D1 AIR QUALITY UPDATED EFFECTS ASSESSMENT

Marathon Palladium Project
Environmental Impact Statement Addendum
Appendix D1: Air Quality Updated Assessment Report

FINAL

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Table of Contents

1.0 INTRODUCTION 1.1
1.1 ASSESSMENT PURPOSE AND OBJECTIVES 1.2
1.2 ASSESSMENT BOUNDARIES 1.2
1.2.1 Site Study Area (SSA) 1.3
1.2.2 Local Study Area (LSA) 1.3
1.2.3 Regional Study Area (RSA) 1.3
1.3 TEMPORAL BOUNDARIES PHASES 1.4
1.4 CONSTITUENTS OF POTENTIAL CONCERN 1.5

2.0 PREVIOUS ASSESSMENT OF POTENTIAL EFFECTS 2.1

3.0 REGULATORY BACKGROUND AND ASSESSMENT CRITERIA 3.1
3.1.1 Ontario Air Quality Criteria 3.1
3.1.2 Federal Air Quality Criteria 3.6
3.1.3 Use of Provincial and Federal Air Quality Criteria in the Assessment 3.7
3.2 CODES, GUIDELINES AND STANDARDS 3.8
3.3 EMISSIONS REPORTING 3.8
3.4 MUNICIPAL PLANNING POLICIES AND BYLAWS 3.8
3.5 FEDERAL AND PROVINCIAL GREENHOUSE GAS AND CLIMATE CHANGE POLICY 3.9

4.0 EXISTING CONDITIONS 4.1
4.1 TOPOGRAPHY 4.1
4.2 CLIMATE 4.1
4.2.1 Temperature 4.2
4.2.2 Precipitation 4.2
4.2.3 Relative Humidity 4.3
4.2.4 Wind Speed and Direction 4.4
4.3 SPECIAL RECEPTORS 4.5
4.4 LOCAL AIR QUALITY 4.6
4.4.1 Particulate Matter 4.7
4.4.2 Metals 4.8
4.4.3 Nitrogen Dioxide (NO_2) 4.8
4.4.4 Sulphur Dioxide (SO_2) 4.8
4.4.5 Volatile Organic Compounds (VOCs) 4.9
4.4.6 Polycyclic Aromatic Hydrocarbons (PAHs) 4.9
4.4.7 Background Concentration Levels 4.9

5.0 EFFECTS ASSESSMENT METHODOLOGY 5.1
5.1 OVERVIEW 5.1
5.1.1 Analysis Approach 5.1
5.2 EMISSION INVENTORY 5.1
5.2.1 Project Overview 5.2
5.2.2 Site Preparation 5.2

5.2.3 Construction Emissions 5.2
5.2.4 Operation Emissions 5.12
5.2.5 Closure Emissions 5.28
5.2.6 Existing and Future Development 5.28
5.2.7 Design and Mitigation Measures 5.31
5.3 DISPERSION MODELLING – APPROACH AND METHODS 5.32
5.3.1 Modelling Assessment Approach 5.32
5.3.2 Modelling Domain 5.32
5.3.3 Air Dispersion Modelling Methodology 5.33
5.3.4 Receptor Grid 5.35
5.3.5 Emission Source Data 5.36

6.0 RESULTS AND DISCUSSION 6.1
6.1 ASSESSMENT OF PROJECT CONSTRUCTION ON AIR QUALITY 6.1
6.1.1 Construction – Project Alone 6.1
6.1.2 Construction - Cumulative Concentrations 6.13
6.2 ASSESSMENT OF PROJECT OPERATION ON AIR QUALITY 6.25
6.2.1 Operation – Project Alone 6.25
6.2.2 Operation - Cumulative Concentrations 6.38
6.3 CRYSTALLINE SILICA ASSESSMENT 6.50
6.4 ASSESSMENT OF AIR QUALITY AT INDIGENOUS TLU LOCATIONS 6.52
6.5 OZONE FORMATION 6.52

7.0 SUMMARY AND CONCLUSIONS 7.1

8.0 REFERENCES 8.1

LIST OF GRAPHS

Graph 4-1: Wind Class Frequency Distribution (2015-2019) For Marathon Airport 4.5
Graph 5-1: Variation in Material Movements (kt/yr) by Project Operating Year 5.18
Graph 5-2: Wind Class Frequency Distribution for the MECP Meteorological Data Set 5.34

LIST OF TABLES

Table 3.1: Summary of Provincial Air Quality Criteria for TSP, Metals and Metallic Compounds 3.2
Table 3.2: Summary of Provincial Air Quality Criteria for CACs 3.4
Table 3.3: Summary of Air Quality Criteria for VOCs 3.4
Table 3.4: Summary of Applicable Provincial Air Quality Standards for Selected PAHs 3.5
Table 3.5: Summary of Applicable Provincial Air Quality Standards for Other CoPCs 3.6
Table 3.6: Summary of Federal Air Quality Standards 3.7
Table 3.7: Summary of Emission Limits for Internal Combustion Engine Generator Sets for Non-Emergency Use 3.8
Table 4.1: Summary of Average Temperature Data 4.2
Table 4.2: Mean Monthly Precipitation 4.3

Table 4.3: Summary of Average Relative Humidity Data....4.4
Table 4.4: Monthly Average Wind Speed and Direction Data - Thunder Bay Climate Normals (1971-2000)....4.4
Table 4.5: NAPS Locations Assessed in This Study....4.7
Table 4.6: Historical and Measured Ambient Particulate Matter 90th Percentile Concentrations and Background Concentrations Used in the Dispersion Modelling Assessment....4.11
Table 4.7: Background Metals in TSP Concentrations Used in the Dispersion Modelling Assessment....4.11
Table 4.8: Background Criteria Air Contaminant (90th Percentile) Concentrations Used in the Dispersion Modelling Assessment....4.13
Table 4.9 Background Volatile Organic Compound Concentrations Used in the Dispersion Modelling Assessment....4.13
Table 4.10: Summary of Background PAH Concentrations Used in the Dispersion Modelling Assessment....4.14
Table 5.1: Emissions Summary - Construction....5.10
Table 5.2: Summary of Assumed Mitigation Control Efficiencies....5.24
Table 5.3: Emissions Summary - Operation....5.25
Table 5.4: Summary of Existing Development in the Air Quality RSA....5.29
Table 5.5: Summary of Future Development in the Air Quality RSA....5.30
Table 5.6: Summary of Dispersion Modelling Scenarios Assessed....5.32
Table 5.7: Summary of Particle Size Distributions used in the Assessment....5.42
Table 5.8: Hourly O_3 Concentrations (ppb) for Thunder Bay (Station 60809) Used in the Assessment....5.43
Table 6.1: Maximum Predicted Concentrations for the Construction Scenario - Project Alone....6.3
Table 6.2: Maximum Predicted Concentrations for the Construction Scenario – Cumulative (Project + Background)....6.15
Table 6.3: Maximum Predicted Concentrations for the Operations Scenario - Project Alone....6.27
Table 6.4: Maximum Predicted Concentrations for the Operations Scenario – Cumulative (Project + Background)....6.39
Table 6.5: Crystalline Silica Frequency of Exceedance Assessment at Selected Locations....6.51
Table 6.6: Comparison of Annual Average Ozone Precursor Emissions....6.52

LIST OF APPENDICES

APPENDIX A FIGURES

Figure 1 Project Location
Figure 2 Site Study Area
Figure 3 Local and Regional Study Areas
Figure 4 Wind Rose for Marathon Airport (2015-2019)
Figure 5 Location of Special Receptors
Figure 6 Conceptual Mill Process Flow Diagram
Figure 7 Wind Rose for the MECP Supplied Meteorological Data Set
Figure 8 Building Layout
Figure 9 Extended Receptor Grid
Figure 10 Close up of Receptor Grid
Figure 11a Construction Source Location Plan – Overview
Figure 11b Construction Source Location Plan - Primary Crushing Building
Figure 11c Construction Source Location Plan - Processing Area
Figure 11d Construction Source Location Plan - Town of Marathon
Figure 12a Operations Source Location Plan – Overview
Figure 12b Operations Source Location Plan - Primary Crushing Building
Figure 12c Operations Source Location Plan - Processing Area
Figure 12d Operations Source Location Plan - Rail Loadout
Figure 13a Concentration Contour Plot for the Project Alone, Construction Scenario - 24-hour Average TSP
Figure 13b Concentration Contour Plot for the Project Alone, Construction Scenario - Annual Average TSP
Figure 13c Concentration Contour Plot for the Project Alone, Construction Scenario - 24-hour Average PM10
Figure 13d Concentration Contour Plot for the Project Alone, Construction Scenario - 24-hour Average PM2.5
Figure 13e Concentration Contour Plot for the Project Alone, Construction Scenario - Annual Average PM2.5
Figure 13f Concentration Contour Plot for the Project Alone, Construction Scenario - 1-hour Average NO2
Figure 13g Concentration Contour Plot for the Project Alone, Construction Scenario - 24-hour Average NO2
Figure 13h Concentration Contour Plot for the Project Alone, Construction Scenario - Annual Average NO2
Figure 13i Concentration Contour Plot for the Project Alone, Construction Scenario - 24-hour Average Crystalline Silica
Figure 14b Concentration Contour Plot for the Project Alone, Operations Scenario - Annual Average TSP
Figure 14c Concentration Contour Plot for the Project Alone, Operations Scenario - 24-hour Average PM10
Figure 14d Concentration Contour Plot for the Project Alone, Operations Scenario - 24-hour Average PM2.5
Figure 14e Concentration Contour Plot for the Project Alone, Operations Scenario - Annual Average PM2.5

Figure 14f Concentration Contour Plot for the Project Alone, Operations Scenario - 1-hour Average NO2
Figure 14g Concentration Contour Plot for the Project Alone, Operations Scenario - 24-hour Average NO2
Figure 14h Concentration Contour Plot for the Project Alone, Operations Scenario - Annual Average NO2
Figure 14i Concentration Contour Plot for the Project Alone, Operations Scenario - 24-hour Average Crystalline Silica
Figure 14j Concentration Contour Plot for the Project Alone, Operations Scenario - 24 Hour Average Nickel
Figure 14k Concentration Contour Plot for the Project Alone, Operations Scenario - Annual Average Nickel

APPENDIX B SUMMARY OF SENSITIVE RECEPTORS

APPENDIX C EMISSION CALCULATIONS - CONSTRUCTION

APPENDIX D EMISSION CALCULATIONS – OPERATIONS

APPENDIX E MODEL PREDICTIONS – CONSTRUCTION

APPENDIX F MODEL PREDICTIONS - OPERATIONS

Abbreviations

AAQC	Ambient Air Quality Criteria
ACB	Air Contaminants Benchmarks
AIRs	Additional Information Requests
AOC	Area of Concern
ANFO	Ammonium Nitrate Fuel Oil
AP	Acid Potential
AQI	Air Quality Index
ASL	Above Sea Level
BN	Biigtigong Nishnaabeg: Pic River First Nation
CAAQS	Canadian Ambient Air Quality Standards
CAC	Criteria Air Contaminant
CCME	Canadian Council of Ministers of the Environment
CCCma	Canadian Centre for Climate Modelling and Analysis
CEA Act	Canadian Environmental Assessment Act (Canada)
CEA Agency	Canadian Environmental Assessment Agency
CEA	Cumulative Effects Assessment
CMC	carboxymethyl cellulose
CNR	Canadian National Railway
CoPCs	Constituents of Potential Concern
CPR	Canadian Pacific Railway
Cu	Copper
EA	Environmental Assessment
EAA	Environmental Assessment Act (Ontario)
ECCC	Environment and Climate Change Canada
ECA	Environmental Compliance Approval
e.g.	For example
EIA	Environmental Impact Assessment
EIS	Environmental Impact Statement

EMMP	Environmental Monitoring and Management Program
EMS	Environmental Management System
EPA	Environmental Protection Act (Ontario)
Fe	Iron
GHG	Greenhouse Gas
GLC	Ground Level Concentration
ha	Hectare
HHRA	Human Health Risk Assessment
i.e.	That is
IRs	Information Requests
km	Kilometre
LSA	Local Study Area
m	Metre
M	Million
MNO	Superior North Shore Métis Council: Métis Nation of Ontario
MNRF	Ministry of Natural Resources and Forestry
MECP	Ministry of the Environment, Conservation and Parks
MOH	Ministry of Health
MOU	Memorandum of Understanding
MRSA	Mine Rock Storage Area
MT	Metric tonne
MTO	Ministry of Transportation
MW	Megawatt
N	Nitrate
NAG	Non-Acid Generating
NAPS	National Air Pollution Surveillance
Ni	Nickel
NN	Netmizaaggamig Nishnaabeg: Pic Mobert First Nation
NPRI	National Pollutant Release Inventory
NoC	Notice of Commencement

NOx	Nitrogen Oxides
NRCan	Natural Resources Canada
O.Reg.	Ontario Regulation
OB	Overburden
oz	Ounces
PAG	Potentially Acid Generating
PGE	Platinum Group Element
PGM	Platinum Group Metal
PM	Particulate Matter
PSMF	Process Solids Management Facility
RH	Relative Humidity
RSA	Regional Study Area
RSMIN	Red Sky Métis Independent Nation
SAG	Semi-Autogenous Grinding
SCI	Stillwater Canada Incorporated
SDS	Safety Data Sheet
SID	Supplemental Information Document
SIRs	Supplemental Information Requests
SL	Screening Level
SME	Site Mixed Emulsion
SO_2	Sulphur Dioxide
SOP	Standard Operating Procedure
SSA	Site Study Area
TDL	Two Duck Lake
TEK	Traditional Ecological Knowledge
TGCL	True Grit Consulting Limited
TK	Traditional Knowledge
TLU	Traditional Land Use
ToR	Terms of Reference
TPD	Tonnes Per Day

TSP	Total Suspended Particulate
URT	Upper Risk Threshold
US EPA	United States Environmental Protection Agency
VEC	Valued Ecosystem Component
WHMIS	Workplace Hazardous Materials Information System
WTP	Water Treatment Plant

1.0 INTRODUCTION

Generation PGM Inc. (GenPGM) proposes to develop the Marathon Palladium Project (the "Project"), which is a platinum group metals (PGM), copper (Cu) and possibly iron (Fe) open-pit mine and processing operations near the Town of Marathon, Ontario. The Project is being assessed in accordance with the *Canadian Environmental Assessment Act* (CEA Act, 2012) and Ontario's *Environmental Assessment Act* (EA Act) through a Joint Review Panel (the Panel) pursuant to the *Canada-Ontario Agreement on Environmental Assessment Cooperation* (2004).

The Project is located approximately 10 km north of the Town of Marathon, Ontario (Figure 1, Appendix A). Marathon is a community of approximately 3,300 people (Statistics Canada, 2017) located adjacent to the Trans-Canada Highway (Highway 17) on the northeast shore of Lake Superior approximately 300 km east of Thunder Bay and 400 km northwest of Sault Ste. Marie. The centre of the Project footprint sits at approximately 48° 47' N latitude, 86° 19' W longitude (UTM NAD83 N16 Easting 550197 and Northing 5403595). The footprint of the proposed mine location is roughly bounded by Highway 17 and the Marathon Airport to the south, the Pic River and Camp 19 Road to the east, Hare Lake to the west, and Bamoos Lake to the north. Access is currently gained through Camp 19 Road (Figure 1, Appendix A). For a more detailed description of the Project, refer to Chapter 2 of the Environmental Impact Statement (EIS) Addendum (CIAR #727, Volume 1). Stantec Consulting Ltd. (Stantec) has been retained by GenPGM to conduct an updated assessment of potential effects on air quality as a result of the Project. This report provides an update to the effects assessment described in the information currently on the record, including:

- Supporting Information Document #16: Air Quality Impact Assessment – Marathon PGM-Cu Project prepared by True Grit Consulting Ltd. (July 5, 2012) (CIAR #234)
- Responses to IR10.2, 10.4, 10.6, 10.8, 10.10.2, 10.10.3, 10.13, 10.17, 10.18, 10.19 (CIAR #407, 423, 443, 373, 394, 473, and 434)

This air quality effects assessment has been completed to inform the Addendum to the Marathon PGM-Cu Environmental Impact Statement (EIS Addendum) as input to the Joint Review Panel process. It has been prepared pursuant to CEA Act, 2012 and in consideration of the *Guidelines for the Preparation of an Environmental Impact Statement – Marathon Platinum Group Metals and Copper Mine Project* (EIS Guidelines) (Canadian Environmental Assessment Agency (CEA Agency) and Ontario Ministry of the Environment (MOE, now the Ontario Ministry of the Environment, Conservation, and Parks (MECP)), 2011).

1.1 ASSESSMENT PURPOSE AND OBJECTIVES

The purpose of this updated effects assessment is to address 'changes' that may have occurred since the original assessment, including:

- Changes to the characterization of existing baseline conditions since previous baseline studies were completed, as documented in the "Marathon Palladium Project Air Quality Updated Baseline Report" (Stantec 2020) (CIAR #722)
- Changes to applicable criteria, standards, and/or thresholds for determining the significance of potential residual environmental effects
- Changes to the Project, including refinements to project components and activities implemented by GenPGM

The information presented in this report is intended to summarize and document existing conditions and to identify changes in air quality at key receptors in order to determine potential and residual cumulative changes to air quality. The impact assessment includes the following sections:

- Project overview and purpose of this assessment, as well as the identification of spatial and temporal Project boundaries and constituents of potential concern (CoPCs) (Section 1.0)
- Summary of previous impact assessment findings (Section 2.0)
- Identification of regulatory framework used for the assessment (Section 3.0)
- Review of baseline conditions in the SSA, LSA and RSA specific to the relevant effects being assessed (Section 4.0)
- Explains the methodology and approach used to conduct the impact assessment (Section 5.0)
- Presents the results and mitigation measures to be implemented (Section 6.0)
- Updated summary of potential predicted residual and cumulative effects (Section 7.0)

1.2 ASSESSMENT BOUNDARIES

For the purpose of this assessment, the spatial boundaries considered include the direct and indirect effects related to three phases - site preparation and construction/commissioning, operation, and decommissioning/post-closure of the Project. These areas are generally consistent with the spatial boundaries used in the original EIS (2012) and associated supporting information documents, with appropriate revisions / refinements and rationale provided below.

1.2.1 Site Study Area (SSA)

The Site Study Area (SSA) is the direct footprint of the Project. Based on refinements to the Project footprint, and in recognition of project components originally located outside of the SSA, a revised SSA has been developed that encompasses the immediate area in which Project activities and components may occur and, as such, represents the area within which direct physical disturbance may occur as a result of the Project, whether temporary or permanent. The proposed site plan and corresponding SSA are depicted on Figure 2 (Appendix A).

1.2.2 Local Study Area (LSA)

The Local Study Area (LSA) is the maximum area within which environmental effects from Project activities and components can be predicted or measured with a reasonable degree of accuracy and confidence. It consists of the SSA and adjacent areas where Project-related environmental effects are reasonably expected to occur based on available information and professional judgment. The LSA for air quality is depicted on Figure 3 (Appendix A).

The LSA for air quality is considered to be an area extending about 10 km from the Site surface claim boundary, which encompasses the Town of Marathon and the Pic River First Nation. The LSA was sized based on guidelines provided by the MECP to capture the maximum predicted ground level concentrations due to the Project in the dispersion modelling (MECP, 2017). This LSA has been updated relative to that defined in the 2012 AQ Baseline report (TGCL, 2012). The 2012 Baseline report defined the LSA as 10 km from all GenPGM claim areas (surface and subsurface), which also encompassed the Town of Marathon and the Pic River First Nation. This update report utilizes solely the surface claim area boundary, which defines the maximum surface extent of the mine site, as the basis for defining the 10 km zone around the site.

1.2.3 Regional Study Area (RSA)

The Regional Study Area (RSA) is the area within which residual environmental effects from Project activities and components may interact cumulatively with the residual environmental effects of other past, present and future (i.e., certain or reasonably foreseeable) physical activities. The RSA is based on the potential for interactions between the Project and other existing or future potential projects. The RSA (Figure 3, Appendix A) has been updated relative to the 2012 baseline report (TGCL, 2012) to be defined specific to the effect being considered:

- For air quality, the RSA is an area extending 50 km from the Site claim boundary. This distance defines the extent that other projects within this area may have a measurable effect on air quality in this study's LSA based on the types of emission sources anticipated for this Project.
- For a change in greenhouse gas (GHG) emissions, since GHG releases act cumulatively in the atmosphere globally, the environmental effect of GHG on the environment is a global concern. The spatial boundary is provincial and national in geographic extent.

1.3 TEMPORAL BOUNDARIES PHASES

The temporal boundaries for the Project are defined by the duration and timing of the individual Project phases (Phase I – Site Preparation, Construction and Commissioning, Phase II – Operations, Phase III – Decommissioning and Post-Closure). Through refinements to the Project, the timing and duration of these phases has been revised as follows:

- Phase I – Site Preparation and Construction: This phase consists of pre-operation activities to prepare the site for extraction activities, which includes site preparation and construction activities to be completed concurrently over a period of 18 to 24 months (previously 18 months).
  - Phase IA Site Preparation: This phase consists of site clearing, grading and excavation as scheduled early works prior to advancing into the subsequent construction activities.
  - Phase IB Construction: This phase consists of the building of the physical infrastructure and structures necessary to bring the Project into production.
- Phase II – Operations: This phase consists of the extraction and processing of selected minerals and will last for approximately 12.7 years (previously 11.5 years)
- Phase III – Decommissioning and Closure: While the site will be reclaimed on an on-going basis to the extent practical during all previous phases, this phase consists of the relatively intense period of reclamation and decommissioning upon cessation of mine operations and the duration of time required for the mine site to be stabilized following implementation of the closure plan.
  - Phase IIIA – Decommissioning / Closure: This phase will occur throughout the life of the project but the most intensive part (i.e., decommissioning activities), which will occur post-operation, will last for approximately 2 years (no change, previously 2 years).
  - Phase IIIB – Post-Closure: This phase will occur following completion of all on-site decommissioning activities and will consist primarily of follow-up and monitoring programs and the subsequent stabilization of existing environmental conditions specific to each VEC (i.e., regeneration of vegetative cover, stabilization of water levels in the pits). For the purposes of the effects assessment, this phase is anticipated to last for up to approximately 45 years.

1.4 CONSTITUENTS OF POTENTIAL CONCERN

The expected emissions, based on the Project-specific design and operation, formed the basis of selecting the substances for evaluation. Stantec developed a comprehensive list of CoPCs for this study by using experience from similar projects and knowledge of the regulatory requirements. Several information sources were considered, including:

- review of the Project design
- review of mineralogical and trace constituent analysis of the ore, mine rock and overburden
- review of Safety Data Sheets (SDSs) for additives and other chemicals used in operation of the ore concentrating process facility
- air contaminants with O. Reg. 419 or federal criteria that may be emitted during construction, operation and closure
- air contaminants emitted from vehicle tailpipe exhaust

The CoPCs on this list may be released to the atmosphere during the mining and associated processing activities. The CoPCs were reviewed and grouped to allow for comparison with regulatory air quality criteria. The major contaminant groupings are as follows:

- Total suspended particulate (TSP) matter, particulate matter less than 10 microns in diameter (PM_{10}) and particulate matter less than 2.5 microns in diameter ($PM_{2.5}$). TSP is a measure of the particles in the atmosphere that are too small to settle out quickly, but remain suspended for significant periods of time. Generally, this means particles with an aerodynamic diameter of less than 44 µm. TSP is produced by a variety of activities including wind erosion of agricultural or cleared fields and other open areas, abrasion of vehicle tires on paved and unpaved roads, agricultural activities, and combustion processes (e.g., industrial heaters, power generation, vehicle emissions). Although TSP is an excellent measure of the loading of particulate matter in the air, it does not necessarily reflect the health risks of the particulate matter. The larger aerodynamic particles (PM_{10}) are trapped by the upper airways, and do not enter the lungs. Smaller diameter particles ($PM_{2.5}$) can make their way deep into the lungs and may become lodged there.
- Other Criteria Air Contaminants (CACs) – substances with regulatory limits including sulphur dioxide (SO_2), nitrogen oxides (NO_X), and carbon monoxide (CO).
- Hazardous Air Pollutants (HAPs) - Substances that are capable of causing environmental or health effects including Volatile Organic Compounds (VOCs), Polycyclic Aromatic Hydrocarbons (PAHs) and metals. PAHs and VOCs (including benzo(a)pyrene and benzene) from vehicle tailpipe emissions were included in the assessment.

Detectable odours could result from emissions of odorous hydrocarbons, which would only be released to the atmosphere at negligible emission rates from mining equipment powered with fossil fuel. Odour emissions from chemicals used in the process plant were reviewed and non-negligible CoPCs with odour-based criteria were included in the assessment. Sewage and effluent treatment plants are all enclosed and expected to have negligible odour emissions.

2.0 PREVIOUS ASSESSMENT OF POTENTIAL EFFECTS

Baseline air quality and climate was characterized in *Stillwater Canada Inc. Marathon PGM-Cu Project, Supporting Information Document No. 16 – Air Quality Impact Assessment – Air – Marathon PGM – Cu Project (July 5, 2012)*. (TGCL, 2012a). This report assessed predicted air quality levels for the following CoPCs:

- Criteria air contaminants –TSP, PM_{10}, $PM_{2.5}$, NO_2, SO_2, CO and dustfall
- Selected metals – aluminum, beryllium, bismuth, calcium, cobalt, chromium, iron, potassium, magnesium oxide, manganese, sodium, phosphorous, titanium, vanadium and tungsten
- Volatile organic compounds – benzene, 1,3 -butadiene, acrolein, naphthalene and benzo(a)pyrene

Dispersion modelling was conducted using the version of the US EPA AERMOD dispersion model available in 2012. Dispersion model predictions were compared to regulatory criteria applicable in 2012. The dispersion modelling predicted NO_2 concentrations exceeding applicable provincial criteria, with predictions for other CoPCs being below their applicable criteria.

Relative to 2012, the current air quality assessment includes:

- Updates to regulatory air quality criteria
- Updated (and more detailed) equipment and process data to estimate emissions
- Use of updated emissions estimation methodologies for mobile equipment emissions
- Use of the current (2021) regulatory version of the AERMOD dispersion model
- Updated background air quality levels
- An updated modelled property boundary
- An expanded listing of special receptors
- Use of an updated meteorological data set for the LSA developed by the MECP

Due to the numerous updates to Project emissions estimates, dispersion model/methodologies and applicable regulatory criteria, the model predictions presented in the 2012 air quality assessment are not directly comparable to those presented in this report.

3.0 REGULATORY BACKGROUND AND ASSESSMENT CRITERIA

The Project may be regulated and/or influenced by a number of air quality policy mechanisms, including:

- Ambient Air Quality Criteria (AAQC), Objectives, and Standards
- emissions limits for specific types of equipment (i.e., generators)
- emissions reporting through National Pollutant Release Inventory (NPRI) and O. Reg. 452/09
- local municipal by-laws
- provincial and federal climate change policies

3.1.1 Ontario Air Quality Criteria

The following point of impingement (POI) criteria published by the Ministry of the Environment, Conservation and Parks (MECP) have been applied as part of this review to characterize existing conditions:

- Ontario Regulation 419/05 standards and guidelines
- AAQC
- Screening Levels (SLs)
- Upper Risk Thresholds (URTs)

The Project will be considered a new facility under O. Reg. 419/05 and, as such, the Schedule 3 standards apply. Where no O. Reg. 419/05 Schedule 3 standards are available for a particular CoPC, guidelines, Ontario AAQCs, and SLs were considered. Ontario's AAQC criteria are desirable effects-based concentrations in air with variable averaging periods. The type of effect that a chemical may have varies, but may be based on health, odour, vegetation, soiling, visibility, or corrosion, amongst others.

These criteria are outlined in the MECP's "Air Contaminants Benchmarks (ACB) List – Standards, Guidelines and Screening Levels for Assessing Point of Impingement Concentrations of Air Contaminants" (MECP, 2018b), which includes Benchmark 1 values (Standards and Guidelines) and Benchmark 2 values (Screening Levels). Modelled concentrations of chemicals that are below published screening levels are considered to be insignificant. URTs are maximum concentrations which are not to be exceeded anywhere off property. Similar to SL values, URTs are compared to modelled concentrations at the claim boundary.

Criteria published in O. Reg. 419/05 are applied at a POI, most commonly at or beyond a property boundary. The exception is when a sensitive land use, such as a child-care facility, health care facility or educational facility, exists on site.

Summaries of the relevant provincial air quality objectives, guidelines, and standards are presented in Table 3.1 for total suspended particulate matter (TSP), metals and metallic compounds, Table 3.2 for Criteria Air Contaminants (CACs), Table 3.3 for volatile organic compounds (VOCs), Table 3.4 for polycyclic aromatic hydrocarbons (PAHs) and Table 3.5 for other CoPCs. Changes in air quality criteria since the 2012 air quality assessment (TGCL, 2012a), as well as proposed future changes to criteria in O. Reg. 419/05 were also considered and included in the tables.

Table 3.1: Summary of Provincial Air Quality Criteria for TSP, Metals and Metallic Compounds

Parameter	CAS #	O. Reg. 419/05 - Schedule 3 Standards, Guidelines, SLs and URTs		Ontario AAQC	
		24 Hour (µg/m^3)	Other time period (µg/m^3)	24 Hour (µg/m^3)	Other time period (µg/m^3)
Total Particulate (TSP)	NA	120	-	-	-
Aluminum	7429-90-5	12	-	-	-
Antimony	7440-36-0	25	-	25	-
Arsenic	7440-38-2	0.3	-	.3	-
Barium	7440-39-3	10	-	10	-
Beryllium	7440-41-7	0.01	-	0.01	-
Bismuth	7440-69-9	2.5	-	-	-
Boron	7440-42-8	120	-	120	-
Cadmium	7440-43-9	0.025, 0.25[(1)]	-	0.025	0.005; annual
Calcium	7440-70-2	-	-	-	-
Chromium (total)	7440-47-3	0.5, 5[(1)]	-	0.5	-
Cobalt	7440-48-4	0.1	-	0.1	-
Copper	7440-50-8	50	-	50	-
Gallium	7440-55-3	-	-	-	-
Gold	7440-57-5	1.25			
Iron	15438-31-0	4 [(2)]	-	4	-
Iron Sulphide	1317-37-9	-	-	-	-
Lanthanum	7439-91-0	-	-	-	-
Lanthanum Chloride	10099-58-8	25	-	-	-
Lead	7439-92-1	0.5, 2[(1)]	0.2; 30+ day	0.5	0.2(+) 30day
Lithium	7439-93-2	20	-	20	-

Table 3.1: Summary of Provincial Air Quality Criteria for TSP, Metals and Metallic Compounds

Parameter	CAS #	O. Reg. 419/05 - Schedule 3 Standards, Guidelines, SLs and URTs		Ontario AAQC	
		24 Hour ($\mu g/m^3$)	Other time period ($\mu g/m^3$)	24 Hour ($\mu g/m^3$)	Other time period ($\mu g/m^3$)
Magnesium	7439-95-4	72	-	-	-
Manganese	7439-96-5	0.4	-	0.1 (Mn in $PM_{2.5}$), 0.2 (Mn in PM_{10}), 0.4 (Mn in TSP)	-
Mercury	7439-97-6	2	-	2 (Hg), 0.5 (Hg as alkyl compounds)	-
Molybdenum	7439-98-7	120	-	120	-
Nickel	7440-02-0	2(1)	0.04	0.1 (Ni in PM_{10}), 0.2 (Ni in TSP)	0.02 (Ni in PM_{10} - annual), 0.04 (Ni in TSP - annual)
Phosphorous	7723-14-0	-	-	-	-
Platinum	7440-06-4	0.2	-	0.2	-
Potassium	7440-09-7	1	-	-	-
Scandium	7440-20-2	-	-	-	-
Silicon	7440-21-3	27	-	-	-
Silver	7440-22-4	1	-	1	-
Sodium	7440-23-5	-	-	-	-
Strontium	7440-24-6	120	-	120	-
Thallium	7440-28-0	0.5	-	-	-
Tungsten	7440-33-7	5	-	-	-
Titanium	7440-32-6	120	-	120	-
Uranium	7440-61-1	1.5(1)	0.03; annual	0.15 (U in PM_{10}), 0.3 (U in TSP)	0.03 (U in PM_{10} - annual), 0.06 (U in TSP - annual)
Vanadium	7440-62-2	2	-	2	-
Zinc	7440-66-6	120	-	120	-

Notes:

1 – URT

2 – as metallic iron

Table 3.2: Summary of Provincial Air Quality Criteria for CACs

Parameter	CAS	O. Reg. 419/05 – Schedule 3 Standards and AAQC		
		1-Hour (µg/m³)	24-Hour (µg/m³)	Other time Period (µg/m³)
Sulphur dioxide	7446-09-5	690, 100 [D]	275, N/A [D]	55 [A]; 10 [D] annual
Nitrogen oxides [B]	10102-44-0	400	200	-
Ozone	10028-15-6	165	-	-
$PM_{2.5}$	N/A	-	27 [A, C]	8.8 [A, C]
PM_{10}	N/A	-	50 [A, C]	-
Carbon monoxide	630-08-0	36,200 [A]	-	6,000; ½-hour [E] 15,700; 8-hour [A]

NOTES:

A. Ontario Ambient Air Quality Criteria

B. The Schedule 3 standards for NO_X are based on health effects of NO_2, as NO_2 has adverse health effects at much lower concentrations than NO. Therefore, the standard was compared to NO_2 in this report.

C. AAQC for $PM_{2.5}$ references CAAQS. AAQC for PM_{10} is an interim AAQC provided as a guide for decision making.

D. New Schedule 3 standards for SO_2 effective July 1, 2023.

E. Half-hour standard for carbon monoxide accounts for high background levels from automobiles (i.e., individual facilities are only allowed a small fraction of the total airshed).

Table 3.3: Summary of Air Quality Criteria for VOCs

Parameter	CAS #	O. Reg. 419/05 - Schedule 3 Standards, Guidelines, and SLs		Ontario AAQC	
		24 Hour (µg/m³)	Other (µg/m³)	24 Hour (µg/m³)	Other time period (µg/m³)
Acetaldehyde	75-07-0	500	500 (30 min)	-	-
Acrolein	107-02-8	0.4	4.5 (1 hour)	-	-
Aldehyde	75-07-0	-	-	-	-
1,3-Butadiene	106-99-0	10	2 (annual)	-	-
Benzene	71-43-2	-	0.45 (Annual)	-	-
Bromine	7726-95-6	20	-	-	-
Formaldehyde	50-00-0	65	-	-	-
Hydrochloric acid (hcl)	7647-01-0	20			
Hydrofluoric acid (hf)	7664-39-3	0.86	0.34 (30 day)		
TOC	-	-	-	-	-

Table 3.3: Summary of Air Quality Criteria for VOCs

Parameter	CAS #	O. Reg. 419/05 - Schedule 3 Standards, Guidelines, and SLs		Ontario AAQC	
		24 Hour (µg/m^3)	Other (µg/m^3)	24 Hour (µg/m^3)	Other time period (µg/m^3)
TOC (Methane)	74-82-8	37330	-	-	-
Naphthalene	91-20-3	22.5	50 (10 min)	22.5	50 (10 min)
Nitric Acid	7697-37-2	35	-	-	-
Propylene	115-07-1	4000	-	-	-
Sodium Carboxymethyl Cellulose	9004-32-4	120	-	-	-
Toluene	108-88-3	2,000	-	2,000	-
Xylenes	1330-20-7	730	3000 (10 min)		

Table 3.4: Summary of Applicable Provincial Air Quality Standards for Selected PAHs

CoPC	Chemicals Abstracts Services Number (CAS No.)	O. Reg. 419/05 – Schedule 3 Standards and SLs		Ontario AAQC	
		24-Hour (µg/m^3)	Other time Period (µg/m^3)	24-Hour (µg/m^3)	Other time Period (µg/m^3)
Acenaphthene	83-32-9	-	-	-	-
Acenaphthylene	208-96-8	-	-	-	-
Anthracene	120-12-7	-	-	-	-
Benzo(a)anthracene	56-55-3	-	-	-	-
Chrysene	218-01-9	-	-	-	-
Fluoranthene	206-44-0	-	-	-	-
Fluorene	86-73-7	-	-	-	-
Phenanthrene	85-01-8	-	-	-	-
Pyrene	129-00-0	-	-	-	-
Benzo(a)pyrene	50-32-8	0.00005	0.00001	0.00005	0.00001
Benzo(b) fluoranthene	205-99-2	-	-	-	-
Benzo(k) fluoranthene	208-08-0	-	-	-	-
Benzo(g,h,i)perylene	191-24-2	-	-	-	-

Table 3.4: Summary of Applicable Provincial Air Quality Standards for Selected PAHs

CoPC	Chemicals Abstracts Services Number (CAS No.)	O. Reg. 419/05 – Schedule 3 Standards and SLs		Ontario AAQC	
		24-Hour (µg/m³)	Other time Period (µg/m³)	24-Hour (µg/m³)	Other time Period (µg/m³)
Dibenz(a,h)perylene		-	-	-	-
Indeno(1,2,3-cd)pyrene		-	-	-	-

Table 3.5: Summary of Applicable Provincial Air Quality Standards for Other CoPCs

CoPC	Chemicals Abstracts Services Number (CAS No.)	O. Reg. 419/05 – Schedule 3 Standards and SLs		Ontario AAQC	
		24-Hour (µg/m³)	Other time Period (µg/m³)	24-Hour (µg/m³)	Other time Period (µg/m³)
Calcium Oxide	1305-78-8	10	-	-	-
Crystalline Silica	14808-60-7	5	-	-	-
Nitrous Oxide	10024-97-2	9000			

3.1.2 Federal Air Quality Criteria

Federal air quality criteria are published in the Canadian Ambient Air Quality Standards (CAAQS). The CAAQS were developed through a collaborative process involving the federal, provincial, and territorial governments and stakeholders, as directed by the Canadian Council of Ministers of the Environment (CCME) (CCME 2012).

New or updated CAAQS for sulphur dioxide (SO_2) and particulate matter with diameter less than 2.5 µm ($PM_{2.5}$) came into effect in 2020 and 2025 (for SO_2) (CCME 2016b, 2016a). CAAQS for nitrogen dioxide (NO_2) were released on November 3, 2017 and come into effect in 2020 and 2025 (CCME 2017).

The applicable federal criteria are summarized below.

Table 3.6: Summary of Federal Air Quality Standards

Parameter	Averaging Time	2020 CAAQS ($\mu g/m^3$)	2025 CAAQS ($\mu g/m^3$)
NO_2	1 hour	113 [a]	79 [b]
	24 hours	-	-
	Annual	32 [a]	23 [b]
$PM_{2.5}$	24 hours	27 [c]	-
	Annual	8.8 [c]	-
SO_2	1 hour	183 [d]	170 [e]
	24 hours	-	-
	Annual	13 [d]	10.5 [e]
O_3	8 hours	124	-

Notes:

A. 1 Hour and Annual CAAQS for NO_2, effective by 2020 (CCME, 2020). The 1-hour CAAQS is referenced to the 3-year average of the annual 98th percentile of the daily maximum 1-hour average concentrations. The annual CAAQS is the average over a single calendar year of all 1-hour average concentrations. The criteria were converted from ppb to $\mu g/m^3$ based on standard temperature of 25^oC and pressure of 1 atm.

B. 1 Hour and Annual CAAQS for NO_2, effective by 2025 (CCME, 2018). The 1-hour CAAQS is referenced to the 3-year average of the annual 98th percentile of the daily maximum 1-hour average concentrations. The annual CAAQS is the average over a single calendar year of all 1-hour average concentrations. The criteria were converted from ppb to $\mu g/m^3$ based on standard temperature of 25 ^oC and pressure of 1 atm.

C. 24 Hour and Annual CAAQS for Respirable Particulate Matter, effective by 2020 (CCME, 2012). The 24-hour CAAQS is referenced to the 98th percentile daily average concentration averaged over 3 consecutive years. The annual CAAQS is referenced to the 3-year average of the annual average concentrations.

D. 1 Hour and Annual CAAQS for SO_2, effective by 2020 (CCME, 2018). The 1-hour CAAQS is the 3-year average of the annual 99th percentile of the SO_2 daily maximum 1-hour average concentrations. The annual CAAQS is referenced to the average over a single calendar year of all 1-hour average concentrations. The criteria were converted from ppb to $\mu g/m^3$ based on a standard temperature of 25 ^oC and pressure of 1 atm.

E. 1 Hour and Annual CAAQS for SO_2, effective by 2025 (CCME, 2018). The 1 Hour CAAQS is the 3-year average of the annual 99th percentile of the SO_2 daily maximum 1-hour average concentrations. The annual CAAQS is the average over a single calendar year of all 1-hour average concentrations. The criteria were converted from ppb to $\mu g/m^3$ based on standard temperature of 25 ^oC and pressure of 1 atm.

3.1.3 Use of Provincial and Federal Air Quality Criteria in the Assessment

For the air quality assessment, if there are multiple provincial or federal criteria for a given CoPC, the typical approach taken was to compare to the most conservative (i.e. lowest) of the available criteria. One exception to this approach was the use of the Ontario NO_2 criteria rather than the federal CAAQS. This approach was used as the NO_2 CAAQS came into effect in 2020 but have not been adopted by Ontario and there is no indication from the MECP at the time of this assessment that they intend to.

3.2 CODES, GUIDELINES AND STANDARDS

Air CoPC emissions, emission controls, and equipment for specific sources from the Project may be influenced by the following guidelines:

- The MECP Guidance Document – Emission limits and operating conditions for emergency generator sets in non-emergency situations (MECP 2009c). This guidance document sets out the following emission requirements (listed in Table 3.7) for internal combustion engine generator sets used for non-emergency situations. At present GenPGM is contemplating that the Project will be off-grid during construction when generators would be run on a continual basis to supply electricity for the site, so these criteria are unlikely to be applicable to the Project; however, they were included in this report for completeness.

Table 3.7: Summary of Emission Limits for Internal Combustion Engine Generator Sets for Non-Emergency Use

CoPC	Limits	Timeframe
Nitrogen oxides (NOx) (expressed as nitrogen dioxide equivalent)	1.0 kg/MWh 0.4 kg/MWh	2007 – 2010 2011 onward
Particulate Matter (PM)	0.2 kg/MWh 0.02 kg/MWh	2007 – 2010 2011 onward
Non-Methane Hydrocarbons (NMHC)	1.3 kg/MWh 0.19 kg/MWh	2007 – 2010 2011 onward
CO	3.5 kg/MWh	2007 onward
SO_2	Ultra-low sulphur diesel: 15 ppm	2007 onwards

SOURCE: MECP 2009c

3.3 EMISSIONS REPORTING

Project emissions would be required to be reported under Environment and Climate Change Canada's NPRI program and O. Reg. 452/09 Greenhouse Gas Reporting.

3.4 MUNICIPAL PLANNING POLICIES AND BYLAWS

No municipal policies or bylaws applicable to the Project for atmospheric environment were identified based on a search of the Town of Marathon by-laws (www.marathon.ca/en/town-hall/by-laws.aspx).

3.5 FEDERAL AND PROVINCIAL GREENHOUSE GAS AND CLIMATE CHANGE POLICY

Provincial and Federal Greenhouse gas policies and regulations are addressed in Chapter 6.2 of the EIS Addendum (Volume 2).

4.0 EXISTING CONDITIONS

The Project is located approximately 10 km north of the Town of Marathon, Ontario. Marathon is a community of approximately 3,300 people (Statistics Canada, 2017) located adjacent to the Trans-Canada Highway (Highway 17) on the northeast shore of Lake Superior, approximately 300 km east of Thunder Bay and 400 km northwest of Sault Ste. Marie. The centre of the Project footprint sits at approximately 48° 47' N latitude, 86° 19' W longitude (UTM NAD83 N16 Easting 550197 and Northing 5403595). The footprint of the proposed mine location is roughly bounded by Highway 17 and the Marathon Airport to the south, the Pic River and Camp 19 Road to the east, Hare Lake to the west, and Bamoos Lake to the north. Access is currently gained through Camp 19 Road.

The Project is proposed on Crown Land, with GenPGM holding surface and mineral rights for the area. Regional land use activities in the area include hunting, fishing, trapping and snowmobiling, as well as mineral exploration (and mining) and forestry. Other localized land uses in the area include several licensed aggregate pits, the Marathon Municipal Airport, the Marathon Landfill, a municipal works yard, and several commercial and residential properties.

The following sections describe the existing physical environment of the study area. Additional details are presented in the report "Marathon Palladium Project Air Quality Updated Baseline Report" (Stantec 2020, (CIAR #722).

4.1 TOPOGRAPHY

The Project is proposed within an area characterized by relatively dense vegetation, composed largely of a birch and spruce-dominated mixed wood forest. The terrain is moderate to steep, with frequent bedrock outcrops and prominent east-west oriented valleys. Several watercourses and lakes traverse the area, with drainage flowing either eastward to the Pic River or westward to Lake Superior.

4.2 CLIMATE

The Project area lies in the sub-arctic region. The climate of the Project area is typical of northern areas within the Canadian Shield, with long winters and short warm summers.

The nearest climate normal station with a comprehensive set of measurement parameters and with a similar setting to Marathon (i.e., located on the shore of Lake Superior) is the Thunder Bay Airport station. The climate normals for Thunder Bay Airport have not been updated since the 2012 baseline report; therefore, this report utilizes the same data set (1971-2000) for this station.

The following sections describe the general climatology of the area and compares them to shorter-term local meteorological data. In 2014, Nav Canada established an automated meteorological station at Marathon Airport which measures data on a 24-hour basis. The most recent five full years of data from this station (2015-2019) are presented for all parameters except for precipitation (data for which is not available for this station). Precipitation data from the Pukaskwa Park station, which is located approximately 15 km south of the Marathon Airport, and expected to be representative of the Marathon area, is presented.

4.2.1 Temperature

Mean monthly temperatures for the most recent five years of data (2015-2019) for the Marathon Airport station are shown below in Table 4.1 and compared to climate normal data for Thunder Bay. The Marathon Airport 2015-2019 temperature data is consistent with the Marathon Airport data presented in the 2012 Baseline Report.

Table 4.1: Summary of Average Temperature Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
Marathon Airport (2015-2019)													
Daily Average (°C)	-13.3	-13.9	-6.6	-0.2	6.4	9.7	14.5	14.5	12.3	4.9	-2.6	-9.3	1.4
Thunder Bay (1971-2000)													
Daily Average (°C)	-14.8	-12.0	-5.5	2.9	9.5	14.0	17.6	16.6	11.0	5.0	-3.0	-11.6	2.5
Daily Maximum (°C)	-8.6	-5.6	0.3	9.0	16.4	20.6	24.2	23.1	17.1	10.4	1.7	-6.1	8.5
Daily Minimum (°C)	-21.1	-18.4	-11.2	-3.3	2.5	7.3	11.0	10.1	4.9	-0.5	-7.7	-17.0	-3.6

Temperatures for the Marathon area are characterized by warm summers and cold winters. Mean temperatures are relatively similar between the Marathon Airport data and the Thunder Bay Climate normal data, with the coldest temperatures occurring during the winter months of December to February and the warmest temperatures occurring in the summer months of July and August.

4.2.2 Precipitation

Mean monthly precipitation of the period 2015-2019 for the Pukaskwa station, which is approximately 15 km south of the Marathon Airport, is presented in Table 4.2. Climate normal data from Thunder Bay airport is also presented in this table.

Table 4.2: Mean Monthly Precipitation

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
Pukaskwa (2015-2019)													
Precipitation (mm)	51.7	60.8	38.9	40.1	49.2	87.2	39.9	74.3	95.6	93.5	61.4	66.7	759.4
Average Snow Depth (cm)	29.9	41.8	44.9	18.0	0.1	0	0	0	0	0.7	2.4	12.8	12.6
Thunder Bay (1971-2000)													
Rainfall (mm)	2.5	2.8	17.5	29.5	65.0	85.7	89.0	87.5	87.5	57.0	31.5	3.6	559.0
Snowfall (cm)	41.2	26.9	26.8	12.4	1.7	0.0	0.0	0.0	0.5	6.1	27.8	44.1	187.6
Precipitation (mm)	31.3	24.9	41.6	41.5	66.5	85.7	89.0	87.5	88.0	62.6	55.6	37.5	711.6
Average Snow Depth (cm)	31	31	24	5	0	0	0	0	0	0	3	15	9

The average annual precipitation for the Pukaskwa Station is 759 mm, which compares well to the Thunder Bay climate normal value of 712 mm.

4.2.3 Relative Humidity

Relative humidity (RH) is the gravimetric ratio of water vapour in a unit volume to the water vapour that would prevail under saturated conditions at a given temperature. Average monthly RH levels at 6:00 AM and 3:00 PM local standard time (LST) for Marathon Airport (2015-2019) and from climate normal data for Thunder Bay Airport are presented in Table 4.3. Monthly average RH for Marathon Airport ranged from 79.9% - 94.8% at 6:00 AM and 53.8% - 80.5% at 3:00 PM. Measured RH levels at Marathon Airport for the 2015-2019 period were generally higher than the Thunder Bay climate normal data.

Table 4.3: Summary of Average Relative Humidity Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
Marathon Airport (2015-2019)													
Average Relative Humidity – 0600 LST (%)	82.4	79.9	78.3	80.3	83.4	87.8	92.3	94.8	94.8	88.5	88.0	85.4	86.3
Average Relative Humidity – 1500 LST (%)	75.9	68.7	57.6	53.8	58.2	61.3	68.5	73.8	74.8	72.6	78.8	80.5	68.7
Thunder Bay (1971-2000)													
Average Relative Humidity – 0600 LST (%)	70.6	72.3	75.2	77.1	82.8	88.2	91.3	92.5	90	85.3	80.3	75.3	81.7
Average Relative Humidity – 1500 LST (%)	61.6	59.1	56.4	48.6	50.1	56.9	59	59.8	60.8	60.9	65.2	65.4	58.7

4.2.4 Wind Speed and Direction

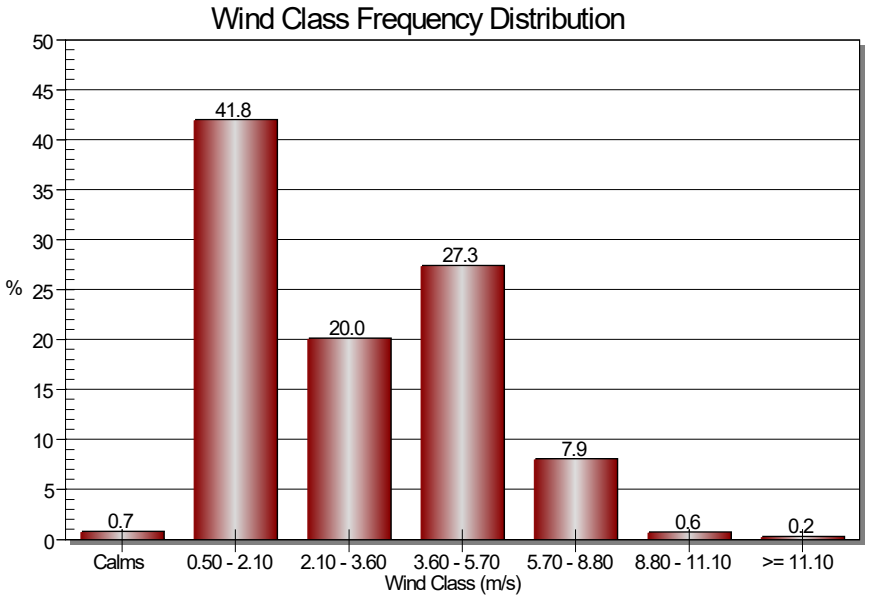
Wind speed and direction climate normal data for Thunder Bay are presented in Table 4.4. The annual average windspeed is 11.7 km/hr with the most frequent wind direction being westerly.

Table 4.4: Monthly Average Wind Speed and Direction Data - Thunder Bay Climate Normals (1971-2000)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
Speed (km/h)	12.2	11.5	12.4	12.7	12.5	11.3	10.3	9.8	11.1	11.9	12.2	11.9	11.7
Most Frequent Direction	W	SW	E	E	E	E	W	SW	SW	W	W	W	W

A wind rose of the Marathon Airport data from 2015-2019 is presented as Figure 4 (Appendix A). Wind roses are an efficient and convenient means of presenting wind data. The length of the radial barbs gives the total percent frequency of winds from the indicated direction, while portions of the barbs of different widths indicate the frequency associated with each wind speed category. The prevailing winds are from the northeast and southwest, with calm winds occurring less than 1% of the time. The average wind speed over the 5-year period was 13.9 km/hr which compares well with the climate normal data.

The frequency distribution of wind speeds is shown on Graph 4.1. High wind speeds greater than 8.8 m/s occur infrequently, while wind speeds between 0.5 - 2.1 m/s occur the most frequently.



Graph 4.1: Wind Class Frequency Distribution (2015-2019) For Marathon Airport

4.3 SPECIAL RECEPTORS

Special receptors are locations where human activity more regularly takes place. The following special receptors were identified and included in the air quality assessment:

- The closest outside modelled property boundary residences surrounding the Project, and residences in Marathon.
- Hospitals, schools, day care centres and nursing homes within the LSA. Data for these sources were compiled from various sources such as EA studies, internet searches, maps and official plans.
- Outside modelled property boundary watersheds and waterbodies.
- Outside modelled property boundary locations of known recreational use (e.g., sports fields, hiking, camping).
- Receptors identified for input into the human health risk assessment (HHRA) analyses.
- Indigenous TLU areas: included in the assessment to represent potential areas of current use for traditional purposes by Indigenous communities. Approximate locations were assessed based on

confidential TLU information provided by communities. These areas may be used for traditional activities including fishing, hunting, trapping, and plant gathering.

- Receptors identified for possible input into water quality analyses.

The nearest sensitive receptors to the SSA in all directions were identified and included in the assessment. Based on a review of aerial photos/maps of the LSA, a number of the residences in towns, etc. (a sampling of the total number) were also included to provide an understanding of air quality levels at other specific locations in the LSA. When assigning sensitive receptors in the Town of Marathon, a representative sampling of sensitive receptors representing residences in the community was included to provide an indication of the variation in ambient levels across the Town.

A total of 97 air quality/HHRA/TLU receptors were identified and included in the assessment. A summary of the special receptors is presented in Appendix B and locations are presented on Figure 5 (Appendix A).

In addition to the special receptors, the air quality modelling included 11,324 gridded and modelled property boundary receptors covering the LSA. The gridded receptors were used to evaluate variations in air quality levels over the LSA and covered areas not assessed by special receptors for selected CoPCs.

4.4 LOCAL AIR QUALITY

Ambient monitoring data from two sources were assessed to characterize air quality in the LSA and to develop background concentration levels, as summarized in the following sub-sections. These included data available from the Canadian National Air Pollution Surveillance (NAPS) Network and onsite ambient monitoring conducted by Stantec. Detailed analyses of the ambient monitoring data are presented in the report “Marathon Palladium Project Air Quality Updated Baseline Report” (Stantec 2020) (CIAR #722).

Baseline air quality was assessed through the review of historical air quality measurements from NAPS stations operated by Environment Canada. Available monitoring data for $PM_{2.5}$, PM_{10}, NO_2, NOx, SO_2, ozone (O_3), and CO from 2014–2018 were obtained and reviewed from the NAPS locations identified in Table 4.5 (Sault Ste. Marie, Thunder Bay, North Bay and two stations in Winnipeg). Metals are only measured at the Winnipeg Ellen Street monitoring station and the most recent five years of data available at this location (2009 to 2013) were assessed. Likewise, monitoring data for CO for the period from 2017 to 2018 for the Winnipeg monitoring stations and PAHs from 2014 to 2018 for the Ellen Street Winnipeg monitoring station were not available, so the most recent five years of available data were reviewed. TSP was not measured at these stations during this time period.

The closest monitoring stations to the Project site are in Thunder Bay, approximately 300 km west of the subject property, and in Sault Ste. Marie, approximately 300 km east of the Project site. The Marathon Project site is located on the north side of Highway 17 in a remote area of northwestern Ontario, approximately 10 km north of the nearest community of Marathon. As a result, baseline ambient air quality is expected to be representative of rural areas. Data from more developed municipalities, such as

Winnipeg, Thunder Bay and Sault Ste. Marie, are expected to provide conservative (i.e., over-estimate) estimates of air quality levels in the LSA.

Table 4.5: NAPS Locations Assessed in This Study

NAPS ID	City	Location		Elevation	Type
		Latitude	Longitude	(m)	
60709	Sault Ste. Marie (443 Northern College)	46.53319	-84.30992	252	Industrial
60809	Thunder Bay (415 James St.)	48.37939	-89.29017	207	Residential
62001	North Bay (Chippewa St.)	46.32323	-79.44928	223	Residential
70118	Winnipeg (299 Scotia St.)	49.93207	-97.11317	227	Residential
70119	Winnipeg (65 Ellen St.)	49.89809	-97.14652	229	Commercial

4.4.1 Particulate Matter

NAPS monitoring data for ambient particulate matter concentrations ($PM_{2.5}$ and PM_{10}) from 2014 to 2018, where available, were reviewed. TSP was not measured by NAPS during this period.

$PM_{2.5}$ is continuously monitored at all five stations listed in Table 4.5, including the Sault Ste. Marie station (an industrial location), Thunder Bay station (a residential location), North Bay station (a residential location), Scotia Street Winnipeg (a residential location), and Ellen Street Winnipeg station (a commercial location).

During the period from 2014-2018, annual mean $PM_{2.5}$ concentrations at the stations ranged from 4.6 µg/m^3 at North Bay in 2016 to 6.8 µg/m^3 in Winnipeg (65 Ellen St.) in 2018.

The maximum measured daily average $PM_{2.5}$ concentrations ranged from 13.3 µg/m^3 measured in 2016 at the Thunder Bay station to 112 µg/m^3 measured in 2018 at the Winnipeg (299 Scotia St.) station. Compliance with the applicable CAAQS for $PM_{2.5}$ is based on meeting a daily average concentration of 27 µg/m^3 98% of the time, averaged over three consecutive years. The 98th percentile $PM_{2.5}$ concentrations did not exceed the 27 µg/m^3 level at any of the five stations.

PM_{10} is measured at the Winnipeg (64 Ellen St.) station as 24-hour samples measured every 6 days. For the other NAPS stations examined, measured $PM_{2.5}$ concentrations were converted to equivalent PM_{10} concentrations using the empirical relationship that the mean ratio of ambient $PM_{2.5}/PM_{10}$ is 0.54 (Lall et al, 2004). Annual mean PM_{10} concentrations ranged from 8.5 µg/m^3 in 2016 and 2017 at the North Bay station to 12.7 µg/m^3 in 2018 at the Winnipeg (Ellen Street) station. The maximum measured daily concentrations during this period ranged from 24.6 µg/m^3 in 2016 at the Thunder Bay station to 207 µg/m^3 in 2018 at the Winnipeg (Scotia Street) station.

4.4.2 Metals

Metals are measured at the NAPS Winnipeg (64 Ellen St.) station as 24-hour average samples taken once every 6 days. Data from the years 2009 to 2013, the most recent years with reported data, were reviewed.

There were no exceedances of the applicable 24-hour criteria for the measured metals in the available data. The measured annual concentrations for nickel and the measured 30-day average concentrations for lead were all below their applicable criteria.

4.4.3 Nitrogen Dioxide (NO_2)

Nitrogen oxides (NO_X) are almost entirely made up of nitric oxide (NO) and nitrogen dioxide (NO_2). Together, they are often referred to as NO_X. Most NO_2 in the atmosphere is formed by the oxidation of NO, which is emitted directly by combustion processes, particularly those at high temperature and pressure. NO_2 is the regulated form of NO_X. Similar to other jurisdictions (e.g., Alberta Environment, World Health Organization), the O. Reg. 419/05 Schedule 3 standards for NO_X are based on health effects of NO_2, as health effects are seen at much lower concentrations of NO_2 than NO. In this report, because NO_2 is the regulated form of NO_X, the AAQC were compared to measured NO_2 concentrations (as per MECP, 2018).

NAPS ambient NO_2 monitoring data from 2014 to 2018 (where available) were reviewed:

- The measured maximum hourly average and 24-hour average NO_2 concentrations were below the applicable provincial 1-hour and 24-hour criteria of 200 ppb (400 µg/m^3) and 100 ppb (200 µg/m^3), respectively, for the five-year period between 2014 and 2018.
- From 2014 to 2018, the maximum measured hourly average NO_2 concentrations in the 5-year period ranged between 38 ppb (75 µg/m^3) (at Scotia Street Winnipeg in 2015) and 65 ppb (129 µg/m^3) (at Ellen Street Winnipeg in 2016), which were 19% and 33% of the MECP criterion of 200 ppb, respectively.
- The maximum measured 24-hour average NO_2 concentration in the 5-year period ranged between 16 ppb (32 µg/m^3) (at Sault Ste. Marie station in 2018) and 34 ppb (67 µg/m^3) (at Ellen Street Winnipeg in 2016), which were 16% and 34% of the of the applicable MECP criterion of 100 ppb (200 µg/m^3).

4.4.4 Sulphur Dioxide (SO_2)

Sulphur dioxide is continuously measured at the NAPS Sault Ste. Marie station (an industrial location) and the Ellen Street Winnipeg station (a commercial location). Ambient SO_2 concentrations measured at both sites from 2014 to 2018 (where available) were reviewed.

The measured annual average SO_2 concentrations at both stations was less than 1 ppb (2.8 µg/m^3), which is less than 5% of the annual criterion (55 µg/m^3 or 20 ppb). Maximum measured hourly and 24-hour average concentrations were below the currently applicable 1-hour and 24-hour MECP criteria of 250 ppb (690 µg/m^3) and 100 ppb (275 µg/m^3), respectively.

The maximum measured hourly average SO_2 concentrations at the stations from 2014 to 2018 were 74 ppb (204 µg/m^3) at the Sault Ste. Marie station in 2015 and 10 ppb (28 µg/m^3) at the Ellen Street Winnipeg station in 2016, which are 30% and 4% of the MECP criterion of 250 ppb, respectively. The maximum measured 24-hour average SO_2 concentration at the stations from 2014 to 2018 were 18.5 ppb (51 µg/m^3) at the Sault Ste. Marie station in 2018 and 1.4 ppb (3.9 µg/m^3) at the Ellen Street Winnipeg station in 2015. These maximums are 19% and 2% of the MECP criterion of 100 ppb (275 ug/m^3), respectively.

4.4.5 Volatile Organic Compounds (VOCs)

Exceedance of the applicable O. Reg. 419/05 annual criterion of 0.45 µg/m^3 for benzene occurred in 2014, 2015 and 2018. The measured annual average benzene concentration ranged from 0.42 to 0.90 µg/m^3. No exceedances were measured for other VOCs.

4.4.6 Polycyclic Aromatic Hydrocarbons (PAHs)

Data on PAHs from 2009 to 2011 from the NAPS Ellen Street, Winnipeg monitoring station were reviewed and used to conservatively characterize ambient PAH levels in the LSA. Thirty-one (31) PAHs are monitored at this station. A total of 13 PAHs were examined (those identified as CoPCs), with the following conclusions:

- Exceedances of the applicable O. Reg. 419/05 annual average criterion of 0.00001 µg/m^3 for benzo(a)pyrene was measured for 2009 at this station. The measured annual average benzo(a)pyrene concentration in 2009 was 0.00008 µg/m^3.
- Exceedances of the applicable 24-hour Ontario AAQC of 0.00005 µg/m^3 for benzo(a)pyrene was also measured in 2009 at this station. The maximum 24-hour benzo(a)pyrene concentration measured in 2009 was 0.00039 µg/m^3.

4.4.7 Background Concentration Levels

Background concentrations are used in dispersion modelling to represent the effect of other emissions sources in addition to the sources being included in the dispersion modelling. Sources of ambient air emissions in the LSA may include:

- Residential
- Commercial

- Industrial
- Transportation (traffic on local roads, railways, aircraft, etc.)
- Naturally occurring (wind erosion of open surfaces, forests, fires, etc.)
- Long-range transport from other sources outside the LSA

Background air quality levels due to these sources can be included in a dispersion modelling assessment in order to quantify the incremental change in local air quality with respect to the emissions source(s) being studied. Cumulative air quality levels due to the emissions sources being studied combined with background levels can then be compared to applicable air quality criteria to assess significance. Ambient monitoring is typically used to quantify air quality levels due to background emissions sources, as the emission rates of many of these sources are difficult to estimate accurately and their emission rates can vary considerably both temporally and spatially.

In previous Projects conducted by Stantec, the MECP has requested that 90th percentile ambient monitoring data be added to the dispersion model predictions to conservatively account for existing ambient concentrations. The MECP specifies the use of 90th percentile values for short-term averaging periods as it provides a conservative estimate of ambient levels, while at the same time providing some consideration for the fact that the location and time for the occurrence of maximum ground level concentrations from background sources varies from that for the source(s) being considered in the modelling assessment. For annual averages, an annual average value was used as the background level.

Background concentrations for the Project were conservatively determined by taking the highest 90th percentile concentration of each CoPC from the following data sources previously discussed:

- the historical long-term ambient air concentrations measured by NAPS stations; or
- Generation PGM's baseline ambient monitoring.

The following tables summarize 90th percentile (or maximum) concentrations for the CoPCs used in the air quality assessment.

Baseline ambient concentrations established in this study are expected to be conservative and an over-estimation of actual ambient concentrations in the LSA. The Project will be located in a remote location of northern Ontario; air quality is primarily influenced by traffic on Highway 17. Baseline air concentrations established in this report are primarily based on NAPS stations which are located in large urban residential, commercial and industrial areas that are expected to have higher background concentrations relative to the LSA.

The background levels of annual average benzene and 24-hour and annual average benzo(a)pyrene exceed the MECP criteria for these CoPCs. However, as noted above, the background levels are expected to be conservative and over-estimate actual background levels in the LSA.

Table 4.6: Historical and Measured Ambient Particulate Matter 90th Percentile Concentrations and Background Concentrations Used in the Dispersion Modelling Assessment

CoPC	Historical 90th Percentile 24-Hour Average Concentration (µg/m³)[1]	Measured 90th Percentile 24-Hour Average Concentration (µg/m³)	Background Ambient 24-Hour Average Concentration to be used in AQ Assessment[3]	Annual Average Concentration to be used in AQ Assessment[3]
Total Suspended Particulate (TSP)	44.1 [4]	N/A	44.1	24.4 [4]
PM_{10}	22.8	14.6	22.8	12.7
$PM_{2.5}$	12.3 [2]	N/A	12.3	6.8

NOTES:

1. Maximum data from all NAPS stations
2. $PM_{2.5}$ concentration is the 90th percentile of the 24-hour average concentrations.
3. The concentration identified in this column will be used as the background ambient concentration in the dispersion modelling assessment. It is equal to the higher of the 90th percentile historical or measured concentrations.
4. Estimated using approximate relationships from literature between $PM_{2.5}$ and TSP concentrations to provide additional background estimates.

Table 4.7: Background Metals in TSP Concentrations Used in the Dispersion Modelling Assessment

CoPC	CAS #	90th Percentile 24-Hour Average Background Concentration (µg/m³)	Annual Average Background Concentration (µg/m³)
Aluminum	7429-90-5	5.88E-01	2.84E-01
Antimony	7440-36-0	2.71E-02	9.39E-03
Arsenic	7440-38-2	N/A	N/A
Barium	7440-39-3	3.99E-02	1.92E-02
Beryllium	7440-41-7	N/A	N/A
Bismuth	7440-69-9	N/A	N/A
Boron	7440-42-8	N/A	N/A
Cadmium	7440-43-9	1.20E-02	3.62E-03
Calcium	7440-70-2	1.74E+00	7.62E-01
Chromium (total)	7440-47-3	1.46E-03	6.76E-04
Cobalt	7440-48-4	N/A	N/A
Copper	7440-50-8	N/A	N/A
Iron	15438-31-0	3.85E-01	1.91E-01

Table 4.7: Background Metals in TSP Concentrations Used in the Dispersion Modelling Assessment

CoPC	CAS #	90th Percentile 24-Hour Average Background Concentration (µg/m3)	Annual Average Background Concentration (µg/m3)
Lead	7439-92-1	5.74E-03	3.01E-03
Lithium	7439-93-2	N/A	N/A
Magnesium	7439-95-4	N/A	N/A
Manganese	7439-96-5	1.42E-02	7.71E-03
Mercury	7439-97-6	N/A	N/A
Molybdenum	7439-98-7	N/A	N/A
Nickel	7440-02-0	2.60E-03	1.00E-03
Potassium	7440-09-7	2.79E-01	1.49E-01
Selenium	7782-49-2	2.44E-03	9.63E-04
Silver	7440-22-4	N/A	N/A
Sodium	7440-23-5	N/A	N/A
Strontium	7440-24-6	4.36E-03	1.89E-03
Thallium	7440-28-0	N/A	N/A
Titanium	7440-32-6	1.89E-02	8.99E-03
Uranium	7440-61-1	N/A	N/A
Vanadium	7440-62-2	3.14E-03	8.86E-04
Zinc	7440-66-6	3.35E-02	1.55E-02

Note:
N/A – Data not analyzed/not available from NAPS.

Table 4.8: Background Criteria Air Contaminant (90th Percentile) Concentrations Used in the Dispersion Modelling Assessment

CAC	Concentration units	Background 90th Percentile 1-Hour Concentration	Background 90th Percentile 24-Hour Concentration	Background 90th Percentile Other Time Period Concentration
NO_2	µg/m^3	63.4	31.7	17.4 (annual)
SO_2	µg/m^3	2.8	5.8	2.5 (Annual)[1]
CO	µg/m^3	964.7	964.7	1169.7 (1/2-hour) 964.7 (8-hour) 590.9 (annual)

Note:

1. Annual background concentration is the maximum of the annual means measured from the five NAPS stations.

Table 4.9 Background Volatile Organic Compound Concentrations Used in the Dispersion Modelling Assessment

CoPC	90th Percentile 24-Hour Average Background Concentration (µg/m^3)	Annual Average Background Concentration (µg/m^3)
1,3-Butadiene	1.09E-01	7.32E-02
Acetaldehyde	4.0	1.6
Acrolein	0.05	0.023
Benzene	1.44E+00	9.02E-01
Formaldehyde	5.4	1.9
Naphthalene	2.39E-01	9.64E-02
Toluene	2.81E+00	1.53E+00

Table 4.10: Summary of Background PAH Concentrations Used in the Dispersion Modelling Assessment

CoPC	Background 90th Percentile 24-Hour Concentration [1] (µg/m³)	Background 90th Percentile Other Time Period Concentration [2,3] (µg/m³)	Background Annual Average Concentration (µg/m³)
Acenaphthene	1.81E-03	-	9.10E-04
Acenaphthylene	1.79E-03	5.29E-03 (half-hour)	1.06E-03
Anthracene	4.49E-04	-	2.51E-04
Benzo(a)anthracene	2.14E-04	-	1.07E-04
Benzo(a)pyrene	2.06E-04	1.03E-04 (annual)	1.03E-04
Benzo(g,h,i)perylene	2.8E-04	8.29E-04 (half-hour)	1.32E-04
Chrysene	2.65E-04	-	1.57E-04
Fluoranthene	1.91E-03	-	1.06E-03
Fluorene	2.91E-03	-	1.62E-03
Phenanthrene	7.86E-03	-	4.59E-03
Pyrene	1.34E-03	5.65E-03 (half-hour)	8.01E-04
Benzo(b)Fluoranthene	3.19E-04		2.07E-04
Benzo(k)Fluoranthene	1.04E-04		6.07E-05

NOTES:

1. Background concentrations for 24-Hour averaging period are based on the maximum of the historical NAPS measurements.
2. Background concentrations for 30 day and annual averaging periods are based on historical NAPS measurements. Annual background concentration is the highest of the annual means measured from the NAPS station.
3. Half-hour concentrations calculated from the 24-hour data using the MECP recommended averaging time conversion equation.

- Not applicable.

5.0 EFFECTS ASSESSMENT METHODOLOGY

5.1 OVERVIEW

The assessment of the Project's effect on air quality was performed by conducting dispersion modelling to predict the downwind concentrations of air CoPCs and comparing these predictions to regulatory standards, objectives and guidelines.

The assessment of air quality effects related to the construction and operations of the Project consisted of the following elements:

- Compiling emissions inventories of point and mobile sources for the Project.
- Establishing baseline ambient air quality conditions for CoPCs from the existing published sources of air quality data and site-specific measurements.
- Completing dispersion and deposition modelling of the Project to provide input to the "Marathon Palladium Project Updated Human Health and Ecological Risk Assessment" (Appendix D10 of the EIS Addendum [Vol 2]), and to support the assessment of potential environmental effects, including cumulative environmental effects, for the Project.
- Comparing dispersion model predictions to air quality standards and guidelines.

5.1.1 Analysis Approach

The following criteria are discussed further in this assessment:

- ambient air quality objectives, and standards
- incremental change in ground level O_3 precursor emissions
- odour detectability

Three timeframes were considered for potential environmental effects, including construction, operation and closure as described in Section 1.3.

5.2 EMISSION INVENTORY

The emissions inventory was based on published emission factors (i.e., AP-42) or emissions levels provided by manufacturers. Emissions estimates are expected to be conservative and represent worst-case short-term emissions from the Project activities during maximum production.

Sources of air CoPCs were identified and assessed following the procedures specified in MECP Guideline A-10, Procedure for Preparing an Emission Summary and Dispersion Modelling Report (MECP 2018).

5.2.1 Project Overview

The Project is based on the development of an open pit mining and processing operation located approximately 10 km north of the Town of Marathon, Ontario. The design details for the Project described below are conceptual in nature and based on feasibility study work that will be finalized through subsequent detailed engineering and operational permitting.

Three open pits (i.e. North, Central and South) are proposed to be mined. Ore will be extracted from the pits and processed (crushed, ground, concentrated) at an on-site processing facility (Process Plant). Ore will be transported from the pits to the Process Plant via haul trucks and a conveyor system. A series of internal roads will be established to facilitate the movement of mine rock and other materials around the site. Final concentrates will be moved from the mine site to an off-site third-party facility for subsequent metal extraction and separation.

5.2.2 Site Preparation

For the purposes of the Air Quality assessment, site preparation activities were considered to include clearing, grubbing, soil stripping, and grading of the SSA as needed in preparation for the planned infrastructure. The duration of these preliminary activities will be relatively brief and based on past Stantec experience of mining operations with similar equipment and timelines, air emissions from these activities are expected to be less than those included in the construction assessment as the numbers of equipment will be lower. Emissions from site preparation activities were therefore not assessed as the assessment of the construction scenario will implicitly address site preparation emissions.

5.2.3 Construction Emissions

5.2.3.1 Description of Project Construction

Open Pit Development

During construction, mine rock will be excavated from the open pits and surrounding area in preparation for the commencement of mining operations. Hydraulic shovels or front-end loaders will be used to load excavated rock onto haul trucks. This rock will be hauled for immediate use in infrastructure development or temporarily stored in one of the previously cleared areas. Type 1 (non-Potentially Acid Generating (non-PAG)) mine rock will be used for dam and road construction, and/or pads and other infrastructure-related development. A crusher will be used to reduce mine rock to aggregate of various sizes for use in construction. Any Type 2 Potentially Acid Generating (PAG) material will be segregated in a dedicated area adjacent to the pits for temporary management, as required.

Mine Rock Storage Area and Process Solids Management Facility

The basic infrastructure of the MRSA will be developed during construction so that the area is ready to begin accepting material at the onset of operations. Most of the Type 1 mine rock generated through excavating and pre-stripping will be used to construct roads, laydown areas and pads for infrastructure. Type 2 rock identified during this phase will be stockpiled in an area adjacent to the pits so that runoff from this material will be contained and managed, as required, and will be relocated to the PSMF once it can begin accepting material.

The basic infrastructure of the PSMF will also be developed during construction so that the area is ready to begin accepting material at the onset of operations.

Drilling and Blasting

Drilling and blasting will occur to develop the open pits and to prepare the Process Plant Area. Blasting will also be required for road and dam construction. Blast holes will be drilled using conventional drills. Explosives will range from pre-packaged design to ammonium-nitrate fuel oil (ANFO) and/or site mixed emulsion (SME) explosive-based products for large blasts.

Aggregate and Rock Fill Supply

It is anticipated that aggregate and rock fill needed for site preparation and construction purposes will primarily come from on-site sources. This includes overburden removed during stripping, as well as Type 1 mine rock that is excavated from the pit areas during pre-production mining. Portable crushing and screening plants will be used to generate the desired aggregate and rock fill types (sizes) from on-site sources. It may be necessary to supplement the on-site sources with off-site materials that are available regionally from licensed sources.

Mine Infrastructure

Components of the mine site will be installed and / or constructed during construction to support the operating mine, including, but not limited to, the crusher, conveyor system, processing facilities, maintenance and administration buildings, and other on-site supporting infrastructure. Mine equipment will also be mobilized to the site. Water management system infrastructure will be developed early in the construction phase.

A new site access road will be constructed, and the site road network will be developed. The new site access road will join the Camp 19 Road via an old cut line and will extend to the Process Plant. The site road network will link site facilities to accommodate the movement of mine rock, process solids, and employees around the site.

Concrete Batch Plant

The Concrete Batch Plant will be located in a separate area to the east of the Process Plant at the Aggregate Site. The Concrete Batch Plant will produce concrete to build infrastructure during the site preparation and construction phases and will be decommissioned thereafter.

Energy Production

Five 1.275 MW diesel generators will be installed on site, with four located adjacent to the Process Plant and one located at the Aggregate Site. These diesel generators will be used to supply continuous duty power to the site during the site preparation and construction phases until a new transmission line is completed.

5.2.3.2 Construction Schedule

Site preparation and construction is estimated to be completed over an 18 to 24 month period. The work schedule will likely vary over this period according to the nature of the work that is being completed at any one time but work will largely progress 7 days per week, with two shifts per day.

5.2.3.3 Potential Construction Emissions Sources

The following potential sources of emissions to the air were identified based on the process descriptions and data supplied by GenPGM for the construction phase. These sources were assessed for their significance following the requirements presented in the MECP Guideline A-10 (MECP 2009a) and the significant sources were included in this assessment (see Appendix C for details).

The following construction emissions sources were identified:

- Open pit operation: material handling, equipment travel in the open pit, drilling, blasting, mobile equipment
- Facilities construction: general construction activities, mobile equipment
- PSMF locations: wind erosion, material handling, site preparation, mucking (excavators, dozers, and compactors), mobile equipment
- MRSA and overburden stockpiles: wind erosion, unloading, mucking (tracked dozer and excavators), mobile emissions
- Primary and mobile crushers: material handling, wind erosion, dust collection, primary crushing, mobile crushing, mobile emissions
- Concrete batch plant operations: material handling, wind erosion, dust collection, mobile emissions
- Unpaved roads: unpaved road dust, grading, mobile equipment
- Paved roads: paved road dust, mobile equipment from impact traffic and baseline traffic
- Emissions from diesel generators
- Tailpipe emissions from mobile equipment
- Emissions from propane heaters for comfort heat

5.2.3.4 Modelled Construction Emissions Sources

Construction emissions are expected to occur intermittently during daylight hours over the duration of the construction period, depending on the level of activity. Construction activities will be temporary and standard construction mitigation procedures will be implemented to reduce dust emissions.

Construction emissions sources are discussed in this section. Detailed emission calculations and methodologies are presented in Appendix C.

Open Pit Operation

The following emission sources are identified for pre-production mining during construction:

- Holes are drilled and used for placing explosives for blasting. Drilling of holes can occur throughout the workday. Emissions from drilling include particulate emissions (including TSP, PM_{10}, $PM_{2.5}$ and associated metals in particulates) and tailpipe emissions (products of combustion including NO_X, SO_2, CO, VOCs) from the drilling equipment. Drilling emissions were estimated using emission factors for particulate from US EPA AP-42, Table 11.9-4.

- Blasting would occur daily during the work week (averaging 5 times per week). Blasting is an intermittent and instantaneous emission and modelled as a separate source (but occurring concurrently) with the rest of the open pit emission sources. Emission factors for blasting from US EPA AP-42, Chapter 11.9, Table 11.9-2 (Western Surface Coal Mining) were used to estimate particulate emissions from blasting. Emission factors for blasting from the Australia Government NPI Guide “Explosives Detonation and Firing Ranges” (Australia NPI, 2016) were used to estimate combustion products (CO, NO_X, SO_2) emissions.

- Hydraulic shovels and wheeled loaders transfer mine rock, ore, and overburden material from the open pit into haul trucks. CoPCs include particulate matter from road dust, associated metals in particulates, and tailpipe emissions from the non-road mobile equipment. Particulate emissions for material unloading/dropping were calculated using Equation (1) in US EPA AP-42, Chapter 13.2.4 (Aggregate Handling and Storage Piles). Tracked dozers for pit preparation and mine rock/aggregate handling emissions (PM, PM_{10}, $PM_{2.5}$, and metals) were estimated using emission factors for bulldozing of material other than coal in US EPA AP-42, Chapter 11.9 (Western Surface Coal Mining), Table 11.9-2.

Ancillary Facilities Construction

Construction activities for the process plant and other ancillary facilities such as the rail load-out would generate dust emissions. The quantity of dust emissions depends on the area of land being worked, type of equipment on site and level of construction activities. It is not anticipated that the construction work area will extend to cover the entire SSA at any one time. Tailpipe emissions from construction equipment are expected to be small relative to those from the mobile equipment for other construction activities.

Construction at the rail load-out location in Marathon was included in the emission calculations - CoPCs assessed were TSP, PM_{10}, $PM_{2.5}$ and associated metals in particulates). Emission factors from Western Regional Air Partnership, Fugitive Dust Handbook, Chapter 3: Construction and Demolition, and California Environmental Protection Agency Air Resources Board (WRAP, 2006) were used to estimate the overall area-wide dust emissions.

PSMF Construction

CoPCs from PSMF construction would include particulate (dust) emissions as well as tailpipe emissions. Emissions sources include the following:

- Unloading of mine rock at PSMF Location 1 and PSMF Location 2. PM, PM_{10}, $PM_{2.5}$, and metals emissions are the CoPCs expected from this operation. Particulate emissions for material unloading/dropping were calculated using Equation (1) in US EPA AP-42, Chapter 13.2.4 (Aggregate Handling and Storage Piles).
- Site preparation and mine rock handling (emissions of PM, PM_{10}, $PM_{2.5}$, and metals) using excavators, bulldozers, and compactors. Particulate emissions were estimated using emission factors for bulldozing of material other than coal in US EPA AP-42, Chapter 11.9 (Western Surface Coal Mining), Table 11.9-2.
- Wind erosion of the pre-production PSMFs. Particulate emissions were estimated following the methodology and related emission factors in Chapter 13.2.5 of US EPA AP-42 (Industrial Wind Erosion).
- Tailpipe emissions from non-road mobile equipment.

Mine Rock Storage Areas and Overburden Stockpiles

Particulate matter (TSP, PM_{10}, $PM_{2.5}$ and associated metals in particulates) from loading/unloading operations and stockpile erosion, and products of combustion from the heavy equipment are the CoPCs. Emissions sources include the following:

- Trucks unloading mine rock at the MRSA and unloading overburden at the overburden stockpiles. Particulate emissions for material unloading/dropping were calculated using Equation (1) in US EPA AP-42, Chapter 13.2.4 (Aggregate Handling and Storage Piles).
- Wind erosion of the MRSA and overburden stockpiles. Particulate emissions were estimated following the methodology and related emission factors in Chapter 13.2.5 of US EPA AP-42 (Industrial Wind Erosion).
- Excavators and tracked dozers will be used to maintain the MRSA. Particulate emissions were estimated using emission factors for bulldozing of material other than coal in US EPA AP-42, Chapter 11.9 (Western Surface Coal Mining), Table 11.9-2.

- Tailpipe emissions from non-road mobile equipment.

Primary and Mobile Crushers

Crushing operations generate particulate emissions from material handling and crushing operations. Products of combustion are also generated from trucks unloading aggregate. The following sources are considered:

- Loading/unloading of aggregate at the primary and mobile crushers. PM, PM_{10}, $PM_{2.5}$, and metals emissions are the CoPCs expected from these operations. Particulate emissions for material unloading/dropping were calculated using Equation (1) in US EPA AP-42, Chapter 13.2.4 (Aggregate Handling and Storage Piles).
- Primary crushing and mobile crushing using jaw and cone crushers. PM, PM_{10}, $PM_{2.5}$, and metals emissions are the CoPCs expected from this operation. Particulate emissions for crushing were estimated using emission factors in US EPA AP-42, Chapter 11.24 (Metallic Minerals Processing), Table 11.24-1.
- Particulate emissions from material handling from the primary crusher. PM, PM_{10}, $PM_{2.5}$, and metals emissions are the CoPCs expected from this operation. Particulate emissions are emitted as fugitives from handling operations and controlled by a baghouse. The baghouse PM emissions are estimated as per the MECP document “Procedure for Preparing an ESDM Report”, Appendix C. Emission factors for PM_{10}, $PM_{2.5}$ are estimated using data from US EPA AP-42, Appendix B-1, Section 11.xx (Fluorspar Ore Rotary Drum Dryer).
- Wind erosion of the crushed mine rock stockpile for the primary crusher. Particulate emissions were estimated following the methodology and related emission factors in Chapter 13.2.5 of US EPA AP-42 (Industrial Wind Erosion).
- Bulldozers, wheeled loaders, and excavators are used for material handling. Particulate emissions were estimated using emission factors for bulldozing of material other than coal in US EPA AP-42, Chapter 11.9 (Western Surface Coal Mining), Table 11.9-2.
- Tailpipe emissions from non-road mobile equipment.

Concrete Batch Plant

The concrete batch plant is expected to generate particulate emissions from material handling, and wind erosion from sand storage piles. Products of combustion are also generated from equipment unloading aggregate. The following sources are considered:

- Unloading of sand, material handling of aggregate / sand at the radial stacker, weigh hopper loading, and concrete truck loading. PM, PM_{10}, $PM_{2.5}$, and metals emissions are the CoPCs expected from this operation. Particulate emissions for material unloading/dropping were estimated following the methodology and related emission factors in US EPA AP-42, Chapter 11.12 (Concrete Batching).

Emission factors for a controlled unit were used (where available), assuming a typical concrete batch plant with dust collection system.

- Particulate emissions from material handling at the cement silo. PM, PM_{10}, $PM_{2.5}$, and metals emissions are the CoPCs expected from this operation. Particulate emissions are emitted as fugitives from handling operations and controlled by a baghouse. Baghouse PM emissions are estimated as per the MECP document "Procedure for Preparing an ESDM Report", Appendix C. Speciation factors for PM_{10}, $PM_{2.5}$ are estimated using speciation data in US EPA AP-42, Appendix B-1, Section 11.xx (Fluorspar Ore Rotary Drum Dryer).
- Wind erosion of the sand stockpile. Particulate emissions were estimated following the methodology and related emission factors in Chapter 13.2.5 of US EPA AP-42 (Industrial Wind Erosion).
- Tailpipe emissions from non-road mobile equipment.

