.01249	0.02079	0.01072	0.01964	0.45432	0.89356	0.17750	0.13031	0.11533	0.12446	0.14796	15.96296	11.58909	15.96296
Hexanal	0.00205	0.00341	0.00176	0.00323	0.07459	0.14670	0.02914	0.02139	0.01893	0.02043	0.02429	2.62078	1.90269	2.62078
Heptanal	0.00298	0.00496	0.00256	0.00469	0.10849	0.21339	0.04239	0.03112	0.02754	0.02972	0.03533	3.81205	2.76754	3.81205
Octanal	0.00289	0.00481	0.00248	0.00454	0.10510	0.20672	0.04106	0.03015	0.02668	0.02879	0.03423	3.69292	2.68106	3.69292
Nonanal	0.00410	0.00683	0.00352	0.00645	0.14918	0.29341	0.05828	0.04279	0.03787	0.04087	0.04859	5.24157	3.80537	5.24157
Decanal	0.00261	0.00434	0.00224	0.00410	0.09493	0.18671	0.03709	0.02723	0.02410	0.02601	0.03092	3.33554	2.42160	3.33554
Undecanal	0.00242	0.00403	0.00208	0.00381	0.08815	0.17338	0.03444	0.02528	0.02238	0.02415	0.02871	3.09729	2.24863	3.09729
Dodecanal	0.00112	0.00186	0.00096	0.00176	0.04069	0.08002	0.01590	0.01167	0.01033	0.01115	0.01325	1.42952	1.03783	1.42952
Tridecanal	0.00186	0.00310	0.00160	0.00293	0.06781	0.13337	0.02649	0.01945	0.01721	0.01858	0.02208	2.38253	1.72971	2.38253
1,2,4-trimethylbenzene	0.00082	0.00137	0.00070	0.00129	0.02984	0.05868	0.01166	0.00856	0.00757	0.00817	0.00972	1.04831	0.76107	1.04831
1,3,5-trimethylbenzene	0.00024	0.00040	0.00021	0.00038	0.00882	0.01734	0.00344	0.00253	0.00224	0.00241	0.00287	0.30973	0.22486	0.30973
Benzene	0.00322	0.00506	0.00303	0.00485	0.09361	0.18330	0.03702	0.02749	0.02743	0.02990	0.03256	3.26554	2.37935	3.26554
Ethylbenzene	0.00060	0.00092	0.00056	0.00087	0.01605	0.03142	0.00636	0.00481	0.00415	0.00462	0.00539	0.56010	0.40732	0.56010
Propylbenzene	0.00009	0.00016	0.00008	0.00015	0.00339	0.00667	0.00132	0.00097	0.00086	0.00093	0.00110	0.11913	0.08649	0.11913
Indanone	0.00006	0.00011	0.00006	0.00010	0.00236	0.00463	0.00092	0.00068	0.00060	0.00065	0.00077	0.08279	0.06011	0.08279
Toluene	0.02303	0.02571	0.02109	0.02374	0.14433	0.27112	0.07145	0.07772	0.05952	0.06255	0.12190	4.76078	3.51935	4.76078
3-ethyl-toluene	0.00020	0.00033	0.00017	0.00031	0.00712	0.01400	0.00278	0.00204	0.00181	0.00195	0.00232	0.25017	0.18162	0.25017
4-ethyl-toluene	0.00048	0.00081	0.00042	0.00076	0.01763	0.03468	0.00689	0.00506	0.00448	0.00483	0.00574	0.61946	0.44973	0.61946
Acetone	0.02050	0.03413	0.01761	0.03225	0.74589	1.46703	0.29141	0.21394	0.18935	0.20433	0.24293	26.20784	19.02686	26.20784
Acetophenone	0.00475	0.00791	0.00408	0.00748	0.17291	0.34008	0.06755	0.04959	0.04389	0.04737	0.05631	6.07545	4.41077	6.07545
Methyl Ethyl Ketone	0.00699	0.01164	0.00600	0.01100	0.25428	0.50012	0.09935	0.07293	0.06455	0.06966	0.08282	8.93449	6.48643	8.93449
Xylene	0.00224	0.00368	0.00192	0.00347	0.07915	0.15553	0.03100	0.02272	0.02025	0.02255	0.02614	2.77587	2.01706	2.77587
o-Xylene	0.00105	0.00161	0.00098	0.00153	0.02830	0.05544	0.01119	0.00846	0.00731	0.00813	0.00950	0.98909	0.71913	0.98909
Ethylene	0.00798	0.01328	0.00685	0.01255	0.29022	0.57081	0.11339	0.08324	0.07367	0.07950	0.09452	10.19724	7.40318	10.19724
1,1,1-trichloroethane	0.00074	0.00074	0.00068	0.00068	0.00171	0.00171	0.00192	0.00192	0.00147	0.00147	0.00420	0.00420	0.08066	0.08066
Butane	0.00357	0.00594	0.00307	0.00561	0.12985	0.25540	0.05073	0.03724	0.03296	0.03557	0.04229	4.56255	3.31240	4.56255
2,2-dimethylbutane	0.00029	0.00048	0.00025	0.00045	0.01051	0.02067	0.00411	0.00301	0.00267	0.00288	0.00342	0.36929	0.26811	0.36929
2,3-dimethylbutane	0.00053	0.00088	0.00046	0.00084	0.01933	0.03801	0.00755	0.00554	0.00491	0.00529	0.00629	0.67902	0.49297	0.67902

Table 7A2-8 Maximum 24-Hour Volatile Organic Compound Predictions at Selected Locations Part C

Maximum 24-hour (µg/m³)	Salmita Airstrip		Treeline Lodge		TSP1		TSP2		TSP3		Jay Pit Boundary		Maximum Point of Impingement	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
Isobutene	0.00106	0.00177	0.00091	0.00167	0.03865	0.07602	0.01510	0.01109	0.00981	0.01059	0.01259	1.35804	0.98594	1.35804
Cis-2-butene	0.00024	0.00040	0.00021	0.00038	0.00882	0.01734	0.00344	0.00253	0.00224	0.00241	0.00287	0.30973	0.22486	0.30973
Trans-2-butene	0.00048	0.00081	0.00042	0.00076	0.01763	0.03468	0.00689	0.00506	0.00448	0.00483	0.00574	0.61946	0.44973	0.61946
2-methyl-1-butene	0.00024	0.00040	0.00021	0.00038	0.00882	0.01734	0.00344	0.00253	0.00224	0.00241	0.00287	0.30973	0.22486	0.30973
3-methyl-1-butene	0.00015	0.00025	0.00013	0.00023	0.00542	0.01067	0.00212	0.00156	0.00138	0.00149	0.00177	0.19060	0.13838	0.19060
1,3-butadiene	0.00029	0.00048	0.00025	0.00045	0.01051	0.02067	0.00411	0.00301	0.00267	0.00288	0.00342	0.36929	0.26811	0.36929
Cyclopentane	0.00038	0.00064	0.00033	0.00060	0.01390	0.02734	0.00543	0.00399	0.00353	0.00381	0.00453	0.48842	0.35459	0.48842
Methylcyclopentane	0.00058	0.00096	0.00050	0.00091	0.02102	0.04134	0.00821	0.00603	0.00534	0.00576	0.00685	0.73858	0.53621	0.73858
Pentane	0.00173	0.00289	0.00149	0.00273	0.06306	0.12403	0.02464	0.01809	0.01601	0.01728	0.02054	2.21575	1.60863	2.21575
Isopentane	0.00255	0.00425	0.00219	0.00402	0.09290	0.18271	0.03629	0.02664	0.02358	0.02545	0.03026	3.26407	2.36971	3.26407
2-methylpentane	0.00087	0.00144	0.00074	0.00136	0.03153	0.06202	0.01232	0.00904	0.00800	0.00864	0.01027	1.10788	0.80432	1.10788
3-methylpentane	0.00062	0.00104	0.00054	0.00098	0.02272	0.04468	0.00887	0.00652	0.00577	0.00622	0.00740	0.79815	0.57945	0.79815
2,3-dimethylpentane	0.00067	0.00112	0.00058	0.00106	0.02441	0.04801	0.00954	0.00700	0.00620	0.00669	0.00795	0.85771	0.62270	0.85771
2,4-dimethylpentane	0.00038	0.00064	0.00033	0.00060	0.01390	0.02734	0.00543	0.00399	0.00353	0.00381	0.00453	0.48842	0.35459	0.48842
2,2,4-trimethylpentane	0.00116	0.00192	0.00099	0.00182	0.04204	0.08269	0.01643	0.01206	0.01067	0.01152	0.01369	1.47717	1.07242	1.47717
2,3,4-trimethylpentane	0.00029	0.00048	0.00025	0.00045	0.01051	0.02067	0.00411	0.00301	0.00267	0.00288	0.00342	0.36929	0.26811	0.36929
2-methyl-2-pentene	0.00020	0.00033	0.00017	0.00031	0.00712	0.01400	0.00278	0.00204	0.00181	0.00195	0.00232	0.25017	0.18162	0.25017
Trans-2-pentene	0.00005	0.00008	0.00004	0.00007	0.00170	0.00333	0.00066	0.00049	0.00043	0.00046	0.00055	0.05956	0.04324	0.05956
Cyclohexane	0.00020	0.00033	0.00017	0.00031	0.00712	0.01400	0.00278	0.00204	0.00181	0.00195	0.00232	0.25017	0.18162	0.25017
Methylcyclohexane	0.00048	0.00081	0.00042	0.00076	0.01763	0.03468	0.00689	0.00506	0.00448	0.00483	0.00574	0.61946	0.44973	0.61946
Pentylcyclohexane	0.00008	0.00013	0.00007	0.00012	0.00284	0.00559	0.00111	0.00082	0.00072	0.00078	0.00093	0.09995	0.07256	0.09995
Dodecylcyclohexane	0.00002	0.00003	0.00001	0.00002	0.00057	0.00112	0.00022	0.00016	0.00014	0.00016	0.00019	0.02001	0.01453	0.02001
Tridecylcyclohexane	0.00002	0.00003	0.00001	0.00002	0.00056	0.00110	0.00022	0.00016	0.00014	0.00015	0.00018	0.01966	0.01427	0.01966
Tetradecylcyclohexane	0.00001	0.00002	0.00001	0.00002	0.00054	0.00106	0.00021	0.00015	0.00014	0.00015	0.00018	0.01894	0.01375	0.01894
Pentadecylcyclohexane	0.00001	0.00002	0.00001	0.00002	0.00043	0.00085	0.00017	0.00012	0.00011	0.00012	0.00014	0.01525	0.01107	0.01525
2-methylhexane	0.00053	0.00088	0.00046	0.00084	0.01933	0.03801	0.00755	0.00554	0.00491	0.00529	0.00629	0.67902	0.49297	0.67902
3-methylhexane	0.00029	0.00048	0.00025	0.00045	0.01051	0.02067	0.00411	0.00301	0.00267	0.00288	0.00342	0.36929	0.26811	0.36929
3-ethylhexane	0.00020	0.00033	0.00017	0.00031	0.00712	0.01400	0.00278	0.00204	0.00181	0.00195	0.00232	0.25017	0.18162	0.25017
2,3-dimethylhexane	0.00015	0.00025	0.00013	0.00023	0.00542	0.01067	0.00212	0.00156	0.00138	0.00149	0.00177	0.19060	0.13838	0.19060
2,4-dimethylhexane	0.00005	0.00008	0.00004	0.00007	0.00170	0.00333	0.00066	0.00049	0.00043	0.00046	0.00055	0.05956	0.04324	0.05956
2,5-dimethylhexane	0.000047	0.00008	0.000040	0.00007	0.001695	0.00333	0.000662	0.00049	0.000430	0.00046	0.000552	0.05956	0.043243	0.05956
Cis-2-hexene	0.000093	0.00016	0.000080	0.00015	0.003390	0.00667	0.001325	0.00097	0.000861	0.00093	0.001104	0.11913	0.086486	0.11913
Trans-2-hexene	0.000149	0.00025	0.000128	0.00023	0.005425	0.01067	0.002119	0.00156	0.001377	0.00149	0.001767	0.19060	0.138377	0.19060
Heptane	0.000438	0.00073	0.000376	0.00069	0.015935	0.03134	0.006226	0.00457	0.004045	0.00437	0.005190	0.55989	0.406483	0.55989
2-methylheptane	0.000093	0.00016	0.000080	0.00015	0.003390	0.00667	0.001325	0.00097	0.000861	0.00093	0.001104	0.11913	0.086486	0.11913
Octane	0.000242	0.00040	0.000208	0.00038	0.008815	0.01734	0.003444	0.00253	0.002238	0.00241	0.002871	0.30973	0.224863	0.30973

Table 7A2-8 Maximum 24-Hour Volatile Organic Compound Predictions at Selected Locations Part C

Maximum 24-hour (µg/m³)	Salmita Airstrip		Treeline Lodge		TSP1		TSP2		TSP3		Jay Pit Boundary		Maximum Point of Impingement	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
Nonane	0.000149	0.00025	0.000128	0.00023	0.005425	0.01067	0.002119	0.00156	0.001377	0.00149	0.001767	0.19060	0.138377	0.19060
Dodecane	0.000469	0.00078	0.000403	0.00074	0.017054	0.03354	0.006663	0.00489	0.004329	0.00467	0.005554	0.59921	0.435023	0.59921
Tridecane	0.000445	0.00074	0.000382	0.00070	0.016172	0.03181	0.006318	0.00464	0.004105	0.00443	0.005267	0.56823	0.412537	0.56823
Tetradecane	0.000586	0.00098	0.000503	0.00092	0.021326	0.04194	0.008332	0.00612	0.005414	0.00584	0.006945	0.74931	0.543995	0.74931
n-Pentadecane	0.000371	0.00062	0.000319	0.00058	0.013494	0.02654	0.005272	0.00387	0.003425	0.00370	0.004395	0.47412	0.344213	0.47412
Hexadecane	0.000663	0.00110	0.000569	0.00104	0.024106	0.04741	0.009418	0.00691	0.006119	0.00660	0.007851	0.84699	0.614914	0.84699
n-Heptadecane	0.000572	0.00095	0.000491	0.00090	0.020817	0.04094	0.008133	0.00597	0.005285	0.00570	0.006780	0.73144	0.531022	0.73144
n-Octadecane	0.000560	0.00093	0.000481	0.00088	0.020376	0.04008	0.007961	0.00584	0.005173	0.00558	0.006636	0.71595	0.519779	0.71595
n-Nonadecane	0.000383	0.00064	0.000329	0.00060	0.013935	0.02741	0.005444	0.00400	0.003537	0.00382	0.004538	0.48961	0.355456	0.48961
n-Eicosane	0.000192	0.00032	0.000165	0.00030	0.006984	0.01374	0.002729	0.00200	0.001773	0.00191	0.002275	0.24540	0.178161	0.24540
n-Heneicosane	0.000061	0.00010	0.000053	0.00010	0.002231	0.00439	0.000872	0.00064	0.000566	0.00061	0.000727	0.07839	0.056908	0.07839
Farnesane	0.000404	0.00067	0.000347	0.00064	0.014714	0.02894	0.005749	0.00422	0.003735	0.00403	0.004792	0.51701	0.375348	0.51701
Pristane	0.000413	0.00069	0.000355	0.00065	0.015020	0.02954	0.005868	0.00431	0.003813	0.00411	0.004892	0.52773	0.383132	0.52773
Aldehyde	0.120810	0.20111	0.103759	0.19003	4.394026	8.64218	1.716714	1.26030	1.115465	1.20422	1.431293	154.38815	112.086487	154.38815
Ketone	0.032309	0.05379	0.027748	0.05083	1.175442	2.31187	0.459233	0.33714	0.298392	0.32201	0.382825	41.30058	29.984175	41.30058
Trimethylbenzenes	0.001062	0.00177	0.000912	0.00167	0.038651	0.07602	0.015100	0.01109	0.009812	0.01059	0.012588	1.35804	0.985937	1.35804
Xylene	0.003180	0.00521	0.002899	0.00500	0.107450	0.21097	0.042190	0.03086	0.027511	0.03069	0.035646	3.76496	2.736190	3.76496
C_2-C_6 Aliphatic	0.028151	0.04628	0.024183	0.04366	0.992989	1.95210	0.388346	0.28494	0.255042	0.28461	0.328949	34.85915	25.329598	34.85915
C_7-C_8 Aliphatic	0.005014	0.00835	0.004306	0.00789	0.182405	0.35876	0.071264	0.05232	0.046304	0.04997	0.059407	6.40901	4.652933	6.40901
C_9-C_{10} Aliphatic	0.000149	0.00025	0.000128	0.00023	0.005425	0.01067	0.002119	0.00156	0.001377	0.00149	0.001767	0.19060	0.138377	0.19060
C_{11}-C_{12} Aliphatic	0.000561	0.00093	0.000482	0.00088	0.020404	0.04013	0.007971	0.00585	0.005180	0.00559	0.006645	0.71690	0.520471	0.71690
C_{13}-C_{16} Aliphatic	0.003225	0.00537	0.002770	0.00507	0.117322	0.23075	0.045837	0.03365	0.029783	0.03214	0.038210	4.12226	2.992753	4.12226
C_{17}-C_{21} Aliphatic	0.003198	0.00532	0.002747	0.00503	0.116349	0.22884	0.045456	0.03337	0.029536	0.03187	0.037893	4.08807	2.967931	4.08807
C_6-C_8 Aromatic	0.026843	0.03169	0.024673	0.02946	0.253991	0.48584	0.107627	0.11002	0.090831	0.09707	0.136265	8.58642	6.306023	8.58642
C_9-C_{10} Aromatic	0.000773	0.00129	0.000664	0.00122	0.028141	0.05535	0.010994	0.00807	0.007144	0.00771	0.009165	0.98875	0.717832	0.98875

C = carbon; µg/m³ = micrograms per cubic metre.

Table 7A2-9 Maximum Annual Volatile Organic Compound Predictions at Selected Locations Part A

Maximum Annual (µg/m³)	13DDJPA		13DDJPB		CAMS Polar Explosives		Courageous Lake Lodge		Diavik Camp		Diavik Traditional Knowledge Camp		Ekati Airport Station	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
Methacrolein	0.00194	0.16966	0.00197	0.12028	0.00499	0.00623	0.00011	0.00020	0.06057	0.06195	0.00809	0.01056	0.00786	0.01318
Acrolein	0.00165	0.14422	0.00167	0.10224	0.00425	0.00530	0.00010	0.00017	0.05150	0.05266	0.00688	0.00898	0.00671	0.01123
Benzaldehyde	0.00185	0.16118	0.00187	0.11426	0.00475	0.00592	0.00011	0.00019	0.05754	0.05885	0.00769	0.01003	0.00747	0.01253
2,5-dimethylbenzaldehyde	0.00199	0.17391	0.00202	0.12328	0.00512	0.00638	0.00012	0.00020	0.06209	0.06350	0.00829	0.01082	0.00806	0.01351
Butanal	0.00063	0.05514	0.00064	0.03909	0.00162	0.00202	0.00004	0.00006	0.01969	0.02013	0.00263	0.00343	0.00256	0.00428
Formaldehyde	0.02888	0.96390	0.02993	0.68949	0.03854	0.04496	0.00292	0.00338	0.60318	0.61084	0.15025	0.16399	0.05584	0.08468
Acetaldehyde	0.02033	1.77299	0.02056	1.25689	0.05222	0.06510	0.00118	0.00204	0.63301	0.64738	0.08456	0.11032	0.08226	0.13786
Propanal	0.00681	0.59382	0.00689	0.42097	0.01748	0.02180	0.00040	0.00068	0.21200	0.21682	0.02832	0.03695	0.02753	0.04615
Crotonaldehyde	0.00652	0.56837	0.00659	0.40292	0.01673	0.02086	0.00038	0.00065	0.20292	0.20752	0.02710	0.03536	0.02635	0.04417
Hexanal	0.00107	0.09332	0.00108	0.06615	0.00275	0.00343	0.00006	0.00011	0.03331	0.03407	0.00445	0.00581	0.00433	0.00725
Heptanal	0.00156	0.13573	0.00157	0.09622	0.00400	0.00498	0.00009	0.00016	0.04846	0.04956	0.00647	0.00844	0.00629	0.01055
Octanal	0.00151	0.13149	0.00152	0.09321	0.00387	0.00483	0.00009	0.00015	0.04694	0.04801	0.00627	0.00818	0.00610	0.01022
Nonanal	0.00214	0.18663	0.00216	0.13230	0.00549	0.00685	0.00012	0.00021	0.06663	0.06814	0.00890	0.01161	0.00865	0.01450
Decanal	0.00136	0.11876	0.00138	0.08419	0.00350	0.00436	0.00008	0.00014	0.04240	0.04336	0.00566	0.00739	0.00551	0.00923
Undecanal	0.00126	0.11028	0.00128	0.07818	0.00325	0.00405	0.00007	0.00013	0.03937	0.04027	0.00526	0.00686	0.00511	0.00857
Dodecanal	0.00058	0.05090	0.00059	0.03608	0.00150	0.00187	0.00003	0.00006	0.01817	0.01858	0.00243	0.00317	0.00236	0.00396
Tridecanal	0.00097	0.08483	0.00098	0.06014	0.00250	0.00311	0.00006	0.00010	0.03029	0.03097	0.00405	0.00528	0.00393	0.00659
1,2,4-trimethylbenzene	0.00043	0.03733	0.00043	0.02646	0.00110	0.00137	0.00002	0.00004	0.01333	0.01363	0.00178	0.00232	0.00173	0.00290
1,3,5-trimethylbenzene	0.00013	0.01103	0.00013	0.00782	0.00032	0.00040	0.00001	0.00001	0.00394	0.00403	0.00053	0.00069	0.00051	0.00086
Benzene	0.00158	0.11647	0.00161	0.08265	0.00444	0.00528	0.00011	0.00017	0.04419	0.04513	0.00670	0.00839	0.00793	0.01157
Ethylbenzene	0.00026	0.01997	0.00027	0.01417	0.00063	0.00077	0.00002	0.00003	0.00764	0.00780	0.00115	0.00144	0.00095	0.00158
Propylbenzene	0.00005	0.00424	0.00005	0.00301	0.00012	0.00016	0.00000	0.00000	0.00151	0.00155	0.00020	0.00026	0.00020	0.00033
Indanone	0.00003	0.00295	0.00003	0.00209	0.00009	0.00011	0.00000	0.00000	0.00105	0.00108	0.00014	0.00018	0.00014	0.00023
Toluene	0.00538	0.17225	0.00557	0.12329	0.00756	0.00870	0.00055	0.00063	0.11063	0.11200	0.02798	0.03043	0.01098	0.01612
3-ethyl-toluene	0.00010	0.00891	0.00010	0.00631	0.00026	0.00033	0.00001	0.00001	0.00318	0.00325	0.00042	0.00055	0.00041	0.00069
4-ethyl-toluene	0.00025	0.02206	0.00026	0.01564	0.00065	0.00081	0.00001	0.00003	0.00787	0.00805	0.00105	0.00137	0.00102	0.00171
Acetone	0.01070	0.93315	0.01082	0.66152	0.02747	0.03425	0.00062	0.00107	0.33315	0.34071	0.04450	0.05806	0.04326	0.07251
Acetophenone	0.00248	0.21632	0.00251	0.15335	0.00637	0.00794	0.00014	0.00025	0.07723	0.07898	0.01032	0.01346	0.01003	0.01681
Methyl ethyl ketone	0.00365	0.31812	0.00369	0.22552	0.00937	0.01168	0.00021	0.00037	0.11357	0.11615	0.01517	0.01979	0.01475	0.02472
Xylene	0.00117	0.09886	0.00118	0.07010	0.00320	0.00391	0.00007	0.00012	0.03556	0.03636	0.00483	0.00627	0.00521	0.00831
o-Xylene	0.00046	0.03526	0.00047	0.02502	0.00107	0.00133	0.00003	0.00005	0.01345	0.01373	0.00203	0.00254	0.00167	0.00277
Ethylene	0.00416	0.36308	0.00421	0.25739	0.01069	0.01333	0.00024	0.00042	0.12962	0.13257	0.01731	0.02259	0.01683	0.02821
1,1,1-trichloroethane	0.00013	0.00013	0.00014	0.00014	0.00008	0.00007	0.00002	0.00002	0.00190	0.00190	0.00075	0.00075	0.00008	0.00008
Butane	0.00186	0.16245	0.00188	0.11516	0.00478	0.00596	0.00011	0.00019	0.05800	0.05931	0.00775	0.01011	0.00753	0.01262
2,2-dimethylbutane	0.00015	0.01315	0.00015	0.00932	0.00039	0.00048	0.00001	0.00002	0.00469	0.00480	0.00063	0.00082	0.00061	0.00102

Table 7A2-9 Maximum Annual Volatile Organic Compound Predictions at Selected Locations
Part A