Unpaved Roads

Mining trucks and other support vehicles travel within the Project via unpaved haul and access roads. Particulate matter (TSP, PM_{10}, $PM_{2.5}$ and associated metals in particulates) from road dust, and products of combustion from the heavy equipment are the CoPCs. Particulate emissions were estimated using Equation (1) in US EPA AP-42, Chapter 13.2.2 (Unpaved Roads). Graders will be used to maintain unpaved roads. Emissions include particulate (TSP, PM_{10}, $PM_{2.5}$ and associated metals in particulates) from road dust and tailpipe emissions from the graders. Particulate emissions were estimated using emission factors for grading operations found in US EPA AP-42, Chapter 11.9 (Western Surface Coal Mining), Table 11.9-2. Metals emissions were estimated using speciation profiles of metals in TSP for mine rock obtained from GenPGM. Unpaved roads include:

- main access road from Process Plant to Highway 17
- haul road from pit to MRSA
- haul road from pit to primary crusher
- haul road from pit to mobile crusher
- haul road from pit to PSMF

Paved Roads

If the Town of Marathon is selected as the location for the rail load out, mining concentrate highway transport trucks and other support vehicles will travel to the rail loadout location within the Town of Marathon via paved roads. Particulate matter (TSP, PM_{10}, $PM_{2.5}$) from road dust, and products of combustion from the heavy equipment are the CoPCs. Particulate emissions were estimated using Equation (1) in US EPA AP-42, Chapter 13.2.1 (Paved Roads). Project traffic and baseline (public) traffic were considered for emissions associated with paved roads. Paved roads include:

- Peninsula Road – Highway 17 to Industrial Park Road
- Peninsula Road – Industrial Park Road to Penn Lake Road
- Peninsula Road – Penn Lake Road to Hemlo Drive

Generators

Five diesel generators (1.275 MW each) will be used for the mobile crusher, mobile concrete plant, construction offices, Truck Shop, and Process Plant area for continuous operation during the construction phase. Emissions from the generators would be expected to consist of products of combustion including NOx, SO_2, CO, PM, PAHs, and hydrocarbons. Generator emissions were calculated using emissions factors from US EPA AP-42, Section 3.4 and applicable sulphur in fuel regulations.

Vehicle Emissions

The construction fleet will consist of a number of heavy equipment units including excavators, wheeled loaders, haul trucks, drills, wheeled and tracked dozers, graders, and other support vehicles. Not all of the equipment will be operating simultaneously. Different construction equipment will be used during different phases of the construction as needed. Emissions from the diesel fuel-fired mobile equipment would be expected to be combustion emissions including nitrogen oxide (NOx), SO_2, CO, PM, PAHs, and hydrocarbons. The following methodologies were used for on-road and non-road equipment:

- Vehicle tailpipe emissions for on-road emissions were estimated using the US EPA's Motor Vehicle Emission Simulator (MOVES), MOVES2014b project level.
- Vehicle tailpipe emissions for non-road CACs and PAHs were estimated based on the regulated emissions from non-road equipment. Where applicable, Tier 4 standards were used. For other CoPCs such as VOCs/ PAHs, speciation profiles from US EPA (US EPA, 2015a) were applied to the total VOC estimates. VOCs were calculated based on the ratio of VOC/NMHC as provided in the MOVES documentation. Particulate PAH speciation profiles were based on $PM_{2.5}$ emissions.

Propane Heaters

Propane heaters will be used for comfort heat in the Truck Shop and construction offices. Gen PGM is also considering use of electric heaters, in which case, inclusion of propane combustion emissions will be conservative. Emissions from the propane heaters would be expected to be combustion emissions from liquefied petroleum gas, including NO_X, SO_2, PM, N_2O, CO_2, CO, TOC and CH_4. Propane heater emissions were calculated using emission factors from US EPA AP-42, Chapter 1.5 (Liquefied Petroleum Gas Combustion), Table 1.5-1.

5.2.3.5 Emissions Summary

A summary of the maximum daily emissions of each CoPC from Project construction is presented in Table 5.1. There are currently no applicable construction emissions limit criteria for the Project.

Table 5.1: Emissions Summary - Construction

CoPC	CAS No.	Maximum Daily Emission Rate (kg/day)
NOx	10102-44-0	4052
CO	630-08-0	4643
SO_2	7446-09-5	14.5
CO_2	124-38-9	578362
CH_4	74-82-8	78.4
N_2O	10024-97-2	39.6
Non-methane hydrocarbons	-	131.4
TSP [1]	-	4347.1
PM_{10} [1]	-	1431.9
$PM_{2.5}$ [1]	-	221.6
Silica	7631-86-3	656.6
Silver	7440-22-4	0.001
Aluminum	7429-90-5	50.3
Gold	7440-57-5	4.4
Arsenic	7440-38-2	0.01
Boron	7440-42-8	0.04
Barium	7440-39-3	0.2
Beryllium	7440-41-7	0.002
Bismuth	7440-69-9	0.009
Calcium	7440-70-2	52.3
Cadmium	7440-43-9	0.003
Cobalt	7440-48-4	0.1
Chromium	7440-47-3	0.4
Copper	7440-50-8	1.0
Iron	7439-89-6	229.1
Gallium	7440-55-3	0.04
Mercury	7439-97-6	0.004
Potassium	7440-09-7	3.3
Lanthanum	7439-91-0	0.07
Magnesium	7439-95-4	59.5
Manganese	7439-96-5	2.2
Molybdenum	7439-98-7	0.005
Sodium	7440-23-5	6.0

Table 5.1: Emissions Summary - Construction

CoPC	CAS No.	Maximum Daily Emission Rate (kg/day)
Nickel	7440-02-0	0.3
Phosphorus	7723-14-0	5.8
Lead	7439-92-1	0.01
Palladium	7440-05-3	0.0001
Platinum	7440-06-4	0.00008
Sulphur	7704-34-9	4.6
Antimony	7440-36-0	0.01
Scandium	7440-20-2	0.008
Silicon	7440-21-3	0.05
Strontium	7440-24-6	0.4
Titanium	7440-32-6	3.8
Thallium	7440-28-0	0.04
Uranium	7440-61-1	0.04
Vanadium	7440-62-2	0.7
Tungsten	7440-33-7	0.2
Zinc	7440-66-6	0.2
1,3-butadiene	106-99-0	0.14
Acenaphthene	83-32-9	0.01
Acenaphthylene	208-96-8	0.02
Acetaldehyde	75-07-0	11.8
Acrolein	107-02-8	1.7
Anthracene	120-12-7	0.01
Benzene	71-43-2	2.8
Benzo(a)anthracene	56-55-3	0.0006
Benzo(a)pyrene	50-32-8	0.0003
Benzo(b+k)fluoranthene	205-99-2	0.001
Benzo(g,h,i)perylene	191-24-2	0.0006
Chrysene	218-01-9	0.001
Fluoranthene	206-44-0	0.01
Fluorene	86-73-7	0.04
Formaldehyde	50-00-0	37.0
Phenanthrene	85-01-8	0.2
Pyrene	129-00-0	0.01

Table 5.1: Emissions Summary - Construction

CoPC	CAS No.	Maximum Daily Emission Rate (kg/day)
Aldehydes	--	43.2
TOC	--	1.2
Toluene	108-88-3	0.2
Xylenes	1330-20-7	0.1
Propylene	115-07-1	1.9
Naphthalene	91-20-3	0.09
Indeno(1,2,3-cd)pyrene	193-39-5	0.0003
Dibenz(a,h)perylene	53-70-3	0.0002

5.2.4 Operation Emissions

5.2.4.1 Description of Project Operations

Ore Extraction

To access and mine the ore body, GenPGM proposes to develop three open pits: North Pit, Central Pit and South Pit (see Figure 2, Appendix A). Access ramps to the pits will have widths that vary from 22 m for single lane ramps to 35 m for double lane ramps with maximum grades of 10%.

The pits will be excavated by blasting using a site mixed emulsion (SME) explosive. An ammonium-nitrate fuel oil (ANFO) explosive may also be used. Blasted ore and mine rock will be handled in the pits by mining shovels and large wheel loaders in combination with high-capacity haul trucks. Run of mine ore will be hauled from the open pits to the Crusher, located west of the central pit.

Type 1 mine rock will primarily be directed to the MRSA for permanent storage, though some will be crushed and used for dam construction and as aggregate for site infrastructure and operational needs. Type 2 mine rock will be placed in the PSMF and South Pit (once mined), as well as in the Central Pit closer to the end of the mining operations.

The conceptual plan for pit development is to mine the North Pit throughout the life of the project with mining of the Central and South Pits to occur at various times to supplement ore production from the North Pit.

Ore Handling

The run of mine ore will be hauled from the open pits directly to the Crusher or placed on the Run of Mill (ROM) Stockpile pad. The crusher building will be an enclosed structure with a dust collection system. Crushed ore will be transported from the short transition conveyor onto a covered 1.4 km long overland

conveyor feeding a covered coarse ore stockpile. The coarse ore stockpile will have a live capacity of 25,000 tonnes.

Crushed ore will then be reclaimed from the stockpile by one of two parallel apron belt feeders and discharged onto a 150 m long conveyor that feeds the semi-autogenous grinding (SAG) mill feed conveyor.

Ore Processing

Minerals will be recovered from the ore and processed into concentrate in the Process Plant, which is located between the South Pit and the PSMF. The average daily feed rate will be approximately 25,200 tonnes. The conceptual mill process flow diagram is shown in Figure 6 (Appendix A). Ore will be processed into concentrate following a conventional two-step process grinding and flotation process.

Crushed ore will enter the Process Plant via the SAG mill feed conveyor, which discharges to the grinding circuit. The grinding circuit consists of a single SAG mill equipped with internal discharge grates followed by a vibrating screen. Oversize material will be recycled through a pebble crusher and returned to the SAG mill along with new crushed ore. Material that reports as screen undersize will be combined with ball mill discharge and will flow, by gravity, to a primary cyclone feed pump box. The primary cyclone feed pump will feed the primary cyclopack where the coarse fraction will return by gravity to the ball mill for additional grinding and size reduction. Cyclone overflow is the product from the grinding circuit and will feed the rougher flotation circuit.

The flotation circuit will include a rougher flotation bank, followed by rougher concentrate regrinding, and first through third cleaners operating in closed circuit to produce a final PGM-copper concentrate.

The primary reagents that are planned for use in the flotation process to produce the PGM-copper concentrate include:

- Potassium amyl xanthate (PAX), a strong flotation copper-PGM collector
- Iso-amyl dithiophosphate (AERO 3501), a selective PGM-copper promoter collector
- Methyl isobutyl carbinol (MIBC), an industrially applied frother
- Carboxy-methylcellulose (CMC), a silicate depressant which may be applied intermittently to reject and control magnesium silicate content in the PGM-copper concentrate
- Crushed calcium oxide (CaO), which will be slaked in the Process Plant to produce a milk of lime slurry for flotation circuit pH control to suppress iron sulphides in the process.

Type 1 tailings, which will account for approximately 85% of the tailings will be dewatered to 55-60% solids in the tailings thickener prior to being discharged to the PSMF. Type 2 tailings, estimated to account for up to 15% of the tailings from the Process Plant and have been determined to be PAG, will be discharged into a designated area within the PSMF or to the Central Pit.

The PGM-copper concentrate will be thickened to 50-60% solids w/w (percent concentration weight/weight) solids in a concentrate thickener and then subjected to pressure filtration producing a filtered concentrate at a nominal 8-11% moisture for transport off-site to a 3rd party smelter.

Concentrate Handling, Storage and Transportation

Concentrate will be transferred by a loader and conveyor into transport trucks within the concentrate load-out shed in the Process Plant. to ensure that dust generated during loading is contained and to facilitate clean-up of material. The load-out area will be located on the ground floor of the Process Plant and will be a truck drive-through facility. Loading will only occur after the area is isolated with sealed entry and exit doors. Controlled movement and conveying of the concentrate will minimize the generation of dust and spillage. After filling, the trucks will be covered for transport to the rail side load out shed from where product will be dispatched to existing third-party smelting facilities for further processing. It is estimated that about ten truckloads of PGM-copper concentrate will be transported off-site on a daily basis. In addition, up to an additional estimated 30 truckloads of concentrate may leave the site on a daily basis depending on the market conditions for the magnetite or low copper, high iron-nickel concentrates which may also be produced.

A separate Concentrate Storage Building will be constructed at the Process Plant Area. The building will be used in the event that there is a short term (days) interruption of concentrate transport off site to the rail side load out shed, so that the Process Plant can continue to operate.

Two options are currently being considered for concentrate delivery to an existing third-party facility for further processing:

- construction of a concentrate rail load-out facility either in the Town of Marathon or within the general area (not yet defined), with material transported from the site to the facility by transport truck then by train to a third-party processing facility
- delivery of concentrate material via transport truck from the site to a third-party processing facility

It is anticipated that a potential rail load-out facility would be situated on an existing rail siding in close proximity to the CP rail line. Various rail siding locations are under consideration but have not yet been confirmed. For the purposes of the air quality assessment, the location of the rail load-out facility was considered to be located in the Town of Marathon. This location is expected to provide a “worst-case” assessment of the potential effects of the rail load-out due to its proximity to residential areas.

Mine Rock Management

Type 1 mine rock that is not crushed and used for dam construction or as aggregate for site infrastructure will be directed to the MRSA for permanent storage. Type 2 mine rock will be stored within the PSMF, the South and Central Pit.

The MRSA is located to the east of the open pits and has capacity to store the Type 1 mine rock produced over the planned 12.7 year mine life. During operations, Type 2 mine rock will either be placed in the PSMF and progressively covered by process solids or stored in the South Pit or the Central Pit.

Process Solids Management

An estimated 78 M m^3 of process solids will be generated over the life of the mine. Type 1 process solids will be discharged into the PSMF. Type 2 process solids will be discharged into a designated area within the PSMF, or during the last few years of operation into the Central Pit. The PSMF is located west of the Process Plant and will be created through the downstream construction of rockfill dams using Type 1 mine rock.

Haul Roads

Several roads will be developed within the mine site to provide safe and ready access to all mine infrastructure. The proposed mine site roads include:

- a series of mine haul roads that extend from the pits to the Crusher, ROM Stockpile, PSMF and Truck Shop / Warehouse area
- PSMF and Hare Lake access roads, extending from the site access road at the Process Plant past the administration and services offices, the truck shop, around the WMP south of the PSMF up to Hare Lake and around to the north side of the PSMF.
- an access road along the toe of the MRSA that connects to the explosives magazines, SME Facility and MRSA retention ponds to the haul road at the overburden stockpile south of the MRSA
- a road from the Administration and Services Offices to the electrical substation

All roads will be constructed of gravel sourced from the mine site and on-site aggregate plant.

Power Supply and Distribution

The electrical power for the mine site is planned to be provided by a new 2.2 km 115-kV overhead transmission line connection to the existing Terrace Bay-Manitouwadge transmission line (M2W Line) that runs north of the Project.

Five 1.275 MW diesel generators will be installed on site, with four located adjacent to the Process Plant and one located at the Aggregate Site during site preparation and construction. The generators will remain in place during operations to supply emergency power in the event of a power failure.

Aggregate and Rock Fill Supply

A portable crushing and screening plant will be used to generate required aggregate and rock fill types (sizes) from on-site sources during operations.

Assay Lab

An Assay Lab may be located within the Process Plant Area to provide five primary functions:

- to provide analytical data to differentiate waste, low grade and higher grade ore from the open pit
- to provide analytical data to differentiate Type 1 from Type 2 mine rock
- to provide ore grade control data for the mining operation
- to provide process analytical data to optimize the performance of the Process Plant
- to provide environmental analysis to support the operation of the site environmental management infrastructure

An alternate arrangement is also contemplated, whereby an assay lab would instead be constructed and operated by a third party at an off-site location. While final details on the assay lab have not yet been confirmed, the on-site location of an assay lab has been identified in the area of the Process Plant for the purposes of the assessment and consideration of Project effects.

Miscellaneous Sources

Miscellaneous sources on site that are expected to be negligible contributors to emissions include the following:

- Fuel Farm - fuel will be stored in above ground vertical or horizontal bulk tanks
- Propane Storage Area – storage of pressurized propane

5.2.4.2 North American Industry Classification System (NAICS) Code

The NAICS code for the facility will be 212299 – All other metal ore mining.

5.2.4.3 Operating Schedule

The Project will operate 24 hours per day, 365 days per year for the LOM.

5.2.4.4 Potential Project Emissions Sources

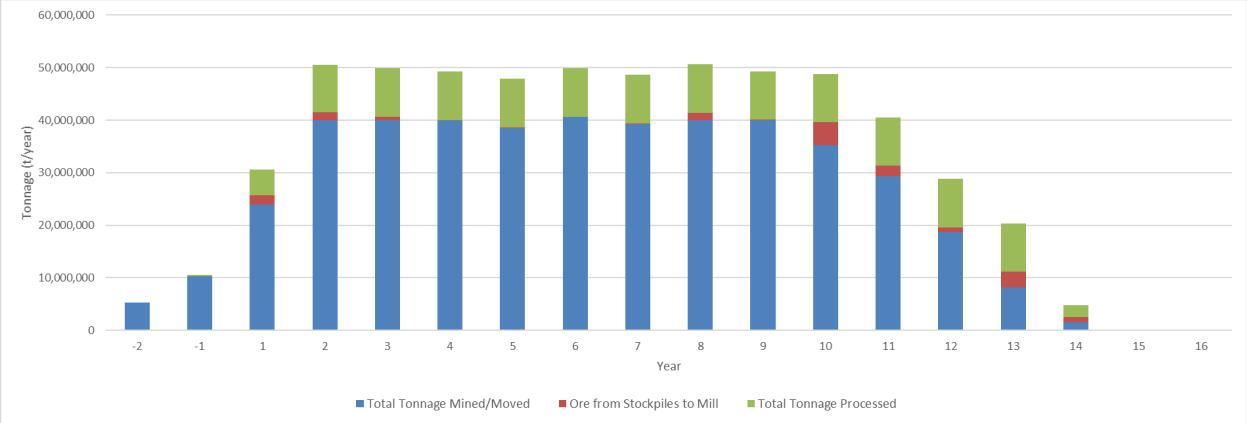
The following potential sources of emissions to the air were identified based on the process descriptions and data supplied by GenPGM Mine operations. These sources were assessed for their significance to Project emissions following the requirements presented in the MECP Guideline A-10 (MECP 2009a) and the significant sources were included in this assessment (see Appendices C and D for details).

The following emissions sources were identified:

- Open pit operation: material handling, equipment travel in the open pit, drilling, blasting, mobile equipment
- PSMF locations: wind erosion, material handling, mucking (excavators, dozers, and compactors), mobile equipment
- MRSAs: wind erosion, unloading, mucking (tracked dozer and excavators), mobile emissions
- Primary and mobile crushers: material handling, dust collection, primary crushing, mobile crushing, mobile emissions
- Ore processing: grinding circuit, pebble crusher, reagent handling, dust collection
- Assay lab operations: dust collection from sample preparation, assay furnace, and assay cupel; and scrubbers for precious metals, base metals, and atomic absorption spectrophotometer (AA)
- Concentrate handling: loadout dust collection, material handling, mobile emissions
- Unpaved roads: unpaved road dust, grading, mobile equipment
- Paved roads: paved road dust, mobile equipment from impact traffic and baseline traffic
- Emissions from diesel generators
- Tailpipe emissions from mobile equipment
- Emissions from propane heaters for comfort heat

5.2.4.5 Modelled Project Emissions Sources

The variation in material movements through the Project operating years is presented in Graph 5.1. For modelling, the year with the highest mass of material moved (mining rate + material transported from the ore stockpile to the primary crusher) was selected, as this year is expected to have the highest emission rates. As can be seen in Graph 5.1, Project material movements remain reasonably consistent through Years 2 to 10 and decrease following that. Using Year 2 operating data to represent the entire operations phase will provide a conservative estimate of air quality levels as the depth of the open pits will be less in Year 2 versus later years, which will result in “worst-case” impacts.



Graph 5.1: Variation in Material Movements (kt/yr) by Project Operating Year

Project emission sources and operation are discussed in this section along with an overview of the emission estimation techniques. Metals emissions for all sources were calculated by speciating the particulate emissions using measured metals contents in ore, mine rock and overburden obtained from GenPGM. Detailed emission calculations and methodologies are presented in Appendix D.

Open Pit Operation

The following emission sources are identified at the open pit:

- Holes are drilled and used for placing explosives for blasting. Drilling of holes can occur throughout the workday. Emissions from drilling include particulate emissions (including TSP, PM_{10}, $PM_{2.5}$ and associated metals in particulates) and tailpipe emissions (products of combustion including NO_X, SO_2, CO, VOCs) from the drilling equipment. Drilling emissions were estimated using emission factors for particulate from US EPA AP-42, Table 11.9-4.

- Blasting would occur daily during the work week (averaging 5 times per week) and was modelled as occurring around mid-afternoon. Blasting is an intermittent and instantaneous emission and modelled as a separate source (but occurring concurrently) with the rest of the open pit emission sources. Emission factors for blasting from US EPA AP-42, Chapter 11.9, Table 11.9-2 (Western Surface Coal Mining) were used to estimate particulate emissions from blasting. Emission factors for blasting from the Australia Government NPI Guide “Explosives Detonation and Firing Ranges” (Australia NPI, 2016) were used to estimate CO, NO_X, and SO_2 emissions. Emissions from blasting were included in all modelling scenarios as an open pit source that was separate from the continuous pit operations since emissions from blasting would occur for roughly 1 hour per day, for an estimated 5 days per week.

- Hydraulic shovels and wheel loaders transfer mine rock and ore from the open pit into haul trucks. CoPCs include particulate matter from road dust and tailpipe emissions from the non-road mobile

equipment. Particulate emissions for material unloading/dropping were calculated using Equation (1) in US EPA AP-42, Chapter 13.2.4 (Aggregate Handling and Storage Piles). Emissions (PM, PM_{10}, $PM_{2.5}$, and metals) from tracked dozers used for mine rock/aggregate handling were estimated using emission factors for bulldozing of material other than coal in US EPA AP-42, Chapter 11.9 (Western Surface Coal Mining), Table 11.9-2.

PSMF Locations

Emissions sources considered in the four PSMF locations during the operations phase included:

- Unloading mine rock at PSMF Locations 1 to 4. PM, PM_{10}, $PM_{2.5}$, and metals emissions are the CoPCs expected from this operation. Particulate emissions for material unloading/dropping were calculated using Equation (1) in US EPA AP-42, Chapter 13.2.4 (Aggregate Handling and Storage Piles).
- Continuing site preparation and mine rock handling (emissions of PM, PM_{10}, $PM_{2.5}$, and metals) using excavators, bulldozers, and compactors. Particulate emissions were estimated using emission factors for bulldozing of material other than coal in US EPA AP-42, Chapter 11.9 (Western Surface Coal Mining), Table 11.9-2.
- Tailpipe emissions from non-road mobile equipment.
- Wind erosion of dry tailings; particulate emissions were estimated following the methodology and related emission factors in Chapter 13.2.5 of US EPA AP-42 (Industrial Wind Erosion).

Mine Rock Storage Areas

Particulate matter (TSP, PM_{10}, $PM_{2.5}$ and associated metals in particulates) from loading/unloading operations and stockpile erosion, and products of combustion from the heavy equipment are the CoPCs. Emissions sources include the following:

- Trucks unloading mine rock at the MRSAs. Particulate emissions for material unloading/dropping were calculated using Equation (1) in US EPA AP-42, Chapter 13.2.4 (Aggregate Handling and Storage Piles).
- Wind erosion of the MRSAs. Particulate emissions were estimated following the methodology and related emission factors in Chapter 13.2.5 of US EPA AP-42 (Industrial Wind Erosion).
- Excavators and tracked dozers are used to maintain the MRSAs. Particulate emissions were estimated using emission factors for bulldozing of material other than coal in US EPA AP-42, Chapter 11.9 (Western Surface Coal Mining), Table 11.9-2.
- Tailpipe emissions from non-road mobile equipment.

Crushing Operations

Crushing operations generate particulate emissions from material handling and crushing operations. Products of combustion are also generated from trucks unloading aggregate. The following sources are considered:

- Loading/unloading of aggregate at the primary and mobile crushers, conveyor transferring material at crushed ore stockpile. PM, PM_{10}, $PM_{2.5}$, and metals emissions are the CoPCs expected from these operations. Particulate emissions for material unloading/transferring were calculated using Equation (1) in US EPA AP-42, Chapter 13.2.4 (Aggregate Handling and Storage Piles).
- Primary crushing and mobile crushing using jaw and cone crushers. PM, PM_{10}, $PM_{2.5}$, and metals emissions are the CoPCs expected from these operations. Particulate emissions for crushing were estimated using emission factors in US EPA AP-42, Chapter 11.24 (Metallic Minerals Processing), Table 11.24-1.
- Particulate emissions from material handling from the primary crusher and particulate emissions from the conveyor drop, underground feeders and conveyer to the Process Plant for the crushed ore (ROM) stockpile. PM, PM_{10}, $PM_{2.5}$, and metals emissions are the CoPCs expected from these operations. Particulate emissions are emitted as fugitives from handling operations and controlled by a baghouse. Baghouse PM emissions are estimated as per the MECP document “Procedure for Preparing an ESDM Report”, Appendix C. Emission factors for PM_{10}, $PM_{2.5}$ are estimated using speciation data in US EPA AP-42, Appendix B-1, Section 11.xx (Fluorspar Ore Rotary Drum Dryer).
- Wheeled loaders, and excavators are used for the material handling. Particulate emissions were estimated using emission factors for bulldozing of material other than coal in US EPA AP-42, Chapter 11.9 (Western Surface Coal Mining), Table 11.9-2.
- Tailpipe emissions from non-road mobile equipment.

Ore Processing

Emission sources considered during ore processing operations are the following:

- Crushing of ore in the grinding circuit and crushing of recycled pebbles from the grinding circuit in the pebble crusher. PM, PM_{10}, $PM_{2.5}$, and metals emissions are the CoPCs expected from these operations. Particulate emissions for grinding were calculated using emission factors in US EPA AP-42, Chapter 11.24 (Metallic Minerals Processing), Table 11.24-1 and material metals speciation factors from analysis of the ore.
- Particulate and calcium oxide (CaO) emissions from lime delivery and the lime slacking mill. Sodium carboxymethyl cellulose (CMC) emissions from the CMC feed bin. These emissions are emitted as fugitives from handling operations and controlled by baghouses. Baghouse emissions of PM, CaO, and CMC are estimated as per the MECP document “Procedure for Preparing an ESDM Report”,

Appendix C and speciation data. Emission factors for PM_{10}, $PM_{2.5}$ are estimated using US EPA AP-42, Appendix B-1, Section 11.xx (Fluorspar Ore Rotary Drum Dryer).

- Emissions from the reagents used in the ore processing. The CoPCs include the various components of the reagents used, of which the only CoPC determined to be significant was iron sulfide. Emissions were calculated using the MECP document "Procedure for Preparing an ESDM Report" (MECP, 2018), Table C-2, Evaporation Equation.

Assay Lab Operations

Emissions sources considered during assay lab operations are the following:

- Particulate emissions from the material handling from the assay lab. These emissions are emitted as fugitives from handling operations and controlled by a baghouse. Baghouse PM is estimated as per the MECP document "Procedure for Preparing an ESDM Report", Appendix C. Emission factors for PM_{10}, $PM_{2.5}$ are estimated using speciation data from US EPA AP-42, Appendix B-1, Section 11.xx (Fluorspar Ore Rotary Drum Dryer).
- Lead emissions from the assay furnace and assay cupel furnace baghouses. Emissions from these operations were estimated using mass balance calculations.
- Nitric acid, hydrochloric acid, lanthanum chloride, and bromide emissions from the precious metals furnace scrubber, base metals furnace scrubber, and laboratory analyzers. Emissions from these operations were estimated using mass balance calculations.

Concentrate Handling

Particulate matter (TSP, PM_{10}, $PM_{2.5}$ and associated metals in particulates) from loading/unloading operations and products of combustion from the mobile equipment are the CoPCs. Emissions sources include the following:

- Particulate emissions from the concentrate due to truck dumping, transferred by conveyor or wheel loader to silo/walled bunkers, and transfer into rail cars at the rail load-out location. PM, PM_{10}, $PM_{2.5}$, and metals emissions are the CoPCs expected from these operations. Particulate emissions are emitted as fugitives from handling operations and controlled by baghouses. Emissions of PM are estimated as per the MECP document "Procedure for Preparing an ESDM Report", Appendix C. Emission factors for PM_{10}, $PM_{2.5}$ are estimated using data from US EPA AP-42, Appendix B-1, Section 11.xx (Fluorspar Ore Rotary Drum Dryer).
- Material transfer of concentrate. Loading at Process Plant, unloading at rail load-out to shed, and loading to the rail cars. PM, PM_{10}, $PM_{2.5}$, and metals emissions are the CoPCs expected from these operations. Particulate emissions for material unloading/dropping were calculated using Equation (1) in US EPA AP-42, Chapter 13.2.4 (Aggregate Handling and Storage Piles).
- Tailpipe emissions from mobile equipment.

Unpaved Roads

Mining trucks and other support vehicles travel within the Project via unpaved haul and access roads. Particulate matter (TSP, PM_{10}, $PM_{2.5}$ and associated metals in particulates) from road dust, and products of combustion from the heavy equipment are the CoPCs. Particulate emissions were estimated using Equation (1) in US EPA AP-42, Chapter 13.2.2 (Unpaved Roads). Graders are used to maintain unpaved roads. Emissions include particulate (TSP, PM_{10}, $PM_{2.5}$ and associated metals in particulates) from road dust and tailpipe emissions from the graders. Particulate emissions were estimated using emission factors for grading operations found in US EPA AP-42, Chapter 11.9 (Western Surface Coal Mining), Table 11.9-2. Metals emissions were estimated using speciation profiles of metals in TSP for mine rock obtained from GenPGM. Unpaved roads include:

- main access road from Process Plant to Highway 17
- haul road from pit to MRSA
- haul road from pit to primary crusher
- haul road from pit to mobile crusher
- haul road from pit to PSMF

Paved Roads

On-road trucks and other support vehicles travel to the rail loadout location within the Town of Marathon via paved roads. Particulate matter (TSP, PM_{10}, $PM_{2.5}$) from road dust, and products of combustion from the mobile equipment are the CoPCs. Particulate emissions were estimated using Equation (1) in US EPA AP-42, Chapter 13.2.1 (Paved Roads). Project traffic and baseline (public) traffic were considered for emissions associated with paved roads. Paved roads include:

- Peninsula Road – Highway 17 to Industrial Park Road
- Peninsula Road – Industrial Park Road to Penn Lake Road
- Peninsula Road – Penn Lake Road to Hemlo Drive
- Peninsula Road – Hemlo Drive to Sund Crescent
- Peninsula Road – Sund Crescent to Stevens Avenue
- Steven'\s Avenue – Stevens Avenue to Rail Loadout Location

Generators

One diesel generator (1.275 MW) will be used for the mobile crusher for continuous operation during the operations phase. Four diesel generators (1.275 MW each) will be on standby for emergency situations.

Emissions from the generators would be expected to be combustions emissions including nitrogen oxide (NOx), SO_2, CO, PM, PAHs, and hydrocarbons. Generator emissions were calculated using emissions factors from US EPA AP-42, Section 3.4 and applicable sulphur in fuel regulations.

Vehicle Emissions

The mining fleet will consist of heavy equipment units including excavators, wheel loaders, haul trucks, drills, wheel and track dozers, graders, and other support vehicles. Emissions from the diesel fuel-fired mobile equipment would be expected to be combustion emissions including NOx, SO_2, CO, PM, PAHs, and hydrocarbons. The following methodologies were used for on-road and non-road equipment:

- Vehicle tailpipe emissions for on-road emissions were estimated using EPA's Motor Vehicle Emission Simulator (MOVES), MOVES2014b project level.
- Vehicle tailpipe emissions for non-road CACs and PAHs were estimated based on the regulated emissions from non-road equipment. Where applicable, Tier 4 standards were used. For other CoPCs such as VOCs/ PAHs, speciation profiles from US EPA (US EPA, 2015a) were applied to the total VOCs. VOCs were calculated based on the ratio of VOC/NMHC as provided in the MOVES documentation. Particulate PAH speciation profiles were based on $PM_{2.5}$ emissions.

Propane Heaters

Although electric heat will be an option for the Project, in order to assess worst case emissions scenario, it was assumed that propane heaters will be used for comfort heat in the Process Plant, truck shop, wastewater treatment plant, assay lab, and administration building. Emissions from the propane heaters would be expected to be combustion emissions from liquefied petroleum gas, including NO_X, SO_2, PM, N_2O, CO_2, CO, TOC and methane (CH_4). Propane heater emissions were calculated using emission factors from US EPA AP-42, Chapter 1.5 (Liquefied Petroleum Gas Combustion), Table 1.5-1.

Negligible Sources

The following emission sources are considered to be negligible following the MECP procedure document (MECP, 2018):

- Ball mill grinding is a wet grinding process.
- Emissions from tailings pumped to the PSMF as the tailings are in a slurry form and the contents are non-volatile.
- Raw materials used for explosives manufacturing will be in prill or liquid (solutions) form and non-volatile state.
- Fuel storage tanks.

5.2.4.6 Accidents and Malfunctions

Accidents and malfunctions that could have an adverse effect on the atmospheric environment are discussed in Chapter 6.3 of the updated EIS Addendum (Volume 2).

5.2.4.7 Emissions Controls and Mitigation Efficiency Estimates

The emission inventory included several sources/source types that will have mitigation measures applied to them. The expected control efficiencies, rationale and reference for these measures are summarized in Table 5.2.

Table 5.2: Summary of Assumed Mitigation Control Efficiencies

Source/Source Type	Expected Collection Efficiency (%)	Control	Reference/Rationale
Drilling	0%	Uncontrolled	-
Truck Loading in Open Pit and Unloading on MRSAs	0%	Uncontrolled	-
Conveyor Transfer Point	0%	Assumed Uncontrolled	Conveyor transfer points will be enclosed at the feed and discharge points to minimize fugitive dust. The assumption of uncontrolled emissions from these sources in the emissions inventory will be conservative.
Grading	80%	Water/Chemical suppressant	Supplied by Gen PGM
Primary Crusher	99%	Enclosure with dust collector (baghouse)	MPCA [1]. Baghouse emissions estimated following MECP default baghouse emissions factor approach. [2]
Crushed Ore Stockpile	99%	Enclosure with dust collector (baghouse) on the crushed ore reclaim tunnel	MPCA [1]. Baghouse emissions estimated following MECP default baghouse emissions factor approach.[2]
Concentrate Area Loadout	-	Dust Collector (Baghouse)	Baghouse emissions estimated following MECP default baghouse emissions factor approach. [2]
Lime Delivery Area	-	Dust Collector (Baghouse)	Baghouse emissions estimated following MECP default baghouse emissions factor approach. [2]
Lime Slacking Mill	-	Dust Collector (Baghouse)	Baghouse emissions estimated following MECP default baghouse emissions factor approach. [2]
CMC Feed Bin	-	Dust Collector (Baghouse)	Baghouse emissions estimated following MECP default baghouse emissions factor approach. [2]

Table 5.2: Summary of Assumed Mitigation Control Efficiencies

Source/Source Type	Expected Collection Efficiency (%)	Control	Reference/Rationale
Assay Lab, Furnace	99%	Baghouse	Supplied by Gen PGM
Assay Lab, Cupel Furnace	99%	Baghouse	Supplied by Gen PGM
Assay Lab, Precious Metals Furnace	90%	Scrubber	Provided by Gen PGM.
Assay Lab, Base Metals Furnace	90%	Scrubber	Provided by Gen PGM.
Rail Load-out – Concentrate Unloading	99%	Load out shed equipped with dust collectors (baghouses)	MPCA[1.] Baghouse emissions estimated following MECP default baghouse emissions factor [2]
Rail Loadout - Concentrate Loading of Rail Cars	97.5%	Partial enclosure with dust collector (baghouse) assumed	Cumulative collection efficiency calculated from expected collection efficiencies for partial enclosure (75%) WRAP [3] and estimate for baghouse control (90%)
Unpaved Roads	80%	Chemical suppressant	Provided by Gen PGM

Notes:

1. Minnesota Pollution Control Agency (MPCA) – Facts About Control Equipment Performance Standards (MPCA, 2008)
2. MECP, Guideline A-10, Appendix C.
3. Western Regional Air Partnership (WRAP, 2006.)

5.2.4.8 Project Emissions Summary

A summary of the maximum daily emissions of each CoPC from the Project (after the implementation of mitigation) is presented in Table 5.3. There are currently no applicable federal or provincial emissions limit criteria for the Project.

Table 5.3: Emissions Summary - Operation

CoPC	CAS No.	Maximum Daily Emission Rate (kg/day)
NOx	10102-44-0	2393
CO	630-08-0	6682
SO_2	7446-09-5	123.4
CO_2	124-38-9	468537
CH_4	74-82-8	21.0
N_2O	10024-97-2	35.0

Table 5.3: Emissions Summary - Operation

CoPC	CAS No.	Maximum Daily Emission Rate (kg/day)
Non-methane hydrocarbons	-	112.9
TSP	-	6920
PM_{10}	-	2836
$PM_{2.5}$	-	358
Silica	7631-86-3	1167
Silver	7440-22-4	0.006
Aluminum	7429-90-5	78.0
Gold	7440-57-5	0.0004
Arsenic	7440-38-2	0.02
Boron	7440-42-8	0.06
Barium	7440-39-3	0.3
Beryllium	7440-41-7	0.003
Bismuth	7440-69-9	0.02
Calcium	7440-70-2	80.6
Cadmium	7440-43-9	0.005
Cobalt	7440-48-4	0.2
Chromium	7440-47-3	0.8
Copper	7440-50-8	18.2
Iron	7439-89-6	377
Gallium	7440-55-3	16.9
Mercury	7439-97-6	0.006
Potassium	7440-09-7	4.9
Lanthanum	7439-91-0	0.1
Magnesium	7439-95-4	94.0
Manganese	7439-96-5	3.4
Molybdenum	7439-98-7	0.02
Sodium	7440-23-5	9.4
Nickel	7440-02-0	1.1
Phosphorus	7723-14-0	8.8
Lead	7439-92-1	0.06
Palladium	7440-05-3	0.004
Platinum	7440-06-4	0.001
Sulphur	7704-34-9	26.7

Table 5.3: Emissions Summary - Operation

CoPC	CAS No.	Maximum Daily Emission Rate (kg/day)
Antimony	7440-36-0	0.01
Scandium	7440-20-2	0.01
Silicon	7440-21-3	7.3
Strontium	7440-24-6	0.6
Titanium	7440-32-6	5.3
Thallium	7440-28-0	0.07
Uranium	7440-61-1	0.06
Vanadium	7440-62-2	1.1
Tungsten	7440-33-7	0.3
Zinc	7440-66-6	0.4
CaO	1035-78-8	8.4
Sodium Carboxymethyl Cellulose	9004-32-4	0.1
Nitric Acid	7697-37-2	0.2
Hydrochloric Acid	7647-01-0	0.2
Hydrofluoric Acid	7664-39-3	0.2
Bromine	7726-95-6	0.5
Lanthanum Chloride	10099-58-8	3.2
1,3-butadiene	106-99-0	0.1
Acenaphthene	83-32-9	0.009
Acenaphthylene	208-96-8	0.01
Acetaldehyde	75-07-0	10.1
Acrolein	107-02-8	1.5
Anthracene	120-12-7	0.01
Benzene	71-43-2	2.0
Benzo(a)anthracene	56-55-3	0.0003
Benzo(a)pyrene	50-32-8	0.0002
Benzo(b+k)fluoranthene	205-99-2	0.0003
Benzo(g,h,i)perylene	191-24-2	0.0005
Chrysene	218-01-9	0.0004
Fluoranthene	206-44-0	0.009
Fluorene	86-73-7	0.03
Formaldehyde	50-00-0	316
Phenanthrene	85-01-8	0.1

Table 5.3: Emissions Summary - Operation

CoPC	CAS No.	Maximum Daily Emission Rate (kg/day)
Pyrene	129-00-0	0.008
Aldehydes	--	7.6
TOC	--	19.6
Toluene	108-88-3	0.03
Xylenes	1330-20-7	0.02
Propylene	115-07-1	0.3
Naphthalene	91-20-3	0.02
Indeno(1,2,3-cd)pyrene	193-39-5	0.00005
Dibenz(a,h)perylene	53-70-3	0.00004

5.2.5 Closure Emissions

Project active closure would entail removal of infrastructure and re-vegetation of the area. Active closure emissions are expected to be less than construction emissions (as no ore extraction or PSMF construction would be occurring) and, therefore, the assessment of the construction scenario will implicitly address active closure phase emissions as well.

5.2.6 Existing and Future Development

5.2.6.1 Existing Industrial Sources

Table 5.4 provides a summary of other industrial activities/sources identified within the LSA and RSA that would have the potential for emissions of CoPCs in common with the Project. The Hemlo Gold mine is approximately 30-km from the SSA and due to its distance, is expected to have minimal potential for CoPC emissions from this source to significantly affect air quality in the vicinity of the Project. Dust and vehicle emissions from Highway 17 improvements have the potential to locally increase air quality levels in the vicinity of the construction activities, but these would be of limited duration and any particular location along the highway. Construction of the East-West Tie Transmission Line Expansion is expected to be completed prior to the start of construction of the Project.

Table 5.4: Summary of Existing Development in the Air Quality RSA

Project Name	Distance from SSA (km)	Description
Hemlo Gold Mine Camp	30	The Hemlo Gold Camp comprises three mine properties, the Golden Giant Mine, the David Bell Mine and the Williams Mine are located approximately 30 km southeast of the Project. The Williams Mine is currently an underground mining operation only.
Highway 17 Improvements	Variable	According to the MTO, the following activities are underway/planned on Hwy 17 between White River and Terrace Bay over the next two years: • Resurfacing – Approximately 78 km of shoulder paving between Marathon and Terrace Bay; Approximately 21 km of shoulder paving west of White River. • Bridge Rehabilitation – Bertrand Creek Bridge, West White River Bridge, White Lake Narrows Bridge, Wabikoba Creek Bridge, Little Pic River Bridge, Aguassabon River Bridge • Bridge Replacement – White River Bridge • Culvert Rehabilitation – McKellar and Ripple Creeks • Culvert Replacement – Hare Creek, Mink Creek In addition, the Pic River bridge over Hwy 627 will be replaced.
East-West Tie Transmission Line Expansion	Variable	The East-West Tie transmission project is a 450 km double-circuit 230 kV transmission line connecting the Lakehead Transfer Station in the Municipality of Shuniah near the city of Thunder Bay to the Wawa Transfer Station located east of the Municipality of Wawa. It will also connect to the Marathon Transformer Station. The transmission line will consist of: • transmission structures • insulators • conductors • overhead shield wires • optic fibre ground wire and grounding Construction of the project began in September 2019 and is expected to be complete by the end of the first quarter of 2022. The right of way is on the order of up to 70 m wide.

5.2.6.2 Existing Non-Industry Emissions

Non-industrial emissions sources within the RSA with air CoPCs in common with the Project would include:

- residential and commercial areas within the Town of Marathon
- Marathon municipal landfill and waste transfer station
- forestry activities
- Marathon airport and associated air traffic

- MTO highway maintenance shop and gravel/salt storage
- transportation (including Highway 17 and railway).

Air quality concentrations due to these sources were accounted for in this assessment through the use of background concentration levels in the cumulative effects assessment.

5.2.6.3 Future Development

Potential future development within the LSA and RSA would include the projects identified in Table 5.5 below. Mineral exploration activities would be expected to only affect air quality in close proximity to these activities with limited duration and therefore have minimal impact on air quality in the LSA. The proposed BN hydroelectric and wind energy projects would generate minimal CoPC emissions during construction but would not be expected to significantly affect air quality in the LSA due to their magnitude and distance from the SSA. The reasonably foreseeable future developments are, therefore, not expected to have the potential for significant cumulative effects with the Project.

Table 5.5: Summary of Future Development in the Air Quality RSA

Project Name	Distance from SSA (km)	Description
Mineral Exploration	Variable	There are a dozens of mining exploration permits that have been granted within a 100 km radius of the Project, which may give rise to exploration activities in the next 5 to 10 years. GenPGM is engaged in early exploration activities north and west of the Project site.
BN Hydroelectric Facilities	50	The BN is proposing to construct hydroelectric facilities at Manitou Falls and High Falls, located on the Pic River approximately 70 and 85 km upstream from Lake Superior (50 and 65 km north of the Project site), respectively.
BN Wind Energy Projects	12-20	The Superior Shores Wind Farm is a joint venture between the BN and Innergex of Quebec. This 24 MW wind energy project would be located approximately 12 km southeast of the Marathon Palladium Project site. Coldwell Wind Farm is a joint project between BN and Brookfield Power. Approval to build the Coldwell Wind Energy Project has been granted. The project is situated approximately 20 km northwest of Marathon. The wind energy project as described would have a total capacity of up to 100 MW utilizing 66 wind turbine generators (WTGs) each with a generating capacity of 1.5 MW. The specific timeline for this project is dependent, among other things, on the East-West Tie transmission line expansion.

5.2.7 Design and Mitigation Measures

5.2.7.1 Construction Emission Control

Proposed mitigation measures for potential air emission concerns during the construction phase will include:

- use of dust suppressants (e.g., water) during situations that have an increased potential to generate airborne dust
- maintenance of vehicles to increase fuel efficiency

5.2.7.2 Operation Emission Control

A number of mitigation measures would be implemented to control emissions to the atmosphere during Project operation and are discussed in this section.

Air Pollution Control Devices

The following components of the ore milling process will be equipped with air pollution control devices:

- The primary crusher will be equipped with a dust collection system (baghouse or equivalent) to control fugitive emission during ore crushing.
- The Process Plant feed crushed ore stockpile will be enclosed and the crushed ore reclaim tunnel equipped with a baghouse.
- Baghouses will be used to control emissions from the concentrate loadout area, lime delivery area, lime slacking mill and carboxymethyl cellulose (CMC) Feed bin.
- Wet scrubbers will be used to control emissions from the precious metals and base metals assay furnaces.
- Baghouses will be used on the lead assay and cupel furnaces.
- Baghouses will be used to control emissions at the rail loadout.

Other Process Design Considerations

CAC emissions from diesel-fired combustion equipment, including mobile non-road equipment and stationary equipment, are proposed to be controlled through the application of the following practices:

- Mobile equipment on site will meet applicable Transport Canada off-road vehicle emission requirements (Tier 4 emissions standards)
- Effective and timely equipment maintenance to maintain mining equipment in good working condition.

Fugitive Emissions

Mining equipment traffic on the unpaved roads in the SSA, mining activities, mineral material handling operations, and storage areas/stockpile will be the primary sources of fugitive dust. Fugitive dust emission controls for roadways, material handling and storage areas/stockpile may include, but not be limited to, application of water or surfactants. The site roads will be maintained in good condition, with regular inspections and maintenance to reduce the loose dust on the roads.

Closure Emission Control

Mitigation measures for potential air emission concerns during the closure phase will be similar to those for the construction phase.

5.3 DISPERSION MODELLING – APPROACH AND METHODS

This section presents an overview of the dispersion modelling methodologies used in this study.

5.3.1 Modelling Assessment Approach

In this study, several dispersion modelling scenarios were assessed to represent different operational aspects of the Project. A summary of the dispersion modelling scenarios assessed in this study is presented in Table 5.6.

Table 5.6: Summary of Dispersion Modelling Scenarios Assessed

Scenario	Air CoPCs	Sources Modelled	Receptors
Construction	All [1]	Construction Sources	Special Receptors
Construction	Selected CoPCs	Construction Sources (excluding Peninsula Road)	Gridded Receptors
Construction	All [1]	Construction Sources (excluding Peninsula Road)	Modelled Property Boundary
Operation	All [1]	Project Sources	Special Receptors
Operation	Selected CoPCs	Project Sources (excluding Peninsula Road)	Gridded Receptors
Operation	All [1]	Project Sources (excluding Peninsula Road)	Modelled Property Boundary

NOTE:

1. CoPCs from the Project include TSP, PM_{10}, $PM_{2.5}$; other CACs including NO_X, SO_2, CO; and HAPs including PAHs, VOCs and metals.

5.3.2 Modelling Domain

The assessment area for air quality dispersion modelling was composed of a 27 km by 27 km domain, which is consistent with the LSA shown on Figure 3.

5.3.3 Air Dispersion Modelling Methodology

O. Reg. 419/05 requires concentrations to be calculated with an approved dispersion model used in accordance with the MECP publication Air Dispersion Modelling Guideline for Ontario (ADMGO) (MECP 2017). The US EPA AERMOD air dispersion model, which is an approved model by the MECP for assessing contaminants against Schedule 3 limits of O. Reg. 419/05, was used to estimate the maximum off-site ground-level concentrations (GLCs) for the air CoPCs being assessed (US EPA 2019).

5.3.3.1 Dispersion Model Used

The methodology applied to predict the air quality effect of the releases of air CoPCs to the atmosphere is based on the ADMGO (MECP 2017) and is presented herein. The results of the emission inventory were used to prepare a dispersion modelling assessment of the Project for comparison against the applicable ambient air quality standards. The US EPA dispersion model, AERMOD (Version 19191), was used to determine the estimated maximum 1-hour, 8-hour, 24-hour, 30 day and annual average GLCs. Maximum ground level concentration estimates from Project emissions were determined over an approximate 27 km by 27 km domain with varying receptor grid points to capture the maximum concentrations.

AERMOD is a steady-state plume model that is applicable to rural and urban areas, flat and complex terrain, surface and elevated releases, and multiple sources (including, point, area and volume sources). In the Stable Boundary Layer, the concentration distribution is assumed to be Gaussian in both the vertical and horizontal. Vertical profiles of wind speed wind direction, turbulence temperature, and temperature gradient are estimated using available meteorological observations. AERMOD accounts for the vertical inhomogeneity of the Planetary Boundary Layer (PBL). This is accomplished by "averaging" the parameters of the actual Stable Boundary Layer into "effective" parameters of an equivalent homogeneous PBL. With these effective parameters, AERMOD accounts for the inhomogeneity of the PBL, in an averaged sense.

Parameters that directly influence the dispersion of pollutants include; wind speeds and direction, atmospheric stability and mixing layer depths. Meteorological conditions that may lead to high GLCs from elevated point sources are typically either convective atmospheric stability with light winds or neutral conditions with high wind speeds. Both of these conditions lead to the plume rapidly being carried to ground level close to the source. High concentrations from low elevated sources, elevated sources with building or topography effects, or virtual sources are typically due to stable conditions with light winds.

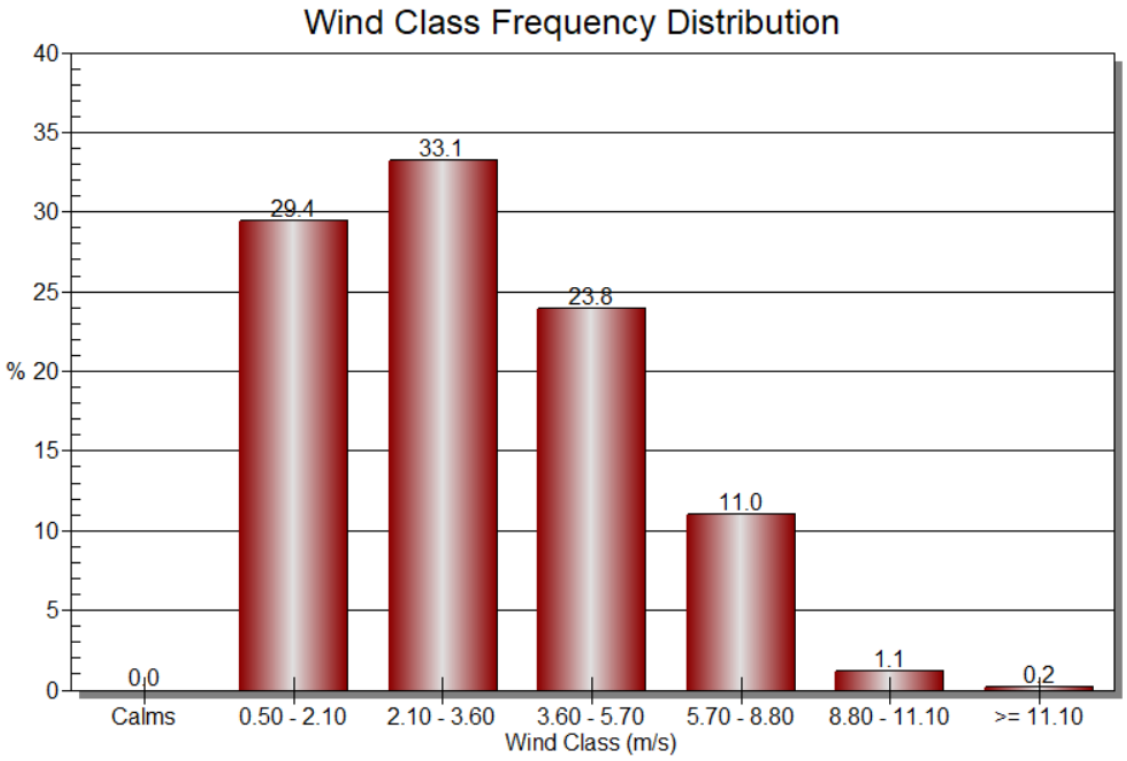
5.3.3.2 Meteorological Data Sources

The local meteorology of the region must be characterized to evaluate the short-term atmospheric dispersion and transport of emissions released by the Project. The data required for predicting dispersion and transport includes: wind speeds and direction, temperature, atmospheric stability, and mixing layer depth. Wind and temperature data are readily available from meteorological stations, but atmospheric stability and mixing layer depth are calculated from additional raw meteorological data including; cloud cover and opaque sky cover.

A five-year (2015 – 2019) meteorological dataset provided by the MECP based on upper air data from the U.S. National Weather Service's Gaylord/Alpena station and surface data from Environment and Climate Change Canada's Marathon airport station and processed using AERMET version 19191 was used in the modelling assessment. The meteorological data was processed by the MECP to reflect the land uses surrounding the proposed site.

5.3.3.3 Wind Speed and Direction

The frequency distribution of wind speeds (from AERMET) at the development is shown on Graph 5.2. A wind rose plot is presented on Figure 7. The predominant winds blow from northeasterly, west-southwesterly, and south-southwesterly directions.



Graph 5.2: Wind Class Frequency Distribution for the MECP Meteorological Data Set

5.3.3.4 Building Downwash

Wind dependent building/obstacle dimensions are an input to AERMOD for use in the building wake and building downwash calculations for point source emissions. Emissions sources that would be affected by building downwash were included in the AERMOD modelling, such as:

- dust collector and scrubber stacks
- process plant exhausts
- generator stacks.

A plan view of the Project process area showing the building layout used in the dispersion modelling is presented on Figure 8.

5.3.3.5 Topographic Data

Canadian Digital Elevation Data (CDED) data for the RSA was acquired from the MECP and evaluated using AERMOD's terrain processor (AERMAP) for use in the dispersion modelling.

Digital topography data for the SSA during the construction and operation phases modelled were obtained from GenPGM and analyzed with AERMAP. This data reflected the changes in topography due to open pit excavation and MRSA, overburden and ore stockpiling.

5.3.3.6 Averaging Periods

AERMOD is capable of predicting concentrations for a variety of averaging times greater than 1-hour. For this Project, the model was run for 1-hour, 8-hour, 24-hour, 30-day, and annual averaging times to give results that can be directly compared to O. Reg. 419/05 and federal criteria.

Model predictions for averaging periods not mentioned above were converted to the required period following MECP guidance provided in the ADMGO (MECP 2017b).

5.3.4 Receptor Grid

An approximately 27 km by 27 km computational domain of gridded receptors was used in the modelling assessment, as well as receptors along the modelled property boundary. Receptors were placed around four bounding boxes that encompassed the emission sources, with spacings following guidance in the MECP Guideline A-11 (MECP, 2017).

A total of 11,421 receptors (6,860 gridded receptors, 4,464 modelled property boundary receptors and 97 special receptors) were utilized in the assessment.

The extended receptor grid around the SSA is shown on Figure 9 and a close-up near the modelled property boundary is shown on Figure 10. The locations of the special receptors are shown on Figure 5.

5.3.5 Emission Source Data

The Project emissions sources were modelled following the protocols and procedures outlined in MECP Guideline A-11 (MECP 2017). The methodologies are described in detail in Appendices C and D, for construction and operation, respectively.

5.3.5.1 Construction Scenario

Detailed descriptions of the emissions sources for the Project are provided in Appendix C. A summary of the emission source parameters used in the AERMOD dispersion modelling is also provided in Appendix C. The locations of the emission sources are shown on Figure 11a to Figure 11d.

Area Sources

The following emission sources were modelled as area sources to reflect the geometry and area of the sources they represent (stockpile wind erosion) which follows that MECP Guideline A-11 (MECP 2017). This guidance stipulates that surface wind erosion emissions be modelled as area sources.

- CS5: MRSA wind erosion
- CS6: PSMF wind erosion

Volume Sources

MECP Guideline A-11 states the following for volume sources: *"Volume sources are used to model releases from a variety of industrial sources, such as building roof monitors, fugitive leaks from an industrial facility, multiple vents, and stacker drop points."* Stantec modelled the following as volume sources:

- CS1: Primary crushing of ore
- CS3: Crushed mine rock (primary crusher) material handling
- CS4: Erosion of the crushed mine rock (primary crusher) storage pile
- CS7, CS8: Mobile crushing of ore using jaw and cone crushers
- CS9, CS10, CS11, CS12, CS13, CS14, CS15: Erosion of the mobile crusher storage piles #1 - 7
- CS21: Concrete batch plant
- CS22: Erosion of the concrete batch plant sand stockpile
- CS24, CS25, CS26: Erosion of the overburden storage piles #1 – 3

- CM1: Unloading mine rock at primary crusher
- CM3A: Unloading mine rock at MRSA
- CM3B: MRSA area mucking and tailpipe
- CM4A, CM4B: Unloading mine rock at PSMF
- CM4C, CM4D: PSMF area mucking and tailpipe
- CM5A: Unloading mine rock at mobile crusher
- CM5B: Mobile crusher area tailpipe
- CM6: Process Plant area mucking and tailpipe
- CM7: Truck Shop equipment tailpipe
- CM8: Unloading sand material at concrete batch plant storage pile
- CM9A: Sand and gravel material handling at concrete batch plant
- CM9B: Concrete batch plant area tailpipe
- CM10, CM11, CM12: Overburden material handling
- CH1: Comfort heating equipment at the Truck Shop
- CH2: Comfort heating equipment at the construction offices
- CRLO: Construction activities at the rail loadout area

Emissions from paved and unpaved haul routes were modelled as series of volume (line volume) sources with parameters determined based on the recommended approach by the US EPA Haul Road Workgroup Final Report (US EPA 2012b). The following sources were modelled as line volume sources:

- CR1A: Main access road from Process Plant to Highway (on-site portion)
- CR1B: Main access road (off-site portion)
- CR2: Haul road from pit to MRSA
- CR3: Haul road from pit to primary crusher
- CR4: Haul road from pit to mobile crusher
- CR5: Haul road from pit to PSMF

- CR6A: Peninsula Road (Highway to Industrial Park Road)
- CR6B: Peninsula Road (Industrial Park Road to Penn Lake Road)
- CR6C: Peninsula Road (Penn Lake Road to Hemlo Drive)

Point Sources

The following were modelled as point sources because they emit through a stack or vent:

- CS2: Primary crusher baghouse
- CS16: Generator 1 (mobile crusher)
- CS17: Generator 2 (mobile concrete plant)
- CS18: Generator 3 (construction offices)
- CS19: Generator 4 (Truck Shop)
- CS20: Generator 5 (Process Plant)
- CS23: Cement silo

Open Pit Sources

The dispersion of emissions sources in the open pit were modelled using the Pit Source algorithm in AERMOD. This methodology accounts for the portion of particulate matter emissions that would be retained in the open pit due to the generally lower wind speeds found in open pits relative to the surface above. For use of this algorithm, the dimensions of the open pit (width, length) and volume are required. An equivalent, effective volume was calculated based on averaging pit volumes. The following sources were modelled as pit sources:

- CM2A: drilling, mucking and loading
- CM2B: blasting
- CM2C: tailpipe

5.3.5.2 Operation Scenario

Detailed descriptions of the emissions sources for the Project operation are provided in Appendix D. A summary of the emission source parameters used in the AERMOD dispersion modelling is also provided in Appendix D. The locations of the emission sources are shown on Figure 12a to Figure 12d.

Area Sources

The following emission sources were modelled as area sources to reflect the geometry and area of the sources they represent (stockpile wind erosion) which follows that MECP Guideline A-11 (MECP 2017). This guidance stipulates that surface wind erosion emissions be modelled as area sources.

- S9: MRSA wind erosion
- S10: PSMF wind erosion

Volume Sources

MECP Guideline A-11 states the following for volume sources: *"Volume sources are used to model releases from a variety of industrial sources, such as building roof monitors, fugitive leaks from an industrial facility, multiple vents, and stacker drop points."* Stantec modelled the following as volume sources:

- S1: Primary crushing of ore
- S3: Conveyor transferring material at the crushed ore stockpile
- S4: Process Plant building general roof exhaust fans
- S11, S12, S13, S14: Mobile primary, secondary, tertiary and fines crushing
- S15, S16, S17, S18, S19, S20, S21: Erosion of the waste stockpiles from the mobile crusher (piles #1 – 7)
- S36: Rail loadout shed
- S37: Rail loadout loading to rail cars
- M1: Primary crusher
- M3A: Unloading mine rock at MRSA
- M3B: MRSA area mucking and tailpipe
- M4A, M4B, M4C, M4D: Unloading mine rock at PSMF
- M4E, M4F, M4G, M4H: PSMF area mucking and tailpipe
- M5A: Unloading mine rock at mobile crusher
- M5B: Mobile crusher area tailpipe
- M6A: Unloading concentrate at Process Plant

- M6B: Process Plant area tailpipe
- M7: Truck shop maintenance equipment tailpipe
- H1: Comfort heating equipment at the Process Plant building
- H2: Comfort heating equipment at the truck shop
- H3: Comfort heating equipment at the WWTP
- H4: Comfort heating equipment at the assay lab
- H5: Comfort heating equipment at the administration building

Emissions from paved and unpaved haul routes were modelled as a series of volume (line volume) sources with parameters determined based on the recommended approach by the US EPA Haul Road Workgroup Final Report (US EPA 2012b). The following sources were modelled as line volume sources:

- R1A: Main access road from Process Plant to Highway (on-site portion)
- R1B: Main access road (off-site portion)
- R2: Haul road from pit to MRSA
- R3: Haul road from pit to primary crusher
- R4: Haul road from pit to mobile crusher
- R5: Haul road from pit to PSMF
- R6A: Peninsula Road (Highway to Industrial Park Road)
- R6B: Peninsula Road (Industrial Park Road to Penn Lake Road)
- R6C: Peninsula Road (Penn Lake Road to Hemlo Drive)
- R6D: Peninsula Road (Hemlo Drive to Sund Crescent)
- R6E: Peninsula Road (Sund Crescent to Stevens Avenue)
- R6F: Stevens Avenue (Stevens Avenue to Rail Loadout Location 2)

Point Sources

The following were modeled as point sources because they emit through a stack or vent:

- S2: Primary crusher baghouse

- S3B: Crushed ore reclaim tunnel baghouse
- S5: Concentrate area loadout baghouse
- S6: Lime delivery baghouse
- S7: Lime slaking mill scrubber
- S8: Dust collector CMC feed bin
- S22: Generator 1 (mobile crusher)
- S23, S24, S25, S26: Generator #2-5 (Process Plant)
- S27: Assay lab/sample prep baghouse
- S28: Assay furnace baghouse
- S29: Assay cupel baghouse
- S30: Assay lab precious metals scrubber
- S31: Assay lab base metal scrubber
- S32: Assay lab Atomic Absorption Spectrophotometer (AA) scrubber
- S33, S34, S35: Rail loadout baghouses #1 – 3

Open Pit Sources

The dispersion of emissions sources in the open pit were modelled using the Pit Source algorithm in AERMOD. This methodology accounts for the portion of particulate matter emissions that would be retained in the open pit due to the generally lower wind speeds found in open pits relative to the surface above. For use of this algorithm, the dimensions of the open pit (width, length) and volume are required. An equivalent, effective volume was calculated based on averaging pit volumes. The following sources were modeled as pit sources:

- M2A: drilling, mucking and loading
- M2B: blasting
- M2C: tailpipe

5.3.5.3 Particulate Deposition Data

Particulate deposition rates were assessed at special receptor locations for use in the HHRA and comparison to applicable MECP criteria. The AERMOD dispersion model requires additional input data to predict this deposition.

Particle size distribution data were defined for six types of sources: unpaved roads, storage area/stockpile handling, wind erosion, bulldozing, blasting and minerals processing.

Utilizing the particle sizes defined by the values of the constant “k” in the US EPA emission factor algorithm for each source type, a cumulative mass distribution for each source type was determined and a second order polynomial best fit curve was applied to allow derivation of 7 particle size categories for each source type. The representative mean aerodynamic diameter for each particle size category was calculated based on the US EPA HHRAP (US EPA, 2005). A summary of the particle size distributions used in the assessment is provided in Table 5.7.

Table 5.7: Summary of Particle Size Distributions used in the Assessment

Aerodynamic Diameter (um)			Mass Fraction					
Lower	Upper	Mean	Unpaved Roads	Handling Emissions	Wind Erosion	Bulldozing	Blasting	Minerals Processing
0.0	2.5	1.6	0.069	0.100	0.090	0.105	0.135	0.007
2.5	5.0	3.9	0.072	0.134	0.129	0.018	0.125	0.015
5.0	10.0	7.8	0.151	0.237	0.231	0.074	0.222	0.027
10.0	15.0	12.7	0.162	0.195	0.193	0.125	0.185	0.126
15.0	20.0	17.6	0.172	0.153	0.156	0.175	0.148	0.200
20.0	25.0	22.6	0.182	0.111	0.119	0.226	0.111	0.275
25.0	30.0	27.6	0.192	0.070	0.081	0.277	0.074	0.349
Total			1.001	0.997	1.000	1.000	0.999	1.000

Particle densities of 1 g/cm^3 were used for all sources as the particle size distributions are aerodynamic diameters that assume, by definition, a unit density.

5.3.5.4 Conversion of Nitrogen Monoxide to Nitrogen Dioxide

Nitrogen oxide (NOx) is composed of nitrogen monoxide (NO) and nitrogen dioxide (NO_2). Only NO_2 has ambient air quality criteria. In combustion emissions, typically most of the NOx emissions are NO and only a small percentage are NO_2. Once in the ambient air, NO is oxidized by ground level O_3 to produce NO_2 as follows:

$$NO + O_3 \rightarrow NO_2 + O_2$$

In this assessment, the Ozone Limiting Method (OLM) method was used to predict ambient NO_2 concentrations. The OLM module is built into the AERMOD model and uses NOx emissions and hourly ozone data to calculate the hourly concentrations of NO_2. According to the OLM method, the conversion of NO to NO_2 is limited by the ambient concentration of ozone (O_3) in the atmosphere. The AERMOD default value option is that 10% (by volume) of the NO_X emission released from each source is NO_2 and the remaining 90% may be converted to NO_2 as follows:

- If 90% of the NO_X concentration is less than the ambient O_3 concentration, then $[NO_2] = [NO_X]$ (complete conversion).
- If 90% of the NO_X concentration is greater than the ambient O_3 concentration, then $[NO_2] = 10\% [NO_X] + [O_3]$ (limited conversion).

In the application of the OLM, the above relationships assume that all concentrations are expressed in parts per million (ppm). Background ambient ozone levels were used in the dispersion modelling to estimate NO to NO_2 conversion in the atmosphere. Hourly average concentrations over a five-year dataset from the Thunder Bay station were used in the assessment. Hourly and seasonal variations in ambient ozone levels were accounted for in the dispersion modelling. The hourly ozone concentrations used in the assessment are presented in Table 5.8. The OLM algorithm in the AERMOD model was used to predict hourly average NO_2 concentrations using the predicted hourly average NO_X concentrations and background ozone values presented in Table 5.8. Daily and annual average NO_2 concentrations were calculated from the ozone limited hourly average NO_2 concentrations.

Table 5.8: Hourly O_3 Concentrations (ppb) for Thunder Bay (Station 60809) Used in the Assessment

Hour	Winter (Dec-Feb)	Spring (Mar-May)	Summer (Jun-Aug)	Fall (Sept-Nov)
1	22.8	26.5	17.2	16.4
2	23.0	25.7	16.1	16.0
3	22.9	24.8	14.9	15.8
4	22.3	23.4	13.8	15.7
5	22.2	22.5	13.0	14.8
6	21.7	21.5	11.9	13.9
7	21.2	21.2	12.2	12.7
8	19.7	22.7	14.2	12.2
9	19.1	27.0	17.8	13.5
10	21.0	30.9	21.1	16.2
11	23.8	33.8	23.7	19.7
12	25.7	35.7	25.5	22.2
13	27.2	37.1	26.8	23.7

Table 5.8: Hourly O_3 Concentrations (ppb) for Thunder Bay (Station 60809) Used in the Assessment

Hour	Winter (Dec-Feb)	Spring (Mar-May)	Summer (Jun-Aug)	Fall (Sept-Nov)
14	28.2	37.9	27.7	24.8
15	28.9	38.3	28.2	25.4
16	28.7	38.5	28.5	25.5
17	27.9	38.7	28.7	25.1
18	26.5	38.5	28.6	24.0
19	25.3	37.7	27.9	22.4
20	24.0	35.5	26.4	20.1
21	23.2	32.3	24.0	18.7
22	22.6	29.9	21.6	17.8
23	22.6	28.0	19.5	17.0
24	22.7	27.1	17.9	16.6

5.3.5.5 Model Options and Approaches

The following section provides additional detail on model inputs and modelling approaches used in the assessment.

Source Base Elevations

The changes in source elevations due to the Project altering the topography through overburden storage areas, the ore stockpile and MRSA were accounted for in the assessment. Digital topography data for the SSA during the construction and operation phases were obtained from GenPGM and analyzed with AERMAP. All sources (excluding road sources) were assigned a base elevation using the digital topography data obtained from GenPGM.

Public Road Sources and Receptor Base Elevations

Base elevations for the public road sources (represented by line volume sources) and special, gridded and fence line receptors were assigned using the CDED data acquired from the MECP.

On-Site Haul Road Volume Source Setup

The on-site haul routes will be double lanes and were modelled as two lanes with a road width of 20 m in the assessment. The truck width and heights that were used for calculating plume dimensions were consistent with a CAT 793F mining truck which is the model anticipated to be used for the Project. Based on this data, the release height, plume height and width were calculated as per the US EPA Memorandum “Haul Road Workgroup Final Report Submissions”, March 2, 2012 (US EPA, 2012b).

Off-Site Road Volume Source Setup

The off-site roads were modelled as two lanes in the assessment. The plume width is based on an assumed road width of 7.4 m and the plume height is based on the weighted average vehicle height of traffic travelling on the road segment. Based on this data, the release height, plume height and width were calculated as per the US EPA Memorandum "Haul Road Workgroup Final Report Submissions", March 2, 2012 (US EPA, 2012b).

Modelling Off-Site Roads

Emissions from Project traffic on public (off-site) roads were included in the assessment. Emissions from off-site roads (Peninsula Road) included emissions from both existing (public) traffic as well as Project traffic. The dispersion modelling of off-site road emissions assessed concentrations at the special receptors only, which follows guidance provided by the Ontario Ministry of Transportation (MTO) in the document "Ministry of Transportation Environmental Guide for Assessing and Mitigating the Air Quality Impacts and Greenhouse Gas Emissions of Provincial Transportation Projects" (MTO, 2020).

Modelling Haul Roads and Stockpile Wind Erosion

Modelling of TSP, PM_{10} and $PM_{2.5}$ emissions for haul roads and stockpile wind erosion was assessed using two methodologies and the results provided for both methods.

The first methodology was to include emissions of TSP, PM_{10} and $PM_{2.5}$ from these sources in the dispersion modelling assessment. This methodology is highly conservative as research has demonstrated that air quality models typically over-predict ambient air quality from these sources and that, in reality, air quality effects generally only extend a few hundred metres from the source. Much of the ground level fugitive dust is likely to be removed close to the source due to the low release height and turbulence which leaves the particles temporarily close to the ground where they are subject to removal by impaction on horizontal and nearby vertical surfaces (including vegetation and structures) (Countess et al 2001).

The second methodology followed MECP guidance provided in Chapter 7.4.1 of the MECP procedure document (MECP 2018). This document notes that for sectors where metals in fugitive dust must be considered, fugitive particulate from on-site roadways and storage piles may be excluded from the modelling assessment when a facility implements a best management plan (BMP). The Guideline also discusses requirements to submit and maintain the BMP during ECA application and operation. As it is expected that GenPGM will develop and maintain/implement a best management plan (BMP) to control fugitive dust from the Project, modelling of TSP, PM_{10} and $PM_{2.5}$ was conducted excluding emissions from haul roads and stockpile wind erosion and these model results were used for comparison to the applicable air quality standards for these CoPCs. This approach is consistent with that used in other recent mining EAs in Ontario.

It should be noted that the modelling assessment did, however, conservatively model all metal emissions from the haul roads and storage pile wind erosion.

Open Pit Source Algorithm

The open pit source algorithm used in AERMOD requires additional inputs including the depth of the open pit and the average release height of emissions within the open pit. The open pit depths used in the modelling for construction and operations were 20 m and 100 m, respectively, with a width of 530 m and length of 1164 m. An average release height in the open pit of 5 m was used for both construction and operation phases.

Particulate Deposition Calculations

Particulate depositions (i.e. dustfall) at special receptor locations were conservatively predicted with AERMOD using the particle size distributions and density provided in Section 5.3.5.3. Maximum 30-day and total annual depositions were predicted by AERMOD.

Modelling Approach

Dispersion modelling was conducted using the Multi-Chemical Utility tool in Lakes AERMOD View to conserve time due to the large number of CoPCs, sources and receptors required in the dispersion modelling assessment. The outputs from the Multi-Chemical run provides the maximum concentration at each receptor location. The Multi-Chemical run does not provide results by source group other than Group All, does not allow for special pollutant processing options such as OLM, and does not provide results that exclude meteorological anomalies. Individual model runs were also completed for TSP, PM_{10}, $PM_{2.5}$, dustfall, crystalline silica, nickel, NO_2, CO and B(a)P. The model outputs from the individual CoPC runs were utilized to analyze concentrations by source groups, develop concentration contour plots, and to report the maximum concentrations excluding meteorological anomalies for selected CoPCs.

The ADMGO (MECP, 2017), allows for the use of the 9th highest 1-hour modelled result in each year and the 2nd highest 24-hour average modelled result in each year to assess compliance with regulatory criteria. This approach accounts for potential anomalies in the meteorological dataset. In general, meteorological anomalies were, conservatively, not included in the dispersion model predictions except where indicated.

6.0 RESULTS AND DISCUSSION

This section presents the results of the dispersion modelling analyses. The results are presented for the Project Alone as well as the Project in conjunction with measured background concentrations. Addition of background concentrations to the predicted values was done to assess the potential for cumulative effects.

6.1 ASSESSMENT OF PROJECT CONSTRUCTION ON AIR QUALITY

6.1.1 Construction – Project Alone

In Table 6.1, the maximum predicted GLCs at the assessed special receptors and at the modelled property boundary due to the Project construction emissions are presented. The values presented are the maximum predicted values over all the special receptors and modelled property boundary receptors included in the modelling. The maximum model-predicted values are compared to applicable regulatory limits to assess potential changes in air quality.

A table of the model predictions at all the individual special receptors considered is presented in Table E-1, Appendix E. Contour plots of maximum predicted concentrations of PM, PM_{10}, $PM_{2.5}$, NO_2, and crystalline silica for averaging periods where criteria exist are graphically illustrated on Figure 13a to Figure 13i in Appendix A.

Of the 83 CoPCs assessed, 81 were predicted to be below applicable criteria for the Project Alone, with only maximum predicted 24-hour average crystalline silica and 24-hour and annual average benzo(a)pyrene concentrations exceeding their criteria.

Maximum benzo(a)pyrene concentrations were predicted to exceed the applicable 24-hour and annual criteria by no more than 4.6% and 65.8% and only at special receptors in the vicinity of the rail loadout that are located in close proximity to Peninsula Road. The exceedances at these special receptors are due to emissions from vehicle traffic on Peninsula Road – the modelled emissions from this source (a public road) include traffic from both the Project and existing traffic (non-project related). Of the total B(a)P emissions from the road, 96.2% are due to existing road traffic and only 3.8% is due to the Project. The project is therefore a negligible contributor to the predicted B(a)P exceedances at these receptors.

Maximum crystalline silica concentrations are predicted to exceed the 24- hour criterion by about 603% at the modelled property boundary and no more than 121% at a special receptor located on Bamoos Lake where human presence is expected to be infrequent. As seen on Figure 13i, exceedances of the crystalline silica criterion are predicted to be limited in extent, with the area of exceedance encompassing an area outside the modelled property boundary of about 13 km^2 (about 1.8% of the local study area).

Additional assessment and discussion of predicted crystalline silica exceedances is presented in Section 6.3.

Of all other CoPCs, the highest predicted GLC relative to its regulatory criteria due to the Project Alone for construction was hourly average nitrogen dioxide at 99% at the maximum location along the modelled property boundary. At the special receptors, the maximum predicted hourly nitrogen dioxide GLC was 63% of the criterion. There is only one CoPC with an odour-based criterion (10-minute average naphthalene) – the maximum predicted 10-minute average naphthalene concentration was well below its criterion.

Table 6.1: Maximum Predicted Concentrations for the Construction Scenario - Project Alone

CoPC	Averaging Period	Predicted Concentration (µg/m^3)		Criteria	Percentage of Criteria	
		Max Concentration on Modelled Property Boundary	Max Special Receptor Concentration		Max Concentration on Modelled Property Boundary	Max Special Receptor Concentration
1,3-Butadiene	24	8.39E-03	4.13E-03	10	0.1%	0.0%
	annual	2.44E-03	1.45E-03	2	0.1%	0.1%
Acenaphthene	24	5.70E-04	2.83E-04	-	-	-
	annual	1.67E-04	9.90E-05	-	-	-
Acenaphthylene	24	9.31E-04	4.62E-04	-	-	-
	annual	2.73E-04	1.61E-04	-	-	-
Acetaldehyde	0.5	2.65E+00	1.31E+00	500	0.5%	0.3%
	1	2.21E+00	1.09E+00	-	-	-
	24	7.26E-01	3.51E-01	500	0.1%	0.1%
	annual	2.11E-01	1.23E-01	-	-	-
Acrolein	1	3.19E-01	1.58E-01	4.5	7.1%	3.5%
	24	1.05E-01	5.07E-02	0.4	26.2%	12.7%
	annual	3.05E-02	1.77E-02	-	-	-
Aldehydes	24	1.00E+00	7.08E-01	-	-	-
	annual	1.10E-01	6.69E-02	-	-	-
Aluminum (Al)	24	2.84E+00	8.01E-01	12	23.7%	6.7%
	annual	8.96E-01	2.14E-01	-	-	-
Anthracene	24	3.61E-04	1.85E-04	-	-	-
	annual	1.06E-04	6.48E-05	-	-	-

Table 6.1: Maximum Predicted Concentrations for the Construction Scenario - Project Alone

CoPC	Averaging Period	Predicted Concentration (µg/m^3)		Criteria	Percentage of Criteria	
		Max Concentration on Modelled Property Boundary	Max Special Receptor Concentration		Max Concentration on Modelled Property Boundary	Max Special Receptor Concentration
Antimony (Sb)	24	5.50E-04	1.55E-04	25	0.0%	0.0%
	annual	1.73E-04	4.15E-05	-	-	-
Arsenic (As)	24	5.93E-04	1.67E-04	0.3	0.2%	0.1%
	annual	1.87E-04	4.47E-05	-	-	-
Barium (Ba)	24	1.10E-02	3.09E-03	10	0.1%	0.0%
	annual	3.46E-03	8.25E-04	-	-	-
Benzene	24	1.38E-01	6.70E-02	2.3	6.0%	2.9%
	annual	4.05E-02	2.33E-02	0.45	9.0%	5.2%
Benzo(a)Anthracene	24	1.21E-05	8.29E-05	-	-	-
	annual	3.01E-06	2.63E-05	-	-	-
Benzo(a)Pyrene	24	7.21E-06	5.23E-05	0.00005	14.4%	104.6%
	annual	1.83E-06	1.66E-05	0.00001	18.3%	165.8%
Benzo(b)Fluoranthene	24	1.89E-05	2.40E-05	-	-	-
	annual	2.22E-06	7.45E-06	-	-	-
Benzo(g,h,i)Perylene	24	1.00E-05	9.36E-05	-	-	-
	annual	1.48E-06	2.97E-05	-	-	-
Benzo(k)Fluoranthene	24	4.51E-06	1.83E-05	-	-	-
	annual	8.87E-07	5.79E-06	-	-	-
Beryllium (Be)	24	1.33E-04	3.74E-05	0.01	1.3%	0.4%
	annual	4.18E-05	9.99E-06	-	-	-

Table 6.1: Maximum Predicted Concentrations for the Construction Scenario - Project Alone

CoPC	Averaging Period	Predicted Concentration (µg/m^3)		Criteria	Percentage of Criteria	
		Max Concentration on Modelled Property Boundary	Max Special Receptor Concentration		Max Concentration on Modelled Property Boundary	Max Special Receptor Concentration
Bismuth (Bi)	24	5.03E-04	1.42E-04	2.5	0.0%	0.0%
	annual	1.58E-04	3.79E-05	-	-	-
Boron (B)	24	2.44E-03	6.87E-04	120	0.0%	0.0%
	annual	7.68E-04	1.84E-04	-	-	-
Bromine (Br)	24	0.00E+00	0.00E+00	20	0.0%	0.0%
	annual	0.00E+00	0.00E+00	-	-	-
Cadmium (Cd)	24	1.46E-04	4.11E-05	0.025	0.6%	0.2%
	annual	4.59E-05	1.10E-05	0.005	0.9%	0.2%
Calcium (Ca)	24	2.96E+00	8.34E-01	-	-	-
	annual	9.33E-01	2.23E-01	-	-	-
CaO	24	0.00E+00	0.00E+00	10	0.0%	0.0%
	annual	0.00E+00	0.00E+00	-	-	-
CH_4	24	7.71E-01	3.70E-01	37330	0.0%	0.0%
	annual	2.24E-01	1.29E-01	-	-	-
Chromium (Cr)	24	2.14E-02	6.05E-03	0.5	4.3%	1.2%
	annual	6.76E-03	1.62E-03	-	-	-
Chrysene	24	2.86E-05	5.26E-05	-	-	-
	annual	4.74E-06	1.65E-05	-	-	-
CO (see Note 4)	0.5	2.34E+03	1.98E+03	6000	39.1%	33.1%
	1	1.93E+03	1.63E+03	36200	5.3%	4.5%

Table 6.1: Maximum Predicted Concentrations for the Construction Scenario - Project Alone

CoPC	Averaging Period	Predicted Concentration (µg/m^3)		Criteria	Percentage of Criteria	
		Max Concentration on Modelled Property Boundary	Max Special Receptor Concentration		Max Concentration on Modelled Property Boundary	Max Special Receptor Concentration
	8	2.64E+02	2.28E+02	15700	1.7%	1.5%
	24	3.84E+02	3.43E+02	-	-	-
	annual	4.46E+01	2.55E+01	-	-	-
Cobalt (Co)	24	7.41E-03	2.09E-03	0.1	7.4%	2.1%
	annual	2.34E-03	5.58E-04	-	-	-
Copper (Cu)	24	5.68E-02	1.69E-02	50	0.1%	0.0%
	annual	1.79E-02	4.28E-03	-	-	-
Dibenz(a,h)Perylene	24	5.61E-06	3.96E-06	-	-	-
	annual	6.13E-07	3.74E-07	-	-	-
Fluoranthene	24	5.63E-04	2.95E-04	-	-	-
	annual	1.65E-04	1.02E-04	-	-	-
Fluorene	24	2.18E-03	1.07E-03	-	-	-
	annual	6.39E-04	3.75E-04	-	-	-
Formaldehyde	24	2.28E+00	1.10E+00	65	3.5%	1.7%
	annual	6.63E-01	3.84E-01	-	-	-
Gallium (Ga)	24	2.43E-03	6.86E-04	-	-	-
	annual	7.67E-04	1.84E-04	-	-	-
Gold (Au)	24	2.47E-06	6.98E-07	1.25	0.0%	0.0%
	annual	7.79E-07	1.86E-07	-	-	-

Table 6.1: Maximum Predicted Concentrations for the Construction Scenario - Project Alone

CoPC	Averaging Period	Predicted Concentration (µg/m^3)		Criteria	Percentage of Criteria	
		Max Concentration on Modelled Property Boundary	Max Special Receptor Concentration		Max Concentration on Modelled Property Boundary	Max Special Receptor Concentration
Hydrochloric Acid (HCl)	24	0.00E+00	0.00E+00	20	0.0%	0.0%
	annual	0.00E+00	0.00E+00	-	-	-
Hydrofluoric Acid (HF)	24	0.00E+00	0.00E+00	0.86	0.0%	0.0%
	month	0.00E+00	0.00E+00	0.34	0.0%	0.0%
	annual	0.00E+00	0.00E+00	-	-	-
Indeno(1,2,3-CD)Pyrene	24	6.72E-06	4.74E-06	-	-	-
	annual	7.34E-07	4.48E-07	-	-	-
Iron (Fe)	24	1.30E+01	3.67E+00	-	-	-
	annual	4.10E+00	9.81E-01	-	-	-
Iron Sulfide	24	0.00E+00	0.00E+00	-	-	-
	annual	0.00E+00	0.00E+00	-	-	-
Lanthanum (La)	24	3.93E-03	1.14E-03	-	-	-
	annual	1.24E-03	2.97E-04	-	-	-
Lanthanum Chloride ($LaCl_3$)	24	0.00E+00	0.00E+00	2.5	0.0%	0.0%
	annual	0.00E+00	0.00E+00	-	-	-
Lead (Pb)	24	6.49E-04	1.83E-04	0.5	0.1%	0.0%
	month	2.56E-04	6.45E-05	0.2	0.1%	0.0%
	annual	2.05E-04	4.90E-05	-	-	-
Magnesium (Mg)	24	3.39E+00	9.55E-01	72	4.7%	1.3%
	annual	1.07E+00	2.55E-01	-	-	-

Table 6.1: Maximum Predicted Concentrations for the Construction Scenario - Project Alone

CoPC	Averaging Period	Predicted Concentration (µg/m^3)		Criteria	Percentage of Criteria	
		Max Concentration on Modelled Property Boundary	Max Special Receptor Concentration		Max Concentration on Modelled Property Boundary	Max Special Receptor Concentration
Manganese (Mn)	24	1.24E-01	3.51E-02	0.4	31.1%	8.8%
	annual	3.93E-02	9.38E-03	-	-	-
Mercury (Hg)	24	2.44E-04	6.88E-05	2	0.0%	0.0%
	annual	7.70E-05	1.84E-05	-	-	-
Molybdenum (Mo)	24	2.98E-04	8.41E-05	120	0.0%	0.0%
	annual	9.40E-05	2.24E-05	-	-	-
N_2O	24	2.41E+00	1.15E+00	9000	0.0%	0.0%
	annual	6.99E-01	4.02E-01	-	-	-
Naphthalene	10-min	1.47E-02	1.33E-02	50	0.0%	0.0%
	24	2.11E-03	1.49E-03	22.5	0.0%	0.0%
	annual	2.31E-04	1.41E-04	-	-	-
Nickel (Ni)	24	1.91E-02	5.40E-03	0.2	9.6%	2.7%
	annual	6.03E-03	1.44E-03	0.04	15.1%	3.6%
Nitric Acid (HNO_3)	24	0.00E+00	0.00E+00	35	0.0%	0.0%
	annual	0.00E+00	0.00E+00	-	-	-
Non-Methane Hydrocarbons	24	8.02E+00	3.90E+00	-	-	-
	annual	2.34E+00	1.36E+00	-	-	-
NO_2 (See Notes 3,4)	1	3.97E+02	2.53E+02	400	99.2%	63.1%
	24	1.13E+02	6.61E+01	200	56.6%	33.1%
	annual	3.31E+01	2.31E+01	-	-	-

Table 6.1: Maximum Predicted Concentrations for the Construction Scenario - Project Alone

CoPC	Averaging Period	Predicted Concentration (µg/m^3)		Criteria	Percentage of Criteria	
		Max Concentration on Modelled Property Boundary	Max Special Receptor Concentration		Max Concentration on Modelled Property Boundary	Max Special Receptor Concentration
Palladium (Pd)	24	6.87E-06	2.36E-06	10	0.0%	0.0%
	annual	2.17E-06	5.19E-07	-	-	-
Phenanthrene	24	9.68E-03	4.75E-03	-	-	-
	annual	2.83E-03	1.65E-03	-	-	-
Phosphorous (P)	24	3.31E-01	9.31E-02	-	-	-
	annual	1.04E-01	2.49E-02	-	-	-
Platinum (Pt)	24	4.51E-06	1.28E-06	0.2	0.0%	0.0%
	annual	1.42E-06	3.41E-07	-	-	-
PM_{10} (see Note 1)	24	7.50E+01	2.32E+01	-	-	-
	annual	2.13E+01	5.91E+00	-	-	-
PM_{10} (see Note 2)	24	2.09E+01	1.85E+01	50	41.8%	37.0%
$PM_{2.5}$ (See Note 1)	24	1.42E+01	3.54E+00	-	-	-
	annual	2.00E+00	9.13E-01	-	-	-
$PM_{2.5}$ (See Note 2)	24	1.16E+01	1.61E+00	27	43.0%	6.0%
	annual	1.72E+00	4.59E-01	8.8	19.6%	5.2%
Potassium (K)	24	1.88E-01	5.29E-02	1	18.8%	5.3%
	annual	5.92E-02	1.41E-02	-	-	-
Propylene	24	4.53E-02	3.20E-02	4000	0.0%	0.0%
	annual	4.95E-03	3.02E-03	-	-	-

Table 6.1: Maximum Predicted Concentrations for the Construction Scenario - Project Alone

CoPC	Averaging Period	Predicted Concentration (µg/m^3)		Criteria	Percentage of Criteria	
		Max Concentration on Modelled Property Boundary	Max Special Receptor Concentration		Max Concentration on Modelled Property Boundary	Max Special Receptor Concentration
Pyrene	24	4.78E-04	3.67E-04	-	-	-
	annual	1.41E-04	1.15E-04	-	-	-
Scandium (Sc)	24	4.28E-04	1.21E-04	-	-	-
	annual	1.35E-04	3.22E-05	-	-	-
Silica	24	3.51E+01	1.10E+01	5	702.5%	220.7%
	annual	9.96E+00	2.67E+00	-	-	-
Silicon (Si)	24	7.75E-04	4.41E-04	27	0.0%	0.0%
	annual	1.86E-06	4.64E-07	-	-	-
Silver (Ag)	24	5.57E-05	1.58E-05	1	0.0%	0.0%
	annual	1.76E-05	4.20E-06	-	-	-
SO_2	1	3.36E+01	2.97E+01	100	33.6%	29.7%
	24	1.88E+00	1.67E+00	-	-	-
	annual	7.27E-02	4.19E-02	10	0.7%	0.4%
Sodium (Na)	24	3.38E-01	9.54E-02	-	-	-
	annual	1.07E-01	2.55E-02	-	-	-
Sodium Carboxymethyl Cellulose	24	0.00E+00	0.00E+00	120	0.0%	0.0%
	annual	0.00E+00	0.00E+00	-	-	-
Strontium (Sr)	24	2.08E-02	5.87E-03	120	0.0%	0.0%
	annual	6.57E-03	1.57E-03	-	-	-

Table 6.1: Maximum Predicted Concentrations for the Construction Scenario - Project Alone

CoPC	Averaging Period	Predicted Concentration (µg/m^3)		Criteria	Percentage of Criteria	
		Max Concentration on Modelled Property Boundary	Max Special Receptor Concentration		Max Concentration on Modelled Property Boundary	Max Special Receptor Concentration
Thallium (Tl)	24	2.45E-03	6.91E-04	0.5	0.5%	0.1%
	annual	7.72E-04	1.84E-04	-	-	-
Titanium (Ti)	24	2.23E-01	6.27E-02	120	0.2%	0.1%
	annual	7.04E-02	1.68E-02	-	-	-
TOC	24	7.85E-02	3.15E-02	-	-	-
	annual	9.55E-03	4.18E-03	-	-	-
TOC (METHANE)	24	1.53E+00	1.08E+00	37330	0.0%	0.0%
	annual	1.67E-01	1.02E-01	-	-	-
Toluene	24	4.56E-03	3.22E-03	2000	0.0%	0.0%
	annual	4.98E-04	3.04E-04	-	-	-
TSP (See Note 1)	24	2.44E+02	6.91E+01	-	-	-
	annual	7.69E+01	1.87E+01	-	-	-
TSP (See Note 2)	24	7.63E+01	3.60E+01	120	63.6%	30.0%
	annual	2.22E+01	3.58E+00	60	37.0%	6.0%
Tungsten (W)	24	1.41E-02	3.97E-03	5	0.3%	0.1%
	annual	4.45E-03	1.06E-03	-	-	-
Uranium (U)	24	2.48E-03	7.00E-04	0.15	1.7%	0.5%
	annual	7.83E-04	1.87E-04	0.03	2.6%	0.6%
Vanadium (V)	24	4.01E-02	1.13E-02	2	2.0%	0.6%
	annual	1.26E-02	3.02E-03	-	-	-

Table 6.1: Maximum Predicted Concentrations for the Construction Scenario - Project Alone

CoPC	Averaging Period	Predicted Concentration (µg/m^3)		Criteria	Percentage of Criteria	
		Max Concentration on Modelled Property Boundary	Max Special Receptor Concentration		Max Concentration on Modelled Property Boundary	Max Special Receptor Concentration
Xylenes	10-Min	2.18E-02	1.97E-02	3000	0.0%	0.0%
	24	3.13E-03	2.21E-03	730	0.0%	0.0%
	annual	3.42E-04	2.09E-04	-	-	-
Zinc (Zn)	24	1.33E-02	3.74E-03	120	0.0%	0.0%
	annual	4.18E-03	9.98E-04	-	-	-
Dustfall (g/m^2)	24	1.70E-01	7.94E-02	0	-	-
	month	6.24E+00	1.21E+00	7	89.1%	17.3%
	annual	5.91E+01	1.25E+01	0	-	-

Notes:

1. Model predictions for particulates including all emissions sources.
2. Model predictions for particulates excluding roads and stockpile wind erosion as allowed by MECP Guideline A-10, Section 7.4.1 for facilities with a fugitive dust BMP. These model predictions were used for comparison to the applicable criteria.
3. Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO_2 (Tier 3 assumption).
4. Predictions include removal of meteorological anomalies.

6.1.2 Construction - Cumulative Concentrations

The model predictions were conservatively added to background levels to determine the cumulative change in air quality at these receptors due to Project construction. A table of the cumulative model predictions at all the individual special receptors considered is presented in Table E-3, Appendix E.

Table 6.2 presents the maximum predicted cumulative GLCs at the assessed special receptors and at the modelled property boundary due to the Project construction emissions plus background. Estimated background concentrations, as discussed in Section 3.0, were added to the maximum model-predicted values and compared to applicable regulatory limits to assess potential cumulative changes in air quality. Where no data is available to characterize background levels, the background concentration is noted as zero in Table 6.2. The values presented are the maximum predicted values over all the special receptors and modelled property boundary receptors included in the modelling.

Of the 83 CoPCs assessed, 78 are predicted to be below applicable criteria for the cumulative predictions (Project + background).

Maximum cumulative benzo(a)pyrene concentrations were predicted to exceed the applicable 24-hour and annual criteria by 416% and 1095% at the maximum special receptor locations. The background level of benzo(a)pyrene is above applicable air quality criteria, with the Project only providing a small (0.8%) contribution to the cumulative concentrations. Cumulative benzene concentrations are predicted to exceed the annual average benzene criterion. The background benzene concentration is also above the applicable air quality criteria, with the Project only providing a small (4%) contribution to the maximum cumulative concentration. The background benzene and benzo(a)pyrene concentrations were derived from NAPS monitoring data for Winnipeg, which is the closest station to the Project. Background levels from this station are expected to be conservative for the Marathon area and the cumulative assessment methodology is also conservative.

As no background measurement data is available for crystalline silica, the maximum predicted cumulative crystalline silica concentration is the same as for the Project Alone.

The maximum cumulative concentration of hourly average nitrogen dioxide was predicted to exceed the hourly NO_2 criterion at the modelled property boundary by 15%. The area in which the cumulative concentration is expected to exceed the criteria is not expected to extend more than 50 m from the modelled property boundary. At the special receptors, the maximum predicted cumulative hourly average NO_2 GLC was no more than 79% of the criterion. The background NO_2 concentration used in the assessment is expected to provide a conservative estimate of ambient levels in the Marathon area as it is based on measurements in large urban residential, commercial and industrial areas that are expected to have higher background concentrations relative to the LSA and is a 90^{th} percentile value (i.e. 90 percent of the time background concentrations would be less than this value).

The maximum predicted cumulative monthly dustfall deposition level on the modelled property boundary exceeds the applicable criterion by 10%; however, cumulative dustfall levels are no more than 38% of the criterion at the special receptors. The area in which cumulative dustfall levels are above the criterion is therefore expected to be limited to near the modelled property boundary.

Table 6.2: Maximum Predicted Concentrations for the Construction Scenario – Cumulative (Project + Background)

CoPC	Averaging Period	Predicted Cumulative Concentration (µg/m^3)			Criteria	Percentage of Criteria	
		Background Concentration (ug/m3)	Max Concentration on Modelled Property Boundary	Max Special Receptor Concentration		Max Concentration on Modelled Property Boundary	Max Special Receptor Concentration
1,3-Butadiene	24	1.09E-01	1.17E-01	1.13E-01	10	1.2%	1.1%
	annual	7.32E-02	7.56E-02	7.46E-02	2	3.8%	3.7%
Acenaphthene	24	1.81E-03	2.38E-03	2.09E-03	-	-	-
	annual	9.10E-04	1.08E-03	1.01E-03	-	-	-
Acenaphthylene	24	1.79E-03	2.72E-03	2.25E-03	-	-	-
	annual	1.06E-03	1.34E-03	1.22E-03	-	-	-
Acetaldehyde	0.5	1.18E+01	1.45E+01	1.31E+01	500	2.9%	2.6%
	1	9.74E+00	1.20E+01	1.08E+01	-	-	-
	24	4.00E+00	4.73E+00	4.35E+00	500	0.9%	0.9%
	annual	1.60E+00	1.81E+00	1.72E+00	-	-	-
Acrolein	1	1.22E-01	4.40E-01	2.80E-01	4.5	9.8%	6.2%
	24	5.00E-02	1.55E-01	1.01E-01	0.4	38.7%	25.2%
	annual	2.30E-02	5.35E-02	4.07E-02	-	-	-
Aldehydes	24	0.00E+00	1.00E+00	7.08E-01	-	-	-
	annual	0.00E+00	1.10E-01	6.69E-02	-	-	-
Aluminum (Al)	24	5.88E-01	3.43E+00	1.39E+00	12	28.6%	11.6%
	annual	2.84E-01	1.18E+00	4.98E-01	-	-	-
Anthracene	24	4.49E-04	8.10E-04	6.34E-04	-	-	-
	annual	2.51E-04	3.57E-04	3.16E-04	-	-	-

Table 6.2: Maximum Predicted Concentrations for the Construction Scenario – Cumulative (Project + Background)

CoPC	Averaging Period	Predicted Cumulative Concentration (µg/m^3)			Criteria	Percentage of Criteria	
		Background Concentration (ug/m3)	Max Concentration on Modelled Property Boundary	Max Special Receptor Concentration		Max Concentration on Modelled Property Boundary	Max Special Receptor Concentration
Antimony (Sb)	24	2.71E-02	2.77E-02	2.73E-02	25	0.1%	0.1%
	annual	9.39E-03	9.56E-03	9.43E-03	-	-	-
Arsenic (As)	24	0.00E+00	5.93E-04	1.67E-04	0.3	0.2%	0.1%
	annual	0.00E+00	1.87E-04	4.47E-05	-	-	-
Barium (Ba)	24	3.99E-02	5.09E-02	4.30E-02	10	0.5%	0.4%
	annual	1.92E-02	2.27E-02	2.00E-02	-	-	-
Benzene	24	1.44E+00	1.58E+00	1.51E+00	2.3	68.6%	65.5%
	annual	9.02E-01	9.42E-01	9.25E-01	0.45	209.4%	205.6%
Benzo(a)Anthracene	24	2.14E-04	2.26E-04	2.97E-04	-	-	-
	annual	1.07E-04	1.10E-04	1.33E-04	-	-	-
Benzo(a)Pyrene	24	2.06E-04	2.13E-04	2.58E-04	0.00005	426.4%	516.6%
	annual	1.03E-04	1.05E-04	1.20E-04	0.00001	1048.3%	1195.8%
Benzo(b)Fluoranthene	24	3.19E-04	3.37E-04	3.43E-04	-	-	-
	annual	2.07E-04	2.10E-04	2.15E-04	-	-	-
Benzo(g,h,i)Perylene	24	2.80E-04	2.90E-04	3.74E-04	-	-	-
	annual	1.32E-04	1.33E-04	1.61E-04	-	-	-
Benzo(k)Fluoranthene	24	1.04E-04	1.09E-04	1.23E-04	-	-	-
	annual	6.07E-05	6.16E-05	6.65E-05	-	-	-
Beryllium (Be)	24	0.00E+00	1.33E-04	3.74E-05	0.01	1.3%	0.4%

Table 6.2: Maximum Predicted Concentrations for the Construction Scenario – Cumulative (Project + Background)

CoPC	Averaging Period	Predicted Cumulative Concentration (µg/m^3)			Criteria	Percentage of Criteria	
		Background Concentration (ug/m3)	Max Concentration on Modelled Property Boundary	Max Special Receptor Concentration		Max Concentration on Modelled Property Boundary	Max Special Receptor Concentration
	annual	0.00E+00	4.18E-05	9.99E-06	-	-	-
Bismuth (Bi)	24	0.00E+00	5.03E-04	1.42E-04	2.5	0.0%	0.0%
	annual	0.00E+00	1.58E-04	3.79E-05	-	-	-
Boron (B)	24	0.00E+00	2.44E-03	6.87E-04	120	0.0%	0.0%
	annual	0.00E+00	7.68E-04	1.84E-04	-	-	-
Bromine (Br)	24	0.00E+00	0.00E+00	0.00E+00	20	0.0%	0.0%
	annual	0.00E+00	0.00E+00	0.00E+00	-	-	-
Cadmium (Cd)	24	1.20E-02	1.21E-02	1.20E-02	0.025	48.6%	48.2%
	annual	3.62E-03	3.67E-03	3.63E-03	0.005	73.3%	72.6%
Calcium (Ca)	24	1.74E+00	4.70E+00	2.57E+00	-	-	-
	annual	7.62E-01	1.69E+00	9.85E-01	-	-	-
CaO	24	0.00E+00	0.00E+00	0.00E+00	10	0.0%	0.0%
	annual	0.00E+00	0.00E+00	0.00E+00	-	-	-
CH_4	24	0.00E+00	7.71E-01	3.70E-01	37330	0.0%	0.0%
	annual	0.00E+00	2.24E-01	1.29E-01	-	-	-
Chromium (Cr)	24	1.46E-03	2.29E-02	7.51E-03	0.5	4.6%	1.5%
	annual	6.76E-04	7.44E-03	2.29E-03	-	-	-
Chrysene	24	2.65E-04	2.94E-04	3.18E-04	-	-	-
	annual	1.57E-04	1.62E-04	1.73E-04	-	-	-

Table 6.2: Maximum Predicted Concentrations for the Construction Scenario – Cumulative (Project + Background)

CoPC	Averaging Period	Predicted Cumulative Concentration (µg/m^3)			Criteria	Percentage of Criteria	
		Background Concentration (ug/m3)	Max Concentration on Modelled Property Boundary	Max Special Receptor Concentration		Max Concentration on Modelled Property Boundary	Max Special Receptor Concentration
CO (see Note 4)	0.5	1.17E+03	3.51E+03	3.15E+03	6000	58.6%	52.6%
	1	9.65E+02	2.89E+03	2.60E+03	36200	8.0%	7.2%
	8	9.65E+02	1.23E+03	1.19E+03	15700	7.8%	7.6%
	24	9.65E+02	1.35E+03	1.31E+03	-	-	-
	annual	5.91E+02	6.35E+02	6.16E+02	-	-	-
Cobalt (Co)	24	0.00E+00	7.41E-03	2.09E-03	0.1	7.4%	2.1%
	annual	0.00E+00	2.34E-03	5.58E-04	-	-	-
Copper (Cu)	24	0.00E+00	5.68E-02	1.69E-02	50	0.1%	0.0%
	annual	0.00E+00	1.79E-02	4.28E-03	-	-	-
Dibenz(a,h)Perylene	24	0.00E+00	5.61E-06	3.96E-06	-	-	-
	annual	0.00E+00	6.13E-07	3.74E-07	-	-	-
Fluoranthene	24	1.91E-03	2.47E-03	2.21E-03	-	-	-
	annual	1.06E-03	1.23E-03	1.16E-03	-	-	-
Fluorene	24	2.91E-03	5.09E-03	3.98E-03	-	-	-
	annual	1.62E-03	2.26E-03	2.00E-03	-	-	-
Formaldehyde	24	5.40E+00	7.68E+00	6.50E+00	65	11.8%	10.0%
	annual	1.90E+00	2.56E+00	2.28E+00	-	-	-
Gallium (Ga)	24	0.00E+00	2.43E-03	6.86E-04	-	-	-
	annual	0.00E+00	7.67E-04	1.84E-04	-	-	-

Table 6.2: Maximum Predicted Concentrations for the Construction Scenario – Cumulative (Project + Background)

CoPC	Averaging Period	Predicted Cumulative Concentration (µg/m^3)			Criteria	Percentage of Criteria	
		Background Concentration (ug/m3)	Max Concentration on Modelled Property Boundary	Max Special Receptor Concentration		Max Concentration on Modelled Property Boundary	Max Special Receptor Concentration
Gold (Au)	24	0.00E+00	2.47E-06	6.98E-07	1.25	0.0%	0.0%
	annual	0.00E+00	7.79E-07	1.86E-07	-	-	-
Hydrochloric Acid (HCl)	24	0.00E+00	0.00E+00	0.00E+00	20	0.0%	0.0%
	annual	0.00E+00	0.00E+00	0.00E+00	-	-	-
Hydrofluoric Acid (HF)	24	0.00E+00	0.00E+00	0.00E+00	0.86	0.0%	0.0%
	month	0.00E+00	0.00E+00	0.00E+00	0.34	0.0%	0.0%
	annual	0.00E+00	0.00E+00	0.00E+00	-	-	-
Indeno(1,2,3-CD)Pyrene	24	0.00E+00	6.72E-06	4.74E-06	-	-	-
	annual	0.00E+00	7.34E-07	4.48E-07	-	-	-
Iron (Fe)	24	3.85E-01	1.34E+01	4.05E+00	-	-	-
	annual	1.91E-01	4.30E+00	1.17E+00	-	-	-
Iron Sulfide	24	0.00E+00	0.00E+00	0.00E+00	-	-	-
	annual	0.00E+00	0.00E+00	0.00E+00	-	-	-
Lanthanum (La)	24	0.00E+00	3.93E-03	1.14E-03	-	-	-
	annual	0.00E+00	1.24E-03	2.97E-04	-	-	-
Lanthanum Chloride ($LaCl_3$)	24	0.00E+00	0.00E+00	0.00E+00	2.5	0.0%	0.0%
	annual	0.00E+00	0.00E+00	0.00E+00	-	-	-
Lead (Pb)	24	5.74E-03	6.39E-03	5.92E-03	0.5	1.3%	1.2%
	month	2.21E-03	2.47E-03	2.28E-03	0.2	1.2%	1.1%

Table 6.2: Maximum Predicted Concentrations for the Construction Scenario – Cumulative (Project + Background)

CoPC	Averaging Period	Predicted Cumulative Concentration (µg/m^3)			Criteria	Percentage of Criteria	
		Background Concentration (ug/m3)	Max Concentration on Modelled Property Boundary	Max Special Receptor Concentration		Max Concentration on Modelled Property Boundary	Max Special Receptor Concentration
	annual	3.01E-03	3.21E-03	3.06E-03	-	-	-
Magnesium (Mg)	24	0.00E+00	3.39E+00	9.55E-01	72	4.7%	1.3%
	annual	0.00E+00	1.07E+00	2.55E-01	-	-	-
Manganese (Mn)	24	1.42E-02	1.39E-01	4.93E-02	0.4	34.7%	12.3%
	annual	7.71E-03	4.70E-02	1.71E-02	-	-	-
Mercury (Hg)	24	0.00E+00	2.44E-04	6.88E-05	2	0.0%	0.0%
	annual	0.00E+00	7.70E-05	1.84E-05	-	-	-
Molybdenum (Mo)	24	0.00E+00	2.98E-04	8.41E-05	120	0.0%	0.0%
	annual	0.00E+00	9.40E-05	2.24E-05	-	-	-
N_2O	24	0.00E+00	2.41E+00	1.15E+00	9000	0.0%	0.0%
	annual	0.00E+00	6.99E-01	4.02E-01	-	-	-
Naphthalene	10-min	2.37E+00	2.38E+00	2.38E+00	50	4.8%	4.8%
	24	2.39E-01	2.41E-01	2.40E-01	22.5	1.1%	1.1%
	annual	9.64E-02	9.66E-02	9.65E-02	-	-	-
Nickel (Ni)	24	2.60E-03	2.17E-02	8.00E-03	0.2	10.9%	4.0%
	annual	1.00E-03	7.03E-03	2.44E-03	0.04	17.6%	6.1%
Nitric Acid (HNO_3)	24	0.00E+00	0.00E+00	0.00E+00	35	0.0%	0.0%
	annual	0.00E+00	0.00E+00	0.00E+00	-	-	-
Non-Methane Hydrocarbons	24	0.00E+00	8.02E+00	3.90E+00	-	-	-

Table 6.2: Maximum Predicted Concentrations for the Construction Scenario – Cumulative (Project + Background)

CoPC	Averaging Period	Predicted Cumulative Concentration (µg/m^3)			Criteria	Percentage of Criteria	
		Background Concentration (ug/m3)	Max Concentration on Modelled Property Boundary	Max Special Receptor Concentration		Max Concentration on Modelled Property Boundary	Max Special Receptor Concentration
	annual	0.00E+00	2.34E+00	1.36E+00	-	-	-
NO_2 (See Notes 3,4)	1	6.34E+01	4.60E+02	3.16E+02	400	115.0%	79.0%
	24	3.17E+01	1.45E+02	9.78E+01	200	72.4%	48.9%
	annual	1.74E+01	5.05E+01	4.05E+01	-	-	-
Palladium (Pd)	24	0.00E+00	6.87E-06	2.36E-06	10	0.0%	0.0%
	annual	0.00E+00	2.17E-06	5.19E-07	-	-	-
Phenanthrene	24	7.86E-03	1.75E-02	1.26E-02	-	-	-
	annual	4.59E-03	7.42E-03	6.24E-03	-	-	-
Phosphorous (P)	24	0.00E+00	3.31E-01	9.31E-02	-	-	-
	annual	0.00E+00	1.04E-01	2.49E-02	-	-	-
Platinum (Pt)	24	0.00E+00	4.51E-06	1.28E-06	0.2	0.0%	0.0%
	annual	0.00E+00	1.42E-06	3.41E-07	-	-	-
PM_{10} (see Note 1)	24	2.28E+01	9.78E+01	4.60E+01	-	-	-
	annual	1.27E+01	3.40E+01	1.86E+01	-	-	-
PM_{10} (see Note 2)	24	2.28E+01	4.37E+01	4.13E+01	50	87.4%	82.6%
$PM_{2.5}$ (See Note 1)	24	1.23E+01	2.65E+01	1.58E+01	-	-	-
	annual	6.80E+00	8.80E+00	7.71E+00	-	-	-
$PM_{2.5}$ (See Note 2)	24	1.23E+01	2.39E+01	1.39E+01	27	88.5%	51.5%
	annual	6.80E+00	8.52E+00	7.26E+00	8.8	96.9%	82.5%

Table 6.2: Maximum Predicted Concentrations for the Construction Scenario – Cumulative (Project + Background)

CoPC	Averaging Period	Predicted Cumulative Concentration (µg/m^3)			Criteria	Percentage of Criteria	
		Background Concentration (ug/m3)	Max Concentration on Modelled Property Boundary	Max Special Receptor Concentration		Max Concentration on Modelled Property Boundary	Max Special Receptor Concentration
Potassium (K)	24	2.79E-01	4.67E-01	3.32E-01	1	46.7%	33.2%
	annual	1.49E-01	2.08E-01	1.63E-01	-	-	-
Propylene	24	0.00E+00	4.53E-02	3.20E-02	4000	0.0%	0.0%
	annual	0.00E+00	4.95E-03	3.02E-03	-	-	-
Pyrene	24	1.34E-03	1.82E-03	1.71E-03	-	-	-
	annual	8.01E-04	9.41E-04	9.16E-04	-	-	-
Scandium (Sc)	24	0.00E+00	4.28E-04	1.21E-04	-	-	-
	annual	0.00E+00	1.35E-04	3.22E-05	-	-	-
Silica	24	0.00E+00	3.51E+01	1.10E+01	5	702.5%	220.7%
	annual	0.00E+00	9.96E+00	2.67E+00	-	-	-
Silicon (Si)	24	0.00E+00	7.75E-04	4.41E-04	27	0.0%	0.0%
	annual	0.00E+00	1.86E-06	4.64E-07	-	-	-
Silver (Ag)	24	0.00E+00	5.57E-05	1.58E-05	1	0.0%	0.0%
	annual	0.00E+00	1.76E-05	4.20E-06	-	-	-
SO_2	1	2.76E+00	3.63E+01	3.25E+01	100	36.3%	32.5%
	24	5.79E+00	7.67E+00	7.46E+00	-	-	-
	annual	2.48E+00	2.55E+00	2.52E+00	10	25.5%	25.2%
Sodium (Na)	24	0.00E+00	3.38E-01	9.54E-02	-	-	-
	annual	0.00E+00	1.07E-01	2.55E-02	-	-	-

Table 6.2: Maximum Predicted Concentrations for the Construction Scenario – Cumulative (Project + Background)

CoPC	Averaging Period	Predicted Cumulative Concentration (µg/m^3)			Criteria	Percentage of Criteria	
		Background Concentration (ug/m3)	Max Concentration on Modelled Property Boundary	Max Special Receptor Concentration		Max Concentration on Modelled Property Boundary	Max Special Receptor Concentration
Sodium Carboxymethyl Cellulose	24	0.00E+00	0.00E+00	0.00E+00	120	0.0%	0.0%
	annual	0.00E+00	0.00E+00	0.00E+00	-	-	-
Strontium (Sr)	24	4.36E-03	2.52E-02	1.02E-02	120	0.0%	0.0%
	annual	1.89E-03	8.46E-03	3.46E-03	-	-	-
Thallium (Tl)	24	0.00E+00	2.45E-03	6.91E-04	0.5	0.5%	0.1%
	annual	0.00E+00	7.72E-04	1.84E-04	-	-	-
Titanium (Ti)	24	1.89E-02	2.42E-01	8.16E-02	120	0.2%	0.1%
	annual	8.99E-03	7.94E-02	2.58E-02	-	-	-
TOC	24	0.00E+00	7.85E-02	3.15E-02	-	-	-
	annual	0.00E+00	9.55E-03	4.18E-03	-	-	-
TOC (METHANE)	24	0.00E+00	1.53E+00	1.08E+00	37330	0.0%	0.0%
	annual	0.00E+00	1.67E-01	1.02E-01	-	-	-
Toluene	24	2.81E+00	2.81E+00	2.81E+00	2000	0.1%	0.1%
	annual	1.53E+00	1.53E+00	1.53E+00	-	-	-
TSP (See Note 1)	24	4.41E+01	2.88E+02	1.13E+02	-	-	-
	annual	2.44E+01	1.01E+02	4.31E+01	-	-	-
TSP (See Note 2)	24	4.41E+01	1.20E+02	8.01E+01	120	100.3%	66.7%
	annual	2.44E+01	4.66E+01	2.80E+01	60	77.6%	46.6%
Tungsten (W)	24	0.00E+00	1.41E-02	3.97E-03	5	0.3%	0.1%

Table 6.2: Maximum Predicted Concentrations for the Construction Scenario – Cumulative (Project + Background)

CoPC	Averaging Period	Predicted Cumulative Concentration (µg/m^3)			Criteria	Percentage of Criteria	
		Background Concentration (ug/m3)	Max Concentration on Modelled Property Boundary	Max Special Receptor Concentration		Max Concentration on Modelled Property Boundary	Max Special Receptor Concentration
	annual	0.00E+00	4.45E-03	1.06E-03	-	-	-
Uranium (U)	24	0.00E+00	2.48E-03	7.00E-04	0.15	1.7%	0.5%
	annual	0.00E+00	7.83E-04	1.87E-04	0.03	2.6%	0.6%
Vanadium (V)	24	3.14E-03	4.32E-02	1.44E-02	2	2.2%	0.7%
	annual	8.86E-04	1.35E-02	3.90E-03	-	-	-
Xylenes	10-Min	8.28E+00	8.30E+00	8.30E+00	3000	0.3%	0.3%
	24	2.06E+00	2.06E+00	2.06E+00	730	0.3%	0.3%
	annual	1.08E+00	1.08E+00	1.08E+00	-	-	-
Zinc (Zn)	24	3.35E-02	4.68E-02	3.72E-02	120	0.0%	0.0%
	annual	1.55E-02	1.97E-02	1.65E-02	-	-	-
Dustfall (g/m^2)	24	0.00E+00	1.70E-01	7.94E-02	0	-	-
	month	1.44E+00	7.68E+00	2.65E+00	7	109.7%	37.9%
	annual	0.00E+00	5.91E+01	1.25E+01	0	-	-

Notes:

1. Model predictions for particulates including all emissions sources.
2. Model predictions for particulates excluding roads and stockpile wind erosion as allowed by MECP Guideline A-10, Section 7.4.1 for facilities with a fugitive dust BMP. These model predictions were used for comparison to the applicable criteria.
3. Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO_2 (Tier 3 assumption).
4. Predictions include removal of meteorological anomalies.

6.2 ASSESSMENT OF PROJECT OPERATION ON AIR QUALITY

6.2.1 Operation – Project Alone

In Table 6.3, the maximum predicted GLCs at the assessed special receptors and at the modelled property boundary due to the Project operation emissions are presented. The values presented are the maximum predicted values over all the special receptors and modelled property boundary receptors included in the modelling. The maximum model-predicted values are compared to applicable regulatory limits to assess potential changes in air quality.

A table of the model predictions at all the individual special receptors considered is presented in Table F-1, Appendix F, Contour plots of maximum predicted concentrations of PM, PM_{10}, $PM_{2.5}$, NO_2, crystalline silica and nickel for averaging periods where criteria exist are graphically illustrated on Figure 14a to Figure 14k in Appendix A.

Of the 83 CoPCs assessed, 79 were predicted to be below applicable criteria for the Project Alone, with only maximum predicted 24-hour average crystalline silica, 24-hour and annual average benzo(a)pyrene, 24-hour and annual average nickel concentrations, and monthly dustfall exceeding their criteria.

As with the construction scenario, the maximum benzo(a)pyrene concentrations for operations were predicted to exceed the applicable 24-hour and annual criteria (by no more than 71% and 223%) and only at special receptors in the vicinity of the rail loadout that are in close proximity to Peninsula Road. The exceedances at these special receptors are due to emissions from vehicle traffic on Peninsula Road – the modelled emissions from this source (a public road) include traffic from both the Project and existing traffic (non-project related). Of the total B(a)P emissions from Peninsula road, 96.8% are due to existing road traffic and only 3.2% is due to the Project. The Project is therefore a negligible contributor to the predicted B(a)P exceedances at these receptors.

Maximum crystalline silica concentrations are predicted to exceed the 24-hour criterion by about 605% at the modelled property boundary and no more than 288% at a special receptor located on the airport property. As shown on Figure 14i, exceedances of the crystalline silica criterion are predicted to be limited in extent, with the area of exceedance encompassing an area outside the modelled property boundary of about 5.5 km^2 (about 0.8% of the study area). Additional assessment and discussion of predicted crystalline silica exceedances is presented in Section 6.3.

Exceedance of the 24-hour and annual average nickel criteria (41% and 185% respectively) are predicted on the modelled property boundary around the rail loadout. No exceedances are predicted at the special receptors, with maximum concentrations predicted to be no more than 21% and 29% of the 24-hour and nickel annual criteria respectively. The extent of the predicted area of exceedance is small and extends no more than about 25 m from the property line (see Figure 14j and Figure 14k). The predicted exceedance is due to loading of concentrate to rail cars. This modelled exceedance will be addressed at the detailed design/permitting stage (once the actual location and final configuration of the rail loadout

has been determined) through the inclusion of additional mitigation (e.g. full enclosure with dust collection) as required.

An exceedance (25%) of the monthly dustfall criterion is predicted at the modelled property boundary, close to the entrance to the mine; however, predicted dustfall levels are no more than 52% of the criterion at the special receptors. The area in which cumulative dustfall levels are above the criterion is therefore expected to be limited to near the modelled property boundary. The major contributor to the dustfall exceedance is road dust emissions from the haul road into the site. Emissions from this source are expected to be conservative and over-estimate actual impacts.

Of all other CoPCs, the highest predicted GLC relative to its regulatory criteria due to the Project Alone for operations was 24-hour average TSP at 49% at the maximum location along the modelled property boundary. There is only one CoPC with an odour-based criterion (10-minute average naphthalene) – the maximum predicted 10-minute average naphthalene concentration was well below this criterion for Project operations.

Table 6.3: Maximum Predicted Concentrations for the Operations Scenario - Project Alone

CoPC	Averaging Period	Predicted Concentration (µg/m^3)		Criteria	Percentage of Criteria	
		Max Concentration on Modelled Property Boundary	Max Special Receptor Concentration		Max Concentration on Modelled Property Boundary	Max Special Receptor Concentration
1,3-Butadiene	24	4.30E-03	1.80E-02	10	0.0%	0.2%
	annual	1.05E-03	4.92E-03	2	0.1%	0.2%
Acenaphthene	24	2.83E-04	1.19E-03	-	-	-
	annual	7.01E-05	3.26E-04	-	-	-
Acenaphthylene	24	4.59E-04	1.97E-03	-	-	-
	annual	1.14E-04	5.39E-04	-	-	-
Acetaldehyde	0.5	1.96E+00	3.41E+00	500	0.4%	0.7%
	1	1.64E+00	2.84E+00	-	-	-
	24	3.73E-01	1.36E+00	500	0.1%	0.3%
	annual	9.07E-02	3.77E-01	-	-	-
Acrolein	1	2.36E-01	4.11E-01	4.5	5.2%	9.1%
	24	5.36E-02	1.97E-01	0.4	13.4%	49.2%
	annual	1.31E-02	5.44E-02	-	-	-
Aldehydes	24	2.02E-01	1.34E-01	-	-	-
	annual	2.14E-02	1.15E-02	-	-	-
Aluminum (Al)	24	3.22E+00	1.81E+00	12	26.9%	15.1%
	annual	9.42E-01	6.13E-01	-	-	-
Anthracene	24	1.84E-04	8.02E-04	-	-	-

Table 6.3: Maximum Predicted Concentrations for the Operations Scenario - Project Alone

CoPC	Averaging Period	Predicted Concentration (µg/m^3)		Criteria	Percentage of Criteria	
		Max Concentration on Modelled Property Boundary	Max Special Receptor Concentration		Max Concentration on Modelled Property Boundary	Max Special Receptor Concentration
	annual	4.47E-05	2.18E-04	-	-	-
Antimony (Sb)	24	6.22E-04	3.49E-04	25	0.0%	0.0%
	annual	1.82E-04	1.19E-04	-	-	-
Arsenic (As)	24	1.40E-03	3.77E-04	0.3	0.5%	0.1%
	annual	5.24E-04	1.28E-04	-	-	-
Barium (Ba)	24	1.24E-02	6.95E-03	10	0.1%	0.1%
	annual	3.63E-03	2.36E-03	-	-	-
Benzene	24	6.94E-02	2.64E-01	2.3	3.0%	11.5%
	annual	1.71E-02	7.28E-02	0.45	3.8%	16.2%
Benzo(a)Anthracene	24	8.07E-06	1.32E-04	-	-	-
	annual	2.39E-06	4.97E-05	-	-	-
Benzo(a)Pyrene	24	2.62E-06	8.57E-05	0.00005	5.2%	171.4%
	annual	7.52E-07	3.23E-05	0.00001	7.5%	323.5%
Benzo(b)Fluoranthene	24	4.05E-06	3.75E-05	-	-	-
	annual	4.90E-07	1.42E-05	-	-	-
Benzo(g,h,i)Perylene	24	2.77E-05	1.98E-05	-	-	-
	annual	3.14E-06	1.88E-06	-	-	-

Table 6.3: Maximum Predicted Concentrations for the Operations Scenario - Project Alone

CoPC	Averaging Period	Predicted Concentration (µg/m^3)		Criteria	Percentage of Criteria	
		Max Concentration on Modelled Property Boundary	Max Special Receptor Concentration		Max Concentration on Modelled Property Boundary	Max Special Receptor Concentration
Benzo(k)Fluoranthene	24	1.32E-06	2.99E-05	-	-	-
	annual	2.86E-07	1.13E-05	-	-	-
Beryllium (Be)	24	1.50E-04	8.40E-05	0.01	1.5%	0.8%
	annual	4.38E-05	2.85E-05	-	-	-
Bismuth (Bi)	24	4.65E-03	7.77E-04	2.5	0.2%	0.0%
	annual	1.73E-03	2.16E-04	-	-	-
Boron (B)	24	2.75E-03	1.55E-03	120	0.0%	0.0%
	annual	8.05E-04	5.24E-04	-	-	-
Bromine (Br)	24	1.96E-02	1.52E-02	20	0.1%	0.1%
	annual	1.89E-03	1.00E-03	-	-	-
Cadmium (Cd)	24	9.34E-04	1.56E-04	0.025	3.7%	0.6%
	annual	3.48E-04	4.36E-05	0.005	7.0%	0.9%
Calcium (Ca)	24	3.35E+00	1.88E+00	-	-	-
	annual	9.78E-01	6.38E-01	-	-	-
CaO	24	3.25E-01	2.46E-01	10	3.3%	2.5%
	annual	3.09E-02	1.68E-02	-	-	-
CH_4	24	4.39E-01	1.41E+00	37330	0.0%	0.0%
	annual	1.14E-01	3.91E-01	-	-	-

Table 6.3: Maximum Predicted Concentrations for the Operations Scenario - Project Alone

CoPC	Averaging Period	Predicted Concentration (µg/m^3)		Criteria	Percentage of Criteria	
		Max Concentration on Modelled Property Boundary	Max Special Receptor Concentration		Max Concentration on Modelled Property Boundary	Max Special Receptor Concentration
Chromium (Cr)	24	2.44E-02	1.37E-02	0.5	4.9%	2.7%
	annual	7.14E-03	4.66E-03	-	-	-
Chrysene	24	7.04E-06	8.58E-05	-	-	-
	annual	1.82E-06	3.25E-05	-	-	-
CO	0.5	1.15E+03	1.08E+03	6000	19.1%	18.0%
	1	9.57E+02	8.99E+02	36200	2.6%	2.5%
	8	1.93E+02	4.08E+02	15700	1.2%	2.6%
	24	7.62E+01	2.98E+02	-	-	-
	annual	1.99E+01	8.19E+01	-	-	-
Cobalt (Co)	24	2.01E-02	4.70E-03	0.1	20.1%	4.7%
	annual	7.51E-03	1.61E-03	-	-	-
Copper (Cu)	24	1.10E+01	1.82E+00	50	21.9%	3.6%
	annual	4.08E+00	4.99E-01	-	-	-
Dibenz(a,h)Perylene	24	1.13E-06	7.52E-07	-	-	-
	annual	1.20E-07	6.45E-08	-	-	-
Fluoranthene	24	2.84E-04	1.30E-03	-	-	-
	annual	6.92E-05	3.52E-04	-	-	-

Table 6.3: Maximum Predicted Concentrations for the Operations Scenario - Project Alone

CoPC	Averaging Period	Predicted Concentration (µg/m^3)		Criteria	Percentage of Criteria	
		Max Concentration on Modelled Property Boundary	Max Special Receptor Concentration		Max Concentration on Modelled Property Boundary	Max Special Receptor Concentration
Fluorene	24	1.10E-03	4.22E-03	-	-	-
	annual	2.69E-04	1.16E-03	-	-	-
Formaldehyde	24	1.17E+00	4.25E+00	65	1.8%	6.5%
	annual	2.85E-01	1.18E+00	-	-	-
Gallium (Ga)	24	1.15E+01	1.92E+00	-	-	-
	annual	4.30E+00	5.26E-01	-	-	-
Gold (Au)	24	2.46E-04	4.09E-05	1.25	0.0%	0.0%
	annual	9.17E-05	1.12E-05	-	-	-
Hydrochloric Acid (HCl)	24	7.35E-03	5.76E-03	20	0.0%	0.0%
	annual	7.28E-04	3.83E-04	-	-	-
Hydrofluoric Acid (HF)	24	9.42E-03	7.29E-03	0.86	1.1%	0.8%
	month	1.86E-03	1.20E-03	0.34	0.5%	0.4%
	annual	9.10E-04	4.82E-04	-	-	-
Indeno(1,2,3-CD)Pyrene	24	1.35E-06	9.00E-07	-	-	-
	annual	1.44E-07	7.72E-08	-	-	-
Iron (Fe)	24	1.48E+01	8.28E+00	-	-	-
	annual	4.95E+00	2.82E+00	-	-	-
Iron Sulfide	24	2.73E+01	1.35E+01	-	-	-

Table 6.3: Maximum Predicted Concentrations for the Operations Scenario - Project Alone

CoPC	Averaging Period	Predicted Concentration (µg/m^3)		Criteria	Percentage of Criteria	
		Max Concentration on Modelled Property Boundary	Max Special Receptor Concentration		Max Concentration on Modelled Property Boundary	Max Special Receptor Concentration
	annual	3.66E+00	1.84E+00	-	-	-
Lanthanum (La)	24	4.44E-03	2.50E-03	-	-	-
	annual	1.30E-03	8.45E-04	-	-	-
Lanthanum Chloride ($LaCl_3$)	24	1.05E-01	8.56E-02	2.5	4.2%	3.4%
	annual	1.11E-02	5.78E-03	-	-	-
Lead (Pb)	24	9.81E-03	1.64E-03	0.5	2.0%	0.3%
	month	5.93E-03	9.34E-04	0.2	3.0%	0.5%
	annual	3.66E-03	4.62E-04	-	-	-
Magnesium (Mg)	24	3.85E+00	2.16E+00	72	5.4%	3.0%
	annual	1.13E+00	7.32E-01	-	-	-
Manganese (Mn)	24	1.41E-01	7.92E-02	0.4	35.2%	19.8%
	annual	4.12E-02	2.68E-02	-	-	-
Mercury (Hg)	24	2.76E-04	1.55E-04	2	0.0%	0.0%
	annual	8.07E-05	5.24E-05	-	-	-
Molybdenum (Mo)	24	8.89E-04	1.90E-04	120	0.0%	0.0%
	annual	3.32E-04	6.53E-05	-	-	-
N_2O	24	1.59E+00	4.41E+00	9000	0.0%	0.0%

Table 6.3: Maximum Predicted Concentrations for the Operations Scenario - Project Alone

CoPC	Averaging Period	Predicted Concentration (µg/m^3)		Criteria	Percentage of Criteria	
		Max Concentration on Modelled Property Boundary	Max Special Receptor Concentration		Max Concentration on Modelled Property Boundary	Max Special Receptor Concentration
	annual	3.82E-01	1.22E+00	-	-	-
Naphthalene	10-min	6.42E-03	5.52E-03	50	0.0%	0.0%
	24	4.25E-04	2.82E-04	22.5	0.0%	0.0%
	annual	4.50E-05	2.42E-05	-	-	-
Nickel (Ni)	24	2.82E-01	4.20E-02	0.2	141.0%	21.0%
	annual	1.14E-01	1.16E-02	0.04	285.0%	29.1%
Nitric Acid (HNO_3)	24	9.14E-03	7.08E-03	35	0.0%	0.0%
	annual	8.84E-04	4.68E-04	-	-	-
Non-Methane Hydrocarbons	24	4.12E+00	1.60E+01	-	-	-
	annual	1.00E+00	4.41E+00	-	-	-
NO_2 (See Note 3)	1	9.15E+01	8.45E+01	400	22.9%	21.1%
	24	3.76E+01	3.35E+01	200	18.8%	16.7%
	annual	1.10E+01	1.01E+01	-	-	-
Palladium (Pd)	24	2.45E-03	4.08E-04	10	0.0%	0.0%
	annual	9.13E-04	1.12E-04	-	-	-
Phenanthrene	24	4.91E-03	1.77E-02	-	-	-
	annual	1.20E-03	4.89E-03	-	-	-
Phosphorous (P)	24	3.75E-01	2.10E-01	-	-	-

Table 6.3: Maximum Predicted Concentrations for the Operations Scenario - Project Alone

CoPC	Averaging Period	Predicted Concentration (µg/m^3)		Criteria	Percentage of Criteria	
		Max Concentration on Modelled Property Boundary	Max Special Receptor Concentration		Max Concentration on Modelled Property Boundary	Max Special Receptor Concentration
	annual	1.10E-01	7.12E-02	-	-	-
Platinum (Pt)	24	5.12E-04	8.52E-05	0.2	0.3%	0.0%
	annual	1.91E-04	2.33E-05	-	-	-
PM_{10} (see Note 1)	24	7.43E+01	4.08E+01	-	-	-
	annual	2.14E+01	1.40E+01	-	-	-
PM_{10} (see Note 2)	24	2.24E+01	1.23E+01	50	44.7%	24.7%
$PM_{2.5}$ (See Note 1)	24	8.42E+00	4.54E+00	-	-	-
	annual	2.34E+00	1.56E+00	-	-	-
$PM_{2.5}$ (See Note 2)	24	5.10E+00	2.11E+00	27	18.9%	7.8%
	annual	1.40E+00	3.60E-01	8.8	15.9%	4.1%
Potassium (K)	24	2.13E-01	1.20E-01	1	21.3%	12.0%
	annual	6.22E-02	4.05E-02	-	-	-
Propylene	24	9.13E-03	6.07E-03	4000	0.0%	0.0%
	annual	9.68E-04	5.20E-04	-	-	-
Pyrene	24	2.40E-04	1.25E-03	-	-	-
	annual	5.87E-05	3.34E-04	-	-	-
Scandium (Sc)	24	4.83E-04	2.72E-04	-	-	-

Table 6.3: Maximum Predicted Concentrations for the Operations Scenario - Project Alone

CoPC	Averaging Period	Predicted Concentration (µg/m^3)		Criteria	Percentage of Criteria	
		Max Concentration on Modelled Property Boundary	Max Special Receptor Concentration		Max Concentration on Modelled Property Boundary	Max Special Receptor Concentration
	annual	1.41E-04	9.19E-05	-	-	-
Silica	24	3.52E+01	1.94E+01	5	704.9%	388.1%
	annual	1.02E+01	6.65E+00	-	-	-
Silicon (Si)	24	2.38E+00	3.95E-01	27	8.8%	1.5%
	annual	8.85E-01	1.08E-01	-	-	-
Silver (Ag)	24	2.97E-03	4.94E-04	1	0.3%	0.0%
	annual	1.11E-03	1.36E-04	-	-	-
SO_2	1	2.17E+01	2.04E+01	100	21.7%	20.4%
	24	1.23E+00	1.15E+00	-	-	-
	annual	3.98E-02	1.31E-01	10	0.4%	1.3%
Sodium (Na)	24	3.83E-01	2.15E-01	-	-	-
	annual	1.12E-01	7.29E-02	-	-	-
Sodium Carboxymethyl Cellulose	24	5.35E-03	2.96E-03	120	0.0%	0.0%
	annual	4.65E-04	2.37E-04	-	-	-
Strontium (Sr)	24	2.36E-02	1.32E-02	120	0.0%	0.0%
	annual	6.90E-03	4.49E-03	-	-	-
Thallium (Tl)	24	2.77E-03	1.55E-03	0.5	0.6%	0.3%
	annual	8.11E-04	5.27E-04	-	-	-

Table 6.3: Maximum Predicted Concentrations for the Operations Scenario - Project Alone

CoPC	Averaging Period	Predicted Concentration (µg/m^3)		Criteria	Percentage of Criteria	
		Max Concentration on Modelled Property Boundary	Max Special Receptor Concentration		Max Concentration on Modelled Property Boundary	Max Special Receptor Concentration
Titanium (Ti)	24	2.53E-01	1.42E-01	120	0.2%	0.1%
	annual	7.39E-02	4.80E-02	-	-	-
TOC	24	8.10E-01	3.94E-01	-	-	-
	annual	1.10E-01	5.41E-02	-	-	-
TOC (METHANE)	24	3.08E-01	2.05E-01	37330	0.0%	0.0%
	annual	3.27E-02	1.76E-02	-	-	-
Toluene	24	9.17E-04	6.10E-04	2000	0.0%	0.0%
	annual	9.73E-05	5.23E-05	-	-	-
TSP (See Note 1)	24	2.75E+02	1.54E+02	-	-	-
	annual	8.03E+01	5.24E+01	-	-	-
TSP (See Note 2)	24	5.93E+01	2.76E+01	120	49.4%	23.0%
	annual	1.93E+01	3.87E+00	60	32.2%	6.4%
Tungsten (W)	24	1.59E-02	8.92E-03	5	0.3%	0.2%
	annual	4.65E-03	3.01E-03	-	-	-
Uranium (U)	24	2.82E-03	1.58E-03	0.15	1.9%	1.1%
	annual	1.06E-03	5.35E-04	0.03	3.5%	1.8%
Vanadium (V)	24	4.54E-02	2.55E-02	2	2.3%	1.3%

Table 6.3: Maximum Predicted Concentrations for the Operations Scenario - Project Alone

CoPC	Averaging Period	Predicted Concentration (µg/m^3)		Criteria	Percentage of Criteria	
		Max Concentration on Modelled Property Boundary	Max Special Receptor Concentration		Max Concentration on Modelled Property Boundary	Max Special Receptor Concentration
	annual	1.33E-02	8.62E-03	-	-	-
Xylenes	10-Min	9.53E-03	8.20E-03	3000	0.0%	0.0%
	24	6.31E-04	4.19E-04	730	0.0%	0.0%
	annual	6.69E-05	3.60E-05	-	-	-
Zinc (Zn)	24	5.13E-02	8.61E-03	120	0.0%	0.0%
	annual	1.91E-02	2.88E-03	-	-	-
Dustfall (g/m^2)	24	4.90E-01	1.85E-01	0	-	-
	month	8.76E+00	3.68E+00	7	125.1%	52.5%
	annual	8.27E+01	3.68E+01	0	-	-

Notes:

1. Model predictions for particulates including all emissions sources.
2. Model predictions for particulates excluding roads and stockpile wind erosion as allowed by MECP Guideline A-10, Section 7.4.1 for facilities with a fugitive dust BMP. These model predictions were used for comparison to the applicable criteria.
3. Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO_2 (Tier 3 assumption).

6.2.2 Operation - Cumulative Concentrations

The model operations predictions were conservatively added to background levels to determine the cumulative change in air quality at these receptors due to the Project. A table of the cumulative model predictions at all the individual special receptors considered is presented in Table F-3, Appendix F.

Table 6.4 presents the maximum predicted cumulative GLCs at the assessed special receptors and at the modelled property boundary due to Project operations emissions plus background. Estimated background concentrations were added to the maximum model-predicted values and compared to applicable regulatory limits to assess potential cumulative changes in air quality. Where no data is available to characterize background levels, the background concentration is noted as zero in Table 6.4. The values presented are the maximum predicted values over all the special receptors and modelled property boundary receptors included in the modelling.

Of the 83 CoPCs assessed, 78 are predicted to be below applicable criteria for the cumulative predictions (Project + background).

Maximum cumulative benzo(a)pyrene concentrations were predicted to exceed the applicable 24-hour and annual criteria by 483% and 1253% at the highest special receptor (along Peninsula Road). The background level of benzo(a)pyrene is, by itself, above applicable air quality criteria across the LSA. At special receptors along Peninsula Road between Govan Way and Stevens Ave, Project related traffic only provides a small (<1%) contribution to the cumulative concentrations. At all other special receptors, the Project's contribution is even lower. Cumulative benzene concentrations are predicted to exceed the annual average benzene criterion. The background benzene concentration is also above the applicable air quality criteria, with the Project only providing a small (7%) contribution to the maximum cumulative concentration. Background levels are expected to be conservative for the Marathon area and the cumulative assessment methodology is also conservative.

As no background measurement data is available for crystalline silica, the maximum predicted cumulative crystalline silica concentration is the same as for the Project Alone.

As for the Project Alone case, for which predicted nickel concentrations are above the 24-hour and annual average nickel criteria, cumulative concentrations are also above the criteria. As noted in Section 6.2.1, nickel exceedances will be addressed during the detailed design of the rail loadout facility.

The cumulative exceedance of the monthly dustfall criterion at the modelled property boundary, (close to the entrance to the mine) is predicted to be 46% above the criteria. Predicted cumulative dustfall levels are no more than 73% of the criterion at the special receptors. The area in which cumulative dustfall levels are above the criterion is therefore expected to be limited to near the modelled property boundary. The major contributor to the dustfall exceedance is road dust emissions from the haul road into the site. Emissions from this source are expected to be conservative and over-estimate actual impacts.

Table 6.4: Maximum Predicted Concentrations for the Operations Scenario – Cumulative (Project + Background)

CoPC	Averaging Period	Predicted Cumulative Concentration (µg/m^3)			Criteria	Percentage of Criteria	
		Background Concentration (ug/m3)	Max Concentration on Modelled Property Boundary	Max Special Receptor Concentration		Max Concentration on Modelled Property Boundary	Max Special Receptor Concentration
1,3-Butadiene	24	1.09E-01	1.13E-01	1.27E-01	10	1.1%	1.3%
	annual	7.32E-02	7.42E-02	7.81E-02	2	3.7%	3.9%
Acenaphthene	24	1.81E-03	2.09E-03	3.00E-03	-	-	-
	annual	9.10E-04	9.81E-04	1.24E-03	-	-	-
Acenaphthylene	24	1.79E-03	2.25E-03	3.76E-03	-	-	-
	annual	1.06E-03	1.18E-03	1.60E-03	-	-	-
Acetaldehyde	0.5	1.18E+01	1.38E+01	1.52E+01	500	2.8%	3.0%
	1	9.74E+00	1.14E+01	1.26E+01	-	-	-
	24	4.00E+00	4.37E+00	5.36E+00	500	0.9%	1.1%
	annual	1.60E+00	1.69E+00	1.98E+00	-	-	-
Acrolein	1	1.22E-01	3.57E-01	5.33E-01	4.5	7.9%	11.8%
	24	5.00E-02	1.04E-01	2.47E-01	0.4	25.9%	61.7%
	annual	2.30E-02	3.61E-02	7.74E-02	-	-	-
Aldehydes	24	0.00E+00	2.02E-01	1.34E-01	-	-	-
	annual	0.00E+00	2.14E-02	1.15E-02	-	-	-
Aluminum (Al)	24	5.88E-01	3.81E+00	2.39E+00	12	31.8%	20.0%
	annual	2.84E-01	1.23E+00	8.97E-01	-	-	-
Anthracene	24	4.49E-04	6.33E-04	1.25E-03	-	-	-

Table 6.4: Maximum Predicted Concentrations for the Operations Scenario – Cumulative (Project + Background)

CoPC	Averaging Period	Predicted Cumulative Concentration (µg/m^3)			Criteria	Percentage of Criteria	
		Background Concentration (ug/m3)	Max Concentration on Modelled Property Boundary	Max Special Receptor Concentration		Max Concentration on Modelled Property Boundary	Max Special Receptor Concentration
	annual	2.51E-04	2.96E-04	4.69E-04	-	-	-
Antimony (Sb)	24	2.71E-02	2.77E-02	2.74E-02	25	0.1%	0.1%
	annual	9.39E-03	9.57E-03	9.51E-03	-	-	-
Arsenic (As)	24	0.00E+00	1.40E-03	3.77E-04	0.3	0.5%	0.1%
	annual	0.00E+00	5.24E-04	1.28E-04	-	-	-
Barium (Ba)	24	3.99E-02	5.23E-02	4.69E-02	10	0.5%	0.5%
	annual	1.92E-02	2.28E-02	2.16E-02	-	-	-
Benzene	24	1.44E+00	1.51E+00	1.70E+00	2.3	65.6%	74.1%
	annual	9.02E-01	9.19E-01	9.75E-01	0.45	204.2%	216.6%
Benzo(a)Anthracene	24	2.14E-04	2.22E-04	3.46E-04	-	-	-
	annual	1.07E-04	1.09E-04	1.57E-04	-	-	-
Benzo(a)Pyrene	24	2.06E-04	2.09E-04	2.92E-04	0.00005	417.2%	583.4%
	annual	1.03E-04	1.04E-04	1.35E-04	0.00001	1037.5%	1353.5%
Benzo(b)Fluoranthene	24	3.19E-04	3.23E-04	3.56E-04	-		-
	annual	2.07E-04	2.08E-04	2.22E-04	-		-
Benzo(g,h,i)Perylene	24	2.80E-04	3.08E-04	3.00E-04	-		-
	annual	1.32E-04	1.35E-04	1.34E-04	-		-
Benzo(k)Fluoranthene	24	1.04E-04	1.06E-04	1.34E-04	-		-

Table 6.4: Maximum Predicted Concentrations for the Operations Scenario – Cumulative (Project + Background)

CoPC	Averaging Period	Predicted Cumulative Concentration (µg/m^3)			Criteria	Percentage of Criteria	
		Background Concentration (ug/m3)	Max Concentration on Modelled Property Boundary	Max Special Receptor Concentration		Max Concentration on Modelled Property Boundary	Max Special Receptor Concentration
	annual	6.07E-05	6.10E-05	7.20E-05	-		-
Beryllium (Be)	24	0.00E+00	1.50E-04	8.40E-05	0.01	1.5%	0.8%
	annual	0.00E+00	4.38E-05	2.85E-05	-	-	-
Bismuth (Bi)	24	0.00E+00	4.65E-03	7.77E-04	2.5	0.2%	0.0%
	annual	0.00E+00	1.73E-03	2.16E-04	-	-	-
Boron (B)	24	0.00E+00	2.75E-03	1.55E-03	120	0.0%	0.0%
	annual	0.00E+00	8.05E-04	5.24E-04	-	-	-
Bromine (Br)	24	0.00E+00	1.96E-02	1.52E-02	20	0.1%	0.1%
	annual	0.00E+00	1.89E-03	1.00E-03	-	-	-
Cadmium (Cd)	24	1.20E-02	1.29E-02	1.22E-02	0.025	51.7%	48.6%
	annual	3.62E-03	3.97E-03	3.66E-03	0.005	79.4%	73.3%
Calcium (Ca)	24	1.74E+00	5.09E+00	3.62E+00	-	-	-
	annual	7.62E-01	1.74E+00	1.40E+00	-	-	-
CaO	24	0.00E+00	3.25E-01	2.46E-01	10	3.3%	2.5%
	annual	0.00E+00	3.09E-02	1.68E-02	-	-	-
CH_4	24	0.00E+00	4.39E-01	1.41E+00	37330	0.0%	0.0%
	annual	0.00E+00	1.14E-01	3.91E-01	-	-	-
Chromium (Cr)	24	1.46E-03	2.59E-02	1.52E-02	0.5	5.2%	3.0%

Table 6.4: Maximum Predicted Concentrations for the Operations Scenario – Cumulative (Project + Background)

CoPC	Averaging Period	Predicted Cumulative Concentration (µg/m^3)			Criteria	Percentage of Criteria	
		Background Concentration (ug/m3)	Max Concentration on Modelled Property Boundary	Max Special Receptor Concentration		Max Concentration on Modelled Property Boundary	Max Special Receptor Concentration
	annual	6.76E-04	7.82E-03	5.34E-03	-		-
Chrysene	24	2.65E-04	2.72E-04	3.51E-04	-		-
	annual	1.57E-04	1.59E-04	1.89E-04	-		-
CO	0.5	1.17E+03	2.32E+03	2.25E+03	6000	38.6%	37.5%
	1	9.65E+02	1.92E+03	1.86E+03	36200	5.3%	5.1%
	8	9.65E+02	1.16E+03	1.37E+03	15700	7.4%	8.7%
	24	9.65E+02	1.04E+03	1.26E+03	-	-	-
	annual	5.91E+02	6.11E+02	6.73E+02	-	-	-
Cobalt (Co)	24	0.00E+00	2.01E-02	4.70E-03	0.1	20.1%	4.7%
	annual	0.00E+00	7.51E-03	1.61E-03	-	-	-
Copper (Cu)	24	0.00E+00	1.10E+01	1.82E+00	50	21.9%	3.6%
	annual	0.00E+00	4.08E+00	4.99E-01	-		-
Dibenz(a,h)Perylene	24	0.00E+00	1.13E-06	7.52E-07	-		-
	annual	0.00E+00	1.20E-07	6.45E-08	-		-
Fluoranthene	24	1.91E-03	2.19E-03	3.21E-03	-		-
	annual	1.06E-03	1.13E-03	1.41E-03	-		-
Fluorene	24	2.91E-03	4.01E-03	7.13E-03	-		-
	annual	1.62E-03	1.89E-03	2.78E-03	-		-

Table 6.4: Maximum Predicted Concentrations for the Operations Scenario – Cumulative (Project + Background)

CoPC	Averaging Period	Predicted Cumulative Concentration (µg/m^3)			Criteria	Percentage of Criteria	
		Background Concentration (ug/m3)	Max Concentration on Modelled Property Boundary	Max Special Receptor Concentration		Max Concentration on Modelled Property Boundary	Max Special Receptor Concentration
Formaldehyde	24	5.40E+00	6.57E+00	9.65E+00	65	10.1%	14.9%
	annual	1.90E+00	2.18E+00	3.08E+00	-	-	-
Gallium (Ga)	24	0.00E+00	1.15E+01	1.92E+00	-	-	-
	annual	0.00E+00	4.30E+00	5.26E-01	-	-	-
Gold (Au)	24	0.00E+00	2.46E-04	4.09E-05	1.25	0.0%	0.0%
	annual	0.00E+00	9.17E-05	1.12E-05	-	-	-
Hydrochloric Acid (HCl)	24	0.00E+00	7.35E-03	5.76E-03	20	0.0%	0.0%
	annual	0.00E+00	7.28E-04	3.83E-04	-	-	-
Hydrofluoric Acid (HF)	24	0.00E+00	9.42E-03	7.29E-03	0.86	1.1%	0.8%
	month	0.00E+00	1.86E-03	1.20E-03	0.34	0.5%	0.4%
	annual	0.00E+00	9.10E-04	4.82E-04	-		-
Indeno(1,2,3-CD)Pyrene	24	0.00E+00	1.35E-06	9.00E-07	-		-
	annual	0.00E+00	1.44E-07	7.72E-08	-		-
Iron (Fe)	24	3.85E-01	1.51E+01	8.67E+00	-		-
	annual	1.91E-01	5.14E+00	3.01E+00	-		-
Iron Sulfide	24	0.00E+00	2.73E+01	1.35E+01	-		-
	annual	0.00E+00	3.66E+00	1.84E+00	-		-
Lanthanum (La)	24	0.00E+00	4.44E-03	2.50E-03	-		-

Table 6.4: Maximum Predicted Concentrations for the Operations Scenario – Cumulative (Project + Background)

CoPC	Averaging Period	Predicted Cumulative Concentration (µg/m^3)			Criteria	Percentage of Criteria	
		Background Concentration (ug/m3)	Max Concentration on Modelled Property Boundary	Max Special Receptor Concentration		Max Concentration on Modelled Property Boundary	Max Special Receptor Concentration
	annual	0.00E+00	1.30E-03	8.45E-04	-		-
Lanthanum Chloride ($LaCl_3$)	24	0.00E+00	1.05E-01	8.56E-02	2.5	4.2%	3.4%
	annual	0.00E+00	1.11E-02	5.78E-03	-	-	-
Lead (Pb)	24	5.74E-03	1.55E-02	7.38E-03	0.5	3.1%	1.5%
	month	2.21E-03	8.14E-03	3.15E-03	0.2	4.1%	1.6%
	annual	3.01E-03	6.67E-03	3.47E-03	-	-	-
Magnesium (Mg)	24	0.00E+00	3.85E+00	2.16E+00	72	5.4%	3.0%
	annual	0.00E+00	1.13E+00	7.32E-01	-	-	-
Manganese (Mn)	24	1.42E-02	1.55E-01	9.34E-02	0.4	38.8%	23.4%
	annual	7.71E-03	4.89E-02	3.46E-02	-	-	-
Mercury (Hg)	24	0.00E+00	2.76E-04	1.55E-04	2	0.0%	0.0%
	annual	0.00E+00	8.07E-05	5.24E-05	-	-	-
Molybdenum (Mo)	24	0.00E+00	8.89E-04	1.90E-04	120	0.0%	0.0%
	annual	0.00E+00	3.32E-04	6.53E-05	-	-	-
N_2O	24	0.00E+00	1.59E+00	4.41E+00	9000	0.0%	0.0%
	annual	0.00E+00	3.82E-01	1.22E+00	-	-	-
Naphthalene	10-min	2.37E+00	2.37E+00	2.37E+00	50	4.7%	4.7%
	24	2.39E-01	2.39E-01	2.39E-01	22.5	1.1%	1.1%

Table 6.4: Maximum Predicted Concentrations for the Operations Scenario – Cumulative (Project + Background)

CoPC	Averaging Period	Predicted Cumulative Concentration (µg/m^3)			Criteria	Percentage of Criteria	
		Background Concentration (ug/m3)	Max Concentration on Modelled Property Boundary	Max Special Receptor Concentration		Max Concentration on Modelled Property Boundary	Max Special Receptor Concentration
	annual	9.64E-02	9.64E-02	9.64E-02	-		-
Nickel (Ni)	24	2.60E-03	2.85E-01	4.46E-02	0.2	142.3%	22.3%
	annual	1.00E-03	1.15E-01	1.26E-02	0.04	287.5%	31.6%
Nitric Acid (HNO_3)	24	0.00E+00	9.14E-03	7.08E-03	35	0.0%	0.0%
	annual	0.00E+00	8.84E-04	4.68E-04	-	-	-
Non-Methane Hydrocarbons	24	0.00E+00	4.12E+00	1.60E+01	-	-	-
	annual	0.00E+00	1.00E+00	4.41E+00	-	-	-
NO_2 (See Note 3)	1	6.34E+01	1.55E+02	1.48E+02	400	38.7%	37.0%
	24	3.17E+01	6.93E+01	6.52E+01	200	34.6%	32.6%
	annual	1.74E+01	2.84E+01	2.75E+01	-	-	-
Palladium (Pd)	24	0.00E+00	2.45E-03	4.08E-04	10	0.0%	0.0%
	annual	0.00E+00	9.13E-04	1.12E-04	-	-	-
Phenanthrene	24	7.86E-03	1.28E-02	2.56E-02	-	-	-
	annual	4.59E-03	5.79E-03	9.48E-03	-	-	-
Phosphorous (P)	24	0.00E+00	3.75E-01	2.10E-01	-	-	-
	annual	0.00E+00	1.10E-01	7.12E-02	-	-	-
Platinum (Pt)	24	0.00E+00	5.12E-04	8.52E-05	0.2	0.3%	0.0%
	annual	0.00E+00	1.91E-04	2.33E-05	-	-	-

Table 6.4: Maximum Predicted Concentrations for the Operations Scenario – Cumulative (Project + Background)

CoPC	Averaging Period	Predicted Cumulative Concentration (µg/m^3)			Criteria	Percentage of Criteria	
		Background Concentration (ug/m3)	Max Concentration on Modelled Property Boundary	Max Special Receptor Concentration		Max Concentration on Modelled Property Boundary	Max Special Receptor Concentration
PM_{10} (see Note 1)	24	2.28E+01	9.71E+01	6.36E+01	-		-
	annual	1.27E+01	3.41E+01	2.67E+01	-	-	-
PM_{10} (see Note 2)	24	2.28E+01	4.52E+01	3.51E+01	50	90.3%	70.3%
$PM_{2.5}$ (See Note 1)	24	1.23E+01	2.07E+01	1.68E+01	-	-	-
	annual	6.80E+00	9.14E+00	8.36E+00	-	-	-
$PM_{2.5}$ (See Note 2)	24	1.23E+01	1.74E+01	1.44E+01	27	64.4%	53.4%
	annual	6.80E+00	8.20E+00	7.16E+00	8.8	93.2%	81.4%
Potassium (K)	24	2.79E-01	4.92E-01	3.99E-01	1	49.2%	39.9%
	annual	1.49E-01	2.11E-01	1.90E-01	-	-	-
Propylene	24	0.00E+00	9.13E-03	6.07E-03	4000	0.0%	0.0%
	annual	0.00E+00	9.68E-04	5.20E-04	-	-	-
Pyrene	24	1.34E-03	1.58E-03	2.59E-03	-	-	-
	annual	8.01E-04	8.59E-04	1.14E-03	-	-	-
Scandium (Sc)	24	0.00E+00	4.83E-04	2.72E-04	-	-	-
	annual	0.00E+00	1.41E-04	9.19E-05	-	-	-
Silica	24	0.00E+00	3.52E+01	1.94E+01	5	704.9%	388.1%
	annual	0.00E+00	1.02E+01	6.65E+00	-	-	-

Table 6.4: Maximum Predicted Concentrations for the Operations Scenario – Cumulative (Project + Background)

CoPC	Averaging Period	Predicted Cumulative Concentration (µg/m^3)			Criteria	Percentage of Criteria	
		Background Concentration (ug/m3)	Max Concentration on Modelled Property Boundary	Max Special Receptor Concentration		Max Concentration on Modelled Property Boundary	Max Special Receptor Concentration
Silicon (Si)	24	0.00E+00	2.38E+00	3.95E-01	27	8.8%	1.5%
	annual	0.00E+00	8.85E-01	1.08E-01	-		-
Silver (Ag)	24	0.00E+00	2.97E-03	4.94E-04	1	0.3%	0.0%
	annual	0.00E+00	1.11E-03	1.36E-04	-	-	-
SO_2	1	2.76E+00	2.45E+01	2.31E+01	100	24.5%	23.1%
	24	5.79E+00	7.02E+00	6.94E+00	-	-	-
	annual	2.48E+00	2.52E+00	2.61E+00	10	25.2%	26.1%
Sodium (Na)	24	0.00E+00	3.83E-01	2.15E-01	-	-	-
	annual	0.00E+00	1.12E-01	7.29E-02	-	-	-
Sodium Carboxymethyl Cellulose	24	0.00E+00	5.35E-03	2.96E-03	120	0.0%	0.0%
	annual	0.00E+00	4.65E-04	2.37E-04	-	-	-
Strontium (Sr)	24	4.36E-03	2.80E-02	1.76E-02	120	0.0%	0.0%
	annual	1.89E-03	8.79E-03	6.38E-03	-	-	-
Thallium (Tl)	24	0.00E+00	2.77E-03	1.55E-03	0.5	0.6%	0.3%
	annual	0.00E+00	8.11E-04	5.27E-04	-	-	-
Titanium (Ti)	24	1.89E-02	2.72E-01	1.61E-01	120	0.2%	0.1%
	annual	8.99E-03	8.29E-02	5.70E-02	-		-
TOC	24	0.00E+00	8.10E-01	3.94E-01	-		-

Table 6.4: Maximum Predicted Concentrations for the Operations Scenario – Cumulative (Project + Background)

CoPC	Averaging Period	Predicted Cumulative Concentration (µg/m^3)			Criteria	Percentage of Criteria	
		Background Concentration (ug/m3)	Max Concentration on Modelled Property Boundary	Max Special Receptor Concentration		Max Concentration on Modelled Property Boundary	Max Special Receptor Concentration
	annual	0.00E+00	1.10E-01	5.41E-02	-		-
TOC (METHANE)	24	0.00E+00	3.08E-01	2.05E-01	37330	0.0%	0.0%
	annual	0.00E+00	3.27E-02	1.76E-02	-	-	-
Toluene	24	2.81E+00	2.81E+00	2.81E+00	2000	0.1%	0.1%
	annual	1.53E+00	1.53E+00	1.53E+00	-	-	-
TSP (See Note 1)	24	4.41E+01	3.19E+02	1.98E+02	-	-	-
	annual	2.44E+01	1.05E+02	7.68E+01	-	-	-
TSP (See Note 2)	24	4.41E+01	1.03E+02	7.17E+01	120	86.1%	59.7%
	annual	2.44E+01	4.37E+01	2.82E+01	60	72.8%	47.1%
Tungsten (W)	24	0.00E+00	1.59E-02	8.92E-03	5	0.3%	0.2%
	annual	0.00E+00	4.65E-03	3.01E-03	-	-	-
Uranium (U)	24	0.00E+00	2.82E-03	1.58E-03	0.15	1.9%	1.1%
	annual	0.00E+00	1.06E-03	5.35E-04	0.03	3.5%	1.8%
Vanadium (V)	24	3.14E-03	4.85E-02	2.86E-02	2	2.4%	1.4%
	annual	8.86E-04	1.42E-02	9.51E-03	-	-	-
Xylenes	10-Min	8.28E+00	8.29E+00	8.29E+00	3000	0.3%	0.3%
	24	2.06E+00	2.06E+00	2.06E+00	730	0.3%	0.3%
	annual	1.08E+00	1.08E+00	1.08E+00	-	-	-

Table 6.4: Maximum Predicted Concentrations for the Operations Scenario – Cumulative (Project + Background)

CoPC	Averaging Period	Predicted Cumulative Concentration (µg/m^3)			Criteria	Percentage of Criteria	
		Background Concentration (ug/m3)	Max Concentration on Modelled Property Boundary	Max Special Receptor Concentration		Max Concentration on Modelled Property Boundary	Max Special Receptor Concentration
Zinc (Zn)	24	3.35E-02	8.48E-02	4.21E-02	120	0.1%	0.0%
	annual	1.55E-02	3.46E-02	1.84E-02	-	-	-
Dustfall (g/m^2)	24	0.00E+00	4.90E-01	1.85E-01	0	-	-
	month	1.44E+00	1.02E+01	5.12E+00	7	145.7%	73.1%
	annual	0.00E+00	8.27E+01	3.68E+01	0	-	-

Notes:

1. Model predictions for particulates including all emissions sources.
2. Model predictions for particulates excluding roads and stockpile wind erosion as allowed by MECP Guideline A-10, Section 7.4.1 for facilities with a fugitive dust BMP. These model predictions were used for comparison to the applicable criteria.
3. Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO_2 (Tier 3 assumption).

6.3 CRYSTALLINE SILICA ASSESSMENT

Exceedances of the 24-hour crystalline silica criterion are predicted at the modelled property boundary and at no more than eight special receptors for either construction or operations. The predicted areas of exceedance are shown on Figure 13i and Figure 14i for construction and operations, respectively. The areas of exceedance outside the modelled property boundary cover about 13 km^2 and 5.5 km^2 for the construction and operations scenarios, respectively.

A frequency of exceedance assessment for silica is provided in Table 6.5. The frequency (over the 5-year modelling period) of exceeding the 24-hour silica criterion is provided for each special receptor where an exceedance was predicted as well as for the max locations on the modelled property boundary for both construction and operations. At locations where people may be present for significant periods of time, the crystalline silica criterion is exceeded infrequently (<1.5 % of the time).

The dispersion modelling assessment of crystalline silica is expected to be conservative and overestimate actual levels for several reasons including:

- The dispersion model concentration predictions conservatively follow MECP modelling protocols and do not account for particulate (and therefore crystalline silica) deposition and depletion from plumes as they travel from source to receptor.
- The dispersion modelling conservatively does not account for the additional natural mitigation of road dust/crystalline silica emissions that occurs during winter months (Golder, 2012).
- The frequency assessment conservatively does not account for days with precipitation, for which no road dust emissions will occur.

The air quality assessment is therefore expected to over-estimate the magnitude, frequency and extent of potential crystalline silica exceedances.

Table 6.5: Crystalline Silica Frequency of Exceedance Assessment at Selected Locations

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Operations		Construction	
				Maximum Predicted 24-hour Average Concentration (ug/m3)	% or Time Greater than Criteria	Maximum Predicted 24-hour Average Concentration (ug/m3)	% or Time Greater than Criteria
M_7	549180	5399815	Dustfall @ Airport Runway	19.1	66%	7.9	4.38%
PS_3	547056.12	5401003.77	May's Gifts	5.9	0.05%	8.1	1.15%
PS_4	546811.35	5400952.54	Wayfare Inn	5.4	0.05%	7.8	0.88%
PS_5	546996.35	5401027.54	Peninsula Inn	5.9	0.05%	8.6	1.42%
PS_6	548471.36	5399488.57	Travelodge Hotel	8.2	1.04%	-	-
PS_7	546903.35	5401055.54	The Laughing Mooz Eatery Restaurant and Residence	5.8	0.05%	8.9	1.59%
R_22	548317.36	5399654.57	Residence	6.2	0.38%	-	-
W_9	549326.32	5406971.51	Bamoos Lake (east)	6.6	0.05%	8.9	1.59%
W_10	546975.32	5406486.49	Bamoos Lake (south)	-	-	5.7	0.05%
Modelled Property Boundary Max Location	550203.15	5400458.42	Modelled Property Boundary Close to Mine Entrance	36.6	89%	-	-
	547864.27	5401750.1	Modelled Property Boundary - Near Haul Road to PSMF	-	-	35.2	83.79%

6.4 ASSESSMENT OF AIR QUALITY AT INDIGENOUS TLU LOCATIONS

Receptor locations to represent potential areas for traditional purposes by Indigenous communities were included in the assessment. These locations may be used for traditional activities including fishing, hunting, trapping, and plant gathering. The exact locations of traditional land use are confidential and are therefore not detailed in this report. The maximum predicted Project Alone concentrations of all CoPCs were below applicable criteria for the Biigtigong Nishnaabeg and around most potential TLU areas for both Project construction and operations. Maximum predicted Project Alone concentrations of crystalline silica were predicted to be above the 24-hour criterion in the Bamoos Lake area, however levels above the criterion are predicted to occur infrequently (less than 1.6% of the time) and are based on conservative modelling methodologies. The maximum predicted cumulative concentrations of all CoPCs were below applicable criteria for these areas with the exception of benzene and benzo(a)pyrene. As noted above, the background levels of both benzene and benzo(a)pyrene are above applicable air quality criteria, with the Project only providing a small contribution to the cumulative concentration.

6.5 OZONE FORMATION

Where a proposed facility emits NO_X and/or VOCs, there may be a potential for an increase in ozone concentrations due to the additional NO_X and VOCs, particularly in warmer months around mid-day. This occurs when the precursor compounds (NOx and VOCs) are present in conjunction with the specific meteorological conditions (i.e., strong solar radiation, high temperatures and low wind speeds). In the immediate vicinity of NO_X emission sources, O_3 concentrations may be decreased due to the NO to NO_2 conversion reaction.

In Table 6.6, Project annual average precursor NO_x and VOC emissions for both Project construction and operations are presented. The emissions are expected to be conservative. The total annual Project NO_x and VOC emissions are small relative to the RSA emissions.

Table 6.6: Comparison of Annual Average Ozone Precursor Emissions

Source	Case	NO_x	VOC
RSA Emissions [1]	Baseline (t/day)	20.0	9.6
Project [2]	Construction (t/day)	4.1	0.13
	Operations (t/day)	2.4	0.12

Notes:

1. 2018 NPRI emissions for industrial sources in the RSA factored by ratios of Ontario total (industrial and non-industrial) to industrial emissions for 2018.
2. Conservative estimate for the Project only.

t/day tonnes per day

Based on the magnitudes of the maximum NO_x and VOC emissions for the Project relative to the RSA, the change in O_3 formation is expected to be small. This qualitative assessment methodology is consistent with that used by Stantec for other EAs in Ontario and Canada. The data used in the assessment was based on conservative maximum NOx emissions for the Project and the actual emissions are likely to be lower.

7.0 SUMMARY AND CONCLUSIONS

The potential for Project-related emissions to cause significant adverse environmental effects on the atmospheric environment was assessed in this study. The ambient air quality assessment was done for the most part, by comparing the maximum model-predicted concentrations to ambient air criteria for each assessment case. As such, the assessment focused on conservative scenarios with the highest potential to cause environmental effects.

This air quality assessment was conducted following generally accepted methodologies to establish existing (baseline) conditions, estimate emissions and predict the maximum downwind GLCs and long-term depositions for all relevant air CoPCs due to Project construction, operation and closure. As such, the findings of this study as described in this Report are, for the most part, based on dispersion model predictions. This model approach and the predictions are appropriate and acceptable for use in this assessment and the EA. The approach taken is conservative (including conservative emissions estimation assumptions, using maximum equipment operating times and schedules, and using background air quality levels expected to be conservative for the LSA) and represents reasonably accurate predictions for an air quality assessment.

Background Air Quality - Ambient monitoring data were used to characterize air quality in the LSA and to develop background concentration levels including data available from the Canadian NAPS Network and on-site ambient monitoring. The background levels of all CoPCs were below applicable MECP air quality criteria except for annual average benzene and 24-hour and annual average benzo(a)pyrene. The methodology used to develop the background levels is expected to be conservative and over-estimate actual background levels in the LSA.

Project Alone – Construction Downwind ambient concentrations of CoPCs emitted from Project construction are predicted to meet applicable AAQC outside of the modelled property boundary for 81 of the 83 CoPCs examined except for:

- Maximum benzo(a)pyrene concentrations were predicted to exceed the applicable 24-hour and annual criteria at special receptors in the vicinity of the rail loadout that are in close proximity to Peninsula Road. The exceedances at these special receptors are due to emissions from vehicle traffic on Peninsula Road – the modelled emissions from this source (a public road) include traffic from both the Project and existing traffic (non-project related). Of the total B(a)P emissions from the road, only 3.8% is due to the Project. The Project is therefore a negligible contributor to the predicted B(a)P exceedances at these receptors.
- Maximum crystalline silica concentrations are predicted to exceed the 24-hour criterion over an area of 13 km^2 outside the modelled property boundary and at 7 special receptors. At special receptor locations where people may be present for significant periods of time, the crystalline silica criterion is exceeded infrequently (< 1.5 % of the time). Therefore, crystalline silica exceedances are predicted to

be limited in spatial extent (1.8% of the local study area) and infrequent at locations where human presence is expected.

Project Alone – Operations Downwind ambient concentrations of CoPCs emitted from Project operations are predicted to meet applicable criteria outside the modelled property boundary for 79 of the 83 CoPCs examined other than:

- As with the construction scenario, maximum benzo(a)pyrene concentrations for operations were predicted to exceed the applicable 24-hour and annual criteria at special receptors in the vicinity of the rail loadout, with the exceedances due to emissions from vehicle traffic on Peninsula Road. Of the total B(a)P emissions from the road (public traffic and Project), only 3.2% are due to the Project. The Project is therefore a negligible contributor to the predicted B(a)P exceedances at these receptors.

- Maximum crystalline silica concentrations are predicted to exceed the 24-hour criterion in an area of 5.5 km^2 outside the modelled property boundary and at 8 special receptors. At special receptor locations where people may be present for significant periods of time, the crystalline silica criterion is exceeded infrequently (< 1 % of the time). Therefore, crystalline silica exceedances are predicted to be limited in spatial extent (0.8% of the local study area) and infrequent at locations where human presence is expected.

- An exceedance of the 24-hour and annual average nickel criteria is predicted on the modelled property boundary around the rail loadout. No exceedances are predicted at the special receptors. The extent of the predicted area of exceedance is small and extends no more than about 25 m from the property line and is therefore limited in spatial extent. The predicted exceedance is due to loading of concentrate to rail cars. This modelled exceedance will be addressed at the detailed design/permitting stage (once the actual location and final configuration of the rail loadout has been determined) through the inclusion of additional mitigation (e.g. full enclosure with dust collection) as required.

- An exceedance of the monthly dustfall criterion is predicted at the modelled property boundary, close to the entrance to the mine; however, predicted dustfall levels are below the criterion at the special receptors. The area in which cumulative dustfall levels are above the criterion is therefore expected to be limited in spatial extent to near the modelled property boundary.

The air quality modelling is expected to be conservative as it is based on a maximum emissions scenario and the dispersion model tends to be conservative under most conditions.

Cumulative Effects: The Project has the potential to interact with other existing industrial, residential and natural sources of emissions. The following results were noted for cumulative effects:

- The background levels of both benzene and benzo(a)pyrene are above applicable air quality criteria, with the Project only providing a small contribution to the cumulative concentration. With the Project

added to the background levels, the cumulative concentrations also exceed applicable criteria for both Project construction and operations.