Maximum Annual (µg/m³)	13DDJPA		13DDJPB		CAMS Polar Explosives		Courageous Lake Lodge		Diavik Camp		Diavik Traditional Knowledge Camp		Ekati Airport Station	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
2,3-dimethylbutane	0.00028	0.02418	0.00028	0.01714	0.00071	0.00089	0.00002	0.00003	0.00863	0.00883	0.00115	0.00150	0.00112	0.00188
Isobutene	0.00055	0.04835	0.00056	0.03428	0.00142	0.00177	0.00003	0.00006	0.01726	0.01765	0.00231	0.00301	0.00224	0.00376
Cis-2-butene	0.00013	0.01103	0.00013	0.00782	0.00032	0.00040	0.00001	0.00001	0.00394	0.00403	0.00053	0.00069	0.00051	0.00086
Trans-2-butene	0.00025	0.02206	0.00026	0.01564	0.00065	0.00081	0.00001	0.00003	0.00787	0.00805	0.00105	0.00137	0.00102	0.00171
2-methyl-1-butene	0.00013	0.01103	0.00013	0.00782	0.00032	0.00040	0.00001	0.00001	0.00394	0.00403	0.00053	0.00069	0.00051	0.00086
3-methyl-1-butene	0.00008	0.00679	0.00008	0.00481	0.00020	0.00025	0.00000	0.00001	0.00242	0.00248	0.00032	0.00042	0.00031	0.00053
1,3-butadiene	0.00015	0.01315	0.00015	0.00932	0.00039	0.00048	0.00001	0.00002	0.00469	0.00480	0.00063	0.00082	0.00061	0.00102
Cyclopentane	0.00020	0.01739	0.00020	0.01233	0.00051	0.00064	0.00001	0.00002	0.00621	0.00635	0.00083	0.00108	0.00081	0.00135
Methylcyclopentane	0.00030	0.02630	0.00030	0.01864	0.00077	0.00097	0.00002	0.00003	0.00939	0.00960	0.00125	0.00164	0.00122	0.00204
Pentane	0.00090	0.07889	0.00091	0.05593	0.00232	0.00290	0.00005	0.00009	0.02817	0.02881	0.00376	0.00491	0.00366	0.00613
Isopentane	0.00133	0.11622	0.00135	0.08239	0.00342	0.00427	0.00008	0.00013	0.04149	0.04243	0.00554	0.00723	0.00539	0.00903
2-methylpentane	0.00045	0.03945	0.00046	0.02796	0.00116	0.00145	0.00003	0.00005	0.01408	0.01440	0.00188	0.00245	0.00183	0.00307
3-methylpentane	0.00033	0.02842	0.00033	0.02015	0.00084	0.00104	0.00002	0.00003	0.01015	0.01038	0.00136	0.00177	0.00132	0.00221
2,3-dimethylpentane	0.00035	0.03054	0.00035	0.02165	0.00090	0.00112	0.00002	0.00004	0.01090	0.01115	0.00146	0.00190	0.00142	0.00237
2,4-dimethylpentane	0.00020	0.01739	0.00020	0.01233	0.00051	0.00064	0.00001	0.00002	0.00621	0.00635	0.00083	0.00108	0.00081	0.00135
2,2,4-trimethylpentane	0.00060	0.05260	0.00061	0.03729	0.00155	0.00193	0.00004	0.00006	0.01878	0.01920	0.00251	0.00327	0.00244	0.00409
2,3,4-trimethylpentane	0.00015	0.01315	0.00015	0.00932	0.00039	0.00048	0.00001	0.00002	0.00469	0.00480	0.00063	0.00082	0.00061	0.00102
2-methyl-2-pentene	0.00010	0.00891	0.00010	0.00631	0.00026	0.00033	0.00001	0.00001	0.00318	0.00325	0.00042	0.00055	0.00041	0.00069
trans-2-pentene	0.00002	0.00212	0.00002	0.00150	0.00006	0.00008	0.00000	0.00000	0.00076	0.00077	0.00010	0.00013	0.00010	0.00016
cyclohexane	0.00010	0.00891	0.00010	0.00631	0.00026	0.00033	0.00001	0.00001	0.00318	0.00325	0.00042	0.00055	0.00041	0.00069
Methylcyclohexane	0.00025	0.02206	0.00026	0.01564	0.00065	0.00081	0.00001	0.00003	0.00787	0.00805	0.00105	0.00137	0.00102	0.00171
Pentylcyclohexane	0.00004	0.00356	0.00004	0.00252	0.00010	0.00013	0.00000	0.00000	0.00127	0.00130	0.00017	0.00022	0.00016	0.00028
Dodecylcyclohexane	0.00001	0.00071	0.00001	0.00051	0.00002	0.00003	0.00000	0.00000	0.00025	0.00026	0.00003	0.00004	0.00003	0.00006
Tridecylcyclohexane	0.00001	0.00070	0.00001	0.00050	0.00002	0.00003	0.00000	0.00000	0.00025	0.00026	0.00003	0.00004	0.00003	0.00005
Tetradecylcyclohexane	0.00001	0.00067	0.00001	0.00048	0.00002	0.00002	0.00000	0.00000	0.00024	0.00025	0.00003	0.00004	0.00003	0.00005
Pentadecylcyclohexane	0.00001	0.00054	0.00001	0.00038	0.00002	0.00002	0.00000	0.00000	0.00019	0.00020	0.00003	0.00003	0.00003	0.00004
2-methylhexane	0.00028	0.02418	0.00028	0.01714	0.00071	0.00089	0.00002	0.00003	0.00863	0.00883	0.00115	0.00150	0.00112	0.00188
3-methylhexane	0.00015	0.01315	0.00015	0.00932	0.00039	0.00048	0.00001	0.00002	0.00469	0.00480	0.00063	0.00082	0.00061	0.00102
3-ethylhexane	0.00010	0.00891	0.00010	0.00631	0.00026	0.00033	0.00001	0.00001	0.00318	0.00325	0.00042	0.00055	0.00041	0.00069
2,3-dimethylhexane	0.00008	0.00679	0.00008	0.00481	0.00020	0.00025	0.00000	0.00001	0.00242	0.00248	0.00032	0.00042	0.00031	0.00053
2,4-dimethylhexane	0.00002	0.00212	0.00002	0.00150	0.00006	0.00008	0.00000	0.00000	0.00076	0.00077	0.00010	0.00013	0.00010	0.00016
2,5-dimethylhexane	0.00002	0.00212	0.00002	0.00150	0.00006	0.00008	0.00000	0.00000	0.00076	0.00077	0.00010	0.00013	0.00010	0.00016
Cis-2-hexene	0.00005	0.00424	0.00005	0.00301	0.00012	0.00016	0.00000	0.00000	0.00151	0.00155	0.00020	0.00026	0.00020	0.00033
Trans-2-hexene	0.00008	0.00679	0.00008	0.00481	0.00020	0.00025	0.00000	0.00001	0.00242	0.00248	0.00032	0.00042	0.00031	0.00053
Heptane	0.00023	0.01994	0.00023	0.01413	0.00059	0.00073	0.00001	0.00002	0.00712	0.00728	0.00095	0.00124	0.00092	0.00155

Table 7A2-9 Maximum Annual Volatile Organic Compound Predictions at Selected Locations Part A

Maximum Annual (µg/m³)	13DDJPA		13DDJPB		CAMS Polar Explosives		Courageous Lake Lodge		Diavik Camp		Diavik Traditional Knowledge Camp		Ekati Airport Station	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
2-methylheptane	0.00005	0.00424	0.00005	0.00301	0.00012	0.00016	0.00000	0.00000	0.00151	0.00155	0.00020	0.00026	0.00020	0.00033
Octane	0.00013	0.01103	0.00013	0.00782	0.00032	0.00040	0.00001	0.00001	0.00394	0.00403	0.00053	0.00069	0.00051	0.00086
Nonane	0.00008	0.00679	0.00008	0.00481	0.00020	0.00025	0.00000	0.00001	0.00242	0.00248	0.00032	0.00042	0.00031	0.00053
Dodecane	0.00024	0.02134	0.00025	0.01512	0.00063	0.00078	0.00001	0.00002	0.00762	0.00779	0.00102	0.00133	0.00099	0.00166
Tridecane	0.00023	0.02023	0.00023	0.01434	0.00060	0.00074	0.00001	0.00002	0.00722	0.00739	0.00096	0.00126	0.00094	0.00157
Tetradecane	0.00031	0.02668	0.00031	0.01891	0.00079	0.00098	0.00002	0.00003	0.00952	0.00974	0.00127	0.00166	0.00124	0.00207
n-Pentadecane	0.00019	0.01688	0.00020	0.01197	0.00050	0.00062	0.00001	0.00002	0.00603	0.00616	0.00080	0.00105	0.00078	0.00131
Hexadecane	0.00035	0.03016	0.00035	0.02138	0.00089	0.00111	0.00002	0.00003	0.01077	0.01101	0.00144	0.00188	0.00140	0.00234
n-Heptadecane	0.00030	0.02604	0.00030	0.01846	0.00077	0.00096	0.00002	0.00003	0.00930	0.00951	0.00124	0.00162	0.00121	0.00202
n-Octadecane	0.00029	0.02549	0.00030	0.01807	0.00075	0.00094	0.00002	0.00003	0.00910	0.00931	0.00122	0.00159	0.00118	0.00198
n-Nonadecane	0.00020	0.01743	0.00020	0.01236	0.00051	0.00064	0.00001	0.00002	0.00622	0.00637	0.00083	0.00108	0.00081	0.00135
n-Eicosane	0.00010	0.00874	0.00010	0.00619	0.00026	0.00032	0.00001	0.00001	0.00312	0.00319	0.00042	0.00054	0.00041	0.00068
n-Heneicosane	0.00003	0.00279	0.00003	0.00198	0.00008	0.00010	0.00000	0.00000	0.00100	0.00102	0.00013	0.00017	0.00013	0.00022
Farnesane	0.00021	0.01841	0.00021	0.01305	0.00054	0.00068	0.00001	0.00002	0.00657	0.00672	0.00088	0.00115	0.00085	0.00143
Pristane	0.00022	0.01879	0.00022	0.01332	0.00055	0.00069	0.00001	0.00002	0.00671	0.00686	0.00090	0.00117	0.00087	0.00146
Aldehyde	0.06303	5.49713	0.06376	3.89695	0.16195	0.20188	0.00367	0.00633	1.96267	2.00722	0.26219	0.34207	0.25516	0.42752
Ketone	0.01686	1.47054	0.01705	1.04247	0.04329	0.05397	0.00098	0.00169	0.52500	0.53692	0.07012	0.09149	0.06817	0.11427
Trimethylbenzenes	0.00055	0.04835	0.00056	0.03428	0.00142	0.00177	0.00003	0.00006	0.01726	0.01765	0.00231	0.00301	0.00224	0.00376
Xylene	0.00163	0.13413	0.00165	0.09512	0.00427	0.00524	0.00010	0.00017	0.04900	0.05009	0.00686	0.00881	0.00688	0.01108
C_2-C_6 Aliphatic	0.01469	1.24156	0.01486	0.88029	0.03947	0.04848	0.00089	0.00149	0.44633	0.45639	0.06087	0.07891	0.06630	0.10522
C_7-C_8 Aliphatic	0.00262	0.22820	0.00265	0.16177	0.00672	0.00838	0.00015	0.00026	0.08147	0.08332	0.01088	0.01420	0.01058	0.01773
C_9-C_{10} Aliphatic	0.00008	0.00679	0.00008	0.00481	0.00020	0.00025	0.00000	0.00001	0.00242	0.00248	0.00032	0.00042	0.00031	0.00053
C_{11}-C_{12} Aliphatic	0.00029	0.02553	0.00030	0.01810	0.00075	0.00094	0.00002	0.00003	0.00911	0.00932	0.00122	0.00159	0.00118	0.00198
C_{13}-C_{16} Aliphatic	0.00168	0.14678	0.00170	0.10405	0.00432	0.00539	0.00010	0.00017	0.05240	0.05359	0.00700	0.00913	0.00680	0.01141
C_{17}-C_{21} Aliphatic	0.00167	0.14556	0.00169	0.10319	0.00429	0.00534	0.00010	0.00017	0.05197	0.05315	0.00694	0.00906	0.00675	0.01131
C_6-C_8 Aromatic	0.00722	0.30869	0.00745	0.22010	0.01262	0.01475	0.00068	0.00082	0.16247	0.16494	0.03583	0.04026	0.01987	0.02927
C_9-C_{10} Aromatic	0.00040	0.03521	0.00041	0.02496	0.00104	0.00129	0.00002	0.00004	0.01257	0.01285	0.00168	0.00219	0.00163	0.00274

C = carbon; µg/m³ = micrograms per cubic metre.

Table 7A2-9 Maximum Annual Volatile Organic Compound Predictions at Selected Locations Part B

Maximum Annual (µg/m³)	Ekati Camp/Administration		Koala Station		Lac de Gras Winter Road Rest Stop		Lac de Gras Hunting Camp		Misery Camp		Pellatt Lake Cabin		Polar Lake Station	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
Methacrolein	0.00963	0.01655	0.00398	0.00505	0.00269	0.00379	0.00223	0.00575	0.01139	0.02098	0.00015	0.00035	0.00409	0.00327
Acrolein	0.00819	0.01407	0.00339	0.00430	0.00229	0.00322	0.00189	0.00489	0.00969	0.01784	0.00012	0.00030	0.00348	0.00278
Benzaldehyde	0.00915	0.01572	0.00378	0.00480	0.00256	0.00360	0.00212	0.00546	0.01082	0.01994	0.00014	0.00033	0.00389	0.00310
2,5-dimethylbenzaldehyde	0.00987	0.01696	0.00408	0.00518	0.00276	0.00388	0.00228	0.00590	0.01168	0.02151	0.00015	0.00036	0.00419	0.00335
Butanal	0.00313	0.00538	0.00129	0.00164	0.00088	0.00123	0.00072	0.00187	0.00370	0.00682	0.00005	0.00011	0.00133	0.00106
Formaldehyde	0.06593	0.10351	0.03473	0.04039	0.06472	0.07081	0.03744	0.05709	0.10747	0.16093	0.00322	0.00433	0.03418	0.02911
Acetaldehyde	0.10068	0.17292	0.04160	0.05279	0.02815	0.03959	0.02327	0.06012	0.11906	0.21929	0.00153	0.00363	0.04276	0.03414
Propanal	0.03371	0.05791	0.01392	0.01767	0.00943	0.01326	0.00779	0.02013	0.03987	0.07345	0.00051	0.00121	0.01432	0.01143
Crotonaldehyde	0.03227	0.05543	0.01333	0.01692	0.00902	0.01269	0.00746	0.01927	0.03817	0.07030	0.00049	0.00116	0.01370	0.01094
Hexanal	0.00530	0.00910	0.00219	0.00278	0.00148	0.00208	0.00122	0.00316	0.00627	0.01154	0.00008	0.00019	0.00225	0.00180
Heptanal	0.00771	0.01324	0.00318	0.00404	0.00215	0.00303	0.00178	0.00460	0.00911	0.01679	0.00012	0.00028	0.00327	0.00261
Octanal	0.00747	0.01282	0.00308	0.00391	0.00209	0.00294	0.00173	0.00446	0.00883	0.01626	0.00011	0.00027	0.00317	0.00253
Nonanal	0.01060	0.01820	0.00438	0.00555	0.00296	0.00417	0.00245	0.00633	0.01253	0.02308	0.00016	0.00038	0.00450	0.00359
Decanal	0.00674	0.01158	0.00278	0.00353	0.00189	0.00265	0.00156	0.00403	0.00797	0.01469	0.00010	0.00024	0.00286	0.00229
Undecanal	0.00626	0.01075	0.00259	0.00328	0.00175	0.00246	0.00145	0.00374	0.00741	0.01364	0.00010	0.00023	0.00266	0.00212
Dodecanal	0.00289	0.00496	0.00119	0.00151	0.00081	0.00114	0.00067	0.00173	0.00342	0.00630	0.00004	0.00010	0.00123	0.00098
Tridecanal	0.00482	0.00827	0.00199	0.00252	0.00135	0.00189	0.00111	0.00288	0.00570	0.01049	0.00007	0.00017	0.00205	0.00163
1,2,4-trimethylbenzene	0.00212	0.00364	0.00088	0.00111	0.00059	0.00083	0.00049	0.00127	0.00251	0.00462	0.00003	0.00008	0.00090	0.00072
1,3,5-trimethylbenzene	0.00063	0.00108	0.00026	0.00033	0.00018	0.00025	0.00014	0.00037	0.00074	0.00136	0.00001	0.00002	0.00027	0.00021
Benzene	0.00731	0.01204	0.00370	0.00443	0.00233	0.00308	0.00184	0.00425	0.00835	0.01492	0.00014	0.00028	0.00332	0.00275
Ethylbenzene	0.00116	0.00197	0.00050	0.00062	0.00041	0.00054	0.00031	0.00072	0.00142	0.00255	0.00002	0.00005	0.00051	0.00041
Propylbenzene	0.00024	0.00041	0.00010	0.00013	0.00007	0.00009	0.00006	0.00014	0.00028	0.00052	0.00000	0.00001	0.00010	0.00008
Indanone	0.00017	0.00029	0.00007	0.00009	0.00005	0.00007	0.00004	0.00010	0.00020	0.00036	0.00000	0.00001	0.00007	0.00006
Toluene	0.01217	0.01887	0.00667	0.00768	0.01209	0.01317	0.00698	0.01048	0.01969	0.02923	0.00061	0.00081	0.00639	0.00548
3-ethyl-toluene	0.00051	0.00087	0.00021	0.00027	0.00014	0.00020	0.00012	0.00030	0.00060	0.00110	0.00001	0.00002	0.00021	0.00017
4-ethyl-toluene	0.00125	0.00215	0.00052	0.00066	0.00035	0.00049	0.00029	0.00075	0.00148	0.00273	0.00002	0.00005	0.00053	0.00042
Acetone	0.05298	0.09100	0.02188	0.02777	0.01481	0.02084	0.01225	0.03164	0.06266	0.11541	0.00081	0.00191	0.02250	0.01796
Acetophenone	0.01228	0.02110	0.00507	0.00644	0.00343	0.00483	0.00284	0.00733	0.01453	0.02676	0.00019	0.00044	0.00522	0.00416
Methyl ethyl ketone	0.01806	0.03102	0.00746	0.00947	0.00505	0.00710	0.00418	0.01079	0.02136	0.03935	0.00027	0.00065	0.00767	0.00612
Xylene	0.00578	0.00981	0.00255	0.00317	0.00161	0.00225	0.00134	0.00339	0.00670	0.01229	0.00009	0.00021	0.00250	0.00202
o-Xylene	0.00204	0.00347	0.00087	0.00109	0.00072	0.00095	0.00054	0.00128	0.00251	0.00450	0.00004	0.00008	0.00089	0.00071
Ethylene	0.02061	0.03541	0.00851	0.01081	0.00576	0.00811	0.00477	0.01231	0.02438	0.04491	0.00031	0.00074	0.00875	0.00699
1,1,1-trichloroethane	0.00009	0.00008	0.00009	0.00009	0.00036	0.00036	0.00018	0.00018	0.00031	0.00031	0.00002	0.00002	0.00008	0.00008
Butane	0.00922	0.01584	0.00381	0.00483	0.00258	0.00363	0.00213	0.00551	0.01091	0.02009	0.00014	0.00033	0.00392	0.00313
2,2-dimethylbutane	0.00075	0.00128	0.00031	0.00039	0.00021	0.00029	0.00017	0.00045	0.00088	0.00163	0.00001	0.00003	0.00032	0.00025

Table 7A2-9 Maximum Annual Volatile Organic Compound Predictions at Selected Locations Part B

Maximum Annual (µg/m³)	Ekati Camp/Administration		Koala Station		Lac de Gras Winter Road Rest Stop		Lac de Gras Hunting Camp		Misery Camp		Pellatt Lake Cabin		Polar Lake Station	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
2,3-dimethylbutane	0.00137	0.00236	0.00057	0.00072	0.00038	0.00054	0.00032	0.00082	0.00162	0.00299	0.00002	0.00005	0.00058	0.00047
Isobutene	0.00275	0.00472	0.00113	0.00144	0.00077	0.00108	0.00063	0.00164	0.00325	0.00598	0.00004	0.00010	0.00117	0.00093
Cis-2-butene	0.00063	0.00108	0.00026	0.00033	0.00018	0.00025	0.00014	0.00037	0.00074	0.00136	0.00001	0.00002	0.00027	0.00021
Trans-2-butene	0.00125	0.00215	0.00052	0.00066	0.00035	0.00049	0.00029	0.00075	0.00148	0.00273	0.00002	0.00005	0.00053	0.00042
2-methyl-1-butene	0.00063	0.00108	0.00026	0.00033	0.00018	0.00025	0.00014	0.00037	0.00074	0.00136	0.00001	0.00002	0.00027	0.00021
3-methyl-1-butene	0.00039	0.00066	0.00016	0.00020	0.00011	0.00015	0.00009	0.00023	0.00046	0.00084	0.00001	0.00001	0.00016	0.00013
1,3-butadiene	0.00075	0.00128	0.00031	0.00039	0.00021	0.00029	0.00017	0.00045	0.00088	0.00163	0.00001	0.00003	0.00032	0.00025
Cyclopentane	0.00099	0.00170	0.00041	0.00052	0.00028	0.00039	0.00023	0.00059	0.00117	0.00215	0.00002	0.00004	0.00042	0.00033
Methylcyclopentane	0.00149	0.00256	0.00062	0.00078	0.00042	0.00059	0.00035	0.00089	0.00177	0.00325	0.00002	0.00005	0.00063	0.00051
Pentane	0.00448	0.00769	0.00185	0.00235	0.00125	0.00176	0.00104	0.00267	0.00530	0.00976	0.00007	0.00016	0.00190	0.00152
Isopentane	0.00660	0.01133	0.00272	0.00346	0.00185	0.00260	0.00153	0.00394	0.00780	0.01437	0.00010	0.00024	0.00280	0.00224
2-methylpentane	0.00224	0.00385	0.00092	0.00117	0.00063	0.00088	0.00052	0.00134	0.00265	0.00488	0.00003	0.00008	0.00095	0.00076
3-methylpentane	0.00161	0.00277	0.00067	0.00085	0.00045	0.00063	0.00037	0.00096	0.00191	0.00351	0.00002	0.00006	0.00069	0.00055
2,3-dimethylpentane	0.00173	0.00298	0.00072	0.00091	0.00048	0.00068	0.00040	0.00104	0.00205	0.00378	0.00003	0.00006	0.00074	0.00059
2,4-dimethylpentane	0.00099	0.00170	0.00041	0.00052	0.00028	0.00039	0.00023	0.00059	0.00117	0.00215	0.00002	0.00004	0.00042	0.00033
2,2,4-trimethylpentane	0.00299	0.00513	0.00123	0.00157	0.00084	0.00117	0.00069	0.00178	0.00353	0.00651	0.00005	0.00011	0.00127	0.00101
2,3,4-trimethylpentane	0.00075	0.00128	0.00031	0.00039	0.00021	0.00029	0.00017	0.00045	0.00088	0.00163	0.00001	0.00003	0.00032	0.00025
2-methyl-2-pentene	0.00051	0.00087	0.00021	0.00027	0.00014	0.00020	0.00012	0.00030	0.00060	0.00110	0.00001	0.00002	0.00021	0.00017
Trans-2-pentene	0.00012	0.00021	0.00005	0.00006	0.00003	0.00005	0.00003	0.00007	0.00014	0.00026	0.00000	0.00000	0.00005	0.00004
Cyclohexane	0.00051	0.00087	0.00021	0.00027	0.00014	0.00020	0.00012	0.00030	0.00060	0.00110	0.00001	0.00002	0.00021	0.00017
Methylcyclohexane	0.00125	0.00215	0.00052	0.00066	0.00035	0.00049	0.00029	0.00075	0.00148	0.00273	0.00002	0.00005	0.00053	0.00042
Pentylcyclohexane	0.00020	0.00035	0.00008	0.00011	0.00006	0.00008	0.00005	0.00012	0.00024	0.00044	0.00000	0.00001	0.00009	0.00007
Dodecylcyclohexane	0.00004	0.00007	0.00002	0.00002	0.00001	0.00002	0.00001	0.00002	0.00005	0.00009	0.00000	0.00000	0.00002	0.00001
Tridecylcyclohexane	0.00004	0.00007	0.00002	0.00002	0.00001	0.00002	0.00001	0.00002	0.00005	0.00009	0.00000	0.00000	0.00002	0.00001
Tetradecylcyclohexane	0.00004	0.00007	0.00002	0.00002	0.00001	0.00002	0.00001	0.00002	0.00005	0.00008	0.00000	0.00000	0.00002	0.00001
Pentadecylcyclohexane	0.00003	0.00005	0.00001	0.00002	0.00001	0.00001	0.00001	0.00002	0.00004	0.00007	0.00000	0.00000	0.00001	0.00001
2-methylhexane	0.00137	0.00236	0.00057	0.00072	0.00038	0.00054	0.00032	0.00082	0.00162	0.00299	0.00002	0.00005	0.00058	0.00047
3-methylhexane	0.00075	0.00128	0.00031	0.00039	0.00021	0.00029	0.00017	0.00045	0.00088	0.00163	0.00001	0.00003	0.00032	0.00025
3-ethylhexane	0.00051	0.00087	0.00021	0.00027	0.00014	0.00020	0.00012	0.00030	0.00060	0.00110	0.00001	0.00002	0.00021	0.00017
2,3-dimethylhexane	0.00039	0.00066	0.00016	0.00020	0.00011	0.00015	0.00009	0.00023	0.00046	0.00084	0.00001	0.00001	0.00016	0.00013
2,4-dimethylhexane	0.00012	0.00021	0.00005	0.00006	0.00003	0.00005	0.00003	0.00007	0.00014	0.00026	0.00000	0.00000	0.00005	0.00004
2,5-dimethylhexane	0.00012	0.00021	0.00005	0.00006	0.00003	0.00005	0.00003	0.00007	0.00014	0.00026	0.00000	0.00000	0.00005	0.00004
Cis-2-hexene	0.00024	0.00041	0.00010	0.00013	0.00007	0.00009	0.00006	0.00014	0.00028	0.00052	0.00000	0.00001	0.00010	0.00008
Trans-2-hexene	0.00039	0.00066	0.00016	0.00020	0.00011	0.00015	0.00009	0.00023	0.00046	0.00084	0.00001	0.00001	0.00016	0.00013
Heptane	0.00113	0.00194	0.00047	0.00059	0.00032	0.00045	0.00026	0.00068	0.00134	0.00247	0.00002	0.00004	0.00048	0.00038

Table 7A2-9 Maximum Annual Volatile Organic Compound Predictions at Selected Locations Part B

Maximum Annual (µg/m³)	Ekati Camp/Administration		Koala Station		Lac de Gras Winter Road Rest Stop		Lac de Gras Hunting Camp		Misery Camp		Pellatt Lake Cabin		Polar Lake Station	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
2-methylheptane	0.00024	0.00041	0.00010	0.00013	0.00007	0.00009	0.00006	0.00014	0.00028	0.00052	0.00000	0.00001	0.00010	0.00008
Octane	0.00063	0.00108	0.00026	0.00033	0.00018	0.00025	0.00014	0.00037	0.00074	0.00136	0.00001	0.00002	0.00027	0.00021
Nonane	0.00039	0.00066	0.00016	0.00020	0.00011	0.00015	0.00009	0.00023	0.00046	0.00084	0.00001	0.00001	0.00016	0.00013
Dodecane	0.00121	0.00208	0.00050	0.00063	0.00034	0.00048	0.00028	0.00072	0.00143	0.00264	0.00002	0.00004	0.00051	0.00041
Tridecane	0.00115	0.00197	0.00047	0.00060	0.00032	0.00045	0.00027	0.00069	0.00136	0.00250	0.00002	0.00004	0.00049	0.00039
Tetradecane	0.00151	0.00260	0.00063	0.00079	0.00042	0.00060	0.00035	0.00090	0.00179	0.00330	0.00002	0.00005	0.00064	0.00051
n-Pentadecane	0.00096	0.00165	0.00040	0.00050	0.00027	0.00038	0.00022	0.00057	0.00113	0.00209	0.00001	0.00003	0.00041	0.00032
Hexadecane	0.00171	0.00294	0.00071	0.00090	0.00048	0.00067	0.00040	0.00102	0.00203	0.00373	0.00003	0.00006	0.00073	0.00058
n-Heptadecane	0.00148	0.00254	0.00061	0.00078	0.00041	0.00058	0.00034	0.00088	0.00175	0.00322	0.00002	0.00005	0.00063	0.00050
n-Octadecane	0.00145	0.00249	0.00060	0.00076	0.00040	0.00057	0.00033	0.00086	0.00171	0.00315	0.00002	0.00005	0.00061	0.00049
n-Nonadecane	0.00099	0.00170	0.00041	0.00052	0.00028	0.00039	0.00023	0.00059	0.00117	0.00216	0.00002	0.00004	0.00042	0.00034
n-Eicosane	0.00050	0.00085	0.00020	0.00026	0.00014	0.00020	0.00011	0.00030	0.00059	0.00108	0.00001	0.00002	0.00021	0.00017
n-Heneicosane	0.00016	0.00027	0.00007	0.00008	0.00004	0.00006	0.00004	0.00009	0.00019	0.00035	0.00000	0.00001	0.00007	0.00005
Farnesane	0.00105	0.00180	0.00043	0.00055	0.00029	0.00041	0.00024	0.00062	0.00124	0.00228	0.00002	0.00004	0.00044	0.00035
Pristane	0.00107	0.00183	0.00044	0.00056	0.00030	0.00042	0.00025	0.00064	0.00126	0.00232	0.00002	0.00004	0.00045	0.00036
Aldehyde	0.31217	0.53615	0.12901	0.16372	0.08730	0.12277	0.07217	0.18639	0.36916	0.67993	0.00475	0.01125	0.13259	0.10587
Ketone	0.08349	0.14340	0.03448	0.04376	0.02335	0.03284	0.01930	0.04986	0.09875	0.18188	0.00127	0.00301	0.03545	0.02830
Trimethylbenzenes	0.00275	0.00472	0.00113	0.00144	0.00077	0.00108	0.00063	0.00164	0.00325	0.00598	0.00004	0.00010	0.00117	0.00093
Xylene	0.00782	0.01328	0.00342	0.00426	0.00234	0.00320	0.00188	0.00467	0.00921	0.01679	0.00013	0.00029	0.00339	0.00273
C_2-C_6 Aliphatic	0.07260	0.12317	0.03221	0.04005	0.02027	0.02828	0.01682	0.04261	0.08425	0.15441	0.00116	0.00263	0.03147	0.02543
C_7-C_8 Aliphatic	0.01296	0.02225	0.00535	0.00679	0.00362	0.00510	0.00299	0.00774	0.01532	0.02822	0.00020	0.00047	0.00550	0.00439
C_9-C_{10} Aliphatic	0.00039	0.00066	0.00016	0.00020	0.00011	0.00015	0.00009	0.00023	0.00046	0.00084	0.00001	0.00001	0.00016	0.00013
C_{11}-C_{12} Aliphatic	0.00145	0.00249	0.00060	0.00076	0.00041	0.00057	0.00034	0.00087	0.00171	0.00316	0.00002	0.00005	0.00062	0.00049
C_{13}-C_{16} Aliphatic	0.00833	0.01431	0.00344	0.00437	0.00233	0.00328	0.00193	0.00498	0.00986	0.01815	0.00013	0.00030	0.00354	0.00283
C_{17}-C_{21} Aliphatic	0.00826	0.01419	0.00341	0.00433	0.00231	0.00325	0.00191	0.00493	0.00977	0.01800	0.00013	0.00030	0.00351	0.00280
C_6-C_8 Aromatic	0.02065	0.03288	0.01087	0.01273	0.01483	0.01680	0.00912	0.01546	0.02946	0.04670	0.00077	0.00113	0.01022	0.00864
C_9-C_{10} Aromatic	0.00200	0.00343	0.00083	0.00105	0.00056	0.00079	0.00046	0.00119	0.00236	0.00435	0.00003	0.00007	0.00085	0.00068

C = carbon; µg/m³ = micrograms per cubic metre.