- No background concentration data was available for crystalline silica; therefore, cumulative effects could not be assessed for this CoPC.
- As for the operations Project alone scenario, for which predicted nickel concentrations are above the 24-hour and annual average nickel criteria, operations cumulative concentrations are also above the criteria. As noted in Section 6.2.1, predicted nickel exceedances will be addressed during the detailed design of the rail loadout facility.
- The maximum predicted cumulative monthly dustfall deposition levels on the modelled property boundary for both construction and operations exceeds the applicable criterion. However, cumulative dustfall levels are less than the criterion at all special receptors. The area in which cumulative dustfall levels are above the criterion is therefore expected to be near the modelled property boundary and limited in spatial extent.
- For the Project construction, the maximum cumulative concentration of hourly average nitrogen dioxide was predicted to exceed the criterion at the modelled property boundary. At all special receptors, the maximum predicted cumulative hourly concentrations are below the criteria. The area in which cumulative hourly NO_2 levels are above the criterion is predicted to be limited in spatial extent.

The background concentrations used on the assessment are expected to be conservative for the Marathon area and the cumulative effects assessment methodology is also conservative and is expected to over-estimate the predicted effect of the Project on existing air quality levels.

Traditional Land Use (TLU) Locations: The maximum predicted Project Alone concentrations of all CoPCs were below applicable criteria at BN and in potential areas for TLU for both Project construction and operations except for crystalline silica in the Bamoos Lake area. Crystalline silica levels above the criterion in this area are predicted to occur infrequently (less than 1.6% of the time). The maximum predicted cumulative concentrations of all CoPCs were below applicable criteria for TLU areas with the exception of benzene and benzo(a)pyrene. The background levels of both benzene and benzo(a)pyrene are above applicable air quality criteria, with the Project only providing a small contribution to the cumulative concentration.

Odour Detectability: There is only one CoPC with an odour-based criterion (10-minute average naphthalene) – the maximum predicted naphthalene concentration was well below this criterion. Sewage and effluent treatment plants are enclosed and expected to have negligible odour emissions.

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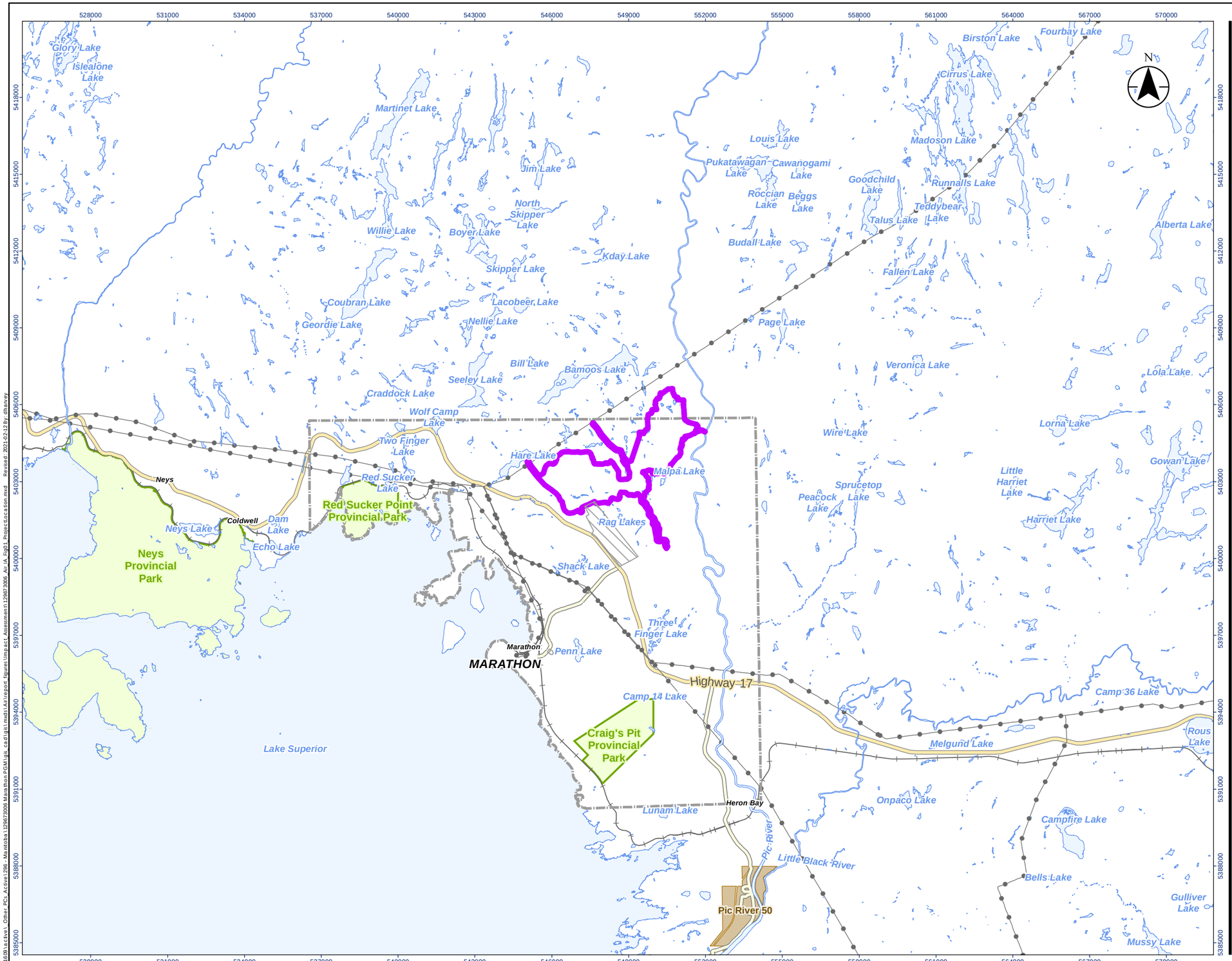
APPENDIX A
Figures



Stantec

Legend

- Site Study Area Boundary
- Highway
- Major Road
- Hydro Line
- Railway
- Airport
- Municipal Boundary, Lower Tier
- Provincial Park
- Waterbody

0 1 2 km

1:150,000 (At original document size of 11x17)

Notes

1. Coordinate System: NAD 1983 UTM Zone 16N
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Project Location
Marathon

129673006 REVA
Prepared by DH on 2021-02-12
Technical Review by DH on 2020-09-21

Client/Project
GENERATION PGM INC.
MARATHON PALLADIUM PROJECT

Figure No.
1

Title
Project Location

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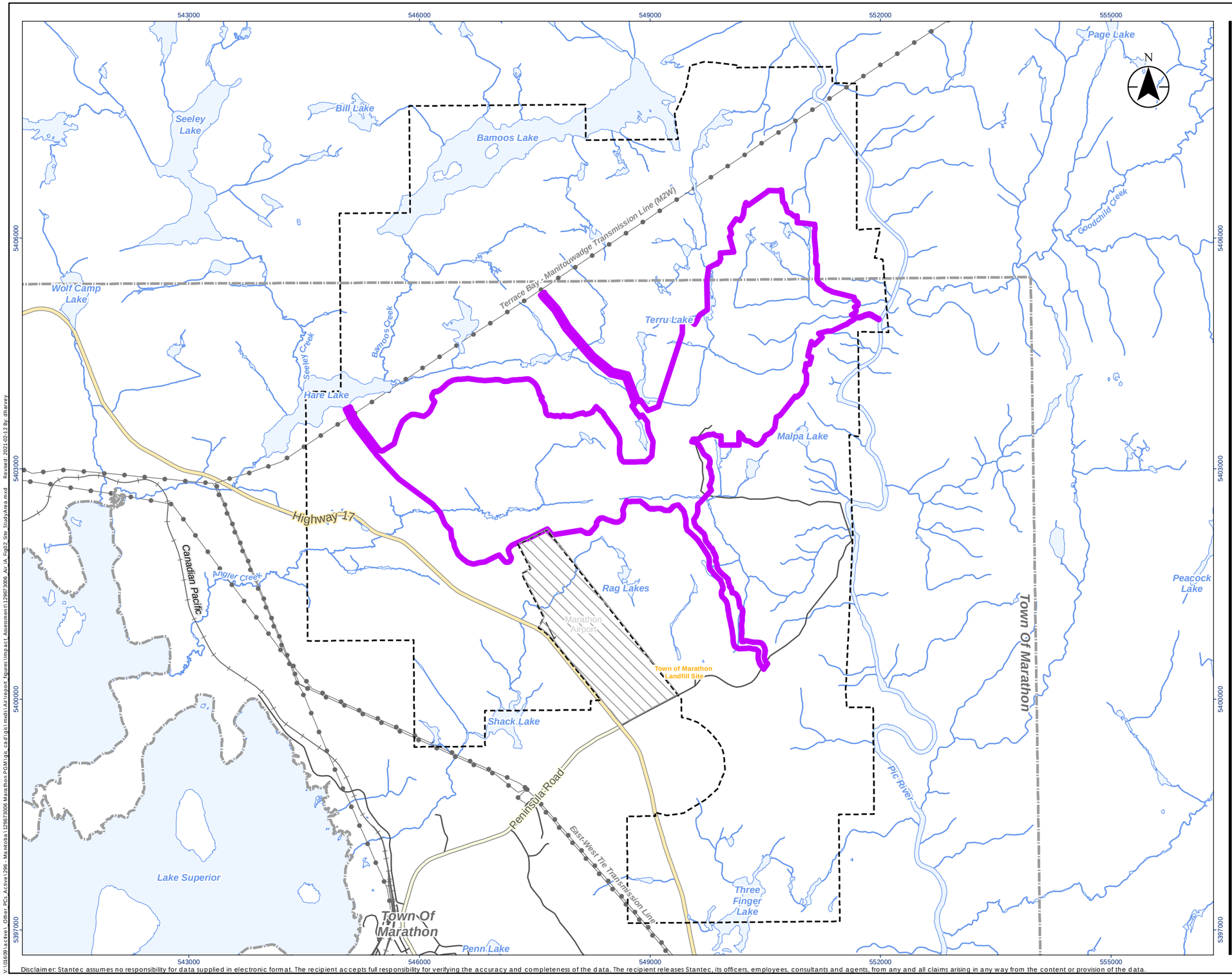
V:\0169\active_Other PCs Active\298 - Manitoba\129673006 Marathon PGM\gis_cad\gis\mxds\Air\report figures\Impact Assessment\129673006_AIA_Fig01_ProjectLocation.mxd Revised: 2021-02-12 By: dharvey



Stantec

Legend

- Project Boundary (MLAS, MENDM Changed 2017)
- Site Study Area Boundary
- Highway
- Major Road
- Minor Road
- Hydro Line
- Railway
- Watercourse
- Airport
- Municipal Boundary, Lower Tier
- Waterbody

0 1 2 km

1:50,000 (At original document size of 11x17)

Notes

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Project Location
Marathon

129673006 REVA
Prepared by DH on 2021-02-12
Technical Review by DH on 2020-09-21

Client/Project
GENERATION PGM INC.
MARATHON PALLADIUM PROJECT

Figure No.
2

Title
Site Study Area

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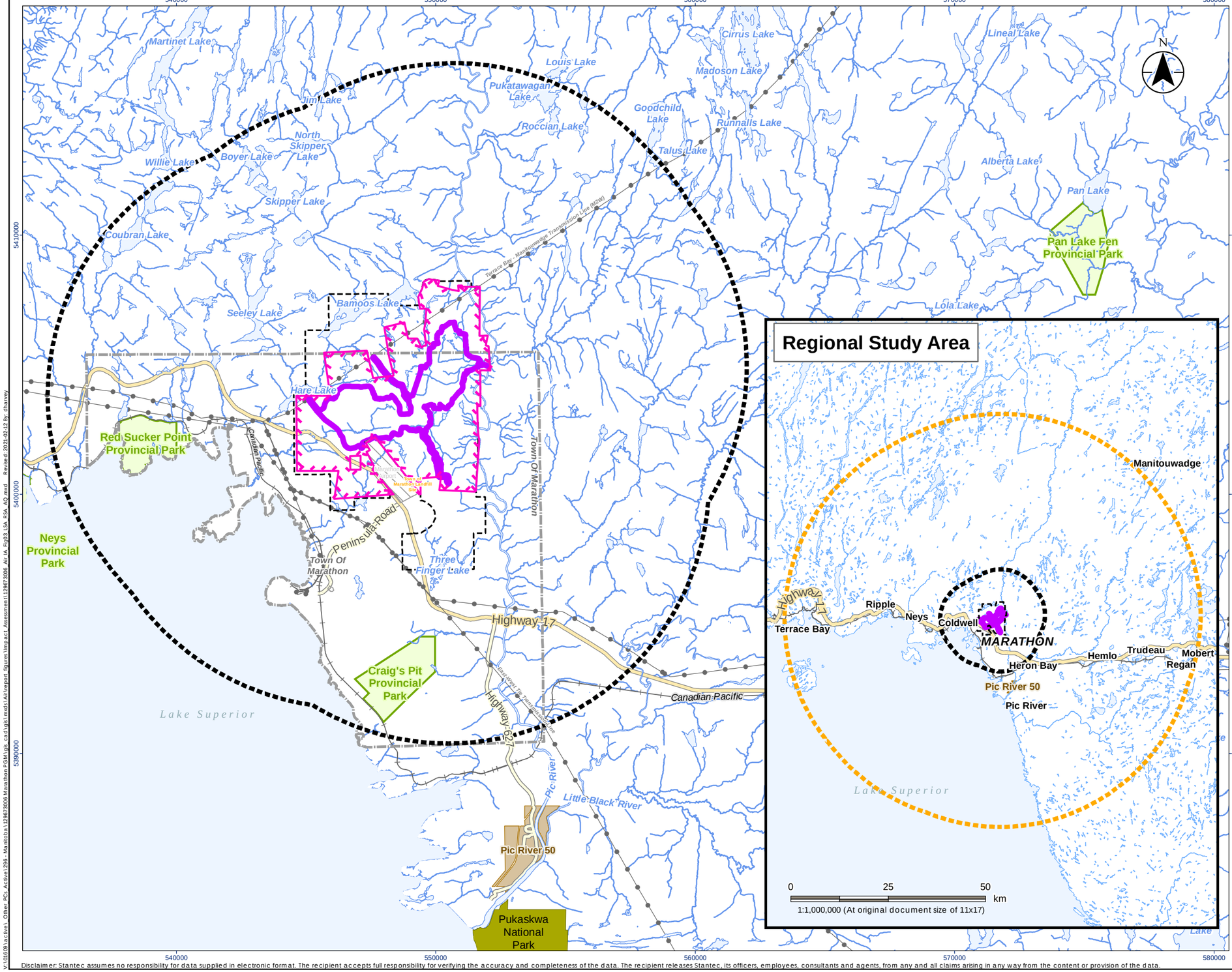

Stantec

Legend

- Project Boundary (MLAS, MENDM Changed 2017)
- Site Study Area Boundary
- Limit of Surface Rights Controled by Generation Mining (Current or Pending)
- Local Study Area
- Regional Study Area
- Highway
- Major Road
- Hydro Line
- Railway
- Watercourse
- Airport
- Municipal Boundary, Lower Tier
- National Park
- Provincial Park
- Waterbody

0 2.5 5 km

1:150,000 (At original document size of 11x17)

Notes

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Project Location
Marathon

129673006 REVA
Prepared by SW on 2021-02-12
Technical Review by DH on 2020-09-17
Independent Review by ABC on yyyy-mm-dd

Client/Project
GENERATION PGM INC.
MARATHON PALLADIUM PROJECT

Figure No.
3

Title
Local and Regional Study Areas for AQ

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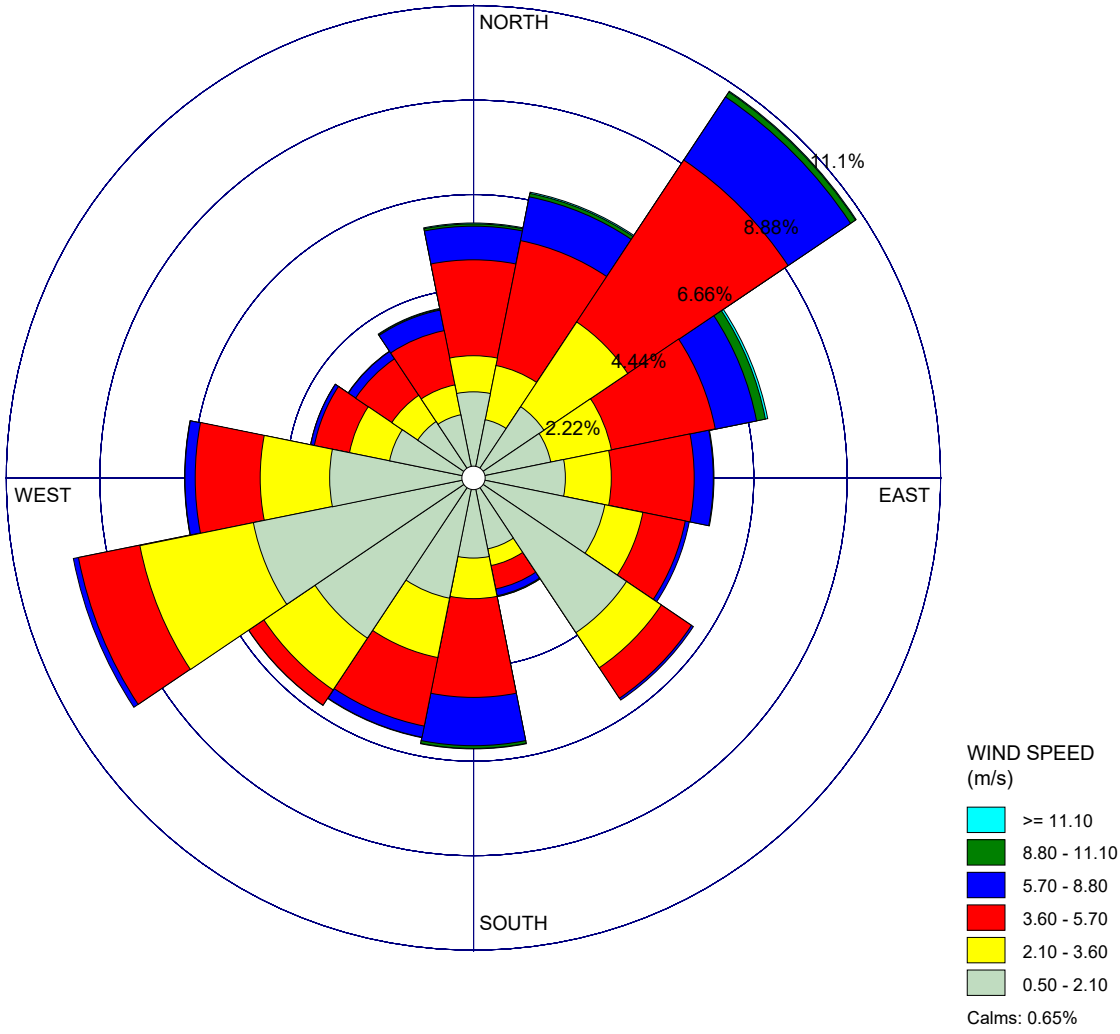
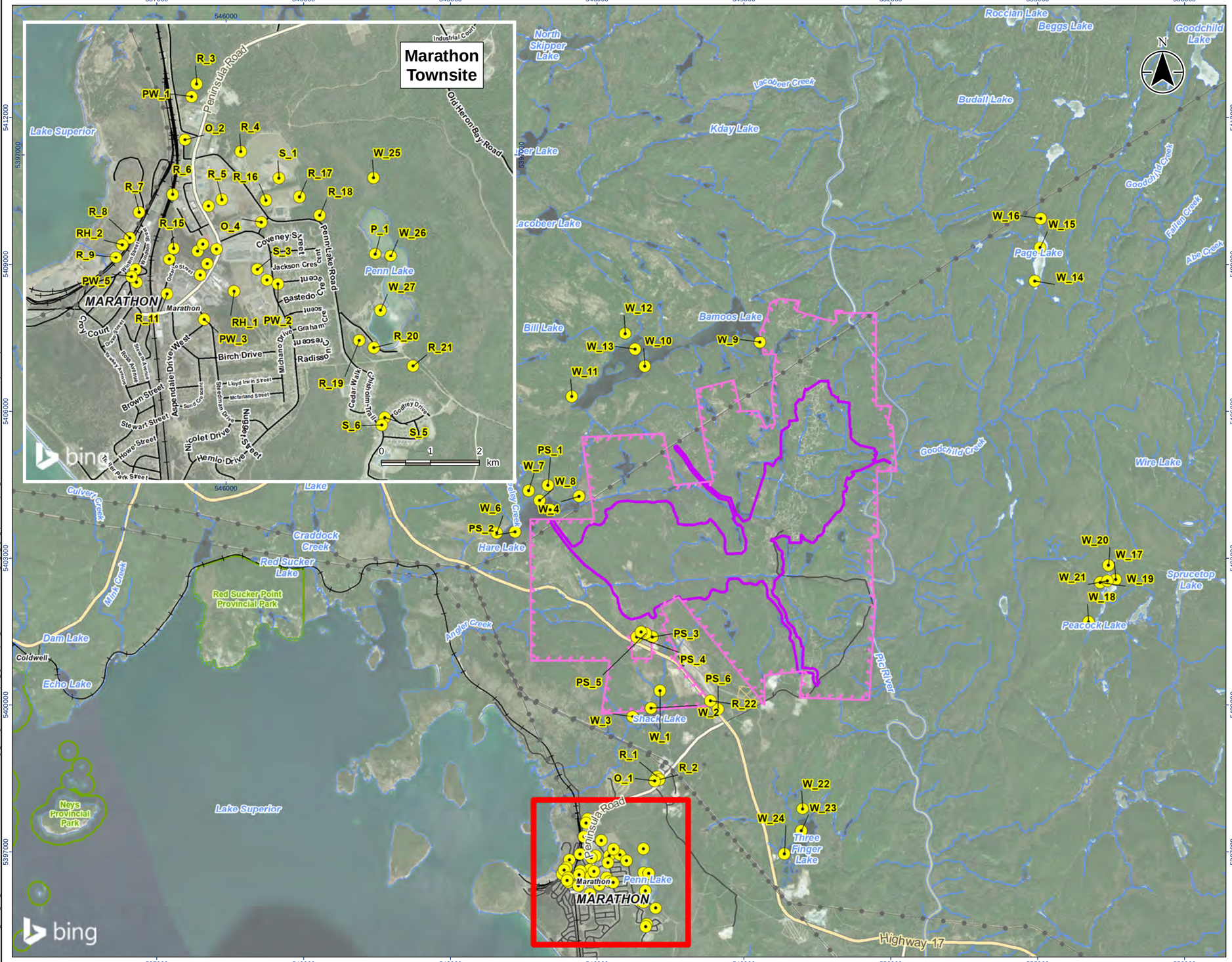
Figure 4 Wind Rose for Marathon Airport (2015-2019)





Stantec

Legend

- Special Receptor Location
- Model Property Boundary
- Site Study Area Boundary
- Highway
- Major Road
- Minor Road
- Hydro Line
- Railway
- Watercourse
- Airport
- Provincial Park
- Waterbody
- Waste Management Site

0 1 2 km

1:25,265 (At original document size of 11x17)

Notes

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© 2021 Microsoft Corporation Earthstar Geographics SIO

Project Location
Marathon

129673006 REVA
Prepared by DH on 2021-02-12

Client/Project
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MARATHON PALLADIUM PROJECT

Figure No.
5

Title
Location of Special Receptors

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Figure 6 Conceptual Mill Process Flow Diagram

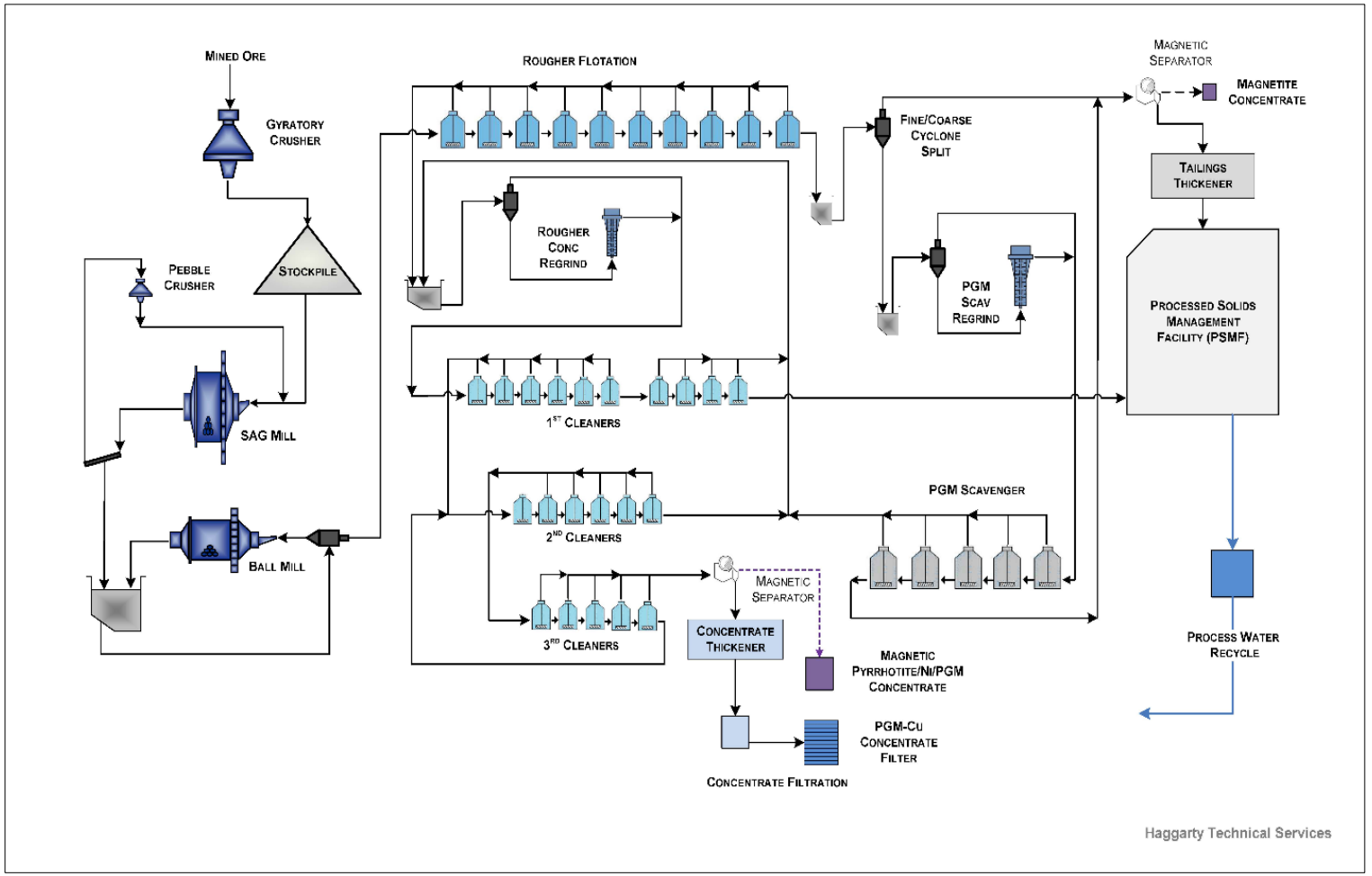
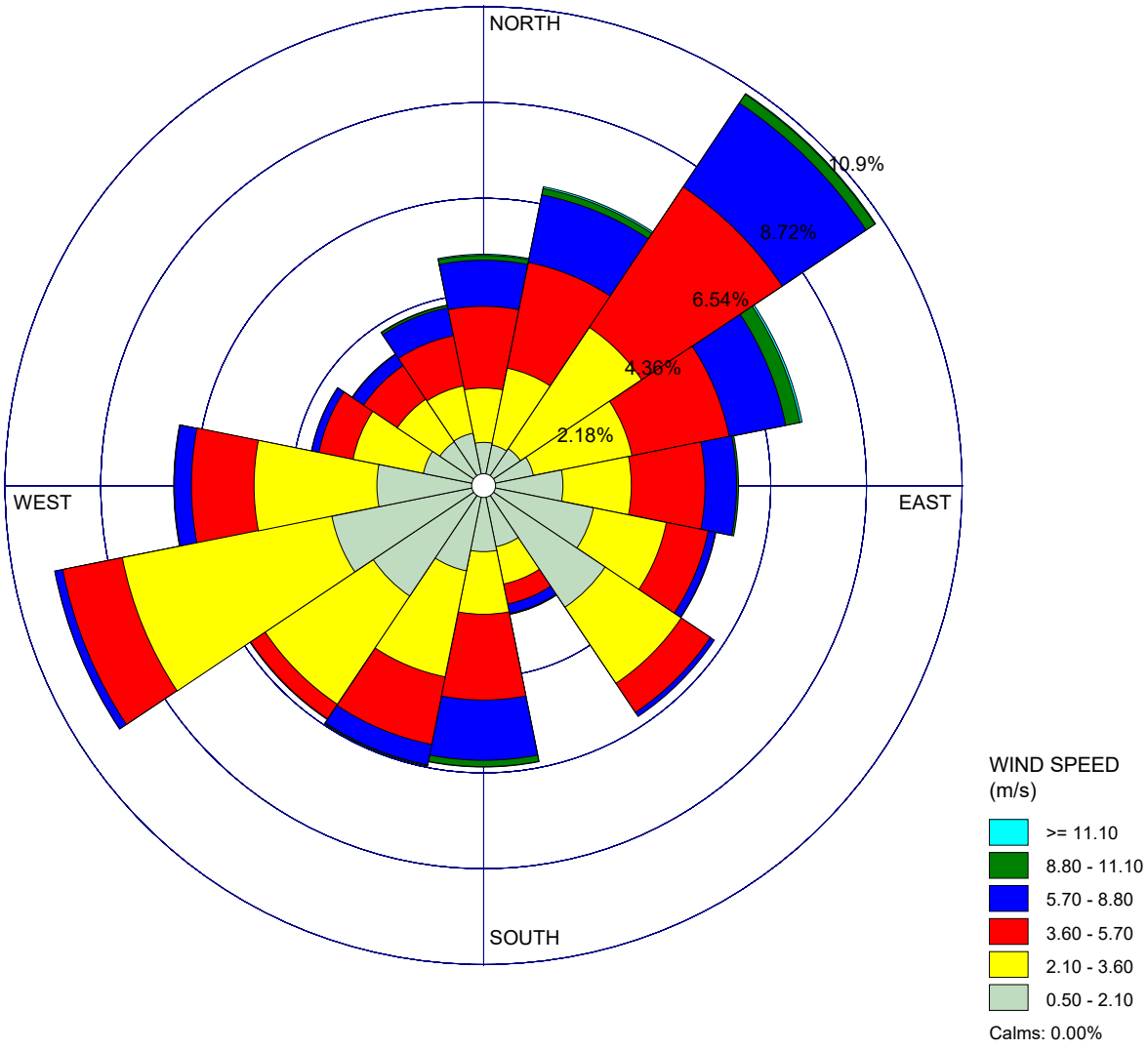
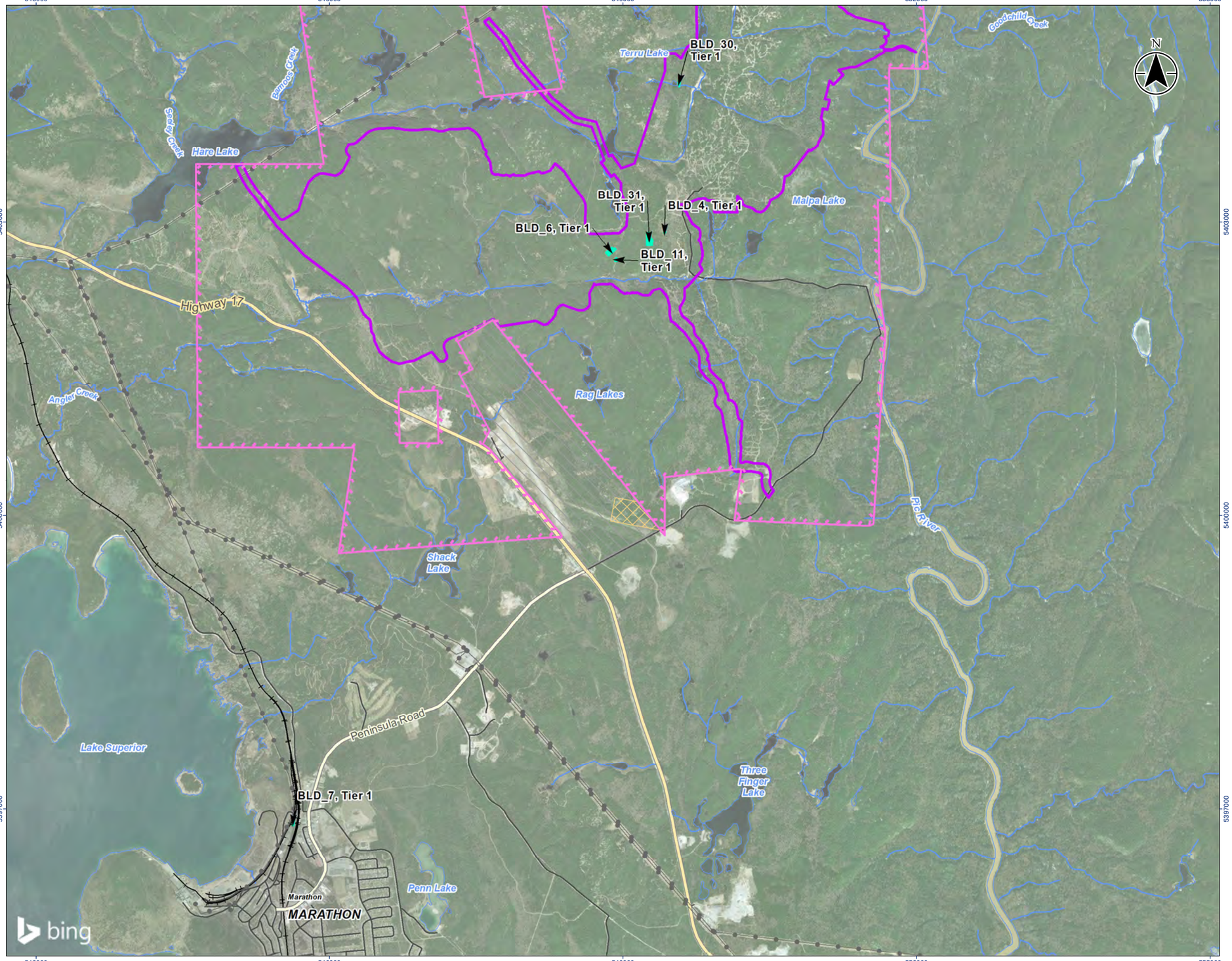


Figure 7 Wind Rose for the MECP Supplied Meteorological Data Set





Stantec

Legend

- Modelled Building Location
- Model Property Boundary
- Site Study Area Boundary
- Highway
- Major Road
- Minor Road
- Hydro Line
- Railway
- Watercourse
- Airport
- Waterbody
- Waste Management Site

0 1 2 km

1:40,000 (At original document size of 11x17)

Notes

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Project Location
Marathon

129673006 REVA
Prepared by DH on 2021-02-12

Client/Project
GENERATION PGM INC.
MARATHON PALLADIUM PROJECT

Figure No.
8

Title
Building Layout

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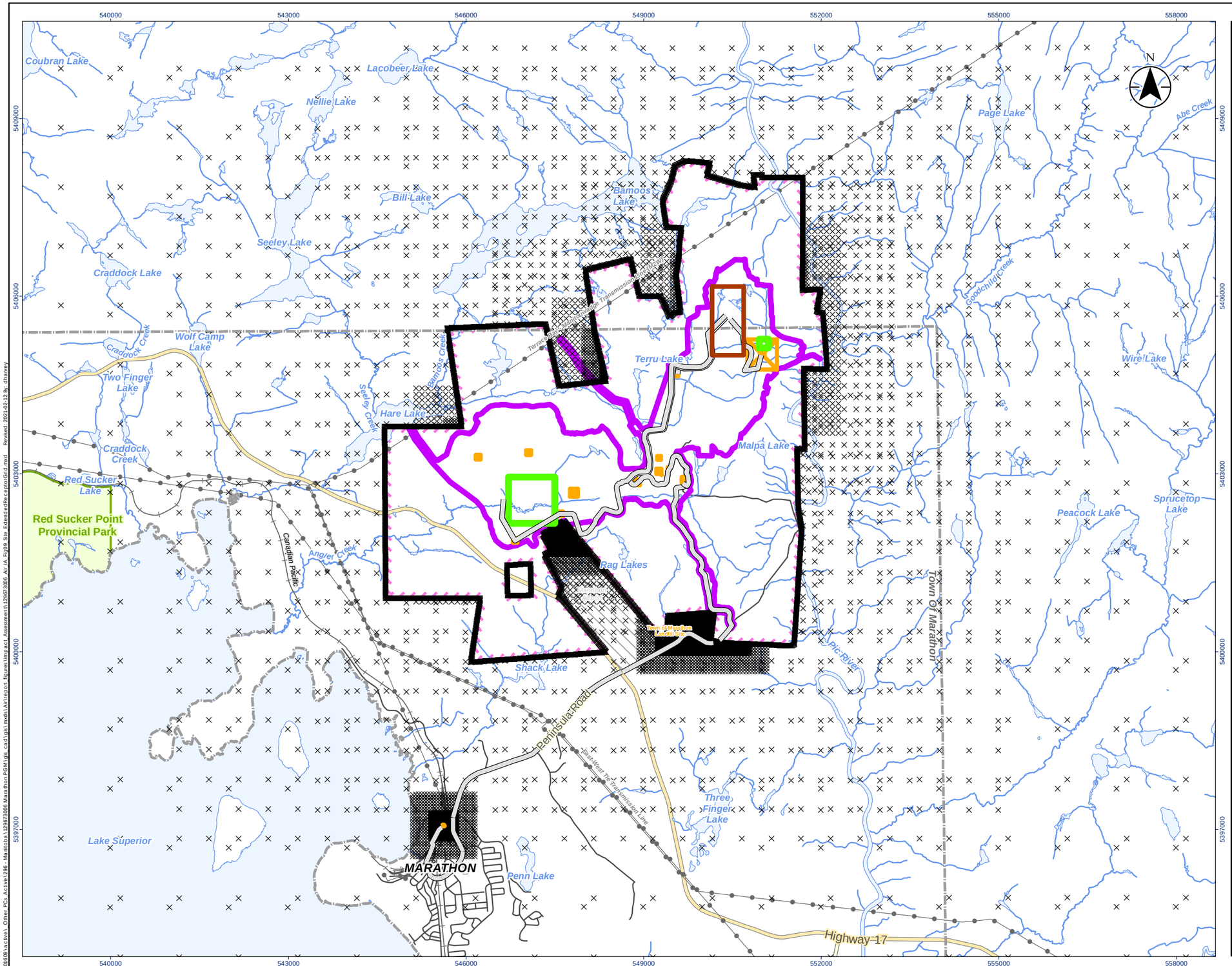

Legend

- Receptor Location
- Pit Source
- Road Source
- Area Source
- Volume Source
- Site Study Area Boundary
- Model Property Boundary
- Highway
- Major Road
- Minor Road
- Hydro Line
- Railway
- Watercourse
- Airport
- Municipal Boundary, Lower Tier
- Provincial Park
- Waterbody

0 1 2 km

1:65,000 (At original document size of 11x17)

Notes

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Project Location
Marathon

129673006 REVA
Prepared by DH on 2021-02-12
Technical Review by DH on 2020-09-21

Client/Project
GENERATION PGM INC.
MARATHON PALLADIUM PROJECT

Figure No.
9

Title
Extended Receptor Grid

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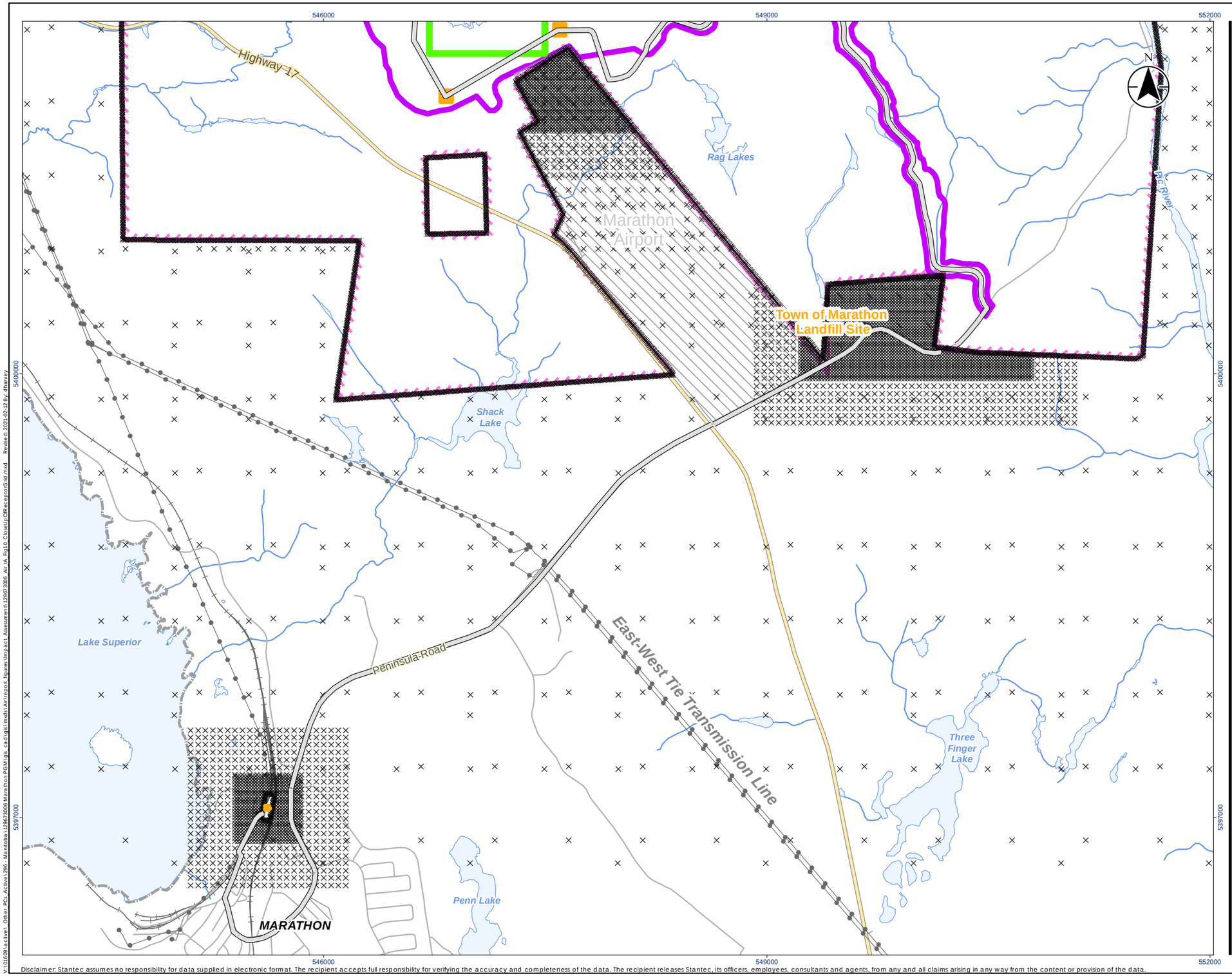

Stantec

Legend

- Receptor Location
- Road Source
- Area Source
- Volume Source
- Site Study Area Boundary
- Model Property Boundary
- Highway
- Major Road
- Hydro Line
- Railway
- Watercourse
- Airport
- Municipal Boundary, Lower Tier
- Waterbody

0 0.5 1 km

1:26,000 (At original document size of 11x17)

Notes

1. Coordinate System: NAD 1983 UTM Zone 16N
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Project Location
Marathon

129673006 REVA
Prepared by DH on 2021-02-12
Technical Review by DH on 2020-09-21

Client/Project
GENERATION PGM INC.
MARATHON PALLADIUM PROJECT

Figure No.
10

Title
Close Up of Receptor Grid

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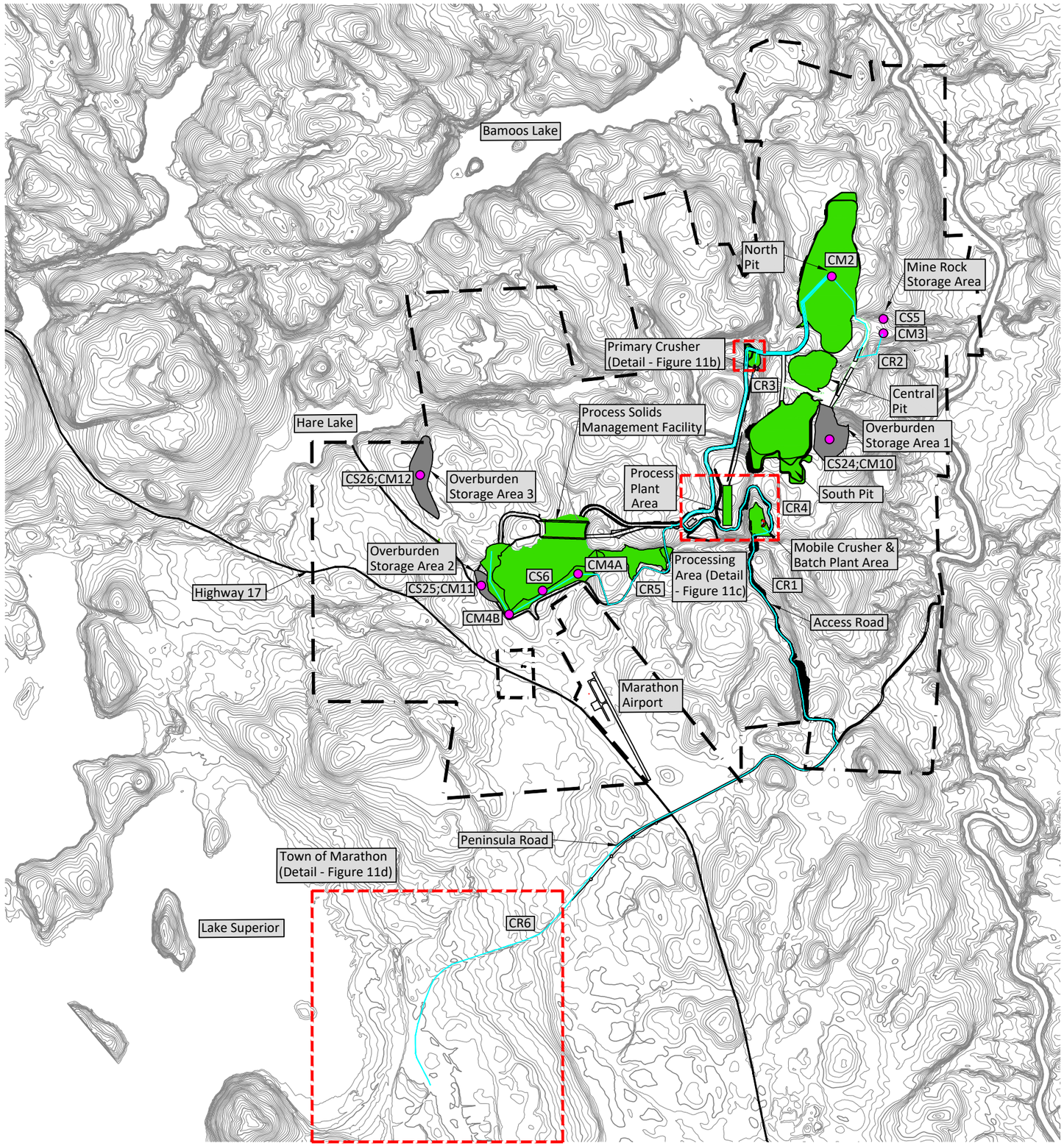


Stantec

Legend

- CS# — Stationary Source Location
- CM# — Mobile Source Location
- CR# — Access Road/Haul Routes
- Details Provided on Separate Drawing as Noted.
- Property Boundary

Scale

0 500 1000 m

SCALE 1:50000

(At original document size of 11x17)

Notes

1. Coordinate System: NAD 1927 UTM Zone Z16

Project Location
Marathon

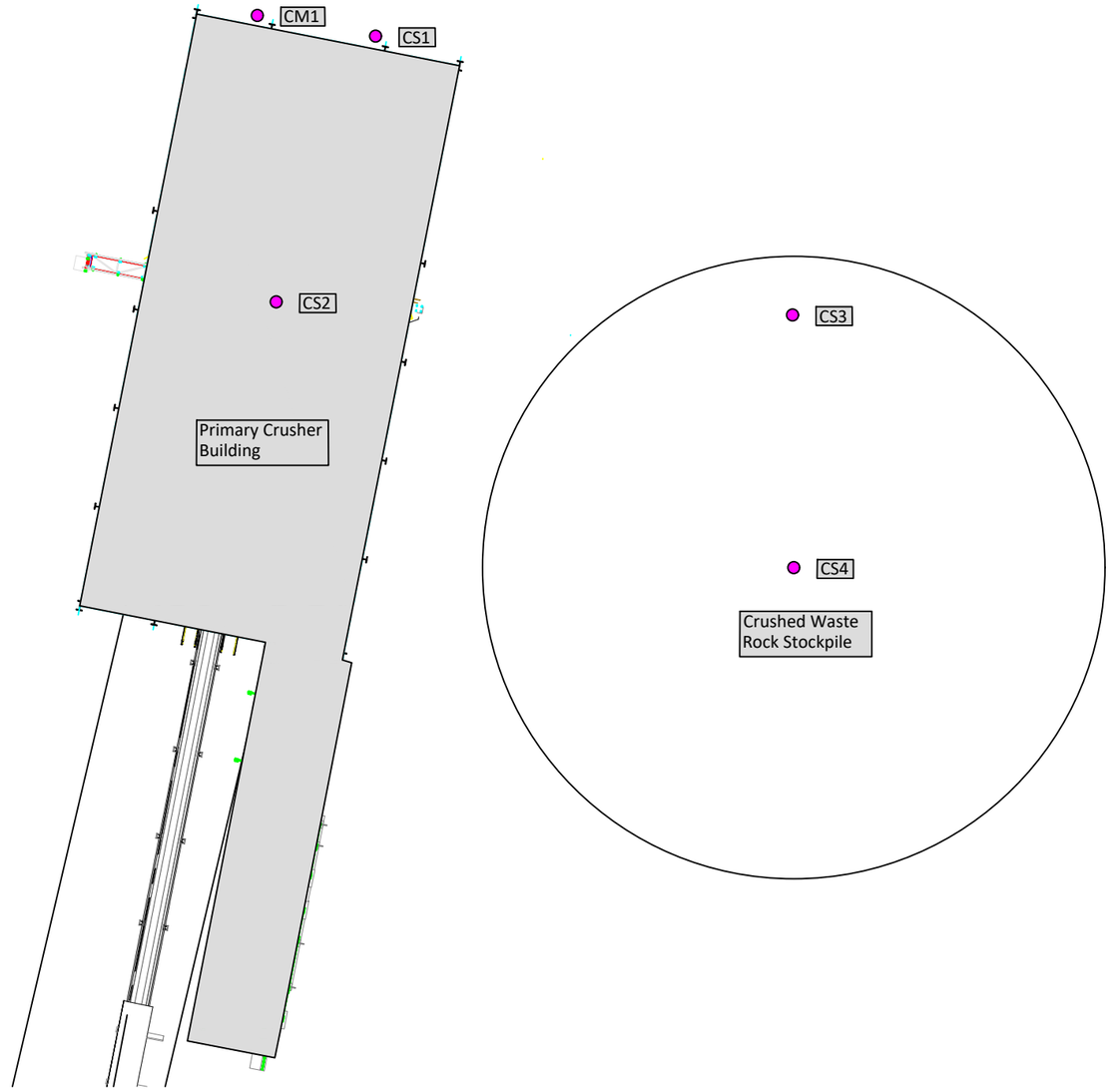
129673006
Prepared by MS on 2020-11-16
Technical Review by GC on 2021-03-05
Independent Review by GC on 2021-03-05

Client/Project
GENERATION PGM INC.
MARATHON PALLADIUM PROJECT

Figure No.
11a

Title
Construction Source Location Plan - Overview

c:\users\mstachejczuk\desktop\generation pgm - air\drawings\129673006_construction_north



Stantec

Legend

- CS# Stationary Source Location
- CM# Mobile Source Location

Scale

N

0 4 8 m

SCALE 1:400

(At original document size of 11x17)

Notes

1. Coordinate System: NAD 1927 UTM Zone Z16

Project Location
Marathon

129673006
Prepared by MS on 2020-11-16
Technical Review by GC on 2021-03-05
Independent Review by GC on 2021-03-05

Client/Project
GENERATION PGM INC.
MARATHON PALLADIUM PROJECT

Figure No.
11b

Title
Construction Source Location Plan - Primary Crusher Building

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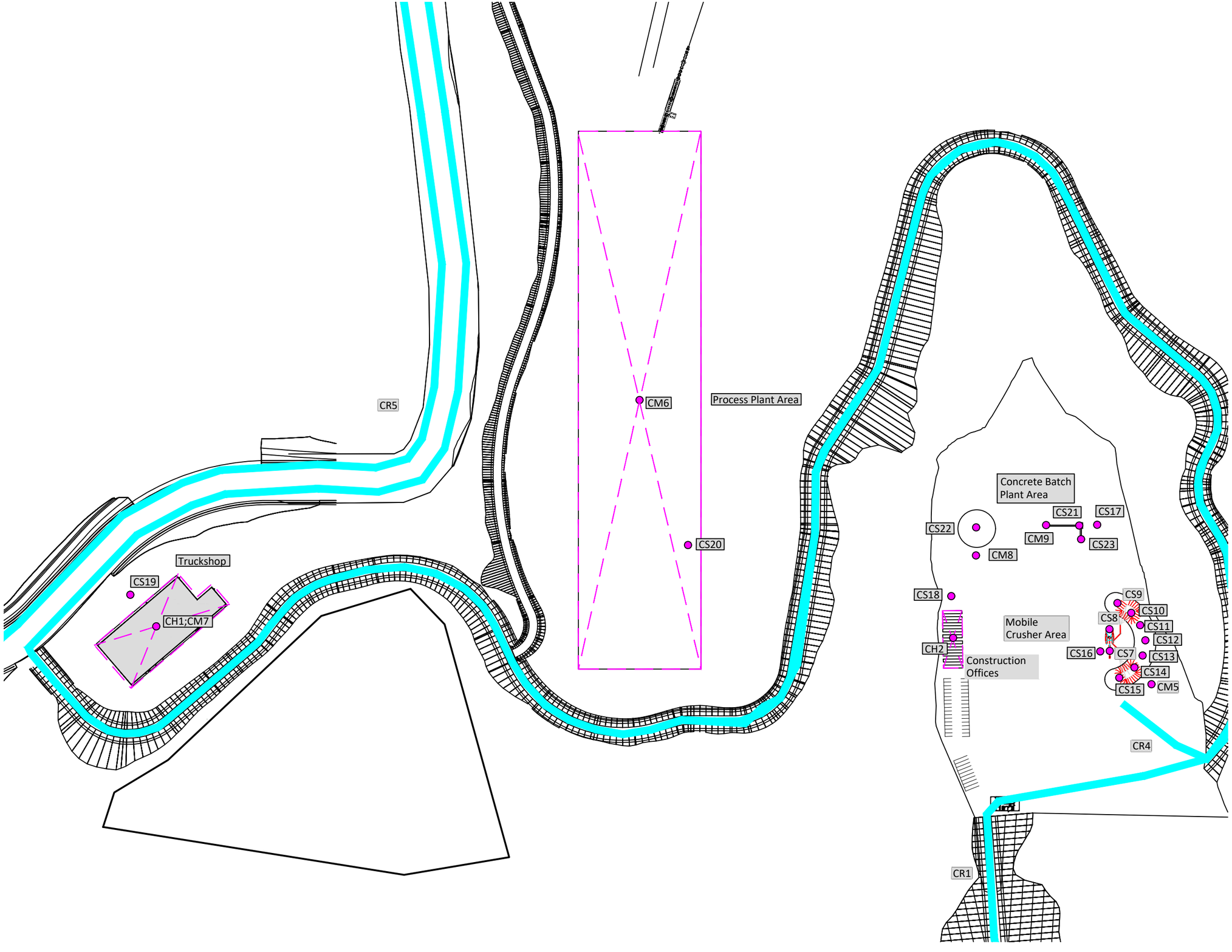


Stantec

Legend

- S# Stationary Source Location
- M# Mobile Source Location
- H# Heating Source Location
- R# Access Road/Haul Routes

N

Scale

0 30 60 m SCALE 1:3000

(At original document size of 11x17)

Notes

1. Coordinate System: NAD 1927 UTM Zone Z16

Project Location
Marathon

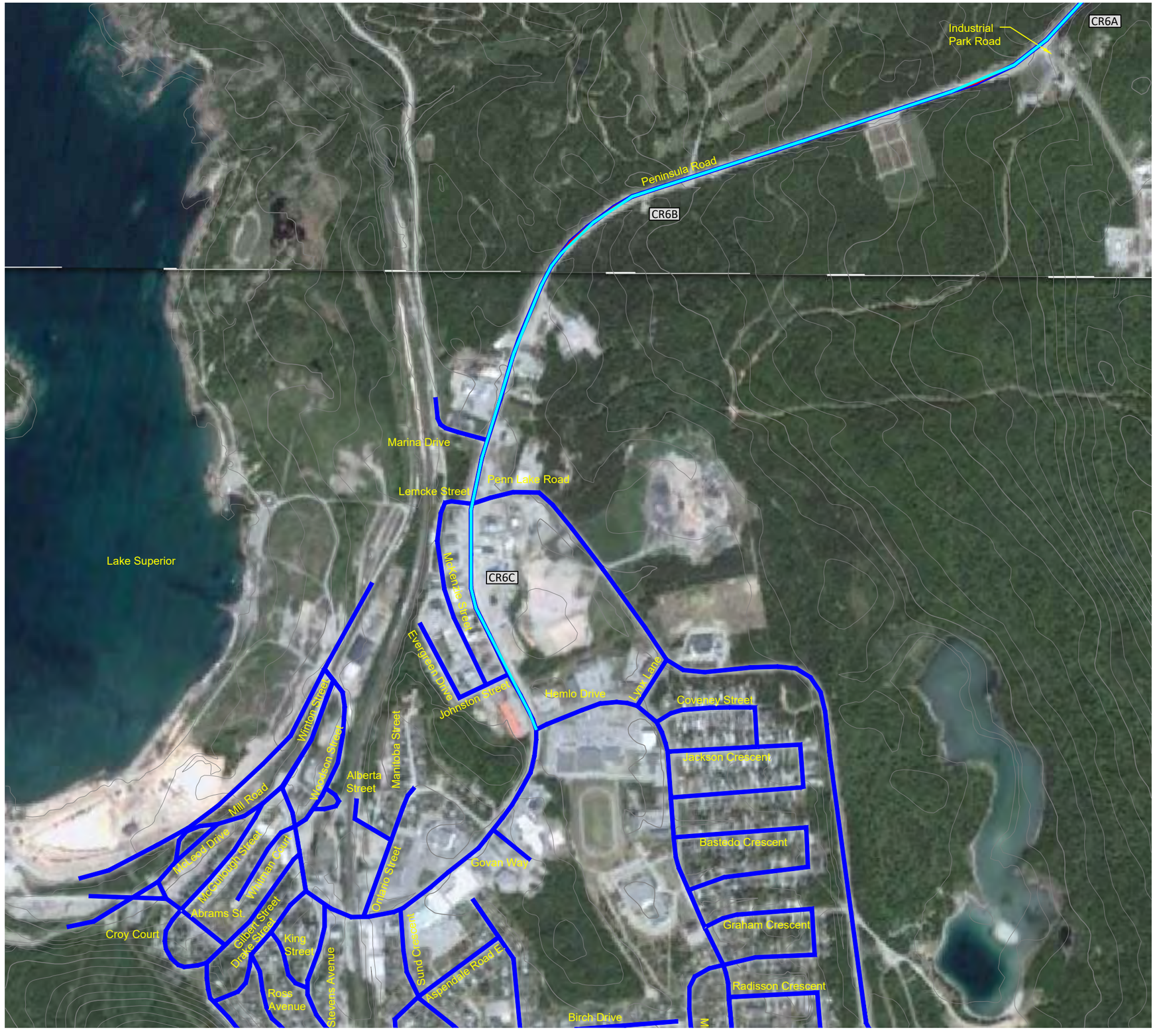
129673006
Prepared by MS on 2020-11-16
Technical Review by GC on 2021-03-05
Independent Review by GC on 2021-03-05

Client/Project
GENERATION PGM INC.
MARATHON PALLADIUM PROJECT

Figure No.
11c

Title
Construction Source Location Plan - Processing Area

c:\users\mstachejczuk\desktop\generation pgm - dir\drawings\129673006_construction_north



Stantec

Legend

R# Access Road/Haul Routes

Scale

N

0 100 200 m

SCALE 1:10000

(At original document size of 11x17)

Notes

1. Coordinate System: NAD 1927 UTM Zone Z16

Project Location
Marathon

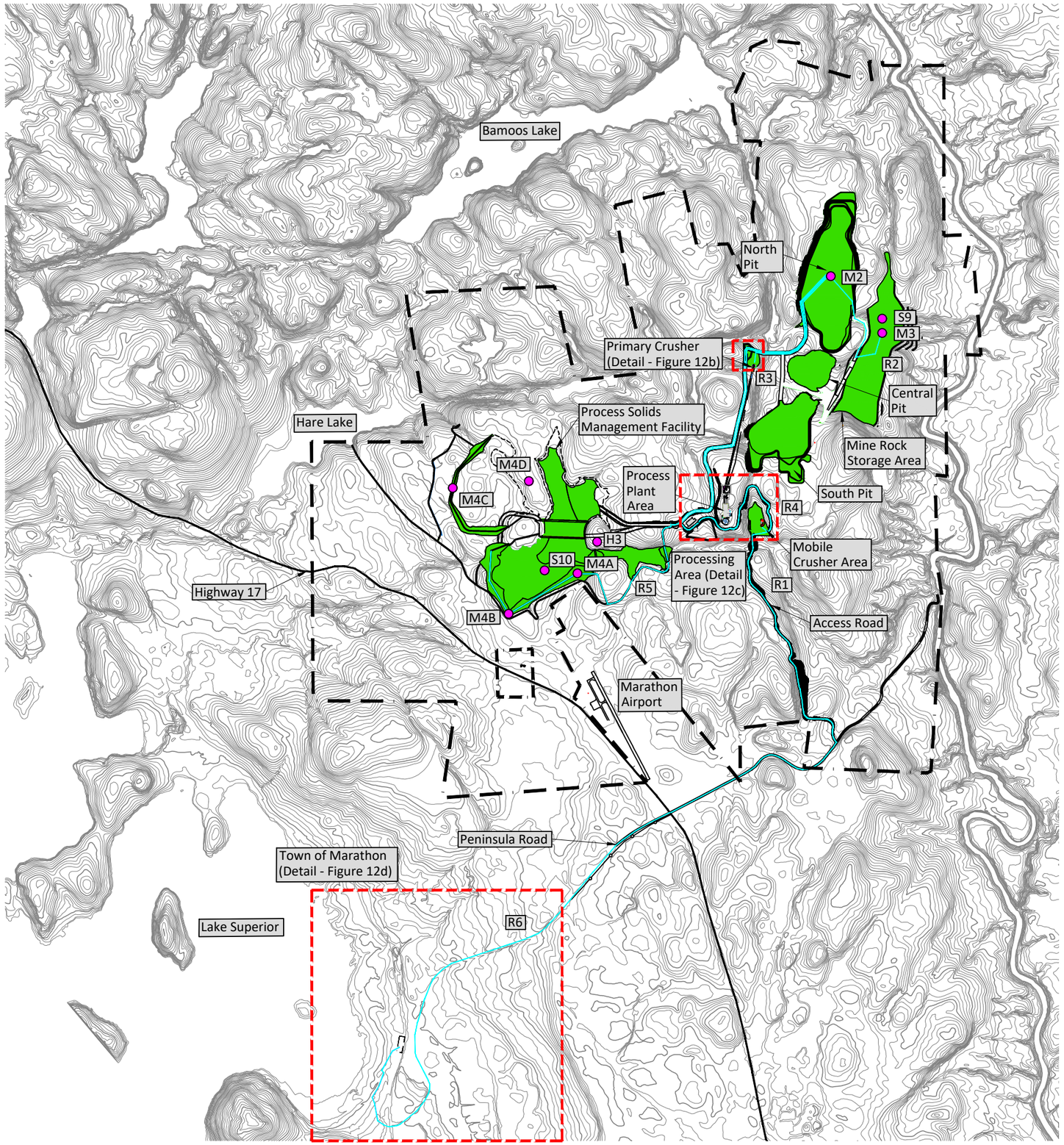
129673006
Prepared by MS on 2020-11-16
Technical Review by GC on 2021-03-05
Independent Review by GC on 2021-03-05

Client/Project
GENERATION PGM INC.
MARATHON PALLADIUM PROJECT

Figure No.
11d

Title
Construction Source Location Plan - Town of Marathon

c:\users\mstachejczuk\desktop\generation pgm - air\drawings\129673006_construction_north



Stantec

Legend

- S# Stationary Source Location
- M# Mobile Source Location
- H# Heating Source Location
- R# Access Road/Haul Routes
- Details Provided on Separate Drawing as Noted.
- Property Boundary

Scale

0 500 1000 m

SCALE 1:50000

(At original document size of 11x17)

Notes

1. Coordinate System: NAD 1927 UTM Zone Z16

Project Location
Marathon

129673006
Prepared by MS on 2020-11-16
Technical Review by GC on 2021-03-05
Independent Review by GC on 2021-03-05

Client/Project
GENERATION PGM INC.
MARATHON PALLADIUM PROJECT

Figure No.
12a

Title
Operations Source Location Plan - Overview

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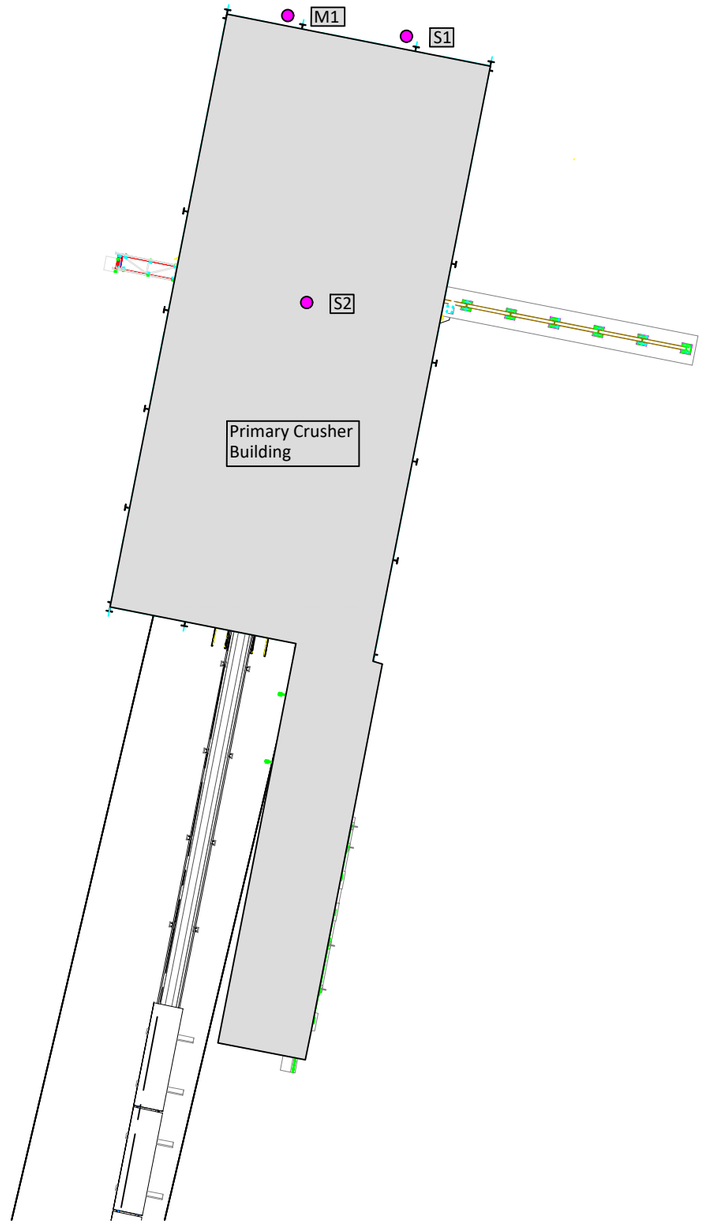


Stantec

Legend

- S# Stationary Source Location
- M# Mobile Source Location

N

Scale

0 4 8 m

SCALE 1:400

(At original document size of 11x17)

Notes

1. Coordinate System: NAD 1927 UTM Zone Z16

Project Location
Marathon

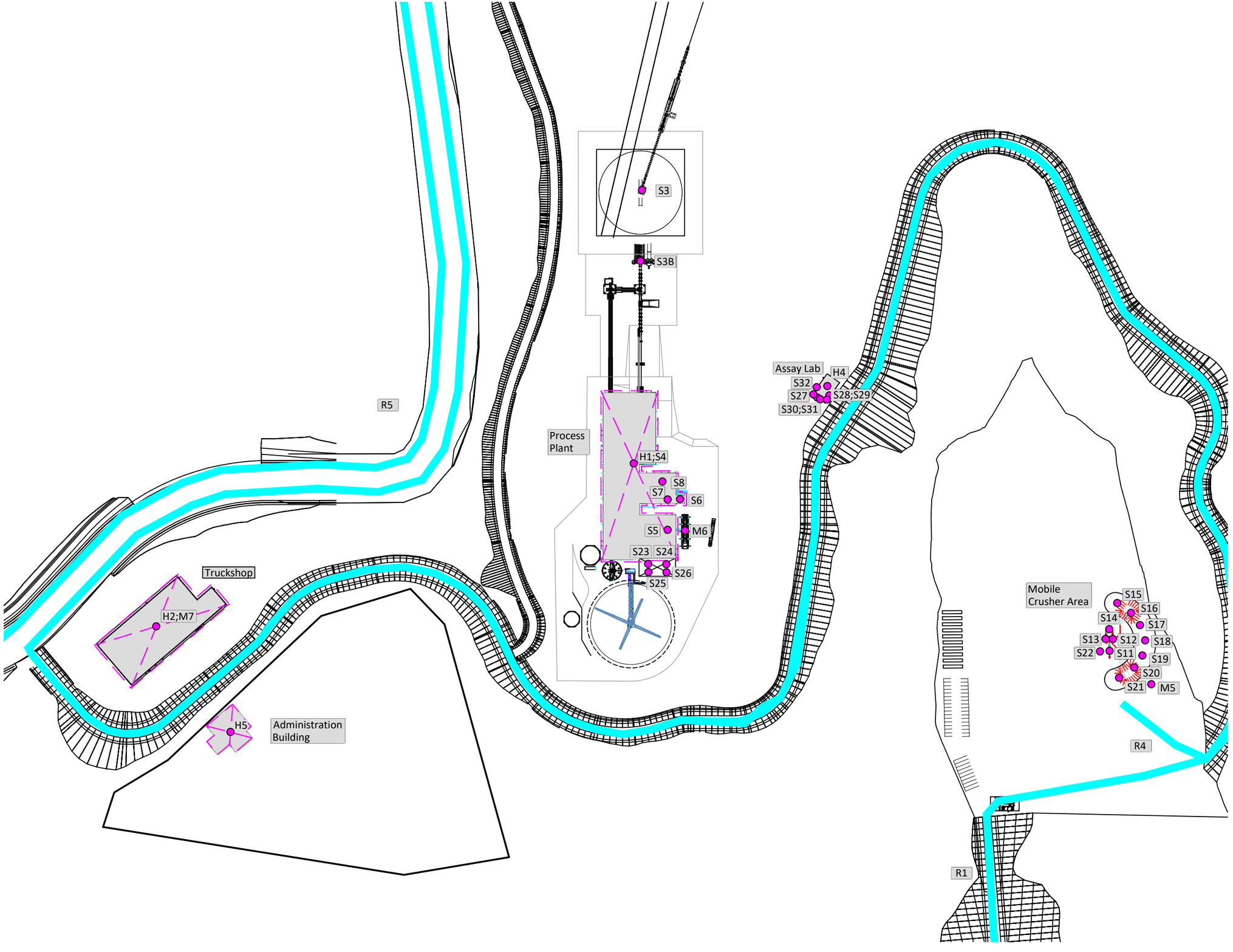
129673006
Prepared by MS on 2020-11-16
Technical Review by GC on 2021-03-05
Independent Review by GC on 2021-03-05

Client/Project
GENERATION PGM INC.
MARATHON PALLADIUM PROJECT

Figure No.
12b

Title
Operations Source Location Plan - Primary Crusher Building

c:\users\mstachejczuk\desktop\generation pgm - air\drawings\129673006_operations_north



Stantec

Legend

- S# Stationary Source Location
- M# Mobile Source Location
- H# Heating Source Location
- R# Access Road/Haul Routes

N

Scale

0 30 60 m SCALE 1:3000

(At original document size of 11x17)

Notes

1. Coordinate System: NAD 1927 UTM Zone Z16

Project Location
Marathon

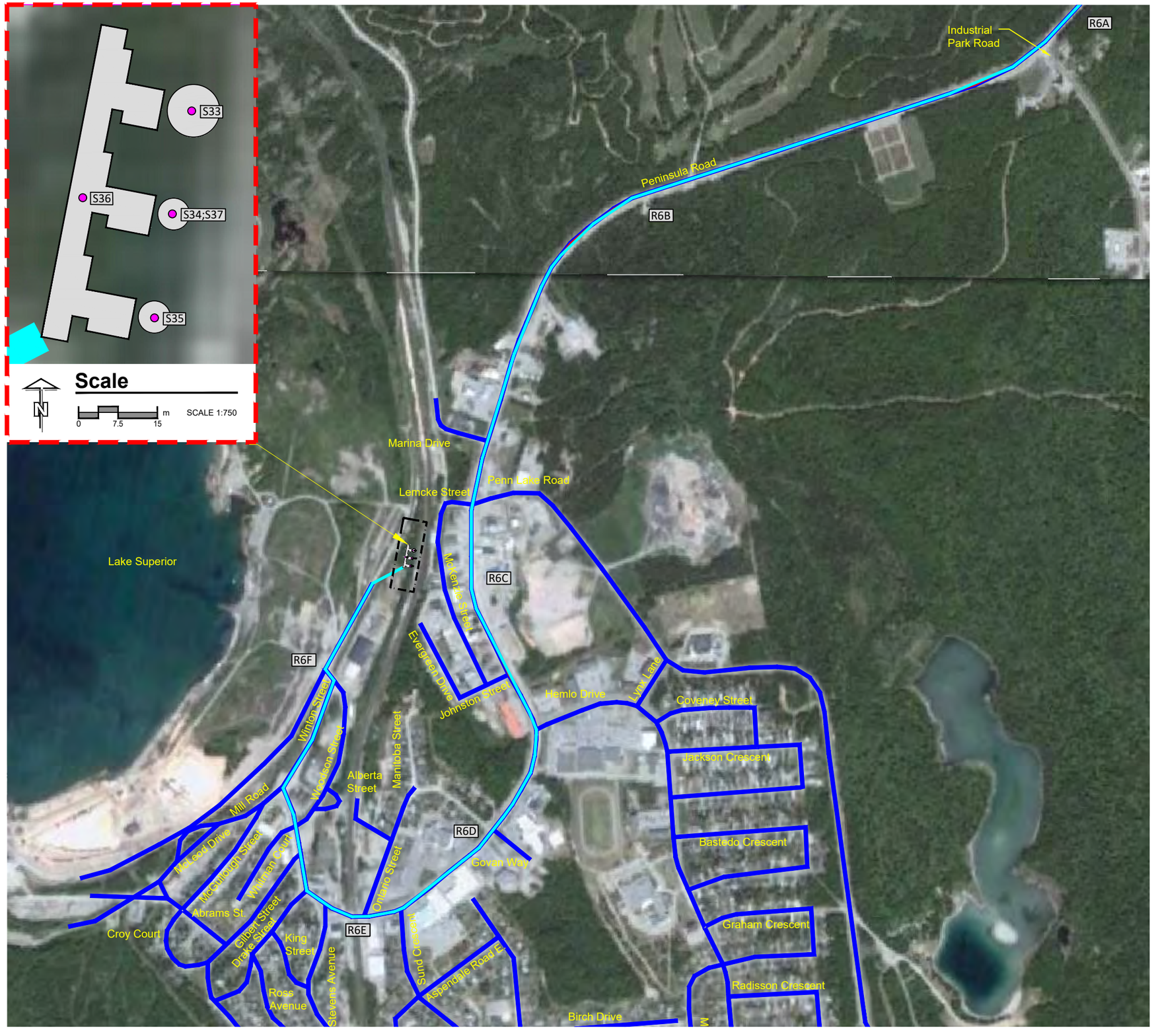
129673006
Prepared by MS on 2020-11-16
Technical Review by GC on 2021-03-05
Independent Review by GC on 2021-03-05

Client/Project
GENERATION PGM INC.
MARATHON PALLADIUM PROJECT

Figure No.
12c

Title
Operations Source Location Plan - Processing Area

c:\users\mstachejczuk\desktop\generation pgm - air\drawings\129673006_operations_north



Stantec

Legend

- S# — Stationary Source Location
- R# — Access Road/Haul Routes
- Property Boundary

Scale

m

0 100 200

SCALE 1:10000

(At original document size of 11x17)

Notes

1. Coordinate System: NAD 1927 UTM Zone Z16

Project Location
Marathon

129673006
Prepared by MS on 2020-11-16
Technical Review by GC on 2021-03-05
Independent Review by GC on 2021-03-05

Client/Project

GENERATION PGM INC.
MARATHON PALLADIUM PROJECT

Figure No.

12d

Title

Operations Source Location Plan - Rail Loadout

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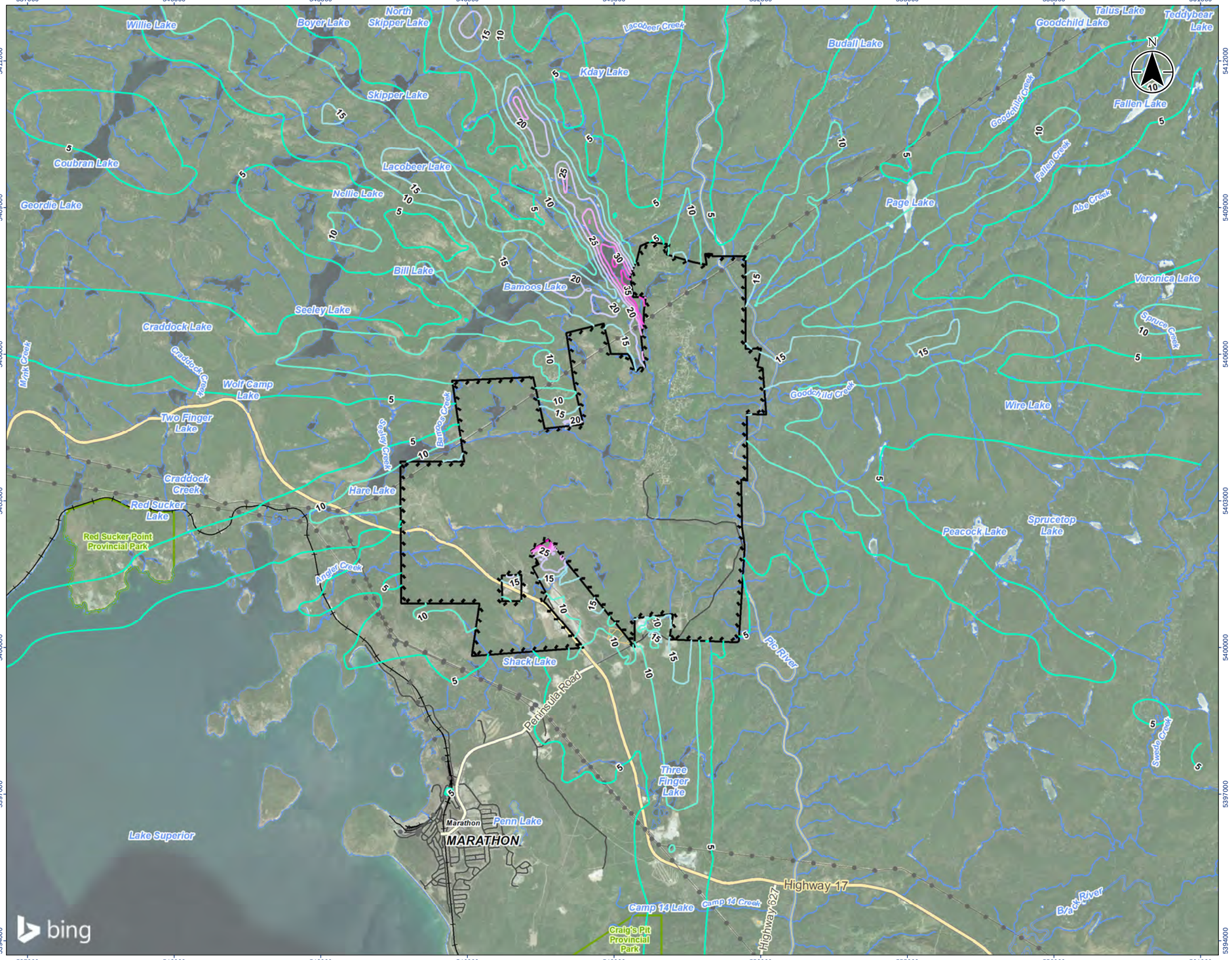

Stantec

Legend

- Model Property Boundary
- Highway
- Major Road
- Minor Road
- Hydro Line
- Railway
- Watercourse
- Airport
- Provincial Park
- Waterbody
- Waste Management Site

TSP Concentration (µg/m³) - background concentration not included

- 5
- 10
- 15
- 20
- 25
- 30
- 35
- 70

0 1 2 km

1:80,000 (At original document size of 11x17)

Notes

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Project Location
Marathon

129673006 REVA
Prepared by DH on 2021-03-05

Client/Project
GENERATION PGM INC.
MARATHON PALLADIUM PROJECT

Figure No.
13a

Title
Concentration Contour Plot for the Project Alone, Construction Scenario - 24-hour Average TSP

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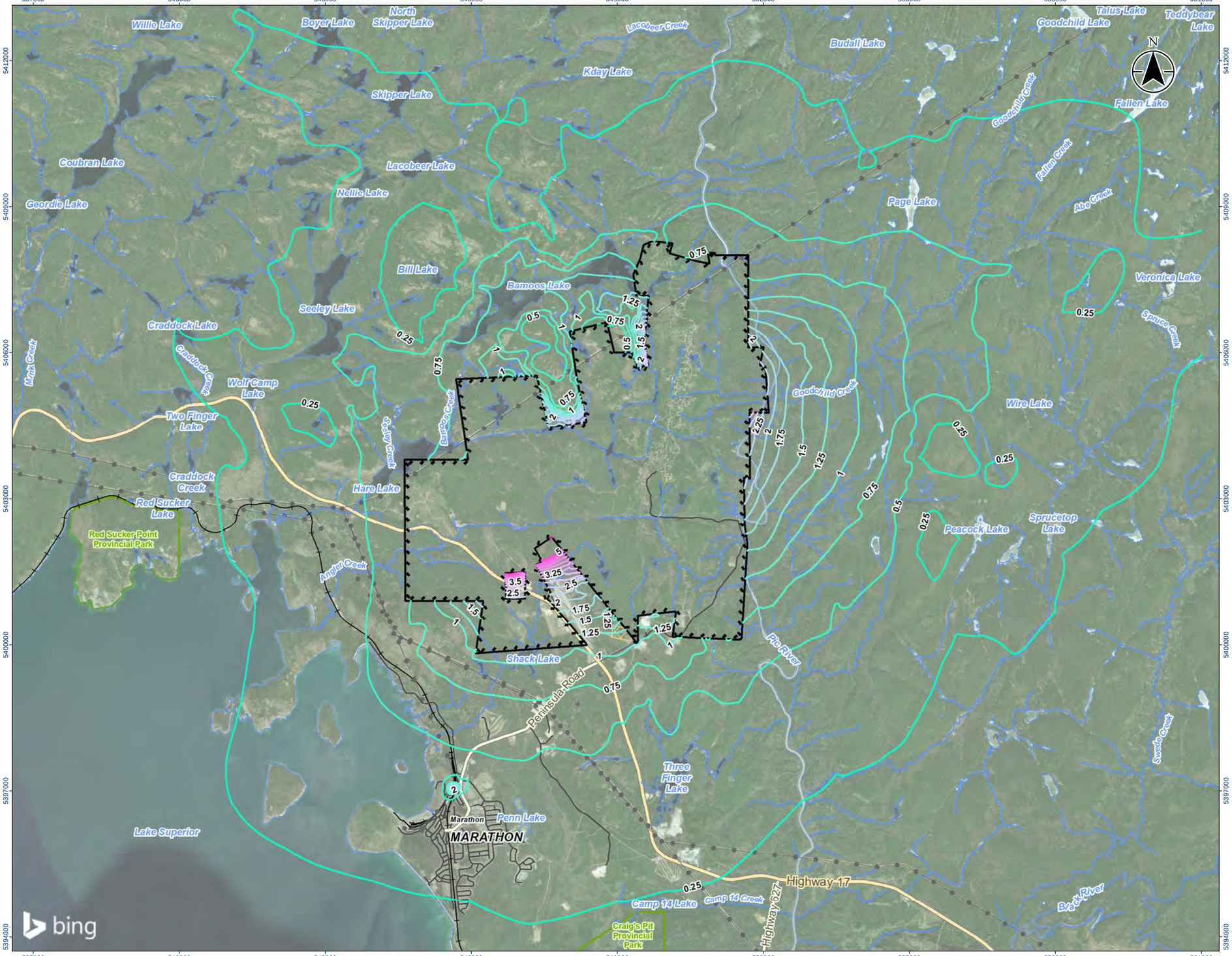

Stantec

Legend

- Model Property Boundary
- Highway
- Major Road
- Minor Road
- Hydro Line
- Railway
- Watercourse
- Airport
- Provincial Park
- Waterbody
- Waste Management Site

TSP Concentration (µg/m³) - background concentration not included

- 0.25
- 0.5
- 0.75
- 1
- 1.25
- 1.5
- 1.75
- 2
- 2.25
- 2.5
- 2.75
- 3
- 3.25
- 3.5
- 3.75
- 4
- 4.25
- 4.5
- 4.75
- 5
- 21.25
- 21.5
- 21.75

0 1 2 km

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Notes

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Project Location
Marathon

129673006 REVA
Prepared by DH on 2021-03-05

Client/Project
GENERATION PGM INC.
MARATHON PALLADIUM PROJECT

Figure No.
13b

Title
Concentration Contour Plot for the Project Alone, Construction Scenario - Annual Average TSP

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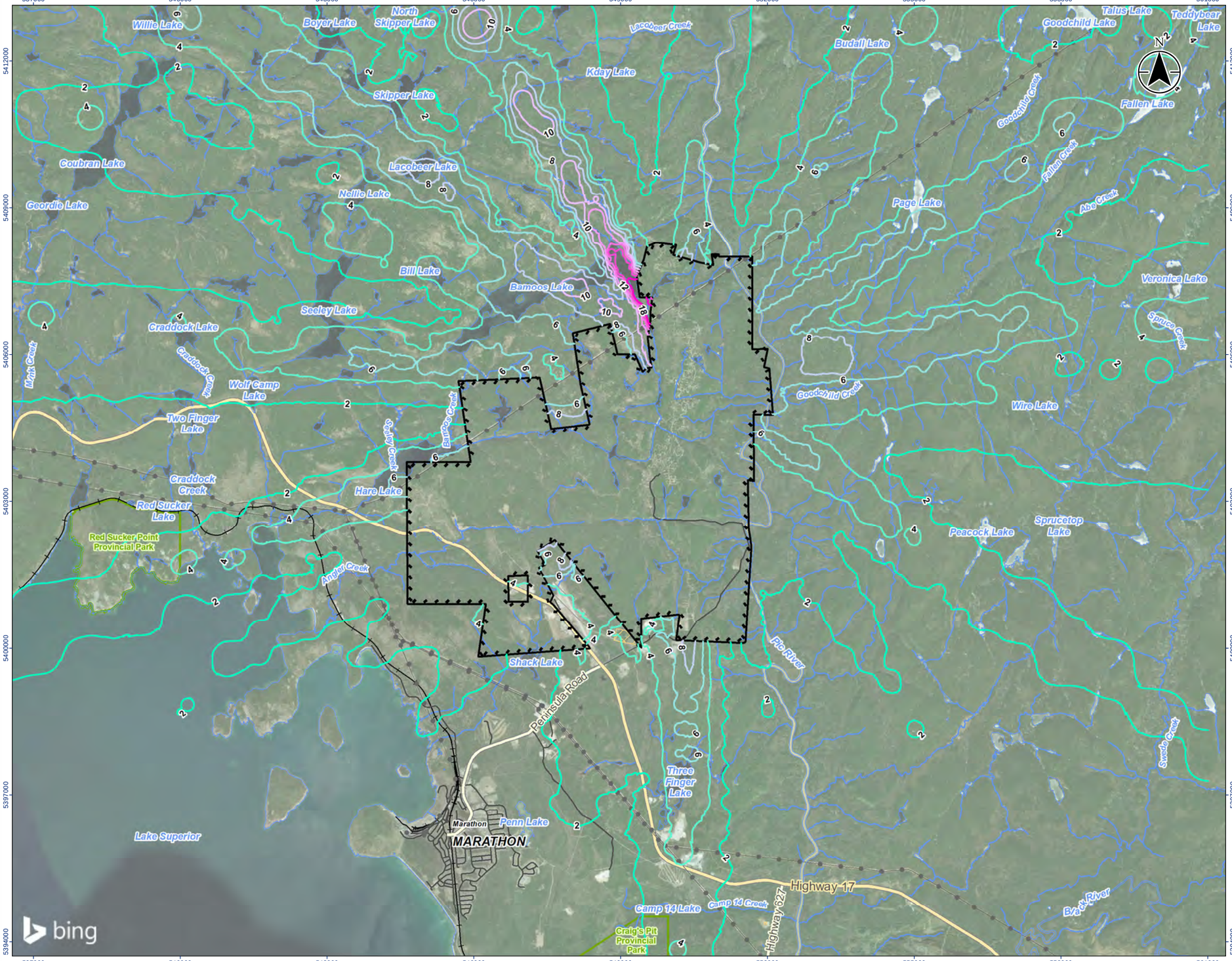

Stantec

Legend

- Model Property Boundary
- Highway
- Major Road
- Minor Road
- Hydro Line
- Railway
- Watercourse
- Airport
- Provincial Park
- Waterbody
- Waste Management Site

$PM_{2.5}$ Concentration ($\mu g/m^3$) - background concentration not included

- 2
- 4
- 6
- 8
- 10
- 12
- 14
- 16
- 18

0 1 2 km

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Notes

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Project Location
Marathon

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Client/Project
GENERATION PGM INC.
MARATHON PALLADIUM PROJECT

Figure No.
13c

Title
Concentration Contour Plot for the Project Alone, Construction Scenario - 24-hour Average PM_{10}

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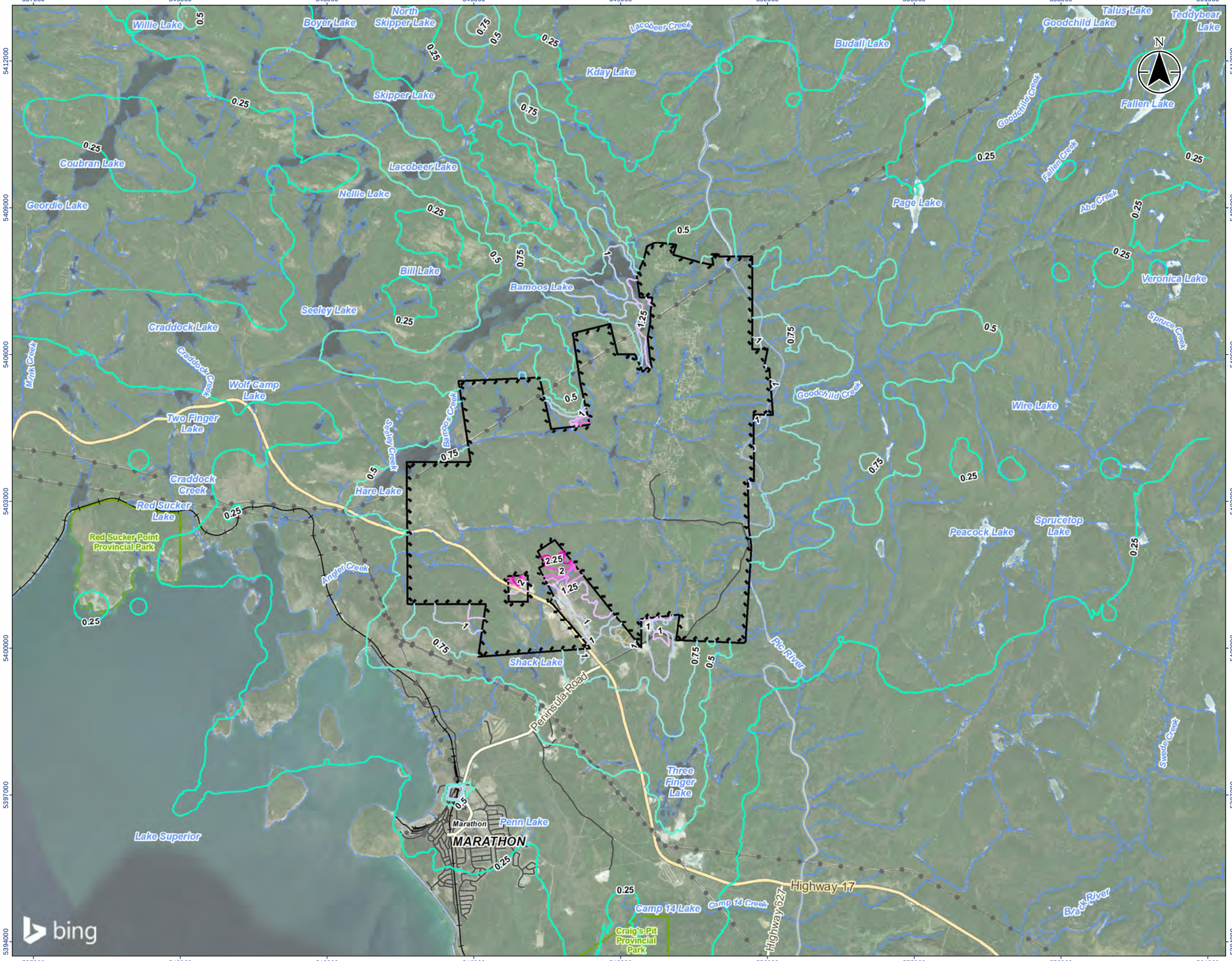

Stantec

Legend

- Model Property Boundary
- Highway
- Major Road
- Minor Road
- Hydro Line
- Railway
- Watercourse
- Airport
- Provincial Park
- Waterbody
- Waste Management Site

$PM_{2.5}$ Concentration ($\mu g/m^3$) - background concentration not included

- 0.25
- 0.5
- 0.75
- 1
- 1.25
- 1.5
- 1.75
- 2
- 2.25

0 1 2 km

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Project Location
Marathon

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Client/Project
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MARATHON PALLADIUM PROJECT

Figure No.
13d

Title
Concentration Contour Plot for the Project Alone, Construction Scenario - 24-hour Average $PM_{2.5}$

V:\016\09\active\ Other PCs Active\296 - Manitoba\129673006 Marathon PGM\gis_cad\gis\mxds\AirReport figures\Impact Assessment\129673006_Air_IA_Concentration_ContourPlot_Contours_20210211.mxd Revised 2021-03-05 By: dharvey

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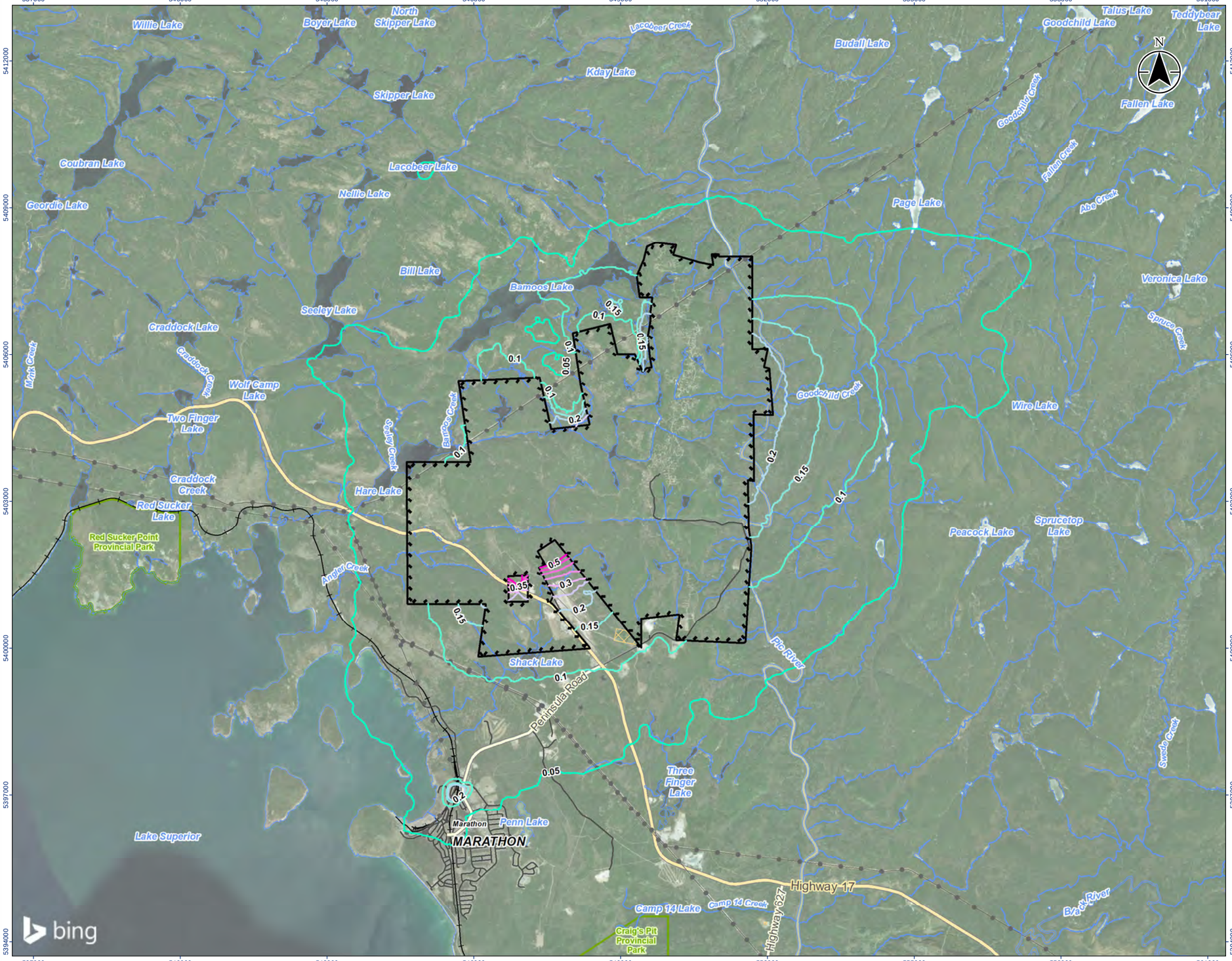

Stantec

Legend

- Model Property Boundary
- Highway
- Major Road
- Minor Road
- Hydro Line
- Railway
- Watercourse
- Airport
- Provincial Park
- Waterbody
- Waste Management Site

$PM_{2.5}$ Concentration ($\mu g/m^3$) - background concentration not included

- 0.05
- 0.1
- 0.15
- 0.2
- 0.25
- 0.3
- 0.35
- 0.4
- 0.45
- 0.5

0 1 2 km

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Project Location
Marathon

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Client/Project
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MARATHON PALLADIUM PROJECT

Figure No.
13e

Title
Concentration Contour Plot for the Project Alone, Construction Scenario - Annual Average $PM_{2.5}$

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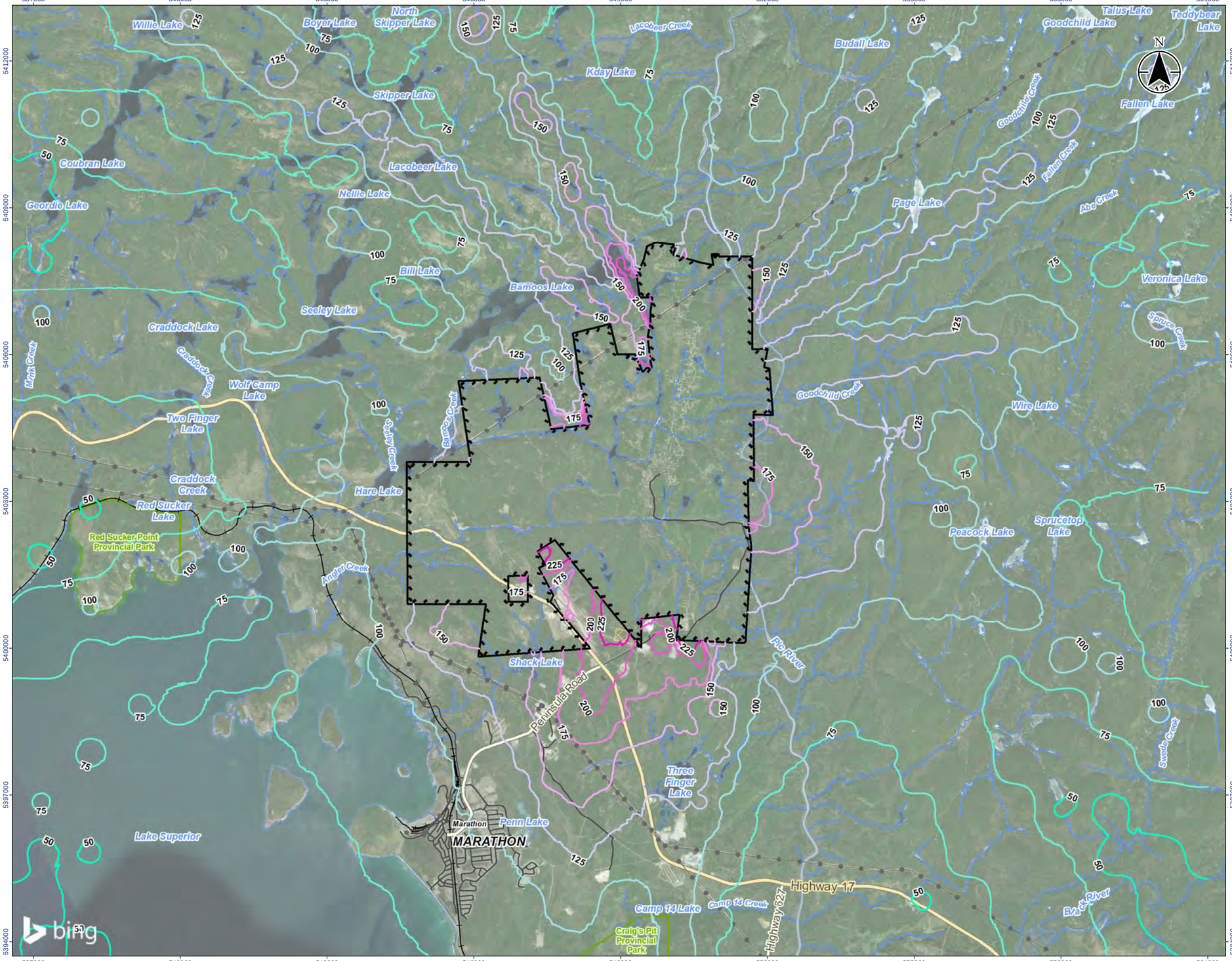

Stantec

Legend

- Model Property Boundary
- Highway
- Major Road
- Minor Road
- Hydro Line
- Railway
- Watercourse
- Airport
- Provincial Park
- Waterbody
- Waste Management Site

NO_2 Concentration ($\mu g/m^3$) - background concentration not included

- 50
- 75
- 100
- 125
- 150
- 175
- 200
- 225

0 1 2 km

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Project Location
Marathon

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Client/Project
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MARATHON PALLADIUM PROJECT

Figure No.
13f

Title
Concentration Contour Plot for the Project Alone, Construction Scenario - 1-hour Average NO_2

V:\01609\active\ Other PCs Active\296 - Manitoba\129673006 Marathon PGM\gis_cad\gis\mxds\Air\report figures\Impact Assessment\129673006_Air_IA_Concentration_ContourPlot_Contours_20210211.mxd Revised: 2021-03-05 By: dharvey

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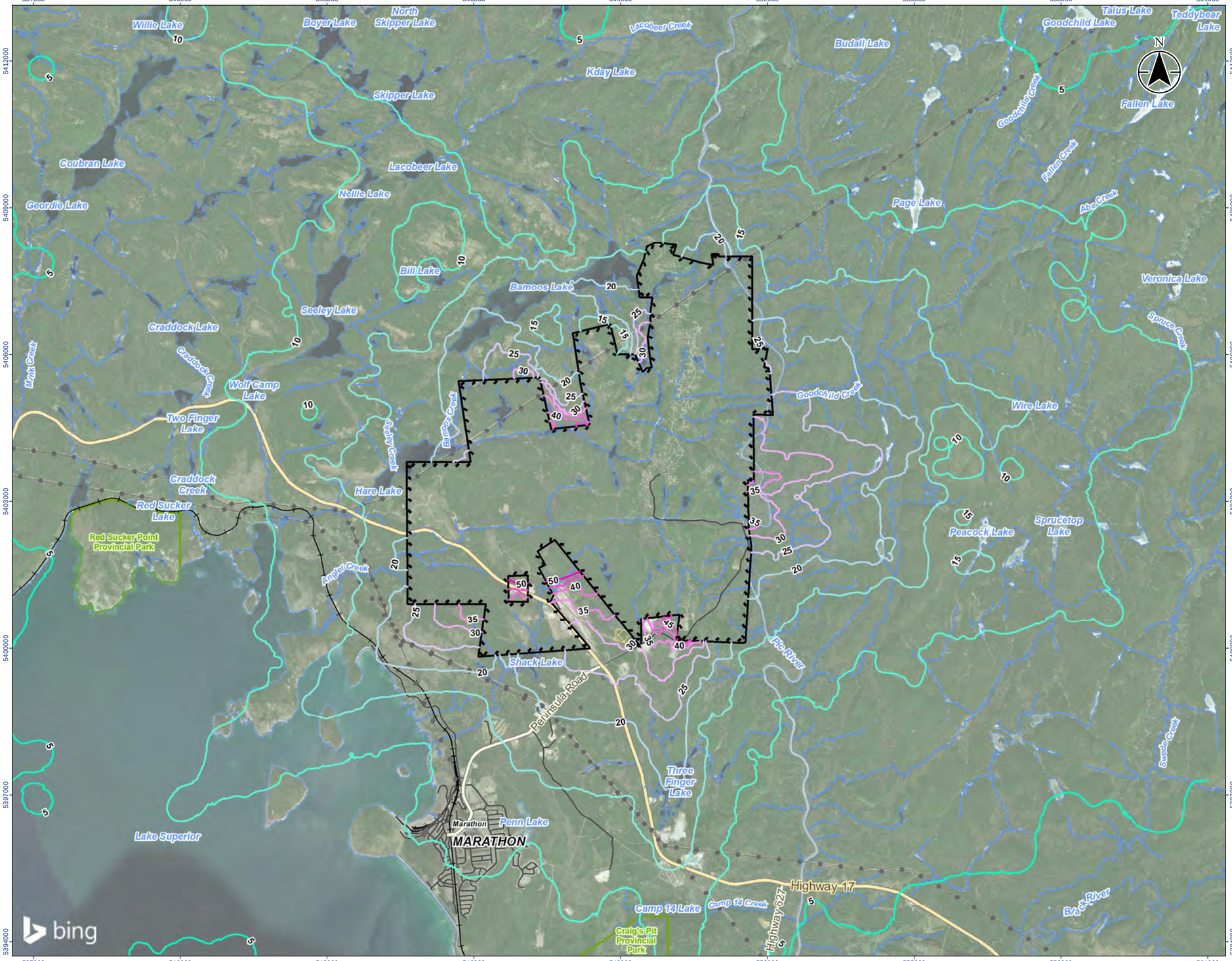

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Stantec

Legend

- Model Property Boundary
- Highway
- Major Road
- Minor Road
- Hydro Line
- Railway
- Watercourse
- Airport
- Provincial Park
- Waterbody
- Waste Management Site

NO_2 Concentration ($\mu g/m^3$) - background concentration not included

- 5
- 10
- 15
- 20
- 25
- 30
- 35
- 40
- 45
- 50

0 1 2 km

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Project Location
Marathon

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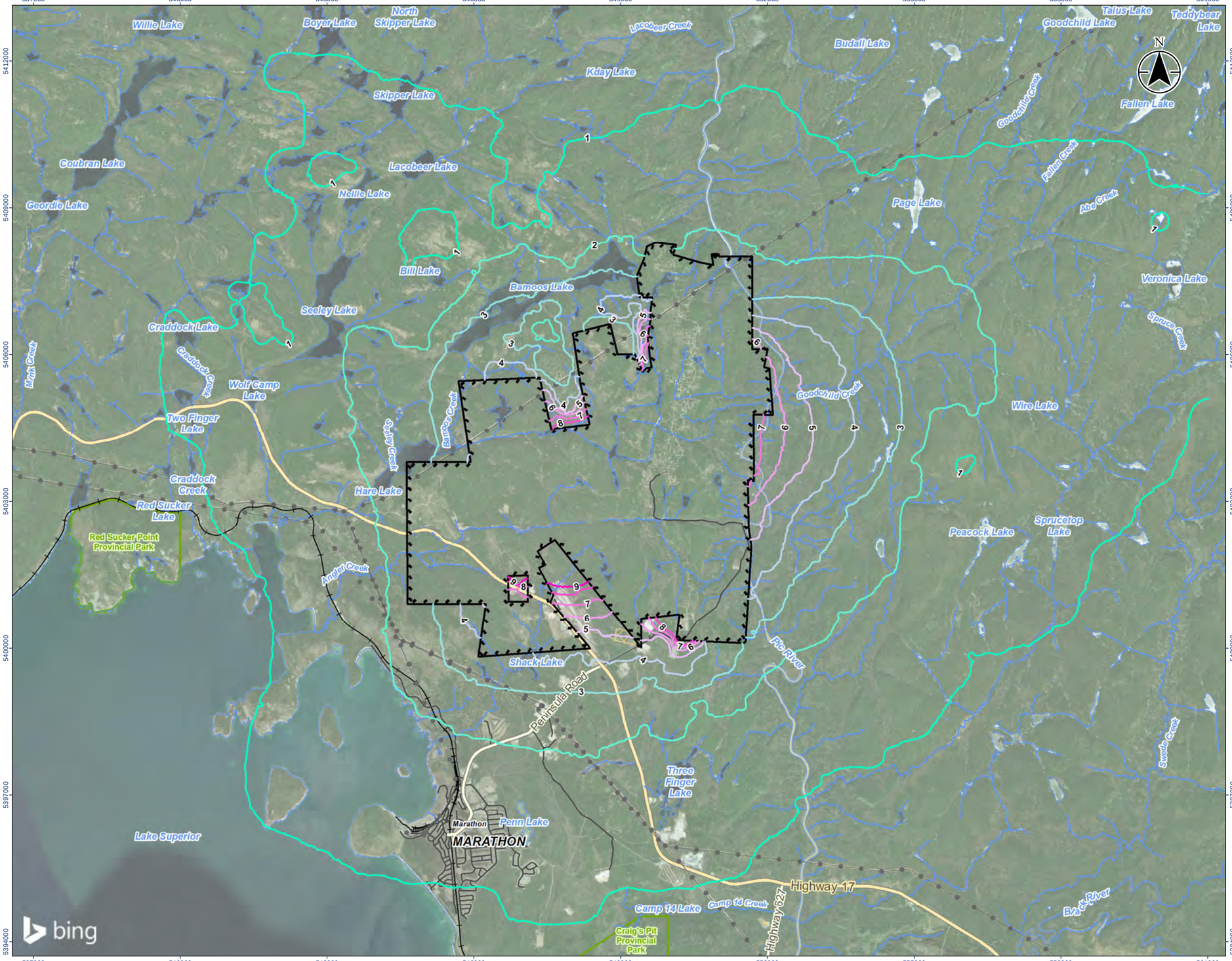
Figure No.
13g

Title
Concentration Contour Plot for the Project Alone, Construction Scenario - 24-hour Average NO_2



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Stantec

Legend

- Model Property Boundary
- Highway
- Major Road
- Minor Road
- Hydro Line
- Railway
- Watercourse
- Airport
- Provincial Park
- Waterbody
- Waste Management Site

NO_2 Concentration ($\mu g/m^3$) - background concentration not included

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9

0 1 2 km

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Project Location
Marathon

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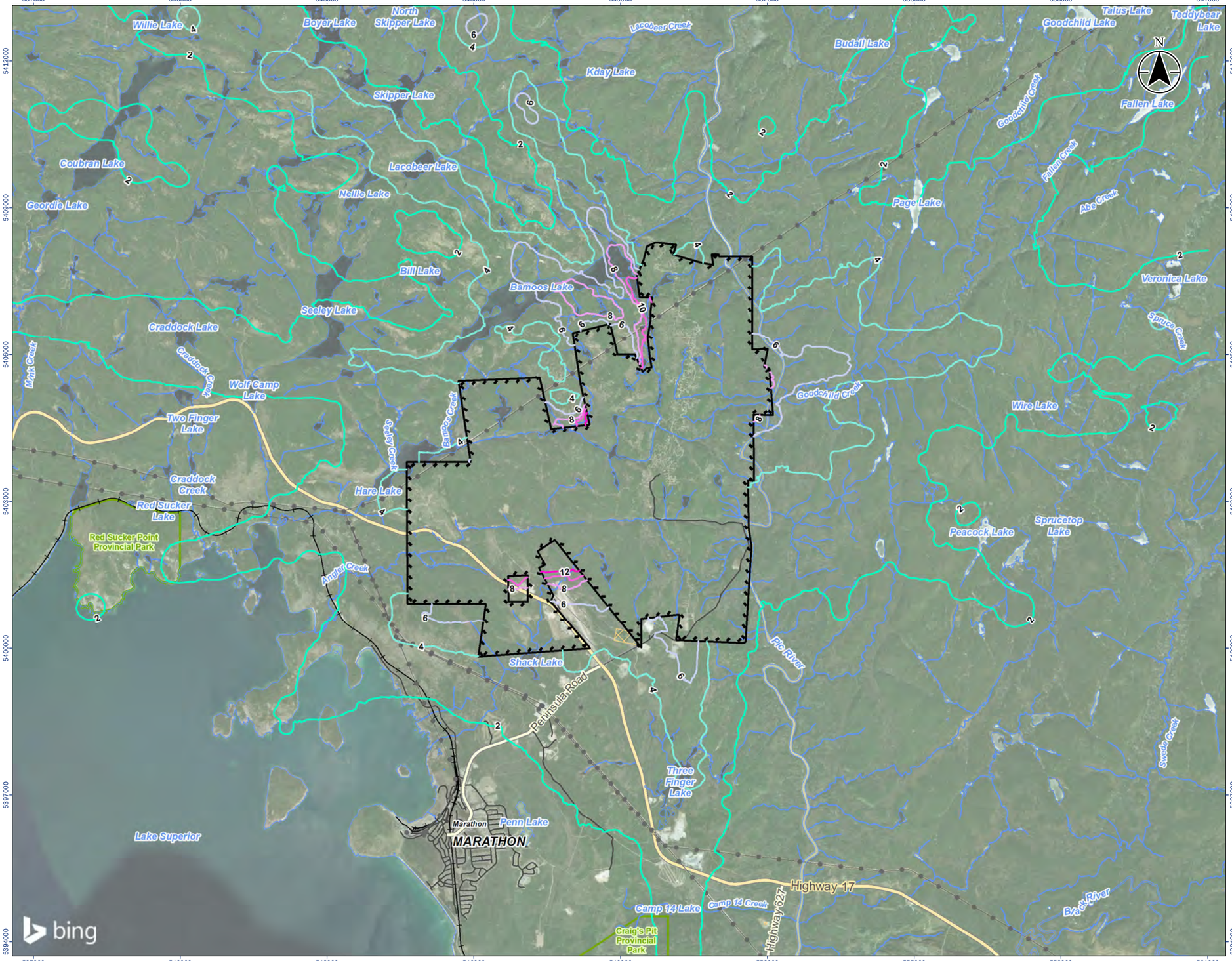
Figure No.
13h

Title
Concentration Contour Plot for the Project Alone, Construction Scenario - Annual Average NO_2



Stantec

Legend

- Model Property Boundary
- Highway
- Major Road
- Minor Road
- Hydro Line
- Railway
- Watercourse
- Airport
- Provincial Park
- Waterbody
- Waste Management Site

Crystalline Silica Concentration (µg/m³) - background concentration not included

- 2
- 4
- 6
- 8
- 10
- 12

0 1 2 km

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Project Location
Marathon

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MARATHON PALLADIUM PROJECT

Figure No.
13i

Title
Concentration Contour Plot for the Project Alone, Construction Scenario - 24-hour Average Crystalline Silica

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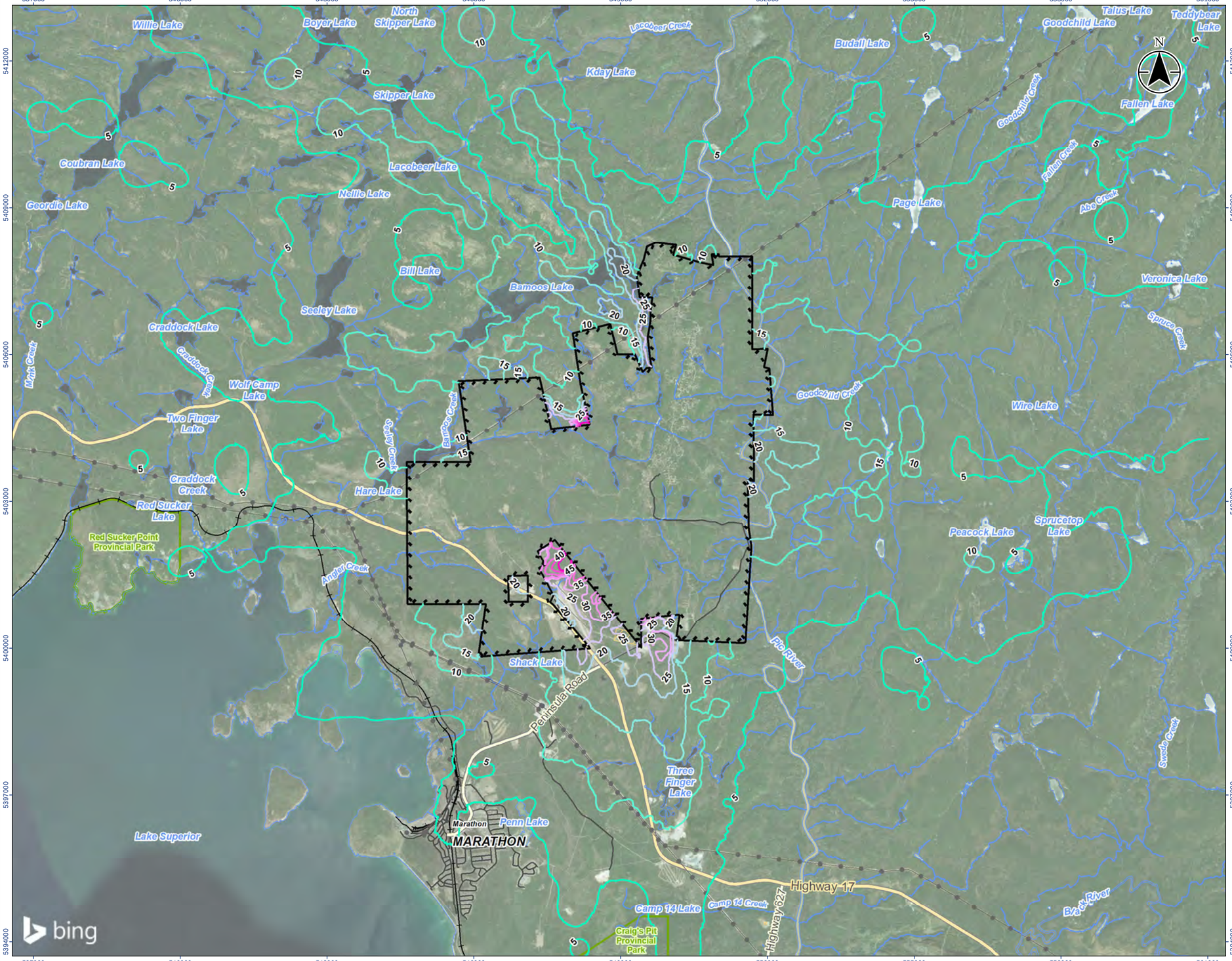

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Stantec

Legend

- Model Property Boundary
- Highway
- Major Road
- Minor Road
- Hydro Line
- Railway
- Watercourse
- Airport
- Provincial Park
- Waterbody
- Waste Management Site

TSP Concentration (µg/m³) - background concentration not included

- 5
- 10
- 15
- 20
- 25
- 30
- 35
- 40
- 45
- 50

0 1 2 km

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Project Location
Marathon

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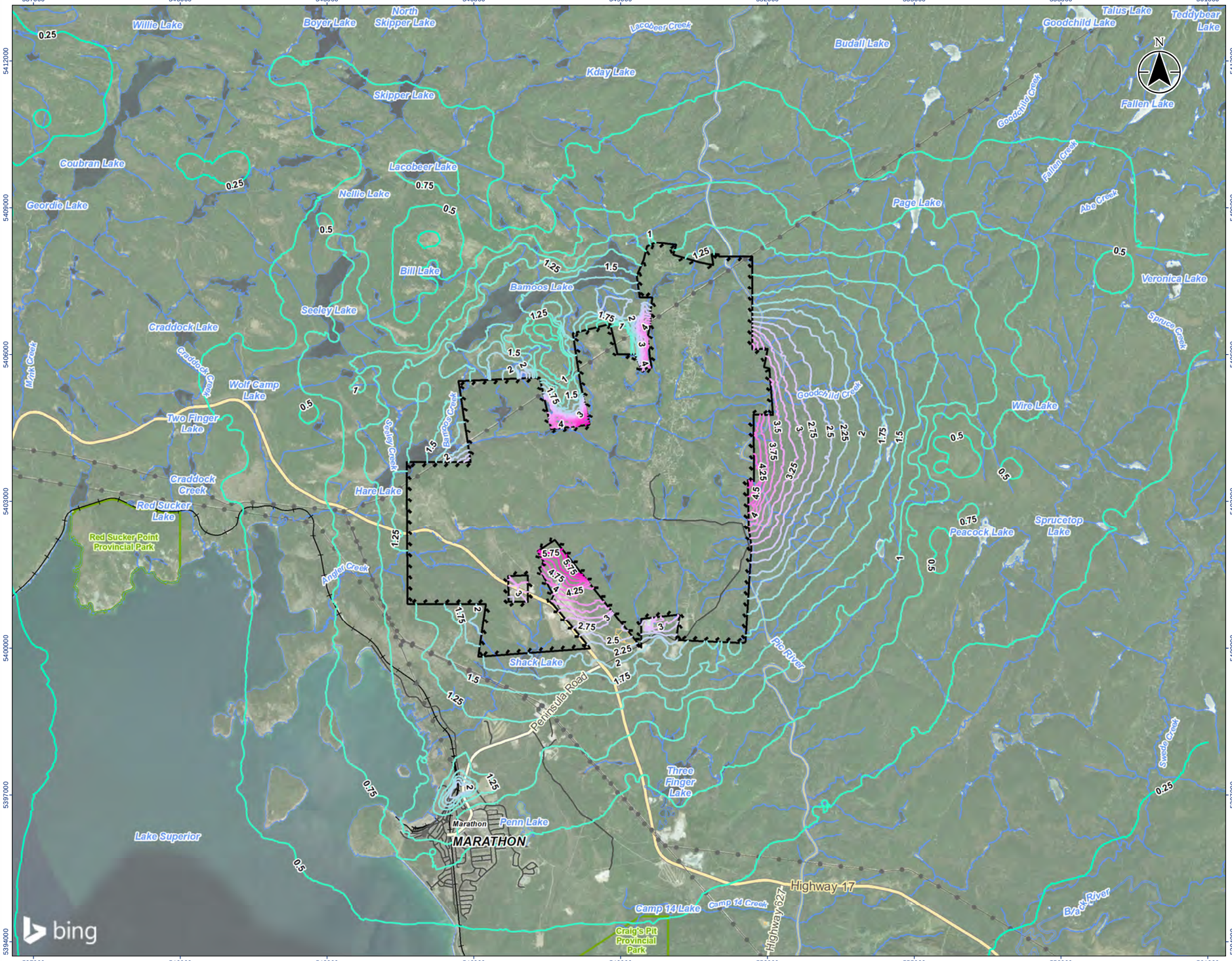
MARATHON PALLADIUM PROJECT

Figure No.
14a

Title
Concentration Contour Plot for the Project Alone, Operations Scenario - 24-hour Average TSP



Stantec

Legend

- Model Property Boundary
- Highway
- Major Road
- Minor Road
- Hydro Line
- Railway
- Watercourse
- Airport
- Provincial Park
- Waterbody
- Waste Management Site

TSP Concentration (µg/m³) - background concentration not included

- 0.25
- 0.5
- 0.75
- 1
- 1.25
- 1.5
- 1.75
- 2
- 2.25
- 2.5
- 2.75
- 3
- 3.25
- 3.5
- 3.75
- 4
- 4.25
- 4.5
- 4.75
- 5
- 5.25
- 5.5
- 5.75

0 1 2 km

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Project Location
Marathon

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Client/Project
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MARATHON PALLADIUM PROJECT

Figure No.
14b

Title
Concentration Contour Plot for the Project Alone, Operations Scenario - Annual Average TSP

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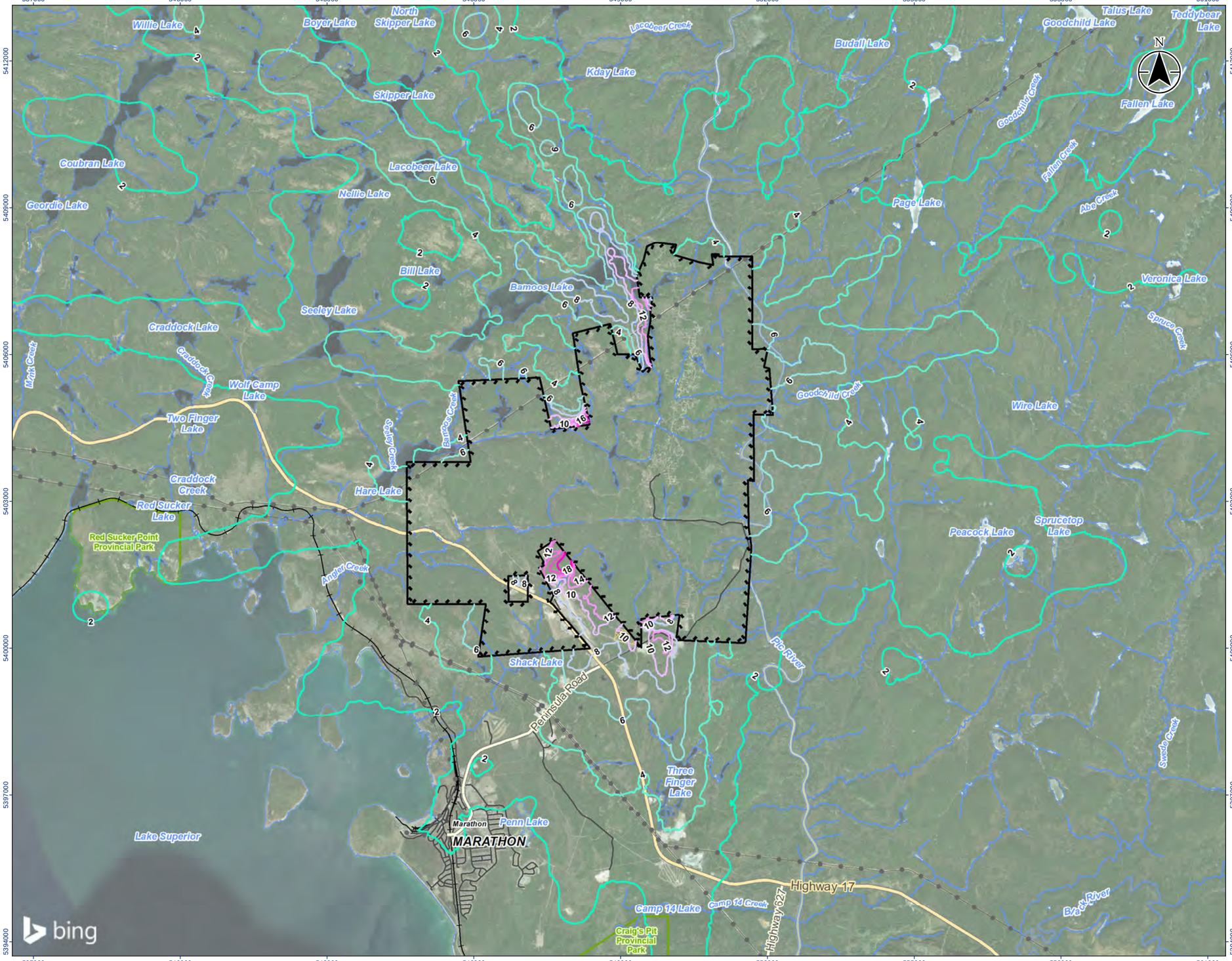

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Stantec

Legend

- Model Property Boundary
- Highway
- Major Road
- Minor Road
- Hydro Line
- Railway
- Watercourse
- Airport
- Provincial Park
- Waterbody
- Waste Management Site

$PM_{2.5}$ Concentration ($\mu g/m^3$) - background concentration not included

- 2
- 4
- 6
- 8
- 10
- 12
- 14
- 16
- 18

0 1 2 km

1:80,000 (At original document size of 11x17)

Notes

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Project Location
Marathon

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Client/Project
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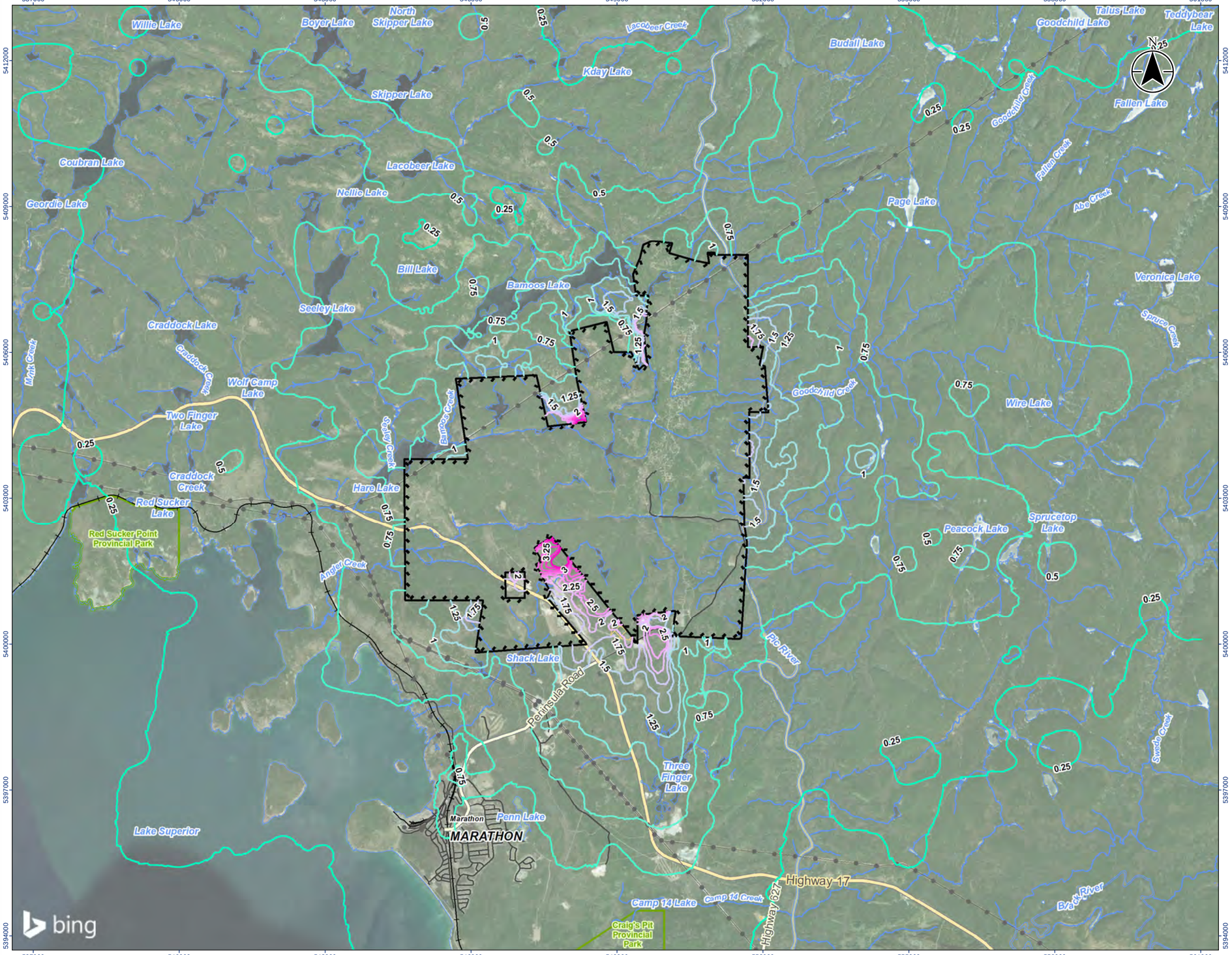
MARATHON PALLADIUM PROJECT

Figure No.
14c

Title
Concentration Contour Plot for the Project Alone, Operations Scenario - 24-hour Average PM_{10}



Stantec

Legend

- Model Property Boundary
- Highway
- Major Road
- Minor Road
- Hydro Line
- Railway
- Watercourse
- Airport
- Provincial Park
- Waterbody
- Waste Management Site

$PM_{2.5}$ Concentration (µg/m³) - background concentration not included

- 0.25
- 0.5
- 0.75
- 1
- 1.25
- 1.5
- 1.75
- 2
- 2.25
- 2.5
- 2.75
- 3
- 3.25
- 3.5
- 3.75

0 1 2 km

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Project Location
Marathon

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Client/Project
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MARATHON PALLADIUM PROJECT

Figure No.
14d

Title
Concentration Contour Plot for the Project Alone, Operations Scenario - 24-hour Average $PM_{2.5}$

V:\016\09\active\ - Other PCs Active\296 - Manitoba\129673006 Marathon PGM\gis_cad\gis\mxds\Air\report figures\Impact Assessment\129673006_Air_IA_Concentration_ContourPlot_Contours_20210211.mxd Revised: 2021-03-05 By: dharvey

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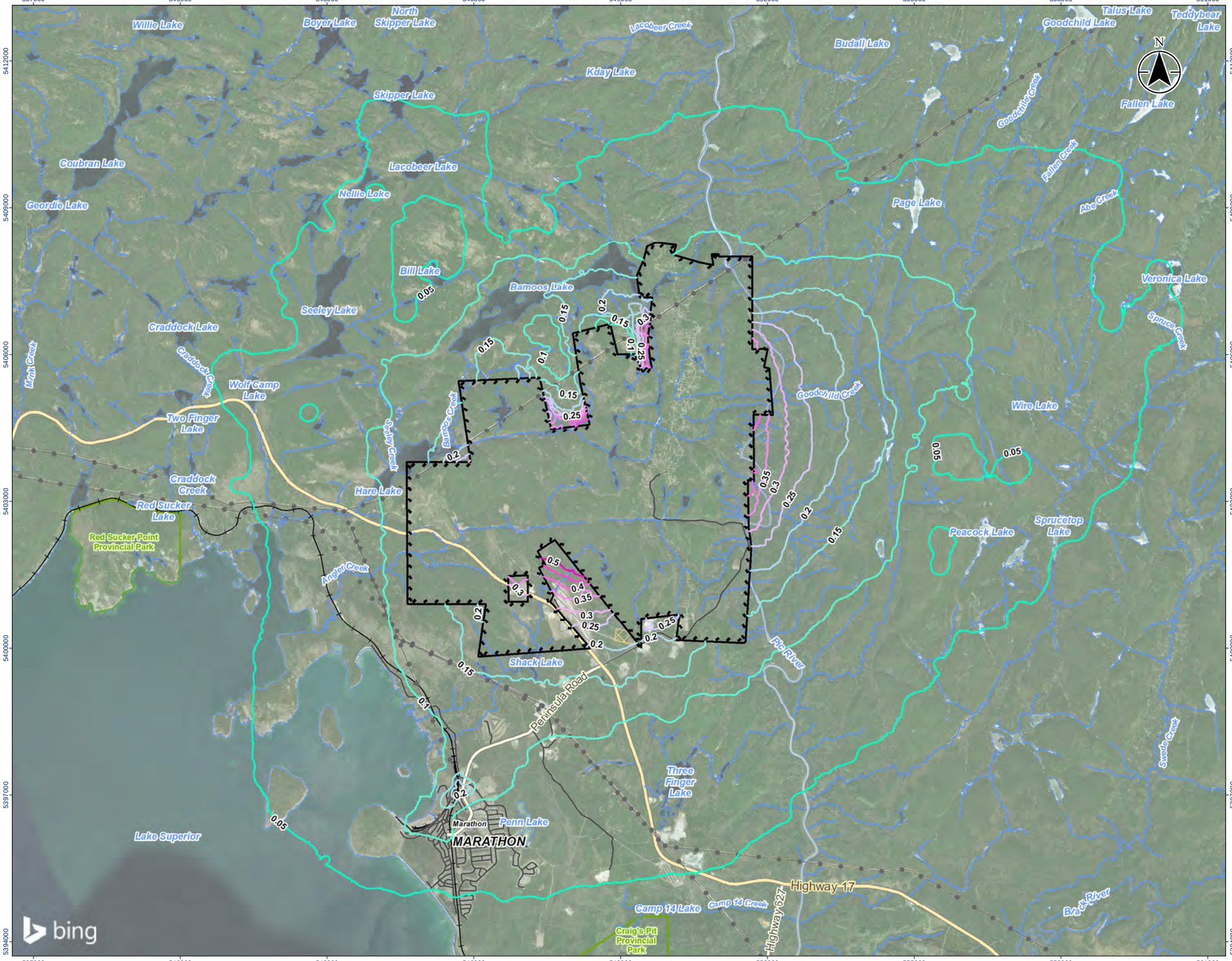

Stantec

Legend

- Model Property Boundary
- Highway
- Major Road
- Minor Road
- Hydro Line
- Railway
- Watercourse
- Airport
- Provincial Park
- Waterbody
- Waste Management Site

$PM_{2.5}$ Concentration ($\mu g/m^3$) - background concentration not included

- 0.05
- 0.1
- 0.15
- 0.2
- 0.25
- 0.3
- 0.35
- 0.4
- 0.45
- 0.5

0 1 2 km

1:80,000 (At original document size of 11x17)

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Project Location
Marathon

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Prepared by DH on 2021-03-05

Client/Project
GENERATION PGM INC.
MARATHON PALLADIUM PROJECT

Figure No.
14e

Title
Concentration Contour Plot for the Project Alone, Operations Scenario - Annual Average $PM_{2.5}$

V:\01609\active\ Other PCs Active\296 - Manitoba\129673006 Marathon PGM\gis_cad\gis\mxds\AirReport figures\Impact Assessment\129673006_Air_IA_Concentration_ContourPlot_Contours_20210211.mxd Revised: 2021-03-05 By: dharvey

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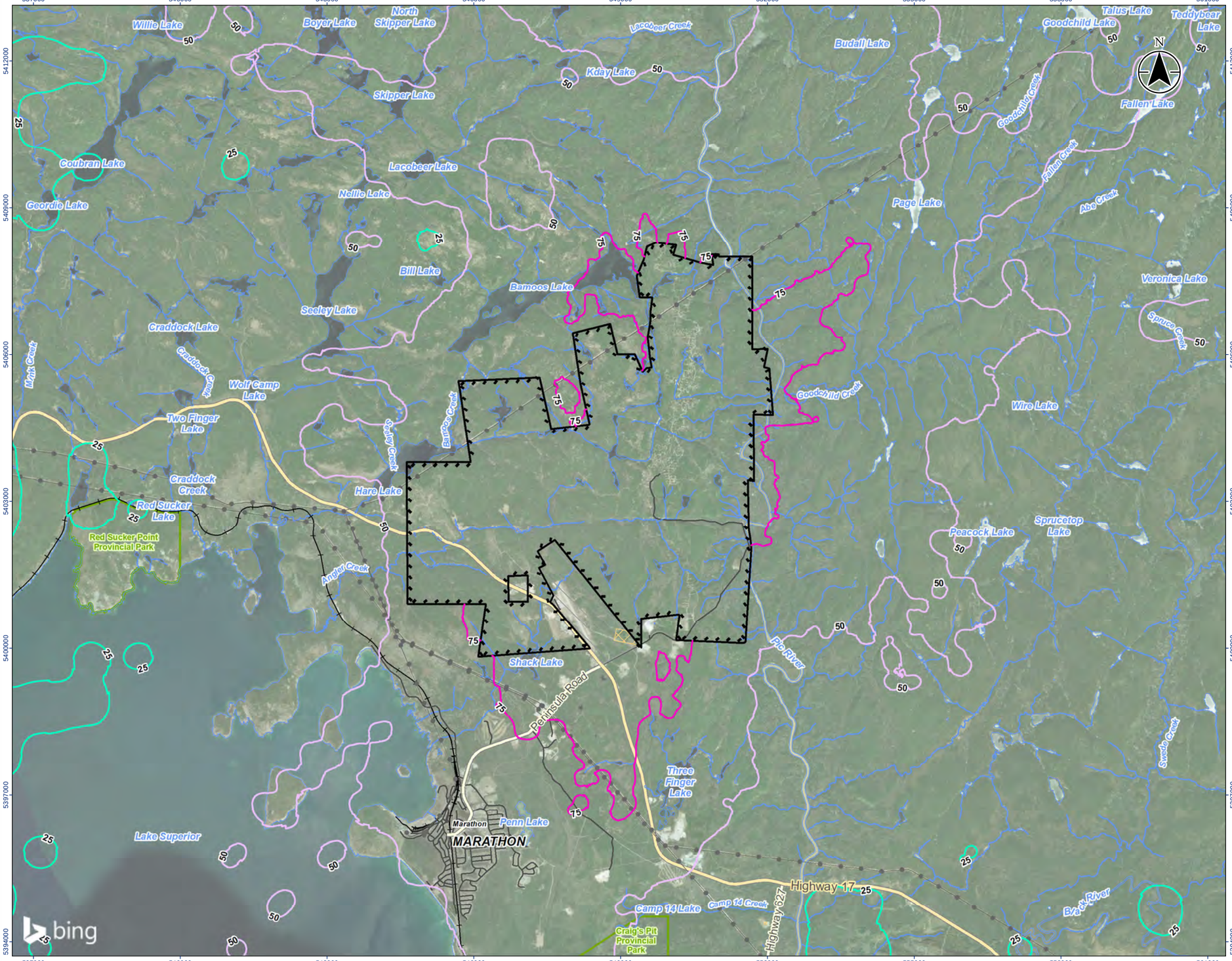

Stantec

Legend

- Model Property Boundary
- Highway
- Major Road
- Minor Road
- Hydro Line
- Railway
- Watercourse
- Airport
- Provincial Park
- Waterbody
- Waste Management Site

NO_2 Concentration ($\mu g/m^3$) - background concentration not included

- 25
- 50
- 75

0 1 2 km

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Project Location
Marathon

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Prepared by DH on 2021-03-05

Client/Project
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MARATHON PALLADIUM PROJECT

Figure No.
14f

Title
Concentration Contour Plot for the Project Alone, Operations Scenario - 1-hour Average NO_2

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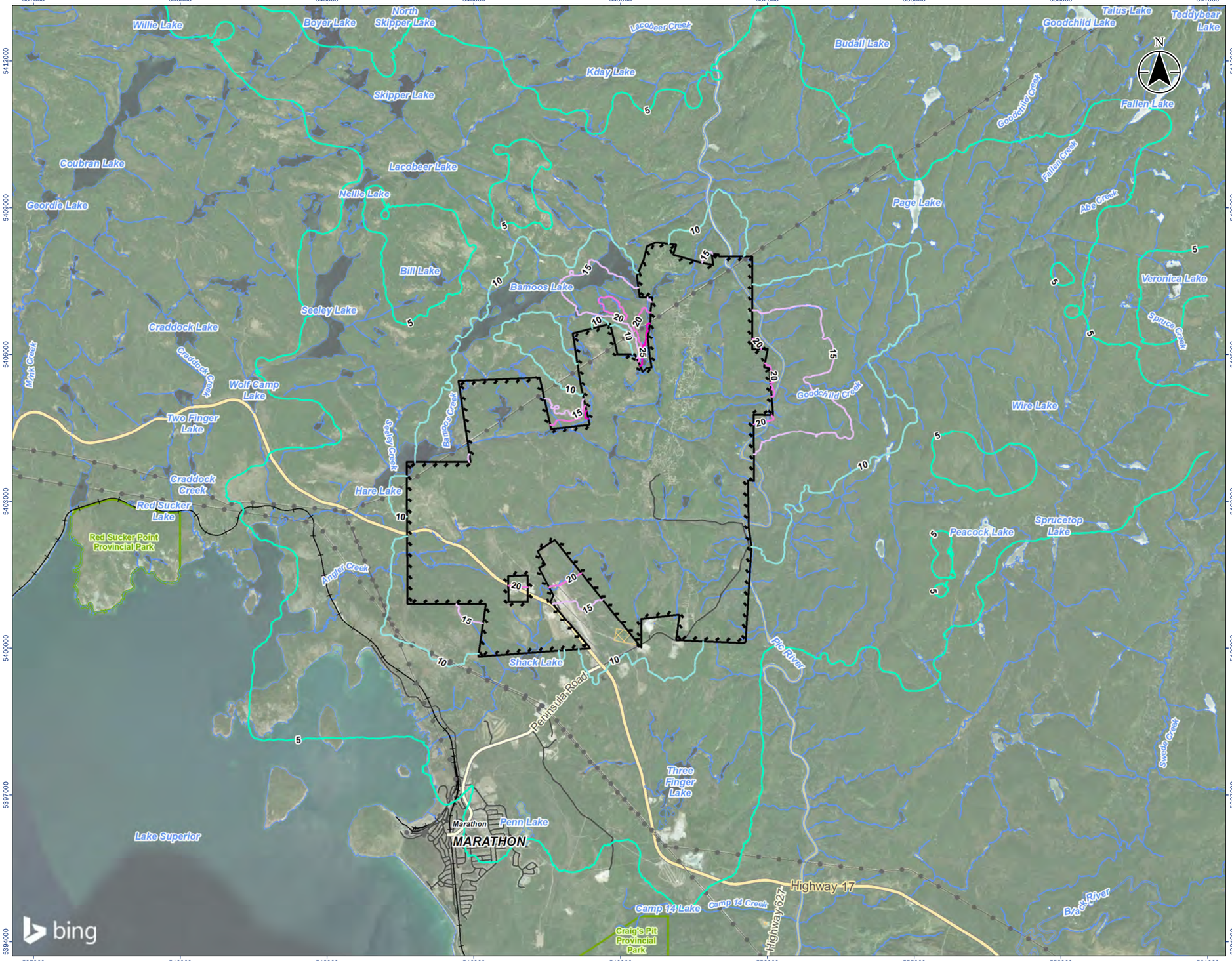
V:\01609\active_Other PCs Active\298 - Manitoba\129673006 Marathon PGM\gis_cad\gis\mxds\1Air\report figures\Impact Assessment\129673006 - Air_IA Concentration ContourPlot Contours_20210211.mxd Revised: 2021-03-05 By: dharvey



Stantec

Legend

- Model Property Boundary
- Highway
- Major Road
- Minor Road
- Hydro Line
- Railway
- Watercourse
- Airport
- Provincial Park
- Waterbody
- Waste Management Site

NO_2 Concentration ($\mu g/m^3$) - background concentration not included

- 5
- 10
- 15
- 20
- 25

0 1 2 km

1:80,000 (At original document size of 11x17)

Notes

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Project Location
Marathon

129673006 REVA
Prepared by DH on 2021-03-05

Client/Project
GENERATION PGM INC.
MARATHON PALLADIUM PROJECT

Figure No.
14g

Title
Concentration Contour Plot for the Project Alone, Operations Scenario - 24-hour Average NO_2

V:\01609\active\ Other PCs Active\296 - Manitoba\129673006 Marathon PGM\gis_cad\gis\mxds\Air\report figures\Impact Assessment\129673006_Air_IA_Concentration_ContourPlot_Contours_20210211.mxd Revised: 2021-03-05 By: dharvey

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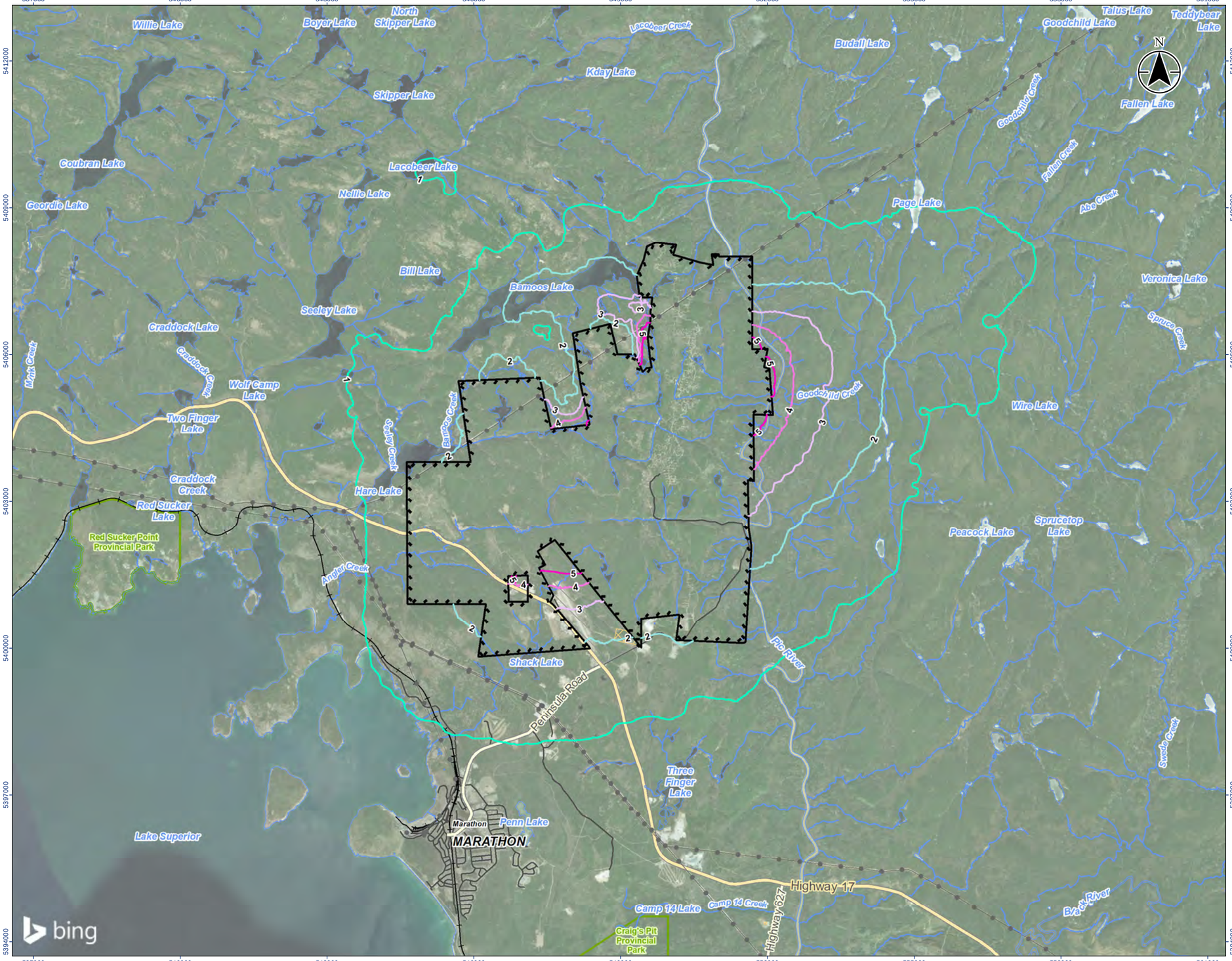

Stantec

Legend

- Model Property Boundary
- Highway
- Major Road
- Minor Road
- Hydro Line
- Railway
- Watercourse
- Airport
- Provincial Park
- Waterbody
- Waste Management Site

NO_2 Concentration ($\mu g/m^3$) - background concentration not included

- 1
- 2
- 3
- 4
- 5

0 1 2 km

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Project Location
Marathon

129673006 REVA
Prepared by DH on 2021-03-05

Client/Project
GENERATION PGM INC.
MARATHON PALLADIUM PROJECT

Figure No.
14h

Title
Concentration Contour Plot for the Project Alone, Operations Scenario - Annual Average NO_2

V:\01609\active_Other PCs Active\298 - Manitoba\129673006 Marathon PGM\gis_cad\gis\mxds\AA\report figures\Impact Assessment\129673006_AA_JA Concentration_ContourPlot_20210211.mxd Revised: 2021-03-05 By: dharvey

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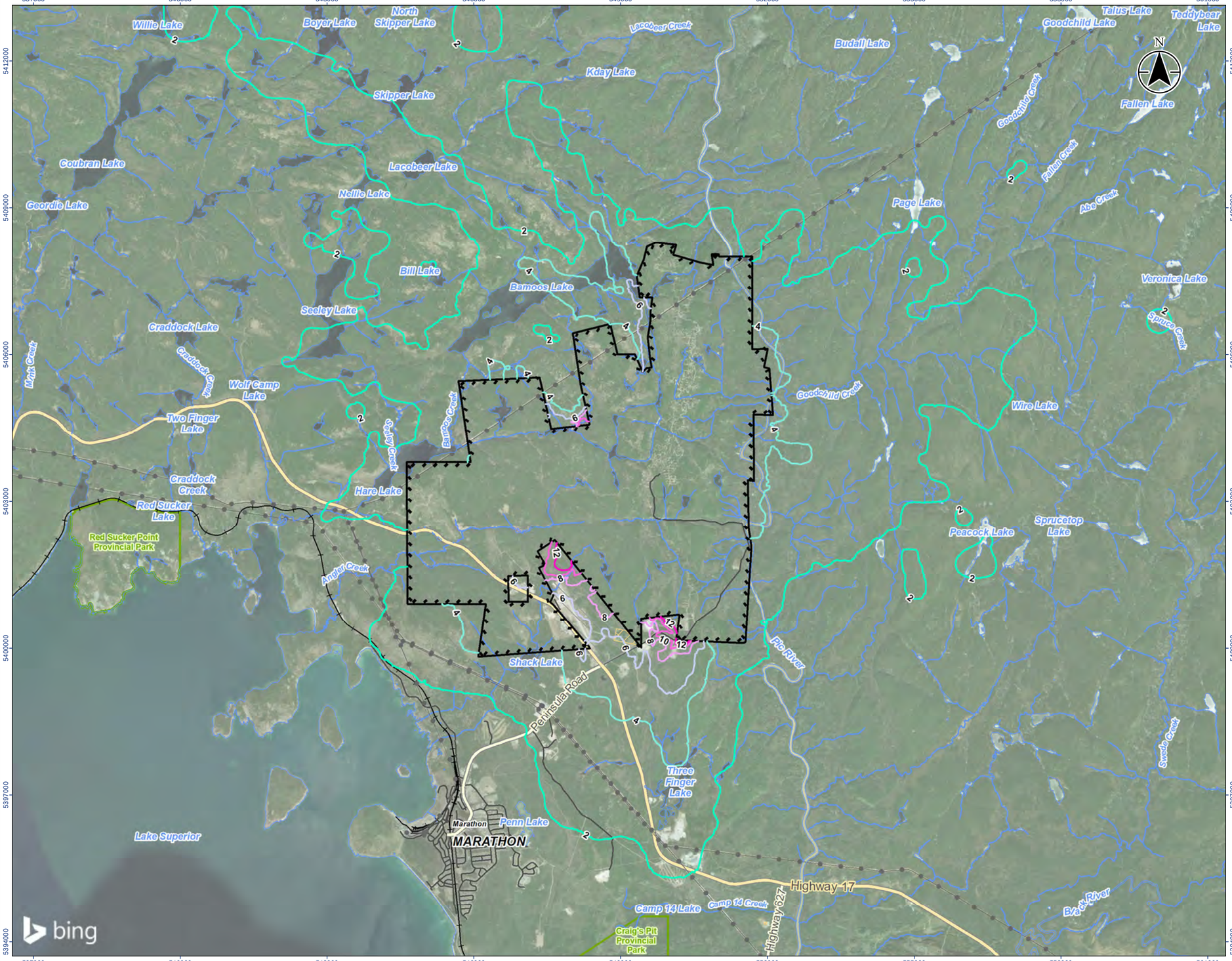

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V:\01609\active\ Other PCs Active\296 - Manitoba\129673006 Marathon PGM\gis_cad\gis\mxds\Air\report figures\Impact Assessment\129673006_Air_IA_Concentration_ContourPlot_Contours_20210211.mxd Revised 2021-03-05 By: dharvey

Stantec

Legend

- Model Property Boundary
- Highway
- Major Road
- Minor Road
- Hydro Line
- Railway
- Watercourse
- Airport
- Provincial Park
- Waterbody
- Waste Management Site
- 12

Crystalline Silica Concentration (µg/m³) - background concentration not included

- 2
- 4
- 6
- 8
- 10

0 1 2 km

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Notes

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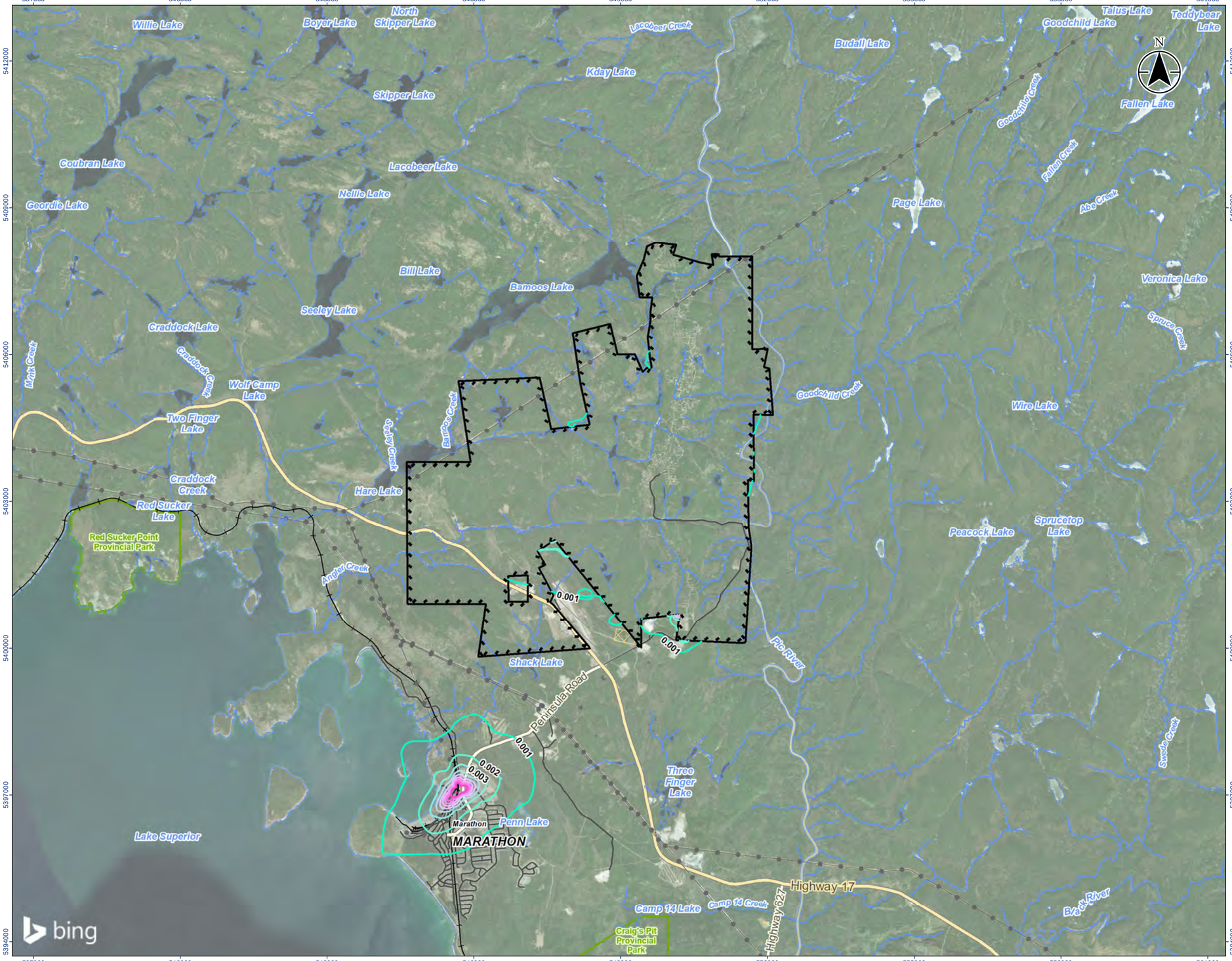
Project Location
Marathon

129673006 REVA
Prepared by DH on 2021-03-05

Client/Project
GENERATION PGM INC.
MARATHON PALLADIUM PROJECT

Figure No.
14i

Title
Concentration Contour Plot for the Project Alone, Operations Scenario - 24-hour Average Crystalline Silica



Stantec

Legend

- Model Property Boundary
- Highway
- Major Road
- Minor Road
- Hydro Line
- Railway
- Watercourse
- Airport
- Provincial Park
- Waterbody
- Waste Management Site

Nickel Concentration (µg/m³) - background concentration not included

- 0.001
- 0.002
- 0.003
- 0.004
- 0.005
- 0.006
- 0.007
- 0.008
- 0.009
- 0.103

0 1 2 km

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Notes

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Project Location
Marathon

129673006 REVA
Prepared by DH on 2021-03-05

Client/Project
GENERATION PGM INC.
MARATHON PALLADIUM PROJECT

Figure No.
14j

Title
Concentration Contour Plot for the Project Alone, Operations Scenario - Annual Average Nickel

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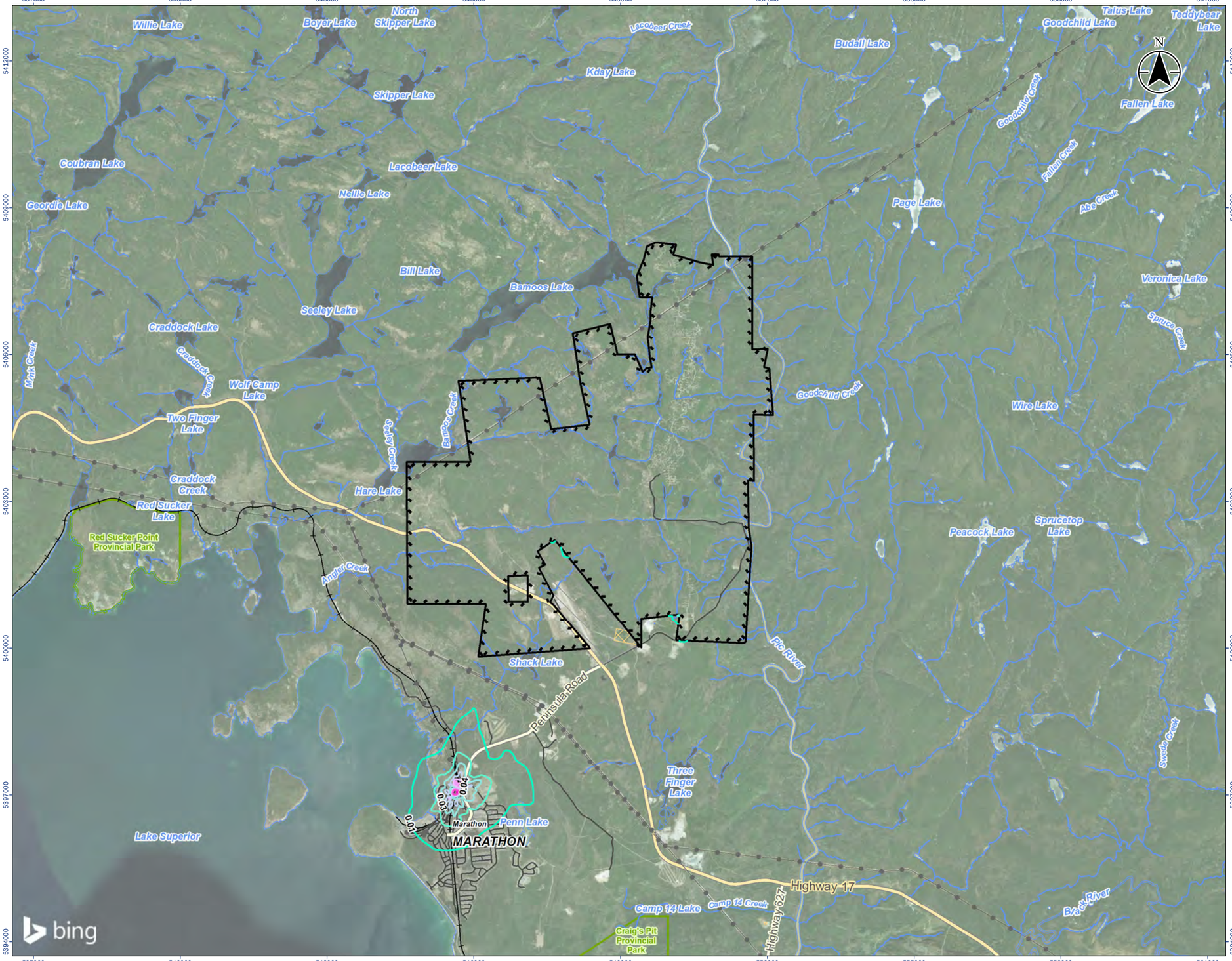

Stantec

Legend

- Model Property Boundary
- Highway
- Major Road
- Minor Road
- Hydro Line
- Railway
- Watercourse
- Airport
- Provincial Park
- Waterbody
- Waste Management Site

Nickel Concentration (µg/m³) - background concentration not included

- 0.01
- 0.02
- 0.03
- 0.04
- 0.05
- 0.06
- 0.07
- 0.08
- 0.25

0 1 2 km

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Notes

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Project Location
Marathon

129673006 REVA
Prepared by DH on 2021-03-05

Client/Project
GENERATION PGM INC.
MARATHON PALLADIUM PROJECT

Figure No.
14k

Title
Concentration Contour Plot for the Project Alone, Operations Scenario - 24-hour Average Nickel

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APPENDIX B
Summary of Sensitive Receptors

Number	Receptor ID	Receptor Description	Location Details	UTM Zone	UTM Easting (m)	UTM Northing (m)
Project Site						
1	PS_1	North Hare Lake Cottage	Hare Lake	16	545003	5404275
2	PS_2	South Hare Lake Cottage	Hare Lake	16	544333	5403325
3	PS_3	May's Gifts	Hwy 17	16	547135	5401177
4	PS_4	Wayfare Inn	Hwy 17	16	546813	5401177
5	PS_5	Peninsula Inn	Hwy 17	16	546998	5401252
6	PS_6	Travelodge Hotel	Hwy 17	16	548473	5399713
7	PS_7	The Laughing Mooz Eatery Restaurant and Residence	RR10 Hwy 17	16	546905	5401280
Town of Marathon - Residences						
8	R_1	Residence	Peninsula Road and Old Heron Bay Road	16	547228	5398320
9	R_2	Residence	Peninsula Road and Old Heron Bay Road	16	547275	5398269
10	R_3	Bergagnini Apartment Rental	85 Peninsula Road	16	545811	5397457
11	R_4	Residence	Closest residentially zoned area	16	546094	5397021
12	R_5	Condominium	North corner of Peninsula Road and Hemlo Drive	16	545973	5396714
13	R_6	Residence	17 Manitoba Street	16	545657	5396745
14	R_7	I Sew Studio and Residence	3 Woodson Street	16	545440	5396633
15	R_8	Bayview Apartments	Stevens Avenue	16	545382	5396468
16	R_9	Residence	2 Whitman Ct	16	545292	5396339
17	R_10	Residence	14 Stevens Avenue	16	545423	5396178
18	R_11	Residence	50 Sund Crescent	16	545621	5396102
19	R_12	Residence	North End of Steedman Drive	16	545833	5396225
20	R_13	Residence	South corner of Peninsula Road and Ontario Street (Across from Hospital)	16	545818	5396382
21	R_14	Residence	North corner of Peninsula Road and Ontario Street (Across from Hospital)	16	545852	5396427

Number	Receptor ID	Receptor Description	Location Details	UTM Zone	UTM Easting (m)	UTM Northing (m)
22	R_15	Residence	Northeast corner of Ontario Street and Alberta Street	16	545664	5396400
23	R_16	Residence	1 Coveney Street	16	546256	5396709
24	R_17	Residence	27 Coveney Street	16	546473	5396731
25	R_18	Residence	29 Jackson Crescent	16	546603	5396612
26	R_19	Residence	1 Wildwood Trail	16	546858	5395805
27	R_20	Residence	1 Chisholm Trail	16	546952	5395758
28	R_21	Residence	27 Godfrey Drive	16	547203	5395640
29	R_22	Residence	Hwy 17 adjacent to Travelodge	16	548319	5399879
Town of Marathon - Other						
30	O_1	Pic Motel	Peninsula Road	16	547183	5398239
31	O_2	Marathon Harbour Inn	Peninsula Road	16	545736	5397097
32	O_3	Zero-100 Motor Inn	Peninsula Road	16	545887	5396673
33	O_4	OPP Station	101 Peninsula Road	16	546228	5396568
34	O_5	Library	Peninsula Road	16	545878	5396297
Town of Marathon - Schools						
35	S_1	Holy Saviour School	23 Penn Lake Road	16	546341	5396849
36	S_2	Confederation College Northshore Campus	11-2 Ontario Street	16	545635	5396327
37	S_3	Marathon High School	14 Hemlo Drive #12	16	546202	5396261
38	S_4	Ecole secondaire Cite-Superieure	14 Hemlo Drive	16	546263	5396192
39	S_5	Marathon Children and Family Centre	21 Chishoim Trail	16	547021	5395307
40	S_6	Margaret Twomey Public School	21 Chishoim Trail	16	547002	5395260
Town of Marathon - Retirement Homes						
41	RH_1	Peninsula Manor	24 Peninsula Road	16	546051	5396119
42	RH_2	Senior's Centre	Stevens Avenue and Whitman Ct	16	545331	5396422
Town of Marathon - Hospital						
43	H_1	Wilson Memorial General Hospital	26 Peninsula Road	16	545939	5396394
Town of Marathon - Places of Worship						
44	PW_1	Kingdom Hall of Jehovah's Witnesses	83 Peninsula Road	16	545779	5397375

Number	Receptor ID	Receptor Description	Location Details	UTM Zone	UTM Easting (m)	UTM Northing (m)
45	PW_2	Parkland Pentecostal Church	16 Hemlo Drive	16	546333	5396166
46	PW_3	St. John's United Church	13 Steedman Drive	16	545859	5395939
47	PW_4	Holy Saviour Roman Catholic Church	17 Stevens Avenue	16	545417	5396261
48	PW_5	Anglican Church-Trinity	1 Drake Street	16	545392	5396213
Pic River First Nation						
49	PR_1	Children & Family Learning Centre	10 Lynx Road	16	553681	5386120
50	PR_2	Pic River Elementary	21 Rabbit Drive	16	554006	5386082
51	PR_3	Pic River Private High School	36 Rabbit Drive	16	553838	5385828
52	PR_4	Pic River Health Centre	2 Rabbit Drive	16	553932	5386273
53	PR_5	BIIDAABAN Healing Lodge	Highway 627	16	552495	5385007
54	PR_6	Residence	Highway 627	16	552845	5390324
55	PR_7	Residence	Highway 627	16	553763	5387930
Parks						
56	P_1	Penn Lake Park and Campground	61 Penn Lake Road	16	546960	5396363
57	P_2	Craig's Pit Provincial Nature Reserve		16	548540	5393087
58	P_3	Red Sucker Point Provincial Park		16	540005	5402014
59	P_4	Pukaskwa National Park		16	552770	5383776
Water Bodies						
60	W_1	Shack Lake (northeast)		16	547293	5400085
61	W_2	Shack Lake (center)		16	547107	5399731
62	W_3	Shack Lake (southwest)		16	546727	5399558
63	W_4	Hare Lake (east)		16	545638	5404053
64	W_5	Hare Lake (south)		16	545050	5403781
65	W_6	Hare Lake (west)		16	543957	5403304
66	W_7	Hare Lake (north)		16	544605	5404168
67	W_8	Hare Lake (center)		16	544832	5403976
68	W_9	Bamoos Lake (east)		16	549328	5407196
69	W_10	Bamoos Lake (south)		16	546977	5406711
70	W_11	Bamoos Lake (west)		16	545486	5406091