Table 7A2-9 Maximum Annual Volatile Organic Compound Predictions at Selected Locations Part C

Maximum Annual (µg/m³)	Salmita Airstrip		Treeline Lodge		TSP1		TSP2		TSP3		Jay Pit Boundary		Maximum Point of Impingement	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
Methacrolein	0.00015	0.00024	0.00014	0.00023	0.00940	0.01597	0.00488	0.00404	0.00322	0.00263	0.00306	0.46293	0.22015	0.46293
Acrolein	0.00013	0.00020	0.00012	0.00020	0.00800	0.01358	0.00415	0.00344	0.00274	0.00224	0.00261	0.39349	0.18713	0.39349
Benzaldehyde	0.00014	0.00023	0.00014	0.00022	0.00893	0.01517	0.00464	0.00384	0.00306	0.00250	0.00291	0.43978	0.20914	0.43978
2,5-dimethylbenzaldehyde	0.00015	0.00024	0.00015	0.00024	0.00963	0.01637	0.00500	0.00414	0.00330	0.00269	0.00314	0.47450	0.22565	0.47450
Butanal	0.00005	0.00008	0.00005	0.00007	0.00305	0.00519	0.00159	0.00131	0.00105	0.00085	0.00100	0.15045	0.07155	0.15045
Formaldehyde	0.00399	0.00449	0.00394	0.00443	0.06480	0.10049	0.03957	0.03415	0.02732	0.02375	0.04182	2.60147	1.41790	2.60147
Acetaldehyde	0.00155	0.00248	0.00149	0.00240	0.09825	0.16690	0.05104	0.04222	0.03367	0.02748	0.03203	4.83761	2.30057	4.83761
Propanal	0.00052	0.00083	0.00050	0.00080	0.03290	0.05589	0.01709	0.01414	0.01127	0.00920	0.01073	1.62025	0.77052	1.62025
Crotonaldehyde	0.00050	0.00080	0.00048	0.00077	0.03149	0.05350	0.01636	0.01353	0.01079	0.00880	0.01027	1.55081	0.73750	1.55081
Hexanal	0.00008	0.00013	0.00008	0.00013	0.00517	0.00878	0.00269	0.00222	0.00177	0.00145	0.00169	0.25461	0.12108	0.25461
Heptanal	0.00012	0.00019	0.00011	0.00018	0.00752	0.01278	0.00391	0.00323	0.00258	0.00210	0.00245	0.37034	0.17612	0.37034
Octanal	0.00011	0.00018	0.00011	0.00018	0.00728	0.01238	0.00378	0.00313	0.00250	0.00204	0.00238	0.35877	0.17061	0.35877
Nonanal	0.00016	0.00026	0.00016	0.00025	0.01034	0.01757	0.00537	0.00444	0.00354	0.00289	0.00337	0.50922	0.24216	0.50922
Decanal	0.00010	0.00017	0.00010	0.00016	0.00658	0.01118	0.00342	0.00283	0.00225	0.00184	0.00215	0.32405	0.15410	0.32405
Undecanal	0.00010	0.00015	0.00009	0.00015	0.00611	0.01038	0.00317	0.00263	0.00209	0.00171	0.00199	0.30090	0.14310	0.30090
Dodecanal	0.00004	0.00007	0.00004	0.00007	0.00282	0.00479	0.00146	0.00121	0.00097	0.00079	0.00092	0.13888	0.06604	0.13888
Tridecanal	0.00007	0.00012	0.00007	0.00011	0.00470	0.00798	0.00244	0.00202	0.00161	0.00131	0.00153	0.23146	0.11007	0.23146
1,2,4-trimethylbenzene	0.00003	0.00005	0.00003	0.00005	0.00207	0.00351	0.00107	0.00089	0.00071	0.00058	0.00067	0.10184	0.04843	0.10184
1,3,5-trimethylbenzene	0.00001	0.00002	0.00001	0.00001	0.00061	0.00104	0.00032	0.00026	0.00021	0.00017	0.00020	0.03009	0.01431	0.03009
Benzene	0.00015	0.00021	0.00014	0.00020	0.00711	0.01160	0.00391	0.00333	0.00293	0.00253	0.00244	0.31739	0.15543	0.31739
Ethylbenzene	0.00002	0.00003	0.00002	0.00003	0.00113	0.00191	0.00060	0.00050	0.00041	0.00034	0.00041	0.05443	0.02629	0.05443
Propylbenzene	0.00000	0.00001	0.00000	0.00001	0.00023	0.00040	0.00012	0.00010	0.00008	0.00007	0.00008	0.01157	0.00550	0.01157
Indanone	0.00000	0.00000	0.00000	0.00000	0.00016	0.00028	0.00008	0.00007	0.00006	0.00005	0.00005	0.00804	0.00383	0.00804
Toluene	0.00075	0.00084	0.00074	0.00083	0.01196	0.01832	0.00738	0.00641	0.00534	0.00470	0.00777	0.46455	0.25583	0.46455
3-ethyl-toluene	0.00001	0.00001	0.00001	0.00001	0.00049	0.00084	0.00026	0.00021	0.00017	0.00014	0.00016	0.02430	0.01156	0.02430
4-ethyl-toluene	0.00002	0.00003	0.00002	0.00003	0.00122	0.00208	0.00063	0.00053	0.00042	0.00034	0.00040	0.06018	0.02862	0.06018
Acetone	0.00081	0.00131	0.00078	0.00126	0.05170	0.08783	0.02685	0.02221	0.01771	0.01445	0.01686	2.54611	1.21081	2.54611
Acetophenone	0.00019	0.00030	0.00018	0.00029	0.01198	0.02036	0.00623	0.00515	0.00411	0.00335	0.00391	0.59023	0.28069	0.59023
Methyl ethyl ketone	0.00028	0.00045	0.00027	0.00043	0.01762	0.02994	0.00915	0.00757	0.00604	0.00493	0.00575	0.86799	0.41278	0.86799
Xylene	0.00009	0.00015	0.00009	0.00014	0.00564	0.00946	0.00297	0.00248	0.00207	0.00173	0.00183	0.26969	0.12861	0.26969
o-Xylene	0.00004	0.00006	0.00004	0.00006	0.00199	0.00335	0.00105	0.00088	0.00070	0.00058	0.00072	0.09613	0.04631	0.09613
Ethylene	0.00032	0.00051	0.00030	0.00049	0.02012	0.03418	0.01045	0.00864	0.00689	0.00562	0.00656	0.99067	0.47112	0.99067
1,1,1-trichloroethane	0.00002	0.00002	0.00002	0.00002	0.00009	0.00008	0.00009	0.00008	0.00007	0.00006	0.00018	0.00018	0.00673	0.00673
Butane	0.00014	0.00023	0.00014	0.00022	0.00900	0.01529	0.00468	0.00387	0.00308	0.00252	0.00293	0.44325	0.21079	0.44325
2,2-dimethylbutane	0.00001	0.00002	0.00001	0.00002	0.00073	0.00124	0.00038	0.00031	0.00025	0.00020	0.00024	0.03588	0.01706	0.03588
2,3-dimethylbutane	0.00002	0.00003	0.00002	0.00003	0.00134	0.00228	0.00070	0.00058	0.00046	0.00037	0.00044	0.06597	0.03137	0.06597

Table 7A2-9 Maximum Annual Volatile Organic Compound Predictions at Selected Locations Part C

Maximum Annual (µg/m³)	Salmita Airstrip		Treeline Lodge		TSP1		TSP2		TSP3		Jay Pit Boundary		Maximum Point of Impingement	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
Isobutene	0.00004	0.00007	0.00004	0.00007	0.00268	0.00455	0.00139	0.00115	0.00092	0.00075	0.00087	0.13193	0.06274	0.13193
Cis-2-butene	0.00001	0.00002	0.00001	0.00001	0.00061	0.00104	0.00032	0.00026	0.00021	0.00017	0.00020	0.03009	0.01431	0.03009
Trans-2-butene	0.00002	0.00003	0.00002	0.00003	0.00122	0.00208	0.00063	0.00053	0.00042	0.00034	0.00040	0.06018	0.02862	0.06018
2-methyl-1-butene	0.00001	0.00002	0.00001	0.00001	0.00061	0.00104	0.00032	0.00026	0.00021	0.00017	0.00020	0.03009	0.01431	0.03009
3-methyl-1-butene	0.00001	0.00001	0.00001	0.00001	0.00038	0.00064	0.00020	0.00016	0.00013	0.00011	0.00012	0.01852	0.00881	0.01852
1,3-butadiene	0.00001	0.00002	0.00001	0.00002	0.00073	0.00124	0.00038	0.00031	0.00025	0.00020	0.00024	0.03588	0.01706	0.03588
Cyclopentane	0.00002	0.00002	0.00001	0.00002	0.00096	0.00164	0.00050	0.00041	0.00033	0.00027	0.00031	0.04745	0.02257	0.04745
Methylcyclopentane	0.00002	0.00004	0.00002	0.00004	0.00146	0.00248	0.00076	0.00063	0.00050	0.00041	0.00048	0.07175	0.03412	0.07175
Pentane	0.00007	0.00011	0.00007	0.00011	0.00437	0.00743	0.00227	0.00188	0.00150	0.00122	0.00143	0.21526	0.10237	0.21526
Isopentane	0.00010	0.00016	0.00010	0.00016	0.00644	0.01094	0.00334	0.00277	0.00221	0.00180	0.00210	0.31711	0.15080	0.31711
2-methylpentane	0.00003	0.00006	0.00003	0.00005	0.00219	0.00371	0.00114	0.00094	0.00075	0.00061	0.00071	0.10763	0.05118	0.10763
3-methylpentane	0.00002	0.00004	0.00002	0.00004	0.00157	0.00267	0.00082	0.00068	0.00054	0.00044	0.00051	0.07754	0.03687	0.07754
2,3-dimethylpentane	0.00003	0.00004	0.00003	0.00004	0.00169	0.00287	0.00088	0.00073	0.00058	0.00047	0.00055	0.08333	0.03963	0.08333
2,4-dimethylpentane	0.00002	0.00002	0.00001	0.00002	0.00096	0.00164	0.00050	0.00041	0.00033	0.00027	0.00031	0.04745	0.02257	0.04745
2,2,4-trimethylpentane	0.00005	0.00007	0.00004	0.00007	0.00291	0.00495	0.00151	0.00125	0.00100	0.00081	0.00095	0.14351	0.06825	0.14351
2,3,4-trimethylpentane	0.00001	0.00002	0.00001	0.00002	0.00073	0.00124	0.00038	0.00031	0.00025	0.00020	0.00024	0.03588	0.01706	0.03588
2-methyl-2-pentene	0.00001	0.00001	0.00001	0.00001	0.00049	0.00084	0.00026	0.00021	0.00017	0.00014	0.00016	0.02430	0.01156	0.02430
trans-2-pentene	0.00000	0.00000	0.00000	0.00000	0.00012	0.00020	0.00006	0.00005	0.00004	0.00003	0.00004	0.00579	0.00275	0.00579
Cyclohexane	0.00001	0.00001	0.00001	0.00001	0.00049	0.00084	0.00026	0.00021	0.00017	0.00014	0.00016	0.02430	0.01156	0.02430
Methylcyclohexane	0.00002	0.00003	0.00002	0.00003	0.00122	0.00208	0.00063	0.00053	0.00042	0.00034	0.00040	0.06018	0.02862	0.06018
Pentylcyclohexane	0.00000	0.00000	0.00000	0.00000	0.00020	0.00033	0.00010	0.00008	0.00007	0.00006	0.00006	0.00971	0.00462	0.00971
Dodecylcyclohexane	0.00000	0.00000	0.00000	0.00000	0.00004	0.00007	0.00002	0.00002	0.00001	0.00001	0.00001	0.00194	0.00092	0.00194
Tridecylcyclohexane	0.00000	0.00000	0.00000	0.00000	0.00004	0.00007	0.00002	0.00002	0.00001	0.00001	0.00001	0.00191	0.00091	0.00191
Tetradecylcyclohexane	0.00000	0.00000	0.00000	0.00000	0.00004	0.00006	0.00002	0.00002	0.00001	0.00001	0.00001	0.00184	0.00088	0.00184
Pentadecylcyclohexane	0.00000	0.00000	0.00000	0.00000	0.00003	0.00005	0.00002	0.00001	0.00001	0.00001	0.00001	0.00148	0.00070	0.00148
2-methylhexane	0.00002	0.00003	0.00002	0.00003	0.00134	0.00228	0.00070	0.00058	0.00046	0.00037	0.00044	0.06597	0.03137	0.06597
3-methylhexane	0.00001	0.00002	0.00001	0.00002	0.00073	0.00124	0.00038	0.00031	0.00025	0.00020	0.00024	0.03588	0.01706	0.03588
3-ethylhexane	0.00001	0.00001	0.00001	0.00001	0.00049	0.00084	0.00026	0.00021	0.00017	0.00014	0.00016	0.02430	0.01156	0.02430
2,3-dimethylhexane	0.00001	0.00001	0.00001	0.00001	0.00038	0.00064	0.00020	0.00016	0.00013	0.00011	0.00012	0.01852	0.00881	0.01852
2,4-dimethylhexane	0.00000	0.00000	0.00000	0.00000	0.00012	0.00020	0.00006	0.00005	0.00004	0.00003	0.00004	0.00579	0.00275	0.00579
2,5-dimethylhexane	0.00000	0.00000	0.00000	0.00000	0.00012	0.00020	0.00006	0.00005	0.00004	0.00003	0.00004	0.00579	0.00275	0.00579
Cis-2-hexene	0.00000	0.00001	0.00000	0.00001	0.00023	0.00040	0.00012	0.00010	0.00008	0.00007	0.00008	0.01157	0.00550	0.01157
Trans-2-hexene	0.00001	0.00001	0.00001	0.00001	0.00038	0.00064	0.00020	0.00016	0.00013	0.00011	0.00012	0.01852	0.00881	0.01852
Heptane	0.00002	0.00003	0.00002	0.00003	0.00110	0.00188	0.00057	0.00047	0.00038	0.00031	0.00036	0.05439	0.02587	0.05439
2-methylheptane	0.00000	0.00001	0.00000	0.00001	0.00023	0.00040	0.00012	0.00010	0.00008	0.00007	0.00008	0.01157	0.00550	0.01157
Octane	0.00001	0.00002	0.00001	0.00001	0.00061	0.00104	0.00032	0.00026	0.00021	0.00017	0.00020	0.03009	0.01431	0.03009

Table 7A2-9 Maximum Annual Volatile Organic Compound Predictions at Selected Locations Part C

Maximum Annual (µg/m³)	Salmita Airstrip		Treeline Lodge		TSP1		TSP2		TSP3		Jay Pit Boundary		Maximum Point of Impingement	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
Nonane	0.00001	0.00001	0.00001	0.00001	0.00038	0.00064	0.00020	0.00016	0.00013	0.00011	0.00012	0.01852	0.00881	0.01852
Dodecane	0.00002	0.00003	0.00002	0.00003	0.00118	0.00201	0.00061	0.00051	0.00040	0.00033	0.00039	0.05821	0.02768	0.05821
Tridecane	0.00002	0.00003	0.00002	0.00003	0.00112	0.00190	0.00058	0.00048	0.00038	0.00031	0.00037	0.05520	0.02625	0.05520
Tetradecane	0.00002	0.00004	0.00002	0.00004	0.00148	0.00251	0.00077	0.00064	0.00051	0.00041	0.00048	0.07280	0.03462	0.07280
n-Pentadecane	0.00001	0.00002	0.00001	0.00002	0.00094	0.00159	0.00049	0.00040	0.00032	0.00026	0.00030	0.04606	0.02190	0.04606
Hexadecane	0.00003	0.00004	0.00003	0.00004	0.00167	0.00284	0.00087	0.00072	0.00057	0.00047	0.00054	0.08229	0.03913	0.08229
n-Heptadecane	0.00002	0.00004	0.00002	0.00004	0.00144	0.00245	0.00075	0.00062	0.00049	0.00040	0.00047	0.07106	0.03379	0.07106
n-Octadecane	0.00002	0.00004	0.00002	0.00003	0.00141	0.00240	0.00073	0.00061	0.00048	0.00039	0.00046	0.06955	0.03308	0.06955
n-Nonadecane	0.00002	0.00002	0.00001	0.00002	0.00097	0.00164	0.00050	0.00041	0.00033	0.00027	0.00031	0.04757	0.02262	0.04757
n-Eicosane	0.00001	0.00001	0.00001	0.00001	0.00048	0.00082	0.00025	0.00021	0.00017	0.00014	0.00016	0.02384	0.01134	0.02384
n-Heneicosane	0.00000	0.00000	0.00000	0.00000	0.00015	0.00026	0.00008	0.00007	0.00005	0.00004	0.00005	0.00762	0.00362	0.00762
Farnesane	0.00002	0.00003	0.00002	0.00002	0.00102	0.00173	0.00053	0.00044	0.00035	0.00029	0.00033	0.05023	0.02389	0.05023
Pristane	0.00002	0.00003	0.00002	0.00003	0.00104	0.00177	0.00054	0.00045	0.00036	0.00029	0.00034	0.05127	0.02438	0.05127
Aldehyde	0.00479	0.00770	0.00462	0.00745	0.30463	0.51750	0.15826	0.13092	0.10443	0.08522	0.09932	14.99890	7.13290	14.99890
Ketone	0.00128	0.00206	0.00123	0.00199	0.08147	0.13842	0.04232	0.03500	0.02791	0.02278	0.02656	4.01237	1.90811	4.01237
Trimethylbenzenes	0.00004	0.00007	0.00004	0.00007	0.00268	0.00455	0.00139	0.00115	0.00092	0.00075	0.00087	0.13193	0.06274	0.13193
Xylene	0.00013	0.00020	0.00013	0.00020	0.00763	0.01281	0.00403	0.00336	0.00277	0.00230	0.00255	0.36582	0.17492	0.36582
C_2-C_6 Aliphatic	0.00118	0.00183	0.00113	0.00177	0.07073	0.11879	0.03740	0.03122	0.02568	0.02134	0.02306	3.38685	1.61279	3.38685
C_7-C_8 Aliphatic	0.00020	0.00032	0.00019	0.00031	0.01264	0.02148	0.00657	0.00543	0.00433	0.00353	0.00412	0.62264	0.29610	0.62264
C_9-C_{10} Aliphatic	0.00001	0.00001	0.00001	0.00001	0.00038	0.00064	0.00020	0.00016	0.00013	0.00011	0.00012	0.01852	0.00881	0.01852
C_{11}-C_{12} Aliphatic	0.00002	0.00004	0.00002	0.00003	0.00141	0.00240	0.00073	0.00061	0.00048	0.00040	0.00046	0.06965	0.03312	0.06965
C_{13}-C_{16} Aliphatic	0.00013	0.00021	0.00012	0.00020	0.00813	0.01382	0.00422	0.00349	0.00279	0.00227	0.00265	0.40048	0.19045	0.40048
C_{17}-C_{21} Aliphatic	0.00013	0.00020	0.00012	0.00020	0.00806	0.01370	0.00419	0.00346	0.00276	0.00225	0.00263	0.39716	0.18887	0.39716
C_6-C_8 Aromatic	0.00092	0.00109	0.00091	0.00107	0.02020	0.03182	0.01189	0.01024	0.00868	0.00757	0.01061	0.83637	0.43516	0.83637
C_9-C_{10} Aromatic	0.00003	0.00005	0.00003	0.00005	0.00195	0.00331	0.00101	0.00084	0.00067	0.00055	0.00064	0.09606	0.04568	0.09606

C = carbon; µg/m³ = micrograms per cubic metre.

Table 7A2-10 Maximum 1-Hour Dioxin/Furan Predictions at Selected Locations
Part A

Maximum 1-hour (µg/m³)	13DDJPA	13DDJPB	CAMS Polar Explosives	Courageous Lake Lodge	Diavik Camp	Diavik Traditional Knowledge Camp	Ekati Airport Station	Ekati Camp / Administration	Koala Station	Lac de Gras Winter Road Rest Stop
2378 - TCDD	2.80×10^{-12}	3.08×10^{-12}	4.82×10^{-10}	1.18×10^{-12}	1.31×10^{-10}	9.10×10^{-12}	1.08×10^{-10}	1.41×10^{-10}	1.20×10^{-10}	1.07×10^{-11}
12378 - PeCDD	4.53×10^{-12}	4.98×10^{-12}	7.80×10^{-10}	1.91×10^{-12}	2.11×10^{-10}	1.47×10^{-11}	1.74×10^{-10}	2.28×10^{-10}	1.94×10^{-10}	1.73×10^{-11}
123478 - HxCDD	9.88×10^{-13}	1.09×10^{-12}	1.70×10^{-10}	4.16×10^{-13}	4.61×10^{-11}	3.21×10^{-12}	3.80×10^{-11}	4.98×10^{-11}	4.23×10^{-11}	3.77×10^{-12}
123678 - HxCDD	2.63×10^{-12}	2.90×10^{-12}	4.54×10^{-10}	1.11×10^{-12}	1.23×10^{-10}	8.56×10^{-12}	1.01×10^{-10}	1.33×10^{-10}	1.13×10^{-10}	1.00×10^{-11}
123789 - HxCDD	4.04×10^{-12}	4.44×10^{-12}	6.95×10^{-10}	1.70×10^{-12}	1.88×10^{-10}	1.31×10^{-11}	1.55×10^{-10}	2.03×10^{-10}	1.73×10^{-10}	1.54×10^{-11}
1234678 - HpCDD	7.48×10^{-12}	8.23×10^{-12}	1.29×10^{-9}	3.15×10^{-12}	3.49×10^{-10}	2.43×10^{-11}	2.88×10^{-10}	3.77×10^{-10}	3.20×10^{-10}	2.86×10^{-11}
1,2,3,4,6,7,8,9-Octa CDD	7.61×10^{-12}	8.37×10^{-12}	1.31×10^{-9}	3.20×10^{-12}	3.55×10^{-10}	2.47×10^{-11}	2.93×10^{-10}	3.84×10^{-10}	3.26×10^{-10}	2.90×10^{-11}
2378 - TCDF	4.59×10^{-11}	5.04×10^{-11}	7.90×10^{-9}	1.93×10^{-11}	2.14×10^{-9}	1.49×10^{-10}	1.76×10^{-9}	2.31×10^{-9}	1.96×10^{-9}	1.75×10^{-10}
12378 - PeCDF	2.40×10^{-11}	2.64×10^{-11}	4.13×10^{-9}	1.01×10^{-11}	1.12×10^{-9}	7.79×10^{-11}	9.22×10^{-10}	1.21×10^{-9}	1.03×10^{-9}	9.15×10^{-11}
23478 - PeCDF	4.13×10^{-11}	4.54×10^{-11}	7.11×10^{-9}	1.74×10^{-11}	1.93×10^{-9}	1.34×10^{-10}	1.59×10^{-9}	2.08×10^{-9}	1.77×10^{-9}	1.58×10^{-10}
123478 - HxCDF	4.20×10^{-11}	4.62×10^{-11}	7.23×10^{-9}	1.77×10^{-11}	1.96×10^{-9}	1.36×10^{-10}	1.61×10^{-9}	2.12×10^{-9}	1.80×10^{-9}	1.60×10^{-10}
123678 - HxCDF	2.26×10^{-11}	2.48×10^{-11}	3.88×10^{-9}	9.49×10^{-12}	1.05×10^{-9}	7.33×10^{-11}	8.67×10^{-10}	1.14×10^{-9}	9.65×10^{-10}	8.60×10^{-11}
234678 - HxCDF	8.72×10^{-12}	9.59×10^{-12}	1.50×10^{-9}	3.67×10^{-12}	4.06×10^{-10}	2.83×10^{-11}	3.35×10^{-10}	4.39×10^{-10}	3.73×10^{-10}	3.33×10^{-11}
123789 - HxCDF	9.06×10^{-13}	9.96×10^{-13}	1.56×10^{-10}	3.81×10^{-13}	4.22×10^{-11}	2.94×10^{-12}	3.48×10^{-11}	4.56×10^{-11}	3.87×10^{-11}	3.46×10^{-12}
1234678 - HpCDF	3.42×10^{-11}	3.77×10^{-11}	5.90×10^{-9}	1.44×10^{-11}	1.60×10^{-9}	1.11×10^{-10}	1.32×10^{-9}	1.73×10^{-9}	1.46×10^{-9}	1.31×10^{-10}
1234789 - HpCDF	3.87×10^{-12}	4.25×10^{-12}	6.67×10^{-10}	1.63×10^{-12}	1.80×10^{-10}	1.26×10^{-11}	1.49×10^{-10}	1.95×10^{-10}	1.66×10^{-10}	1.48×10^{-11}
1,2,3,4,6,7,8,9-Octa CDF	3.55×10^{-12}	3.90×10^{-12}	6.11×10^{-10}	1.49×10^{-12}	1.65×10^{-10}	1.15×10^{-11}	1.36×10^{-10}	1.79×10^{-10}	1.52×10^{-10}	1.35×10^{-11}
Total PCDD	1.07×10^{-10}	1.17×10^{-10}	1.84×10^{-8}	4.49×10^{-11}	4.97×10^{-9}	3.47×10^{-10}	4.10×10^{-9}	5.38×10^{-9}	4.56×10^{-9}	4.07×10^{-10}
Total PCDF	7.44×10^{-10}	8.18×10^{-10}	1.28×10^{-7}	3.13×10^{-10}	3.47×10^{-8}	2.42×10^{-9}	2.86×10^{-8}	3.75×10^{-8}	3.18×10^{-8}	2.84×10^{-9}
PCDD [TEQ][(a)]	8.17×10^{-12}	8.98×10^{-12}	1.41×10^{-9}	3.44×10^{-12}	3.81×10^{-10}	2.66×10^{-11}	3.14×10^{-10}	4.12×10^{-10}	3.50×10^{-10}	3.12×10^{-11}
PCDF [TEQ] [(a)]	2.55×10^{-11}	2.80×10^{-11}	4.39×10^{-9}	1.07×10^{-11}	1.19×10^{-9}	8.28×10^{-11}	9.80×10^{-10}	1.28×10^{-9}	1.09×10^{-9}	9.73×10^{-11}

a) [TEQ] = toxic equivalency; µg/m^3 = micrograms per cubic metre.

CAMS = continuous air monitoring station; µg/m³ = micrograms per cubic metre; PCDD = polychlorinated dibenzo-p-dioxin; PCDF = polychlorinated dibenzofuran; TCDD = tetrachlorodibenzo-p-dioxin; TCDF = tetrachlorodibenzofuran; CDD = chlorinated dibenzo-p-dioxin; CDF = chlorinated dibenzofuran; HpCDD = heptachlorodibenzo-p-dioxin; HxCDD = hexachlorodibenzo-p-dioxin.