Number	Receptor ID	Receptor Description	Location Details	UTM Zone	UTM Easting (m)	UTM Northing (m)
71	W_12	Bamoos Lake (north)		16	546578	5407382
72	W_13	Bamoos Lake (center)		16	546779	5407056
73	W_14	Page Lake (south)		16	554946	5408453
74	W_15	Page Lake (center)		16	555056	5409128
75	W_16	Page Lake (north)		16	555067	5409722
76	W_17	Peacock Lake (east)		16	556595	5402351
77	W_18	Peacock Lake (south)		16	556045	5401491
78	W_19	Peacock Lake (west)		16	556279	5402293
79	W_20	Peacock Lake (north)		16	556446	5402644
80	W_21	Peacock Lake (center)		16	556426	5402324
81	W_22	Three Finger Lake (north)		16	550204	5397673
82	W_23	Three Finger Lake (center)		16	550177	5397216
83	W_24	Three Finger Lake (south)		16	549832	5396750
84	W_25	Penn Lake (north)		16	546949	5396852
85	W_26	Penn Lake (center)		16	547061	5396350
86	W_27	Penn Lake (south)		16	546993	5395997
87	W_28	Angler Creek at Model Property Boundary		16	544637	5401700
88	W_29	Pic River In-Flow to Model Property Boundary		16	551284	5407805
89	W_30	Pic River Out-Flow from Model Property Boundary		16	551654	5401167
2010 Baseline Air Monitoring Locations						
90	M_1	PM-10 @ Hare Lake		16	5404088	545673
91	M_2	Dustfall @ Hare Lake		16	5404097	545805
92	M_3	PM-10 @ Mays Gifts		16	5401446	546901
93	M_4	Dustfall @ Mays Gifts		16	5401440	546983
94	M_5	PM-10 @ Pic River		16	5402595	551492
95	M_6	Dustfall @ Pic River		16	5402598	551528
96	M_7	Dustfall @ Airport		16	5400039	549294
97	M_8	Dustfall @ Field Office		16	5397316	545803

APPENDIX C
Emission Calculations - Construction

Generation PGM Air Quality Assessment
Appendix C - Construction Scenario - Source Parameters

AREA SOURCES								
Source ID	Source Description	Base Elevation	Release Height	Length_X	Length_Y	Rotation_Angle	X1 Coordinate	Y1 Coordinate
		[m]	[m]	[m]	[m]	[deg]	[m]	[m]
CS5	MRSA Wind Erosion	260.00	0.00	100.00	100.00	0	550960.73	5404915.67
CS6	PSMF Wind Erosion	330.00	0.00	100.00	100.00	0	547159.89	5401884.54
VOLUME SOURCES								
Source ID	Source Description	Base Elevation	Release Height	SigmaY	SigmaZ	Length_X	X1 Coordinate	Y1 Coordinate
		[m]	[m]	[m]	[m]	[m]	[m]	[m]
CS1	Primary Crusher	314.00	5.45	3.50	5.07	15.05	549569.00	5404448.00
CS3	Crushed Waste Rock (Primary Crusher) Material Handling	314.00	16.00	14.88	7.44	64.00	549607.00	5404427.00
CS4	Crushed Waste Rock (Primary Crusher) Wind Erosion	314.00	10.45	14.88	4.86	64.00	549608.00	5404410.00
CS7	Mobile Primary Crusher	305.00	3.80	1.47	3.53	6.34	549658.00	5402678.00
CS8	Mobile Secondary Crusher	305.00	3.80	1.47	3.53	6.34	549661.00	5402688.00
CS9	Stockpile #1 Wind Erosion	305.00	10.45	8.60	4.86	37.00	549669.00	5402718.00
CS10	Stockpile #2 Wind Erosion	305.00	10.45	8.60	4.86	37.00	549682.00	5402710.00
CS11	Stockpile #3 Wind Erosion	305.00	10.45	8.60	4.86	37.00	549688.00	5402699.00
CS12	Stockpile #4 Wind Erosion	305.00	10.45	8.60	4.86	37.00	549693.00	5402686.00
CS13	Stockpile #5 Wind Erosion	305.00	10.45	8.60	4.86	37.00	549691.00	5402674.00
CS14	Stockpile #6 Wind Erosion	305.00	10.45	8.60	4.86	37.00	549684.00	5402664.00
CS15	Stockpile #7 Wind Erosion	305.00	10.45	8.60	4.86	37.00	549671.00	5402656.00
CS21	Concrete Batch Plant	305.00	3.50	2.33	3.26	10.00	549633.00	5402782.00
CS22	Sand Stockpile Wind Erosion	305.00	7.80	6.98	7.26	30.00	549548.00	5402780.00
CS24	Overburden Wind Erosion 1	340.00	10.45	5.21	4.86	22.40	550412.00	5403619.00
CS25	Overburden Wind Erosion 2	320.00	10.45	5.21	4.86	22.40	546528.00	5401990.00
CS26	Overburden Wind Erosion 3	320.00	10.45	5.21	4.86	22.40	545844.00	5403223.00
CM1	Haul Truck Dumping at Primary Crusher	314.00	5.45	3.50	5.07	15.05	549585.00	5404445.00
CM3A	MRSA Waste Rock Handling - unloading	260.00	4.10	17.44	3.86	75.00	551010.00	5404808.00
CM3B	MRSA Waste Rock Handling - mucking/tailpipe	260.00	4.10	17.44	3.86	75.00	551010.00	5404808.00
CM4A	PSMF Waste Rock Handling Location 1 - unloading	330.00	4.10	17.44	3.86	75.00	547606.00	5402121.00
CM4B	PSMF Waste Rock Handling Location 2 - unloading	330.00	4.10	17.44	3.86	75.00	546837.00	5401669.00
CM4C	PSMF Waste Rock Handling Location 1 - mucking/tailpipe	330.00	4.10	17.44	3.86	75.00	547606.00	5402121.00
CM4D	PSMF Waste Rock Handling Location 2 - mucking/tailpipe	330.00	4.10	17.44	3.86	75.00	546837.00	5401669.00
CM5A	Mobile Crusher Waste Rock Handling - unloading/loading	305.00	4.10	17.44	3.86	75.00	549706.00	5402642.00
CM5B	Mobile Crusher Waste Rock Handling - tailpipe	305.00	4.10	17.44	3.86	75.00	549706.00	5402642.00
CM6	Mill Area - Mucking & tailpipe	390.00	3.00	34.88	1.40	150.00	549307.00	5402778.00
CM7	Garage Maintenance Equipment	350.00	6.70	6.09	6.23	26.20	548869.00	5402698.00
CM8	Sand Material Delivery - unloading	305.00	1.50	1.16	7.26	5.00	549547.00	5402757.00
CM9A	Concrete Plant Material Handling - unloading	305.00	3.00	1.16	2.79	5.00	549605.00	5402782.00
CM9B	Concrete Plant Material Handling - tailpipe	305.00	2.00	6.98	0.93	30.00	549583.14	5402780.09
CM10	Overburden Material Handling 1 - unloading	340.00	4.10	5.21	3.86	22.40	550412.00	5403619.00
CM11	Overburden Material Handling 2 - unloading	320.00	4.10	5.21	3.86	22.40	546528.00	5401990.00
CM12	Overburden Material Handling 3 - unloading	320.00	4.10	5.21	3.86	22.40	545844.00	5403223.00
CH1	Garage Heat	390.00	6.70	6.09	6.23	26.20	548869.00	5402698.00
CH2	Construction Office Heat	305.00	1.50	3.49	1.40	15.00	549528.00	5402689.00

Note: Mill = Process Plant and Garage = Truck Shop

CRLO	Construction of the Rail Loadout Area	215.00	3.00	3.09	1.40	13.30	545630.51	5396858.01

LINE VOLUME SOURCES

Source ID	Source Description	Configuration	LineVolumeHeight	PlumeWidth	LineVolumeType	Num_Coords	X1 Coordinate	Y1 Coordinate
			[m]	[m]			[m]	[m]
CR1A	Main Access Road from Mill to Highway (On-Site)	Separated	7.48	13.40	Surface-Based	70	550288.55	5399987.79
CR1A						Rel_Height_m	3.74	3.74
CR1A						Base_Elev_m	307.39	308.06
CR1B	Main Access Road (Off-Site)	Separated	7.48	13.40	Surface-Based	13	550186.67	5399937.93
CR1B						Rel_Height_m	3.74	3.74
CR1B						Base_Elev_m	312.59	312.56
CR2	Haul Road From Pit to MRSA	Separated	11.05	26.00	Surface-Based	9	550997.69	5404794.03
CR2						Rel_Height_m	5.53	5.53
CR2						Base_Elev_m	261.08	233.24
CR3	Haul Road From Pit to Primary Crusher	Separated	11.05	26.00	Surface-Based	11	549582.61	5404478.02
CR3						Rel_Height_m	5.53	5.53
CR3						Base_Elev_m	349.79	350.72
CR4	Haul Road From Pit to Mobile Crusher	Separated	11.05	26.00	Surface-Based	110	550407.79	5405441.41
CR4						Rel_Height_m	5.53	5.53
CR4						Base_Elev_m	327.03	305.48
CR5	Haul Road From Pit to PSMF	Separated	11.05	26.00	Surface-Based	69	550390.65	5405464.51
CR5						Rel_Height_m	5.53	5.53
CR5						Base_Elev_m	326.97	309.59
CR6A	Peninsula Road - Highway to Industrial Park Road	Separated	3.06	13.40	Surface-Based	12	548637.08	5399450.53
CR6A						Rel_Height_m	1.53	1.53
CR6A						Base_Elev_m	313.00	316.45
CR6B	Peninsula Road - Industrial Park Road to Penn Lake Road	Separated	3.06	13.40	Surface-Based	15	547222.90	5398149.70
CR6B						Rel_Height_m	1.53	1.53
CR6B						Base_Elev_m	301.08	300.08
CR6C	Peninsula Road - Penn Lake Road to Hemlo Drive	Separated	3.06	13.40	Surface-Based	8	545790.59	5396987.26
CR6C						Rel_Height_m	1.53	1.53
CR6C						Base_Elev_m	223.17	222.64

POINT SOURCES

Source ID	Source Description	Base Elevation	Release Height	Stack Diameter	Exit_Velocity	Exit_Temperature	Release_Type	X1 Coordinate	Y1 Coordinate
		[m]	[m]	[m]	[m/s]	[K]		[m]	[m]
CS2	Primary Crusher Baghouse	314.00	12.60	1.32	25.87	293.15	CAPPED	549573.00	5404428.00
CS16	Generator 1 (Mobile Crusher)	305.00	2.80	0.20	159.15	733.15	VERTICAL	549650.00	5402677.00
CS17	Generator 2 (Mobile Concrete Plant)	305.00	2.80	0.20	159.15	733.15	VERTICAL	549648.00	5402782.00
CS18	Generator 3 (Construction Offices)	390.00	2.80	0.20	159.15	733.15	VERTICAL	549527.00	5402723.00
CS19	Generator 4 (Garage)	390.00	2.80	0.20	159.15	733.15	VERTICAL	548847.00	5402724.00
CS20	Generator 5 (Mill)	390.00	2.80	0.20	159.15	733.15	VERTICAL	549309.00	5402765.00
CS23	Cement Silo	305.00	24.00	0.50	15.64	293.15	HORIZONTAL	549634.00	5402770.00

OPEN PIT SOURCES

Source ID	Source Description	Base Elevation	Release Height	Length_X	Length_Y	Rotation_Angle	Pit_Volume	X1 Coordinate	Y1 Coordinate
		[m]	[m]	[m]	[m]	[deg]	[m^3]	[m]	[m]
CM2A	Open Pit (North) - drilling/mucking/loading in pit	300.00	5.00	530.00	1163.86	0	12336900	550166.65	5404796.34
CM2B	Open Pit (North) - Blasting Only	300.00	5.00	530.00	1163.86	0	12336900	550166.65	5404796.34
CM2C	Open Pit (North) - Mobile Sources	300.00	5.00	530.00	1163.86	0	12336900	550166.65	5404796.34

Inputs for Sources - Generation PGM - Construction Phase

Source I.D.	Primary Crusher	Value	Units	Reference
CS1	Material throughput (No Screen)	43,200	tonnes/day	Construction Confirmation Table
	Quantity of Baghouse	1	Unit	2020 Oct 19 Air Inputs
	Operating Time	24	hr/day	2020 Oct 19 Air Inputs * assumed same as operations
CS2	CFM	75,000	CFM	2020 Oct 19 Air Inputs * assumed same as operations
	Mitigation			
CS3	Crushed Waste Rock (Primary Crusher) Material Handling			Construction Confirmation Table
	Use USEPA emission factor for conveyor transfer to stockpile			

Source I.D.	Stockpile Erosion	Value	Units	Reference
CS4	**Crushed Waste Rock Stockpile (Primary Crusher)**			
	Radius	20.9	m	Construction Confirmation Table
	Height	20.9	m	Construction Confirmation Table
	Area	3313	m2	Calculation
	% used each day	50%	%	Construction Confirmation Table
CS5	**Mine Rock Stockpiles**			
	Area of MRSA	10000	m^2	Construction Confirmation Table
	% of MRSA stockpile used each day	100%	%	Construction Confirmation Table
CS6	**PSMF**			
	Area of PSMF	10000	m^2	Construction Confirmation Table
	% disturbed	100%	%	Construction Confirmation Table

Source I.D.	Mobile Crushing Unit	Value	Units	Reference
	Loading at Mobile Crusher			
	Number of units	1	unit	2020 Oct 19 Air Inputs
	Engine Size	380	hp	2020 Oct 19 Air Inputs
	Fuel	Diesel	--	2020 Oct 19 Air Inputs
	Usage	16	hr/day	2020 Oct 19 Air Inputs
CS7	**Mobile Crusher - Primary - Jaw Crusher**			
	Number of units	1	unit	2020 Oct 19 Air Inputs
	Capacity	384	tonnes/hr	2020 Oct 19 Air Inputs
	Fuel	Electric	--	2020 Oct 19 Air Inputs
	Usage	12	hr/day	2020 Oct 19 Air Inputs
	Mitigation	water sprays	--	Construction Confirmation Table
CS8	**Mobile Crusher - Secondary - Cone**			
	Number of units	1	unit	2020 Oct 19 Air Inputs
	Capacity	299	tonnes/hr	2020 Oct 19 Air Inputs
	Fuel	Electric	--	2020 Oct 19 Air Inputs
	Usage	12	hr/day	2020 Oct 19 Air Inputs
	Mitigation	water sprays	--	Construction Confirmation Table
	Mobile Crusher - Tertiary - Cone	N/A	N/A	2020 Oct 19 Air Inputs
	Mobile Crusher - Tertiary/Fines - Cone	N/A	N/A	2020 Oct 19 Air Inputs
CS9	**Storage Pile #1 (150mm)**			
	Capacity	20000	tonnes	2020 Oct 19 Air Inputs
	Material Throughput	266	tonnes/hr	2020 Oct 19 Air Inputs
CS10	**Storage Pile #2 (19mm)**			
	Capacity	20000	tonnes	2020 Oct 19 Air Inputs
	Material Throughput	122	tonnes/hr	2020 Oct 19 Air Inputs
CS11	**Storage Pile #3 (35mm)**			
	Capacity	20000	tonnes	2020 Oct 19 Air Inputs
	Material Throughput	183	tonnes/hr	2020 Oct 19 Air Inputs
CS12	**Storage Pile #4 (50/75mm)**			
	Capacity	20000	tonnes	2020 Oct 19 Air Inputs
	Material Throughput	80	tonnes/hr	2020 Oct 19 Air Inputs
CS13	**Storage Pile #5 (0/10mm)**			
	Capacity	20000	tonnes	2020 Oct 19 Air Inputs
	Material Throughput	27.45	tonnes/hr	2020 Oct 19 Air Inputs
CS14	**Storage Pile #6 (0/8mm)**			
	Capacity	20000	tonnes	2020 Oct 19 Air Inputs
	Material Throughput	18.2	tonnes/hr	2020 Oct 19 Air Inputs
CS15	**Storage Pile #7 (19mm)**			
	Capacity	20000	tonnes	2020 Oct 19 Air Inputs
	Material Throughput	137.25	tonnes/hr	2020 Oct 19 Air Inputs
	Dimensions of MC storage piles			
	base	20.9	m	Construction Confirmation Table
	height	20.9	m	Construction Confirmation Table
	Area of MC Storage Piles	3313	m2	Calculation
	% of MC Storage Piles used each day	50%	%	Construction Confirmation Table, 25% from conveyor, 25% from loader

Source I.D.	Generators	Value	Units	Reference
CS16-CS20	Number of units	5	units	2020 Oct 19 Air Inputs
	Capacity	1.275	MW	2020 Oct 19 Air Inputs
	Fuel Type	Diesel	--	2020 Oct 19 Air Inputs
	Usage	24	hr/day	Construction Confirmation Table

Source I.D.	Concrete Batch Plant	Value	Units	Reference
CS21	Plant Output	250	m3/hr	2020 Oct 19 Air Inputs
	Operating Hours of Plant	12	hr/day	2020 Oct 19 Air Inputs
	Batch Recipe			
	Gravel	43	%	Construction Confirmation Table
	Sand	35	%	Construction Confirmation Table
	Air	2	%	Construction Confirmation Table
	Cement	15	%	Construction Confirmation Table
	Water	5	%	Construction Confirmation Table
CS21	**Radial Stack Drop into Bins**			
	Gravel	146	MT/hr	Construction Confirmation Table
	Sand	182	MT/hr	Construction Confirmation Table
CS21	**Weigh Hopper Loading**			
	Loading amount (combination of sand and gravel)	328	MT/hr	Construction Confirmation Table
CS21	**Concrete Truck Loading**			
	Cement	118	MT/hr	Construction Confirmation Table
CS22	**Sand Storage Pile**			
	Capacity	10000	tonnes	2020 Oct 19 Air Inputs
	Sand Storage Pile Area	2474	m2	Calculation
	Radius	15.6	m	Construction Confirmation Table
	% used each day	25%	%	Construction Confirmation Table
CS23	Cement Silo - Fan Size	6500	CFM	2020 Oct 19 Air Inputs
	Baghouse Efficiency	99%	%	Assumption
	Loader			
	Engine Size	200	hp	2020 Oct 19 Air Inputs
	Capacity	7800	MT/day	2020 Oct 19 Air Inputs
	Fuel	Diesel	--	2020 Oct 19 Air Inputs
	Usage	12	hr/day	2020 Oct 19 Air Inputs

Source I.D.	Overburden Stockpiles	Value	Units	Reference
CS24	**Overburden Wind Erosion 1**			
	Area	500	m2	Construction Confirmation Table
	% used each day	100%	%	Construction Confirmation Table
CS25	**Overburden Wind Erosion 2**			
	Area	500	m2	Construction Confirmation Table
	% used each day	100%	%	Construction Confirmation Table
CS26	**Overburden Wind Erosion 3**			
	Area	500	m2	Construction Confirmation Table
	% used each day	100%	%	Construction Confirmation Table
Source I.D.	**Haul Truck Dumping at Primary Crusher**	**Value**	**Units**	**Reference**
CM1	Unloading at Primary Crusher - Amount of Ore	43,200	tonnes/day	Construction Confirmation Table
Source I.D.	**Open Pit**	**Value**	**Units**	**Reference**
CM2	**Blasting**			
	Type of Explosive	70% ANFO	--	2020 Oct 19 Air Inputs
	Number of Blasts	1	blast/day	2020 Oct 19 Air Inputs
	Kg of Explosive used	157500	kg/blast	2020 Oct 19 Air Inputs
	Blast Area	9125	m2	2020 Oct 19 Air Inputs
	Emulsion Truck	350	hp	Construction Confirmation Table
	Stemming Loader	96	hp	Construction Confirmation Table
CM2	**Drilling**			
	Production Drills			
	Number of drills	2	units	Construction Confirmation Table
	drill holes per hr	1.7	holes/hr/drill	2020 Oct 19 Air Inputs
	Operating Time	15	hrs/day	2020 Oct 19 Air Inputs
	Engine Size	950	hp	2020 Oct 19 Air Inputs
	Pre-Split Drills			
	Number of drills	4	units	2020 Oct 19 Air Inputs
	drill holes per hr	1.7	holes/hr/drill	2020 Oct 19 Air Inputs
	Operating Time	5	hrs/day	2020 Oct 19 Air Inputs
	Engine Size	540	hp	2020 Oct 19 Air Inputs
CM2	**Loading in Pit**			
	Wheeled Loader	1	unit	Construction Confirmation Table
	Operating hours	22	hr/day	2020 Oct 19 Air Inputs
	Engine Size	2000	hp	Construction Confirmation Table
	Fuel	Diesel	--	2020 Oct 19 Air Inputs
	Hydraulic Shovel	2	unit	Construction Confirmation Table
	Operating hours	22	hr/day	2020 Oct 19 Air Inputs
	Engine Size	3000	hp	Construction Confirmation Table
	Fuel	Diesel	--	2020 Oct 19 Air Inputs
	Loading amount	28366	MT/day	Construction Confirmation Table - need to prorate metals based on distribution of ore, WR and overburden
CM2	**Mucking**			
	Silt Content	2	%	2020 Oct 19 Air Inputs
	Moisture Content	4	%	2020 Oct 19 Air Inputs
	Dozer - Operating Hrs	14.5	hr/day	2020 Oct 19 Air Inputs * assumed same as operations
	Number of wheel dozers in pit	2	unit	Construction Confirmation Table
	Dozer Engine Size	646	hp	Construction Confirmation Table
	Dozer Model	D10T	--	Construction Confirmation Table
Source I.D.	**MRSA Waste Rock Handling**	**Value**	**Units**	**Reference**
CM3	**Unloading**			
	Amount of Waste Rock	20157	tonnes/day	Construction Confirmation Table
	Number of trucks	1	unit	2020 Oct 19 Air Inputs
	Operating hours	22	hr/day	2020 Oct 19 Air Inputs
	Haul truck return trips	89	trips/day	Construction Confirmation Table
CM3	**Mucking**			
	Silt Content	2	%	2020 Oct 19 Air Inputs
	Moisture Content	4	%	2020 Oct 19 Air Inputs
	Operating Hrs	14.5	hr/day	2020 Oct 19 Air Inputs * assumed same as operations
	Number of tracked dozers	2	unit	Construction Confirmation Table
	Dozer Engine Size	646	hp	Construction Confirmation Table
	Dozer Model	D10T	--	Construction Confirmation Table
	Number of excavators	2	unit	Construction Confirmation Table
	Excavator Engine Size	417	hp	Construction Confirmation Table
	Excavator Model	349F	--	Construction Confirmation Table
Source I.D.	**PSMF Waste Rock Handling**	**Value**	**Units**	**Reference**
CM4A-B	**Unloading**			
	Amount of Waste Rock	20157	tonnes/day	Construction Confirmation Table
	Number of trucks	5	units	2020 Oct 19 Air Inputs
	Operating hours	22	hr/day	2020 Oct 19 Air Inputs
	Haul truck return trips	89	trips/day	Construction Confirmation Table
CM4A	**Mucking - PSMF Location 1**			
	Silt Content	2	%	2020 Oct 19 Air Inputs
	Moisture Content	4	%	2020 Oct 19 Air Inputs
	Operating Hrs	14.5	hr/day	2020 Oct 19 Air Inputs * assumed same as operations
	Number of Excavators	2	unit	Construction Confirmation Table
	Excavator Engine Size	600	hp	Construction Confirmation Table
	Excavator Model	Cat 390D L	--	Construction Confirmation Table
	Number of Dozers	1	unit	Construction Confirmation Table
	Dozer Engine Size	850	hp	Construction Confirmation Table
	Dozer Model	D11	--	Construction Confirmation Table
	Number of Compactors	1	unit	Construction Confirmation Table
	Compactor Engine Size	131	hp	Construction Confirmation Table
	Compactor Model	CAT CS64B	--	Construction Confirmation Table
CM4B	**Mucking - PSMF Location 2**			
	Silt Content	2	%	2020 Oct 19 Air Inputs
	Moisture Content	4	%	2020 Oct 19 Air Inputs
	Operating Hrs	14.5	hr/day	2020 Oct 19 Air Inputs * assumed same as operations
	Number of Excavators	2	unit	Construction Confirmation Table
	Excavator Engine Size	600	hp	Construction Confirmation Table
	Excavator Model	Cat 390D L	--	Construction Confirmation Table
	Number of Dozers	1	unit	Construction Confirmation Table
	Dozer Engine Size	850	hp	Construction Confirmation Table
	Dozer Model	D11	--	Construction Confirmation Table
	Number of Compactors	1	unit	Construction Confirmation Table
	Compactor Engine Size	131	hp	Construction Confirmation Table
	Compactor Model	CAT CS64B	--	Construction Confirmation Table

Source I.D.	Mobile Crusher Waste Rock Handling	Value	Units	Reference
CM5	**Unloading/Loading**			
	Amount of Waste Rock	4608	tonnes/day	Construction Confirmation Table
	Number of trucks	3	units	2020 Oct 19 Air Inputs
	Operating hours	12	hr/day	2020 Oct 19 Air Inputs
	Haul truck return trips	20	trips/day	Construction Confirmation Table
	Number of wheeled loaders	1	units	Construction Confirmation Table
	Loader Engine Size	496	hp	Construction Confirmation Table
	Loader Model	834K		Construction Confirmation Table
	Number of tracked dozers	2	unit	Construction Confirmation Table
	Dozer Engine Size	850	hp	Construction Confirmation Table
	Dozer Model	D11	--	Construction Confirmation Table
	Number of excavators	2	unit	Construction Confirmation Table
	Excavator Engine Size	600	hp	Construction Confirmation Table
	Excavator Model		--	Construction Confirmation Table
Source I.D.	**Mill Area**	**Value**	**Units**	**Reference**
CM6	**Mucking**			
	Number of tracked dozers	1	unit	Construction Confirmation Table
	Dozer Engine Size	850	hp	Construction Confirmation Table
	Dozer Model	D11	--	Construction Confirmation Table
	Number of excavators	2	unit	Construction Confirmation Table
	Excavator Engine Size	600	hp	Construction Confirmation Table
	Excavator Model	Cat 390D L	--	Construction Confirmation Table
Source I.D.	**Garage Maintenance Equipment**	**Value**	**Units**	**Reference**
CM7	Skid Steer Loader	1	unit	Construction Confirmation Table
	Engine Size	74	hp	Construction Confirmation Table
	Boom Truck 28t	1	unit	Construction Confirmation Table
	Engine Size	300	hp	Construction Confirmation Table
	Telehandler	1	unit	Construction Confirmation Table
	Engine Size	135	hp	Construction Confirmation Table
	Forklift Diesel 4t	1	unit	Construction Confirmation Table
	Engine Size	60	hp	Construction Confirmation Table
	Tire Handler Truck	1	unit	Construction Confirmation Table
	Engine Size	425	hp	Construction Confirmation Table
	Lube Truck	1	unit	Construction Confirmation Table
	Engine Size	300	hp	Construction Confirmation Table
	Truck Tractor for trailers	1	unit	Construction Confirmation Table
	Engine Size	380	hp	Construction Confirmation Table
	Mobile Air Compressor	1	unit	Construction Confirmation Table
	Engine Size	61	hp	Construction Confirmation Table
	Welding Machine Diesel	2	unit	Construction Confirmation Table
	Engine Size	33	hp	Construction Confirmation Table
	Light Plant	10	unit	Construction Confirmation Table
	Engine Size	13	hp	Construction Confirmation Table
	Genset 6kW	3	unit	Construction Confirmation Table
	Engine Size	10	hp	Construction Confirmation Table
	Genset 60kW	1	unit	Construction Confirmation Table
	Engine Size	90	hp	Construction Confirmation Table
	Water Pump 3" - Gasoline	4	unit	Construction Confirmation Table
	Engine Size	6	hp	Construction Confirmation Table
	Water Pump 10" - Diesel	2	unit	Construction Confirmation Table
	Engine Size	160	hp	Construction Confirmation Table
	Diesel Powered Air Heaters	2	unit	Construction Confirmation Table
	Engine Size	87	hp	Construction Confirmation Table
Source I.D.	**Sand Material Delivery**	**Value**	**Units**	**Reference**
CM8	**Unloading**			
	Sand delivered (outsourced)	20	MT/h	Construction Confirmation Table
	Operating hours	12	h/day	Construction Confirmation Table
Source I.D.	**Concrete Plant Material Handling**	**Value**	**Units**	**Reference**
CM9	**Loading Radial Stacker**			
	Amount gravel	146	MT/hr	Construction Confirmation Table
	Amount sand	182	MT/hr	Construction Confirmation Table
Source I.D.	**Overburden Material Handling**	**Value**	**Units**	**Reference**
CM10	**Overburden Material Handling 1**			
	Amount of material	616	MT/day	Construction Confirmation Table
CM11	**Overburden Material Handling 2**			
	Amount of material	616	MT/day	Construction Confirmation Table
CM12	**Overburden Material Handling 3**			
	Amount of material	616	MT/day	Construction Confirmation Table
Source I.D.	**Grading**	**Value**	**Units**	**Reference**
Added to road sources (CR1, CR2, CR3, CR4, CR5)	Number of units	1	unit	2020 Oct 19 Air Inputs
	Engine Size	400	hp	2020 Oct 19 Air Inputs
	Operating hours	2	hr/day	2020 Oct 19 Air Inputs
	Grader speed	4.5	kph	2020 Oct 19 Air Inputs
	Silt content	5.8	%	
	Moisture content	4	%	2020 Oct 19 Air Inputs
	Mitigation	80	%	2020 Oct 19 Air Inputs
Source I.D.	**Road Section Length**	**Value**	**Units**	**Reference**
CR1	CR1 - Main Access Road from Mill to Highway 17	6.4	km	Construction Confirmation Table
CR2	CR2 - Haul Road from Pit to MRSA	1.5	km	Construction Confirmation Table
CR3	CR3 - Haul Road from Pit to Primary Crusher	1.6	km	Construction Confirmation Table
CR4	CR4 - Haul Road from Pit to Mobile Crusher	6.0	km	Construction Confirmation Table
CR5	CR5 - Haul Road from Pit to PSMF	7.8	km	Construction Confirmation Table
CR6A	CR6A - Peninsula Road - Highway to Industrial Park Road	2.0	km	Construction Confirmation Table
CR6B	CR6B - Peninsula Road - Industrial Park Road to Penn Lake Road	2.0	km	Construction Confirmation Table
CR6C	CR6C - Peninsula Road - Penn Lake Road to Hemlo Drive	0.6	km	Construction Confirmation Table

Source I.D.	CR1 - Main Access Road from Mill to Highway 17	Value	Units	Reference
CR1	Surface	Gravel	--	Construction Confirmation Table
	Mitigation	80	%	Construction Confirmation Table
	Pick up trucks			
	Amount	150	Units	Construction Confirmation Table
	Trucks per shift	75	trucks/shift	Construction Confirmation Table
	Segments per day	280	segments/day	Construction Confirmation Table
	Speed	60	km/h	Construction Confirmation Table
	Transport			
	Amount	8	Units	Construction Confirmation Table
	Segments per day	16	segments/day	Construction Confirmation Table
	Speed	50	km/h	Construction Confirmation Table
	Bus			
	Amount	1	Units	Construction Confirmation Table
	Segments per day	2	segments/day	Construction Confirmation Table
	Speed	50	km/h	Construction Confirmation Table
	Dump Truck			
	Amount	1	Units	Construction Confirmation Table
	Segments per day	24	segments/day	Construction Confirmation Table
	Speed	60	km/h	Construction Confirmation Table
	Water Truck			
	Amount	1	Units	Construction Confirmation Table
	Segments per day	2	segments/day	Construction Confirmation Table
	Speed	15	km/h	Construction Confirmation Table
	Fuel Truck			
	Amount	1	Units	Construction Confirmation Table
	Segments per day	2	segments/day	Construction Confirmation Table
	Speed	60	km/h	Construction Confirmation Table
	Grader			
	Amount	1	Units	Construction Confirmation Table
	Segments per day	2	segments/day	Construction Confirmation Table
	Speed	5	km/h	Construction Confirmation Table
Source I.D.	**CR2 - Haul Road from Pit to MRSA**	**Value**	**Units**	**Reference**
CR2	Surface	Gravel	--	Construction Confirmation Table
	Mitigation	80	%	Construction Confirmation Table
	Pick up trucks			
	Amount	3	Units	Construction Confirmation Table
	Segments per day	6	segments/day	Construction Confirmation Table
	Speed	60	km/h	Construction Confirmation Table
	Haul Truck			
	Amount	2	Units	Construction Confirmation Table
	Segments per day	178	segments/day	Construction Confirmation Table
	Speed	50	km/h	Construction Confirmation Table
	Capacity	227	MT	Construction Confirmation Table
	Model	CAT 793F	--	Construction Confirmation Table
	Engine Size	2650	hp	Construction Confirmation Table
	Water Truck			
	Amount	1	Units	Construction Confirmation Table
	Segments per day	2	segments/day	Construction Confirmation Table
	Speed	15	km/h	Construction Confirmation Table
	Fuel Truck			
	Amount	1	Units	Construction Confirmation Table
	Segments per day	2	segments/day	Construction Confirmation Table
	Speed	45	km/h	Construction Confirmation Table
	Grader			
	Amount	1	Units	Construction Confirmation Table
	Segments per day	2	segments/day	Construction Confirmation Table
	Speed	5	km/h	Construction Confirmation Table
Source I.D.	**CR3 - Haul Road from Pit to Primary Crusher**	**Value**	**Units**	**Reference**
CR3	Surface	Gravel	--	Construction Confirmation Table
	Mitigation	80	%	Construction Confirmation Table
	Mechanical service truck			
	Amount	1	Units	Construction Confirmation Table
	Segments per day	2	segments/day	Construction Confirmation Table
	Speed	45	km/h	Construction Confirmation Table
	Haul Truck			
	Amount	1	Units	Construction Confirmation Table
	Segments per day	380	segments/day	Construction Confirmation Table
	Speed	50	km/h	Construction Confirmation Table
	Capacity	227	MT	Construction Confirmation Table
	Water Truck			
	Amount	1	Units	Construction Confirmation Table
	Segments per day	2	segments/day	Construction Confirmation Table
	Speed	15	km/h	Construction Confirmation Table
	Fuel Truck			
	Amount	1	Units	Construction Confirmation Table
	Segments per day	2	segments/day	Construction Confirmation Table
	Speed	45	km/h	Construction Confirmation Table
	Grader			
	Amount	1	Units	Construction Confirmation Table
	Segments per day	2	segments/day	Construction Confirmation Table
	Speed	5	km/h	Construction Confirmation Table

Source I.D.	CR4 - Haul Road from Pit to Mobile Crusher	Value	Units	Reference
CR4	Surface	Gravel	--	Construction Confirmation Table
	Mitigation	80	%	Construction Confirmation Table
	Dozer			
	Amount	2	Units	Construction Confirmation Table
	Segments per day	1	segments/day	Construction Confirmation Table
	Speed	5	km/h	Construction Confirmation Table
	Mechanical service truck			
	Amount	1	Units	Construction Confirmation Table
	Segments per day	2	segments/day	Construction Confirmation Table
	Speed	45	km/h	Construction Confirmation Table
	Haul Truck			
	Amount	1	Units	Construction Confirmation Table
	Segments per day	20	segments/day	Construction Confirmation Table
	Speed	50	km/h	Construction Confirmation Table
	Capacity	227	MT	Construction Confirmation Table
	Water Truck			
	Amount	1	Units	Construction Confirmation Table
	Segments per day	2	segments/day	Construction Confirmation Table
	Speed	15	km/h	Construction Confirmation Table
	Fuel Truck			
	Amount	1	Units	Construction Confirmation Table
	Segments per day	2	segments/day	Construction Confirmation Table
	Speed	45	km/h	Construction Confirmation Table
	Grader			
	Amount	1	Units	Construction Confirmation Table
	Segments per day	2	segments/day	Construction Confirmation Table
	Speed	5	km/h	Construction Confirmation Table
Source I.D.	**CR5 - Haul Road from Pit to PSMF**	**Value**	**Units**	**Reference**
CR5	Surface	Gravel	--	Construction Confirmation Table
	Mitigation	80	%	Construction Confirmation Table
	Pick up trucks			
	Amount	4	Units	Construction Confirmation Table
	Segments per day	8	segments/day	Construction Confirmation Table
	Speed	60	km/h	Construction Confirmation Table
	Haul Truck			
	Amount	2	Units	Construction Confirmation Table
	Segments per day	178	segments/day	Construction Confirmation Table
	Speed	50	km/h	Construction Confirmation Table
	Capacity	227	MT	Construction Confirmation Table
	Mechanical service truck			
	Amount	1	Units	Construction Confirmation Table
	Segments per day	2	segments/day	Construction Confirmation Table
	Speed	45	km/h	Construction Confirmation Table
	Water Truck			
	Amount	1	Units	Construction Confirmation Table
	Segments per day	2	segments/day	Construction Confirmation Table
	Speed	15	km/h	Construction Confirmation Table
	Fuel Truck			
	Amount	1	Units	Construction Confirmation Table
	Segments per day	2	segments/day	Construction Confirmation Table
	Speed	45	km/h	Construction Confirmation Table
	Grader			
	Amount	1	Units	Construction Confirmation Table
	Segments per day	2	segments/day	Construction Confirmation Table
	Speed	5	km/h	Construction Confirmation Table
Source I.D.	**CR6A - Peninsula Road - Highway to Industrial Park Road**	**Value**	**Units**	**Reference**
CR6A	Surface	Paved	--	Construction Confirmation Table
	Impact Traffic			
	Pick up trucks			
	Amount	68	units	Construction Confirmation Table
	Trucks per day	135	trucks/day	Construction Confirmation Table
	Segments per day	270	segments/day	Construction Confirmation Table
	Speed	80	km/h	Construction Confirmation Table
	Transports			
	Amount	1	units	Construction Confirmation Table
	Trucks per day	6	trucks/day	Construction Confirmation Table
	Segments per day	12	segments/day	Construction Confirmation Table
	Speed	80	km/h	Construction Confirmation Table
	Dump Truck			
	Amount	1	units	Construction Confirmation Table
	Trucks per day	6	trucks/day	Construction Confirmation Table
	Segments per day	12	segments/day	Construction Confirmation Table
	Speed	80	km/h	Construction Confirmation Table
	Bus			
	Amount	1	units	Construction Confirmation Table
	Bus per day	1	bus/day	Construction Confirmation Table
	Segments per day	2	segments/day	Construction Confirmation Table
	Speed	80	km/h	Construction Confirmation Table
	Baseline Traffic			
	Pick up trucks (Passenger vehicles and motorcycles)			
	Segments per day	2745	segments/day	Construction Confirmation Table
	Speed	80	km/h	Construction Confirmation Table
	Transports (long trucks)			
	Segments per day	91	segments/day	Construction Confirmation Table
	Speed	80	km/h	Construction Confirmation Table
	Bus			
	Segments per day	30	segments/day	Construction Confirmation Table
	Speed	80	km/h	Construction Confirmation Table
	Short Trucks			
	Segments per day	151	segments/day	Construction Confirmation Table
	Speed	80	km/h	Construction Confirmation Table

Source I.D.	CR6B - Peninsula Road - Industrial Park Road to Penn Lake Road	Value	Units	Reference
CR6B	Surface	Paved	--	Construction Confirmation Table
	Impact Traffic			
	Pick up trucks			
	Amount	68	units	Construction Confirmation Table
	Trucks per day	135	trucks/day	Construction Confirmation Table
	Segments per day	270	segments/day	Construction Confirmation Table
	Speed	80	km/h	Construction Confirmation Table
	Transports			
	Amount	1	units	Construction Confirmation Table
	Trucks per day	6	trucks/day	Construction Confirmation Table
	Segments per day	12	segments/day	Construction Confirmation Table
	Speed	80	km/h	Construction Confirmation Table
	Dump Truck			
	Amount	1	units	Construction Confirmation Table
	Trucks per day	4	trucks/day	Construction Confirmation Table
	Segments per day	8	segments/day	Construction Confirmation Table
	Speed	80	km/h	Construction Confirmation Table
	Bus			
	Amount	1	units	Construction Confirmation Table
	Bus per day	1	bus/day	Construction Confirmation Table
	Segments per day	2	segments/day	Construction Confirmation Table
	Speed	80	km/h	Construction Confirmation Table
	Baseline Traffic			
	Pick up trucks (Passenger vehicles and motorcycles)			
	Segments per day	2745	segments/day	Construction Confirmation Table
	Speed	80	km/h	Construction Confirmation Table
	Transports (long trucks)			
	Segments per day	91	segments/day	Construction Confirmation Table
	Speed	80	km/h	Construction Confirmation Table
	Bus			
	Segments per day	30	segments/day	Construction Confirmation Table
	Speed	80	km/h	Construction Confirmation Table
	Short Trucks			
	Segments per day	151	segments/day	Construction Confirmation Table
	Speed	80	km/h	Construction Confirmation Table
Source I.D.	**CR6C - Peninsula Road - Penn Lake Road to Hemlo Drive**	**Value**	**Units**	**Reference**
CR6C	Surface	Paved	--	Construction Confirmation Table
	Impact Traffic			
	Pick up trucks			
	Amount	68	units	Construction Confirmation Table
	Trucks per day	135	trucks/day	Construction Confirmation Table
	Segments per day	270	segments/day	Construction Confirmation Table
	Speed	80	km/h	Construction Confirmation Table
	Transports			
	Amount	1	units	Construction Confirmation Table
	Trucks per day	6	trucks/day	Construction Confirmation Table
	Segments per day	12	segments/day	Construction Confirmation Table
	Speed	80	km/h	Construction Confirmation Table
	Dump Truck			
	Amount	1	units	Construction Confirmation Table
	Trucks per day	4	trucks/day	Construction Confirmation Table
	Segments per day	8	segments/day	Construction Confirmation Table
	Speed	80	km/h	Construction Confirmation Table
	Bus			
	Amount	1	units	Construction Confirmation Table
	Bus per day	1	bus/day	Construction Confirmation Table
	Segments per day	2	segments/day	Construction Confirmation Table
	Speed	80	km/h	Construction Confirmation Table
	Baseline Traffic			
	Pick up trucks (Passenger vehicles and motorcycles)			
	Segments per day	2745	segments/day	Construction Confirmation Table
	Speed	80	km/h	Construction Confirmation Table
	Transports (long trucks)			
	Segments per day	91	segments/day	Construction Confirmation Table
	Speed	80	km/h	Construction Confirmation Table
	Bus			
	Segments per day	30	segments/day	Construction Confirmation Table
	Speed	80	km/h	Construction Confirmation Table
	Short Trucks			
	Segments per day	151	segments/day	Construction Confirmation Table
	Speed	80	km/h	Construction Confirmation Table

Source I.D.	Vehicle Type	Access Roads	Site Roads	Units	Reference
	Pick up trucks	60	45	kph	2020 Oct 19 Air Inputs
	Haul truck	--	30	kph	2020 Oct 19 Air Inputs
	Transport	50	45	kph	2020 Oct 19 Air Inputs
	Bus	50	--	kph	2020 Oct 19 Air Inputs
	Haul truck	50	50	kph	2020 Oct 19 Air Inputs - no haul trucks will be on access road
	Water Truck	15	15	kph	2020 Oct 19 Air Inputs
	Fuel Truck	60	45	kph	2020 Oct 19 Air Inputs

Source I.D.	Propane Heaters	Capacity	Units	Quantity	Reference
CH1	CH1 - Garage heat	5	MMBTU/Hr	2	Construction Confirmation Table
CH2	CH2 - Construction offices heat	0.5	MMBTU/Hr	1	Construction Confirmation Table

Size Fractions

Process	Reference	Source	TSP	PM10	PM2.5	PM10/TSP	PM2.5/PM10	PM2.5/TSP
Crushed Stone Processing	Table 11.19.2-1	Tertiary Crushing (controlled)	0.0006	0.00027	0.00005	0.450	0.185	0.083
		Fines Crushing (controlled)	0.0015	0.0006	0.000035	0.400	0.058	0.023
		Conveyor transfer points (controlled)	0.00007	2.30E-05	6.50E-06	0.329	0.283	0.093
Aggregate handling and storage piles	Section 13.2.4.3	Drop equation	0.74	0.35	0.053	0.473	0.151	0.072
Industrial Wind Erosion	Section 13.2.5	PM size mulipliers	1	0.5	0.075	0.500	0.150	0.075
Unpaved roads	13.2.2	PM size mulipliers	4.9	1.5	0.15	0.306	0.100	0.031

Source: Primary Crusher
Source ID: CS1, CS2, CS3

Primary Crushing (CS1)

Description:

Primary crushing of ore.

Methodology: Emission Factor (EF)

Emission factors for primary crushing were based on US EPA AP-42 document Chapter 11.24 (Metallic Minerals Processing) Table 11.24-1 Emission Factors for Metallic Minerals Processing. Emission factor is for a typical primary crusher unit operation including hopper, screens, crusher, surge bin, apron feeder and converyor belt systems. Emission factors for high moisture content ore (>= 4%) used.

Input	Value	Units	Source
Material throughput (No Screen)	43200	tonnes/day	Construction Confirmation Table
Quantity of Baghouse	1	Unit	2020 Oct 19 Air Inputs
Operating Time	24	hr/day	2020 Oct 19 Air Inputs * assumed same as operations
Mitigation	99	%	Construction Confirmation Table

	Emission Factor (kg/MT)	Rating	Emission Rate (CS1) (g/s)	Comments
TSP	0.01	D	5.00E-02	
PM10	0.004	D	2.00E-02	
PM2.5	0.0007	E	3.70E-03	PM2.5 EF estimated based on the ratio of PM2.5/PM10 provided in AP-42 for tertiary crushing of crushed stone, which is expected to be conservative for this process.

Notes:

1. Metals emission are calculated in Tab "Metals"

Primary Crusher Baghouse (CS2)

Description:

Particulate emissions from the material handling from the Primary Crusher.

Methodology: Emission Factor (EF)

Particulate emissions are emitted as fugitives from handling operations and controlled by a baghouse. Emission factor for TSP is estimated at 20 or 10 mg/m3 as per the MECP document "Procedure for Preparing an ESDM Report" Appendix C.

Input Data:	Value	Units	Source
Operating Time	24	hr/day	2020 Oct 19 Air Inputs * assumed same as operations
CFM of Baghouse	75000	CFM	2020 Oct 19 Air Inputs * assumed same as operations
	2123.84	m3/min	Calculation
EF (TSP)	20	mg/m3	MECP Recommended BH EF.
Ratio PM10/TSP	0.48		AP-42, App B-1, Section 11.xx (fluorspar ore drum dryer with fabric filter
Ratio PM2.5/TSP	0.1		AP-42, App B-1, Section 11.xx (fluorspar ore drum dryer with fabric filter

	Emission Rate (CS2)	
TSP	0.708	g/s
PM10	0.340	g/s
PM2.5	0.071	g/s

Notes:

1. Metals emission are calculated in Tab "Metals"

Crushed Waste Rock (Primary Crusher) Material Handling (CS3)

Description:

Material transfer (Loading to storage pile)

Methodology: Emission Factor (EF)

Emission factor for material unloading/dropping was calculated using Equation (1) in the US EPA AP-42 document Chapter 13.2.4 (Aggregate Handling and Storage Piles). The equation is:

$$E = k(0.0016)\ \frac{\left(\frac{U}{2.2}\right)^{1.3}}{\left(\frac{M}{2}\right)^{1.4}}\ \text{(kg/megagram [Mg])}$$

where:

E = emission factor

k = particle size multiplier (dimensionless)

U = mean wind speed, meters per second (m/s)

M = material moisture content (%)

The particle size multiplier in the equation, k, varies with aerodynamic particle size range, as follows:

Aerodynamic Particle Size Multiplier (k) For Equation 1 (US EPA AP-42 document Chapter 13.2.4)	< 30 µm	0.74	Note: It is assumed that k=0.74 for total particulate matter (<30 µm) consistent with the assumption in U.S. EPA AP-42 Chapter 13.2.2
	< 10 µm	0.35	
	< 2.5 µm	0.053	

Inputs	Value	Units	Source
Moisture Content	4	%	2020 Oct 19 Air Inputs
Mean Wind Speed	3.82	m/s	MOE - Marathon & Sudbury

Input	Value	Units	Source
Material throughput (No Screen)	43200	tonnes/day	Construction Confirmation Table
Operating Time	24	hr/day	2020 Oct 19 Air Inputs * assumed same as operations

	Emission Factor (kg/MT)	Rating	Daily Average Emission Rate (CS3) (g/s)	Comments
TSP	9.19E-04	A	4.60E-01	
PM10	4.35E-04	A	2.17E-01	
PM2.5	6.58E-05	A	3.29E-02	

Source: Stockpile Erosion
Source IDs: CS4, CS5, CS6, CS9-CS15, CS22, CS24, CS25, CS26

Stockpile erosion due to high winds are calculated here:
1) Erosion of the crushed waste rock (primary crusher) (CS4)
2) Erosion of the MRSA (CS5)
3) Erosion of the PSMF (CS6)
4) Erosion of the mobile crusher storage piles #1-#7 (CS9-CS15)
5) Erosion of the concrete batch plant sand stockpile (CS22)
6) Erosion of the overburden storage piles #1-#3 (CS24-CS26)

Source : Storage piles will be subject to winds which can erode storage piles causing dust emissions

Description:
Storage piles will be sitting in the open, high winds can erode and pick up dust from these piles causing dust emissions.

Contaminant(s) of Concern:
Particulate and metals are the contaminants of concern.

Methodology: Emission Factor (EF)
The calculation is based on emission estimation methodology and related emission factors in Chapter 13.2.5 of US EPA AP-42 entitled "Industrial Wind Erosion".
The following emission estimation equations are used:
The emission factor for wind-generated particulate emissions from mixtures of erodible and nonerodible surface material subject to disturbance may be expressed in units of grams per square meter (g/m2) per year as follows:

$$\text{Emission factor} = k \sum_{i=1}^{N} P_i \quad (2)$$

where:

k = particle size multiplier
N = number of disturbances per year
P_i = erosion potential corresponding to the observed (or probable) fastest mile of wind for the ith period between disturbances, g/m^2

The particle size multiplier (k) for Equation 2 varies with aerodynamic particle size, listed as follows:

K for Equation 2			
	30 um	**<10 um**	**<2.5 um**
Chapter 13.2.5	1	0.5	0.075

The erosion potential function for a dry, exposed surface is:

$$P = 58 (u^* - u_t^*)^2 + 25 (u^* - u_t^*)$$

$$P = 0 \text{ for } u^* \leq u_t^*$$

where:

u^* = friction velocity (m/s)
u_t = threshold friction velocity (m/s)

The following equation is used to convert the fastest mile of wind (u+) from a reference anemometer height of 10 m to the equivalent friction velocity (u*). This equation is applied to large relatively flat piles or exposed areas with little penetration into the surface wind layer.

$$u^* = 0.053\ u_{10}^+$$

		Unit	Reference
Operating hours	24	hrs/day	Daily operating hours
% of Mobile Crusher Storage Piles used each day	50%	%	Construction Confirmation Table, 25% from conveyor, 25% from loader
Mobile Crusher Storage Piles surface area used per day	1656	m2	Effective surface area (based on % used each day)
% of Concrete Batch Plant Sand Storage Pile used each day	25%	%	Construction Confirmation Table
Concrete Batch Plant Sand Storage Pile surface area used per day	618.52	m^2	Effective surface area (based on % used each day)
% of Crushed Waste Rock Stockpile (PC) used each day	50%	%	Construction Confirmation Table
Crushed Waste Rock Stockpile (PC) surface area used per day	1,656.5	m^2	Effective surface area (based on % used each day)
% of MRSA used each day	100%	%	Construction Confirmation Table
MRSA surface area used per day	10,000	m^2	Effective surface area (based on % used each day)
% of PSMF used each day	100%	%	Construction Confirmation Table
PSMF surface area used per day	10,000	m^2	Effective surface area (based on % used each day)
% of Overburden Storage Pile #1 used each day	100%	%	Construction Confirmation Table
Overburden Storage Pile #1 surface area used per day	500	m^2	Effective surface area (based on % used each day)
% of Overburden Storage Pile #2 used each day	100%	%	Construction Confirmation Table
Overburden Storage Pile #2 surface area used per day	500	m^2	Effective surface area (based on % used each day)
% of Overburden Storage Pile #3 used each day	100%	%	Construction Confirmation Table
Overburden Storage Pile #3 surface area used per day	500	m^2	Effective surface area (based on % used each day)
Threshold Friction Velocity - U_t* (m/s)[1]	1.02	m/s	13.2.5 of US EPA AP-42 (overburden data was used).
Threshold (m/s) @10m	19	m/s	Calculated

Mobile Crusher Storage Piles

Wind Speed Category	Threshold Wind Velocity (m/s) @10m	Threshold Friction Velocity (m/s)	Will cause erosion?[3]	N[2]	3-second wind gust factor[4]	V_{3s} (3-second gust) (m/s)	V_{fm} (fastest mile)[5] (m/s)	Friction Velocity - U* (m/s)	Dust Control Efficiency (%)	Emissions (kg/day)			Estimated Emission Rate[4] (g/s)		
										PM	PM-10	PM-2.5	PM	PM-10	PM-2.5
0-1.54	19.2	1.02	No	1	1.53	2.4	1.54	0.08	0	0	0	0	0	0	0
1.54-3.09			No			4.7	3.09	0.164		0	0	0	0	0	0
3.09-5.14			No			7.9	5.14	0.27		0	0	0	0	0	0
5.14-8.23			No			12.6	8.23	0.44		0	0	0	0	0	0
8.23-10.8			No			16.5	11.27	0.60		0	0	0	0	0	0
10.8-			Yes			26.0	20.30	1.08		2	1.25	0.09	**0.029**	**0.014**	**0.002**

Stockpile emissions summary (wind speed category >10.8 m/s)

Source			Unit
Mobile Crusher Storage Piles PM Emissions	TSP	2.62	kg/day
Concrete Batch Plant Sand Storage Pile PM Emissions	TSP	0.98	
Crushed Waste Rock Stockpile (PC) PM Emissions	TSP	2.62	
MRSA PM Emissions	TSP	15.80	
PSMF PM Emissions	TSP	15.80	
Overburden Storage Pile #1 PM Emissions	TSP	0.79	
Overburden Storage Pile #2 PM Emissions	TSP	0.79	
Overburden Storage Pile #3 PM Emissions	TSP	0.79	
Mobile Crusher Storage Piles PM Emissions (CS9-CS15)	TSP	3.03E-02	g/s
	PM10	1.52E-02	
	PM2.5	2.27E-03	
Concrete Batch Plant Sand Storage Pile PM Emissions (CS22)	TSP	1.13E-02	
	PM10	5.66E-03	
	PM2.5	8.49E-04	
Crushed Waste Rock Stockpile (PC) PM Emissions (CS4)	TSP	3.03E-02	
	PM10	1.52E-02	
	PM2.5	2.27E-03	
MRSA PM Emissions (CS5)	TSP	1.83E-01	
	PM10	9.15E-02	
	PM2.5	1.37E-02	
PSMF PM Emissions (CS6)	TSP	1.83E-01	
	PM10	9.15E-02	
	PM2.5	1.37E-02	
Overburden Storage Pile #1 PM Emissions (CS24)	TSP	9.15E-03	
	PM10	4.57E-03	
	PM2.5	6.86E-04	
Overburden Storage Pile #2 PM Emissions (CS25)	TSP	9.15E-03	
	PM10	4.57E-03	
	PM2.5	6.86E-04	
Overburden Storage Pile #3 PM Emissions (CS26)	TSP	9.15E-03	
	PM10	4.57E-03	
	PM2.5	6.86E-04	

Note:
1. Data from Section 13.2.5 of US EPA AP-42 (overburden data was used).
2. N - Number of disturbances. The calculations presented are for 1 disturbance event. The AERMOD model will use variable emissions to account for the number of times the threshold friction velocity is met.
3. For these calculations, only wind speeds over 10.8 m/s will cause erosion. Since the other stockpiles are subject to the same criteria, subsequent calculations for both phases and other stockpiles will only show emissions for this wind speed category
4. Used to convert the upper end of each wind speed category into the highest sustained gust over a 3-second period within 1 hour. Figure C6-4 from ASCE7-05. *Minimum Design Loads for Buildings and Other Structures.* For wind speed category >10.8m/s, a wind speed of 17m/s was selected to have a friction velocity greater than the threshold friction velocity.
5. Convert 3-second gust to fastest mile. International Building Code Equation 16-31: $V_{fm}=(V_{3s}-10.5)/1.05$ (units in mph). The upper end of the wind speed category was selected when it was larger than the calculated fastest mile (for lower wind speed categories)

Data Quality: Marginal
The data quality of the emission calculation is assumed to be "Marginal".

Operating Condition, Individual Maximum Rates of Production:
The emission rate calculation for this source is based on the trucks operating continuously at its maximum production rate. The calculated emission rate should be conservative.

Source: Mobile Crushing
Source ID: CS7, CS8

Description:

Mobile crushing of ore using jaw and cone crushers

Methodology: Emission Factor (EF)

Emission factors for mobile crushing were based on US EPA AP-42 document Chapter 11.24 (Metallic Minerals Processing) Table 11.24-1 Emission Factors for Metallic Minerals Processing

Inputs	Value	Units	Source
Specific Gravity - Waste Rock	2.5	MT/m3	
Operating Hours	16	hr/day	2020 Oct 19 Air Inputs
Mitigation			water sprays

Equipment	Model	Material Throughput (MT/hr)	Control	Source
Primary Crusher - Jaw Crusher	C160	384	y	2020 Oct 19 Air Inputs
Secondary Crusher - Cone	GP500S	299	y	2020 Oct 19 Air Inputs
Tertiary Crusher	GP550	N/A	N/A	2020 Oct 19 Air Inputs
Tertiary / Fines Crusher	GP550	N/A	N/A	2020 Oct 19 Air Inputs

	Emission Factor (kg/MT)			Hourly Average Emission Rate (g/s)	
	Primary crushing	Secondary Crushing	Tertiary Crushing	Primary Crusher - Jaw Crusher	Secondary Crusher - Cone
PM	0.01	0.03	0.03	1.07E+00	2.49E+00
PM10	0.004	0.012	0.01	4.27E-01	9.97E-01
PM2.5	0.001	0.002	0.002	7.90E-02	1.85E-01
Rating	C	D	E		

Notes:

1. Metals emission are calculated in Tab "Metals"

Source: Generators
Source ID: CS16, CS17, CS18, CS19, CS20

Description:
Combustion emissions from generators. Emissions are calculated per generator.

Methodology: Emission Factor (EF) and Mass Balance (MB)
Emissions of NOx, PM and CO from the generators are based on manufacturer's emissions data of CAT Prime 1275. Additional emissions control may be included to meet Ontario requirements at the permitting stage.

Inputs	Value	Units	Source
Number of units	5	units	2020 Oct 19 Air Inputs
Capacity	1.275	MW	2020 Oct 19 Air Inputs
Power Output:	1709.8	hp	Specs
Fuel Input:	12.80	MMBTU/hour	Calculation
max Fuel Flow	91.7	USG/hr	Equipment Spec
Heating Value (Diesel)	139,600	BTU/USG	U.S.EPA
Operating Hours			
Usage	24	hr/day	Construction Confirmation Table
Exhaust Temp	459.9	C	Equipment Spec
Exhaust Gas Flow Rate	300.7	m3/min	Equipment Spec
Exhaust flange size	0.2032	m	Equipment Spec

Contaminant	(U.S.EPA AP-42 Section 3	.S.EPA AP-42 Sectior	EF (Equipment specs)	Rating	Emission Rate (g/s)	Comments
	(lb/hp-hr)	(lb/MMBTU)	(g/hp-hr)		1 hr	
NOx	0.024	3.2	8.97	D	4.26E+00	
CO	5.50E-03	0.85	1.44	D	6.84E-01	
SOx			0.0953	D	2.43E-03	Mass balance based on max S content in diesel regulation and max diesel consumption. EF factor calculated below
TSP					4.27E-02	
PM10	0.0007	0.1	0.09	D	4.27E-02	
PM2.5					4.27E-02	Assumed PM2.5 = PM10 = TSP
CO2	1.16	165		B	2.50E+02	
Aldehydes	0.000463	0.07		D	1.00E-01	
TOC (Methane)	7.05E-04	0.09		D	1.52E-01	
Benzene		7.76E-04		E	1.25E-03	
Toluene		2.81E-04		E	4.54E-04	
Xylenes		1.93E-04		E	3.12E-04	
Propylene		2.79E-03		E	4.51E-03	
1,3-Butadiene				E	0.00E+00	
Formaldehyde		7.89E-05		E	1.28E-04	
Acetaldehyde		2.52E-05		E	4.07E-05	
Acrolein		7.88E-06		E	1.27E-05	
Naphthalene		1.30E-04		E	2.10E-04	
Acenaphthylene		9.23E-06		E	1.49E-05	
Acenaphthene		4.68E-06		E	7.56E-06	
Fluorene		1.28E-05		E	2.07E-05	
Phenanthrene		4.08E-05		E	6.59E-05	
Anthracene		1.23E-06		E	1.99E-06	
Fluoranthene		4.03E-06		E	6.51E-06	
Pyrene		3.71E-06		E	6.00E-06	
Benzo(a)anthracene		6.22E-07		E	1.01E-06	
Chrysene		1.53E-06		E	2.47E-06	
Benzo(b)fluoranthene		1.11E-06		E	1.79E-06	
Benzo(k)fluoranthene		2.18E-07		E	3.52E-07	
Benzo(a)pyrene		2.57E-07		E	4.15E-07	
Indeno(1,2,3-cd)pyrene		4.14E-07		E	6.69E-07	
Dibenz(a,h)perylene		3.46E-07		E	5.59E-07	
Benzo(g,h,I)perylene		5.56E-07		E	8.99E-07	
Total PAH		2.12E-04		E	3.43E-04	

SO_2 emission is based on the maximum allowable sulfur content in diesel and fuel consumption of the equipment. SO_2 emission factor is calculated below.

SO2 Emission Factor Calculation:

Data	Value	Unit	Reference
Sulphur content in diesel	15	ppm	Highway, Nonroad, Locomotive, and Marine Diesel Fuel Sulfur Standards
Lower Heating Value	139,600	BTU/gal	Equipment Spec
Unit Conversion	0.00029	kWh/BTU	-
	454	g/lb	-
Density of diesel	7.00	lb/gal	-
SO_2/ gallon of diesel	0.0953	g SO_2/gal	A factor of 2 is applied to convert sulfur to SO_2, assuming all the sulfur will be

Note: Emissions are calculated based on sulphur content in diesel as per Sulphur in Diesel Fuel Regulations.

Source: Concrete Batch Plant
Source ID: CS21, CS23

Concrete Batch Plant (CS21)
Description:
Particulate emissions from concrete batch plant.

Methodology: Emission Factor (EF)
Emission factors for the concrete batch plant were based on US EPA AP-42 document Chapter 11.12 (Concrete Batching) Table 11.12-1 Emission Factors for Concrete Batching

Input Data	Value	Units	Source
Concrete			
Plant Output	250	m3/hr	2020 Oct 19 Air Inputs
Operating Hours of Plant	12	hr/day	2020 Oct 19 Air Inputs
Batch Recipe			
Gravel	43	%	Construction Confirmation Table
Sand	35	%	Construction Confirmation Table
Air	2	%	Construction Confirmation Table
Cement	15	%	Construction Confirmation Table
Water	5	%	Construction Confirmation Table
Radial Stack Drop into Bins			
Gravel	146	MT/hr	Construction Confirmation Table
Sand	182	MT/hr	Construction Confirmation Table
Weigh Hopper Loading			
Loading amount (combination of sand and grave	328	MT/hr	Construction Confirmation Table
Concrete Truck Loading			
Cement	118	MT/hr	Construction Confirmation Table

	Radial Stack Drop into Bins (CS21)				Weigh Hopper Loading (CS21)		Concrete Truck Loading (CS21)		Comments
CoPC	Emission Factor (kg/Mg)	Hourly Average Emission Rates (g/s) Loading Sand	Emission Factor (kg/Mg)	Hourly Average Emission Rate (g/s) Loading Gravel	Emission Factor (kg/Mg)	Emission Rates (g/s)	Emission Factor (kg/Mg)	Hourly Average Emission Rates (g/s)	
PM	0.0011	5.56E-02	0.0035	1.42E-01	0.0026	2.37E-01	0.049	1.61E+00	Emission factors for Concrete Batching from AP-42, Table 11.12-1. Emission factors for a controlled unit were used (where available), assuming a typical concrete batch plant with dust collection system.
PM10	0.00051	2.58E-02	0.0017	6.89E-02	0.0013	1.18E-01	0.0131	4.29E-01	
PM2.5	0.00008	3.90E-03	0.0003	1.04E-02	0.0002	1.79E-02	0.002	6.50E-02	PM2.5 EF estimated based on the ratio of PM2.5/PM10 provided in AP-42 for aggregate handling

Notes:
1. Metals emission are calculated in Tab "Metals"

Cement Silo (CS23)

Description:

Particulate emissions from the material handling from the Cement Silo.

Methodology: Emission Factor (EF)

Particulate emissions are emitted as fugitives from handling operations and controlled by a baghouse. Emission factor for TSP is estimated at 20 or 10 mg/m3 as per the MECP document "Procedure for Preparing an ESDM Report" Appendix C.

	Baghouse		
Input Data	**Value**	**Units**	**Source**
Cement Silo			
Fan Capacity	6500	CFM	2020 Oct 19 Air Inputs
	184.07	m3/min	Calculation
EF (TSP)	10	mg/m3	MECP Recommend BH EF
Ratio PM10/TSP	0.48		AP-42, App B-1, Section 11.xx (fluorspar ore drum dryer with fabric filter
Ratio PM2.5/TSP	0.1		AP-42, App B-1, Section 11.xx (fluorspar ore drum dryer with fabric filter

	Baghouse (CS23)
	Hourly Average Emission Rate (g/s)
CoPC	**Silos**
TSP	3.07E-02
PM10	1.47E-02
PM2.5	3.07E-03

Notes:

1. Metals emission are calculated in Tab "Metals"

Source: Concrete Plant Material Handling
Source ID: CM9

Methodology: Emission Factor (EF)

Emission factors for the concrete material handling were based on US EPA AP-42 document Chapter 11.12 (Concrete Batching) Table 11.12-1 Emission Factors for Concrete Batching

Input	Value	Unit	Source
Amount gravel	146	MT/hr	Construction Confirmation Table
Amount sand	182	MT/hr	Construction Confirmation Table

Contaminant	Emission Factor (kg/MG)		Hourly Average Emission Rate CM9 (g/s)		Comments
	Gravel	Sand	Gravel	Sand	
PM	0.0035	0.0011	1.42E-01	5.56E-02	
PM10	0.0017	0.00051	6.89E-02	2.58E-02	
PM2.5	0.0003	0.00008	1.04E-02	3.90E-03	PM2.5 EF estimated based on the ratio of PM2.5/PM10 provided in AP-42 for aggregate handling

Notes:

1. Metals emission are calculated in Tab "Metals"

Source: Unloading
Source IDs: CM1, CM3, CM4A, CM4B, CM5, CM8, CM10, CM11, CM12

Methodology: Emission Factor (EF)
Emission factor for material unloading/dropping was calculated using Equation (1) in the US EPA AP-42 document Chapter 13.2.4 (Aggregate Handling and Storage Piles). The equation is:

$$E = k(0.0016) \frac{\left(\frac{U}{2.2}\right)^{1.3}}{\left(\frac{M}{2}\right)^{1.4}} \text{ (kg/megagram [Mg])}$$

where:
E = emission factor
k = particle size multiplier (dimensionless)
U = mean wind speed, meters per second (m/s)
M = material moisture content (%)
The particle size multiplier in the equation, k, varies with aerodynamic particle size range, as follows:

Aerodynamic Particle Size Multiplier (k) For Equation 1 (US EPA AP-42 document Chapter 13.2.4)	< 30 µm	0.74	Note: It is assumed that k=0.74 for total particulate matter (<30 µm) consistent with the assumption in U.S. EPA AP-42 Chapter 13.2.2
	< 10 µm	0.35	
	< 2.5 µm	0.053	

Inputs	Value	Units	Source
Moisture Content	4	%	2020 Oct 19 Air Inputs
Mean Wind Speed	3.82	m/s	MOE - Marathon & Sudbury
Unloading at Primary Crusher (CM1)			
Unloading at Primary Crusher - Amount of Ore	43200	tonnes/day	Construction Confirmation Table
Operating hours	22	hr/day	Assumption
Unloading at MRSA (CM3)			
Amount of Waste Rock	20157	tonnes/day	Construction Confirmation Table
Number of trucks	1	unit	2020 Oct 19 Air Inputs
Operating hours	22	hr/day	2020 Oct 19 Air Inputs
Unloading at PSMF (CM4)			
Amount of Waste Rock to PSMA	20157	tonnes/day	Construction Confirmation Table
Number of trucks	5	units	2020 Oct 19 Air Inputs
Operation time	22	hr/day	2020 Oct 19 Air Inputs
Unloading at MC (CM5)			
Amount of Waste rock to Mobile crusher	4608	tonnes/day	Construction Confirmation Table
Number of trucks	3	units	2020 Oct 19 Air Inputs
Operating hours	12	hr/day	2020 Oct 19 Air Inputs
Sand Material Delivery (CM8)			
Sand delivered (outsourced)	20	MT/h	Construction Confirmation Table
Operating hours	12	h/day	Construction Confirmation Table
Overburden Material Handling 1 (CM10)			
Amount of material	616	MT/day	Construction Confirmation Table
Overburden Material Handling 2 (CM11)			
Amount of material	616	MT/day	Construction Confirmation Table
Overburden Material Handling 3 (CM12)			
Amount of material	616	MT/day	Construction Confirmation Table

	Emission Factor	Emission Rate (g/s)							
CoPC	**(kg/MT)**	**PC (CM1)**	**MRSA (CM3)**	**PSMF Loc 1 (CM4A)**	**PSMF Loc 2 (CM4B)**	**MC (CM5)**	**Sand (CM8)**	**OB 1 (CM10)**	**OB 2 (CM11)**	**OB 3 (CM12)**
TSP	9.19E-04	5.01E-01	2.34E-01	1.17E-01	1.17E-01	9.81E-02	5.11E-03	6.55E-03	6.55E-03	6.55E-03
PM10	4.35E-04	2.37E-01	1.11E-01	5.53E-02	5.53E-02	3.02E-05	2.42E-03	3.10E-03	3.10E-03	3.10E-03
PM2.5	6.58E-05	3.59E-02	1.68E-02	8.38E-03	8.38E-03	1.83E-05	3.66E-04	4.69E-04	4.69E-04	4.69E-04

Notes:
1. Sources modelled using the emission rates noted above and as wind speed dependent using the emission weighting factors provided below.
2. Metals emission are calculated in Tab "Metals"

Emissions - Wind Speed Dependent Factors to Use in Modelling

Wind Speed (m/s)	nission Factor (kg/M	Wind Speed Dependent Factor for Dispersion Modelling
1.54	2.82E-04	0.307
3.09	6.98E-04	0.759
5.14	1.35E-03	1.471
8.23	2.49E-03	2.712
10.8	3.55E-03	3.862
14.5	5.21E-03	5.664
Average Wind Speed used in Calculations Above		
3.82	9.19E-04	1.000

Source: Loading
Source IDs: CM2, CM5

Methodology: Emission Factor (EF)

Emission factor for material unloading/dropping was calculated using Equation (1) in the US EPA AP-42 document Chapter 13.2.4 (Aggregate Handling and Storage Piles). The equation is:

$$E = k(0.0016)\ \frac{\left(\frac{U}{2.2}\right)^{1.3}}{\left(\frac{M}{2}\right)^{1.4}}\ \text{(kg/megagram [Mg])}$$

where:
E = emission factor
k = particle size multiplier (dimensionless)
U = mean wind speed, meters per second (m/s)
M = material moisture content (%)
The particle size multiplier in the equation, k, varies with aerodynamic particle size range, as follows:

Aerodynamic Particle Size Multiplier (k) For Equation 1 (US EPA AP-42 document Chapter 13.2.4)	< 30 µm	0.74	Note: It is assumed that k=0.74 for total particulate matter (<30 µm) consistent with the assumption in U.S. EPA AP-42 Chapter 13.2.2
	< 10 µm	0.35	
	< 2.5 µm	0.053	

Inputs	**Value**	**Units**	**Source**
Moisture Content	4	%	2020 Oct 19 Air Inputs
Pit mean wind speed	2.43	m/s	MECP - Marathon & Sudbury. WS at 2-m height assumed to account for lower wind speeds in the pit.
Mean Wind Speed	3.82	m/s	MOE - Marathon & Sudbury
Loading in Pit (CM2)			
Loading amount	28366	MT/day	Construction Confirmation Table - need to prorate metals based on distrib
Operating hours	22	hr/day	2020 Oct 19 Air Inputs
Loading at MC (CM5)			
Amount of Waste Rock	4608	tonnes/day	Construction Confirmation Table
Number of trucks	3	units	2020 Oct 19 Air Inputs
Operating hours	12	hr/day	2020 Oct 19 Air Inputs

CoPC	Emission Factor (kg/MT)	Daily Average Emission Rate (g/s) Loading in Pit (CM2)	Emission Factor (kg/MT)	Daily Average Emission Rate (g/s) Loading at MC (CM5)
TSP	5.12E-04	1.83E-01	9.19E-04	9.81E-02
PM10	2.42E-04	8.67E-02	4.35E-04	4.64E-02
PM2.5	3.66E-05	1.31E-02	6.58E-05	7.02E-03

Notes:

1. CM5 source modelled using the emission rates noted above and as wind speed dependent using the emission weighting factors provided below.

2 - Metals emissions calculated in Tab "Metals"

Emissions - Wind Speed Dependent Factors to Use in Modelling

Wind Speed (m/s)	Emission Factor (kg/MT)	Wind Speed Dependent Factor for Dispersion Modelling
1.54	2.82E-04	0.307
3.09	6.98E-04	0.759
5.14	1.35E-03	1.471
8.23	2.49E-03	2.712
10.8	3.55E-03	3.862
14.5	5.21E-03	5.664
Average Wind Speed used in Calculations Above		
3.82	9.19E-04	1.000

Source: DRILLING
Source ID: CM2

Description:

Explosives are placed in various holes for blasting. These holes are drilled continuously and their emissions are calculated here.

Methodology: Emission Factor (EF)

Emission factors for drilling were based on US EPA AP-42 document Chapter 11.9 (Western Surface Coal Mining) Table 11.9-4 Uncontrolled Particulate Emission Factors for Open Dust Sources at Western Surface Coal Mines

E = EF (kg/hole) x Number of holes drilled /day

Where E = kg of emissions /day

Inputs	Value	Units	Source
Production Drills			
Number of drills	2	units	Construction Confirmation Table
drill holes per hr	1.7	holes/hr/drill	2020 Oct 19 Air Inputs
Operating Time	15	hrs/day	2020 Oct 19 Air Inputs
Cut Drills			
Number of drills	4	units	2020 Oct 19 Air Inputs
drill holes per hr	1.7	holes/hr/drill	2020 Oct 19 Air Inputs
Operating Time	5	hrs/day	2020 Oct 19 Air Inputs

Contaminant	EF (kg/hole)	Rating	Emission Rate (g/s)	
			Production Drill	Cut Drill
PM	0.59	C	5.57E-01	1.11E+00
PM10	0.31	C	2.93E-01	5.86E-01
PM2.5	0.05735	PM2.5/PM10	5.42E-02	1.08E-01

Notes:

1 - Metals emission are calculated in Tab "Metals"

Source: Blasting
Source ID: CM2

Description:

Blasting is used to loosen ore and waste rock. These emissions are intermittent and non-continuous.

Methodology: Emission Factor (EF)

Emission factor for blasting calculated using Equation (1) in the US EPA AP-42 document Chapter 11.9 (Western Surface Coal Mining) Table 11.9-2 was used to estimate emissions from blasting.
Explosives Detonation factors derived from US EPA AP-42 document Chapter 13.3 (Explosive Detonation). Assumed ANFO explosives
Austrailia Government - NPI - Explosives Detonation and Firing Ranges

$$E = 0.00022(A)^{1.5}$$

where:
E=Emissions of TSP (kg/blast) (<=30um)
A=horizontal area (m^2)

Input	Value	Unit	Source
Type of Explosive:	70% ANFO		2020 Oct 19 Air Inputs
Time for blast	1	sec	Assumption
Number of Blasts	1	blast/day	2020 Oct 19 Air Inputs
	1	blast/hr	
	1	hr/day	
Kg of Explosive used	157,500	kg/blast	2020 Oct 19 Air Inputs
Blast Area - waste	9,125	m2	2020 Oct 19 Air Inputs
Control		%	

	Emission Factor (kg/blast)	Emission Factor (kg/tonne explosive)	Emission Rate in 1-Hour (g/s)	Reference
PM	191.77	--	5.33E+01	U.S.EPA AP-42, Ch. 11.9 "Western Coal Mining" Table 11.9-2
PM10	99.72	--	2.77E+01	
PM2.5	5.75	--	1.60E+00	
CO		12	525	Austrailia Government - NPI - Explosives Detonation and Firing Ranges Appendix C. EFs for CO, NOx and SO2 are for Avergage heavy ANFO/Emulsion, Heavy ANFO, ANFO (on site mix) respectively.
NOx		2	87.5	
SO2		0.06	2.63	

Notes:

1 - Emission rates are max hourly emissions during an hour with a blast.
2 - Emissions are conservatively modelled in the assessment as occuring for 1-hour per day (i.e. 1 blast per day). Blasting was assumed to occur around mid-afternoon during weekdays.
3 - Metals emission are calculated in Tab "Metals"

Source: Mucking (Bulldozing)
Source IDs: CM2, CM3, CM4A, CM4B, CM6

Description:

Overburden and waste rock is moved with various bulldozers

Methodology: Emission Factor (EF)

Emission factor for bulldozing of material other than coal in the US EPA AP-42 document Chapter 11.9 (Western Surface Coal Mining) Table 11.9-2 was used to estimate the dust emissions. The emission calculation equation in the table is:

$E = 2.6 \times s^{1.2} / M^{1.3}$ $\quad E\ (PM10) = 0.34 \times s^{1.5} / M^{1.4}$

where:

E = emission factor (kg/h)

s = material silt content (%)

M = material moisture content (%)

The emission calculation for each unit is listed in the following table.

Exponents for Equations	TSP	PM10
k	2.6	0.34
a	1.2	1.5
b	1.3	1.4

Input	Value	Units	Source
Silt Content	2	%	2020 Oct 19 Air Inputs
Moisture Content	4	%	2020 Oct 19 Air Inputs

Open Pit (CM2)

Dozer - Operating Hrs	14.5	hr/day	2020 Oct 19 Air Inputs * assumed same as ope
Number of wheel dozers in pit	2	unit	Construction Confirmation Table
Dozer Engine Size	646	hp	Construction Confirmation Table
Dozer Model	D10T	--	Construction Confirmation Table

MRSA Waste Rock Handling (CM3)

Operating Hrs	14.5	hr/day	2020 Oct 19 Air Inputs * assumed same as ope
Number of tracked dozers	2	unit	Construction Confirmation Table
Dozer Engine Size	646	hp	Construction Confirmation Table
Dozer Model	D10T	--	Construction Confirmation Table
Number of excavators	2	unit	Construction Confirmation Table
Excavator Engine Size	417	hp	Construction Confirmation Table
Excavator Model	349F	--	Construction Confirmation Table

PSMF Waste Rock Handling (CM4A, CM4B)

Mucking - PSMF Location 1			
Operating Hrs	14.5	hr/day	2020 Oct 19 Air Inputs * assumed same as ope
Number of Excavators	2	unit	Construction Confirmation Table
Excavator Engine Size	600	hp	Construction Confirmation Table
Excavator Model	Cat 390D L	--	Construction Confirmation Table
Number of Dozers	1	unit	Construction Confirmation Table
Dozer Engine Size	850	hp	Construction Confirmation Table
Dozer Model	D11	--	Construction Confirmation Table
Number of Compactors	1	unit	Construction Confirmation Table
Compactor Engine Size	131	hp	Construction Confirmation Table
Compactor Model	CAT CS64B	--	Construction Confirmation Table
Mucking - PSMF Location 2			
Operating Hrs	14.5	hr/day	2020 Oct 19 Air Inputs * assumed same as ope
Number of Excavators	2	unit	Construction Confirmation Table
Excavator Engine Size	600	hp	Construction Confirmation Table
Excavator Model	Cat 390D L	--	Construction Confirmation Table
Number of Dozers	1	unit	Construction Confirmation Table
Dozer Engine Size	850	hp	Construction Confirmation Table
Dozer Model	D11	--	Construction Confirmation Table
Number of Compactors	1	unit	Construction Confirmation Table
Compactor Engine Size	131	hp	Construction Confirmation Table
Compactor Model	CAT CS64B	--	Construction Confirmation Table

Mill Area (CM6)

Number of tracked dozers	1	unit	Construction Confirmation Table
Dozer Engine Size	850	hp	Construction Confirmation Table
Dozer Model	D11	--	Construction Confirmation Table
Number of excavators	2	unit	Construction Confirmation Table
Excavator Engine Size	600	hp	Construction Confirmation Table
Excavator Model	Cat 390D L	--	Construction Confirmation Table

		Emission Rate (g/s)					
CoPC	**Emission Factor (kg/hr-vehicle)**	**Open Pit (CM2)**	**MRSA (CM3)**	**PSMF Loc 1 (CM4A)**	**PSMF Loc 2 (CM4B)**	**Mill Area (CM6)**	**Notes**
TSP	0.985	5.47E-01	1.09E+00	1.09E+00	1.09E+00	8.21E-01	
PM10	0.138	7.67E-02	1.53E-01	1.53E-01	1.53E-01	1.15E-01	
PM2.5	0.105	5.75E-02	1.15E-01	1.15E-01	1.15E-01	8.62E-02	EF is scaling factor for PM2.5/TSP from AP-42 Table 11.9-2

Notes:

1. Metals emission are calculated in Tab "Metals"

Source: Grading
Source ID: CR1, CR2, CR3, CR4, CR5

Description:

A Grader maintains haul roads for efficient operation of haul trucks moving on the haul roads

Methodology: Emission Factor (EF)

Emission factor for grading operations are found in the US EPA AP42 document Chapter 11 in Table 11.9-2

$E=0.0034(S)^{2.5}$ (TSP<=30um)

where:
S = mean vehicle speed (km/hr)
E = emission factor (kg/VKT)

Input	Value	Units	Source
Silt Content	5.8	%	Air Inputs
Moisture Content	4	%	2020 Oct 19 Air Inputs
Mitigation	80	%	2020 Oct 19 Air Inputs
Grader Speed	4.5	kph	2020 Oct 19 Air Inputs
Grading Operating hrs	2	hr/day	2020 Oct 19 Air Inputs
CR1 - Main Access Road from Mill to Highway 17	6.4	km	Construction Confirmation Table
CR2 - Haul Road from Pit to MRSA	1.5	km	Construction Confirmation Table
CR3 - Haul Road from Pit to Primary Crusher	1.6	km	Construction Confirmation Table
CR4 - Haul Road from Pit to Mobile Crusher	6	km	Construction Confirmation Table
CR5 - Haul Road from Pit to PSMF	7.8	km	Construction Confirmation Table

CoPC	Emission Factor (kg/VKT)	Total Daily Average Emissions (All Roads) (g/s)
TSP	1.46E-01	3.04E-03
PM10	6.89E-02	1.43E-03
PM2.5	4.53E-03	9.43E-05

Daily (24-hour) Average Emissions per Road Segment

Segment	ID	TSP (g/s)	PM10 (g/s)	PM2.5 (g/s)
CR1 - Main Access Road from Mill to Highway 17	CR1	8.36E-04	3.94E-04	2.59E-05
CR2 - Haul Road from Pit to MRSA	CR2	1.96E-04	9.23E-05	6.07E-06
CR3 - Haul Road from Pit to Primary Crusher	CR3	2.09E-04	9.85E-05	6.48E-06
CR4 - Haul Road from Pit to Mobile Crusher	CR4	7.84E-04	3.69E-04	2.43E-05
CR5 - Haul Road from Pit to PSMF	CR5	1.02E-03	4.80E-04	3.16E-05

Notes:
1. Grading emissions are added to the road dust emissions to get total particulate and metals emissions per reoad segment for roads CR1 - CR5
2. Metals are calculated in Tab "Metals"

Road Dust **CR1** **CR1 - Main Access Road from Mill to Highway 17**

Input	Value	Units	Source
Silt Content (%)	5.8	%	Air Inputs
CR1 - Main Access Road from M	6.4	km	Construction Confirmation Table
Mitigation	80	%	Construction Confirmation Table
Pick up trucks			
Amount	150	Units	Construction Confirmation Table
Trucks per shift	75	trucks/shift	Construction Confirmation Table
Segments per day	280	segments/day	Construction Confirmation Table
Speed	60	km/h	Construction Confirmation Table
Transport			
Amount	8	Units	Construction Confirmation Table
Segments per day	16	segments/day	Construction Confirmation Table
Speed	50	km/h	Construction Confirmation Table
Bus			
Amount	1	Units	Construction Confirmation Table
Segments per day	2	segments/day	Construction Confirmation Table
Speed	50	km/h	Construction Confirmation Table
Dump Truck			
Amount	1	Units	Construction Confirmation Table
Segments per day	24	segments/day	Construction Confirmation Table
Speed	60	km/h	Construction Confirmation Table
Water Truck			
Amount	1	Units	Construction Confirmation Table
Segments per day	2	segments/day	Construction Confirmation Table
Speed	15	km/h	Construction Confirmation Table
Fuel Truck			
Amount	1	Units	Construction Confirmation Table
Segments per day	2	segments/day	Construction Confirmation Table
Speed	60	km/h	Construction Confirmation Table
Grader			
Amount	1	Units	Construction Confirmation Table
Segments per day	2	segments/day	Construction Confirmation Table
Speed	5	km/h	Construction Confirmation Table

Speed on Roads

Vehicle Type	Access Roads	Mill Roads	Unit	Reference
Pick up trucks	60	45	kph	2020 Oct 19 Air Inputs
Haul truck	--	30	kph	2020 Oct 19 Air Inputs
Transport	50	45	kph	2020 Oct 19 Air Inputs
Bus	50	--	kph	2020 Oct 19 Air Inputs
Haul truck	50	50	kph	2020 Oct 19 Air Inputs - no haul trucks will be on ac
Water Truck	15	15	kph	2020 Oct 19 Air Inputs
Fuel Truck	60	45	kph	2020 Oct 19 Air Inputs

CR1		
Contaminant	**1 hr**	**24 hr**
PM		5.73E+00
PM10		1.75E+00
PM2.5		1.75E-01

Road Trav Source: Npi - Mining Version 3.0 (June 2011) (pg 54)

$$\textit{Heavy Duty Vehicle:}\quad EF = k\left(\frac{s_{(\%)}}{12}\right)^{a}\left(\frac{W_{(t)}}{3}\right)^{b}\quad \left\{\begin{matrix} kg \\ VKT \end{matrix}\right.$$

PM	1.38
PM10	0.42
PM2.5	0.0422
a	0.9
b	0.45

CR1 - Main Access Road from Mill to Highway 17														
Equipment	**Make**	**Model**	**Fuel Type**	**Hp**	**Full Weight**	**Empty Weight**	**Average Weight**	**Access Roads**	**Mill Roads**	**Number of Trucks**	**Total Vehicle Passes**	**% of vehicles**	**Weight**	**VKT**
Pick up trucks	Various	Various	Gasoline	450	2790	2790	2,790	60	45	150	280	0.859	2,396.32	1792.00
Haul truck	Caterpillar	793F	Diesel	2650	391000	164000	277,500	--	30	--	--	--	--	--
Transport	Various	Various	Diesel	350	62000	30000	46,000	50	45	8	16	0.049	2,257.67	102.40
Bus	Various	Various	Diesel	540	29000	29000	29,000	50	--	1	2	0.006	177.91	12.80
Haul truck	Caterpillar	740B	Diesel	490	74000	34500	54,250	50	50	1	24	0.074	3,993.87	153.60
Water Truck			Diesel	350	30000	30000	30,000	15	15	1	2	0.006	184.05	12.80
Fuel Truck	Caterpillar		Diesel	350	30000	30000	30,000	60	45	1	2	0.006	184.05	12.80
									TOTAL		**326**	**1**	**9,193.87**	**2,086.40**
									TSP Emission Factor (kg/VKT)	**1.187**				
									PM10 Emission Factor (kg/VKT)	**0.361**				
									PM2.5 Emission Factor (kg/VKT)	**0.036**				
									Emission Rate PM (g/s)	5.734				
									Emission Rate PM10 (g/s)	1.745				
									Emission Rate PM2.5 (g/s)	0.175				

Road Dust	CR2	CR2 - Haul Road from Pit to MRSA	
Input	**Value**	**Units**	**Source**
Silt Content (%)	5.8	%	Air Inputs
CR2 - Haul Road from Pit to MR	1.5	km	Construction Confirmation Table
Mitigation	80	%	Construction Confirmation Table
Pick up trucks			
Amount	3	Units	Construction Confirmation Table
Segments per day	6	segments/day	Construction Confirmation Table
Speed	60	km/h	Construction Confirmation Table
Haul Truck			
Amount	2	Units	Construction Confirmation Table
Segments per day	178	segments/day	Construction Confirmation Table
Speed	50	km/h	Construction Confirmation Table
Capacity	227	MT	Construction Confirmation Table
Model	CAT 793F	--	Construction Confirmation Table
Engine Size	2650	hp	Construction Confirmation Table
Water Truck			
Amount	1	Units	Construction Confirmation Table
Segments per day	2	segments/day	Construction Confirmation Table
Speed	15	km/h	Construction Confirmation Table
Fuel Truck			
Amount	1	Units	Construction Confirmation Table
Segments per day	2	segments/day	Construction Confirmation Table
Speed	45	km/h	Construction Confirmation Table
Grader			
Amount	1	Units	Construction Confirmation Table
Segments per day	2	segments/day	Construction Confirmation Table
Speed	5	km/h	Construction Confirmation Table

Speed on Roads

Vehicle Type	Access Roads	Mill Roads	Unit	Reference
Pick up trucks	60	45	kph	2020 Oct 19 Air Inputs
Haul truck	--	30	kph	2020 Oct 19 Air Inputs
Transport	50	45	kph	2020 Oct 19 Air Inputs
Bus	50	--	kph	2020 Oct 19 Air Inputs
Haul truck	50	50	kph	2020 Oct 19 Air Inputs - no haul trucks will be on access road
Water Truck	15	15	kph	2020 Oct 19 Air Inputs
Fuel Truck	60	45	kph	2020 Oct 19 Air Inputs

CR2		
Contaminant	**1 hr**	**24 hr**
PM		3.51E+00
PM10		1.07E+00
PM2.5		1.07E-01

Road Trav Source: Npi - Mining Version 3.0 (June 2011) (pg 54)

$$\text{Heavy Duty Vehicle:}\quad EF = k\left(\frac{S_{(\%)}}{12}\right)^{a}\left(\frac{W_{(t)}}{3}\right)^{b}\quad \left\{\begin{matrix} kg \\ VKT \end{matrix}\right.$$

PM	1.38
PM10	0.42
PM2.5	0.0422
a	0.9
b	0.45

CR2 - Haul Road from Pit to MRSA

Equipment	Make	Model	Fuel Type	Hp	Full Weight	Empty Weight	Average Weight	Access Roads	Mill Roads	Number of Trucks	Total Vehicle Passes	% of vehicles	Weight	VKT
Pick up trucks	Various	Various	Gasoline	450	2790	2790	2,790	60	45	3	6	0.032	89.04	9.00
Haul truck	Caterpillar	793F	Diesel	2650	391000	164000	277,500	--	30	2	178	0.947	262,739.36	267.00
Transport	Various	Various	Diesel	350	62000	30000	46,000	50	45	--	--	--	--	--
Bus	Various	Various	Diesel	540	29000	29000	29,000	50	--	--	--	--	--	--
Haul truck	Caterpillar	740B	Diesel	490	74000	34500	54,250	50	50	--	--	--	--	--
Water Truck			Diesel	350	30000	30000	30,000	15	15	1	2	0.011	319.15	3.00
Fuel Truck	Caterpillar		Diesel	350	30000	30000	30,000	60	45	1	2	0.011	319.15	3.00
									TOTAL		**188**	**1**	**263,466.70**	**282.00**
									TSP Emission Factor (kg/VKT)	**5.374**				
									PM10 Emission Factor (kg/VKT)	**1.636**				
									PM2.5 Emission Factor (kg/VKT)	**0.164**				
									Emission Rate PM (g/s)	3.508				
									Emission Rate PM10 (g/s)	1.068				
									Emission Rate PM2.5 (g/s)	0.107				

Road Dust	CR3	CR3 - Haul Road from Pit to Primary Crusher	
Input	**Value**	**Units**	**Source**
Silt Content (%)	5.8	%	Air Inputs
CR3 - Haul Road from Pit to Prim	1.6	km	Construction Confirmation Table
Mitigation	80	%	Construction Confirmation Table
Mechanical service truck			
Amount	1	Units	Construction Confirmation Table
Segments per day	2	segments/day	Construction Confirmation Table
Speed	45	km/h	Construction Confirmation Table
Haul Truck			
Amount	1	Units	Construction Confirmation Table
Segments per day	380	segments/day	Construction Confirmation Table
Speed	50	km/h	Construction Confirmation Table
Capacity	227	MT	Construction Confirmation Table
Water Truck			
Amount	1	Units	Construction Confirmation Table
Segments per day	2	segments/day	Construction Confirmation Table
Speed	15	km/h	Construction Confirmation Table
Fuel Truck			
Amount	1	Units	Construction Confirmation Table
Segments per day	2	segments/day	Construction Confirmation Table
Speed	45	km/h	Construction Confirmation Table
Grader			
Amount	1	Units	Construction Confirmation Table
Segments per day	2	segments/day	Construction Confirmation Table
Speed	5	km/h	Construction Confirmation Table

Speed on Roads

Vehicle Type	Access Roads	Mill Roads	Unit	Reference
Pick up trucks	60	45	kph	2020 Oct 19 Air Inputs
Haul truck	--	30	kph	2020 Oct 19 Air Inputs
Transport	50	45	kph	2020 Oct 19 Air Inputs
Bus	50	--	kph	2020 Oct 19 Air Inputs
Haul truck	50	50	kph	2020 Oct 19 Air Inputs - no haul tr
Water Truck	15	15	kph	2020 Oct 19 Air Inputs
Fuel Truck	60	45	kph	2020 Oct 19 Air Inputs

CR3		
Contaminant	**1 hr**	**24 hr**
PM		7.81E+00
PM10		2.38E+00
PM2.5		2.39E-01

Road Travel **Source: Npi - Mining Version 3.0 (June 2011) (pg 54)**

$$Heavy\ Duty\ Vehicle:\quad EF = k\left(\frac{s(\%)}{12}\right)^{a}\left(\frac{W_{(t)}}{3}\right)^{b}\quad \left\{\frac{kg}{VKT}\right.$$

PM	1.38
PM10	0.42
PM2.5	0.0422
a	0.9
b	0.45

CR3 - Haul Road from Pit to Primary Crusher

Equipment	Make	Model	Fuel Type	Hp	Full Weight	Empty Weight	Average Weight	Access Roads	Mill Roads	Number of Trucks	Total Vehicle Passes	% of vehicles	Weight	VKT
Pick up trucks	Various	Various	Gasoline	450	2790	2790	2,790	60	45	1	2	0.005	14.46	3.20
Haul truck	Caterpillar	793F	Diesel	2650	391000	164000	277,500	--	30	1	380	0.984	273,186.53	608.00
Transport	Various	Various	Diesel	350	62000	30000	46,000	50	45	--	--	--	--	--
Bus	Various	Various	Diesel	540	29000	29000	29,000	50	--	--	--	--	--	--
Haul truck	Caterpillar	740B	Diesel	490	74000	34500	54,250	50	50	--	--	--	--	--
Water Truck			Diesel	350	30000	30000	30,000	15	15	1	2	0.005	155.44	3.20
Fuel Truck	Caterpillar		Diesel	350	30000	30000	30,000	60	45	1	2	0.005	155.44	3.20
									TOTAL		**386**	**1**	**273,511.87**	**617.60**
									TSP Emission Factor (kg/VKT)	**5.466**				
									PM10 Emission Factor (kg/VKT)	**1.663**				
									PM2.5 Emission Factor (kg/VKT)	**0.167**				
									Emission Rate PM (g/s)	7.814				
									Emission Rate PM10 (g/s)	2.378				
									Emission Rate PM2.5 (g/s)	0.239				

Road Dust	CR4	CR4 - Haul Road from Pit to Mobile Crusher	
Input	**Value**	**Units**	**Source**
Silt Content (%)	5.8	%	Air Inputs
CR4 - Haul Road from Pit to Mo	6	km	Construction Confirmation Table
Mitigation	80	%	Construction Confirmation Table
Dozer			
Amount	2	Units	Construction Confirmation Table
Segments per day	1	segments/day	Construction Confirmation Table
Speed	5	km/h	Construction Confirmation Table
Mechanical service truck			
Amount	1	Units	Construction Confirmation Table
Segments per day	2	segments/day	Construction Confirmation Table
Speed	45	km/h	Construction Confirmation Table
Haul Truck			
Amount	1	Units	Construction Confirmation Table
Segments per day	20	segments/day	Construction Confirmation Table
Speed	50	km/h	Construction Confirmation Table
Capacity	227	MT	Construction Confirmation Table
Water Truck			
Amount	1	Units	Construction Confirmation Table
Segments per day	2	segments/day	Construction Confirmation Table
Speed	15	km/h	Construction Confirmation Table
Fuel Truck			
Amount	1	Units	Construction Confirmation Table
Segments per day	2	segments/day	Construction Confirmation Table
Speed	45	km/h	Construction Confirmation Table
Grader			
Amount	1	Units	Construction Confirmation Table
Segments per day	2	segments/day	Construction Confirmation Table
Speed	5	km/h	Construction Confirmation Table

Speed on Roads

Vehicle Type	Access Roads	Mill Roads	Unit	Reference
Pick up trucks	60	45	kph	2020 Oct 19 Air Inputs
Haul truck	--	30	kph	2020 Oct 19 Air Inputs
Transport	50	45	kph	2020 Oct 19 Air Inputs
Bus	50	--	kph	2020 Oct 19 Air Inputs
Haul truck	50	50	kph	2020 Oct 19 Air Inputs - no haul tr
Water Truck	15	15	kph	2020 Oct 19 Air Inputs
Fuel Truck	60	45	kph	2020 Oct 19 Air Inputs

CR4		
Contaminant	**1 hr**	**24 hr**
PM		1.78E+00
PM10		5.43E-01
PM2.5		5.45E-02

Road Travel Source: Npi - Mining Version 3.0 (June 2011) (pg 54)

$$\text{Heavy Duty Vehicle:}\quad EF = k\left(\frac{S_{(\%)}}{12}\right)^{a}\left(\frac{W_{(t)}}{3}\right)^{b}\quad \left\{\begin{matrix} kg \\ VKT \end{matrix}\right.$$

PM	1.38
PM10	0.42
PM2.5	0.0422
a	0.9
b	0.45

CR4 - Haul Road from Pit to Mobile Crusher

Equipment	Make	Model	Fuel Type	Hp	Full Weight	Empty Weight	Average Weight	Access Roads	Mill Roads	Number of Trucks	Total Vehicle Passes	% of vehicles	Weight	VKT
Pick up trucks	Various	Various	Gasoline	450	2790	2790	2,790	60	45	1	2	0.077	214.62	12.00
Haul truck	Caterpillar	793F	Diesel	2650	391000	164000	277,500	--	30	1	20	0.769	213,461.54	120.00
Transport	Various	Various	Diesel	350	62000	30000	46,000	50	45	--	--	--	--	--
Bus	Various	Various	Diesel	540	29000	29000	29,000	50	--	--	--	--	--	--
Haul truck	Caterpillar	740B	Diesel	490	74000	34500	54,250	50	50	--	--	--	--	--
Water Truck			Diesel	350	30000	30000	30,000	15	15	1	2	0.077	2,307.69	12.00
Fuel Truck	Caterpillar		Diesel	350	30000	30000	30,000	60	45	1	2	0.077	2,307.69	12.00
									TOTAL		**26**	**1**	**218,291.54**	**156.00**
									TSP Emission Factor (kg/VKT)	**4.938**				
									PM10 Emission Factor (kg/VKT)	**1.503**				
									PM2.5 Emission Factor (kg/VKT)	**0.151**				
									Emission Rate PM (g/s)	1.783				
									Emission Rate PM10 (g/s)	0.543				
									Emission Rate PM2.5 (g/s)	0.055				

Road Dust	CR5	CR5 - Haul Road from Pit to PSMF	
Input	**Value**	**Units**	**Source**
Silt Content (%)	5.8	%	Air Inputs
CR5 - Haul Road from Pit to PSM	7.8	km	Construction Confirmation Table
Mitigation	80	%	Construction Confirmation Table
Pick up trucks			
Amount	4	Units	Construction Confirmation Table
Segments per day	8	segments/day	Construction Confirmation Table
Speed	60	km/h	Construction Confirmation Table
Haul Truck			
Amount	2	Units	Construction Confirmation Table
Segments per day	178	segments/day	Construction Confirmation Table
Speed	50	km/h	Construction Confirmation Table
Capacity	227	MT	Construction Confirmation Table
Mechanical service truck			
Amount	1	Units	Construction Confirmation Table
Segments per day	2	segments/day	Construction Confirmation Table
Speed	45	km/h	Construction Confirmation Table
Water Truck			
Amount	1	Units	Construction Confirmation Table
Segments per day	2	segments/day	Construction Confirmation Table
Speed	15	km/h	Construction Confirmation Table
Fuel Truck			
Amount	1	Units	Construction Confirmation Table
Segments per day	2	segments/day	Construction Confirmation Table
Speed	45	km/h	Construction Confirmation Table
Grader			
Amount	1	Units	Construction Confirmation Table
Segments per day	2	segments/day	Construction Confirmation Table
Speed	5	km/h	Construction Confirmation Table

Speed on Roads

Vehicle Type	Access Roads	Mill Roads	Unit	Reference
Pick up trucks	60	45	kph	2020 Oct 19 Air Inputs
Haul truck	--	30	kph	2020 Oct 19 Air Inputs
Transport	50	45	kph	2020 Oct 19 Air Inputs
Bus	50	--	kph	2020 Oct 19 Air Inputs
Haul truck	50	50	kph	2020 Oct 19 Air Inputs - no haul tr
Water Truck	15	15	kph	2020 Oct 19 Air Inputs
Fuel Truck	60	45	kph	2020 Oct 19 Air Inputs

CR5		
Contaminant	**1 hr**	**24 hr**
PM		1.85E+01
PM10		5.62E+00
PM2.5		5.64E-01

Road Travel **Source: Npi - Mining Version 3.0 (June 2011) (pg 54)**

$$\text{Heavy Duty Vehicle:}\quad EF = k\left(\frac{S_{(\%)}}{12}\right)^{a}\left(\frac{W_{(t)}}{3}\right)^{b}\quad \begin{cases} kg \\ VKT \end{cases}$$

PM	1.38
PM10	0.42
PM2.5	0.0422
a	0.9
b	0.45

CR5 - Haul Road from Pit to PSMF

Equipment	Make	Model	Fuel Type	Hp	Full Weight	Empty Weight	Average Weight	Access Roads	Mill Roads	Number of Trucks	Total Vehicle Passes	% of vehicles	Weight	VKT
Pick up trucks	Various	Various	Gasoline	450	2790	2790	2,790	60	45	5	10	0.052	145.31	78.00
Haul truck	Caterpillar	793F	Diesel	2650	391000	164000	277,500	--	30	2	178	0.927	257,265.63	1388.40
Transport	Various	Various	Diesel	350	62000	30000	46,000	50	45	--	--	--	--	--
Bus	Various	Various	Diesel	540	29000	29000	29,000	50	--	--	--	--	--	--
Haul truck	Caterpillar	740B	Diesel	490	74000	34500	54,250	50	50	--	--	--	--	--
Water Truck			Diesel	350	30000	30000	30,000	15	15	1	2	0.010	312.50	15.60
Fuel Truck	Caterpillar		Diesel	350	30000	30000	30,000	60	45	1	2	0.010	312.50	15.60
									TOTAL		**192**	**1**	**258,035.94**	**1,497.60**
									TSP Emission Factor (kg/VKT)	**5.324**				
									PM10 Emission Factor (kg/VKT)	**1.620**				
									PM2.5 Emission Factor (kg/VKT)	**0.163**				
									Emission Rate PM (g/s)	18.457				
									Emission Rate PM10 (g/s)	5.617				
									Emission Rate PM2.5 (g/s)	0.564				

Road Dust **CR6A** **CR6A - Peninsula Road - Highway to Industrial Park Road**

Input	Value	Units	Source
CR6A - Peninsula Road - Highwa	2	km	Construction Confirmation Table
Impact Traffic			
Pick up trucks			
Amount	68	units	Construction Confirmation Table
Trucks per day	135	trucks/day	Construction Confirmation Table
Segments per day	270	segments/day	Construction Confirmation Table
Speed	80	km/h	Construction Confirmation Table
Transports			
Amount	1	units	Construction Confirmation Table
Trucks per day	6	trucks/day	Construction Confirmation Table
Segments per day	12	segments/day	Construction Confirmation Table
Speed	80	km/h	Construction Confirmation Table
Dump Truck			
Amount	1	units	Construction Confirmation Table
Trucks per day	6	trucks/day	Construction Confirmation Table
Segments per day	12	segments/day	Construction Confirmation Table
Speed	80	km/h	Construction Confirmation Table
Bus			
Amount	1	units	Construction Confirmation Table
Bus per day	1	bus/day	Construction Confirmation Table
Segments per day	2	segments/day	Construction Confirmation Table
Speed	80	km/h	Construction Confirmation Table
Baseline Traffic			
Pick up trucks (Passenger vehicles and motorcycles)			
Segments per day	2745	segments/day	Construction Confirmation Table
Speed	80	km/h	Construction Confirmation Table
Transports (long trucks)			
Segments per day	91	segments/day	Construction Confirmation Table
Speed	80	km/h	Construction Confirmation Table
Bus			
Segments per day	30	segments/day	Construction Confirmation Table
Speed	80	km/h	Construction Confirmation Table
Short Trucks			
Segments per day	151	segments/day	Construction Confirmation Table
Speed	80	km/h	Construction Confirmation Table
Silt Loading	0.0505		USEPA AP-42 Section 13.2.1

Contaminant	CR6A	
	1 hr	24 hr
PM	--	1.18E-01
PM10	--	2.26E-02
PM2.5	--	5.47E-03

Road Travel on Paved Roads		USEPA-AP 42 Section 13.2.1
PM	3.23 g/VKT	A
PM10	0.62 g/VKT	A
PM2.5	0.15 g/VKT	D

$$E = k(sL)^{0.91} \times (W)^{1.02}$$

where,
E = particulate emission factor (g/VKT)
k = particulate size multiplier (g/VKT)
sL = road surface silt loading (g/m2)
W = average weight of the vehicles traveling the road (tons)

										Background				
Equipment	**Make**	**Model**	**Fuel Type**	**Hp**	**Full Weight (kg)**	**Empty Weight (kg)**	**Average Weight (kg)**	**Peninsula Road**	**Marina Road**	**Number of Trucks in a day**	**Total Vehicle Passes**	**% of vehicles**	**Weight (kg)**	**VKT**
Pick up trucks	Various	Various	Gasoline	450	2790	2790	2,790	80		1373	2745	0.910	2,538.47	5490.00
Haul truck	Caterpillar	793F	Diesel	2650	391000	164000	277,500	12		--	--	--	--	--
Transport	Various	Various	Diesel	350	62000	30000	46,000	-		46	91	0.030	1,387.47	182.00
Bus	Various	Various	Diesel	540	29000	29000	29,000	12		15	30	0.010	288.37	60.00
Haul truck	Caterpillar	740B	Diesel	490	74000	34500	54,250	80		76	151	0.050	2,715.20	302.00
Water Truck			Diesel	350	30000	30000	30,000	80		--	--	--	--	--
Fuel Truck	Caterpillar		Diesel	350	30000	30000	30,000	80		--	--	--	--	--
									TOTAL		**3017**	**1**	**6,929.50**	**6,034.00**
									Emission Factor PM (g/VKT)	**1.537**				
									Emission Factor PM10 (g/VKT)	**0.295**				
									Emission Factor PM2.5 (g/VKT)	**0.071**				
									Emission Rate PM (g/s)	1.07E-01				
									Emission Rate PM10 (g/s)	2.06E-02				
									Emission Rate PM2.5 (g/s)	4.99E-03				
										CR6A - Peninsula Road - Highway to Industrial Park Road				

Equipment	Make	Model	Fuel Type	Hp	Full Weight (kg)	Empty Weight (kg)	Average Weight (kg)	Access Roads	Mill Roads	Number of Trucks	Total Vehicle Passes	% of vehicles	Weight (kg)	VKT
Pick up trucks	Various	Various	Gasoline	450	2790	2790	2,790	80		68	270	0.912	2,544.93	540.00
Haul truck	Caterpillar	793F	Diesel	2650	391000	164000	277,500	12		--	--	--	--	--
Transport	Various	Various	Diesel	350	62000	30000	46,000	-		1	12	0.041	1,864.86	24.00
Bus	Various	Various	Diesel	540	29000	29000	29,000	12		1	2	0.007	195.95	4.00
Haul truck	Caterpillar	740B	Diesel	490	74000	34500	54,250	80		1	12	0.041	2,199.32	24.00
Water Truck			Diesel	350	30000	30000	30,000	80	-	--	--	--	--	--
Fuel Truck	Caterpillar		Diesel	350	30000	30000	30,000	80	-	--	--	--	--	--
									TOTAL		**296**	**1**	**6,805.07**	**592.00**
									Emission Factor PM (g/VKT)	**1.509**				
									Emission Factor PM10 (g/VKT)	**0.290**				
									Emission Factor PM2.5 (g/VKT)	**0.070**				
									Emission Rate PM (g/s)	1.03E-02				
									Emission Rate PM10 (g/s)	1.98E-03				
									Emission Rate PM2.5 (g/s)	4.80E-04				

Road Dust **CR6B** **CR6B - Peninsula Road - Industrial Park Road to Penn Lake Road**

Input	Value	Units	Source
CR6B - Peninsula Road - Industr	2	km	Construction Confirmation Table
Impact Traffic			
Pick up trucks			
Amount	68	units	Construction Confirmation Table
Trucks per day	135	trucks/day	Construction Confirmation Table
Segments per day	270	segments/day	Construction Confirmation Table
Speed	80	km/h	Construction Confirmation Table
Transports			
Amount	1	units	Construction Confirmation Table
Trucks per day	6	trucks/day	Construction Confirmation Table
Segments per day	12	segments/day	Construction Confirmation Table
Speed	80	km/h	Construction Confirmation Table
Dump Truck			
Amount	1	units	Construction Confirmation Table
Trucks per day	4	trucks/day	Construction Confirmation Table
Segments per day	8	segments/day	Construction Confirmation Table
Speed	80	km/h	Construction Confirmation Table
Bus			
Amount	1	units	Construction Confirmation Table
Bus per day	1	bus/day	Construction Confirmation Table
Segments per day	2	segments/day	Construction Confirmation Table
Speed	80	km/h	Construction Confirmation Table
Baseline Traffic			
Pick up trucks (Passenger vehicles and motorcycles)			
Segments per day	2745	segments/day	Construction Confirmation Table
Speed	80	km/h	Construction Confirmation Table
Transports (long trucks)			
Segments per day	91	segments/day	Construction Confirmation Table
Speed	80	km/h	Construction Confirmation Table
Bus			
Segments per day	30	segments/day	Construction Confirmation Table
Speed	80	km/h	Construction Confirmation Table
Short Trucks			
Segments per day	151	segments/day	Construction Confirmation Table
Speed	80	km/h	Construction Confirmation Table
Silt Loading	0.0505		USEPA AP-42 Section 13.2.1

Contaminant	CR6B	
	1 hr	24 hr
PM	--	1.17E-01
PM10	--	2.24E-02
PM2.5	--	5.41E-03

Road Travel on Paved Roads		USEPA-AP 42 Section 13.2.1
PM	3.23 g/VKT	A
PM10	0.62 g/VKT	A
PM2.5	0.15 g/VKT	D

$$E = k(sL)^{0.91} \times (W)^{1.02}$$

where,
E = particulate emission factor (g/VKT)
k = particulate size multiplier (g/VKT)
sL = road surface silt loading (g/m2)
W = average weight of the vehicles traveling the road (tons)

										Background				
Equipment	**Make**	**Model**	**Fuel Type**	**Hp**	**Full Weight (kg)**	**Empty Weight (kg)**	**Average Weight (kg)**	**Peninsula Road**	**Marina Road**	**Number of Trucks in a day**	**Total Vehicle Passes**	**% of vehicles**	**Weight (kg)**	**VKT**
Pick up trucks	Various	Various	Gasoline	450	2790	2790	2,790	80		1373	2745	0.910	2,538.47	5490.00
Haul truck	Caterpillar	793F	Diesel	2650	391000	164000	277,500	12		--	--	--	--	--
Transport	Various	Various	Diesel	350	62000	30000	46,000	-		45.5	91	0.030	1,387.47	182.00
Bus	Various	Various	Diesel	540	29000	29000	29,000	8		15	30	0.010	288.37	60.00
Haul truck	Caterpillar	740B	Diesel	490	74000	34500	54,250	80		76	151	0.050	2,715.20	302.00
Water Truck			Diesel	350	30000	30000	30,000	80		--	--	--	--	--
Fuel Truck	Caterpillar		Diesel	350	30000	30000	30,000	80		--	--	--	--	--
									TOTAL		**3017**	**1**	**6,929.50**	**6,034.00**
									Emission Factor PM (g/VKT)	**1.537**				
									Emission Factor PM10 (g/VKT)	**0.295**				
									Emission Factor PM2.5 (g/VKT)	**0.071**				
									Emission Rate PM (g/s)	1.07E-01				
									Emission Rate PM10 (g/s)	2.06E-02				
									Emission Rate PM2.5 (g/s)	4.99E-03				

										CR6B - Peninsula Road - Industrial Park Road to Penn Lake Road				
Equipment	**Make**	**Model**	**Fuel Type**	**Hp**	**Full Weight (kg)**	**Empty Weight (kg)**	**Average Weight (kg)**	**Access Roads**	**Mill Roads**	**Number of Trucks**	**Total Vehicle Passes**	**% of vehicles**	**Weight (kg)**	**VKT**
Pick up trucks	Various	Various	Gasoline	450	2790	2790	2,790	80		68	270	0.925	2,579.79	540.00
Haul truck	Caterpillar	793F	Diesel	2650	391000	164000	277,500	12		--	--	--	--	--
Transport	Various	Various	Diesel	350	62000	30000	46,000	-		1	12	0.041	1,890.41	24.00
Bus	Various	Various	Diesel	540	29000	29000	29,000	8		1	2	0.007	198.63	4.00
Haul truck	Caterpillar	740B	Diesel	490	74000	34500	54,250	80		1	8	0.027	1,486.30	16.00
Water Truck			Diesel	350	30000	30000	30,000	80	-	--	--	--	--	--
Fuel Truck	Caterpillar		Diesel	350	30000	30000	30,000	80	-	--	--	--	--	--
									TOTAL		**292**	**1**	**6,155.14**	**584.00**
									Emission Factor PM (g/VKT)	**1.362**				
									Emission Factor PM10 (g/VKT)	**0.261**				
									Emission Factor PM2.5 (g/VKT)	**0.063**				
									Emission Rate PM (g/s)	9.21E-03				
									Emission Rate PM10 (g/s)	1.77E-03				
									Emission Rate PM2.5 (g/s)	4.28E-04				

Road Dust **CR6C** **CR6C - Peninsula Road - Penn Lake Road to Hemlo Drive**

Input	Value	Units	Source
CR6C - Peninsula Road - Penn La	0.6	km	Construction Confirmation Table
Impact Traffic			
Pick up trucks			
Amount	68	units	Construction Confirmation Table
Trucks per day	135	trucks/day	Construction Confirmation Table
Segments per day	270	segments/day	Construction Confirmation Table
Speed	80	km/h	Construction Confirmation Table
Transports			
Amount	1	units	Construction Confirmation Table
Trucks per day	6	trucks/day	Construction Confirmation Table
Segments per day	12	segments/day	Construction Confirmation Table
Speed	80	km/h	Construction Confirmation Table
Dump Truck			
Amount	1	units	Construction Confirmation Table
Trucks per day	4	trucks/day	Construction Confirmation Table
Segments per day	8	segments/day	Construction Confirmation Table
Speed	80	km/h	Construction Confirmation Table
Bus			
Amount	1	units	Construction Confirmation Table
Bus per day	1	bus/day	Construction Confirmation Table
Segments per day	2	segments/day	Construction Confirmation Table
Speed	80	km/h	Construction Confirmation Table
Baseline Traffic			
Pick up trucks (Passenger vehicles and motorcycles)			
Segments per day	2745	segments/day	Construction Confirmation Table
Speed	80	km/h	Construction Confirmation Table
Transports (long trucks)			
Segments per day	91	segments/day	Construction Confirmation Table
Speed	80	km/h	Construction Confirmation Table
Bus			
Segments per day	30	segments/day	Construction Confirmation Table
Speed	80	km/h	Construction Confirmation Table
Short Trucks			
Segments per day	151	segments/day	Construction Confirmation Table
Speed	80	km/h	Construction Confirmation Table
Silt Loading	0.0505		USEPA AP-42 Section 13.2.1

Contaminant	CR6C	
	1 hr	24 hr
PM	--	3.50E-02
PM10	--	6.71E-03
PM2.5	--	1.62E-03

Road Travel on Paved Roads		USEPA-AP 42 Section 13.2.1
PM	3.23 g/VKT	A
PM10	0.62 g/VKT	A
PM2.5	0.15 g/VKT	D

$$E = k(sL)^{0.91} \times (W)^{1.02}$$

where,
E = particulate emission factor (g/VKT)
k = particulate size multiplier (g/VKT)
sL = road surface silt loading (g/m2)
W = average weight of the vehicles traveling the road (tons)

										Background				
Equipment	**Make**	**Model**	**Fuel Type**	**Hp**	**Full Weight (kg)**	**Empty Weight (kg)**	**Average Weight (kg)**	**Peninsula Road**	**Marina Road**	**Number of Trucks in a day**	**Total Vehicle Passes**	**% of vehicles**	**Weight (kg)**	**VKT**
Pick up trucks	Various	Various	Gasoline	450	2790	2790	2,790	80		1373	2745	0.910	2,538.47	1647.00
Haul truck	Caterpillar	793F	Diesel	2650	391000	164000	277,500	12		--	--	--	--	--
Transport	Various	Various	Diesel	350	62000	30000	46,000	-		45.5	91	0.030	1,387.47	54.60
Bus	Various	Various	Diesel	540	29000	29000	29,000	8		15	30	0.010	288.37	18.00
Haul truck	Caterpillar	740B	Diesel	490	74000	34500	54,250	80		76	151	0.050	2,715.20	90.60
Water Truck			Diesel	350	30000	30000	30,000	80		--	--	--	--	--
Fuel Truck	Caterpillar		Diesel	350	30000	30000	30,000	80		--	--	--	--	--
									TOTAL		**3017**	**1**	**6,929.50**	**1,810.20**
									Emission Factor PM (g/VKT)	**1.537**				
									Emission Factor PM10 (g/VKT)	**0.295**				
									Emission Factor PM2.5 (g/VKT)	**0.071**				
									Emission Rate PM (g/s)	3.22E-02				
									Emission Rate PM10 (g/s)	6.18E-03				
									Emission Rate PM2.5 (g/s)	1.50E-03				
										CR6C - Peninsula Road - Penn Lake Road to Hemlo Drive				

Equipment	Make	Model	Fuel Type	Hp	Full Weight (kg)	Empty Weight (kg)	Average Weight (kg)	Access Roads	Mill Roads	Number of Trucks	Total Vehicle Passes	% of vehicles	Weight (kg)	VKT
Pick up trucks	Various	Various	Gasoline	450	2790	2790	2,790	80		68	270	0.925	2,579.79	162.00
Haul truck	Caterpillar	793F	Diesel	2650	391000	164000	277,500	12		--	--	--	--	--
Transport	Various	Various	Diesel	350	62000	30000	46,000	-		1	12	0.041	1,890.41	7.20
Bus	Various	Various	Diesel	540	29000	29000	29,000	8		1	2	0.007	198.63	1.20
Haul truck	Caterpillar	740B	Diesel	490	74000	34500	54,250	80		1	8	0.027	1,486.30	4.80
Water Truck			Diesel	350	30000	30000	30,000	80	-	--	--	--	--	--
Fuel Truck	Caterpillar		Diesel	350	30000	30000	30,000	80	-	--	--	--	--	--
									TOTAL		**292**	**1**	**6,155.14**	**175.20**
									Emission Factor PM (g/VKT)	**1.362**				
									Emission Factor PM10 (g/VKT)	**0.261**				
									Emission Factor PM2.5 (g/VKT)	**0.063**				
									Emission Rate PM (g/s)	2.76E-03				
									Emission Rate PM10 (g/s)	5.30E-04				
									Emission Rate PM2.5 (g/s)	1.28E-04				

Propane Emission Inventory
Source ID: CH1, CH2

EF Source: USEPA AP-42, Section 1.5 " Liquefied Petroleum Gas Combustion", dated July 2008

Input Details:

Fuel Type:	Propane	
Heating Value (Propane)	0.0915	MMBTU/gal
NOx Emission Factor	13	(lb/103 gal)
PM, filterable Emission Factor	0.2	(lb/103 gal)
PM, condensable Emission Factor	0.5	(lb/103 gal)
PM10 Emission Factor	0.7	(lb/103 gal)
SO2 Emission Factor	0.1	(lb/103 gal)
N2O Emission Factor	0.9	(lb/103 gal)
CO2 Emission Factor	12500	(lb/103 gal)
CO Emission Factor	7.5	(lb/103 gal)
TOC Emission Factor	1	(lb/103 gal)
CH4 Emission Factor	0.2	(lb/103 gal)

Source	Type of Heat	Heat Input Rating (MMBTU/h)	Number of Heaters	Total Input Rating (MMBTU/h)	NO_x (g/s)	PM, filterable (g/s)	PM, condensable (g/s)	PM_{10} (g/s)	$PM_{2.5}$ (g/s)	SO_2 (g/s)	N_2O (g/s)	CO_2 (g/s)	CO (g/s)	TOC (g/s)	CH_4 (g/s)
CH1 - Garage heat	Comfort	5	2	10	1.79E-01	2.76E-03	6.90E-03	9.66E-03	9.66E-03	1.38E-03	1.24E-02	1.72E+02	1.03E-01	1.38E-02	2.76E-03
CH2 - Construction offices heat	Comfort	0.5	1	1	8.97E-03	1.38E-04	3.45E-04	4.83E-04	4.83E-04	6.90E-05	6.21E-04	8.62E+00	5.17E-03	6.90E-04	1.38E-04
Total Emissions (g/s)					**1.88E-01**	**2.90E-03**	**7.24E-03**	**1.01E-02**	**1.01E-02**	**1.45E-03**	**1.30E-02**	**1.81E+02**	**1.09E-01**	**1.45E-02**	**2.90E-03**

Supporting Information for Emission Calculations
Generation PGM

Source: Construction of Rail Loadout Dust Emissions (CRLO)

Description:
Construction activities would generate dust emissions and may have substantial temporary impact on the local air quality.
Quantity of dust emissions depends on the area of land being worked, type of equipment onsite and level of construction activities. A large portion of the emissions results from equipment traffic over temporary roads at the construction site.

The construction activities for the Project will include the following main phases:
• Utility relocations
• Rail Diversion
• Road Detour
• Excavations to Build

Contaminant(s) of Concern:
Particulate matter (including TSP, PM10 and PM2.5) emissions are the contaminants of concern from construction activities.

Methodology: Emission Factor (EF) and Engineering Calculation (EC)

Emission factors from the following references are used to estimate the overall area-wide dust emissions.
•**Reference A**: Western Reginal Air Partnership, Fugitive Dust Handbook, Chapter 3: Construction and Demolition (09/03/06), https://www.wrapair.org/forums/dejf/fdh/
•**Reference B**: California Environmental Protection Agency Air Resources Board. 2002. Section 7.7: Building Construction Dust.

Based on the site plan of the project, the construction area, estimated earth removal and operating time for the worst scenario are summarized below.

Construction Stages[1]	Estimated Total Area[2] (acre)	Active Construction Area for Worst-case Scenario [3]		Potential Operating Time[4]
		%	Area (acre)	
Utility relocations	0.15	30%	0.04	daytime
Rail Diversion				
Road Detour				
Excavations to Build				

Notes:
1. Construction stages are assumed.
2. The total area is estimated based on the footprint of the rail loadout building.
3. Only a portion of the construction area will be active (e.g., earth disturbance) at one time, it is conservatively assumed that 30% of the main construction area are active at one time for worst-case scenario.
4. Construction activities will occur during 7:00 a.m. to 5:00 p.m.

Supporting Information for Emission Calculations
Generation PGM

Source: Construction of Rail Loadout Dust Emissions (CRLO)

Emission Calculation

Level 1 emission estimation method shown in Table 3-2 of Reference A is used.

Contaminant	Emission Factor for Construction Area[1] (ton/acre-month of activity)	Dust Control Efficiency[2]	PM Scaling Factor[3]	Emission Factor[4] (g/s-m2)	Worst-case Scenario		Operating Time
					Active Area of Site (acre)	Emission Rate in Working Area[5] (g/s)	
PM	-	50%	1.56	5.34E-05	0.04	9.42E-03	10 hours per day, from 7AM - 5 PM
PM10	0.11		1	3.42E-05		6.04E-03	
PM2.5	-		0.1	3.42E-06		6.04E-04	

Notes:

(1) Emission factor from Table 3-2 Level 1 of the Reference A.
This value is used for developing estimates of overall emissions from construction scattered throughout a geographical area. The value is applicable to construction operations with:

- a dust control effectiveness of 50%
- 8 hours per day and 5 days per week for construction schedule

(2) Dust control measures (such as water suppression and limiting on-site vehicle speed to less than 20 km/hour) will be implemented to control dust emissions. The control efficiency is assumed for the project construction.

(3) PM and PM2.5 factors relative to PM10 from References A and B.

(4) Emission factors are estimated based on 20 days per month, 10 hours a day with the assumed dust control efficiency.

(5) Average emission rates are estimated for the 10 hours per day.

Operating Condition, Individual Maximum Rates of Production:

The emission rate calculation for the construction activities is based on the emissions factors and operating time. The calculated emission rate should be conservative due to the assumed active area of both construction scenarios.

Generation PGM Mobile Sources - Construction Phase

Source ID	Source Description	Operating Assumptions	Equipment Name	Equipment Type	Power Rating (hp)	Quantity	Speed Limit (kph)	Roadway Length (km)	Daily Two-Way Passes from Project	Baseline AADT (2011)	Projected AADT (2021)	Peak Hour Two-Way Passes from Project	Peak Hour Baseline (2011)	Peak Hour Projected (2021)
CM2	Open Pit	Drilling	Production Drill (6-10")	Non-Road	860	2	-	-	-	-	-	-	-	-
CM2	Open Pit	Drilling	Auxiliary Pre-split Drill (4.5-8")	Non-Road	540	4	-	-	-	-	-	-	-	-
CM2	Open Pit	Loading in Pit	Diesel Hydraulic Shovel (34 m^3)	Non-Road	3,000	2	-	-	-	-	-	-	-	-
CM2	Open Pit	Loading in Pit	Wheel Loader (30 m^3)	Non-Road	2,000	1	-	-	-	-	-	-	-	-
CM2	Open Pit	Mucking	Track Dozer (600 HP)	Non-Road	646	2	-	-	-	-	-	-	-	-
CM2	Open Pit	Blasting	Emulsion Truck	Non-Road	350	1	-	-	-	-	-	-	-	-
CM2	Open Pit	Blasting	Stemming Loader	Non-Road	96	1	-	-	-	-	-	-	-	-
CM3	MRSA Waste Rock Handling	Mucking	Track Dozer (600 HP)	Non-Road	646	2	-	-	-	-	-	-	-	-
CM3	MRSA Waste Rock Handling	Mucking	Excavator (49t)	Non-Road	417	2	-							
CM4A	PSMF Waste Rock Handling Location 1	Mucking	Excavator (600hp)	Non-Road	600	2	-	-	-	-	-	-	-	-
CM4A	PSMF Waste Rock Handling Location 1	Mucking	Compactor	Non-Road	131	1	-	-	-	-	-	-	-	-
CM4A	PSMF Waste Rock Handling Location 1	Mucking	Dozer	Non-Road	850	1	-	-	-	-	-	-	-	-
CM4B	PSMF Waste Rock Handling Location 2	Mucking	Excavator (600hp)	Non-Road	600	2	-	-	-	-	-	-	-	-
CM4B	PSMF Waste Rock Handling Location 2	Mucking	Dozer	Non-Road	850	1	-	-	-	-	-	-	-	-
CM4B	PSMF Waste Rock Handling Location 2	Mucking	Compactor	Non-Road	131	1	-	-	-	-	-	-	-	-
CM5	Mobile Crusher Waste Rock Handling	Unloading/Loading	Wheel Dozer (496 HP)	Non-Road	496	1								
CM5	Mobile Crusher Waste Rock Handling	Unloading/Loading	Track Dozer (600 HP)	Non-Road	646	2	-	-	-	-	-	-	-	-
CM5	Mobile Crusher Waste Rock Handling	Unloading/Loading	Excavator (600hp)	Non-Road	600	2								
CM6	Mill Area	Mucking	Excavator (600hp)	Non-Road	600	1	-	-	-	-	-	-	-	-
CM6	Mill Area	Mucking	Excavator (600hp)	Non-Road	600	2								
CM7	Garage Maintenance Equipment	Maintenance	Skid Steer Loader	Non-Road	74	1	-	-	-	-	-	-	-	-
CM7	Garage Maintenance Equipment	Maintenance	Boom Truck 28t	Non-Road	300	1	-	-	-	-	-	-	-	-
CM7	Garage Maintenance Equipment	Maintenance	Telehandler	Non-Road	135	1	-	-	-	-	-	-	-	-
CM7	Garage Maintenance Equipment	Maintenance	Forklift Diesel 4t	Non-Road	60	1	-	-	-	-	-	-	-	-
CM7	Garage Maintenance Equipment	Maintenance	Tire Handler Truck	Non-Road	425	1	-	-	-	-	-	-	-	-
CM7	Garage Maintenance Equipment	Maintenance	Lube Truck	Non-Road	300	1	-	-	-	-	-	-	-	-
CM7	Garage Maintenance Equipment	Maintenance	Truck Tractor for trailers	Non-Road	380	1	-	-	-	-	-	-	-	-
CM7	Garage Maintenance Equipment	Maintenance	Mobile Air Compressor 185CFM	Non-Road	61	1	-	-	-	-	-	-	-	-
CM7	Garage Maintenance Equipment	Maintenance	Welding Machine Diesel 400A	Non-Road	33	2	-	-	-	-	-	-	-	-
CM7	Garage Maintenance Equipment	Maintenance	Light Plant	Non-Road	13	10	-	-	-	-	-	-	-	-
CM7	Garage Maintenance Equipment	Maintenance	Genset 6kW	Non-Road	10	3	-	-	-	-	-	-	-	-
CM7	Garage Maintenance Equipment	Maintenance	Genset 60kW	Non-Road	90	1	-	-	-	-	-	-	-	-
CM7	Garage Maintenance Equipment	Maintenance	Water pump 3" - Gasoline	Non-Road	6	4	-	-	-	-	-	-	-	-
CM7	Garage Maintenance Equipment	Maintenance	Water Pump 10in - Diesel	Non-Road	160	2	-	-	-	-	-	-	-	-
CM7	Garage Maintenance Equipment	Maintenance	Diesel Powered Air Heaters	Non-Road	87	2	-	-	-	-	-	-	-	-
CM9	Concrete Plant Material Handling	Loading Radial Stacker	Wheel Loader (30 m^3)	Non-Road	2,000	1								
CR1	Main Access Road from Mill to Highway 17 (6.4 km)	On-Site Traffic	Pick-up Truck	On-Road	-	-	60	6.4	300	-	-	150	-	-
CR1	Main Access Road from Mill to Highway 17 (6.4 km)	On-Site Traffic	Transport	On-Road	-	-	50	6.4	16	-	-	2	-	-
CR1	Main Access Road from Mill to Highway 17 (6.4 km)	On-Site Traffic	Bus	On-Road	-	-	50	6.4	2	-	-	2	-	-
CR1	Main Access Road from Mill to Highway 17 (6.4 km)	On-Site Traffic	Mining Haul Truck (240t)	Non-Road	2,650	14	50	6.4	336	-	-	28	-	-
CR1	Main Access Road from Mill to Highway 17 (6.4 km)	On-Site Traffic	Water/Sand Truck (120kL tank)	Non-Road	1,016	1	15	6.4	2	-	-	2	-	-
CR1	Main Access Road from Mill to Highway 17 (6.4 km)	On-Site Traffic	Fuel & Lube truck 10Wheel	Non-Road	350	1	60	6.4	2	-	-	2	-	-
CR1	Main Access Road from Mill to Highway 17 (6.4 km)	On-Site Traffic	Motor Grader (18ft)	Non-Road	304	1	5	6.4	2	-	-	2	-	-
CR2	Haul Road From Pit to MRSA (1.5 km)	On-Site Traffic	Pick-up Truck	On-Road	-	-	60	1.5	6	-	-	6	-	-
CR2	Haul Road From Pit to MRSA (1.5 km)	On-Site Traffic	Mining Haul Truck (240t)	Non-Road	2,650	2	50	1.5	89	-	-	8	-	-
CR2	Haul Road From Pit to MRSA (1.5 km)	On-Site Traffic	Water/Sand Truck (120kL tank)	Non-Road	1,016	1	15	1.5	2	-	-	2	-	-
CR2	Haul Road From Pit to MRSA (1.5 km)	On-Site Traffic	Fuel & Lube truck 10Wheel	Non-Road	350	1	45	1.5	2	-	-	2	-	-
CR2	Haul Road From Pit to MRSA (1.5 km)	On-Site Traffic	Motor Grader (18ft)	Non-Road	304	1	5	1.5	2	-	-	2	-	-
CR3	Haul Road From Pit to Primary Crusher (1.6 km)	On-Site Traffic	Mining Haul Truck (240t)	Non-Road	2,650	1	50	1.6	190	-	-	18	-	-
CR3	Haul Road From Pit to Primary Crusher (1.6 km)	On-Site Traffic	Mechanic Service Truck	Non-Road	300	1	45	1.6	2	-	-	2	-	-
CR3	Haul Road From Pit to Primary Crusher (1.6 km)	On-Site Traffic	Water/Sand Truck (120kL tank)	Non-Road	1,016	1	15	1.6	2	-	-	2	-	-
CR3	Haul Road From Pit to Primary Crusher (1.6 km)	On-Site Traffic	Fuel & Lube truck 10Wheel	Non-Road	350	1	45	1.6	2	-	-	2	-	-
CR3	Haul Road From Pit to Primary Crusher (1.6 km)	On-Site Traffic	Motor Grader (18ft)	Non-Road	304	1	5	1.6	2	-	-	2	-	-
CR4	Haul Road From Pit to Mobile Crusher (6.0 km)	On-Site Traffic	Dozer	Non-Road	850	2	5	6.0	1			0.5		
CR4	Haul Road From Pit to Mobile Crusher (6.0 km)	On-Site Traffic	Mining Haul Truck (240t)	Non-Road	2,650	4	50	6.0	88	-	-	8	-	-
CR4	Haul Road From Pit to Mobile Crusher (6.0 km)	On-Site Traffic	Mechanic Service Truck	Non-Road	300	1	45	6.0	2	-	-	2	-	-
CR4	Haul Road From Pit to Mobile Crusher (6.0 km)	On-Site Traffic	Water/Sand Truck (120kL tank)	Non-Road	1,016	1	15	6.0	2	-	-	2	-	-
CR4	Haul Road From Pit to Mobile Crusher (6.0 km)	On-Site Traffic	Fuel & Lube truck 10Wheel	Non-Road	350	1	45	6.0	2	-	-	2	-	-
CR4	Haul Road From Pit to Mobile Crusher (6.0 km)	On-Site Traffic	Motor Grader (18ft)	Non-Road	304	1	5	6.0	2	-	-	2	-	-
CR5	Haul Road From Pit to PSMF (7.8 km)	On-Site Traffic	Pick-up Truck	On-Road	-	-	60	7.8	8			4		
CR5	Haul Road From Pit to PSMF (7.8 km)	On-Site Traffic	Mining Haul Truck (240t)	Non-Road	2,650	8	50	7.8	528	-	-	24	-	-
CR5	Haul Road From Pit to PSMF (7.8 km)	On-Site Traffic	Mechanic Service Truck	Non-Road	300	1	45	7.8	2	-	-	2	-	-
CR5	Haul Road From Pit to PSMF (7.8 km)	On-Site Traffic	Water/Sand Truck (120kL tank)	Non-Road	1,016	1	15	7.8	2	-	-	2	-	-
CR5	Haul Road From Pit to PSMF (7.8 km)	On-Site Traffic	Fuel & Lube truck 10Wheel	Non-Road	350	1	45	7.8	2	-	-	2	-	-

Generation PGM Mobile Sources - Construction Phase

Source ID	Source Description	Operating Assumptions	Equipment Name	Equipment Type	Power Rating (hp)	Quantity	Speed Limit (kph)	Roadway Length (km)	Daily Two-Way Passes from Project	Baseline AADT (2011)	Projected AADT (2021)	Peak Hour Two-Way Passes from Project	Peak Hour Baseline (2011)	Peak Hour Projected (2021)
CR5	Haul Road From Pit to PSMF (7.8 km)	On-Site Traffic	Motor Grader (18ft)	Non-Road	304	1	5	7.8	2	-	-	2	-	-
CR6A	Peninsula Road - Highway to Industrial Park Road (2.0 km)	Impact Traffic	Pick-up Truck	On-Road	-	-	80	2.0	270	-	-	136	-	-
CR6A	Peninsula Road - Highway to Industrial Park Road (2.0 km)	Impact Traffic	Transport	On-Road	-	-	80	2.0	12	-	-	2	-	-
CR6A	Peninsula Road - Highway to Industrial Park Road (2.0 km)	Impact Traffic	Dump Truck	On-Road	-	-	80	2.0	8			2		
CR6A	Peninsula Road - Highway to Industrial Park Road (2.0 km)	Impact Traffic	Bus	On-Road	-	-	80	2.0	2	-	-	2	-	-
CR6A	Peninsula Road - Highway to Industrial Park Road (2.0 km)	Baseline Travel	Passenger Vehicles	On-Road	-	-	80	2.0	-	2,745	3,032	-	151	167
CR6A	Peninsula Road - Highway to Industrial Park Road (2.0 km)	Baseline Travel	Transport	On-Road	-	-	80	2.0	-	91	101	-	5	6
CR6A	Peninsula Road - Highway to Industrial Park Road (2.0 km)	Baseline Travel	Bus	On-Road	-	-	80	2.0	-	30	33	-	2	2
CR6A	Peninsula Road - Highway to Industrial Park Road (2.0 km)	Baseline Travel	Short Trucks	On-Road	-	-	80	2.0	-	151	167	-	8	9
CR6B	Peninsula Road - Industrial Park Road to Penn Lake Road (2.0 km)	Impact Traffic	Pick-up Truck	On-Road	-	-	60	2.0	270	-	-	136	-	-
CR6B	Peninsula Road - Industrial Park Road to Penn Lake Road (2.0 km)	Impact Traffic	Transport	On-Road	-	-	60	2.0	12	-	-	2	-	-
CR6B	Peninsula Road - Industrial Park Road to Penn Lake Road (2.0 km)	Impact Traffic	Dump Truck	On-Road	-	-	60	2.0	8			2		
CR6B	Peninsula Road - Industrial Park Road to Penn Lake Road (2.0 km)	Impact Traffic	Bus	On-Road	-	-	60	2.0	2	-	-	2	-	-
CR6B	Peninsula Road - Industrial Park Road to Penn Lake Road (2.0 km)	Baseline Travel	Passenger Vehicles	On-Road	-	-	60	2.0	-	2,745	3,032	-	151	167
CR6B	Peninsula Road - Industrial Park Road to Penn Lake Road (2.0 km)	Baseline Travel	Transport	On-Road	-	-	60	2.0	-	91	101	-	5	6
CR6B	Peninsula Road - Industrial Park Road to Penn Lake Road (2.0 km)	Baseline Travel	Bus	On-Road	-	-	60	2.0	-	30	33	-	2	2
CR6B	Peninsula Road - Industrial Park Road to Penn Lake Road (2.0 km)	Baseline Travel	Short Trucks	On-Road	-	-	60	2.0	-	151	167	-	8	9
CR6C	Peninsula Road - Penn Lake Road to Hemlo Drive (0.6 m)	Impact Traffic	Pick-up Truck	On-Road	-	-	50	0.6	270	-	-	136	-	-
CR6C	Peninsula Road - Penn Lake Road to Hemlo Drive (0.6 m)	Impact Traffic	Transport	On-Road	-	-	50	0.6	12	-	-	2	-	-
CR6C	Peninsula Road - Penn Lake Road to Hemlo Drive (0.6 m)	Impact Traffic	Dump Truck	On-Road	-	-	50	0.6	8			2		
CR6C	Peninsula Road - Penn Lake Road to Hemlo Drive (0.6 m)	Impact Traffic	Bus	On-Road	-	-	50	0.6	2	-	-	2	-	-
CR6C	Peninsula Road - Penn Lake Road to Hemlo Drive (0.6 m)	Baseline Travel	Passenger Vehicles	On-Road	-	-	50	0.6	-	2,745	3,032	-	151	167
CR6C	Peninsula Road - Penn Lake Road to Hemlo Drive (0.6 m)	Baseline Travel	Transport	On-Road	-	-	50	0.6	-	91	101	-	5	6
CR6C	Peninsula Road - Penn Lake Road to Hemlo Drive (0.6 m)	Baseline Travel	Bus	On-Road	-	-	50	0.6	-	30	33	-	2	2
CR6C	Peninsula Road - Penn Lake Road to Hemlo Drive (0.6 m)	Baseline Travel	Short Trucks	On-Road	-	-	50	0.6	-	151	167	-	8	9

APPENDIX D
Emission Calculations – Operations

Generation PGM Air Quality Assessment
Appendix D - Operation Scenario Source Parameters

AREA SOURCES								
Source ID	Source Description	Base Elevation	Release Heigl	Length_X	Length_Y	Rotation_Angle	X1 Coordinate	Y1 Coordinate
		[m]	[m]	[m]	[m]	[deg]	[m]	[m]
S9	MRSA Wind Erosion	290.00	0.00	150.00	150.00	0	550963.39	5404916.62
S10	PSMF Wind Erosion	340.00	0.00	782.00	782.00	0	546722.92	5401958.14

VOLUME SOURCES								
Source ID	Source Description	Base Elevation	Release Heigl	SigmaY	SigmaZ	Length_X	X1 Coordinate	Y1 Coordinate
		[m]	[m]	[m]	[m]	[m]	[m]	[m]
S1	Primary Crusher	314.00	5.45	3.50	5.07	15.05	549568.99	5404447.87
S3	Crushed Ore Stockpile	390.00	16.00	14.88	7.44	64.00	549270.78	5403059.55
S4	Mill Building General Exhausts	390.00	5.00	19.07	4.65	82.00	549264.33	5402833.59
S11	Mobile Primary Crusher	305.00	3.80	1.47	3.53	6.34	549657.87	5402678.28
S12	Mobile Secondary Crusher	305.00	3.80	1.47	3.53	6.34	549660.76	5402688.05
S13	Mobile Tertiary Crusher	305.00	3.80	1.47	3.53	6.34	549654.21	5402687.93
S14	Mobile Fines Crusher	305.00	3.80	1.47	3.53	6.34	549658.04	5402696.22
S15	Stockpile #1 Wind Erosion	305.00	10.50	8.60	4.65	37.00	549669.42	5402717.79
S16	Stockpile #2 Wind Erosion	305.00	10.50	8.60	4.65	37.00	549681.85	5402709.70
S17	Stockpile #3 Wind Erosion	305.00	10.50	8.60	4.65	37.00	549688.35	5402699.45
S18	Stockpile #4 Wind Erosion	305.00	10.50	8.60	4.65	37.00	549692.83	5402686.39
S19	Stockpile #5 Wind Erosion	305.00	10.50	8.60	4.65	37.00	549690.60	5402674.29
S20	Stockpile #6 Wind Erosion	305.00	10.50	8.60	4.65	37.00	549683.78	5402663.80
S21	Stockpile #7 Wind Erosion	305.00	10.50	8.60	4.65	37.00	549671.02	5402656.12
S36	Rail Loadout Shed	215.00	3.25	5.53	3.02	23.80	545625.82	5396856.76
S37	Rail Loadout Loading to Rail Cars	215.00	4.60	0.70	0.70	3.00	545642.41	5396851.58
M1	Primary Crusher	314.00	5.45	3.50	5.07	15.05	549584.80	5404444.93
M3A	MRSA Waste Rock Handling - unloading	290.00	4.10	17.44	3.86	75.00	551009.94	5404808.14
M3B	MRSA Waste Rock Handling - mucking/tailpipe	290.00	4.10	17.44	3.86	75.00	551009.94	5404808.14
M4A	PSMF Waste Rock Handling Location 1 - unloading	343.00	4.10	17.44	3.86	75.00	547605.36	5402118.76
M4B	PSMF Waste Rock Handling Location 2 - unloading	343.00	4.10	17.44	3.86	75.00	546837.76	5401669.25
M4C	PSMF Waste Rock Handling Location 3 - unloading	336.00	4.10	17.44	3.86	75.00	546212.33	5403074.89
M4D	PSMF Waste Rock Handling Location 4 - unloading	360.00	4.10	17.44	3.86	75.00	547064.25	5403149.98
M4E	PSMF Waste Rock Handling Location 1 - mucking/tailpipe	343.00	4.10	17.44	3.86	75.00	547605.36	5402118.76
M4F	PSMF Waste Rock Handling Location 2 - mucking/tailpipe	343.00	4.10	17.44	3.86	75.00	546837.76	5401669.25
M4G	PSMF Waste Rock Handling Location 3 - mucking/tailpipe	336.00	4.10	17.44	3.86	75.00	546212.33	5403074.89
M4H	PSMF Waste Rock Handling Location 4 - mucking/tailpipe	360.00	4.10	17.44	3.86	75.00	547064.25	5403149.98
M5A	Mobile Crusher Waste Rock Handling - unloading/loading	305.00	4.10	17.44	3.86	75.00	549706.22	5402642.40
M5B	Mobile Crusher Waste Rock Handling - tailpipe	305.00	4.10	17.44	3.86	75.00	549706.22	5402642.40
M6A	Concentrate Loadout at Mill - unloading	390.00	3.00	0.70	1.40	3.00	549306.63	5402777.66
M6B	Concentrate Loadout at Mill - tailpipe	390.00	3.00	0.70	1.40	3.00	549306.63	5402777.66
M7	Garage Maintenance Equipment	350.00	6.70	6.09	6.23	26.20	548869.08	5402698.53
H1	Mill Building Heat	390.00	5.00	19.07	4.65	82.00	549264.03	5402833.25
H2	Garage Heat	350.00	6.70	6.09	6.23	26.20	548869.08	5402698.53
H3	WWTP Heat	365.00	5.00	30.31	4.65	130.33	547829.21	5402474.34
H4	Assay Lab Heat	375.00	3.00	3.77	1.16	16.20	549424.51	5402896.95
H5	Administration Building Heat	350.00	1.50	4.65	1.40	20.00	548930.38	5402610.84

Note: Mill = Process Plant and Garage = Truck Shop

LINE VOLUME SOURCES								
Source ID	Source Description	Configuration	LineVolumeHe	PlumeWidth	LineVolumeTy	Num_Coords	X1 Coordinate	Y1 Coordinate
			[m]	[m]			[m]	[m]
R1A	Main Access Road (On-Site)	Separated	4.59	13.4	Surface-Basec	70	550288.55	5399987.79
R1A						Rel_Height_m	2.30	2.30
R1A						Base_Elev_m	307.39	308.06
R1B	Main Access Road (Off-Site)	Separated	4.59	13.4	Surface-Basec	13	550186.67	5399937.93
R1B						Rel_Height_m	2.30	2.30
R1B						Base_Elev_m	312.59	312.56
R2	Haul Road From Pit to MRSA	Separated	11.05	26	Surface-Basec	9	550997.69	5404794.03
R2						Rel_Height_m	5.53	5.53
R2						Base_Elev_m	261.08	233.24
R3	Haul Road From Pit to Primary Crusher	Separated	11.05	26	Surface-Basec	11	549582.61	5404478.02
R3						Rel_Height_m	5.53	5.53
R3						Base_Elev_m	349.79	350.72
R4	Haul Road From Pit to Mobile Crusher	Separated	11.05	26	Surface-Basec	110	550407.79	5405441.41
R4						Rel_Height_m	5.53	5.53
R4						Base_Elev_m	327.03	305.48
R5	Haul Road From Pit to PSMF	Separated	11.05	26	Surface-Basec	69	550390.65	5405464.51
R5						Rel_Height_m	5.53	5.53
R5						Base_Elev_m	326.97	309.59
R6A	Peninsula Road - Highway to Industrial Park Road	Separated	2.89	13.4	Surface-Basec	12	548637.08	5399450.53
R6A						Rel_Height_m	1.45	1.45
R6A						Base_Elev_m	313.00	316.45
R6B	Peninsula Road - Industrial Park Road to Penn Lake Road	Separated	2.89	13.4	Surface-Basec	15	547222.90	5398149.70
R6B						Rel_Height_m	1.45	1.45
R6B						Base_Elev_m	301.08	300.08
R6C	Peninsula Road - Penn Lake Road to Hemlo Drive	Separated	2.89	13.4	Surface-Basec	8	545790.59	5396987.26
R6C						Rel_Height_m	1.45	1.45
R6C						Base_Elev_m	223.17	222.64
R6D	Peninsula Road - Hemlo Drive to Sund Crescent	Separated	2.89	13.4	Surface-Basec	12	545953.72	5396415.94
R6D						Rel_Height_m	1.45	1.45
R6D						Base_Elev_m	223.99	224.00
R6E	Peninsula Road - Sund Crescent to Steven's Avenue	Separated	2.89	13.4	Surface-Basec	6	545601.95	5395977.94
R6E						Rel_Height_m	1.45	1.45
R6E						Base_Elev_m	221.86	221.02
R6F	Steven's Avenue - Steven's Avenue to Rail Loadout Location 2	Separated	2.89	13.4	Surface-Basec	12	545430.50	5395993.59
R6F						Rel_Height_m	1.45	1.45
R6F						Base_Elev_m	217.00	218.40

POINT SOURCES

Source ID	Source Description	Base Elevation	Release Heigl	Stack Diamet	Exit_Velocity	Exit_Temperature	Release_Type	X1 Coordinate	Y1 Coordinate
		[m]	[m]	[m]	[m/s]	[K]		[m]	[m]
S2	Primary Crusher Baghouse	314.00	12.60	1.32	25.87	293.15	CAPPED	549572.78	5404428.24
S3B	Crushed Ore Stockpile Baghouse	390.00	10.00	1.02	14.44	293.15	CAPPED	549269.73	5403000.52
S5	Concentrate Area Loadout Baghouse	390.00	10.00	0.76	21.38	293.15	VERTICAL	549292.03	5402778.26
S6	Lime Delivery Baghouse	390.00	10.00	0.45	29.55	293.15	VERTICAL	549302.44	5402803.76
S7	Lime Slaking Mill Scrubber	390.00	10.00	0.25	1.83	293.15	VERTICAL	549292.26	5402803.45
S8	Dust Collector CMC Feed Bin	390.00	10.00	0.25	2.44	293.15	VERTICAL	549287.96	5402818.14
S22	Generator 1 (Mobile Crusher)	305.00	2.80	0.20	159.15	733.15	VERTICAL	549650.18	5402677.28
S23	Emergency Generator 2 (Mill)	390.00	2.80	0.20	159.15	733.15	VERTICAL	549276.02	5402750.01
S24	Emergency Generator 3 (Mill)	390.00	2.80	0.20	159.15	733.15	VERTICAL	549291.02	5402749.87
S25	Emergency Generator 4 (Mill)	390.00	2.80	0.20	159.15	733.15	VERTICAL	549276.17	5402743.32
S26	Emergency Generator 5 (Mill)	390.00	2.80	0.20	159.15	733.15	VERTICAL	549291.16	5402743.03
S27	Assay Lab/Sample Prep Baghouse	375.00	5.50	0.30	106.81	293.15	CAPPED	549413.03	5402890.55
S28	Assay Furnace Baghouse	375.00	5.50	0.30	132.98	363.15	CAPPED	549424.03	5402885.88
S29	Assay Cupel Baghouse	375.00	5.50	0.30	106.81	363.15	CAPPED	549426.18	5402889.51
S30	Assay Precious Metals Scrubber	375.00	5.50	0.30	66.49	293.15	CAPPED	549416.17	5402888.02
S31	Assay Base Metals Scrubber	375.00	5.50	0.30	66.49	293.15	CAPPED	549418.86	5402886.43
S32	Assay Lab AA Scrubber	375.00	5.50	0.30	66.49	343.15	CAPPED	549416.11	5402895.94
S33	Rail Loadout Baghouse 1	215.00	25.00	1.60	8.21	293.15	VERTICAL	545645.84	5396871.31
S34	Rail Loadout Baghouse 2	215.00	25.00	1.60	8.21	293.15	VERTICAL	545642.14	5396851.66
S35	Rail Loadout Baghouse 3	215.00	25.00	1.60	8.21	293.15	VERTICAL	545638.84	5396831.80

OPEN PIT SOURCES

Source ID	Source Description	Base Elevation	Release Heigl	Length_X	Length_Y	Rotation_Angle	Pit_Volume	X1 Coordinate	Y1 Coordinate
		[m]	[m]	[m]	[m]	[deg]	[m^3]	[m]	[m]
M2A	Open Pit (North) - drilling/mucking/loading in pit	300.00	5.00	530.00	1163.86	0.00	61684500.00	550166.65	5404796.34
M2B	Open Pit (North) - Blasting Only	300.00	5.00	530.00	1163.86	0.00	61684500.00	550166.65	5404796.34
M2C	Open Pit (North) - Mobile Sources	300.00	5.00	530.00	1163.86	0.00	61684500.00	550166.65	5404796.34

Inputs for Sources - Generation PGM

Primary Crusher	Value	Units	Reference
Material throughput (No Screen)	43,200	tonnes/day	2020 Oct 19 Air Inputs
Percent oversize material	0	--	2020 Oct 19 Air Inputs
percent undersize material	0	--	2020 Oct 19 Air Inputs
Quantity of Baghouse	1	Unit	2020 Oct 19 Air Inputs
Operating Time	24	hr/day	2020 Oct 19 Air Inputs
CFM	75,000	CFM	2020 Oct 19 Air Inputs
Mitigation	99	%	2020 Oct 19 Air Inputs

Baghouses	Value	Units	Quantity	Operating Time	Units	Reference
Primary Crusher	75,000	CFM	1	24	hr/day	2020 Oct 19 Air Inputs
Crushed Ore Stockpile	25,000	CFM	1	24	hr/day	2020 Oct 19 Air Inputs
Assay Lab/Sample Prep Baghouse	16,000	CFM	1	24	hr/day	2020 Oct 19 Air Inputs

Mill Building Emissions	Value	Units	Reference
Mill Building Reagents			
The following tanks are open to mill building:			
Magnetic Concentrate Storage Tank	9.0	m	Operating Assumptions
Iron Sulfide Aeration Tank	9.0	m	Operating Assumptions
Concentrate Thickener Overflow Storage Tank	6.0	m	Operating Assumptions
Concentrate Filter Feed Tank	6.3	m	Operating Assumptions
Tailings Thickener Tank	62	m	Operating Assumptions
Collector 3 (Test Reagent) Mixing Tank	0.6	m	Operating Assumptions
Collector 3 (Test Reagent) Distribution Tank	0.6	m	Operating Assumptions
CMC (Test Reagent) Mixing Tank	0.4	m	Operating Assumptions
CMC (Test Reagent) Distribution Tank	0.4	m	Operating Assumptions
Tailings Thickener Flocculant Mixing Tank	1.3	m	Operating Assumptions
Tailings Thickener Flocculant Distribution Tank	1.3	m	Operating Assumptions
Concentrate Thickener Flocculant Mixing Tank	1.3	m	Operating Assumptions
Concentrate Thickener Flocculant Distribution Tank	1.3	m	Operating Assumptions
Grinding Circuit (SAG Mill)			
Material throughput	35,000	tonnes/day	2020 Oct 19 Air Inputs
Quantity of Scrubbers	not applicable		2020 Oct 19 Air Inputs
Operating Time	24		2020 Oct 19 Air Inputs
CFM of Scrubber	not applicable		2020 Oct 19 Air Inputs
Mitigation	Processing is wet, within a slurry		2020 Oct 19 Air Inputs
Pebble Crusher			
Material throughput (No Screen)	8,750	tonnes/day	2020 Oct 19 Air Inputs
Percent oversize material	not applicable		2020 Oct 19 Air Inputs
percent undersize material	not applicable		2020 Oct 19 Air Inputs
Quantity of Scrubbers	not applicable		2020 Oct 19 Air Inputs
Operating Time	24		2020 Oct 19 Air Inputs
CFM of Scrubber	not applicable		
Mitigation	Recycle pebbles are wet, 5% H2O		2020 Oct 19 Air Inputs
Concrete Product Filter			
Quantity	2	units	Operating Assumptions
Throughput	408	MT/day	Operating Assumptions

On-Site Concentrate Loading	Value	Units	Reference
Moisture Content	8.0 -11.0	%	2020 Oct 19 Air Inputs
Haul Amount	2000	tonnes/day	2020 Oct 19 Air Inputs
Loader (Cat 988) Capacity	10	tonnes per load	2020 Oct 19 Air Inputs
Loader HP	580	hp	2020 Oct 19 Air Inputs
Number of units	1	Unit	2020 Oct 19 Air Inputs
Operating Hrs	12	hr/day	2020 Oct 19 Air Inputs
Baghouse Capacity	20500	CFM	Operating Assumptions

Lime Delivery Baghouse	Value	Units	Reference
Max daily delivery	25-30	MT	Operating Assumptions
Baghouse Capacity	20500	CFM	Operating Assumptions

Lime Slacking Mill	Value	Units	Reference
Baghouse Capacity	200	CFM	Operating Assumptions

Reagent Ventilation Fan 1 - Frother (CIBC) Area	Value	Units	Reference
Volume Stored	2	m3	Operating Assumptions
Tank diameter	0.4	m	Operating Assumptions
Exhaust flow	250	CFM	Operating Assumptions

Reagent Ventilation Fan 2 - Collector (PAX) Mixing Tank	Value	Units	Reference
Volume Stored	2	m3	Operating Assumptions
Tank diameter	0.4	m	Operating Assumptions
Exhaust flow	250	CFM	Operating Assumptions

Reagent Ventilation Fan 3 - Collector (PAX) Distribution Tank	Value	Units	Reference
Volume Stored	2	m3	Operating Assumptions
Tank diameter	0.4	m	Operating Assumptions
Exhaust flow	250	CFM	Operating Assumptions

Reagent Ventilation Fan 4 - Collector 2 (AERO 3501) Area	Value	Units	Reference
Volume Stored	2	m3	Operating Assumptions
Tank diameter	0.4	m	Operating Assumptions
Exhaust flow	250	CFM	Operating Assumptions

Dust Collector CMC Feed Bin	Value	Units	Reference
Baghouse Capacity	250 CFM		Operating Assumptions

Stockpile Erosion	Value	Units	Reference
Ore Stockpiles			
Storage Pile #1 (above Reclaim Tunnel)	0	--	Covered - no wind erosion
Storage Pile #2 (West)	0	--	Covered - no wind erosion
Storage Pile #3 (East)	0	--	Covered - no wind erosion
Mobile Crusher Stockpiles			
Storage Pile #1 (150mm)	20000	tonnes	2020 Oct 19 Air Inputs
Storage Pile #2 (19mm)	20000	tonnes	2020 Oct 19 Air Inputs
Storage Pile #3 (35mm)	20000	tonnes	2020 Oct 19 Air Inputs
Storage Pile #4 (50/75mm)	20000	tonnes	2020 Oct 19 Air Inputs
Storage Pile #5 (0/10mm)	20000	tonnes	2020 Oct 19 Air Inputs
Storage Pile #6 (0/8mm)	20000	tonnes	2020 Oct 19 Air Inputs
Storage Pile #7(19mm)	20000	tonnes	2020 Oct 19 Air Inputs
Dimensions of MC storage piles			
base	20.9	m	Operating Assumptions
height	20.9	m	Operating Assumptions
Area of MC storage piles	3313	m^2	Calculation
% of MC stockpiles used each day	50%	%	Operating Assumptions - 25% from conveyor, 25% from loader
Mine Rock Stockpiles			
Area of MRSA	22500	m^2	Operating Assumptions
% of MRSA stockpile used each day	100%	%	Operating Assumptions
PSMF			
Area of PSMF	2912983	m^2	Based on drawings from KP for year 13 (worst case), north cell and south cell
Percent exposed tailings	70%	%	Operating Assumptions
Percent active	30%	%	Operating Assumptions

Mobile Crushing	Value	Units	Reference
Moisture content	4	%	Operating Assumptions
Specific Gravity - Waste Rock	2.5	tonnes/m3	2020 Oct 19 Air Inputs
Operating Hours	20	hr/day	2020 Oct 19 Air Inputs
Mitigation	Water Sprays to 2.5% H_2O	Wetting	2020 Oct 19 Air Inputs

Mobile Crushing - Equipment	Model	Material Throughput	Units	Control	Reference
Primary Crusher - Jaw Crusher	C120 or equiv	540	tonnes/hr	Y	2020 Oct 19 Air Inputs
Secondary Crusher - Cone	GP200 or equiv	300	tonnes/hr	Y	2020 Oct 19 Air Inputs
Tertiary Crusher - Cone	GP550 or equiv	400	tonnes/hr	Y	2020 Oct 19 Air Inputs
Tertiary / Fines Crusher - Cone	GP550 or equiv	400	tonnes/hr	Y	2020 Oct 19 Air Inputs

Generators	Value	Units	Reference
Number of units	5	ea.	2020 Oct 19 Air Inputs
Make	CAT		2020 Oct 19 Air Inputs
Model	Prime 1275		2020 Oct 19 Air Inputs
Capacity	1.275	MW	2020 Oct 19 Air Inputs
max Fuel Flow	91.7	USG/hr	2020 Oct 19 Air Inputs
Heating Value (Diesel)	139600.00	BTU/USG	2020 Oct 19 Air Inputs
Operating Hours			
Running in 24 hr - Full operation	24	hr/day	2020 Oct 19 Air Inputs
Running in 1 hr - testing	15	min/day	2020 Oct 19 Air Inputs
Running in 24 hr - testing	1	hr/day	2020 Oct 19 Air Inputs
Running in 1 hr - Mobile Crusher	60	min/hr	2020 Oct 19 Air Inputs
Running in 24 hr - Mobile Crusher	20	hr/day	2020 Oct 19 Air Inputs
Exhaust Temp	459.9	C	2020 Oct 19 Air Inputs
Exhaust Gas Flow Rate	300.7	m3/min	2020 Oct 19 Air Inputs
Exhaust diameter	0.2032	m	2020 Oct 19 Air Inputs

Assay Furnace	Value	Units	Reference
Operating Hours of Assay Lab	24	hours/day	2020 Oct 19 Air Inputs
Max # of Samples Processed	146,000	samples/year	2020 Oct 19 Air Inputs
	400	samples/day	2020 Oct 19 Air Inputs
	365	# days of operation	2020 Oct 19 Air Inputs
Furnace capacity	1	batch/hour	2020 Oct 19 Air Inputs
	24	fusion pots/batch	2020 Oct 19 Air Inputs
Average Mass of Sample	0.15	kg/sample	2020 Oct 19 Air Inputs
Qty Pb released per sample	2	g/sample	2020 Oct 19 Air Inputs
Mitigation	Baghouse	Unit	2020 Oct 19 Air Inputs
Mitigation Efficiency	99	%	2020 Oct 19 Air Inputs
Exhaust T	90	C	2020 Oct 19 Air Inputs
Exhaust Height Above Ground	5.5	m	2020 Oct 19 Air Inputs
Exhaust Height Above Bldg	0.5	m	2020 Oct 19 Air Inputs
Exhaust Diameter	0.3	m	2020 Oct 19 Air Inputs
Exhaust Flow rate	20,000	CFM	2020 Oct 19 Air Inputs

Cupel Baghouse	Value	Units	Reference
Operating Hours of Assay Lab	24	hours/day	2020 Oct 19 Air Inputs
Max # of Samples Processed	146000	samples/year	2020 Oct 19 Air Inputs
	400	samples/day	2020 Oct 19 Air Inputs
	365	# days of operation	2020 Oct 19 Air Inputs
Furnace capacity	1	batch/hour	2020 Oct 19 Air Inputs
	48	fusion pots/batch	2020 Oct 19 Air Inputs
Average Mass of Sample	0.001	kg/sample	2020 Oct 19 Air Inputs
Qty Pb released per sample	2	g/sample	2020 Oct 19 Air Inputs
Mitigation	Baghouse	Unit	2020 Oct 19 Air Inputs
Mitigation Efficiency	99	%	2020 Oct 19 Air Inputs
Exhaust T	90	C	2020 Oct 19 Air Inputs
Exhaust Height Above Ground	5.5	m	2020 Oct 19 Air Inputs
Exhaust Height Above Bldg	0.5	m	2020 Oct 19 Air Inputs
Exhaust Diameter	0.3	m	2020 Oct 19 Air Inputs
Exhaust Flow rate	16,000	CFM	2020 Oct 19 Air Inputs

Precious Metals Scrubber	Value	Units	Reference
Scrubber Efficiency	90	%	2020 Oct 19 Air Inputs
Exhaust Temperature	ambient	C	2020 Oct 19 Air Inputs
Qty HNO3 added per sample	0.088	g/sample	2020 Oct 19 Air Inputs
Qty HCl added per sample	1.14	g/sample	2020 Oct 19 Air Inputs
Qty LaCL3 added per sample	34.6	g/sample	2020 Oct 19 Air Inputs
Qty samples processed per day	48	samples/hour	2020 Oct 19 Air Inputs
	500	samples/day	2020 Oct 19 Air Inputs
Exhaust T	ambient	C	2020 Oct 19 Air Inputs
Exhaust Height Above Ground	5.5	m	2020 Oct 19 Air Inputs
Exhaust Height Above Bldg	0.5	m	2020 Oct 19 Air Inputs
Exhaust Diameter	0.3	m	2020 Oct 19 Air Inputs
Exhaust Flow rate	10,000	CFM	2020 Oct 19 Air Inputs

Base Metals Scrubber	Value	Units	Reference
Scrubber Efficiency	90	%	2020 Oct 19 Air Inputs
Exhaust Temperature	20	C	2020 Oct 19 Air Inputs
Qty HNO3 added per sample	1.75	g/sample	2020 Oct 19 Air Inputs
Qty Br Added	4.0	g/sample	2020 Oct 19 Air Inputs
Qty HF Added	1.92	g/sample	2020 Oct 19 Air Inputs
Qty HCl	0.12	g/sample	2020 Oct 19 Air Inputs
Qty samples processed per day	48	samples/hour	2020 Oct 19 Air Inputs
	400	samples/day	2020 Oct 19 Air Inputs
Exhaust T	ambient	C	2020 Oct 19 Air Inputs
Exhaust Height Above Ground	5.5	m	2020 Oct 19 Air Inputs
Exhaust Height Above Bldg	0.5	m	2020 Oct 19 Air Inputs
Exhaust Diameter	0.3	m	2020 Oct 19 Air Inputs
Exhaust Flow rate	10,000	CFM	2020 Oct 19 Air Inputs

Assay Lab AA	Value	Units	Reference
Exhaust Temperature	70	C	2020 Oct 19 Air Inputs
Qty HNO3 added per sample	0.088	g/sample	2020 Oct 19 Air Inputs
Qty HCl added per sample	1.14	g/sample	2020 Oct 19 Air Inputs
Qty LaCl3 added per sample	34.6	g/sample	2020 Oct 19 Air Inputs
Qty samples processed per day	48	samples/hour	2020 Oct 19 Air Inputs
Exhaust T	70	C	2020 Oct 19 Air Inputs
Exhaust Height Above Ground	5.5	m	2020 Oct 19 Air Inputs
Exhaust Height Above Bldg	0.5	m	2020 Oct 19 Air Inputs
Exhaust Diameter	0.3	m	2020 Oct 19 Air Inputs
Exhaust Flow rate	10,000	CFM	2020 Oct 19 Air Inputs

WWTP Reagents	Value	Units	Reference
Cationic Polymer			
Ferric Sulphate			
Anionic Polymer			
Sulphuric Acid			
Hydrated Lime			

Rail Loading	Value	Units	Reference
Moisture content	8.0 -11.0	%	2020 Oct 19 Air Inputs
Quantity of Baghouses	3	units	3 silos, 1 baghouse for each silo
Baghouse Efficiency	99	%	Assumption
Baghouse Size (each)	35000	CFM	
Quantity processed per day	2000	MT/day	Quantity of Concentrate Hauled
Operating Time	16	hr/day	Assumed could be operating 24 hr although 7am-11pm hauling
Exhaust diameter	1.6	m	Operating Assumptions
Exhaust height	25.13	m	Operating Assumptions
Rain Cap Present?	Yes	--	Operating Assumptions

Drilling	Value	Units	Reference
Production Drills			
Number of drills	4	units	2020 Oct 19 Air Inputs
drill holes per hr	2.9	holes/hr/drill	2020 Oct 19 Air Inputs
Operating Time	14.3	hrs/day	2020 Oct 19 Air Inputs
Mitigation	0	%	2020 Oct 19 Air Inputs
Drill Engine Size	860	hp	2020 Oct 19 Air Inputs
Cut Drills/Presplit			
Number of drills	2	units	2020 Oct 19 Air Inputs
drill holes per hr	1.2	holes/hr/drill	2020 Oct 19 Air Inputs
Operating Time	17	hrs/day	2020 Oct 19 Air Inputs
Mitigation	0	%	2020 Oct 19 Air Inputs
Drill Engine Size	540	hp	2020 Oct 19 Air Inputs

Blasting	Value	Units	Reference
Type of Explosive	100% Emulsion		2020 Oct 19 Air Inputs
Time for blast	5	sec	2020 Oct 19 Air Inputs
Number of Blasts	0.43	blast/day	2020 Oct 19 Air Inputs
Number of Blasts	0.02	blast/hr	2020 Oct 19 Air Inputs
Kg of Explosive used	81920	kg/blast	2020 Oct 19 Air Inputs
Blast Length - waste	100	m	2020 Oct 19 Air Inputs
Blast Width - waste	100	m	2020 Oct 19 Air Inputs
Blast Area	10000	m^2	2020 Oct 19 Air Inputs
Control	25	%	2020 Oct 19 Air Inputs
Emulsion Truck Engine Size	350	hp	Operating Assumptions
Stemming Loader Engine Size	96	hp	Operating Assumptions

Mucking	Value	Units	Reference
Silt Content	2	%	2020 Oct 19 Air Inputs
Moisture Content	4	%	2020 Oct 19 Air Inputs
Open Pit			
Dozer - Operating Hrs	14.5	hr/day	2020 Oct 19 Air Inputs
Number of wheel dozers in pit	2	unit	2020 Oct 19 Air Inputs
Dozer Engine Size	646	hp	2020 Oct 19 Air Inputs
Dozer Model	D10T	--	2020 Oct 19 Air Inputs
MRSA Waste Rock Handling			
Operating Hrs	14.5	hr/day	2020 Oct 19 Air Inputs
Number of wheel dozers on pile	2	unit	Operating Assumptions
Dozer Engine Size	646	hp	Operating Assumptions
Dozer Model	D10T	--	Operating Assumptions
Excavators at MRSA	2	unit	Operating Assumptions
Excavator Engine Size	417	hp	Operating Assumptions
PSMF Waste Rock Handling - Location 1			
Operating Hrs	14.5	hr/day	2020 Oct 19 Air Inputs
Excavators at PSMF Loc 1	1	unit	Operating Assumptions
Excavator Engine Size	600	hp	Operating Assumptions
Excavator Model		--	Operating Assumptions
Compactors at PSMF Loc 1	1	unit	Operating Assumptions
Compactor Engine Size	131	hp	Operating Assumptions
PSMF Waste Rock Handling - Location 2			
Operating Hrs	14.5	hr/day	Operating Assumptions
Dozers at PSMF Loc 2	1	unit	Operating Assumptions
Dozer Engine Size	850	hp	Operating Assumptions
PSMF Waste Rock Handling - Location 3			
Operating Hrs	14.5	hr/day	2020 Oct 19 Air Inputs
Excavators at PSMF Loc 3	2	unit	Operating Assumptions
Excavator Engine Size	600	hp	Operating Assumptions
Excavator Model		--	Operating Assumptions
Dozer at PSMF Loc 3	1	unit	Operating Assumptions
Dozer Engine Size	850	hp	Operating Assumptions
Compactors at PSMF Loc 3	1	unit	Operating Assumptions
Compactor Engine Size	131	hp	Operating Assumptions
PSMF Waste Rock Handling - Location 4			
Operating Hrs	14.5	hr/day	Operating Assumptions
Dozers at PSMF Loc 4	1	unit	Operating Assumptions
Dozer Engine Size	850	hp	Operating Assumptions