Table 7A2-10 Maximum 1-Hour Dioxin/Furan Predictions at Selected Locations Part B

Maximum 1-hour (µg/m³)	Lac de Gras Hunting Camp	Misery Camp	Pellatt Lake Cabin	Polar Lake Station	Salmita Airstrip	Treeline Lodge	TSP1	TSP2	TSP3	Jay Pit Boundary	Maximum Point of Impingement
2378 - TCDD	3.55×10^{-12}	8.45×10^{-12}	1.28×10^{-12}	6.12×10^{-11}	1.58×10^{-12}	1.47×10^{-12}	1.47×10^{-10}	7.65×10^{-11}	3.80×10^{-10}	4.06×10^{-12}	4.64×10^{-10}
12378 - PeCDD	5.73×10^{-12}	1.37×10^{-11}	2.07×10^{-12}	9.90×10^{-11}	2.55×10^{-12}	2.37×10^{-12}	2.37×10^{-10}	1.24×10^{-10}	6.14×10^{-10}	6.56×10^{-12}	7.51×10^{-10}
123478 - HxCDD	1.25×10^{-12}	2.98×10^{-12}	4.51×10^{-13}	2.16×10^{-11}	5.56×10^{-13}	5.17×10^{-13}	5.18×10^{-11}	2.70×10^{-11}	1.34×10^{-10}	1.43×10^{-12}	1.64×10^{-10}
123678 - HxCDD	3.34×10^{-12}	7.95×10^{-12}	1.20×10^{-12}	5.76×10^{-11}	1.48×10^{-12}	1.38×10^{-12}	1.38×10^{-10}	7.20×10^{-11}	3.57×10^{-10}	3.82×10^{-12}	4.37×10^{-10}
123789 - HxCDD	5.11×10^{-12}	1.22×10^{-11}	1.84×10^{-12}	8.82×10^{-11}	2.27×10^{-12}	2.11×10^{-12}	2.11×10^{-10}	1.10×10^{-10}	5.47×10^{-10}	5.85×10^{-12}	6.69×10^{-10}
1234678 - HpCDD	9.48×10^{-12}	2.26×10^{-11}	3.42×10^{-12}	1.64×10^{-10}	4.21×10^{-12}	3.92×10^{-12}	3.92×10^{-10}	2.05×10^{-10}	1.02×10^{-9}	1.08×10^{-11}	1.24×10^{-9}
1,2,3,4,6,7,8,9-Octa CDD	9.64×10^{-12}	2.30×10^{-11}	3.48×10^{-12}	1.66×10^{-10}	4.28×10^{-12}	3.99×10^{-12}	3.99×10^{-10}	2.08×10^{-10}	1.03×10^{-9}	1.10×10^{-11}	1.26×10^{-9}
2378 - TCDF	5.81×10^{-11}	1.38×10^{-10}	2.10×10^{-11}	1.00×10^{-9}	2.58×10^{-11}	2.40×10^{-11}	2.40×10^{-9}	1.25×10^{-9}	6.22×10^{-9}	6.65×10^{-11}	7.61×10^{-9}
12378 - PeCDF	3.04×10^{-11}	7.24×10^{-11}	1.10×10^{-11}	5.24×10^{-10}	1.35×10^{-11}	1.26×10^{-11}	1.26×10^{-9}	6.56×10^{-10}	3.25×10^{-9}	3.47×10^{-11}	3.98×10^{-9}
23478 - PeCDF	5.23×10^{-11}	1.25×10^{-10}	1.89×10^{-11}	9.03×10^{-10}	2.32×10^{-11}	2.16×10^{-11}	2.16×10^{-9}	1.13×10^{-9}	5.60×10^{-9}	5.98×10^{-11}	6.85×10^{-9}
123478 - HxCDF	5.32×10^{-11}	1.27×10^{-10}	1.92×10^{-11}	9.18×10^{-10}	2.36×10^{-11}	2.20×10^{-11}	2.20×10^{-9}	1.15×10^{-9}	5.69×10^{-9}	6.08×10^{-11}	6.96×10^{-9}
123678 - HxCDF	2.86×10^{-11}	6.81×10^{-11}	1.03×10^{-11}	4.93×10^{-10}	1.27×10^{-11}	1.18×10^{-11}	1.18×10^{-9}	6.17×10^{-10}	3.06×10^{-9}	3.27×10^{-11}	3.74×10^{-9}
234678 - HxCDF	1.10×10^{-11}	2.63×10^{-11}	3.98×10^{-12}	1.91×10^{-10}	4.91×10^{-12}	4.57×10^{-12}	4.57×10^{-10}	2.38×10^{-10}	1.18×10^{-9}	1.26×10^{-11}	1.45×10^{-9}
123789 - HxCDF	1.15×10^{-12}	2.73×10^{-12}	4.14×10^{-13}	1.98×10^{-11}	5.10×10^{-13}	4.74×10^{-13}	4.75×10^{-11}	2.48×10^{-11}	1.23×10^{-10}	1.31×10^{-12}	1.50×10^{-10}
1234678 - HpCDF	4.34×10^{-11}	1.03×10^{-10}	1.56×10^{-11}	7.49×10^{-10}	1.93×10^{-11}	1.79×10^{-11}	1.79×10^{-9}	9.36×10^{-10}	4.64×10^{-9}	4.96×10^{-11}	5.68×10^{-9}
1234789 - HpCDF	4.90×10^{-12}	1.17×10^{-11}	1.77×10^{-12}	8.46×10^{-11}	2.18×10^{-12}	2.03×10^{-12}	2.03×10^{-10}	1.06×10^{-10}	5.25×10^{-10}	5.61×10^{-12}	6.42×10^{-10}
1,2,3,4,6,7,8,9-Octa CDF	4.49×10^{-12}	1.07×10^{-11}	1.62×10^{-12}	7.76×10^{-11}	2.00×10^{-12}	1.86×10^{-12}	1.86×10^{-10}	9.70×10^{-11}	4.81×10^{-10}	5.14×10^{-12}	5.89×10^{-10}
Total PCDD	1.35×10^{-10}	3.22×10^{-10}	4.87×10^{-11}	2.33×10^{-9}	6.00×10^{-11}	5.59×10^{-11}	5.59×10^{-9}	2.92×10^{-9}	1.45×10^{-8}	1.55×10^{-10}	1.77×10^{-8}
Total PCDF	9.42×10^{-10}	2.25×10^{-9}	3.40×10^{-10}	1.63×10^{-8}	4.19×10^{-10}	3.90×10^{-10}	3.90×10^{-8}	2.03×10^{-8}	1.01×10^{-7}	1.08×10^{-9}	1.23×10^{-7}
PCDD [TEQ][(a)]	1.03×10^{-11}	2.47×10^{-11}	3.73×10^{-12}	1.79×10^{-10}	4.60×10^{-12}	4.28×10^{-12}	4.28×10^{-10}	2.23×10^{-10}	1.11×10^{-9}	1.18×10^{-11}	1.36×10^{-9}
PCDF [TEQ][(a)]	3.23×10^{-11}	7.70×10^{-11}	1.16×10^{-11}	5.58×10^{-10}	1.43×10^{-11}	1.34×10^{-11}	1.34×10^{-9}	6.97×10^{-10}	3.46×10^{-9}	3.69×10^{-11}	4.23×10^{-9}

a) [TEQ] = toxic equivalency; µg/m^3 = micrograms per cubic metre.

CAMS = continuous air monitoring station; PCDD = polychlorinated dibenzo-p-dioxin; PCDF = polychlorinated dibenzofuran; TCDD = tetrachlorodibenzo-p-dioxin; TCDF = tetrachlorodibenzofuran; CDD = chlorinated dibenzo-p-dioxin; CDF = chlorinated dibenzofuran; HpCDD = heptachlorodibenzo-p-dioxin; HxCDD = hexachlorodibenzo-p-dioxin.

Table 7A2-11 Maximum 24-Hour Dioxin/Furan Predictions at Selected Locations
Part A

Maximum 24-hour (µg/m³)	13DDJPA	13DDJPB	CAMS Polar Explosives	Courageous Lake Lodge	Diavik Camp	Diavik Traditional Knowledge Camp	Ekati Airport Station	Ekati Camp / Administration	Koala Station	Lac de Gras Winter Road Rest Stop
2378 - TCDD	9.75×10^{-13}	1.07×10^{-12}	9.75×10^{-11}	1.68×10^{-13}	3.82×10^{-11}	3.09×10^{-12}	1.96×10^{-11}	2.61×10^{-11}	4.15×10^{-11}	3.39×10^{-12}
12378 - PeCDD	1.58×10^{-12}	1.73×10^{-12}	1.58×10^{-10}	2.72×10^{-13}	6.18×10^{-11}	5.00×10^{-12}	3.17×10^{-11}	4.23×10^{-11}	6.72×10^{-11}	5.49×10^{-12}
123478 - HxCDD	3.44×10^{-13}	3.78×10^{-13}	3.44×10^{-11}	5.93×10^{-14}	1.35×10^{-11}	1.09×10^{-12}	6.92×10^{-12}	9.23×10^{-12}	1.47×10^{-11}	1.20×10^{-12}
123678 - HxCDD	9.17×10^{-13}	1.01×10^{-12}	9.17×10^{-11}	1.58×10^{-13}	3.60×10^{-11}	2.91×10^{-12}	1.85×10^{-11}	2.46×10^{-11}	3.91×10^{-11}	3.19×10^{-12}
123789 - HxCDD	1.40×10^{-12}	1.54×10^{-12}	1.40×10^{-10}	2.42×10^{-13}	5.51×10^{-11}	4.45×10^{-12}	2.83×10^{-11}	3.77×10^{-11}	5.99×10^{-11}	4.89×10^{-12}
1234678 - HpCDD	2.60×10^{-12}	2.86×10^{-12}	2.61×10^{-10}	4.49×10^{-13}	1.02×10^{-10}	8.26×10^{-12}	5.24×10^{-11}	6.99×10^{-11}	1.11×10^{-10}	9.06×10^{-12}
1,2,3,4,6,7,8,9-Octa CDD	2.65×10^{-12}	2.91×10^{-12}	2.65×10^{-10}	4.57×10^{-13}	1.04×10^{-10}	8.40×10^{-12}	5.33×10^{-11}	7.11×10^{-11}	1.13×10^{-10}	9.22×10^{-12}
2378 - TCDF	1.60×10^{-11}	1.75×10^{-11}	1.60×10^{-9}	2.75×10^{-12}	6.26×10^{-10}	5.06×10^{-11}	3.21×10^{-10}	4.28×10^{-10}	6.81×10^{-10}	5.56×10^{-11}
12378 - PeCDF	8.35×10^{-12}	9.16×10^{-12}	8.35×10^{-10}	1.44×10^{-12}	3.27×10^{-10}	2.65×10^{-11}	1.68×10^{-10}	2.24×10^{-10}	3.56×10^{-10}	2.90×10^{-11}
23478 - PeCDF	1.44×10^{-11}	1.58×10^{-11}	1.44×10^{-9}	2.48×10^{-12}	5.64×10^{-10}	4.56×10^{-11}	2.89×10^{-10}	3.86×10^{-10}	6.13×10^{-10}	5.00×10^{-11}
123478 - HxCDF	1.46×10^{-11}	1.60×10^{-11}	1.46×10^{-9}	2.52×10^{-12}	5.73×10^{-10}	4.63×10^{-11}	2.94×10^{-10}	3.92×10^{-10}	6.23×10^{-10}	5.08×10^{-11}
123678 - HxCDF	7.85×10^{-12}	8.62×10^{-12}	7.85×10^{-10}	1.35×10^{-12}	3.08×10^{-10}	2.49×10^{-11}	1.58×10^{-10}	2.11×10^{-10}	3.35×10^{-10}	2.73×10^{-11}
234678 - HxCDF	3.04×10^{-12}	3.33×10^{-12}	3.04×10^{-10}	5.23×10^{-13}	1.19×10^{-10}	9.62×10^{-12}	6.11×10^{-11}	8.14×10^{-11}	1.29×10^{-10}	1.06×10^{-11}
123789 - HxCDF	3.15×10^{-13}	3.46×10^{-13}	3.15×10^{-11}	5.43×10^{-14}	1.24×10^{-11}	9.99×10^{-13}	6.35×10^{-12}	8.46×10^{-12}	1.34×10^{-11}	1.10×10^{-12}
1234678 - HpCDF	1.19×10^{-11}	1.31×10^{-11}	1.19×10^{-9}	2.05×10^{-12}	4.68×10^{-10}	3.78×10^{-11}	2.40×10^{-10}	3.20×10^{-10}	5.08×10^{-10}	4.15×10^{-11}
1234789 - HpCDF	1.35×10^{-12}	1.48×10^{-12}	1.35×10^{-10}	2.32×10^{-13}	5.28×10^{-11}	4.27×10^{-12}	2.71×10^{-11}	3.61×10^{-11}	5.74×10^{-11}	4.69×10^{-12}
1,2,3,4,6,7,8,9-Octa CDF	1.24×10^{-12}	1.36×10^{-12}	1.24×10^{-10}	2.13×10^{-13}	4.85×10^{-11}	3.92×10^{-12}	2.49×10^{-11}	3.31×10^{-11}	5.27×10^{-11}	4.30×10^{-12}
Total PCDD	3.71×10^{-11}	4.08×10^{-11}	3.72×10^{-9}	6.40×10^{-12}	1.46×10^{-9}	1.18×10^{-10}	7.48×10^{-10}	9.96×10^{-10}	1.58×10^{-9}	1.29×10^{-10}
Total PCDF	2.59×10^{-10}	2.84×10^{-10}	2.59×10^{-8}	4.46×10^{-11}	1.02×10^{-8}	8.21×10^{-10}	5.21×10^{-9}	6.95×10^{-9}	1.10×10^{-8}	9.01×10^{-10}
PCDD [TEQ][(a)]	2.84×10^{-12}	3.12×10^{-12}	2.84×10^{-10}	4.90×10^{-13}	1.12×10^{-10}	9.01×10^{-12}	5.72×10^{-11}	7.63×10^{-11}	1.21×10^{-10}	9.90×10^{-12}
PCDF [TEQ] [(a)]	8.87×10^{-12}	9.74×10^{-12}	8.88×10^{-10}	1.53×10^{-12}	3.48×10^{-10}	2.81×10^{-11}	1.79×10^{-10}	2.38×10^{-10}	3.78×10^{-10}	3.09×10^{-11}

a) [TEQ] = toxic equivalency; µg/m^3 = micrograms per cubic metre.

CAMS = continuous air monitoring station; PCDD = polychlorinated dibenzo-p-dioxin; PCDF = polychlorinated dibenzofuran; TCDD = tetrachlorodibenzo-p-dioxin; TCDF = tetrachlorodibenzofuran; CDD = chlorinated dibenzo-p-dioxin; CDF = chlorinated dibenzofuran; HpCDD = heptachlorodibenzo-p-dioxin; HxCDD = hexachlorodibenzo-p-dioxin.

Table 7A2-11 Maximum 24-Hour Dioxin/Furan Predictions at Selected Locations Part B

Maximum 24-hour (µg/m³)	Lac de Gras Hunting Camp	Misery Camp	Pellatt Lake Cabin	Polar Lake Station	Salmita Airstrip	Treeline Lodge	TSP1	TSP2	TSP3	Jay Pit Boundary	Maximum Point of Impingement
2378 - TCDD	9.56×10^{-13}	1.92×10^{-12}	1.72×10^{-13}	1.39×10^{-11}	3.72×10^{-13}	3.99×10^{-13}	2.62×10^{-11}	2.90×10^{-11}	5.28×10^{-11}	1.30×10^{-12}	1.65×10^{-10}
12378 - PeCDD	1.55×10^{-12}	3.11×10^{-12}	2.79×10^{-13}	2.24×10^{-11}	6.01×10^{-13}	6.46×10^{-13}	4.24×10^{-11}	4.69×10^{-11}	8.55×10^{-11}	2.10×10^{-12}	2.67×10^{-10}
123478 - HxCDD	3.37×10^{-13}	6.78×10^{-13}	6.09×10^{-14}	4.89×10^{-12}	1.31×10^{-13}	1.41×10^{-13}	9.25×10^{-12}	1.02×10^{-11}	1.86×10^{-11}	4.58×10^{-13}	5.83×10^{-11}
123678 - HxCDD	9.00×10^{-13}	1.81×10^{-12}	1.62×10^{-13}	1.30×10^{-11}	3.50×10^{-13}	3.76×10^{-13}	2.47×10^{-11}	2.73×10^{-11}	4.97×10^{-11}	1.22×10^{-12}	1.55×10^{-10}
123789 - HxCDD	1.38×10^{-12}	2.77×10^{-12}	2.49×10^{-13}	2.00×10^{-11}	5.35×10^{-13}	5.76×10^{-13}	3.78×10^{-11}	4.18×10^{-11}	7.62×10^{-11}	1.87×10^{-12}	2.38×10^{-10}
1234678 - HpCDD	2.56×10^{-12}	5.14×10^{-12}	4.61×10^{-13}	3.70×10^{-11}	9.93×10^{-13}	1.07×10^{-12}	7.01×10^{-11}	7.75×10^{-11}	1.41×10^{-10}	3.47×10^{-12}	4.41×10^{-10}
1,2,3,4,6,7,8,9-Octa CDD	2.60×10^{-12}	5.22×10^{-12}	4.69×10^{-13}	3.77×10^{-11}	1.01×10^{-12}	1.09×10^{-12}	7.13×10^{-11}	7.88×10^{-11}	1.44×10^{-10}	3.53×10^{-12}	4.49×10^{-10}
2378 - TCDF	1.57×10^{-11}	3.15×10^{-11}	2.83×10^{-12}	2.27×10^{-10}	6.09×10^{-12}	6.54×10^{-12}	4.30×10^{-10}	4.75×10^{-10}	8.66×10^{-10}	2.13×10^{-11}	2.71×10^{-9}
12378 - PeCDF	8.19×10^{-12}	1.65×10^{-11}	1.48×10^{-12}	1.19×10^{-10}	3.18×10^{-12}	3.42×10^{-12}	2.25×10^{-10}	2.48×10^{-10}	4.53×10^{-10}	1.11×10^{-11}	1.41×10^{-9}
23478 - PeCDF	1.41×10^{-11}	2.83×10^{-11}	2.54×10^{-12}	2.04×10^{-10}	5.48×10^{-12}	5.89×10^{-12}	3.87×10^{-10}	4.28×10^{-10}	7.79×10^{-10}	1.91×10^{-11}	2.44×10^{-9}
123478 - HxCDF	1.43×10^{-11}	2.88×10^{-11}	2.59×10^{-12}	2.08×10^{-10}	5.57×10^{-12}	5.99×10^{-12}	3.93×10^{-10}	4.35×10^{-10}	7.92×10^{-10}	1.95×10^{-11}	2.48×10^{-9}
123678 - HxCDF	7.70×10^{-12}	1.55×10^{-11}	1.39×10^{-12}	1.12×10^{-10}	2.99×10^{-12}	3.22×10^{-12}	2.11×10^{-10}	2.34×10^{-10}	4.26×10^{-10}	1.05×10^{-11}	1.33×10^{-9}
234678 - HxCDF	2.98×10^{-12}	5.98×10^{-12}	5.37×10^{-13}	4.31×10^{-11}	1.16×10^{-12}	1.24×10^{-12}	8.17×10^{-11}	9.03×10^{-11}	1.65×10^{-10}	4.04×10^{-12}	5.14×10^{-10}
123789 - HxCDF	3.09×10^{-13}	6.22×10^{-13}	5.58×10^{-14}	4.48×10^{-12}	1.20×10^{-13}	1.29×10^{-13}	8.48×10^{-12}	9.38×10^{-12}	1.71×10^{-11}	4.20×10^{-13}	5.34×10^{-11}
1234678 - HpCDF	1.17×10^{-11}	2.35×10^{-11}	2.11×10^{-12}	1.69×10^{-10}	4.54×10^{-12}	4.88×10^{-12}	3.21×10^{-10}	3.55×10^{-10}	6.46×10^{-10}	1.59×10^{-11}	2.02×10^{-9}
1234789 - HpCDF	1.32×10^{-12}	2.66×10^{-12}	2.38×10^{-13}	1.91×10^{-11}	5.13×10^{-13}	5.52×10^{-13}	3.62×10^{-11}	4.01×10^{-11}	7.30×10^{-11}	1.79×10^{-12}	2.28×10^{-10}
1,2,3,4,6,7,8,9-Octa CDF	1.21×10^{-12}	2.44×10^{-12}	2.19×10^{-13}	1.76×10^{-11}	4.71×10^{-13}	5.06×10^{-13}	3.32×10^{-11}	3.68×10^{-11}	6.70×10^{-11}	1.64×10^{-12}	2.09×10^{-10}
Total PCDD	3.64×10^{-11}	7.32×10^{-11}	6.57×10^{-12}	5.28×10^{-10}	1.42×10^{-11}	1.52×10^{-11}	9.99×10^{-10}	1.11×10^{-9}	2.01×10^{-9}	4.95×10^{-11}	6.29×10^{-9}
Total PCDF	2.54×10^{-10}	5.11×10^{-10}	4.58×10^{-11}	3.68×10^{-9}	9.87×10^{-11}	1.06×10^{-10}	6.97×10^{-9}	7.71×10^{-9}	1.40×10^{-8}	3.45×10^{-10}	4.39×10^{-8}
PCDD [TEQ][(a)]	2.79×10^{-12}	5.61×10^{-12}	5.03×10^{-13}	4.04×10^{-11}	1.08×10^{-12}	1.17×10^{-12}	7.65×10^{-11}	8.46×10^{-11}	1.54×10^{-10}	3.79×10^{-12}	4.82×10^{-10}
PCDF [TEQ] [(a)]	8.71×10^{-12}	1.75×10^{-11}	1.57×10^{-12}	1.26×10^{-10}	3.38×10^{-12}	3.64×10^{-12}	2.39×10^{-10}	2.64×10^{-10}	4.81×10^{-10}	1.18×10^{-11}	1.50×10^{-9}

a) [TEQ] = toxic equivalency; µg/m^3 = micrograms per cubic metre.

CAMS = continuous air monitoring station; PCDD = polychlorinated dibenzo-p-dioxin; PCDF = polychlorinated dibenzofuran; TCDD = tetrachlorodibenzo-p-dioxin; TCDF = tetrachlorodibenzofuran; CDD = chlorinated dibenzo-p-dioxin; CDF = chlorinated dibenzofuran; HpCDD = heptachlorodibenzo-p-dioxin; HxCDD = hexachlorodibenzo-p-dioxin.

Table 7A2-12 Maximum Annual Dioxin/Furan Predictions at Selected Locations
Part A

Maximum Annual (µg/m³)	13DDJPA	13DDJPB	CAMS Polar Explosives	Courageous Lake Lodge	Diavik Camp	Diavik Traditional Knowledge Camp	Ekati Airport Station	Ekati Camp / Administration	Koala Station	Lac de Gras Winter Road Rest Stop
2378 - TCDD	8.99×10^{-14}	9.43×10^{-14}	7.35×10^{-12}	9.67×10^{-15}	2.04×10^{-12}	1.57×10^{-13}	1.54×10^{-12}	2.00×10^{-12}	1.29×10^{-12}	1.62×10^{-13}
12378 - PeCDD	1.45×10^{-13}	1.53×10^{-13}	1.19×10^{-11}	1.56×10^{-14}	3.30×10^{-12}	2.55×10^{-13}	2.49×10^{-12}	3.23×10^{-12}	2.09×10^{-12}	2.62×10^{-13}
123478 - HxCDD	3.17×10^{-14}	3.33×10^{-14}	2.60×10^{-12}	3.41×10^{-15}	7.21×10^{-13}	5.56×10^{-14}	5.44×10^{-13}	7.05×10^{-13}	4.56×10^{-13}	5.71×10^{-14}
123678 - HxCDD	8.46×10^{-14}	8.87×10^{-14}	6.92×10^{-12}	9.09×10^{-15}	1.92×10^{-12}	1.48×10^{-13}	1.45×10^{-12}	1.88×10^{-12}	1.21×10^{-12}	1.52×10^{-13}
123789 - HxCDD	1.30×10^{-13}	1.36×10^{-13}	1.06×10^{-11}	1.39×10^{-14}	2.94×10^{-12}	2.27×10^{-13}	2.22×10^{-12}	2.88×10^{-12}	1.86×10^{-12}	2.33×10^{-13}
1234678 - HpCDD	2.40×10^{-13}	2.52×10^{-13}	1.97×10^{-11}	2.58×10^{-14}	5.46×10^{-12}	4.21×10^{-13}	4.12×10^{-12}	5.34×10^{-12}	3.45×10^{-12}	4.33×10^{-13}
1,2,3,4,6,7,8,9-Octa CDD	2.45×10^{-13}	2.56×10^{-13}	2.00×10^{-11}	2.63×10^{-14}	5.55×10^{-12}	4.28×10^{-13}	4.19×10^{-12}	5.43×10^{-12}	3.51×10^{-12}	4.40×10^{-13}
2378 - TCDF	1.47×10^{-12}	1.55×10^{-12}	1.21×10^{-10}	1.58×10^{-13}	3.35×10^{-11}	2.58×10^{-12}	2.52×10^{-11}	3.27×10^{-11}	2.12×10^{-11}	2.65×10^{-12}
12378 - PeCDF	7.70×10^{-13}	8.08×10^{-13}	6.30×10^{-11}	8.28×10^{-14}	1.75×10^{-11}	1.35×10^{-12}	1.32×10^{-11}	1.71×10^{-11}	1.11×10^{-11}	1.39×10^{-12}
23478 - PeCDF	1.33×10^{-12}	1.39×10^{-12}	1.08×10^{-10}	1.43×10^{-13}	3.01×10^{-11}	2.32×10^{-12}	2.27×10^{-11}	2.95×10^{-11}	1.90×10^{-11}	2.39×10^{-12}
123478 - HxCDF	1.35×10^{-12}	1.41×10^{-12}	1.10×10^{-10}	1.45×10^{-13}	3.06×10^{-11}	2.36×10^{-12}	2.31×10^{-11}	3.00×10^{-11}	1.94×10^{-11}	2.43×10^{-12}
123678 - HxCDF	7.24×10^{-13}	7.60×10^{-13}	5.92×10^{-11}	7.79×10^{-14}	1.65×10^{-11}	1.27×10^{-12}	1.24×10^{-11}	1.61×10^{-11}	1.04×10^{-11}	1.30×10^{-12}
234678 - HxCDF	2.80×10^{-13}	2.94×10^{-13}	2.29×10^{-11}	3.01×10^{-14}	6.36×10^{-12}	4.90×10^{-13}	4.80×10^{-12}	6.22×10^{-12}	4.02×10^{-12}	5.04×10^{-13}
123789 - HxCDF	2.91×10^{-14}	3.05×10^{-14}	2.38×10^{-12}	3.13×10^{-15}	6.61×10^{-13}	5.09×10^{-14}	4.98×10^{-13}	6.46×10^{-13}	4.18×10^{-13}	5.24×10^{-14}
1234678 - HpCDF	1.10×10^{-12}	1.15×10^{-12}	8.99×10^{-11}	1.18×10^{-13}	2.50×10^{-11}	1.93×10^{-12}	1.88×10^{-11}	2.44×10^{-11}	1.58×10^{-11}	1.98×10^{-12}
1234789 - HpCDF	1.24×10^{-13}	1.30×10^{-13}	1.02×10^{-11}	1.34×10^{-14}	2.82×10^{-12}	2.18×10^{-13}	2.13×10^{-12}	2.76×10^{-12}	1.78×10^{-12}	2.24×10^{-13}
1,2,3,4,6,7,8,9-Octa CDF	1.14×10^{-13}	1.20×10^{-13}	9.32×10^{-12}	1.23×10^{-14}	2.59×10^{-12}	2.00×10^{-13}	1.95×10^{-12}	2.53×10^{-12}	1.64×10^{-12}	2.05×10^{-13}
Total PCDD	3.43×10^{-12}	3.59×10^{-12}	2.80×10^{-10}	3.68×10^{-13}	7.79×10^{-11}	6.00×10^{-12}	5.87×10^{-11}	7.61×10^{-11}	4.92×10^{-11}	6.17×10^{-12}
Total PCDF	2.39×10^{-11}	2.51×10^{-11}	1.95×10^{-9}	2.57×10^{-12}	5.43×10^{-10}	4.18×10^{-11}	4.09×10^{-10}	5.31×10^{-10}	3.43×10^{-10}	4.30×10^{-11}
PCDD [TEQ][(a)]	2.63×10^{-13}	2.75×10^{-13}	2.15×10^{-11}	2.82×10^{-14}	5.96×10^{-12}	4.59×10^{-13}	4.49×10^{-12}	5.83×10^{-12}	3.77×10^{-12}	4.73×10^{-13}
PCDF [TEQ] [(a)]	8.19×10^{-13}	8.59×10^{-13}	6.70×10^{-11}	8.80×10^{-14}	1.86×10^{-11}	1.43×10^{-12}	1.40×10^{-11}	1.82×10^{-11}	1.18×10^{-11}	1.47×10^{-12}

a) [TEQ] = toxic equivalency; µg/m^3 = micrograms per cubic metre.

CAMS = continuous air monitoring station; PCDD = polychlorinated dibenzo-p-dioxin; PCDF = polychlorinated dibenzofuran; TCDD = tetrachlorodibenzo-p-dioxin; TCDF = tetrachlorodibenzofuran; CDD = chlorinated dibenzo-p-dioxin; CDF = chlorinated dibenzofuran; HpCDD = heptachlorodibenzo-p-dioxin; HxCDD = hexachlorodibenzo-p-dioxin.

Table 7A2-12 Maximum Annual Dioxin/Furan Average Predictions at Selected Locations Part B

Maximum Annual (µg/m³)	Lac de Gras Hunting Camp	Misery Camp	Pellatt Lake Cabin	Polar Lake Station	Salmita Airstrip	Treeline Lodge	TSP1	TSP2	TSP3	Jay Pit Boundary	Maximum Point of Impingement
2378 - TCDD	8.23×10^{-14}	1.49×10^{-13}	1.53×10^{-14}	8.06×10^{-13}	1.37×10^{-14}	1.28×10^{-14}	2.04×10^{-12}	8.91×10^{-13}	4.28×10^{-12}	1.20×10^{-13}	8.79×10^{-12}
12378 - PeCDD	1.33×10^{-13}	2.41×10^{-13}	2.47×10^{-14}	1.30×10^{-12}	2.22×10^{-14}	2.06×10^{-14}	3.30×10^{-12}	1.44×10^{-12}	6.92×10^{-12}	1.95×10^{-13}	1.42×10^{-11}
123478 - HxCDD	2.91×10^{-14}	5.26×10^{-14}	5.39×10^{-15}	2.84×10^{-13}	4.85×10^{-15}	4.50×10^{-15}	7.20×10^{-13}	3.15×10^{-13}	1.51×10^{-12}	4.25×10^{-14}	3.10×10^{-12}
123678 - HxCDD	7.75×10^{-14}	1.40×10^{-13}	1.44×10^{-14}	7.58×10^{-13}	1.29×10^{-14}	1.20×10^{-14}	1.92×10^{-12}	8.38×10^{-13}	4.02×10^{-12}	1.13×10^{-13}	8.27×10^{-12}
123789 - HxCDD	1.19×10^{-13}	2.15×10^{-13}	2.20×10^{-14}	1.16×10^{-12}	1.98×10^{-14}	1.84×10^{-14}	2.94×10^{-12}	1.28×10^{-12}	6.16×10^{-12}	1.74×10^{-13}	1.27×10^{-11}
1234678 - HpCDD	2.20×10^{-13}	3.98×10^{-13}	4.08×10^{-14}	2.15×10^{-12}	3.67×10^{-14}	3.41×10^{-14}	5.45×10^{-12}	2.38×10^{-12}	1.14×10^{-11}	3.22×10^{-13}	2.35×10^{-11}
1,2,3,4,6,7,8,9-Octa CDD	2.24×10^{-13}	4.05×10^{-13}	4.15×10^{-14}	2.19×10^{-12}	3.73×10^{-14}	3.47×10^{-14}	5.55×10^{-12}	2.42×10^{-12}	1.16×10^{-11}	3.28×10^{-13}	2.39×10^{-11}
2378 - TCDF	1.35×10^{-12}	2.44×10^{-12}	2.50×10^{-13}	1.32×10^{-11}	2.25×10^{-13}	2.09×10^{-13}	3.34×10^{-11}	1.46×10^{-11}	7.01×10^{-11}	1.97×10^{-12}	1.44×10^{-10}
12378 - PeCDF	7.05×10^{-13}	1.28×10^{-12}	1.31×10^{-13}	6.90×10^{-12}	1.18×10^{-13}	1.09×10^{-13}	1.75×10^{-11}	7.63×10^{-12}	3.66×10^{-11}	1.03×10^{-12}	7.53×10^{-11}
23478 - PeCDF	1.21×10^{-12}	2.20×10^{-12}	2.25×10^{-13}	1.19×10^{-11}	2.03×10^{-13}	1.88×10^{-13}	3.01×10^{-11}	1.31×10^{-11}	6.31×10^{-11}	1.78×10^{-12}	1.30×10^{-10}
123478 - HxCDF	1.23×10^{-12}	2.23×10^{-12}	2.29×10^{-13}	1.21×10^{-11}	2.06×10^{-13}	1.91×10^{-13}	3.06×10^{-11}	1.34×10^{-11}	6.41×10^{-11}	1.81×10^{-12}	1.32×10^{-10}
123678 - HxCDF	6.63×10^{-13}	1.20×10^{-12}	1.23×10^{-13}	6.49×10^{-12}	1.11×10^{-13}	1.03×10^{-13}	1.64×10^{-11}	7.18×10^{-12}	3.44×10^{-11}	9.70×10^{-13}	7.08×10^{-11}
234678 - HxCDF	2.56×10^{-13}	4.64×10^{-13}	4.76×10^{-14}	2.51×10^{-12}	4.28×10^{-14}	3.97×10^{-14}	6.35×10^{-12}	2.78×10^{-12}	1.33×10^{-11}	3.75×10^{-13}	2.74×10^{-11}
123789 - HxCDF	2.66×10^{-14}	4.82×10^{-14}	4.94×10^{-15}	2.61×10^{-13}	4.44×10^{-15}	4.13×10^{-15}	6.60×10^{-13}	2.88×10^{-13}	1.38×10^{-12}	3.90×10^{-14}	2.84×10^{-12}
1234678 - HpCDF	1.01×10^{-12}	1.82×10^{-12}	1.87×10^{-13}	9.86×10^{-12}	1.68×10^{-13}	1.56×10^{-13}	2.50×10^{-11}	1.09×10^{-11}	5.23×10^{-11}	1.47×10^{-12}	1.08×10^{-10}
1234789 - HpCDF	1.14×10^{-13}	2.06×10^{-13}	2.11×10^{-14}	1.11×10^{-12}	1.90×10^{-14}	1.76×10^{-14}	2.82×10^{-12}	1.23×10^{-12}	5.91×10^{-12}	1.67×10^{-13}	1.21×10^{-11}
1,2,3,4,6,7,8,9-Octa CDF	1.04×10^{-13}	1.89×10^{-13}	1.94×10^{-14}	1.02×10^{-12}	1.74×10^{-14}	1.62×10^{-14}	2.59×10^{-12}	1.13×10^{-12}	5.42×10^{-12}	1.53×10^{-13}	1.11×10^{-11}
Total PCDD	3.14×10^{-12}	5.68×10^{-12}	5.82×10^{-13}	3.07×10^{-11}	5.23×10^{-13}	4.86×10^{-13}	7.78×10^{-11}	3.40×10^{-11}	1.63×10^{-10}	4.59×10^{-12}	3.35×10^{-10}
Total PCDF	2.19×10^{-11}	3.96×10^{-11}	4.06×10^{-12}	2.14×10^{-10}	3.65×10^{-12}	3.39×10^{-12}	5.42×10^{-10}	2.37×10^{-10}	1.14×10^{-9}	3.20×10^{-11}	2.34×10^{-9}
PCDD [TEQ][(a)]	2.40×10^{-13}	4.35×10^{-13}	4.46×10^{-14}	2.35×10^{-12}	4.01×10^{-14}	3.72×10^{-14}	5.95×10^{-12}	2.60×10^{-12}	1.25×10^{-11}	3.52×10^{-13}	2.57×10^{-11}
PCDF [TEQ] [(a)]	7.50×10^{-13}	1.36×10^{-12}	1.39×10^{-13}	7.34×10^{-12}	1.25×10^{-13}	1.16×10^{-13}	1.86×10^{-11}	8.12×10^{-12}	3.89×10^{-11}	1.10×10^{-12}	8.00×10^{-11}

a) [TEQ] = toxic equivalency; µg/m^3 = micrograms per cubic metre.

CAMS = continuous air monitoring station; PCDD = polychlorinated dibenzo-p-dioxin; PCDF = polychlorinated dibenzofuran; TCDD = tetrachlorodibenzo-p-dioxin; TCDF = tetrachlorodibenzofuran; CDD = chlorinated dibenzo-p-dioxin; CDF = chlorinated dibenzofuran; HpCDD = heptachlorodibenzo-p-dioxin; HxCDD = hexachlorodibenzo-p-dioxin.

Table 7A2-13 Maximum 1-Hour Polycyclic Aromatic Hydrocarbon Predictions at Selected Locations
Part A

Maximum 1-hour (µg/m³)	13DDJPA		13DDJPB		CAMS Polar Explosives		Courageous Lake Lodge		Diavik Camp		Diavik Traditional Knowledge Camp		Ekati Airport Station	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
1-methylnaphthalene	0.00090	0.05301	0.00084	0.05278	0.00202	0.00467	0.00007	0.00021	0.00679	0.00740	0.00260	0.00288	0.00214	0.00638
1-methylphenanthrene	0.00004	0.00238	0.00004	0.00237	0.00009	0.00021	0.00000	0.00001	0.00031	0.00033	0.00012	0.00013	0.00010	0.00029
2-methylanthracene	0.00002	0.00146	0.00002	0.00145	0.00006	0.00013	0.00000	0.00001	0.00019	0.00020	0.00007	0.00008	0.00006	0.00018
2-methylfluorene	0.00000	0.00005	0.00000	0.00005	0.00000	0.00000	0.00000	0.00000	0.00001	0.00001	0.00000	0.00000	0.00000	0.00001
2-methylnaphthalene	0.00145	0.08569	0.00136	0.08532	0.00326	0.00755	0.00012	0.00034	0.01098	0.01196	0.00421	0.00466	0.00346	0.01031
2-methylphenanthrene	0.00010	0.00589	0.00009	0.00586	0.00022	0.00052	0.00001	0.00002	0.00075	0.00082	0.00029	0.00032	0.00024	0.00071
2-methylpyrene	0.00001	0.00044	0.00001	0.00043	0.00002	0.00004	0.00000	0.00000	0.00006	0.00006	0.00002	0.00002	0.00002	0.00005
3-methyldibenzothiophene	0.00000	0.00009	0.00000	0.00009	0.00000	0.00001	0.00000	0.00000	0.00001	0.00001	0.00000	0.00000	0.00000	0.00001
3-methylphenanthrene	0.00007	0.00425	0.00007	0.00423	0.00016	0.00037	0.00001	0.00002	0.00054	0.00059	0.00021	0.00023	0.00017	0.00051
4-methylphenanthrene plus 9-methylphenanthrene	0.00005	0.00321	0.00005	0.00320	0.00012	0.00028	0.00000	0.00001	0.00041	0.00045	0.00016	0.00017	0.00013	0.00039
4-methyldibenzothiophene	0.00000	0.00006	0.00000	0.00006	0.00000	0.00001	0.00000	0.00000	0.00001	0.00001	0.00000	0.00000	0.00000	0.00001
9-methylphenanthrene	0.00000	0.00000	0.00000	0.00000	0.00001	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Acenaphthene	0.00570	0.00570	0.00534	0.00541	0.00302	0.00304	0.00055	0.00055	0.08402	0.08403	0.02513	0.02513	0.00322	0.00322
Acenaphthylene	0.00032	0.00983	0.00039	0.00979	0.00169	0.00170	0.00005	0.00007	0.01360	0.01360	0.00071	0.00071	0.00192	0.00194
Acephenanthrylene	0.00003	0.00168	0.00003	0.00168	0.00006	0.00015	0.00000	0.00001	0.00022	0.00023	0.00008	0.00009	0.00007	0.00020
Anthracene	0.00035	0.00175	0.00034	0.00175	0.00023	0.00023	0.00004	0.00004	0.00490	0.00491	0.00150	0.00150	0.00026	0.00026
Benz(a)anthracene	0.00108	0.00108	0.00101	0.00102	0.00057	0.00058	0.00010	0.00010	0.01596	0.01597	0.00477	0.00477	0.00061	0.00061
Benzo(a)fluorene	0.00001	0.00053	0.00001	0.00053	0.00002	0.00005	0.00000	0.00000	0.00007	0.00007	0.00003	0.00003	0.00002	0.00006
Benzo(a)pyrene	0.00001	0.00023	0.00001	0.00023	0.00005	0.00005	0.00000	0.00000	0.00038	0.00038	0.00002	0.00002	0.00005	0.00005
Benzo(b)fluoranthene	0.00042	0.00194	0.00040	0.00193	0.00023	0.00025	0.00004	0.00005	0.00594	0.00595	0.00181	0.00181	0.00024	0.00028
Benzo(e)pyrene	0.00000	0.00003	0.00000	0.00003	0.00001	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Benzo(g,h,i)fluoranthene	0.00001	0.00082	0.00001	0.00081	0.00003	0.00007	0.00000	0.00000	0.00010	0.00011	0.00004	0.00004	0.00003	0.00010
Benzo(g,h,i)perylene	0.00061	0.00061	0.00057	0.00064	0.00032	0.00033	0.00006	0.00006	0.00901	0.00901	0.00270	0.00270	0.00035	0.00035
Benzo(k)fluoranthene	0.00001	0.00022	0.00001	0.00022	0.00004	0.00004	0.00000	0.00000	0.00032	0.00032	0.00002	0.00002	0.00005	0.00005
Biphenyl	0.00000	0.00000	0.00000	0.00000	0.00004	0.00004	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00001	0.00001
Chrysene	0.00065	0.00065	0.00062	0.00065	0.00035	0.00035	0.00007	0.00007	0.00948	0.00948	0.00284	0.00284	0.00037	0.00037
Coronene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cyclopenta(c,d)pyrene	0.00000	0.00029	0.00000	0.00029	0.00001	0.00003	0.00000	0.00000	0.00004	0.00004	0.00001	0.00002	0.00001	0.00003
Dibenzo(a,h)anthracene	0.00045	0.00062	0.00042	0.00065	0.00024	0.00025	0.00004	0.00004	0.00666	0.00666	0.00200	0.00200	0.00026	0.00026
Dibenzothiophene	0.00000	0.00003	0.00000	0.00003	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Fluoranthene	0.00138	0.00743	0.00132	0.00740	0.00076	0.00089	0.00014	0.00016	0.01946	0.01949	0.00595	0.00596	0.00085	0.00104
Fluorene	0.00144	0.01400	0.00142	0.01394	0.00235	0.00237	0.00018	0.00020	0.02729	0.02734	0.00570	0.00571	0.00267	0.00269

Table 7A2-13 Maximum 1-Hour Polycyclic Aromatic Hydrocarbon Predictions at Selected Locations
Part A

Maximum 1-hour (µg/m³)	13DDJPA		13DDJPB		CAMS Polar Explosives		Courageous Lake Lodge		Diavik Camp		Diavik Traditional Knowledge Camp		Ekati Airport Station	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
Indeno(1,2,3-cd)fluoranthene	0.00000	0.00002	0.00000	0.00002	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Indeno(1,2,3-cd)pyrene	0.00058	0.00058	0.00054	0.00054	0.00030	0.00030	0.00005	0.00005	0.00851	0.00851	0.00254	0.00254	0.00032	0.00032
Indeno(1,2,3-w)pyrene	0.00001	0.00037	0.00001	0.00037	0.00001	0.00003	0.00000	0.00000	0.00005	0.00005	0.00002	0.00002	0.00001	0.00004
Naphthalene	0.30509	0.30488	0.28430	0.30433	0.16137	0.16302	0.02883	0.02916	4.50137	4.50210	1.34769	1.34781	0.17185	0.17244
Nitro-pyrene	0.00001	0.00033	0.00001	0.00033	0.00001	0.00003	0.00000	0.00000	0.00004	0.00005	0.00002	0.00002	0.00001	0.00004
Perylene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Phenanthrene	0.00344	0.01306	0.00342	0.01301	0.00743	0.00744	0.00045	0.00047	0.07730	0.07735	0.01286	0.01286	0.00843	0.00845
Picene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Pyrene	0.00123	0.01008	0.00118	0.01004	0.00070	0.00104	0.00013	0.00015	0.01719	0.01722	0.00533	0.00533	0.00079	0.00132

CAMS = continuous air monitoring station; µg/m³ = micrograms per cubic metre.

Table 7A2-13 Maximum 1-Hour Polycyclic Aromatic Hydrocarbon Predictions at Selected Locations Part B

Maximum 1-hour (µg/m³)	Ekati Camp/Administration		Koala Station		Lac de Gras Winter Road Rest Stop		Lac de Gras Hunting Camp		Misery Camp		Pellatt Lake Cabin		Polar Lake Station	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
1-methylnaphthalene	0.00259	0.00913	0.00166	0.00257	0.00079	0.00122	0.00097	0.00261	0.00401	0.01154	0.00012	0.00057	0.00139	0.00223
1-methylphenanthrene	0.00012	0.00041	0.00007	0.00012	0.00004	0.00006	0.00004	0.00012	0.00018	0.00052	0.00001	0.00003	0.00006	0.00010
2-methylanthracene	0.00007	0.00025	0.00005	0.00007	0.00002	0.00003	0.00003	0.00007	0.00011	0.00032	0.00000	0.00002	0.00004	0.00006
2-methylfluorene	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000
2-methylnaphthalene	0.00419	0.01476	0.00268	0.00416	0.00128	0.00198	0.00157	0.00421	0.00649	0.01866	0.00020	0.00091	0.00225	0.00361
2-methylphenanthrene	0.00029	0.00101	0.00018	0.00029	0.00009	0.00014	0.00011	0.00029	0.00045	0.00128	0.00001	0.00006	0.00015	0.00025
2-methylpyrene	0.00002	0.00008	0.00001	0.00002	0.00001	0.00001	0.00001	0.00002	0.00003	0.00010	0.00000	0.00000	0.00001	0.00002
3-methyldibenzothiophene	0.00000	0.00002	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00001	0.00002	0.00000	0.00000	0.00000	0.00000
3-methylphenanthrene	0.00021	0.00073	0.00013	0.00021	0.00006	0.00010	0.00008	0.00021	0.00032	0.00093	0.00001	0.00005	0.00011	0.00018
4-methylphenanthrene plus 9-methylphenanthrene	0.00016	0.00055	0.00010	0.00016	0.00005	0.00007	0.00006	0.00016	0.00024	0.00070	0.00001	0.00003	0.00008	0.00014
4-methyldibenzothiophene	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000
9-methylphenanthrene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Acenaphthene	0.00316	0.00316	0.00418	0.00420	0.01367	0.01367	0.00902	0.00902	0.02128	0.02125	0.00105	0.00106	0.00416	0.00418
Acenaphthylene	0.00164	0.00171	0.00075	0.00076	0.00060	0.00060	0.00031	0.00048	0.00087	0.00215	0.00005	0.00012	0.00057	0.00057
Acephenanthrylene	0.00008	0.00029	0.00005	0.00008	0.00003	0.00004	0.00003	0.00008	0.00013	0.00037	0.00000	0.00002	0.00004	0.00007
Anthracene	0.00023	0.00035	0.00026	0.00027	0.00081	0.00081	0.00053	0.00053	0.00128	0.00126	0.00006	0.00008	0.00026	0.00027
Benz(a)anthracene	0.00060	0.00060	0.00079	0.00079	0.00260	0.00260	0.00171	0.00171	0.00404	0.00404	0.00020	0.00020	0.00079	0.00079
Benzo(a)fluorene	0.00003	0.00009	0.00002	0.00003	0.00001	0.00001	0.00001	0.00003	0.00004	0.00012	0.00000	0.00001	0.00001	0.00002
Benzo(a)pyrene	0.00005	0.00005	0.00002	0.00002	0.00002	0.00002	0.00001	0.00001	0.00002	0.00005	0.00000	0.00000	0.00002	0.00002
Benzo(b)fluoranthene	0.00023	0.00039	0.00031	0.00032	0.00098	0.00098	0.00064	0.00064	0.00154	0.00152	0.00008	0.00009	0.00031	0.00032
Benzo(e)pyrene	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000
Benzo(g,h,i)fluoranthene	0.00004	0.00014	0.00003	0.00004	0.00001	0.00002	0.00001	0.00004	0.00006	0.00018	0.00000	0.00001	0.00002	0.00003
Benzo(g,h,i)perylene	0.00034	0.00034	0.00045	0.00045	0.00147	0.00147	0.00097	0.00097	0.00229	0.00228	0.00011	0.00012	0.00045	0.00045
Benzo(k)fluoranthene	0.00004	0.00004	0.00002	0.00002	0.00001	0.00001	0.00001	0.00001	0.00002	0.00005	0.00000	0.00000	0.00001	0.00001
Biphenyl	0.00001	0.00001	0.00001	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Chrysene	0.00036	0.00036	0.00048	0.00048	0.00154	0.00154	0.00102	0.00102	0.00241	0.00240	0.00012	0.00012	0.00047	0.00047
Coronene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cyclopenta(c,d)pyrene	0.00001	0.00005	0.00001	0.00001	0.00000	0.00001	0.00001	0.00001	0.00002	0.00006	0.00000	0.00000	0.00001	0.00001
Dibenzo(a,h)anthracene	0.00025	0.00025	0.00033	0.00034	0.00109	0.00109	0.00072	0.00072	0.00170	0.00169	0.00008	0.00009	0.00033	0.00034
Dibenzothiophene	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000
Fluoranthene	0.00076	0.00148	0.00102	0.00108	0.00321	0.00322	0.00209	0.00209	0.00508	0.00499	0.00025	0.00031	0.00102	0.00106
Fluorene	0.00230	0.00260	0.00105	0.00116	0.00304	0.00305	0.00210	0.00210	0.00489	0.00473	0.00026	0.00036	0.00110	0.00118

Table 7A2-13 Maximum 1-Hour Polycyclic Aromatic Hydrocarbon Predictions at Selected Locations Part B

Maximum 1-hour (µg/m³)	Ekati Camp/Administration		Koala Station		Lac de Gras Winter Road Rest Stop		Lac de Gras Hunting Camp		Misery Camp		Pellatt Lake Cabin		Polar Lake Station	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
indeno(1,2,3-cd)fluoranthene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
indeno(1,2,3-cd)pyrene	0.00032	0.00032	0.00042	0.00042	0.00138	0.00138	0.00091	0.00091	0.00215	0.00215	0.00011	0.00011	0.00042	0.00042
indeno(1,2,3-w)pyrene	0.00002	0.00006	0.00001	0.00002	0.00001	0.00001	0.00001	0.00002	0.00003	0.00008	0.00000	0.00000	0.00001	0.00002
Naphthalene	0.16870	0.16930	0.22336	0.22500	0.73261	0.73280	0.48327	0.48327	1.14168	1.13925	0.05598	0.05706	0.22353	0.22471
Nitro-pyrene	0.00002	0.00006	0.00001	0.00002	0.00000	0.00001	0.00001	0.00002	0.00002	0.00007	0.00000	0.00000	0.00001	0.00001
Perylene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Phenanthrene	0.00721	0.00723	0.00330	0.00331	0.00693	0.00694	0.00489	0.00489	0.01093	0.01078	0.00059	0.00065	0.00260	0.00268
Picene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Pyrene	0.00070	0.00191	0.00092	0.00100	0.00286	0.00287	0.00186	0.00186	0.00456	0.00444	0.00023	0.00031	0.00092	0.00098

µg/m³ = micrograms per cubic metre.

Table 7A2-13 Maximum 1-Hour Polycyclic Aromatic Hydrocarbon Predictions at Selected Locations Part C

Maximum 1-hour (µg/m³)	Salmita Airstrip		Treeline Lodge		TSP1		TSP2		TSP3		Jay Pit Boundary		Maximum Point of Impingement	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
1-methylnaphthalene	0.00014	0.00028	0.00011	0.00026	0.00262	0.00921	0.00163	0.00215	0.00116	0.00285	0.00162	0.09439	0.01261	0.09439
1-methylphenanthrene	0.00001	0.00001	0.00000	0.00001	0.00012	0.00041	0.00007	0.00010	0.00005	0.00013	0.00007	0.00424	0.00057	0.00424
2-methylanthracene	0.00000	0.00001	0.00000	0.00001	0.00007	0.00025	0.00004	0.00006	0.00003	0.00008	0.00004	0.00260	0.00035	0.00260
2-methylfluorene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00009	0.00001	0.00009
2-methylnaphthalene	0.00023	0.00046	0.00018	0.00043	0.00423	0.01489	0.00263	0.00347	0.00187	0.00460	0.00262	0.15256	0.02039	0.15256
2-methylphenanthrene	0.00002	0.00003	0.00001	0.00003	0.00029	0.00102	0.00018	0.00024	0.00013	0.00032	0.00018	0.01049	0.00140	0.01049
2-methylpyrene	0.00000	0.00000	0.00000	0.00000	0.00002	0.00008	0.00001	0.00002	0.00001	0.00002	0.00001	0.00078	0.00010	0.00078
3-methyldibenzothiophene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00002	0.00000	0.00000	0.00000	0.00000	0.00000	0.00016	0.00002	0.00016
3-methylphenanthrene	0.00001	0.00002	0.00001	0.00002	0.00021	0.00074	0.00013	0.00017	0.00009	0.00023	0.00013	0.00757	0.00101	0.00757
4-methylphenanthrene plus 9-methylphenanthrene	0.00001	0.00002	0.00001	0.00002	0.00016	0.00056	0.00010	0.00013	0.00007	0.00017	0.00010	0.00572	0.00076	0.00572
4-methyldibenzothiophene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00010	0.00001	0.00010
9-methylphenanthrene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00001	0.00001	0.00000	0.00000	0.00001	0.00001
Acenaphthene	0.00140	0.00140	0.00139	0.00140	0.00314	0.00315	0.00433	0.00435	0.00291	0.00293	0.00934	0.00934	0.19387	0.19388
Acenaphthylene	0.00008	0.00010	0.00008	0.00011	0.00167	0.00172	0.00084	0.00085	0.00090	0.00090	0.00047	0.01751	0.01364	0.01751
Acephenanthrylene	0.00000	0.00001	0.00000	0.00001	0.00008	0.00029	0.00005	0.00007	0.00004	0.00009	0.00005	0.00300	0.00040	0.00300
Anthracene	0.00009	0.00009	0.00009	0.00009	0.00023	0.00035	0.00028	0.00029	0.00018	0.00019	0.00056	0.00314	0.01142	0.01143
Benz(a)anthracene	0.00026	0.00027	0.00026	0.00026	0.00060	0.00060	0.00082	0.00082	0.00055	0.00055	0.00177	0.00177	0.03683	0.03683
Benzo(a)fluorene	0.00000	0.00000	0.00000	0.00000	0.00003	0.00009	0.00002	0.00002	0.00001	0.00003	0.00002	0.00094	0.00013	0.00094
Benzo(a)pyrene	0.00000	0.00000	0.00000	0.00000	0.00005	0.00005	0.00002	0.00002	0.00002	0.00002	0.00001	0.00041	0.00036	0.00041
Benzo(b)fluoranthene	0.00010	0.00011	0.00010	0.00011	0.00023	0.00040	0.00033	0.00034	0.00022	0.00023	0.00067	0.00348	0.01383	0.01384
Benzo(e)pyrene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00006	0.00001	0.00006
Benzo(g,h,i)fluoranthene	0.00000	0.00000	0.00000	0.00000	0.00004	0.00014	0.00003	0.00003	0.00002	0.00004	0.00002	0.00145	0.00019	0.00145
Benzo(g,h,i)perylene	0.00015	0.00015	0.00015	0.00015	0.00034	0.00034	0.00047	0.00047	0.00031	0.00032	0.00100	0.00100	0.02080	0.02080
Benzo(k)fluoranthene	0.00000	0.00000	0.00000	0.00000	0.00004	0.00004	0.00002	0.00002	0.00002	0.00002	0.00001	0.00039	0.00031	0.00039
Biphenyl	0.00000	0.00000	0.00000	0.00000	0.00001	0.00001	0.00001	0.00001	0.00003	0.00003	0.00000	0.00000	0.00003	0.00003
Chrysene	0.00016	0.00016	0.00016	0.00016	0.00036	0.00036	0.00051	0.00051	0.00033	0.00034	0.00105	0.00106	0.02189	0.02189
Coronene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00001	0.00000	0.00001
Cyclopenta(c,d)pyrene	0.00000	0.00000	0.00000	0.00000	0.00001	0.00005	0.00001	0.00001	0.00001	0.00002	0.00001	0.00051	0.00007	0.00051
Dibenzo(a,h)anthracene	0.00011	0.00011	0.00011	0.00011	0.00025	0.00025	0.00035	0.00035	0.00023	0.00024	0.00074	0.00111	0.01540	0.01540
Dibenzothiophene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00006	0.00001	0.00006
Fluoranthene	0.00034	0.00036	0.00035	0.00037	0.00076	0.00149	0.00108	0.00113	0.00072	0.00076	0.00221	0.01331	0.04538	0.04542
Fluorene	0.00037	0.00040	0.00038	0.00042	0.00233	0.00262	0.00119	0.00127	0.00125	0.00124	0.00211	0.02499	0.04286	0.04294

Table 7A2-13 Maximum 1-Hour Polycyclic Aromatic Hydrocarbon Predictions at Selected Locations Part C

Maximum 1-hour (µg/m³)	Salmita Airstrip		Treeline Lodge		TSP1		TSP2		TSP3		Jay Pit Boundary		Maximum Point of Impingement	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
Indeno(1,2,3-cd)fluoranthene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00004	0.00000	0.00004
Indeno(1,2,3-cd)pyrene	0.00014	0.00014	0.00014	0.00014	0.00032	0.00032	0.00044	0.00044	0.00029	0.00029	0.00094	0.00094	0.01963	0.01963
Indeno(1,2,3-w)pyrene	0.00000	0.00000	0.00000	0.00000	0.00002	0.00006	0.00001	0.00001	0.00001	0.00002	0.00001	0.00066	0.00009	0.00066
Naphthalene	0.07480	0.07549	0.07384	0.07444	0.16808	0.16867	0.23170	0.23291	0.15575	0.15678	0.50074	0.50116	10.39116	10.39240
Nitro-pyrene	0.00000	0.00000	0.00000	0.00000	0.00002	0.00006	0.00001	0.00001	0.00001	0.00002	0.00001	0.00058	0.00008	0.00058
Perylene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00001	0.00000	0.00001
Phenanthrene	0.00086	0.00090	0.00091	0.00094	0.00733	0.00735	0.00370	0.00370	0.00393	0.00393	0.00481	0.02342	0.09804	0.09812
Picene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00001	0.00000	0.00001
Pyrene	0.00031	0.00034	0.00031	0.00034	0.00071	0.00193	0.00098	0.00104	0.00066	0.00073	0.00198	0.01802	0.04032	0.04038

µg/m³ = micrograms per cubic metre.

Table 7A2-14 Maximum 24-Hour Polycyclic Aromatic Hydrocarbon Predictions at Selected Locations
Part A

Maximum 24-hour (µg/m³)	13DDJPA		13DDJPB		CAMS Polar Explosives		Courageous Lake Lodge		Diavik Camp		Diavik Traditional Knowledge Camp		Ekati Airport Station	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
1-methylnaphthalene	0.00027	0.02212	0.00024	0.01367	0.00081	0.00217	0.00002	0.00006	0.00320	0.00334	0.00105	0.00106	0.00140	0.00423
1-methylphenanthrene	0.00001	0.00099	0.00001	0.00061	0.00004	0.00010	0.00000	0.00000	0.00014	0.00015	0.00005	0.00005	0.00006	0.00019
2-methylanthracene	0.00001	0.00061	0.00001	0.00038	0.00002	0.00006	0.00000	0.00000	0.00009	0.00009	0.00003	0.00003	0.00004	0.00012
2-methylfluorene	0.00000	0.00002	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
2-methylnaphthalene	0.00043	0.03576	0.00039	0.02209	0.00130	0.00351	0.00003	0.00009	0.00518	0.00540	0.00169	0.00171	0.00226	0.00683
2-methylphenanthrene	0.00003	0.00246	0.00003	0.00152	0.00009	0.00024	0.00000	0.00001	0.00036	0.00037	0.00012	0.00012	0.00016	0.00047
2-methylpyrene	0.00000	0.00018	0.00000	0.00011	0.00001	0.00002	0.00000	0.00000	0.00003	0.00003	0.00001	0.00001	0.00001	0.00003
3-methyldibenzothiophene	0.00000	0.00004	0.00000	0.00002	0.00000	0.00000	0.00000	0.00000	0.00001	0.00001	0.00000	0.00000	0.00000	0.00001
3-methylphenanthrene	0.00002	0.00177	0.00002	0.00110	0.00006	0.00017	0.00000	0.00000	0.00026	0.00027	0.00008	0.00008	0.00011	0.00034
4-methylphenanthrene plus 9-methylphenanthrene	0.00002	0.00134	0.00001	0.00083	0.00005	0.00013	0.00000	0.00000	0.00019	0.00020	0.00006	0.00006	0.00008	0.00026
4-methyldibenzothiophene	0.00000	0.00002	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
9-methylphenanthrene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Acenaphthene	0.00127	0.00154	0.00158	0.00163	0.00076	0.00077	0.00020	0.00020	0.01815	0.01815	0.00738	0.00738	0.00090	0.00091
Acenaphthylene	0.00006	0.00411	0.00015	0.00254	0.00045	0.00046	0.00001	0.00002	0.00130	0.00131	0.00029	0.00029	0.00048	0.00079
Acephenanthrylene	0.00001	0.00070	0.00001	0.00043	0.00003	0.00007	0.00000	0.00000	0.00010	0.00011	0.00003	0.00003	0.00004	0.00013
Anthracene	0.00008	0.00076	0.00011	0.00047	0.00006	0.00008	0.00001	0.00001	0.00106	0.00106	0.00046	0.00046	0.00006	0.00015
Benz(a)anthracene	0.00024	0.00025	0.00030	0.00031	0.00014	0.00014	0.00004	0.00004	0.00345	0.00345	0.00140	0.00140	0.00017	0.00017
Benzo(a)fluorene	0.00000	0.00022	0.00000	0.00014	0.00001	0.00002	0.00000	0.00000	0.00003	0.00003	0.00001	0.00001	0.00001	0.00004
Benzo(a)pyrene	0.00000	0.00010	0.00000	0.00006	0.00001	0.00001	0.00000	0.00000	0.00004	0.00004	0.00000	0.00000	0.00001	0.00002
Benzo(b)fluoranthene	0.00009	0.00084	0.00012	0.00052	0.00006	0.00009	0.00002	0.00002	0.00128	0.00128	0.00055	0.00055	0.00007	0.00016
Benzo(e)pyrene	0.00000	0.00001	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Benzo(g,h,i)fluoranthene	0.00000	0.00034	0.00000	0.00021	0.00001	0.00003	0.00000	0.00000	0.00005	0.00005	0.00002	0.00002	0.00002	0.00007
Benzo(g,h,i)perylene	0.00014	0.00027	0.00017	0.00018	0.00008	0.00008	0.00002	0.00002	0.00195	0.00195	0.00080	0.00080	0.00010	0.00010
Benzo(k)fluoranthene	0.00000	0.00009	0.00000	0.00006	0.00001	0.00001	0.00000	0.00000	0.00003	0.00003	0.00000	0.00000	0.00001	0.00002
Biphenyl	0.00000	0.00000	0.00000	0.00000	0.00001	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Chrysene	0.00015	0.00024	0.00019	0.00020	0.00009	0.00009	0.00002	0.00002	0.00205	0.00205	0.00084	0.00084	0.00011	0.00011
Coronene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cyclopenta(c,d)pyrene	0.00000	0.00012	0.00000	0.00007	0.00000	0.00001	0.00000	0.00000	0.00002	0.00002	0.00001	0.00001	0.00001	0.00002
Dibenzo(a,h)anthracene	0.00010	0.00029	0.00013	0.00017	0.00006	0.00006	0.00002	0.00002	0.00144	0.00144	0.00059	0.00059	0.00007	0.00007
Dibenzothiophene	0.00000	0.00001	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Fluoranthene	0.00031	0.00320	0.00041	0.00197	0.00020	0.00033	0.00005	0.00006	0.00420	0.00420	0.00183	0.00183	0.00023	0.00062
Fluorene	0.00033	0.00593	0.00051	0.00366	0.00063	0.00064	0.00006	0.00006	0.00395	0.00395	0.00183	0.00184	0.00067	0.00114

Table 7A2-14 Maximum 24-Hour Polycyclic Aromatic Hydrocarbon Predictions at Selected Locations
Part A

Maximum 24-hour (µg/m³)	13DDJPA		13DDJPB		CAMS Polar Explosives		Courageous Lake Lodge		Diavik Camp		Diavik Traditional Knowledge Camp		Ekati Airport Station	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
Indeno(1,2,3-cd)fluoranthene	0.00000	0.00001	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Indeno(1,2,3-cd)pyrene	0.00013	0.00013	0.00016	0.00016	0.00008	0.00008	0.00002	0.00002	0.00184	0.00184	0.00074	0.00074	0.00009	0.00009
Indeno(1,2,3-w)pyrene	0.00000	0.00015	0.00000	0.00009	0.00001	0.00002	0.00000	0.00000	0.00002	0.00002	0.00001	0.00001	0.00001	0.00003
Naphthalene	0.06781	0.10962	0.08334	0.08741	0.04060	0.04067	0.01053	0.01066	0.97178	0.97179	0.39669	0.39672	0.04800	0.04828
Nitro-pyrene	0.00000	0.00014	0.00000	0.00008	0.00000	0.00001	0.00000	0.00000	0.00002	0.00002	0.00001	0.00001	0.00001	0.00003
Perylene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Phenanthrene	0.00079	0.00566	0.00129	0.00348	0.00199	0.00200	0.00013	0.00014	0.00984	0.00985	0.00392	0.00392	0.00211	0.00212
Picene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Pyrene	0.00028	0.00429	0.00037	0.00265	0.00020	0.00044	0.00005	0.00005	0.00371	0.00371	0.00168	0.00168	0.00029	0.00083

CAMS = continuous air monitoring station; µg/m³ = micrograms per cubic metre.

Table 7A2-14 Maximum 24-Hour Polycyclic Aromatic Hydrocarbon Predictions at Selected Locations Part B

Maximum 24-hour (µg/m³)	Ekati Camp/Administration		Koala Station		Lac de Gras Winter Road Rest Stop		Lac de Gras Hunting Camp		Misery Camp		Pellatt Lake Cabin		Polar Lake Station	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
1-methylnaphthalene	0.00185	0.00608	0.00059	0.00126	0.00059	0.00072	0.00021	0.00182	0.00144	0.00406	0.00003	0.00013	0.00049	0.00068
1-methylphenanthrene	0.00008	0.00027	0.00003	0.00006	0.00003	0.00003	0.00001	0.00008	0.00006	0.00018	0.00000	0.00001	0.00002	0.00003
2-methylanthracene	0.00005	0.00017	0.00002	0.00003	0.00002	0.00002	0.00001	0.00005	0.00004	0.00011	0.00000	0.00000	0.00001	0.00002
2-methylfluorene	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
2-methylnaphthalene	0.00299	0.00983	0.00096	0.00204	0.00095	0.00116	0.00035	0.00294	0.00233	0.00656	0.00004	0.00020	0.00079	0.00110
2-methylphenanthrene	0.00021	0.00068	0.00007	0.00014	0.00007	0.00008	0.00002	0.00020	0.00016	0.00045	0.00000	0.00001	0.00005	0.00008
2-methylpyrene	0.00002	0.00005	0.00000	0.00001	0.00000	0.00001	0.00000	0.00001	0.00001	0.00003	0.00000	0.00000	0.00000	0.00001
3-methyldibenzothiophene	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000
3-methylphenanthrene	0.00015	0.00049	0.00005	0.00010	0.00005	0.00006	0.00002	0.00015	0.00012	0.00033	0.00000	0.00001	0.00004	0.00005
4-methylphenanthrene plus 9-methylphenanthrene	0.00011	0.00037	0.00004	0.00008	0.00004	0.00004	0.00001	0.00011	0.00009	0.00025	0.00000	0.00001	0.00003	0.00004
4-methyldibenzothiophene	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
9-methylphenanthrene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Acenaphthene	0.00087	0.00088	0.00093	0.00094	0.00395	0.00396	0.00139	0.00139	0.00234	0.00234	0.00019	0.00020	0.00094	0.00095
Acenaphthylene	0.00034	0.00113	0.00031	0.00031	0.00018	0.00018	0.00007	0.00034	0.00029	0.00076	0.00001	0.00003	0.00013	0.00014
Acephenanthrylene	0.00006	0.00019	0.00002	0.00004	0.00002	0.00002	0.00001	0.00006	0.00005	0.00013	0.00000	0.00000	0.00002	0.00002
Anthracene	0.00007	0.00021	0.00006	0.00007	0.00025	0.00025	0.00008	0.00008	0.00015	0.00018	0.00001	0.00002	0.00006	0.00007
Benz(a)anthracene	0.00016	0.00017	0.00018	0.00018	0.00075	0.00075	0.00026	0.00026	0.00044	0.00044	0.00004	0.00004	0.00018	0.00018
Benzo(a)fluorene	0.00002	0.00006	0.00001	0.00001	0.00001	0.00001	0.00000	0.00002	0.00001	0.00004	0.00000	0.00000	0.00000	0.00001
Benzo(a)pyrene	0.00001	0.00003	0.00001	0.00001	0.00000	0.00000	0.00000	0.00001	0.00001	0.00002	0.00000	0.00000	0.00000	0.00000
Benzo(b)fluoranthene	0.00008	0.00023	0.00007	0.00008	0.00030	0.00030	0.00010	0.00010	0.00018	0.00021	0.00001	0.00002	0.00007	0.00008
Benzo(e)pyrene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Benzo(g,h,i)fluoranthene	0.00003	0.00009	0.00001	0.00002	0.00001	0.00001	0.00000	0.00003	0.00002	0.00006	0.00000	0.00000	0.00001	0.00001
Benzo(g,h,i)perylene	0.00009	0.00010	0.00010	0.00010	0.00043	0.00043	0.00015	0.00015	0.00025	0.00025	0.00002	0.00002	0.00010	0.00010
Benzo(k)fluoranthene	0.00001	0.00003	0.00001	0.00001	0.00000	0.00000	0.00000	0.00001	0.00001	0.00002	0.00000	0.00000	0.00000	0.00000
Biphenyl	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Chrysene	0.00010	0.00010	0.00011	0.00011	0.00045	0.00045	0.00016	0.00016	0.00027	0.00026	0.00002	0.00002	0.00011	0.00011
Coronene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cyclopenta(c,d)pyrene	0.00001	0.00003	0.00000	0.00001	0.00000	0.00000	0.00000	0.00001	0.00001	0.00002	0.00000	0.00000	0.00000	0.00000
Dibenzo(a,h)anthracene	0.00007	0.00008	0.00007	0.00007	0.00032	0.00032	0.00011	0.00011	0.00019	0.00019	0.00002	0.00002	0.00008	0.00008
Dibenzothiophene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Fluoranthene	0.00029	0.00088	0.00024	0.00027	0.00098	0.00100	0.00033	0.00033	0.00059	0.00076	0.00005	0.00006	0.00025	0.00028
Fluorene	0.00051	0.00163	0.00043	0.00043	0.00099	0.00102	0.00033	0.00053	0.00073	0.00124	0.00005	0.00007	0.00028	0.00035

Table 7A2-14 Maximum 24-Hour Polycyclic Aromatic Hydrocarbon Predictions at Selected Locations Part B

Maximum 24-hour (µg/m³)	Ekati Camp/Administration		Koala Station		Lac de Gras Winter Road Rest Stop		Lac de Gras Hunting Camp		Misery Camp		Pellatt Lake Cabin		Polar Lake Station	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
Indeno(1,2,3-cd)fluoranthene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Indeno(1,2,3-cd)pyrene	0.00009	0.00009	0.00009	0.00009	0.00040	0.00040	0.00014	0.00014	0.00024	0.00024	0.00002	0.00002	0.00009	0.00009
Indeno(1,2,3-w)pyrene	0.00001	0.00004	0.00000	0.00001	0.00000	0.00000	0.00000	0.00001	0.00001	0.00003	0.00000	0.00000	0.00000	0.00000
Naphthalene	0.04652	0.04679	0.04958	0.04962	0.21241	0.21291	0.07449	0.07449	0.12605	0.12538	0.01045	0.01086	0.05038	0.05119
Nitro-pyrene	0.00001	0.00004	0.00000	0.00001	0.00000	0.00000	0.00000	0.00001	0.00001	0.00003	0.00000	0.00000	0.00000	0.00000
Perylene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Phenanthrene	0.00080	0.00155	0.00133	0.00132	0.00210	0.00213	0.00073	0.00073	0.00145	0.00146	0.00010	0.00013	0.00060	0.00065
Picene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Pyrene	0.00038	0.00118	0.00021	0.00029	0.00090	0.00093	0.00029	0.00039	0.00060	0.00094	0.00004	0.00006	0.00023	0.00027

µg/m³ = micrograms per cubic metre.

Table 7A2-14 Maximum 24-Hour Polycyclic Aromatic Hydrocarbon Predictions at Selected Locations Part C

Maximum 24-hour (µg/m³)	Salmita Airstrip		Treeline Lodge		TSP1		TSP2		TSP3		Jay Pit Boundary		Maximum Point of Impingement	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
1-methylnaphthalene	0.00003	0.00007	0.00003	0.00007	0.00182	0.00594	0.00068	0.00079	0.00044	0.00067	0.00045	0.06272	0.00733	0.06272
1-methylphenanthrene	0.00000	0.00000	0.00000	0.00000	0.00008	0.00027	0.00003	0.00004	0.00002	0.00003	0.00002	0.00282	0.00033	0.00282
2-methylanthracene	0.00000	0.00000	0.00000	0.00000	0.00005	0.00016	0.00002	0.00002	0.00001	0.00002	0.00001	0.00173	0.00020	0.00173
2-methylfluorene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00006	0.00001	0.00006
2-methylnaphthalene	0.00005	0.00011	0.00004	0.00011	0.00294	0.00961	0.00111	0.00128	0.00071	0.00108	0.00073	0.10139	0.01185	0.10139
2-methylphenanthrene	0.00000	0.00001	0.00000	0.00001	0.00020	0.00066	0.00008	0.00009	0.00005	0.00007	0.00005	0.00697	0.00081	0.00697
2-methylpyrene	0.00000	0.00000	0.00000	0.00000	0.00001	0.00005	0.00001	0.00001	0.00000	0.00001	0.00000	0.00052	0.00006	0.00052
3-methyldibenzothiophene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00011	0.00001	0.00011
3-methylphenanthrene	0.00000	0.00001	0.00000	0.00001	0.00015	0.00048	0.00005	0.00006	0.00004	0.00005	0.00004	0.00503	0.00059	0.00503
4-methylphenanthrene plus 9-methylphenanthrene	0.00000	0.00000	0.00000	0.00000	0.00011	0.00036	0.00004	0.00005	0.00003	0.00004	0.00003	0.00380	0.00044	0.00380
4-methyldibenzothiophene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00007	0.00001	0.00007
9-methylphenanthrene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Acenaphthene	0.00036	0.00036	0.00033	0.00033	0.00087	0.00088	0.00100	0.00101	0.00076	0.00077	0.00185	0.00363	0.04240	0.04241
Acenaphthylene	0.00004	0.00004	0.00004	0.00004	0.00034	0.00110	0.00016	0.00016	0.00027	0.00029	0.00017	0.01164	0.00199	0.01164
Acephenanthrylene	0.00000	0.00000	0.00000	0.00000	0.00006	0.00019	0.00002	0.00003	0.00001	0.00002	0.00001	0.00199	0.00023	0.00199
Anthracene	0.00002	0.00003	0.00002	0.00002	0.00007	0.00020	0.00007	0.00007	0.00005	0.00006	0.00012	0.00210	0.00246	0.00246
Benz(a)anthracene	0.00007	0.00007	0.00006	0.00006	0.00016	0.00017	0.00019	0.00019	0.00014	0.00015	0.00035	0.00058	0.00806	0.00806
Benzo(a)fluorene	0.00000	0.00000	0.00000	0.00000	0.00002	0.00006	0.00001	0.00001	0.00000	0.00001	0.00000	0.00063	0.00007	0.00063
Benzo(a)pyrene	0.00000	0.00000	0.00000	0.00000	0.00001	0.00003	0.00000	0.00000	0.00001	0.00001	0.00000	0.00027	0.00005	0.00027
Benzo(b)fluoranthene	0.00003	0.00003	0.00003	0.00003	0.00008	0.00023	0.00008	0.00009	0.00006	0.00007	0.00015	0.00233	0.00298	0.00298
Benzo(e)pyrene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00004	0.00000	0.00004
Benzo(g,h,i)fluoranthene	0.00000	0.00000	0.00000	0.00000	0.00003	0.00009	0.00001	0.00001	0.00001	0.00001	0.00001	0.00097	0.00011	0.00097
Benzo(g,h,i)perylene	0.00004	0.00004	0.00004	0.00004	0.00009	0.00009	0.00011	0.00011	0.00008	0.00008	0.00020	0.00067	0.00454	0.00454
Benzo(k)fluoranthene	0.00000	0.00000	0.00000	0.00000	0.00001	0.00002	0.00000	0.00000	0.00001	0.00001	0.00000	0.00026	0.00004	0.00026
Biphenyl	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00001	0.00001
Chrysene	0.00004	0.00004	0.00004	0.00004	0.00010	0.00010	0.00012	0.00012	0.00009	0.00009	0.00022	0.00060	0.00478	0.00478
Coronene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cyclopenta(c,d)pyrene	0.00000	0.00000	0.00000	0.00000	0.00001	0.00003	0.00000	0.00000	0.00000	0.00000	0.00000	0.00034	0.00004	0.00034
Dibenzo(a,h)anthracene	0.00003	0.00003	0.00003	0.00003	0.00007	0.00008	0.00008	0.00008	0.00006	0.00006	0.00015	0.00075	0.00336	0.00336
Dibenzothiophene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00004	0.00000	0.00004
Fluoranthene	0.00010	0.00010	0.00009	0.00009	0.00028	0.00086	0.00026	0.00029	0.00021	0.00024	0.00048	0.00889	0.00975	0.00975
Fluorene	0.00012	0.00013	0.00011	0.00012	0.00051	0.00159	0.00032	0.00039	0.00041	0.00044	0.00059	0.01665	0.00903	0.01665

Table 7A2-14 Maximum 24-Hour Polycyclic Aromatic Hydrocarbon Predictions at Selected Locations Part C

Maximum 24-hour (µg/m³)	Salmita Airstrip		Treeline Lodge		TSP1		TSP2		TSP3		Jay Pit Boundary		Maximum Point of Impingement	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
Indeno(1,2,3-cd)fluoranthene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00002	0.00000	0.00002
Indeno(1,2,3-cd)pyrene	0.00004	0.00004	0.00003	0.00003	0.00009	0.00009	0.00010	0.00010	0.00008	0.00008	0.00019	0.00019	0.00430	0.00430
Indeno(1,2,3-w)pyrene	0.00000	0.00000	0.00000	0.00000	0.00001	0.00004	0.00000	0.00001	0.00000	0.00000	0.00000	0.00044	0.00005	0.00044
Naphthalene	0.01909	0.01925	0.01722	0.01738	0.04652	0.04676	0.05341	0.05426	0.04048	0.04147	0.09769	0.27112	2.27121	2.27125
Nitro-pyrene	0.00000	0.00000	0.00000	0.00000	0.00001	0.00004	0.00000	0.00000	0.00000	0.00000	0.00000	0.00039	0.00005	0.00039
Perylene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Phenanthrene	0.00030	0.00031	0.00028	0.00029	0.00076	0.00152	0.00066	0.00072	0.00120	0.00122	0.00149	0.01566	0.02115	0.02115
Picene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Pyrene	0.00009	0.00009	0.00008	0.00009	0.00037	0.00115	0.00025	0.00030	0.00019	0.00024	0.00043	0.01202	0.00858	0.01202

µg/m³ = micrograms per cubic metre.

Table 7A2-15 Maximum Annual Polycyclic Aromatic Hydrocarbon Predictions at Selected Locations
Part A

Maximum Annual (µg/m³)	13DDJPA		13DDJPB		CAMS Polar Explosives		Courageous Lake Lodge		Diavik Camp		Diavik Traditional Knowledge Camp		Ekati Airport Station	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
1-methylnaphthalene	0.00002	0.00221	0.00002	0.00159	0.00007	0.00014	0.00000	0.00000	0.00026	0.00028	0.00007	0.00011	0.00010	0.00027
1-methylphenanthrene	0.00000	0.00010	0.00000	0.00007	0.00000	0.00001	0.00000	0.00000	0.00001	0.00001	0.00000	0.00000	0.00000	0.00001
2-methylanthracene	0.00000	0.00006	0.00000	0.00004	0.00000	0.00000	0.00000	0.00000	0.00001	0.00001	0.00000	0.00000	0.00000	0.00001
2-methylfluorene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
2-methylnaphthalene	0.00003	0.00356	0.00003	0.00257	0.00011	0.00022	0.00000	0.00000	0.00042	0.00045	0.00011	0.00017	0.00017	0.00044
2-methylphenanthrene	0.00000	0.00025	0.00000	0.00018	0.00001	0.00002	0.00000	0.00000	0.00003	0.00003	0.00001	0.00001	0.00001	0.00003
2-methylpyrene	0.00000	0.00002	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
3-methyldibenzothiophene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
3-methylphenanthrene	0.00000	0.00018	0.00000	0.00013	0.00001	0.00001	0.00000	0.00000	0.00002	0.00002	0.00001	0.00001	0.00001	0.00002
4-methylphenanthrene plus 9-methylphenanthrene	0.00000	0.00013	0.00000	0.00010	0.00000	0.00001	0.00000	0.00000	0.00002	0.00002	0.00000	0.00001	0.00001	0.00002
4-methyldibenzothiophene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
9-methylphenanthrene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Acenaphthene	0.00007	0.00018	0.00007	0.00015	0.00004	0.00005	0.00001	0.00001	0.00153	0.00154	0.00040	0.00040	0.00006	0.00007
Acenaphthylene	0.00001	0.00041	0.00001	0.00030	0.00002	0.00004	0.00000	0.00000	0.00013	0.00014	0.00002	0.00003	0.00005	0.00008
Acephenanthrylene	0.00000	0.00007	0.00000	0.00005	0.00000	0.00000	0.00000	0.00000	0.00001	0.00001	0.00000	0.00000	0.00000	0.00001
Anthracene	0.00000	0.00008	0.00000	0.00006	0.00001	0.00001	0.00000	0.00000	0.00010	0.00010	0.00003	0.00003	0.00001	0.00002
Benz(a)anthracene	0.00001	0.00003	0.00001	0.00003	0.00001	0.00001	0.00000	0.00000	0.00029	0.00029	0.00008	0.00008	0.00001	0.00001
Benzo(a)fluorene	0.00000	0.00002	0.00000	0.00002	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Benzo(a)pyrene	0.00000	0.00001	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Benzo(b)fluoranthene	0.00001	0.00009	0.00001	0.00006	0.00001	0.00001	0.00000	0.00000	0.00012	0.00012	0.00003	0.00003	0.00001	0.00002
Benzo(e)pyrene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Benzo(g,h,i)fluoranthene	0.00000	0.00003	0.00000	0.00002	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Benzo(g,h,i)perylene	0.00001	0.00003	0.00001	0.00002	0.00001	0.00001	0.00000	0.00000	0.00017	0.00017	0.00004	0.00004	0.00001	0.00001
Benzo(k)fluoranthene	0.00000	0.00001	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Biphenyl	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Chrysene	0.00001	0.00003	0.00001	0.00002	0.00001	0.00001	0.00000	0.00000	0.00018	0.00018	0.00005	0.00005	0.00001	0.00001
Coronene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cyclopenta(c,d)pyrene	0.00000	0.00001	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Dibenzo(a,h)anthracene	0.00001	0.00003	0.00001	0.00002	0.00000	0.00000	0.00000	0.00000	0.00012	0.00012	0.00003	0.00003	0.00001	0.00001
Dibenzothiophene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Fluoranthene	0.00002	0.00032	0.00002	0.00024	0.00002	0.00003	0.00000	0.00000	0.00041	0.00041	0.00010	0.00011	0.00004	0.00006
Fluorene	0.00002	0.00060	0.00002	0.00044	0.00004	0.00006	0.00000	0.00000	0.00048	0.00048	0.00011	0.00012	0.00008	0.00012

Table 7A2-15 Maximum Annual Polycyclic Aromatic Hydrocarbon Predictions at Selected Locations
Part A

Maximum Annual (µg/m³)	13DDJPA		13DDJPB		CAMS Polar Explosives		Courageous Lake Lodge		Diavik Camp		Diavik Traditional Knowledge Camp		Ekati Airport Station	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
Indeno(1,2,3-cd)fluoranthene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Indeno(1,2,3-cd)pyrene	0.00001	0.00001	0.00001	0.00001	0.00000	0.00000	0.00000	0.00000	0.00015	0.00015	0.00004	0.00004	0.00001	0.00001
Indeno(1,2,3-w)pyrene	0.00000	0.00002	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Naphthalene	0.00349	0.01214	0.00363	0.00984	0.00228	0.00254	0.00042	0.00042	0.08161	0.08170	0.02131	0.02145	0.00288	0.00350
Nitro-pyrene	0.00000	0.00001	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Perylene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Phenanthrene	0.00005	0.00059	0.00005	0.00044	0.00008	0.00010	0.00001	0.00001	0.00110	0.00110	0.00024	0.00025	0.00018	0.00022
Picene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Pyrene	0.00002	0.00043	0.00002	0.00032	0.00003	0.00004	0.00000	0.00000	0.00038	0.00038	0.00009	0.00010	0.00004	0.00007

CAMS = continuous air monitoring station; µg/m³ = micrograms per cubic metre.

Table 7A2-15 Maximum Annual Polycyclic Aromatic Hydrocarbon Predictions at Selected Locations Part B

Maximum Annual (µg/m³)	Ekati Camp/Administration		Koala Station		Lac de Gras Winter Road Rest Stop		Lac de Gras Hunting Camp		Misery Camp		Pellatt Lake Cabin		Polar Lake Station	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
1-methylnaphthalene	0.00013	0.00036	0.00005	0.00009	0.00002	0.00004	0.00002	0.00007	0.00014	0.00034	0.00000	0.00000	0.00005	0.00006
1-methylphenanthrene	0.00001	0.00002	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00001	0.00002	0.00000	0.00000	0.00000	0.00000
2-methylanthracene	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000
2-methylfluorene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
2-methylnaphthalene	0.00021	0.00059	0.00008	0.00015	0.00003	0.00006	0.00003	0.00012	0.00022	0.00055	0.00000	0.00001	0.00008	0.00010
2-methylphenanthrene	0.00001	0.00004	0.00001	0.00001	0.00000	0.00000	0.00000	0.00001	0.00002	0.00004	0.00000	0.00000	0.00001	0.00001
2-methylpyrene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
3-methyldibenzothiophene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
3-methylphenanthrene	0.00001	0.00003	0.00000	0.00001	0.00000	0.00000	0.00000	0.00001	0.00001	0.00003	0.00000	0.00000	0.00000	0.00000
4-methylphenanthrene plus 9-methylphenanthrene	0.00001	0.00002	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000	0.00001	0.00002	0.00000	0.00000	0.00000	0.00000
4-methyldibenzothiophene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
9-methylphenanthrene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Acenaphthene	0.00005	0.00006	0.00005	0.00005	0.00019	0.00019	0.00009	0.00010	0.00017	0.00018	0.00001	0.00001	0.00004	0.00004
Acenaphthylene	0.00003	0.00008	0.00002	0.00003	0.00001	0.00002	0.00001	0.00002	0.00003	0.00007	0.00000	0.00000	0.00002	0.00002
Acephenanthrylene	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000
Anthracene	0.00001	0.00002	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00002	0.00000	0.00000	0.00000	0.00001
Benz(a)anthracene	0.00001	0.00001	0.00001	0.00001	0.00004	0.00004	0.00002	0.00002	0.00003	0.00003	0.00000	0.00000	0.00001	0.00001
Benzo(a)fluorene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Benzo(a)pyrene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Benzo(b)fluoranthene	0.00001	0.00002	0.00001	0.00001	0.00001	0.00002	0.00001	0.00001	0.00002	0.00002	0.00000	0.00000	0.00001	0.00001
Benzo(e)pyrene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Benzo(g,h,i)fluoranthene	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000
Benzo(g,h,i)perylene	0.00001	0.00001	0.00001	0.00001	0.00002	0.00002	0.00001	0.00001	0.00002	0.00002	0.00000	0.00000	0.00001	0.00001
Benzo(k)fluoranthene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Biphenyl	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Chrysene	0.00001	0.00001	0.00001	0.00001	0.00002	0.00002	0.00001	0.00001	0.00002	0.00002	0.00000	0.00000	0.00001	0.00001
Coronene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cyclopenta(c,d)pyrene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Dibenzo(a,h)anthracene	0.00000	0.00001	0.00000	0.00000	0.00002	0.00002	0.00001	0.00001	0.00001	0.00002	0.00000	0.00000	0.00000	0.00000
Dibenzothiophene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Fluoranthene	0.00003	0.00006	0.00002	0.00003	0.00005	0.00005	0.00003	0.00003	0.00006	0.00009	0.00000	0.00000	0.00002	0.00002
Fluorene	0.00005	0.00012	0.00004	0.00005	0.00005	0.00006	0.00003	0.00004	0.00008	0.00013	0.00000	0.00000	0.00003	0.00003

Table 7A2-15 Maximum Annual Polycyclic Aromatic Hydrocarbon Predictions at Selected Locations Part B

Maximum Annual (µg/m³)	Ekati Camp/Administration		Koala Station		Lac de Gras Winter Road Rest Stop		Lac de Gras Hunting Camp		Misery Camp		Pellatt Lake Cabin		Polar Lake Station	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
Indeno(1,2,3-cd)fluoranthene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Indeno(1,2,3-cd)pyrene	0.00000	0.00000	0.00000	0.00000	0.00002	0.00002	0.00001	0.00001	0.00002	0.00002	0.00000	0.00000	0.00000	0.00000
Indeno(1,2,3-w)pyrene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Naphthalene	0.00262	0.00352	0.00265	0.00281	0.01013	0.01019	0.00500	0.00521	0.00902	0.00980	0.00044	0.00046	0.00235	0.00237
Nitro-pyrene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Perylene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Phenanthrene	0.00009	0.00015	0.00009	0.00010	0.00013	0.00013	0.00006	0.00008	0.00014	0.00018	0.00001	0.00001	0.00006	0.00006
Picene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Pyrene	0.00004	0.00008	0.00002	0.00003	0.00004	0.00005	0.00002	0.00003	0.00006	0.00010	0.00000	0.00000	0.00002	0.00002

µg/m³ = micrograms per cubic metre.

Table 7A2-15 Maximum Annual Polycyclic Aromatic Hydrocarbon Predictions at Selected Locations Part C

Maximum Annual (µg/m³)	Salmita Airstrip		Treeline Lodge		TSP1		TSP2		TSP3		Jay Pit Boundary		Maximum Point of Impingement	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
1-methylnaphthalene	0.00000	0.00000	0.00000	0.00000	0.00013	0.00035	0.00006	0.00008	0.00004	0.00005	0.00003	0.00620	0.00085	0.00620
1-methylphenanthrene	0.00000	0.00000	0.00000	0.00000	0.00001	0.00002	0.00000	0.00000	0.00000	0.00000	0.00000	0.00028	0.00004	0.00028
2-methylanthracene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00017	0.00002	0.00017
2-methylfluorene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00001	0.00000	0.00001
2-methylnaphthalene	0.00000	0.00000	0.00000	0.00000	0.00020	0.00057	0.00010	0.00012	0.00007	0.00008	0.00005	0.01002	0.00137	0.01002
2-methylphenanthrene	0.00000	0.00000	0.00000	0.00000	0.00001	0.00004	0.00001	0.00001	0.00000	0.00001	0.00000	0.00069	0.00009	0.00069
2-methylpyrene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00005	0.00001	0.00005
3-methyldibenzothiophene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00001	0.00000	0.00001
3-methylphenanthrene	0.00000	0.00000	0.00000	0.00000	0.00001	0.00003	0.00001	0.00001	0.00000	0.00000	0.00000	0.00050	0.00007	0.00050
4-methylphenanthrene plus 9-methylphenanthrene	0.00000	0.00000	0.00000	0.00000	0.00001	0.00002	0.00000	0.00000	0.00000	0.00000	0.00000	0.00038	0.00005	0.00038
4-methyldibenzothiophene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00001	0.00000	0.00001
9-methylphenanthrene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Acenaphthene	0.00001	0.00001	0.00001	0.00001	0.00005	0.00006	0.00005	0.00005	0.00004	0.00004	0.00009	0.00039	0.00355	0.00355
Acenaphthylene	0.00000	0.00000	0.00000	0.00000	0.00003	0.00007	0.00002	0.00002	0.00002	0.00002	0.00001	0.00115	0.00021	0.00115
Acephenanthrylene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00020	0.00003	0.00020
Anthracene	0.00000	0.00000	0.00000	0.00000	0.00001	0.00001	0.00001	0.00001	0.00000	0.00000	0.00001	0.00021	0.00022	0.00022
Benz(a)anthracene	0.00000	0.00000	0.00000	0.00000	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00002	0.00006	0.00067	0.00067
Benzo(a)fluorene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00006	0.00001	0.00006
Benzo(a)pyrene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00003	0.00000	0.00003
Benzo(b)fluoranthene	0.00000	0.00000	0.00000	0.00000	0.00001	0.00002	0.00001	0.00001	0.00000	0.00001	0.00001	0.00023	0.00027	0.00027
Benzo(e)pyrene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Benzo(g,h,i)fluoranthene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00010	0.00001	0.00010
Benzo(g,h,i)perylene	0.00000	0.00000	0.00000	0.00000	0.00001	0.00001	0.00001	0.00001	0.00000	0.00000	0.00001	0.00007	0.00038	0.00038
Benzo(k)fluoranthene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00003	0.00000	0.00003
Biphenyl	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Chrysene	0.00000	0.00000	0.00000	0.00000	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00006	0.00040	0.00040
Coronene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Cyclopenta(c,d)pyrene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00003	0.00000	0.00003
Dibenzo(a,h)anthracene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000	0.00001	0.00008	0.00028	0.00028
Dibenzothiophene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Fluoranthene	0.00000	0.00000	0.00000	0.00000	0.00003	0.00006	0.00002	0.00002	0.00002	0.00002	0.00003	0.00089	0.00088	0.00089
Fluorene	0.00000	0.00000	0.00000	0.00000	0.00005	0.00011	0.00004	0.00004	0.00003	0.00003	0.00003	0.00166	0.00090	0.00166

Table 7A2-15 Maximum Annual Polycyclic Aromatic Hydrocarbon Predictions at Selected Locations Part C

Maximum Annual (µg/m³)	Salmita Airstrip		Treeline Lodge		TSP1		TSP2		TSP3		Jay Pit Boundary		Maximum Point of Impingement	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
Indeno(1,2,3-cd)fluoranthene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Indeno(1,2,3-cd)pyrene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00001	0.00001	0.00036	0.00036
Indeno(1,2,3-w)pyrene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00004	0.00001	0.00004
Naphthalene	0.00060	0.00061	0.00058	0.00059	0.00261	0.00346	0.00255	0.00258	0.00196	0.00198	0.00486	0.02842	0.19015	0.19026
Nitro-pyrene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00004	0.00001	0.00004
Perylene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Phenanthrene	0.00001	0.00001	0.00001	0.00001	0.00009	0.00014	0.00007	0.00007	0.00006	0.00007	0.00007	0.00158	0.00197	0.00198
Picene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Pyrene	0.00000	0.00000	0.00000	0.00000	0.00003	0.00008	0.00002	0.00003	0.00002	0.00002	0.00003	0.00119	0.00081	0.00119

µg/m³ = micrograms per cubic metre.

Table 7A2-16 Maximum 1-Hour Metals Predictions at Selected Locations
Part A

Maximum 1-hour ($\mu g/m^3$)	13DDJPA		13DDJPB		CAMS Polar Explosives		Courageous Lake Lodge		Diavik Camp		Diavik Traditional Knowledge Camp		Ekati Airport Station	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
Aluminum	4.93747	234.90050	3.82338	173.10840	6.60901	1.18264	0.05515	0.11690	6.63576	6.62554	4.88937	3.28114	10.68068	1.46623
Antimony	0.00014	0.00652	0.00011	0.00480	0.00019	0.00004	0.00000	0.00000	0.00023	0.00023	0.00014	0.00009	0.00030	0.00005
Arsenic	0.00059	0.02729	0.00050	0.02011	0.00105	0.00028	0.00002	0.00002	0.00574	0.00574	0.00073	0.00073	0.00149	0.00026
Barium	0.04040	1.91791	0.03142	1.41320	0.05507	0.01068	0.00047	0.00096	0.06701	0.06700	0.03992	0.02683	0.08740	0.01405
Beryllium	0.00015	0.00662	0.00016	0.00488	0.00041	0.00021	0.00001	0.00001	0.00420	0.00420	0.00052	0.00052	0.00068	0.00013
Cadmium	0.00144	0.04505	0.00171	0.05277	0.00762	0.00758	0.00023	0.00029	0.05956	0.05956	0.00554	0.00559	0.00877	0.00877
Chromium	0.01273	0.59944	0.00985	0.44647	0.01740	0.00340	0.00016	0.00031	0.02384	0.02388	0.01244	0.00839	0.02781	0.00453
Cobalt	0.00067	0.02418	0.00045	0.02259	0.00130	0.00127	0.00004	0.00005	0.00999	0.00999	0.00093	0.00093	0.00156	0.00148
Copper	0.00148	0.06383	0.00115	0.05181	0.00242	0.00136	0.00006	0.00007	0.01370	0.01370	0.00164	0.00164	0.00358	0.00153
Iron	1.17300	55.67142	0.91201	41.04484	1.59914	0.31016	0.01365	0.02787	1.95919	1.95894	1.15864	0.77874	2.53850	0.40800
Lead	0.00140	0.05891	0.00115	0.04818	0.00249	0.00138	0.00007	0.00008	0.01614	0.01614	0.00205	0.00204	0.00367	0.00153
Manganese	0.01804	0.85148	0.01402	0.63218	0.02471	0.00481	0.00022	0.00044	0.03260	0.03262	0.01769	0.01192	0.03947	0.00633
Mercury	0.00029	0.01275	0.00025	0.00940	0.00127	0.00127	0.00001	0.00001	0.00445	0.00445	0.00055	0.00055	0.00087	0.00028
Molybdenum	0.00010	0.00481	0.00008	0.00354	0.00014	0.00003	0.00000	0.00000	0.00017	0.00017	0.00010	0.00007	0.00022	0.00004
Nickel	0.00164	0.07698	0.00130	0.05672	0.00238	0.00125	0.00002	0.00004	0.00484	0.00484	0.00160	0.00108	0.00368	0.00070
Selenium	0.00063	0.00106	0.00059	0.00078	0.00182	0.00104	0.00006	0.00006	0.02082	0.02082	0.00257	0.00256	0.00251	0.00053
Silver	0.00025	0.00759	0.00027	0.00897	0.00126	0.00126	0.00004	0.00005	0.00993	0.00993	0.00091	0.00092	0.00146	0.00146
Strontium	0.02612	1.23991	0.02031	0.91361	0.03560	0.00690	0.00030	0.00062	0.04332	0.04332	0.02581	0.01734	0.05650	0.00908
Tellurium	0.00001	0.00035	0.00001	0.00025	0.00001	0.00000	0.00000	0.00000	0.00001	0.00001	0.00001	0.00000	0.00002	0.00000
Thallium	0.00010	0.00453	0.00007	0.00334	0.00013	0.00003	0.00000	0.00000	0.00016	0.00016	0.00009	0.00006	0.00021	0.00003
Titanium	0.10759	5.10834	0.08369	3.76403	0.14668	0.02844	0.00125	0.00256	0.17849	0.17846	0.10634	0.07145	0.23278	0.03742
Tungsten	0.00032	0.01524	0.00025	0.01123	0.00044	0.00008	0.00000	0.00001	0.00053	0.00053	0.00032	0.00021	0.00069	0.00011
Uranium	0.00039	0.01869	0.00031	0.01377	0.00054	0.00010	0.00000	0.00001	0.00065	0.00065	0.00039	0.00026	0.00085	0.00014
Vanadium	0.00246	0.11679	0.00191	0.08605	0.00335	0.00065	0.00003	0.00006	0.00408	0.00408	0.00243	0.00163	0.00532	0.00086
Zinc	0.00505	0.18754	0.00350	0.17161	0.00915	0.00896	0.00028	0.00035	0.06999	0.06999	0.00664	0.00665	0.01102	0.01039

CAMS = continuous air monitoring station; $\mu g/m^3$ = micrograms per cubic metre.

Table 7A2-16 Maximum 1-Hour Metals Predictions at Selected Locations
Part B

Maximum 1-hour (µg/m³)	Ekati Camp/Administration		Koala Station		Lac de Gras Winter Road Rest Stop		Lac de Gras Hunting Camp		Misery Camp		Pellatt Lake Cabin		Polar Lake Station	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
Aluminum	15.15544	1.86878	3.05296	1.26895	0.98801	1.36741	2.43151	2.28388	48.06804	13.71140	0.08881	0.21930	4.32144	1.25227
Antimony	0.00047	0.00012	0.00009	0.00004	0.00003	0.00004	0.00007	0.00006	0.00134	0.00038	0.00000	0.00001	0.00012	0.00003
Arsenic	0.00202	0.00093	0.00050	0.00015	0.00035	0.00034	0.00028	0.00027	0.00580	0.00160	0.00002	0.00003	0.00053	0.00015
Barium	0.13698	0.03468	0.02507	0.01037	0.00807	0.01118	0.01986	0.01865	0.39273	0.11232	0.00074	0.00181	0.03528	0.01024
Beryllium	0.00084	0.00048	0.00027	0.00010	0.00025	0.00025	0.00019	0.00019	0.00151	0.00039	0.00002	0.00002	0.00035	0.00009
Cadmium	0.00751	0.00746	0.00339	0.00338	0.00273	0.00273	0.00173	0.00183	0.00301	0.00819	0.00019	0.00026	0.00263	0.00255
Chromium	0.04320	0.01124	0.00796	0.00327	0.00252	0.00351	0.00619	0.00592	0.12270	0.03515	0.00025	0.00059	0.01104	0.00321
Cobalt	0.00206	0.00132	0.00058	0.00057	0.00044	0.00044	0.00027	0.00034	0.00472	0.00146	0.00003	0.00005	0.00049	0.00043
Copper	0.00500	0.00177	0.00122	0.00058	0.00069	0.00068	0.00065	0.00072	0.01316	0.00379	0.00005	0.00009	0.00120	0.00044
Iron	3.97774	1.00752	0.72791	0.30113	0.23414	0.32463	0.57651	0.54172	11.39869	3.26043	0.02159	0.05271	1.02421	0.29719
Lead	0.00471	0.00207	0.00131	0.00059	0.00091	0.00090	0.00070	0.00070	0.01231	0.00350	0.00007	0.00009	0.00140	0.00046
Manganese	0.06126	0.01596	0.01132	0.00463	0.00358	0.00498	0.00881	0.00837	0.17444	0.04991	0.00035	0.00083	0.01568	0.00456
Mercury	0.00106	0.00059	0.00033	0.00032	0.00029	0.00029	0.00021	0.00021	0.00280	0.00075	0.00002	0.00002	0.00037	0.00016
Molybdenum	0.00034	0.00009	0.00006	0.00003	0.00002	0.00003	0.00005	0.00005	0.00098	0.00028	0.00000	0.00000	0.00009	0.00003
Nickel	0.00555	0.00167	0.00107	0.00042	0.00032	0.00045	0.00080	0.00075	0.01595	0.00451	0.00003	0.00008	0.00142	0.00041
Selenium	0.00309	0.00199	0.00129	0.00048	0.00125	0.00124	0.00091	0.00091	0.00177	0.00176	0.00008	0.00008	0.00174	0.00045
Silver	0.00124	0.00123	0.00056	0.00056	0.00044	0.00044	0.00026	0.00031	0.00052	0.00137	0.00003	0.00004	0.00044	0.00042
Strontium	0.08855	0.02242	0.01620	0.00670	0.00522	0.00723	0.01284	0.01205	0.25390	0.07261	0.00048	0.00117	0.02281	0.00662
Tellurium	0.00002	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00007	0.00002	0.00000	0.00000	0.00001	0.00000
Thallium	0.00032	0.00008	0.00006	0.00002	0.00002	0.00003	0.00005	0.00004	0.00093	0.00027	0.00000	0.00000	0.00008	0.00002
Titanium	0.36484	0.09238	0.06676	0.02762	0.02149	0.02978	0.05291	0.04966	1.04603	0.29915	0.00197	0.00483	0.09398	0.02726
Tungsten	0.00109	0.00028	0.00020	0.00008	0.00006	0.00009	0.00016	0.00015	0.00312	0.00089	0.00001	0.00001	0.00028	0.00008
Uranium	0.00134	0.00034	0.00024	0.00010	0.00008	0.00011	0.00019	0.00018	0.00383	0.00109	0.00001	0.00002	0.00034	0.00010
Vanadium	0.00834	0.00211	0.00153	0.00063	0.00049	0.00068	0.00121	0.00114	0.02391	0.00684	0.00005	0.00011	0.00215	0.00062
Zinc	0.01579	0.00942	0.00409	0.00398	0.00325	0.00325	0.00210	0.00249	0.03703	0.01132	0.00023	0.00038	0.00373	0.00301

µg/m³ = micrograms per cubic metre.

Table 7A2-16 Maximum 1-Hour Metals Predictions at Selected Locations Part C

Maximum 1-hour (µg/m³)	Salmita Airstrip		Treeline Lodge		TSP1		TSP2		TSP3		Jay Pit Boundary		Maximum Point of Impingement	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
Aluminum	0.06845	0.12051	0.06269	0.12203	14.73771	1.83654	5.55745	1.29546	4.47290	0.93827	7.80780	755.79852	323.69470	755.79852
Antimony	0.00000	0.00000	0.00000	0.00000	0.00046	0.00011	0.00015	0.00004	0.00012	0.00003	0.00022	0.02098	0.00898	0.02098
Arsenic	0.00003	0.00003	0.00003	0.00003	0.00198	0.00112	0.00073	0.00015	0.00052	0.00017	0.00104	0.08780	0.03761	0.08780
Barium	0.00057	0.00099	0.00052	0.00101	0.13445	0.03378	0.04537	0.01059	0.03652	0.00815	0.06410	6.17029	2.64308	6.17029
Beryllium	0.00002	0.00002	0.00002	0.00002	0.00082	0.00062	0.00051	0.00010	0.00025	0.00010	0.00032	0.02130	0.00913	0.02130
Cadmium	0.00035	0.00041	0.00036	0.00043	0.00763	0.00758	0.00384	0.00381	0.00416	0.00408	0.00225	0.12312	0.05901	0.12312
Chromium	0.00019	0.00032	0.00018	0.00032	0.04239	0.01067	0.01421	0.00332	0.01139	0.00266	0.02011	1.94154	0.82310	1.94154
Cobalt	0.00006	0.00007	0.00006	0.00007	0.00201	0.00134	0.00066	0.00065	0.00078	0.00069	0.00087	0.09080	0.03032	0.09080
Copper	0.00008	0.00010	0.00009	0.00010	0.00489	0.00205	0.00154	0.00070	0.00119	0.00070	0.00234	0.21836	0.08497	0.21836
Iron	0.01663	0.02888	0.01504	0.02923	3.90427	0.98053	1.31720	0.30739	1.05999	0.23701	1.86046	179.17050	76.70605	179.17050
Lead	0.00011	0.00012	0.00012	0.00013	0.00459	0.00248	0.00198	0.00070	0.00116	0.00070	0.00228	0.20255	0.07820	0.20255
Manganese	0.00027	0.00045	0.00024	0.00046	0.06010	0.01516	0.02017	0.00471	0.01619	0.00374	0.02863	2.75239	1.17044	2.75239
Mercury	0.00002	0.00002	0.00002	0.00002	0.00103	0.00073	0.00054	0.00020	0.00100	0.00100	0.00052	0.04103	0.01758	0.04103
Molybdenum	0.00000	0.00000	0.00000	0.00000	0.00034	0.00008	0.00011	0.00003	0.00009	0.00002	0.00016	0.01547	0.00663	0.01547
Nickel	0.00003	0.00004	0.00003	0.00004	0.00545	0.00175	0.00182	0.00042	0.00147	0.00099	0.00267	0.24766	0.10609	0.24766
Selenium	0.00011	0.00011	0.00011	0.00011	0.00305	0.00257	0.00249	0.00049	0.00111	0.00040	0.00082	0.00342	0.02494	0.02494
Silver	0.00006	0.00007	0.00006	0.00007	0.00126	0.00125	0.00064	0.00063	0.00069	0.00068	0.00037	0.02239	0.00937	0.02239
Strontium	0.00037	0.00064	0.00033	0.00065	0.08692	0.02184	0.02933	0.00684	0.02361	0.00527	0.04144	3.98901	1.70872	3.98901
Tellurium	0.00000	0.00000	0.00000	0.00000	0.00002	0.00001	0.00001	0.00000	0.00001	0.00000	0.00001	0.00111	0.00048	0.00111
Thallium	0.00000	0.00000	0.00000	0.00000	0.00032	0.00008	0.00011	0.00002	0.00009	0.00002	0.00015	0.01457	0.00624	0.01457
Titanium	0.00152	0.00265	0.00138	0.00268	0.35811	0.08996	0.12085	0.02820	0.09728	0.02170	0.17072	16.43450	7.03983	16.43450
Tungsten	0.00000	0.00001	0.00000	0.00001	0.00107	0.00027	0.00036	0.00008	0.00029	0.00006	0.00051	0.04902	0.02100	0.04902
Uranium	0.00001	0.00001	0.00001	0.00001	0.00131	0.00033	0.00044	0.00010	0.00036	0.00008	0.00062	0.06014	0.02576	0.06014
Vanadium	0.00003	0.00006	0.00003	0.00006	0.00819	0.00206	0.00276	0.00064	0.00222	0.00050	0.00390	0.37572	0.16094	0.37572
Zinc	0.00042	0.00050	0.00043	0.00052	0.01543	0.00958	0.00465	0.00458	0.00557	0.00480	0.00675	0.69445	0.23749	0.69445

µg/m³ = micrograms per cubic metre.

Table 7A2-17 Maximum 24-Hour Metals Predictions at Selected Locations
Part A

Maximum 24-hour (µg/m³)	13DDJPA		13DDJPB		CAMS Polar Explosives		Courageous Lake Lodge		Diavik Camp		Diavik Traditional Knowledge Camp		Ekati Airport Station	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
Aluminum	1.26008	99.01048	0.89079	50.31798	2.65393	0.25772	0.01934	0.03267	4.65935	4.65747	0.73817	0.99572	2.72136	0.36781
Antimony	0.00004	0.00275	0.00002	0.00140	0.00008	0.00001	0.00000	0.00000	0.00016	0.00016	0.00002	0.00003	0.00008	0.00002
Arsenic	0.00016	0.01150	0.00012	0.00585	0.00036	0.00009	0.00000	0.00000	0.00133	0.00132	0.00021	0.00021	0.00039	0.00010
Barium	0.01039	0.80842	0.00733	0.41081	0.02284	0.00332	0.00016	0.00027	0.04775	0.04774	0.00603	0.00815	0.02239	0.00476
Beryllium	0.00005	0.00279	0.00006	0.00142	0.00012	0.00006	0.00000	0.00000	0.00095	0.00095	0.00015	0.00015	0.00017	0.00005
Cadmium	0.00030	0.01304	0.00067	0.01507	0.00209	0.00211	0.00006	0.00007	0.01069	0.01071	0.00256	0.00256	0.00222	0.00228
Chromium	0.00329	0.25235	0.00233	0.12891	0.00720	0.00120	0.00005	0.00009	0.01666	0.01665	0.00188	0.00258	0.00709	0.00170
Cobalt	0.00016	0.00987	0.00016	0.00623	0.00038	0.00038	0.00001	0.00001	0.00233	0.00233	0.00042	0.00042	0.00045	0.00042
Copper	0.00040	0.02658	0.00035	0.01468	0.00085	0.00045	0.00002	0.00002	0.00332	0.00332	0.00073	0.00073	0.00092	0.00053
Iron	0.30164	23.46460	0.21295	11.92714	0.66302	0.09715	0.00476	0.00783	1.39470	1.39426	0.17493	0.23684	0.65033	0.13903
Lead	0.00038	0.02451	0.00037	0.01364	0.00081	0.00045	0.00002	0.00002	0.00322	0.00321	0.00086	0.00086	0.00097	0.00053
Manganese	0.00467	0.35859	0.00330	0.18287	0.01022	0.00163	0.00008	0.00012	0.02293	0.02292	0.00267	0.00366	0.01004	0.00231
Mercury	0.00008	0.00538	0.00007	0.00273	0.00029	0.00027	0.00000	0.00000	0.00097	0.00097	0.00016	0.00016	0.00022	0.00008
Molybdenum	0.00003	0.00203	0.00002	0.00103	0.00006	0.00001	0.00000	0.00000	0.00012	0.00012	0.00002	0.00002	0.00006	0.00001
Nickel	0.00043	0.03245	0.00030	0.01649	0.00094	0.00028	0.00001	0.00001	0.00193	0.00193	0.00024	0.00033	0.00092	0.00021
Selenium	0.00014	0.00045	0.00019	0.00023	0.00051	0.00032	0.00002	0.00002	0.00465	0.00465	0.00070	0.00070	0.00069	0.00016
Silver	0.00005	0.00221	0.00011	0.00254	0.00035	0.00035	0.00001	0.00001	0.00180	0.00180	0.00040	0.00040	0.00037	0.00038
Strontium	0.00671	0.52264	0.00474	0.26559	0.01476	0.00215	0.00011	0.00017	0.03087	0.03086	0.00390	0.00527	0.01448	0.00308
Tellurium	0.00000	0.00015	0.00000	0.00007	0.00000	0.00000	0.00000	0.00000	0.00001	0.00001	0.00000	0.00000	0.00000	0.00000
Thallium	0.00002	0.00191	0.00002	0.00097	0.00005	0.00001	0.00000	0.00000	0.00011	0.00011	0.00001	0.00002	0.00005	0.00001
Titanium	0.02766	2.15323	0.01953	1.09420	0.06082	0.00885	0.00044	0.00072	0.12719	0.12714	0.01605	0.02172	0.05964	0.01269
Tungsten	0.00008	0.00642	0.00006	0.00326	0.00018	0.00003	0.00000	0.00000	0.00038	0.00038	0.00005	0.00006	0.00018	0.00004
Uranium	0.00010	0.00788	0.00007	0.00400	0.00022	0.00003	0.00000	0.00000	0.00047	0.00047	0.00006	0.00008	0.00022	0.00005
Vanadium	0.00063	0.04923	0.00045	0.02502	0.00139	0.00020	0.00001	0.00002	0.00291	0.00291	0.00037	0.00050	0.00136	0.00029
Zinc	0.00126	0.07680	0.00125	0.04750	0.00270	0.00267	0.00007	0.00009	0.01674	0.01675	0.00312	0.00312	0.00342	0.00298

CAMS = continuous air monitoring station; µg/m³ = micrograms per cubic metre.

Table 7A2-17 Maximum 24-Hour Metals Predictions at Selected Locations
Part B

Maximum 24-hour (µg/m³)	Ekati Camp/Administration		Koala Station		Lac de Gras Winter Road Rest Stop		Lac de Gras Hunting Camp		Misery Camp		Pellatt Lake Cabin		Polar Lake Station	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
Aluminum	3.76159	0.62151	1.07913	0.29360	0.18530	0.45680	0.38457	0.59393	11.88342	4.21627	0.02416	0.04374	1.58401	0.34166
Antimony	0.00011	0.00005	0.00003	0.00001	0.00001	0.00001	0.00001	0.00002	0.00033	0.00012	0.00000	0.00000	0.00004	0.00001
Arsenic	0.00061	0.00028	0.00016	0.00003	0.00010	0.00010	0.00006	0.00007	0.00142	0.00049	0.00001	0.00001	0.00020	0.00004
Barium	0.03213	0.01388	0.00911	0.00241	0.00151	0.00374	0.00314	0.00485	0.09705	0.03449	0.00020	0.00036	0.01313	0.00280
Beryllium	0.00025	0.00012	0.00006	0.00002	0.00007	0.00007	0.00003	0.00003	0.00036	0.00012	0.00000	0.00000	0.00010	0.00002
Cadmium	0.00247	0.00255	0.00146	0.00141	0.00091	0.00091	0.00037	0.00092	0.00129	0.00294	0.00006	0.00009	0.00069	0.00060
Chromium	0.01023	0.00440	0.00295	0.00081	0.00047	0.00118	0.00100	0.00152	0.03034	0.01109	0.00007	0.00012	0.00413	0.00090
Cobalt	0.00059	0.00048	0.00030	0.00025	0.00015	0.00015	0.00006	0.00016	0.00121	0.00074	0.00001	0.00002	0.00019	0.00011
Copper	0.00133	0.00067	0.00044	0.00030	0.00026	0.00026	0.00014	0.00020	0.00327	0.00145	0.00002	0.00002	0.00047	0.00013
Iron	0.93324	0.40316	0.26495	0.06995	0.04392	0.10865	0.09120	0.14093	2.81696	1.00281	0.00585	0.01056	0.38105	0.08140
Lead	0.00144	0.00072	0.00044	0.00031	0.00031	0.00031	0.00015	0.00019	0.00305	0.00137	0.00002	0.00003	0.00047	0.00013
Manganese	0.01452	0.00623	0.00416	0.00109	0.00067	0.00167	0.00141	0.00216	0.04312	0.01562	0.00010	0.00017	0.00586	0.00127
Mercury	0.00037	0.00020	0.00015	0.00011	0.00008	0.00008	0.00003	0.00003	0.00067	0.00023	0.00000	0.00000	0.00011	0.00004
Molybdenum	0.00008	0.00003	0.00002	0.00001	0.00000	0.00001	0.00001	0.00001	0.00024	0.00009	0.00000	0.00000	0.00003	0.00001
Nickel	0.00136	0.00062	0.00039	0.00012	0.00010	0.00015	0.00013	0.00019	0.00392	0.00138	0.00001	0.00002	0.00054	0.00011
Selenium	0.00106	0.00056	0.00022	0.00010	0.00034	0.00034	0.00014	0.00014	0.00038	0.00037	0.00001	0.00001	0.00047	0.00008
Silver	0.00039	0.00042	0.00024	0.00023	0.00014	0.00014	0.00006	0.00015	0.00022	0.00049	0.00001	0.00001	0.00011	0.00010
Strontium	0.02077	0.00897	0.00589	0.00156	0.00098	0.00242	0.00203	0.00314	0.06274	0.02230	0.00013	0.00023	0.00849	0.00181
Tellurium	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00002	0.00001	0.00000	0.00000	0.00000	0.00000
Thallium	0.00008	0.00003	0.00002	0.00001	0.00000	0.00001	0.00001	0.00001	0.00023	0.00008	0.00000	0.00000	0.00003	0.00001
Titanium	0.08558	0.03697	0.02427	0.00641	0.00403	0.00997	0.00837	0.01293	0.25849	0.09188	0.00053	0.00096	0.03496	0.00746
Tungsten	0.00026	0.00011	0.00007	0.00002	0.00001	0.00003	0.00002	0.00004	0.00077	0.00027	0.00000	0.00000	0.00010	0.00002
Uranium	0.00031	0.00014	0.00009	0.00002	0.00001	0.00004	0.00003	0.00005	0.00095	0.00034	0.00000	0.00000	0.00013	0.00003
Vanadium	0.00196	0.00085	0.00055	0.00015	0.00009	0.00023	0.00019	0.00030	0.00591	0.00210	0.00001	0.00002	0.00080	0.00017
Zinc	0.00456	0.00340	0.00212	0.00181	0.00114	0.00114	0.00048	0.00112	0.00942	0.00551	0.00008	0.00012	0.00147	0.00077

µg/m³ = micrograms per cubic metre.

**Table 7A2-17 Maximum 24-Hour Metals Predictions at Selected Locations
Part C**

Maximum 24-hour (µg/m³)	Salmita Airstrip		Treeline Lodge		TSP1		TSP2		TSP3		Jay Pit Boundary		Maximum Point of Impingement	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
Aluminum	0.02091	0.02347	0.01780	0.02451	3.72907	0.64864	1.81690	0.37352	1.30110	0.26954	1.97488	270.50214	95.82627	270.50214
Antimony	0.00000	0.00000	0.00000	0.00000	0.00011	0.00005	0.00005	0.00001	0.00004	0.00001	0.00006	0.00751	0.00266	0.00751
Arsenic	0.00001	0.00001	0.00001	0.00001	0.00064	0.00032	0.00029	0.00005	0.00019	0.00005	0.00025	0.03142	0.01114	0.03142
Barium	0.00018	0.00020	0.00015	0.00021	0.03251	0.01588	0.01498	0.00306	0.01131	0.00281	0.01621	2.20835	0.78246	2.20835
Beryllium	0.00001	0.00001	0.00001	0.00001	0.00028	0.00017	0.00018	0.00002	0.00008	0.00003	0.00007	0.00762	0.00270	0.00762
Cadmium	0.00016	0.00019	0.00015	0.00018	0.00241	0.00246	0.00113	0.00068	0.00135	0.00139	0.00076	0.05862	0.01687	0.05862
Chromium	0.00006	0.00007	0.00005	0.00007	0.01036	0.00503	0.00471	0.00098	0.00359	0.00095	0.00510	0.69388	0.24372	0.69388
Cobalt	0.00003	0.00003	0.00002	0.00003	0.00058	0.00047	0.00021	0.00012	0.00028	0.00025	0.00024	0.03150	0.00902	0.03150
Copper	0.00004	0.00005	0.00004	0.00004	0.00137	0.00070	0.00063	0.00013	0.00050	0.00031	0.00059	0.07715	0.02520	0.07715
Iron	0.00514	0.00568	0.00438	0.00601	0.94435	0.46099	0.43499	0.08900	0.32859	0.08175	0.47073	64.12028	22.70831	64.12028
Lead	0.00005	0.00005	0.00005	0.00005	0.00146	0.00079	0.00079	0.00014	0.00053	0.00031	0.00056	0.07150	0.02320	0.07150
Manganese	0.00008	0.00009	0.00007	0.00010	0.01472	0.00715	0.00668	0.00138	0.00508	0.00132	0.00724	0.98408	0.34654	0.98408
Mercury	0.00001	0.00001	0.00001	0.00001	0.00039	0.00022	0.00025	0.00008	0.00016	0.00014	0.00012	0.01469	0.00521	0.01469
Molybdenum	0.00000	0.00000	0.00000	0.00000	0.00008	0.00004	0.00004	0.00001	0.00003	0.00001	0.00004	0.00554	0.00196	0.00554
Nickel	0.00001	0.00001	0.00001	0.00001	0.00139	0.00068	0.00061	0.00013	0.00046	0.00014	0.00066	0.08864	0.03141	0.08864
Selenium	0.00004	0.00004	0.00003	0.00003	0.00105	0.00080	0.00083	0.00009	0.00031	0.00010	0.00022	0.00123	0.00487	0.00487
Silver	0.00003	0.00003	0.00002	0.00003	0.00038	0.00041	0.00016	0.00011	0.00022	0.00023	0.00012	0.01004	0.00283	0.01004
Strontium	0.00011	0.00013	0.00010	0.00013	0.02102	0.01026	0.00969	0.00198	0.00731	0.00181	0.01048	1.42767	0.50585	1.42767
Tellurium	0.00000	0.00000	0.00000	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00040	0.00014	0.00040
Thallium	0.00000	0.00000	0.00000	0.00000	0.00008	0.00004	0.00004	0.00001	0.00003	0.00001	0.00004	0.00521	0.00185	0.00521
Titanium	0.00047	0.00052	0.00040	0.00055	0.08660	0.04228	0.03990	0.00816	0.03013	0.00747	0.04318	5.88192	2.08407	5.88192
Tungsten	0.00000	0.00000	0.00000	0.00000	0.00026	0.00013	0.00012	0.00002	0.00009	0.00002	0.00013	0.01754	0.00622	0.01754
Uranium	0.00000	0.00000	0.00000	0.00000	0.00032	0.00015	0.00015	0.00003	0.00011	0.00003	0.00016	0.02153	0.00763	0.02153
Vanadium	0.00001	0.00001	0.00001	0.00001	0.00198	0.00097	0.00091	0.00019	0.00069	0.00017	0.00099	0.13447	0.04765	0.13447
Zinc	0.00019	0.00023	0.00018	0.00021	0.00445	0.00331	0.00172	0.00084	0.00201	0.00180	0.00186	0.24156	0.07061	0.24156

µg/m³ = micrograms per cubic metre.

Table 7A2-18 Maximum Annual Metals Predictions at Selected Locations
Part A

Maximum Annual (µg/m³)	13DDJPA		13DDJPB		CAMS Polar Explosives		Courageous Lake Lodge		Diavik Camp		Diavik Traditional Knowledge Camp		Ekati Airport Station	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
Aluminum	0.05536	8.79704	0.05072	5.62702	0.26010	0.02869	0.00066	0.00071	0.34090	0.33535	0.05230	0.05232	0.44313	0.05918
Antimony	0.00000	0.00024	0.00000	0.00016	0.00001	0.00000	0.00000	0.00000	0.00001	0.00001	0.00000	0.00000	0.00001	0.00000
Arsenic	0.00001	0.00102	0.00001	0.00066	0.00005	0.00002	0.00000	0.00000	0.00013	0.00013	0.00002	0.00002	0.00007	0.00002
Barium	0.00046	0.07185	0.00042	0.04597	0.00244	0.00045	0.00001	0.00001	0.00361	0.00356	0.00045	0.00046	0.00393	0.00076
Beryllium	0.00000	0.00025	0.00000	0.00016	0.00002	0.00001	0.00000	0.00000	0.00007	0.00007	0.00001	0.00001	0.00003	0.00001
Cadmium	0.00004	0.00107	0.00004	0.00153	0.00016	0.00014	0.00000	0.00000	0.00107	0.00108	0.00015	0.00018	0.00032	0.00032
Chromium	0.00015	0.02255	0.00014	0.01457	0.00080	0.00018	0.00000	0.00000	0.00135	0.00134	0.00017	0.00018	0.00129	0.00030
Cobalt	0.00001	0.00100	0.00001	0.00078	0.00005	0.00003	0.00000	0.00000	0.00021	0.00021	0.00003	0.00003	0.00010	0.00006
Copper	0.00002	0.00248	0.00002	0.00173	0.00012	0.00004	0.00000	0.00000	0.00039	0.00039	0.00005	0.00006	0.00020	0.00008
Iron	0.01331	2.08596	0.01222	1.33527	0.07089	0.01325	0.00017	0.00018	0.10551	0.10425	0.01332	0.01345	0.11444	0.02240
Lead	0.00002	0.00230	0.00002	0.00161	0.00012	0.00005	0.00000	0.00000	0.00044	0.00044	0.00006	0.00007	0.00020	0.00008
Manganese	0.00021	0.03199	0.00019	0.02061	0.00112	0.00023	0.00000	0.00000	0.00187	0.00186	0.00024	0.00025	0.00182	0.00040
Mercury	0.00000	0.00048	0.00000	0.00031	0.00004	0.00003	0.00000	0.00000	0.00009	0.00009	0.00001	0.00001	0.00004	0.00001
Molybdenum	0.00000	0.00018	0.00000	0.00012	0.00001	0.00000	0.00000	0.00000	0.00001	0.00001	0.00000	0.00000	0.00001	0.00000
Nickel	0.00002	0.00289	0.00002	0.00185	0.00013	0.00004	0.00000	0.00000	0.00021	0.00021	0.00003	0.00003	0.00017	0.00004
Selenium	0.00001	0.00005	0.00001	0.00003	0.00005	0.00002	0.00000	0.00000	0.00028	0.00028	0.00004	0.00004	0.00006	0.00002
Silver	0.00001	0.00020	0.00001	0.00027	0.00002	0.00002	0.00000	0.00000	0.00017	0.00017	0.00002	0.00003	0.00005	0.00005
Strontium	0.00030	0.04645	0.00027	0.02972	0.00158	0.00029	0.00000	0.00000	0.00233	0.00230	0.00029	0.00030	0.00254	0.00049
Tellurium	0.00000	0.00001	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	0.00000	0.00017	0.00000	0.00011	0.00001	0.00000	0.00000	0.00000	0.00001	0.00001	0.00000	0.00000	0.00001	0.00000
Titanium	0.00122	0.19136	0.00112	0.12243	0.00649	0.00121	0.00001	0.00002	0.00961	0.00949	0.00121	0.00122	0.01048	0.00203
Tungsten	0.00000	0.00057	0.00000	0.00037	0.00002	0.00000	0.00000	0.00000	0.00003	0.00003	0.00000	0.00000	0.00003	0.00001
Uranium	0.00000	0.00070	0.00000	0.00045	0.00002	0.00000	0.00000	0.00000	0.00004	0.00003	0.00000	0.00000	0.00004	0.00001
Vanadium	0.00003	0.00437	0.00003	0.00280	0.00015	0.00003	0.00000	0.00000	0.00022	0.00022	0.00003	0.00003	0.00024	0.00005
Zinc	0.00008	0.00766	0.00008	0.00589	0.00040	0.00019	0.00001	0.00001	0.00157	0.00158	0.00022	0.00025	0.00072	0.00044

CAMS = continuous air monitoring station; µg/m³ = micrograms per cubic metre.

**Table 7A2-18 Maximum Annual Metals Predictions at Selected Locations
Part B**

Maximum Annual (µg/m³)	Ekati Camp/Administration		Koala Station		Lac de Gras Winter Road Rest Stop		Lac de Gras Hunting Camp		Misery Camp		Pellatt Lake Cabin		Polar Lake Station	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
Aluminum	0.58446	0.09849	0.11311	0.01911	0.01406	0.01748	0.02813	0.03856	1.15913	0.21717	0.00117	0.00108	0.17622	0.01406
Antimony	0.00002	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00003	0.00001	0.00000	0.00000	0.00001	0.00000
Arsenic	0.00011	0.00004	0.00002	0.00001	0.00001	0.00001	0.00001	0.00001	0.00015	0.00004	0.00000	0.00000	0.00003	0.00000
Barium	0.00584	0.00174	0.00100	0.00022	0.00013	0.00016	0.00024	0.00032	0.00948	0.00184	0.00001	0.00001	0.00149	0.00015
Beryllium	0.00004	0.00002	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00004	0.00002	0.00000	0.00000	0.00001	0.00000
Cadmium	0.00027	0.00025	0.00013	0.00013	0.00007	0.00007	0.00004	0.00007	0.00016	0.00034	0.00000	0.00001	0.00011	0.00007
Chromium	0.00188	0.00060	0.00034	0.00009	0.00005	0.00006	0.00008	0.00011	0.00299	0.00064	0.00000	0.00000	0.00049	0.00006
Cobalt	0.00011	0.00006	0.00003	0.00002	0.00001	0.00001	0.00001	0.00001	0.00013	0.00008	0.00000	0.00000	0.00003	0.00001
Copper	0.00027	0.00012	0.00006	0.00003	0.00002	0.00002	0.00002	0.00002	0.00035	0.00013	0.00000	0.00000	0.00008	0.00002
Iron	0.16982	0.05069	0.02919	0.00657	0.00376	0.00460	0.00686	0.00943	0.27516	0.05357	0.00029	0.00027	0.04326	0.00455
Lead	0.00028	0.00012	0.00006	0.00003	0.00003	0.00003	0.00002	0.00003	0.00034	0.00014	0.00000	0.00000	0.00008	0.00002
Manganese	0.00267	0.00083	0.00047	0.00012	0.00007	0.00009	0.00011	0.00016	0.00424	0.00089	0.00001	0.00001	0.00069	0.00008
Mercury	0.00007	0.00003	0.00001	0.00001	0.00001	0.00001	0.00000	0.00000	0.00007	0.00002	0.00000	0.00000	0.00002	0.00000
Molybdenum	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00002	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	0.00026	0.00009	0.00005	0.00001	0.00001	0.00001	0.00001	0.00002	0.00039	0.00008	0.00000	0.00000	0.00007	0.00001
Selenium	0.00011	0.00006	0.00002	0.00001	0.00002	0.00002	0.00001	0.00001	0.00006	0.00005	0.00000	0.00000	0.00003	0.00001
Silver	0.00004	0.00004	0.00002	0.00002	0.00001	0.00001	0.00001	0.00001	0.00003	0.00005	0.00000	0.00000	0.00002	0.00001
Strontium	0.00378	0.00112	0.00065	0.00014	0.00008	0.00010	0.00015	0.00021	0.00613	0.00119	0.00001	0.00001	0.00096	0.00010
Tellurium	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00002	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	0.01557	0.00463	0.00267	0.00059	0.00034	0.00042	0.00063	0.00086	0.02524	0.00489	0.00003	0.00002	0.00396	0.00041
Tungsten	0.00005	0.00001	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00008	0.00001	0.00000	0.00000	0.00001	0.00000
Uranium	0.00006	0.00002	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00009	0.00002	0.00000	0.00000	0.00001	0.00000
Vanadium	0.00036	0.00011	0.00006	0.00001	0.00001	0.00001	0.00001	0.00002	0.00058	0.00011	0.00000	0.00000	0.00009	0.00001
Zinc	0.00084	0.00045	0.00024	0.00017	0.00009	0.00010	0.00006	0.00011	0.00103	0.00056	0.00001	0.00001	0.00026	0.00010

µg/m³ = micrograms per cubic metre.

Table 7A2-18 Maximum Annual Metals Predictions at Selected Locations
Part C

Maximum Annual (µg/m³)	Salmita Airstrip		Treeline Lodge		TSP1		TSP2		TSP3		Jay Pit Boundary		Maximum Point of Impingement	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
Aluminum	0.00068	0.00065	0.00066	0.00061	0.57141	0.09810	0.15846	0.01593	0.18312	0.01523	0.10534	31.78112	17.48060	31.78112
Antimony	0.00000	0.00000	0.00000	0.00000	0.00002	0.00001	0.00000	0.00000	0.00001	0.00000	0.00000	0.00088	0.00049	0.00088
Arsenic	0.00000	0.00000	0.00000	0.00000	0.00011	0.00004	0.00003	0.00000	0.00003	0.00001	0.00001	0.00369	0.00204	0.00369
Barium	0.00001	0.00001	0.00001	0.00001	0.00579	0.00178	0.00135	0.00018	0.00164	0.00022	0.00087	0.25947	0.14275	0.25947
Beryllium	0.00000	0.00000	0.00000	0.00000	0.00004	0.00002	0.00001	0.00000	0.00001	0.00000	0.00000	0.00090	0.00050	0.00090
Cadmium	0.00001	0.00001	0.00001	0.00001	0.00026	0.00024	0.00013	0.00009	0.00010	0.00008	0.00005	0.00898	0.00236	0.00898
Chromium	0.00000	0.00000	0.00000	0.00000	0.00187	0.00061	0.00045	0.00007	0.00054	0.00009	0.00028	0.08228	0.04448	0.08228
Cobalt	0.00000	0.00000	0.00000	0.00000	0.00011	0.00006	0.00004	0.00002	0.00003	0.00001	0.00002	0.00445	0.00165	0.00445
Copper	0.00000	0.00000	0.00000	0.00000	0.00027	0.00012	0.00008	0.00002	0.00007	0.00002	0.00004	0.00982	0.00461	0.00982
Iron	0.00018	0.00017	0.00017	0.00016	0.16818	0.05182	0.03925	0.00518	0.04780	0.00640	0.02524	7.53766	4.14291	7.53766
Lead	0.00000	0.00000	0.00000	0.00000	0.00028	0.00013	0.00008	0.00002	0.00007	0.00002	0.00004	0.00916	0.00425	0.00916
Manganese	0.00000	0.00000	0.00000	0.00000	0.00265	0.00085	0.00063	0.00009	0.00075	0.00011	0.00040	0.11638	0.06324	0.11638
Mercury	0.00000	0.00000	0.00000	0.00000	0.00007	0.00003	0.00002	0.00000	0.00003	0.00001	0.00001	0.00173	0.00095	0.00173
Molybdenum	0.00000	0.00000	0.00000	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00065	0.00036	0.00065
Nickel	0.00000	0.00000	0.00000	0.00000	0.00026	0.00009	0.00006	0.00001	0.00008	0.00002	0.00004	0.01042	0.00573	0.01042
Selenium	0.00000	0.00000	0.00000	0.00000	0.00012	0.00007	0.00004	0.00001	0.00002	0.00001	0.00001	0.00015	0.00034	0.00034
Silver	0.00000	0.00000	0.00000	0.00000	0.00004	0.00004	0.00002	0.00001	0.00002	0.00001	0.00001	0.00157	0.00039	0.00157
Strontium	0.00000	0.00000	0.00000	0.00000	0.00374	0.00115	0.00087	0.00011	0.00106	0.00014	0.00056	0.16775	0.09229	0.16775
Tellurium	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00005	0.00003	0.00005
Thallium	0.00000	0.00000	0.00000	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00061	0.00034	0.00061
Titanium	0.00002	0.00002	0.00002	0.00001	0.01542	0.00474	0.00359	0.00047	0.00438	0.00058	0.00231	0.69111	0.38022	0.69111
Tungsten	0.00000	0.00000	0.00000	0.00000	0.00005	0.00001	0.00001	0.00000	0.00001	0.00000	0.00001	0.00206	0.00113	0.00206
Uranium	0.00000	0.00000	0.00000	0.00000	0.00006	0.00002	0.00001	0.00000	0.00002	0.00000	0.00001	0.00253	0.00139	0.00253
Vanadium	0.00000	0.00000	0.00000	0.00000	0.00035	0.00011	0.00008	0.00001	0.00010	0.00001	0.00005	0.01580	0.00869	0.01580
Zinc	0.00001	0.00001	0.00001	0.00001	0.00082	0.00044	0.00027	0.00012	0.00026	0.00010	0.00014	0.03364	0.01294	0.03364

µg/m³ = micrograms per cubic metre.

7A3 REFERENCES

GNWT-ENR (Environment and Natural Resources, Government of the Northwest Territories). 2014. Guideline for Ambient Air Quality Standards in the Northwest Territories. Yellowknife, NWT, Canada, 5 pp.