Pit - Loading	Value	Units	Reference
Moisture Content	4	%	2020 Oct 19 Air Inputs
Amount of Rock/Ore Removed	109589	MT/day	2020 Oct 19 Air Inputs - 2020 value based on Year 2 Annual tonnage mined (data provided 20201005)/365 days
RH200E Hydraulic Shovel, 2600ho	2	Loaders	2020 Oct 19 Air Inputs
Operating hours (RH200)	15.5	hr/day	2020 Oct 19 Air Inputs
Cat 994 Loader	1	Loaders	2020 Oct 19 Air Inputs
Operating hours (Cat 994)	12.4	hr/day	2020 Oct 19 Air Inputs
Haul Truck (797F)Max Capacity	94	m3	2020 Oct 19 Air Inputs
Density of Hauled Rock	2.28	tonnes/m3	2020 Oct 19 Air Inputs

Unloading	Value	Units	Reference
Unloading at Primary Crusher - Amount of Ore	43,200	tonnes/day	Operating Assumptions
Unloading at MRSA - Amount of WR	51525	tonnes/day	Waste rock removal in the production schedule for year 2 (27408149 MT/year)/365 days/year - 83% brought to MRSA and MC
Haul Truck Return Trips	227	trips/day	Operating Assumptions
Rock Haul Amount	227	MT/truck	Operating Assumptions
Unloading at MC - Amount of WR	10800	tonnes/day	Assume the max capacity of the primary crusher (540 MT per hour and 20 hr/day)
Haul Truck Return Trips	48	trips/day	Operating Assumptions
Rock Haul Amount	227	MT/truck	Operating Assumptions
Unloading at PSMF - Amount of WR (total)	12765	MT/day	Operating Assumptions
Haul Truck Return Trips	56	trips/day	Operating Assumptions
Rock Haul Amount	227	MT/truck	Operating Assumptions
Unloading at PSMF Loc 1	3191	MT/day	Operating Assumptions
Unloading at PSMF Loc 2	3191	MT/day	Operating Assumptions
Unloading at PSMF Loc 3	3191	MT/day	Operating Assumptions
Unloading at PSMF Loc 4	3191	MT/day	Operating Assumptions

Maintenance Equipment	Value	Units	Reference
Skid Steer Loader			
Quantity	1	unit	Operating Assumptions
Engine Size	74	hp	Operating Assumptions
Boom Truck 28T			
Quantity	1	unit	Operating Assumptions
Engine Size	300	hp	Operating Assumptions
Telehandler			
Quantity	1	unit	Operating Assumptions
Engine Size	135	hp	Operating Assumptions
Forklift Diesel			
Quantity	1	unit	Operating Assumptions
Engine Size	60	hp	Operating Assumptions
Tire Handler Truck			
Quantity	1	unit	Operating Assumptions
Engine Size	425	hp	Operating Assumptions
Lube Truck			
Quantity	1	unit	Operating Assumptions
Engine Size	300	hp	Operating Assumptions
Mobile Air Compressor			
Quantity	1	unit	Operating Assumptions
Engine Size	61	hp	Operating Assumptions
Welding Machine Diesel			
Quantity	2	unit	Operating Assumptions
Engine Size	33	hp	Operating Assumptions
Light Plant			
Quantity	10	unit	Operating Assumptions
Engine Size	13	hp	Operating Assumptions
Genset 6kW			
Quantity	3	unit	Operating Assumptions
Engine Size	10	hp	Operating Assumptions
Genset 60kW			
Quantity	1	unit	Operating Assumptions
Engine Size	90	hp	Operating Assumptions
Water Pump 3" - Gasoline			
Quantity	4	unit	Operating Assumptions
Engine Size	6	hp	Operating Assumptions
Water Pump 10" - Diesel			
Quantity	2	unit	Operating Assumptions
Engine Size	160	hp	Operating Assumptions
Diesel Powered Air Heaters			
Quantity	2	unit	Operating Assumptions
Engine Size	87	hp	Operating Assumptions

Propane Heaters	Capacity	Units	Quantity	Reference
Transfer tower		not applicable, unheated		2020 Oct 19 Air Inputs
Reclaim Tunnel		not applicable, unheated		2020 Oct 19 Air Inputs
H1 - Pebble Crusher	5	MMBTU/Hr	1	2020 Oct 19 Air Inputs
H2 - Garage	5	MMBTU/Hr	2	2020 Oct 19 Air Inputs
Warehouse	2	MMBTU/Hr	1	2020 Oct 19 Air Inputs
Dryer		no dryer applied in process		2020 Oct 19 Air Inputs
H1 - Grinding	10	MMBTU/Hr	2	2020 Oct 19 Air Inputs
H1 - Concentrator	30	MMBTU/Hr	4	2020 Oct 19 Air Inputs
H3 - WWTP	2	MMBTU/Hr	1	2020 Oct 19 Air Inputs
H4 - Assay Lab - AMU	3	MMBTU/Hr	1	2020 Oct 19 Air Inputs
H4 - Assay Lab - propane furnace	1	MMBTU/Hr	3	2020 Oct 19 Air Inputs
H4 - Assay Heating/Cooling Unit	1	MMBTU/Hr	1	2020 Oct 19 Air Inputs
H5 - Administration Building	2	MMBTU/Hr	1	Operating Assumptions

Grading	Value	Units	Reference
Silt Content	5.8	%	
Moisture Content	4	%	2020 Oct 19 Air Inputs
Mitigation	80	%	2020 Oct 19 Air Inputs
Grader Speed	4.5	km/hr	2020 Oct 19 Air Inputs
Grader model	18M	--	2020 Oct 19 Air Inputs
Amount	2	units	2020 Oct 19 Air Inputs
Grading Operating hrs	2	hr/24 hr	2020 Oct 19 Air Inputs

Road Dust	Value	Units	Reference
Silt Content (%)	5.8	%	

Vehicle Type	Access Roads	Site Roads	Units	Reference
Pick up trucks	60	45	kph	2020 Oct 19 Air Inputs
Haul truck	--	30	kph	2020 Oct 19 Air Inputs
Transport	50	45	kph	2020 Oct 19 Air Inputs
Bus	50	--	kph	2020 Oct 19 Air Inputs
Haul truck	50	50	kph	2020 Oct 19 Air Inputs - no haul trucks will be on access road
Water Truck	15	15	kph	2020 Oct 19 Air Inputs
Fuel Truck	60	45	kph	2020 Oct 19 Air Inputs

Road Section Length	Value	Units	Reference
Main Access Road from Mill to Highway	6.4	km	Operating Assumptions
Haul Road from Pit to MRSA	1.5	km	AERMOD road length
Haul Road from Pit to Primary Crusher	1.6	km	AERMOD road length
Haul Road from Pit to Mobile Crusher	6.0	km	AERMOD road length
Haul Road from Pit to PSMF	7.8	km	AERMOD road length
Peninsula Road - Highway to Industrial Park Road	2.0	km	Operating Assumptions
Peninsula Road - Industrial Park Road to Penn Lake Road	1.9	km	Operating Assumptions
Peninsula Road - Penn Lake Road to Hemlo Drive	0.6	km	Operating Assumptions
Peninsula Road - Hemlo Drive to Sund Crescent	0.6	km	Operating Assumptions
Peninsula Road - Sund Crescent to Steven's Avenue	0.2	km	Operating Assumptions
Peninsula Road - Steven's Avenue to Rail Loadout Location	1.0	km	Operating Assumptions

Main Access Road from Mill to Highway	Value	Units	Reference
Surface	Gravel	--	Operating Assumptions
Mitigation	80	%	Operating Assumptions
Pick up trucks			
Amount	140	Units	Operating Assumptions
Trucks per shift	70	trucks/shift	Operating Assumptions
Segments per day	280	segments/day	Operating Assumptions
Speed	60	km/h	Operating Assumptions
Transport			
Amount	20	Units	Operating Assumptions
Segments per day	40	segments/day	Operating Assumptions
Speed	50	km/h	Operating Assumptions
Bus			
Amount	2	Units	Operating Assumptions
Segments per day	4	segments/day	Operating Assumptions
Speed	50	km/h	Operating Assumptions
Concentrate Truck			
Amount	50	Units	Operating Assumptions
Segments per day	100	segments/day	Operating Assumptions
Speed	50	km/h	Operating Assumptions
Capacity	40	MT	Operating Assumptions
Water Truck			
Amount	1	Units	Operating Assumptions
Segments per day	2	segments/day	Operating Assumptions
Speed	15	km/h	Operating Assumptions
Fuel Truck			
Amount	1	Units	Operating Assumptions
Segments per day	2	segments/day	Operating Assumptions
Speed	60	km/h	Operating Assumptions
Grader			
Amount	1	Units	Operating Assumptions
Segments per day	2	segments/day	Operating Assumptions
Speed	5	km/h	Operating Assumptions
Haul Road from Pit to MRSA	**Value**	**Units**	**Reference**
Surface	Gravel	--	Operating Assumptions
Mitigation	80	%	Operating Assumptions
Haul Truck			
Return trips per day	227	trips/day	Operating Assumptions
Segments per day	454	segments/day	Operating Assumptions
Speed	50	km/h	Operating Assumptions
Capacity	227	MT	Operating Assumptions
Capacity per day	51525.38	MT/day	Operating Assumptions
Water Truck			
Amount	1	Units	Operating Assumptions
Segments per day	2	segments/day	Operating Assumptions
Speed	15	km/h	Operating Assumptions
Fuel Truck			
Amount	1	Units	Operating Assumptions
Segments per day	2	segments/day	Operating Assumptions
Speed	45	km/h	Operating Assumptions
Grader			
Amount	1	Units	Operating Assumptions
Segments per day	2	segments/day	Operating Assumptions
Speed	5	km/h	Operating Assumptions

Haul Road from Pit to Primary Crusher	Value	Units	Reference
Surface	Gravel	--	Operating Assumptions
Mitigation	80	%	Operating Assumptions
Haul Truck			
Return trips per day	190	trips/day	Operating Assumptions
Segments per day	380	segments/day	Operating Assumptions
Speed	50	km/h	Operating Assumptions
Capacity	227	MT	Operating Assumptions
Capacity per day	43200	MT/day	Operating Assumptions
Mechanical Service Truck			
Amount	1	Units	Operating Assumptions
Segments per day	2	segments/day	Operating Assumptions
Speed	45	km/h	Operating Assumptions
Water Truck			
Amount	1	Units	Operating Assumptions
Segments per day	2	segments/day	Operating Assumptions
Speed	15	km/h	Operating Assumptions
Fuel Truck			
Amount	1	Units	Operating Assumptions
Segments per day	2	segments/day	Operating Assumptions
Speed	45	km/h	Operating Assumptions
Grader			
Amount	1	Units	Operating Assumptions
Segments per day	2	segments/day	Operating Assumptions
Speed	5	km/h	Operating Assumptions
Haul Road from Pit to Mobile Crusher	**Value**	**Units**	**Reference**
Surface	Gravel	--	Operating Assumptions
Mitigation	80	%	Operating Assumptions
Haul Truck			
Return trips per day	48	trips/day	Operating Assumptions
Segments per day	96	segments/day	Operating Assumptions
Speed	50	km/h	Operating Assumptions
Capacity	227	MT	Operating Assumptions
Capacity per day	10800	MT/day	Operating Assumptions
Mechanical Service Truck			
Amount	1	Units	Operating Assumptions
Segments per day	2	segments/day	Operating Assumptions
Speed	45	km/h	Operating Assumptions
Water Truck			
Amount	1	Units	Operating Assumptions
Segments per day	2	segments/day	Operating Assumptions
Speed	15	km/h	Operating Assumptions
Fuel Truck			
Amount	1	Units	Operating Assumptions
Segments per day	2	segments/day	Operating Assumptions
Speed	45	km/h	Operating Assumptions
Grader			
Amount	1	Units	Operating Assumptions
Segments per day	2	segments/day	Operating Assumptions
Speed	5	km/h	Operating Assumptions

Haul Road from Pit to PSMF	Value	Units	Reference
Surface	Gravel	--	Operating Assumptions
Mitigation	80	%	Operating Assumptions
Haul Truck			
Return trips per day	56	trips/day	Operating Assumptions
Segments per day	112	segments/day	Operating Assumptions
Speed	50	km/h	Operating Assumptions
Capacity	227	MT	Operating Assumptions
Capacity per day	12765.44	MT/day	Operating Assumptions
Mechanical Service Truck			
Amount	1	Units	Operating Assumptions
Segments per day	2	segments/day	Operating Assumptions
Speed	45	km/h	Operating Assumptions
Water Truck			
Amount	1	Units	Operating Assumptions
Segments per day	2	segments/day	Operating Assumptions
Speed	15	km/h	Operating Assumptions
Fuel Truck			
Amount	1	Units	Operating Assumptions
Segments per day	2	segments/day	Operating Assumptions
Speed	45	km/h	Operating Assumptions
Grader			
Amount	1	Units	Operating Assumptions
Segments per day	2	segments/day	Operating Assumptions
Speed	5	km/h	Operating Assumptions
Peninsula Road - Highway to Industrial Park Road	**Value**	**Units**	**Reference**
Surface	Paved	--	Operating Assumptions
Impact Traffic			
Pick up trucks			
Amount	108	units	Operating Assumptions
Trucks per shift	54	trucks/shift	Operating Assumptions
Segments per day	216	segments/day	Operating Assumptions
Speed	80	km/h	Operating Assumptions
Concentrate Truck			
Amount	30	units	Operating Assumptions
Segments per day	60	segments/day	Operating Assumptions
Speed	80	km/h	Operating Assumptions
Capacity	40	MT	Operating Assumptions
Bus			
Amount	2	units	Operating Assumptions
Segments per day	4	segments/day	Operating Assumptions
Speed	80	km/h	Operating Assumptions
Baseline Traffic			
Pick up trucks (Passenger vehicles and motorcycles)			
Segments per day	2745	segments/day	Operating Assumptions
Speed	80	km/h	Operating Assumptions
Transports (long trucks)			
Segments per day	91	segments/day	Operating Assumptions
Speed	80	km/h	Operating Assumptions
Bus			
Segments per day	30	segments/day	Operating Assumptions
Speed	80	km/h	Operating Assumptions
Short Trucks			
Segments per day	151	segments/day	Operating Assumptions
Speed	80	km/h	Operating Assumptions

Peninsula Road - Industrial Park Road to Penn Lake Road	Value	Units	Reference
Surface	Paved	--	Operating Assumptions
Pick up trucks			
Amount	108	units	Operating Assumptions
Trucks per shift	54	trucks/shift	Operating Assumptions
Segments per day	216	segments/day	Operating Assumptions
Speed	60	km/h	Operating Assumptions
Concentrate Truck			
Amount	30	units	Operating Assumptions
Segments per day	60	segments/day	Operating Assumptions
Speed	60	km/h	Operating Assumptions
Capacity	40	MT	Operating Assumptions
Bus			
Amount	2	units	Operating Assumptions
Segments per day	4	segments/day	Operating Assumptions
Speed	60	km/h	Operating Assumptions
Baseline Traffic			
Pick up trucks (Passenger vehicles and motorcycles)			
Segments per day	2745	segments/day	Operating Assumptions
Speed	60	km/h	Operating Assumptions
Transports (long trucks)			
Segments per day	91	segments/day	Operating Assumptions
Speed	60	km/h	Operating Assumptions
Bus			
Segments per day	30	segments/day	Operating Assumptions
Speed	60	km/h	Operating Assumptions
Short Trucks			
Segments per day	151	segments/day	Operating Assumptions
Speed	60	km/h	Operating Assumptions
Peninsula Road - Penn Lake Road to Hemlo Drive	**Value**	**Units**	**Reference**
Surface	Paved	--	Operating Assumptions
Pick up trucks			
Amount	108	units	Operating Assumptions
Trucks per shift	54	trucks/shift	Operating Assumptions
Segments per day	216	segments/day	Operating Assumptions
Speed	50	km/h	Operating Assumptions
Concentrate Truck			
Amount	30	units	Operating Assumptions
Segments per day	60	segments/day	Operating Assumptions
Speed	50	km/h	Operating Assumptions
Capacity	40	MT	Operating Assumptions
Bus			
Amount	2	units	Operating Assumptions
Segments per day	4	segments/day	Operating Assumptions
Speed	50	km/h	Operating Assumptions
Baseline Traffic			
Pick up trucks (Passenger vehicles and motorcycles)			
Segments per day	2745	segments/day	Operating Assumptions
Speed	50	km/h	Operating Assumptions
Transports (long trucks)			
Segments per day	91	segments/day	Operating Assumptions
Speed	50	km/h	Operating Assumptions
Bus			
Segments per day	30	segments/day	Operating Assumptions
Speed	50	km/h	Operating Assumptions

Short Trucks			
Segments per day	151	segments/day	Operating Assumptions
Speed	50	km/h	Operating Assumptions
Peninsula Road - Hemlo Drive to Sund Crescent	**Value**	**Units**	**Reference**
Surface	Paved	--	Operating Assumptions
Pick up trucks			
Amount	108	units	Operating Assumptions
Trucks per shift	54	trucks/shift	Operating Assumptions
Segments per day	216	segments/day	Operating Assumptions
Speed	40	km/h	Operating Assumptions
Concentrate Truck			
Amount	30	units	Operating Assumptions
Segments per day	60	segments/day	Operating Assumptions
Speed	40	km/h	Operating Assumptions
Capacity	40	MT	Operating Assumptions
Bus			
Amount	2	units	Operating Assumptions
Segments per day	4	segments/day	Operating Assumptions
Speed	40	km/h	Operating Assumptions
Baseline Traffic			
Pick up trucks (Passenger vehicles and motorcycles)			
Segments per day	9100	segments/day	Operating Assumptions
Speed	40	km/h	Operating Assumptions
Transports (long trucks)			
Segments per day	300	segments/day	Operating Assumptions
Speed	40	km/h	Operating Assumptions
Bus			
Segments per day	100	segments/day	Operating Assumptions
Speed	40	km/h	Operating Assumptions
Short Trucks			
Segments per day	500	segments/day	Operating Assumptions
Speed	40	km/h	Operating Assumptions
Peninsula Road - Sund Crescent to Steven's Avenue	**Value**	**Units**	**Reference**
Surface	Paved	--	Operating Assumptions
Pick up trucks			
Amount	108	units	Operating Assumptions
Trucks per shift	54	trucks/shift	Operating Assumptions
Segments per day	216	segments/day	Operating Assumptions
Speed	40	km/h	Operating Assumptions
Concentrate Truck			
Amount	30	units	Operating Assumptions
Segments per day	60	segments/day	Operating Assumptions
Speed	40	km/h	Operating Assumptions
Capacity	40	MT	Operating Assumptions
Bus			
Amount	2	units	Operating Assumptions
Segments per day	4	segments/day	Operating Assumptions
Speed	40	km/h	Operating Assumptions
Baseline Traffic			
Pick up trucks (Passenger vehicles and motorcycles)			
Segments per day	8054	segments/day	Operating Assumptions
Speed	40	km/h	Operating Assumptions
Transports (long trucks)			
Segments per day	265	segments/day	Operating Assumptions
Speed	40	km/h	Operating Assumptions

Bus			
Segments per day	89	segments/day	Operating Assumptions
Speed	40	km/h	Operating Assumptions
Short Trucks			
Segments per day	442	segments/day	Operating Assumptions
Speed	40	km/h	Operating Assumptions
Peninsula Road - Steven's Avenue to Rail Loadout Location	**Value**	**Units**	**Reference**
Surface	Paved	--	Operating Assumptions
Concentrate Truck			
Amount	30	units	Operating Assumptions
Segments per day	60	segments/day	Operating Assumptions
Speed	50	km/h	Operating Assumptions
Capacity	40	MT	Operating Assumptions
Baseline Traffic			
Pick up trucks (Passenger vehicles and motorcycles)			
Segments per day	637	segments/day	Operating Assumptions
Speed	50	km/h	Operating Assumptions
Transports (long trucks)			
Segments per day	21	segments/day	Operating Assumptions
Speed	50	km/h	Operating Assumptions
Bus			
Segments per day	7	segments/day	Operating Assumptions
Speed	50	km/h	Operating Assumptions
Short Trucks			
Segments per day	35	segments/day	Operating Assumptions
Speed	50	km/h	Operating Assumptions

Equipment List	Description	Engine Type	Engine Size (hp)	Quantity	Enginer Tier	Engine Load Factor	Reference
Production Drill (6-10")	PV235	Diesel	860	4	Tier4	65%	2020 Oct 19 Air Inputs
Auxiliary Pre-split Drill (4.5-8")	SmartRoc D65	Diesel	540	4	Tier4	50%	2020 Oct 19 Air Inputs
Diesel Hydraulic Shovel (34 m³)	6060 FSD	Diesel	3000	2	Tier4	60%	2020 Oct 19 Air Inputs
Wheel Loader (30 m³)	L1850	Diesel	2000	1	Tier4	39%	2020 Oct 19 Air Inputs
Mining Haul Truck (240t)	793F	Diesel	2650	11	Tier4	40%	2020 Oct 19 Air Inputs
Track Dozer (600 HP)	D10T	Diesel	646	4	Tier4	55%	2020 Oct 19 Air Inputs
Motor Grader (18ft)	18M	Diesel	304	2	Tier4	45%	2020 Oct 19 Air Inputs
Water/Sand Truck (120kL tank)	785 WT	Diesel	1016	1	Tier4	50%	2020 Oct 19 Air Inputs
Wheel Dozer (496 HP)	834K	Diesel	496	1	Tier4	50%	2020 Oct 19 Air Inputs
Excavator (49t)	349F	Diesel	417	2	Tier4	50%	2020 Oct 19 Air Inputs
Excavator (90t)	390F	Diesel	524	1	Tier4	50%	2020 Oct 19 Air Inputs
Emulsion Truck	10Wheel Emulsion Tı	Diesel	350	1	Tier4	45%	2020 Oct 19 Air Inputs
Stemming Loader	950M	Diesel	96	1	Tier4	45%	2020 Oct 19 Air Inputs
Wheel Loader 271HP	962M	Diesel	271	1	Tier4	40%	2020 Oct 19 Air Inputs
Skid Steer Loader	S630	Diesel	74	1	Tier4	45%	2020 Oct 19 Air Inputs
Boom Truck 28t	Manitex	Diesel	300	1	Tier4	45%	2020 Oct 19 Air Inputs
Telehandler	TL1055	Diesel	135	1	Tier4	35%	2020 Oct 19 Air Inputs
Forklift Diesel 4t	FG40N1	Diesel	60	1	Tier4	35%	2020 Oct 19 Air Inputs
Mechanic Service Truck	MV607 - Orodesign	Diesel	300	3	Tier4	40%	2020 Oct 19 Air Inputs
Tire Handler Truck	Tire Handler Truck	Diesel	425	1	Tier4	45%	2020 Oct 19 Air Inputs
Fuel & Lube truck 10Wheel	GFW Fuel&Lube	Diesel	350	2	Tier4	45%	2020 Oct 19 Air Inputs
Lube Truck	GFW Lube	Diesel	300	1	Tier4	45%	2020 Oct 19 Air Inputs
Truck Tractor for trailers	Tractor Lowboy&Flat	Diesel	380	1	Tier4	45%	2020 Oct 19 Air Inputs
Pick-up Truck	F250 Super Duty crev	Diesel	450	20	Tier4	10%	2020 Oct 19 Air Inputs
Pit Bus	Bus 20pax	Diesel	150	2	Tier4	40%	2020 Oct 19 Air Inputs
Mobile Air Compressor 185CFM	185 CFM	Diesel	61	1	Tier4	40%	2020 Oct 19 Air Inputs
Welding Machine Diesel 400A	Vantage 400	Diesel	33	2	Tier4	50%	2020 Oct 19 Air Inputs

Light Plant	MTL3060	Diesel	13	10	Tier4	70%	2020 Oct 19 Air Inputs
Genset 6kW	GP5500W	Gasoline	10	3	0	80%	2020 Oct 19 Air Inputs
Genset 60kW	60kW Genset	Diesel	90	1	Tier4	80%	2020 Oct 19 Air Inputs
Water pump 3" - Gasoline	Godwin Pump GTP8C	Diesel	5.5	4	Tier4	40%	2020 Oct 19 Air Inputs
Water Pump 10in - Diesel	CD250	Diesel	160	2	Tier4	60%	2020 Oct 19 Air Inputs
Diesel Powered Air Heaters	HI400HD	Diesel	87	2	0	70%	2020 Oct 19 Air Inputs
Concentrate Truck	74B	Diesel	489	2	Tier4	40%	Stantec Assumption
Excavator (600hp)		Diesel	600	3	Tier4	50%	Stantec Assumption
Compactor		Diesel	131	2	Tier4	50%	Stantec Assumption
Dozer		Diesel	850	2	Tier4	55%	Stantec Assumption

Fuel Storage	**Value**	**Units**	**Reference**
Diesel Tanks			
Quatity of units	2	units	2012 input
Volume of tanks	200000	L	2012 input
Tank orientation	vertical	--	2012 input
Tank Diameter	10	m	2012 input
Distilate Fuel oil	18.05	lb/yr	2012 input
1,2,4-Trimethylbenzene	0.69	lb/yr	2012 input
Benzene	0.05	lb/yr	2012 input
Ethylbenzene	0.04	lb/yr	2012 input
Hexane	0.09	lb/yr	2012 input
Toluene	0.41	lb/yr	2012 input
Xylenes	0.99	lb/yr	2012 input

Size Fractions

Process	Reference	Source	TSP	PM10	PM2.5	PM10/TSP	PM2.5/PM10	PM2.5/TSP
Crushed Stone Processing	Table 11.19.2-1	Tertiary Crushing (controlled)	0.0006	0.00027	0.00005	0.450	0.185	0.083
		Fines Crushing (controlled)	0.0015	0.0006	0.000035	0.400	0.058	0.023
		Conveyor transfer points (controlled)	0.00007	2.30E-05	6.50E-06	0.329	0.283	0.093
Aggregate handling and storage piles	Section 13.2.4.3	Drop equation	0.74	0.35	0.053	0.473	0.151	0.072
Industrial Wind Erosion	Section 13.2.5	PM size mulipliers	1	0.5	0.075	0.500	0.150	0.075
Unpaved roads	13.2.2	PM size mulipliers	4.9	1.5	0.15	0.306	0.100	0.031

Description:

Primary crushing of ore.

Methodology: Emission Factor (EF)

Emission factors for primary crushing were based on US EPA AP-42 document Chapter 11.24 (Metallic Minerals Processing) Table 11.24-1 Emission Factors for Metallic Minerals Processing. Emission factor is for a typical primary crusher unit operation including hopper, screens, crusher, surge bin, apron feeder and converyor belt systems. Emission factors for high moisture content ore (>= 4%) used.

Input	Value	Units	Source
Material throughput to Screen	43200	tonnes/day	2020 Oct 19 Air Inputs
Percent oversize material	0	--	2020 Oct 19 Air Inputs
percent undersize material	0	--	2020 Oct 19 Air Inputs
Quantity of Baghouse	1	Unit	2020 Oct 19 Air Inputs
Operating Time	24	hr/day	2020 Oct 19 Air Inputs
Mitigation	99	%	2020 Oct 19 Air Inputs

	Emission Factor (kg/MT)	Rating	Emission Rate (g/s)	Comments
TSP	0.01	D	5.00E-02	
PM10	0.004	D	2.00E-02	
PM2.5	0.0007	E	3.70E-03	PM2.5 EF estimated based on the ratio of PM2.5/PM10 provided in AP-42 for tertiary crushing of crushed stone, which is expected to be conservative for this process.

Notes:

1. Metals emission are calculated in Tab "Metals"

Source ID: S2

Description:

Particulate emissions from the material handling from the Primary Crusher.

Methodology: Emission Factor (EF)

Particulate emissions are emitted as fugitives from handling operations and controlled by a baghouse. Emission factor for TSP is estimated at 20 or 10 mg/m3 as per the MECP document "Procedure for Preparing an ESDM Report" Appendix C.

Input Data:	Value	Units	Source
Operating time	24	hr/day	2020 Oct 19 Air Inputs
CFM of Baghouse	75000	CFM	2020 Oct 19 Air Inputs
	2123.84	m3/min	Calculation
EF (TSP)	20	mg/m3	MECP Recommended BH EF.
Ratio PM10/TSP	0.48		AP-42, App B-1, Section 11.xx (fluorspar ore drum dryer with fabric filter
Ratio PM2.5/TSP	0.1		AP-42, App B-1, Section 11.xx (fluorspar ore drum dryer with fabric filter

	Emission Rate		
TSP	0.708	g/s	
PM10	0.340	g/s	
PM2.5	0.071	g/s	

Notes:

1. Metals emission are calculated in Tab "Metals"

Source: Loading of Crushed Ore (ROM) Stockpile
Source ID: S3

Description:

Conveyor dropping material at crushed ore stockpile.

Methodology: Emission Factor (EF)

Emission factor for material unloading/dropping was calculated using Equation (1) in the US EPA AP-42 document Chapter 13.2.4 (Aggregate Handling and Storage Piles). The equation is:

$$E = k(0.0016) \frac{\left(\frac{U}{2.2}\right)^{1.3}}{\left(\frac{M}{2}\right)^{1.4}} \text{ (kg/megagram [Mg])}$$

where:

E = emission factor

k = particle size multiplier (dimensionless)

U = mean wind speed, meters per second

M = material moisture content (%)

The particle size multiplier in the equation, k, varies with aerodynamic particle size range, as follows:

Aerodynamic Particle Size Multiplier (k) For Equation 1 (US EPA	< 30 um	0.74	Note: It is assumed that k=0.74 for total particulate matter (<30 µm) consistent with the assumption in U.S. EPA AP-42 Chapter 13.2.2
	< 10 um	0.35	
	< 2.5 um	0.053	

Emission calculation for material drop:

	Quantity	Unit	Reference
Operating Hours	24	hours/day	
Material moisture content (M)	4	%	
Mean wind speed (U)	1	m/s	Covered area, assumed 1m/s as per MECP Procedure Document Table C-2)
Calculated emission factor (E)	0.00022	kg/tonne	Calculated
Material Handling Rate	1800.0	tonnes/hr	Processing rate
Emission Control [1]	99%	%	Crushed ore stockpile is covered and controlled by a baghouse. CE for enclosed storage pile with control.
E/k (hourly)	0.004	kg/hr	Calculated
PM Emissions (short-term)	**8.05E-04**	**g/s**	Calculated
PM10 emission	**3.81E-04**	**g/s**	0.35 Multiplier from US EPA AP-42, Chapter 13.2.4.
PM2.5 emission	**5.76E-05**	**g/s**	0.053 Multiplier from US EPA AP-42, Chapter 13.2.4.

Summary of Conveyor Drop at Crushed Ore Stockpile Emissions

Contaminant	CAS#		Total Emissions g/s
PM	*PM*		8.05E-04
PM_{10}	*PM10*		3.81E-04
$PM_{2.5}$	*PM2.5*		5.76E-05

Notes:

1. Metals emission are calculated in Tab "Metals"

Source ID: S3B

Description:

Particulate emissions from the material handling from the crushed ore stockpile.

Methodology: Emission Factor (EF)

Particulate emissions are emitted as fugitives from handling operations and controlled by a baghouse. Emission factor for TSP is estimated at 20 or 10 mg/m3 as per the MECP document "Procedure for Preparing an ESDM Report" Appendix C.

Input Data:	Value	Units	Source
Quantity of Baghouses	1		2020 Oct 19 Air Inputs
Operating hours	24	hr/day	2020 Oct 19 Air Inputs
CFM of Baghouse	25000	CFM	2020 Oct 19 Air Inputs
	707.95	m3/min	Calculation
EF (TSP)	10	mg/m3	MECP Recommend BH EF
PM10/TSP	0.48		AP-42, App B-1, Section 11.xx (fluorspar ore drum dryer with fabric filter
PM2.5/TSP	0.1		AP-42, App B-1, Section 11.xx (fluorspar ore drum dryer with fabric filter

	Emission Rate	
TSP	1.18E-01	g/s
PM10	5.66E-02	g/s
PM2.5	1.18E-02	g/s

Notes:

1. Metals emission are calculated in Tab "Metals"

Source: Mill Building - Particulates and Metals
Source ID: S4

Source S4. Emissions from the following operations are calculated here:

1) Grinding Circuit (SAG Mill) crushing of ore, processing is wet (within a slurry)
2) Pebble Crusher - crushing of recycled pebbles from the SAG mill, rinsed with sprays
3) Concrete product filter x2 emissions. NOTE: based on the throughputs of the grinding circuit and pebble crusher, the concrete product filter is insignificant (<2%) and not included in emissions calculation

Description:

Grinding of ore, with water sprays.

Methodology: Emission Factor (EF)

Emission factors for grinding were based on US EPA AP-42 document Chapter 11.24 (Metallic Minerals Processing) Table 11.24-1 Emission Factors for Metallic Minerals Processing.

Input	Value	Units	Source
Grinding Circuit			
Material throughput	35,000	tonnes/day	2020 Oct 19 Air Inputs
	1458.33	MT/hr	Calculation
Quantity of Scrubbers	not applicable		2020 Oct 19 Air Inputs
Operating Time	24	Hrs/day	2020 Oct 19 Air Inputs
CFM of Scrubber	not applicable		2020 Oct 19 Air Inputs
Mitigation	90	%	Enclosed in Mill Building
Pebble Crusher			
Material throughput (No Screen)	8750	tonnes/day	2020 Oct 19 Air Inputs
	364.58	tonnes/hr	Calculation
Percent oversize material	not applicable		2020 Oct 19 Air Inputs
percent undersize material	not applicable		2020 Oct 19 Air Inputs
Quantity of Scrubbers	not applicable		2020 Oct 19 Air Inputs
Operating Time	24	Hrs/day	2020 Oct 19 Air Inputs
CFM of Scrubber	not applicable		0
Mitigation	90	%	Enclosed in Mill Building

	Emission Factor		Emission Rate (g/s)			
				Grinding Circuit	Pebble Crusher	
TSP	0.03	kg/MT	TSP	1.22E+00	3.04E-01	
PM10	0.012	kg/MT	PM10	4.86E-01	1.22E-01	
PM2.5	0.002	kg/MT	PM2.5	9.00E-02	2.25E-02	PM2.5 EF estimated based on the ratio of PM2.5/PM10 provided in AP-42 for tertiary crushing of crushed stone, which is expected to be conservative for this process.

Notes:

1. Metals emission are calculated in Tab "Metals"

Source: Mill Building Reagents
Source ID: S4

Source: S4 Mill Building General Exhaust - Reagents

Emissions from reagents used in the Mill Building.

Contaminant(s) of Concern:

The contaminants of concern include the various components of the reagents used.

Methodology: Engineering Calculation (EC)

Emissions from the significant reagents used are calculated using the evapouration equation as per the MECP document "Procedure for Preparing an ESDM Report" Table C-2.

$$Q = (8.5 \times 10^{-10}) \times A_P \times P^* \times M \times (u)^{0.78}$$

where;
Q = evapouration rate, kg/s
Ap = pool area, m2
P* = partial vapour pressure, Pa
M = molecular weight
u = wind speed, m/s

Grinding Circuit Consumables for Size Reduction of Processed Material:

Reagent	Contaminant Name	CAS #	Percent by weight	Vapour Pressure	Description	Emission Rate (g/s)	Assumption
100 & 125 mm forged carbon steel balls	Iron	7439-89-6	75-100	N/A	Solid	0	Insignificant. Solid material, no VOC risk.
	Chromium	7440-47-3	0-5	N/A	Solid		
	Carbon	1333-86-4	0-1.5	N/A	Solid		
	Manganese	7439-96-5	0-1	N/A	Solid		
	Nickel	7440-02-0	0-1	N/A	Solid		
	Silicon	7440-21-3	0-0.5	N/A	Solid		
	Copper	7440-50-8	0-0.5	N/A	Solid		
	Antimony	7440-36-0	0-0.5	N/A	Solid		
	Arsenic	7440-38-2	0-0.5	N/A	Solid		
	Cobalt	7440-48-4	0-0.5	N/A	Solid		
	Lead	7439-92-1	0-0.5	N/A	Solid		
64 mm and 75 mm high chrome/ molybdenum steel balls	Iron	7439-89-6	45.75-84.8	N/A	Solid	0	Insignificant. Solid material, no VOC risk.
	Chromium	7440-47-3	14-32	N/A	Solid		
	Manganese	7439-96-5	0.1-3.5	N/A	Solid		
	Carbon	7440-44-0	1-3.5	N/A	Solid		
	Tungsten	7440-33-7	0-3	N/A	Solid		
	Molybdenum	7439-98-7	0-3	N/A	Solid		
	Aluminum Oxide	1344-28-1	0-2.5	N/A	Solid		
	Nickel	7440-02-0	0-2	N/A	Solid		
	Copper	7440-50-8	0-2	N/A	Solid		
	Zirconium Oxide	1314-23-4	0-1.75	N/A	Solid		
	Silicon	7440-21-3	0.1-1	N/A	Solid		
6 mm ceramic/ zirconium grinding media	Ceramic materials and wares, chemicals	66402-68-4	95-100	N/A	Solid	0	Insignificant. Solid material, no VOC risk.

Flotation Circuit Reagents for Recovery of Precious Group Metals and Copper, Iron Sulfide Depression:

Reagent	Contaminant Name	CAS #	Percent by weight	Vapour Pressure	Description	Emission Rate (g/s)	Assumption
PAX (Potassium Amyl Xanthate)	Potassium Amyl Xanthate Isoamyl Alcohol Potassium Hydroxide Carbon Disulphide	2720-73-2 123-51-3 1310-58-3 75-15-0	80-100 1-5 0.1-1 0.1-1	N/A 0.4 kPa 0.13 kPa 48 kPa	Solid Liquid Liquid Liquid	0	Insignificant. SDS specifies that the vapour sensitivity is carbon disulphide. Overall vapour pressure contribution of carbon disulphide in solution less than 1 kPa.
Aerophine 3501 (Isoamyl-Dithiophosphate)	Dithiophosphates 1-Butanol, 3-methyl- Sodium Hydroxide (NaOH)	N/A 123-51-3 1310-73-2	30-50 1-3 0.5-1	0.008 kPa 0.4 kPa 0.12 kPa	Liquid Liquid Liquid	0	Insignificant. Solution vapour pressure less than 1 kPa.
MIBC (Methyl-Isobutyl Carbonol)	2-methyl-2-pentanol	108-11-2	100	0.49 kPa	Liquid	0	Insignificant. Solution vapour pressure less than 1 kPa.
Lime	Calcium Oxide Crystalline silica	1305-78-8 14808-60-7	88-98 0.0001-1	N/A N/A	Solid Powder	0	Insignificant. Inhalation and explosion hazard related to dust (see source S6 for baghouse for material handling). SDS information did not identify any VOC risk in the aqueous state.
CMC (Carboxy-methyl cellulose)	Sodium carboxymethyl cellulose	9004-32-4	100	N/A	Solid	0	Insignificant. Inhalation and explosion hazard related to dust (see source S8 for baghouse for material handling). SDS information did not identify any VOC risk in the aqueous state.

Dewatering and Thickening Reagents:

Reagent	Contaminant Name	CAS #	Percent by weight	Vapour Pressure	Description	Emission Rate (g/s)	Assumption
Hyperfloc AF-304	Contains no reportable hazards	N/A	N/A	N/A	N/A	0	Insignificant. SDS information did not identify any VOC risk in the aqueous state.

Other Reagents:

Reagent	Contaminant Name	CAS #	Percent by weight	Vapour Pressure (kPa)	Description	Emission Rate (g/s)	Assumption
Iron Sulfide	Iron sulfide	1317-37-9	100	1.7	Aqueous phase	8.08E+00	Signficant. SDS information for aqueous state indicates vapour pressure greater than 1 kPa.

Evapouration Equation:

Chemical	Tank Diameter (m)	Pool Area (m2)	Vapour Pressure, Pa	Partial VP, Pa	Molecular Weight (g/mol)	Wind speed (m/s)
Iron sulfide	9	63.6	1700	1700	87.91	1

Source: Mill Building Baghouses
Source IDs: S5, S6, S7, S8

Emissions from the following baghouses are calculated here:
1) Concentrate Area Loadout Baghouse (S5) - particulate emissions
2) Lime Delivery Baghouse (S6) - particulate emissions and CaO
3) Lime Slacking Mill (S7) - particulate emissions and CaO
4) Dust Collector CMC Feed Bin (S8) - sodium carboxymethyl cellulose emissions

Description:
Particulate emissions from the material handling from the concentrate loadout area, lime delivery and lime slacking mill. Calcium oxide emissions from the material handling from the lime delivery and lime slacking mill. Sodium carboxymethyl cellulose emissions from the material handling from the CMC feed bin.

Methodology: Emission Factor (EF)
Particulate emissions are emitted as fugitives from handling operations and controlled by a baghouse. Emission factor for TSP is estimated at 20 or 10 mg/m3 as per the MECP document "Procedure for Preparing an ESDM Report" Appendix C.

Input Data:	Value	Units	Source
Operating hours	24	hr/day	
Concentrate Loadout Area CFM of Baghouse	20500.00	CFM	Operating Assumptions
	580.52	m3/min	Calculation
Lime Delivery CFM of Baghouse	20500.00	CFM	Operating Assumptions
	580.52	m3/min	Calculation
Lime Slacking Mill	200.00	CFM	Operating Assumptions
	5.66	m3/min	Calculation
CMC Feed Bin CFM of Baghouse	250	tonnes	Operating Assumptions
	7.08	m3/min	Calculation
EF (TSP)	10	mg/m3	MECP Recommended BH EF.
PM10/TSP	0.48	AP-42, App B-1, Section 11.xx (fluorspar ore drum dryer with fabric filter	
PM2.5/TSP	0.1	AP-42, App B-1, Section 11.xx (fluorspar ore drum dryer with fabric filter	

	Emission Rate (g/s)			
	S8 -CMC Feed Bin	S5 - Concentrate Loadout Area	S6 - Lime Delivery	S7 - Lime Slacking Mill Scrubber
TSP	1.18E-03	9.68E-02	9.68E-02	9.44E-04
PM10	5.66E-04	4.64E-02	4.64E-02	4.53E-04
PM2.5	1.18E-04	9.68E-03	9.68E-03	9.44E-05
CaO	--	--	9.68E-02	9.44E-04
Sodium Carboxymethyl Cellulose	1.18E-03	--	--	--

Notes:
1. Metals emission are calculated in Tab "Metals"

Source: Stockpile Wind Erosion
Source IDs: S15-S21, S9, S10

Waste rock, ore stockpile and PSMF erosion due to high winds are calculated here:
1) Erosion of the waste stockpiles from the mobile crusher (S15 - S21)
2) Erosion of the mine rock storage area (S9)
3) Erosion of the tailings management facility (S10)

Source : Storage piles and the PSMF will be subject to winds which can erode storage piles causing dust emissions

Description:
Storage piles and the PSMF will be exposed - high winds can erode and entrain dust from these piles causing particulate emissions. Some areas of the PSMF are dry and inactive during the modeled years, it is conservatively assumed that these portions of the PSMF are disturbed on a daily basis and subject to some wind erosion.

Contaminant(s) of Concern:
Particulate and metals are the contaminants of concern.

Methodology: Emission Factor (EF)
The calculation is based on emission estimation methodology and related emission factors in Chapter 13.2.5 of US EPA AP-42 entitled "Industrial Wind Erosion".
The following emission estimation equations are used:

The emission factor for wind-generated particulate emissions from mixtures of erodible and nonerodible surface material subject to disturbance may be expressed in units of grams per square meter (g/m2) per year as follows:

$$\text{Emission factor} = k \sum_{i=1}^{N} P_i \qquad (2)$$

where:

k = particle size multiplier
N = number of disturbances per year
P_i = erosion potential corresponding to the observed (or probable) fastest mile of wind for the ith period between disturbances, g/m^2

The particle size multiplier (k) for Equation 2 varies with aerodynamic particle size, listed as follows:

K for Equation 2			
	30 um	<10 um	<2.5 um
Chapter 13.2.5	1	0.5	0.075

The erosion potential function for a dry, exposed surface is:

$$P = 58\,(u^* - u_t^*)^2 + 25\,(u^* - u_t^*)$$

$$P = 0 \text{ for } u^* \le u_t^*$$

where:

u^* = friction velocity (m/s)
u_t = threshold friction velocity (m/s)

The following equation is used to convert the fastest mile of wind (u+) from a reference anemometer height of 10 m to the equivalent friction velocity (u*). This equation is applied to large relatively flat piles or exposed areas with little penetration into the surface wind layer.

$$u^* = 0.053\,u_{10}^+$$

		Unit	Reference
Operating hours	24	hrs/day	Daily operating hours
% of Mobile Crusher Storage Piles used each day	50%	%	Operating Assumptions - 25% from conveyor, 25% from loader
Mobile Crusher Storage Piles surface area used per day	1656	m^2	Effective surface area (based on % used each day)
% of Mine Rock Storage Piles used each day	100%	%	Operating Assumptions
Mine Rock Storage Piles surface area used per day	22500	m^2	Effective surface area (based on % used each day)
Tailings Management Facility surface area	611,726	m^2	Effective surface area based on conservatively assuming that the active area is dry and available for wind erosion = total area x 0.7 x 0.3. 70% of the tailings will be exposed, 30% will be under water. Of the exposed area, 30% will have active deposition, the other 70% of the exposed area will be chemically stabilized (or water sprays for control).
Threshold Friction Velocity - U_t* (m/s)[1]	1.02	m/s	13.2.5 of US EPA AP-42 (overburden data was used).
Threshold (m/s) @10m	19	m/s	Calculated

Mobile Crusher Storage Piles

Wind Speed Category	Threshold Wind Velocity (m/s) @10m	Threshold Friction Velocity (m/s)	Will cause erosion?[3]	N[2]	3-second wind gust factor[4]	V_{3s} (3-second gust) (m/s)	V_{fm} (fastest mile)[5] (m/s)	Friction Velocity - U* (m/s)	Dust Control Efficiency (%)	Emissions (kg/day)			Estimated Emission Rate (g/s)		
										PM	PM-10	PM-2.5	PM	PM-10	PM-2.5
0-1.54	19.2	1.02	No	1	1.53	2.4	1.54	0.08	0	0	0	0	0	0	0
1.54-3.09			No			4.7	3.09	0.164		0	0	0	0	0	0
3.09-5.14			No			7.9	5.14	0.27		0	0	0	0	0	0
5.14-8.23			No			12.6	8.23	0.44		0	0	0	0	0	0
8.23-10.8			No			16.5	11.27	0.60		0	0	0	0	0	0
10.8-			Yes			26.0	20.30	1.08		2	1.25	0.09	**0.029**	**0.014**	**0.002**

Stockpile emissions summary (wind speed category >10.8 m/s)

Source			Unit
Mobile Crusher Storage Piles PM Emissions	TSP	2.62	kg/day
Mine Rock Storage Piles PM Emissions	TSP	35.56	
PSMF PM Emissions	TSP	966.80	
Mobile Crusher Storage Piles PM Emissions	TSP	3.03E-02	g/s
	PM10	1.52E-02	
	PM2.5	2.27E-03	
Mine Rock Storage Piles PM Emissions	TSP	4.12E-01	
	PM10	2.06E-01	
	PM2.5	3.09E-02	
PSMF Stockpile PM Emissions	TSP	1.12E+01	
	PM10	5.59E+00	
	PM2.5	8.39E-01	

Note:

1. Data from Section 13.2.5 of US EPA AP-42 (overburden data was used).
2. N - Number of disturbances. The calculations presented are for 1 disturbance event. The AERMOD model will use variable emissions to account for the number of times the threshold friction velocity is met.

3. For these calculations, only wind speeds over 10.8 m/s will cause erosion. Since the other stockpiles are subject to the same criteria, subsequent calculations for both phases and other stockpiles will only show emissions for this wind speed category
4. Used to convert the upper end of each wind speed category into the highest sustained gust over a 3-second period within 1 hour. Figure C6-4 from ASCE7-05. *Minimum Design Loads for Buildings and Other Structures.* For wind speed category >10.8m/s, a wind speed of 17m/s was selected to have a friction velocity greater than the threshold friction velocity.
5. Convert 3-second gust to fastest mile. International Building Code Equation 16-31: $V_{fm}=(V_{3s}-10.5)/1.05$ (units in mph). The upper end of the wind speed category was selected when it was larger than the calculated fastest mile (for lower wind speed categories)

Sample Calculation PM emissions:

Erosion Potential= $58(1.08 - 1.02)^2 + 25 (1.06 - 1.02)$ = 1.58 g/m^2

Emission Factor = 1 x 1.58 g/m^2 x 5,685m^2 x 1/1000 kg/g= 2.62 kg/day

PM Emission Rate (g/s) = 8.99 kg/day * 1/24 day/hr * 1/3600 hr/s * 1000g/kg 0.0303 g/s

Data Quality: Marginal

The data quality of the emission calculation is assumed to be "Marginal".

Operating Condition, Individual Maximum Rates of Production:

The emission rate calculation for this source is based on the trucks operating continuously at its maximum production rate. The calculated emission rate should be conservative.

Source: Mobile Crushing
Source IDs: S11, S12, S13, S14

Description:

Mobile crushing of ore using jaw and cone crushers

Methodology: Emission Factor (EF)

Emission factors for mobile crushing were based on US EPA AP-42 document Chapter 11.24 (Metallic Minerals Processing) Table 11.24-1 Emission Factors for Metallic Minerals

Inputs	Value	Units	Source
Specific Gravity - Waste Rock	2.5	tonnes/m3	2020 Oct 19 Air Inputs
Operating Hours	20	hr/day	2020 Oct 19 Air Inputs
Mitgation	0	%	Water Sprays to 2.5% H2O

Equipment	Model	Material Throughput (MT/hr)	Control	Reference
Primary Crusher - Jaw Crusher	C120 or equiv	540	Y	2020 Oct 19 Air Inputs
Secondary Crusher - Cone	GP200 or equiv	300	Y	2020 Oct 19 Air Inputs
Tertiary Crusher - Cone	GP550 or equiv	400	Y	2020 Oct 19 Air Inputs
Tertiary / Fines Crusher - Cone	GP550 or equiv	400	Y	2020 Oct 19 Air Inputs

	Emission Factor (kg/MT)			Emission Rate (g/s)			
	Primary crushing	Secondary Crushing	Tertiary Crushing	Primary Crusher - Jaw Crusher	Secondary Crusher - Cone	Tertiary Crusher - Cone	Tertiary / Fines Crusher - Cone
PM	0.01	0.03	0.03	1.50E+00	2.50E+00	3.33E+00	3.33E+00
PM10	0.004	0.012	0.01	6.00E-01	1.00E+00	1.11E+00	1.11E+00
PM2.5	0.001	0.002	0.002	1.11E-01	1.85E-01	2.06E-01	2.06E-01
Rating	C	D	E				

Notes:

1. Metals emission are calculated in Tab "Metals"

Source: Generators
Source IDs: S22, S23, S24, S25, S26

Description:
Combustion emissions from generators. Emissions are calcualted per generator.

Methodology: Emission Factor (EF) and Mass Balance (MB)
Emissions of NOx, PM and CO from the generators are based on manufacturer's emissions data of CAT Prime 1275. Additional emissions control may be included to meet Ontario requirements at the permitting stage.

Inputs	Value	Units	Source
Number of units	5	ea.	2020 Oct 19 Air Inputs
Capacity	1.275	MW	2020 Oct 19 Air Inputs
Power Output:	1709.8	hp	Specs
Fuel Input:	12.80	MMBTU/hour	Calculation
Max Fuel Flow	91.7	USG/hr	2020 Oct 19 Air Inputs
Heating Value (Diesel)	139,600	BTU/USG	2020 Oct 19 Air Inputs
Operating Hours			
Running in 24 hr - Full operation	24	hr/day	2020 Oct 19 Air Inputs
Running in 1 hr - testing	15	min/day	2020 Oct 19 Air Inputs
Running in 24 hr - testing	1	hr/day	2020 Oct 19 Air Inputs
Running in 1 hr - Mobile Crusher	60	min/hr	2020 Oct 19 Air Inputs
Running in 24 hr - Mobile Crusher	20	hr/day	2020 Oct 19 Air Inputs
Exhaust Temp	459.9	C	2020 Oct 19 Air Inputs
Exhaust Gas Flow Rate	300.7	m3/min	2020 Oct 19 Air Inputs
Exhaust flange size	0.2032	m	2020 Oct 19 Air Inputs

Estimated Emission Rates (per Generator)

Contaminant	EF (USEPA AP-42 Section 3.4) (lb/hp-hr) Power Output	EF (USEPA AP-42 Section 3.4) (lb/MMBTU) Power Input	EF (Equipment specs) (g/hp-hr) or (g SO2/gal)	Rating	Emission Rate (g/s) 1 hr	Comments
NOx	0.024	3.2	8.97	D	4.26E+00	
CO	5.50E-03	0.85	1.44	D	6.84E-01	
SOx			0.0953	D	2.43E-03	Mass balance based on max S content in diesel regualation and max diesel consumption. EF Factor calculated below.
TSP					4.27E-02	
PM10	0.0007	0.1	0.09	D	4.27E-02	
PM2.5					4.27E-02	Assumed PM2.5 = PM10 = TSP
CO2	1.16	165		B	2.50E+02	
Aldehydes	0.000463	0.07		D	1.00E-01	
TOC (Methane)	7.05E-04	0.09		D	1.52E-01	
Benzene		7.76E-04		E	1.25E-03	
Toluene		2.81E-04		E	4.54E-04	
Xylenes		1.93E-04		E	3.12E-04	
Propylene		2.79E-03		E	4.51E-03	
1,3-Butadiene				E	0.00E+00	
Formaldehyde		7.89E-05		E	1.28E-04	
Acetaldehyde		2.52E-05		E	4.07E-05	
Acrolein		7.88E-06		E	1.27E-05	
Naphthalene		1.30E-04		E	2.10E-04	
Acenaphthylene		9.23E-06		E	1.49E-05	
Acenaphthene		4.68E-06		E	7.56E-06	
Fluorene		1.28E-05		E	2.07E-05	
Phenanthrene		4.08E-05		E	6.59E-05	
Anthracene		1.23E-06		E	1.99E-06	
Fluoranthene		4.03E-06		E	6.51E-06	
Pyrene		3.71E-06		E	6.00E-06	
Benzo(a)anthracene		6.22E-07		E	1.01E-06	
Chrysene		1.53E-06		E	2.47E-06	
Benzo(b)fluoranthene		1.11E-06		E	1.79E-06	
Benzo(k)fluoranthene		2.18E-07		E	3.52E-07	
Benzo(a)pyrene		2.57E-07		E	4.15E-07	
Indeno(1,2,3-cd)pyrene		4.14E-07		E	6.69E-07	
Dibenz(a,h)perylene		3.46E-07		E	5.59E-07	
Benzo(g,h,i)perylene		5.56E-07		E	8.99E-07	
Total PAH		2.12E-04		E	3.43E-04	

SO_2 emission is based on the maximum allowable sulfur content in diesel and fuel consumption of the equipment. SO_2 emission factor is calculated below.

SO2 Emission Factor Calculation:

Data	Value	Unit	Reference
Sulphur content in diesel	15	ppm	Highway, Nonroad, Locomotive, and Marine Diesel Fuel Sulfur Standards
Lower Heating Value	139,600	BTU/gal	2020 Oct 19 Air Inputs
Unit Conversion	0.00029	kWh/BTU	-
	454	g/lb	-
Density of diesel	7.00	lb/gal	-
SO_2/ gallon of diesel	0.0953	g SO_2/gal	A factor of 2 is applied to convert sulfur to SO_2 assuming all the sulfur will be

Note: Emissions are calculated based on sulphur content in diesel as per Sulphur in Diesel Fuel Regulations.

Source: Assay Lab - Baghouse
Source ID: S27

Description:

Particulate emissions from the material handling from the assay lab.

Methodology: Emission Factor (EF)

Particulate emissions are emitted as fugitives from handling operations and controlled by a baghouse. Emission factor for TSP is estimated at 10 mg/m3 as per the MECP document "Procedure for Preparing an ESDM Report" Appendix C.

Process Details:

	Value	Units	Reference
Operating Hours of Assay Lab	24	hr/day	2020 Oct 19 Air Inputs
Baghouse Exhaust Flowrate	16000	CFM	2020 Oct 19 Air Inputs
	7.55	m3/s	Calculation
Baghouse Emission Factor	10	mg/m3	MECP Recommendation
Fraction of TSP as PM10	0.48	PM10/TSP	AP-42, App B-1, Section 11.xx
Fraction of TSP as PM2.5	0.1	PM2.5/TSP	AP-42, App B-1, Section 11.xx (fluorspar ore drum dryer with fabric filter

Contaminant	MECP Data Quality Rating	USEPA Rating	Emission Rate (g/s)
TSP	A	n/a	7.55E-02
PM10	A	n/a	3.62E-02
PM2.5	A	n/a	7.55E-03

Notes:

1. Metals emission are calculated in Tab "Metals"

Source: Assay Furnace, Lead Assay
Source ID: S28

Reference: Mass Balance Calculation

Process Details:

	Value	Units	Reference
Operating Hours of Assay Lab	24	hours/day	2020 Oct 19 Air Inputs
Max # of Samples Processed	146000	samples/year	2020 Oct 19 Air Inputs
	400	samples/day	2020 Oct 19 Air Inputs
	365	# days of operation	2020 Oct 19 Air Inputs
Furnace capacity	1	batch/hour	2020 Oct 19 Air Inputs
	24	fusion pots/batch	2020 Oct 19 Air Inputs
Average Mass of Sample	0.15	kg/sample	2020 Oct 19 Air Inputs
Qty Pb released per sample	2	g/sample	2020 Oct 19 Air Inputs
Mitigation	Baghouse	Unit	2020 Oct 19 Air Inputs
Mitigation Efficiency	99	%	2020 Oct 19 Air Inputs
Exhaust T	90	C	2020 Oct 19 Air Inputs
Exhaust Height Above Ground	5.5	m	2020 Oct 19 Air Inputs
Exhaust Height Above Bldg	0.5	m	2020 Oct 19 Air Inputs
Exhaust Diameter	0.3	m	2020 Oct 19 Air Inputs
Exhaust Flow rate	20000	CFM	2020 Oct 19 Air Inputs

Emission Details:

Contaminant	MECP Data Quality Rating	USEPA Rating	Emission Rate (g/s)
Pb	AA	n/a	9.26E-05

Source: Assay Lab, Cupel Baghouse
Source ID: S29

Reference: Mass Balance Calculation

Process Details:

	Value	Units	Reference
Operating Hours of Assay Lab	24	hours/day	2020 Oct 19 Air Inputs
Max # of Samples Processed	146000	samples/year	2020 Oct 19 Air Inputs
	400	samples/day	2020 Oct 19 Air Inputs
Lab Capacity	1	batch/hour	2020 Oct 19 Air Inputs
Cupel Furnace Capacity	48	fusion pots/batch	2020 Oct 19 Air Inputs
	365	# days of operation	2020 Oct 19 Air Inputs
Average Mass of Sample	0.001	kg/sample	2020 Oct 19 Air Inputs
Qty Pb Lost per Sample	2	g/sample	2020 Oct 19 Air Inputs
Mitigation	Baghouse	Unit	2020 Oct 19 Air Inputs
	99	%	2020 Oct 19 Air Inputs
Exhaust T	90	C	2020 Oct 19 Air Inputs
Exhaust Height Above Ground	5.5	m	2020 Oct 19 Air Inputs
Exhaust Height Above Bldg	0.5	m	2020 Oct 19 Air Inputs
Exhaust Diameter	0.3	m	2020 Oct 19 Air Inputs
Exhaust Flow Rate	16000	CFM	2020 Oct 19 Air Inputs

Emission Details:

Contaminant	MECP Data Quality Rating	USEPA Rating	Emission Rate (g/s)
Pb	AA	n/a	2.67E-04

Source: Assay Lab, Precious Metals Scrubber
Source ID: S30

Equipment Details:

	Value	Units	Source
Scrubber Efficiency	90	%	2020 Oct 19 Air Inputs
Exhaust Temperature	ambient	C	2020 Oct 19 Air Inputs
Qty HNO3 added per sample	0.0875	g/sample	2020 Oct 19 Air Inputs
Qty HCl added per sample	1.14	g/sample	2020 Oct 19 Air Inputs
Qty LaCL3 added per sample	34.6	g/sample	2020 Oct 19 Air Inputs
Qty samples processed per day	48	samples/hour	2020 Oct 19 Air Inputs
	500	samples/day	2020 Oct 19 Air Inputs

Exhaust T	ambient	C	2020 Oct 19 Air Inputs
Exhaust Height Above Ground	6	m	2020 Oct 19 Air Inputs
Exhaust Height Above Bldg	1	m	2020 Oct 19 Air Inputs
Exhaust Diameter	0	m	2020 Oct 19 Air Inputs
Exhaust Flow rate	10,000	CFM	2020 Oct 19 Air Inputs

Contaminant	MECP Data Quality Rating	USEPA Rating	Emission Rate (g/s)
Nitric Acid (HNO3)	AA	n/a	1.17E-04
Hydrochloric Acid (HCl)	AA	n/a	1.52E-03
Lanthanum Chloride (LaCl3) Note 1.	AA	n/a	0

Note 1: Emissions of LaCl3 are expected to be negligible as it is an additive (to bulk up a sample) and is not heated.

Source ID: S31

Equipment Details:

	Value	Units	Source
Scrubber Efficiency	90	%	2020 Oct 19 Air Inputs
Exhaust Temperature	20	C	2020 Oct 19 Air Inputs
Qty HNO3 Added	1.75	g/sample	2020 Oct 19 Air Inputs
Qty Br Added	4	g/sample	2020 Oct 19 Air Inputs
Qty HF Added	1.92	g/sample	2020 Oct 19 Air Inputs
Qty HCl	0.12	g/sample	2020 Oct 19 Air Inputs
Qty Samples Processed	48	samples/hour	2020 Oct 19 Air Inputs
	400	samples/day	2020 Oct 19 Air Inputs
Exhaust T	ambient	C	2020 Oct 19 Air Inputs
Exhaust Height Above Ground	5.5	m	2020 Oct 19 Air Inputs
Exhaust Height Above Bldg	0.5	m	2020 Oct 19 Air Inputs
Exhaust Diameter	0.3	m	2020 Oct 19 Air Inputs
Exhaust Flow rate	10000	CFM	2020 Oct 19 Air Inputs

Contaminant	MECP Data Quality Rating	USEPA Rating	Emission Rate (g/s)
Nitric Acid (HNO3)	AA	n/a	2.33E-03
Bromine (Br)	AA	n/a	5.33E-03
Hydrofluoric Acid (HF)	AA	n/a	2.56E-03
Hydrochloric Acid (HCl)	AA	n/a	0.00E+00

Two things exhaust to the Base Metals Scrubber:

1. Base Metals Fumehood
2. AA/ICP for base metals analysis.

Source: Assay Lab, Emissions from Atomic Absorption Spectrophotometer (AA)
Source ID: S32

Equipment Details:

	Value	Units	Source
Exhaust Temperature	70	C	2020 Oct 19 Air Inputs
Qty HNO3 added per sample	0.0875	g/sample	2020 Oct 19 Air Inputs
Qty HCl added per sample	1.14	g/sample	2020 Oct 19 Air Inputs
Qty LaCL3 added per sample	34.6	g/sample	2020 Oct 19 Air Inputs
Qty samples processed per day	48.0	samples/hour	2020 Oct 19 Air Inputs
Exhaust T	70	C	2020 Oct 19 Air Inputs
Exhaust Height Above Ground	5.5	m	2020 Oct 19 Air Inputs
Exhaust Height Above Bldg	0.5	m	2020 Oct 19 Air Inputs
Exhaust Diameter	0.3	m	2020 Oct 19 Air Inputs
Exhaust Flow rate	10000	CFM	2020 Oct 19 Air Inputs

Contaminant	MECP Data Quality Rating	USEPA Rating	Emission Rate (g/s)
Nitric Acid (HNO3)	AA	n/a	4.64E-05
Hydrochloric Acid (HCl)	AA	n/a	6.05E-04
Lanthanum Chloride (LaCl3)	AA	n/a	3.67E-02
Nitric Acid (HNO3)	AA	n/a	0
Bromine (Br)	AA	n/a	0
Hydrofluoric Acid (HF)	AA	n/a	0
Hydrochloric Acid (HCl)	AA	n/a	1.20E-05

Source: Waste Water Treatment Plant Scrubber
Source ID: n/a

Source: S33 Waste Water Treatment Plant - Reagents

Emissions from reagents used in the Mill Building.
PM emissions from material handling in the WWTP are assumed to be negligle.

Contaminant(s) of Concern:

The contaminants of concern include the various components of the reagents used.

Methodology: Engineering Calculation (EC)

Emissions from the significant reagents used are calculated using the evapouration equation as per the MECP document "Procedure for Preparing an ESDM Report" Table C-2.

$$Q = (8.5 \times 10^{-10}) \times A_P \times P^* \times M \times (u)^{0.78}$$

where;
Q = evapouration rate, kg/s
Ap = pool area, m2
P* = partial vapour pressure, Pa
M = molecular weight
u = wind speed, m/s

Reagent	Contaminant Name	CAS #	Percent by weight	Vapour Pressure	Description	Emission Rate (g/s)	Assumption
cationic polymer	cationic polymer	N/A	100	N/A	Liquid	0	Insignificant. SDS does not indicate any harmful components.
ferric sulphate	sulfuric acid, iron (3+) salt sulfuric acid	10028-22-5 7664-93-9	58 0.24	<1 kPa	Solid (powder)	0	Insignificant. Solution vapour pressure less than 1 kPa.
anionic polymer	anionic polymer	N/A	100	N/A	Liquid	0	Insignificant. SDS does not indicate any harmful components.
sulphuric acid	sulphuric acid	7664-93-9	96	<1 kPa	Liquid	0	Insignificant. Solution vapour pressure less than 1 kPa.
hydrated lime	Calcium Hydroxide Magnesium Oxide Crystalline Silica	1305-62-0 1309-48-4 14808-60-7	>89 <3 0.0001-1	N/A N/A N/A	Powder Powder Powder	0	Insignificant.

Notes: PM emissions from WWTP material handling assumed insignificant

Source: Rail Loadout
Source IDs: S33, S34, S35, S36, S37

Emissions from the following Rail Loadout Activities are calculated here:
1) Rail Loadout Baghouse 1 (S33)
2) Rail Loadout Baghouse 2 (S34)
3) Rail Loadout Baghouse 3 (S35)
4) Rail Loadout Shed (S36)
5) Rail Loadout Loading to Rail Cars (S37)

Methodology: Emission Factor (EF)
Particulate emissions are emitted as fugitives from handling operations and controlled by a baghouse. Emission factor for TSP is estimated at 20 or 10 mg/m3 as per the MECP document "Procedure for Preparing an ESDM Report" Appendix C.

Methodology: Emission Factor (EF)
Emission factor for material unloading/dropping was calculated using Equation (1) in the US EPA AP-42 document Chapter 13.2.4 (Aggregate Handling and Storage Piles). The equation is:

$$E = k(0.0016)\ \frac{\left(\frac{U}{2.2}\right)^{1.5}}{\left(\frac{M}{2}\right)^{1.4}}\ \text{(kg/megagram [Mg])}$$

where:
E = emission factor
k = particle size multiplier (dimensionless)
U = mean wind speed, meters per second (m/s)
M = material moisture content (%)
The particle size multiplier in the equation, k, varies with aerodynamic particle size range, as follows:

Aerodynamic Particle Size Multiplier (k) For Equation 1 (US EPA AP-42 document Chapter 13.2.4)	< 30 µm	0.74	Note: It is assumed that k=0.74 for total particulate matter (<30 µm) consistent with the assumption in U.S. EPA AP-42 Chapter 13.2.2
	< 10 µm	0.35	
	< 2.5 µm	0.053	

Input	Value	Units	Source
Mean Wind Speed	1	m/s	Assume enclosed loadout area.
Moisture content	8.0 -11.0	%	2020 Oct 19 Air Inputs
	8.00%		
Quantity of Baghouses	3	units	3 silos, 1 baghouse for each silo
Control Efficiency	99	%	Loadout area enclosed and controlled with baghouses
Control Efficiency	75	%	Partial Enclosure - D1 control
Control Efficiency	97.5	%	75% partial enclosure + 90% baghouse control
Baghouse Size (each)	35000	CFM	
	991.13	m3/min	Calculation
Quantity processed per day	2000	MT/day	Quantity of Concentrate Hauled
Operating Time	16	hr/day	Assumed could be operating 24 hr although 7am-11pm hauling

Baghouse EF (TSP)	20	mg/m3	MECP Recommendation
PM10/TSP	0.48		AP-42, App B-1, Section 11.xx (fluorspar ore drum dryer with fabric filter
PM2.5/TSP	0.1		AP-42, App B-1, Section 11.xx (fluorspar ore drum dryer with fabric filter

	Emission Rate - Baghouses (g/s)		
	Rail Loadout Baghouse 1	Rail Loadout Baghouse 2	Rail Loadout Baghouse 3
TSP	3.30E-01	3.30E-01	3.30E-01
PM10	1.59E-01	1.59E-01	1.59E-01
PM2.5	3.30E-02	3.30E-02	3.30E-02

	Emission Rate - Fugitive Emissions (g/s)		
	Emission factor (kg/MT)	Rail Loadout Shed	Rail Loadout Loading to Rail Cars
TSP	3.85E-02	8.91E-03	2.23E-02
PM10	1.82E-02	4.21E-03	1.05E-02
PM2.5	2.76E-03	6.38E-04	1.60E-03

Notes:

1. Metals emission are calculated in Tab "Metals"

Source: DRILLING
Source ID: M2

Description:

Explosives are placed in various holes for blasting. These holes are drilled continuously and their emissions are calculated here.

Methodology: Emission Factor (EF)

Emission factors for drilling were based on US EPA AP-42 document Chapter 11.9 (Western Surface Coal Mining) Table 11.9-4 Uncontrolled Particulate Emission Factors for Open Dust Sources at Western Surface Coal Mines

E = EF (kg/hole) x Number of holes drilled /day

Where E = kg of emissions /day

Inputs	Value	Units	Source
Production Drills			
Number of drills	4	units	2020 Oct 19 Air Inputs
drill holes per hr	2.9	holes/hr/drill	2020 Oct 19 Air Inputs
Operating Time	14.3	hrs/day	2020 Oct 19 Air Inputs
Mitigation	0	%	2020 Oct 19 Air Inputs
Cut Drills			
Number of drills	2	units	2020 Oct 19 Air Inputs
drill holes per hr	1.2	holes/hr/drill	2020 Oct 19 Air Inputs
Operating Time	17	hrs/day	2020 Oct 19 Air Inputs
Mitigation	0	%	2020 Oct 19 Air Inputs

Contaminant	EF (kg/hole)	Rating	Emission Rate (g/s)	
			Production Drill	Cut Drill
PM	0.59	C	1.88E+00	3.92E-01
PM10	0.31	C	9.89E-01	2.06E-01
PM2.5	0.05735	PM2.5/PM10	1.83E-01	3.81E-02

Notes:

1. Metals emission are calculated in Tab "Metals"

Source: Blasting
Source ID: B

Description:
Blasting is used to loosen ore and waste rock. These emissions are intermittent and non-continuous.

Methodology: Emission Factor (EF)
Emission factor for blasting calculated using Equation (1) in the US EPA AP-42 document Chapter 11.9 (Western Surface Coal Mining) Table 11.9-2 was used to estimate emissions from blasting.
Explosives Detonation factors derived from US EPA AP-42 document Chapter 13.3 (Explosive Detonation). Assumed ANFO explosives
Austrailia Government - NPI - Explosives Detonation and Firing Ranges

$E = 0.00022(A)^{1.5}$
where:
E=Emissions of TSP (kg/blast) (<=30um)
A=horizontal area (m^2)

Input	Value	Unit	Source
Type of Explosive:	100% Emulsion		2020 Oct 19 Air Inputs
Time for blast	5	sec	2020 Oct 19 Air Inputs
Number of Blasts	0.429	blast/day	2020 Oct 19 Air Inputs
Kg of Explosive used	81,920	kg/blast	2020 Oct 19 Air Inputs
Blast Length - waste	100	m	2020 Oct 19 Air Inputs
Blast Width - waste	100	m	2020 Oct 19 Air Inputs
Blast Area - waste	10,000	m2	2020 Oct 19 Air Inputs
Control	25	%	2020 Oct 19 Air Inputs

CoPC	Emission Rate (kg/blast)	Emission Factor (kg/tonne explosive)	Emission Rate in 1-Hour (g/s)	Reference
PM	220.00	--	2.62E+01	U.S.EPA AP-42, Ch. 11.9 "Western Surface Coal Mining" Table 11.9-2
PM10	114.40	--	1.36E+01	
PM2.5	6.60	--	7.86E-01	
CO	--	2.3	52.34	Austrailia Government - NPI - Explosives Detonation and Firing Ranges Appendix C. EFs for CO and NOx are for emulsion explosives. EF for SO2 is for ANFO (on site mix) and was used as being the most representative of the data available.
NOx	--	0.2	4.55	
SO2	--	0.06	1.37	

Notes:
1 - Emission rates are max hourly emissions during an hour with a blast.
2 - Emissions are conservatively modelled in the assessment as occuring for 1-hour per day (i.e. 1 blast per day). Blasting was assumed to occur around mid-afternoon during weekdays

Source: Mucking (Bulldozing)
Source IDs: M2, M3, M4A-D

Description:
Overburden and waste rock is moved with various bulldozers

Methodology: Emission Factor (EF)
Emission factor for bulldozing of material other than coal in the US EPA AP-42 document Chapter 11.9 (Western Surface Coal Mining) Table 11.9-2 was used to estimate the dust emissions. The emission calculation equation in the table is:

$E = 2.6 \times s^{1.2} / M^{1.3}$ $\qquad$ $E\ (PM10) = 0.34 \times s^{1.5} / M^{1.4}$

where:
E = emission factor (kg/h)
s = material silt content (%)
M = material moisture content (%)
The emission calculation for each unit is listed in the following table.

Exponents for Equations	TSP	PM10
k	2.6	0.34
a	1.2	1.5
b	1.3	1.4

Input	Value	Units	Source
Silt Content	2	%	2020 Oct 19 Air Inputs
Moisture Content	4	%	2020 Oct 19 Air Inputs

Open Pit

Dozer Operating Hrs	14.5	hr/day	2020 Oct 19 Air Inputs
Number of wheel dozers in pit	2	unit	2020 Oct 19 Air Inputs
Engine Size	646	hp	2020 Oct 19 Air Inputs
Model	D10T	--	2020 Oct 19 Air Inputs

MRSA Waste Rock Handling

Operating Hrs	14.5	hr/day	2020 Oct 19 Air Inputs
Number of Dozers on Pile	2	unit	Operating Assumptions
Dozer Engine Size	646	hp	Operating Assumptions
Dozer Model	D10T	--	Operating Assumptions
Excavators at MRSA	2	unit	Operating Assumptions
Excavator Engine Size	417	hp	Operating Assumptions

PSMF Waste Rock Handling

PSMF Waste Rock Handling - Location 1			
Operating Hrs	14.5	hr/day	2020 Oct 19 Air Inputs
Excavators at PSMF Loc 1	1	unit	Operating Assumptions
Excavator Engine Size	600	hp	Operating Assumptions
Excavator Model	0	--	Operating Assumptions
Compactors at PSMF Loc 1	1	unit	Operating Assumptions
Compactor Engine Size	131	hp	Operating Assumptions
PSMF Waste Rock Handling - Location 2			
Operating Hrs	14.5	hr/day	Operating Assumptions
Dozers at PSMF Loc 2	1	unit	Operating Assumptions
Dozer Engine Size	850	hp	Operating Assumptions
PSMF Waste Rock Handling - Location 3			
Operating Hrs	14.5	hr/day	2020 Oct 19 Air Inputs
Excavators at PSMF Loc 3	2	unit	Operating Assumptions
Excavator Engine Size	600	hp	Operating Assumptions
Excavator Model	0	--	Operating Assumptions
Dozer at PSMF Loc 3	1	unit	Operating Assumptions
Dozer Engine Size	850	hp	Operating Assumptions
Compactors at PSMF Loc 3	1	unit	Operating Assumptions
Compactor Engine Size	131	hp	Operating Assumptions
PSMF Waste Rock Handling - Location 4			
Operating Hrs	14.5	hr/day	Operating Assumptions
Dozers at PSMF Loc 4	1	unit	Operating Assumptions
Dozer Engine Size	850	hp	Operating Assumptions

		Emission Rate (g/s)						
CoPC	**Emission Factor (kg/hr-vehicle)**	Open Pit	MRSA	PSMF Loc 1 (M4A)	PSMF Loc 2 (M4B)	PSMF Loc 3 (M4C)	PSMF Loc 4 (M4D)	**Notes**
TSP	0.985	5.47E-01	1.09E+00	5.47E-01	2.74E-01	1.09E+00	2.74E-01	
PM10	0.138	7.67E-02	1.53E-01	7.67E-02	3.84E-02	1.53E-01	3.84E-02	
PM2.5	0.105	5.75E-02	1.15E-01	5.75E-02	2.87E-02	1.15E-01	2.87E-02	EF is scaling factor for PM2.5/TSP from AP-42 Table 11.9-2

Notes:

1. Metals emission are calculated in Tab "Metals"

Source: Loading of Waste Rock and Ore in the Open Pit
Source ID: M2

Methodology: Emission Factor (EF)

Emission factor for material unloading/dropping was calculated using Equation (1) in the US EPA AP-42 document Chapter 13.2.4 (Aggregate Handling and Storage Piles). The equation is:

$$E = k(0.0016)\ \frac{\left(\frac{U}{2.2}\right)^{1.3}}{\left(\frac{M}{2}\right)^{1.4}}\ \text{(kg/megagram [Mg])}$$

where:
E = emission factor
k = particle size multiplier (dimensionless)
U = mean wind speed, meters per second (m/s)
M = material moisture content (%)

The particle size multiplier in the equation, k, varies with aerodynamic particle size range, as follows:

Aerodynamic Particle Size Multiplier (k) For Equation 1 (US EPA AP-42 document Chapter 13.2.4)	< 30 µm	0.74	Note: It is assumed that k=0.74 for total particulate matter (<30 µm) consistent with the assumption in U.S. EPA AP-42 Chapter 13.2.2
	< 10 µm	0.35	
	< 2.5 µm	0.053	

Inputs	Value	Units	Source
Moisture Content	4	%	2020 Oct 19 Air Inputs
Mean Wind Speed	2.434174798	m/s	MECP - Marathon & Sudbury. WS at 2-m height assumed to account for lower wind speeds in the pit.
Amount of Waste Rock/Ore Removed	109589	MT/day	2020 Oct 19 Air Inputs - 2020 value based on Year 2 Ann
Operating hours for Loading in Pit	22	hours/day	Longest operating time for loading/unloading
Percent of waste rock to MRSA and Mobile Crusher	83	%	
Percent of waste rock to PSMA	17	%	

Loading in Pit			
RH200E Hydraulic Shovel, 2600ho	2	Loaders	2020 Oct 19 Air Inputs
Operating hours (RH200)	16	hr/day	2020 Oct 19 Air Inputs
Cat 994 Loader	1	Loaders	2020 Oct 19 Air Inputs
Operating hours (Cat 994)	12	hr/day	2020 Oct 19 Air Inputs
Haul Truck (797F)Max Capacity	94	m3	2020 Oct 19 Air Inputs
Density of Hauled Rock	2.28	tonnes/m3	2020 Oct 19 Air Inputs
Haul Truck (797F)Max Capacity	227	MT/truck	Operating Assumptions
Number of trucks loaded per hr	21.94	loads/hr	Calculation
Time to load 1 truck	2	min	assumption
Fraction of time spent loading in an hour	0.73		calculation

CoPC	Emission Factor (kg/MT)	Hourly Emission Rate (g/s)
TSP	5.12E-04	7.08E-01
PM10	2.42E-04	3.35E-01
PM2.5	3.66E-05	5.07E-02

Notes:

1. Hourly emission rate based on 22-hours/day of loading
2. Emission rate for truck loading is not wind speed dependent in the dispersion modelling as it is modelled as an open pit source.
3. Metals emission are calculated in Tab "Metals"

Source: Ore/Waste Rock UnLoading
Source ID: M1, M3A, M4A-D, M5A

Methodology: Emission Factor (EF)

Emission factor for material unloading/dropping was calculated using Equation (1) in the US EPA AP-42 document Chapter 13.2.4 (Aggregate Handling and Storage Piles). The equation is:

$$E = k(0.0016)\ \frac{\left(\frac{U}{2.2}\right)^{1.3}}{\left(\frac{M}{2}\right)^{1.4}}\ \text{(kg/megagram [Mg])}$$

where:
E = emission factor
k = particle size multiplier (dimensionless)
U = mean wind speed, meters per second (m/s)
M = material moisture content (%)
The particle size multiplier in the equation, k, varies with aerodynamic particle size range, as follows:

Aerodynamic Particle Size Multiplier (k) For Equation 1 (US EPA AP-42 document Chapter 13.2.4)	< 30 µm	0.74	Note: It is assumed that k=0.74 for total particulate matter (<30 µm) consistent with the assumption in U.S. EPA AP-42 Chapter 13.2.2
	< 10 µm	0.35	
	< 2.5 µm	0.053	

Inputs	**Value**	**Units**	**Source**
Moisture Content	4	%	2020 Oct 19 Air Inputs
Mean Wind Speed	3.82	m/s	MECP - Marathon & Sudbury
Amount of Waste Rock/Ore Removed	109589	MT/day	2020 Oct 19 Air Inputs - 2020 value based on Year 2 Annual
Percent of waste rock to MRSA and Mobile Crusher	83	%	Calculation
Percent of waste rock to PSMF	17	%	Calculation
Haul Truck (797F)Max Capacity	94	m3	2020 Oct 19 Air Inputs
Density of Hauled Rock	2.28	tonnes/m3	2020 Oct 19 Air Inputs
Haul Truck (797F)Max Capacity	227	MT/truck	Operating Assumptions

Unloading at Primary Crusher			
Amount of ore	43200	tonnes/day	Operating Assumptions
	1964	MT/hr	Calculation
Operation time	22	hr/day	2020 Oct 19 Air Inputs
# of Haul Trucks	4	trucks/day	Kevin (change from 2 (Nov 9))
loads per day	**190**	loads/day	Calculation - Using 797F Haul Trucks
Loads per hr	**8.65**	loads/hr (total)	Calculation
Time to dump one load	2	min/load/truck	assumption
Fraction of time spent unloading in an hour	0.288346015		
Fraction of time spent unloading in an hour	2.64E-01		
Unloading at MRSA			
Amount of Waste Rock to MRSA	51525	tonnes/day	Waste rock removal in the production schedule for year 2 (2
Number of trucks	5	trucks/day	Kevin (changed from 6 (Nov 9))
Number of truck loads per day	227	loads/day	Calculation - Using 797F Haul Trucks
Loads per hr	10.32	loads/hr (total)	Calculation
Time to dump one load	2	min/load/truck	assumption
Fraction of time spent unloading in an hour	0.343915231		
Fraction of time spent unloading in an hour	3.15E-01		
Operation time	22	hrs/day	2020 Oct 19 Air Inputs

Unloading at MC			
Amount of Waste rock to Mobile crusher based on	544.8	MT/hr	Calculation
mobile crusher capacity	10896	MT/day	Calculation
Number of trucks	1	trucks/day	Kevin/calculation
Number of truck loads per day	48	trips/day	Operating Assumptions
Loads per hr	2.40	loads/hr	Calculation
Time to dump one load	2	min/load/truck	assumption
Fraction of time spent unloading in an hour	0.08		
Fraction of time spent unloading in an hour	6.67E-02		
Operation time	20	hrs/day	2020 Oct 19 Air Inputs
Unloading at PSMF			
Amount of Waste Rock to PSMA	12765	MT/day	Operating Assumptions
Unloading at PSMF Loc 1	3191	MT/day	Operating Assumptions
Unloading at PSMF Loc 2	3191	MT/day	Operating Assumptions
Unloading at PSMF Loc 3	3191	MT/day	Operating Assumptions
Unloading at PSMF Loc 4	3191	MT/day	Operating Assumptions
Number of trucks	2	trucks/day	Kevin/calculation
Number of truck loads per day	56	trips/day	Operating Assumptions
Loads per hr	3	loads/hr	Calculation
Time to dump one load	2	min/load/truck	assumption
Fraction of time spent unloading in an hour	0.084848485		
Fraction of time spent unloading in an hour	7.78E-02		
Operation time	22	hrs/day	2020 Oct 19 Air Inputs

CoPC	Emission Factor (kg/MT)	Equivalent 24-hour Average Emission Rate (g/s)				
		Primary Crusher	MRSA	MC	PSMF - Loc 1 (M4A)	PSMF - Loc 2 (M4B)
TSP	9.19E-04	4.60E-01	5.48E-01	1.16E-01	3.40E-02	3.40E-02
PM10	4.35E-04	2.17E-01	2.59E-01	5.48E-02	1.61E-02	1.61E-02
PM2.5	6.58E-05	3.29E-02	3.93E-02	8.30E-03	2.43E-03	2.43E-03

Notes:

1. Sources modelled using the emission rates noted above and as wind speed dependent using the emission weighting factors provided below

3. Metals emission are calculated in Tab "Metals"

Emissions - Wind Speed Dependent Factors to Use in Modelling

Wind Speed (m/s)	Emission Factor (kg/MT)	Wind Speed Dependent Factor for Dispersion Modelling
1.54	2.82E-04	0.307
3.09	6.98E-04	0.759
5.14	1.35E-03	1.471
8.23	2.49E-03	2.712
10.8	3.55E-03	3.862
14.5	5.21E-03	5.664
Average Wind Speed used in Calculations Above		
3.82	9.19E-04	1.000

Source: Loading/Unloading Concentrate at Mill Site
Source ID: M6

Methodology: Emission Factor (EF)

Emission factor for material unloading/dropping was calculated using Equation (1) in the US EPA AP-42 document Chapter 13.2.4 (Aggregate Handling and Storage Piles). The equation is:

$$E = k(0.0016)\ \frac{\left(\frac{U}{2.2}\right)^{1.3}}{\left(\frac{M}{2}\right)^{1.4}}\ \text{(kg/megagram [Mg])}$$

where:
E = emission factor
k = particle size multiplier (dimensionless)
U = mean wind speed, meters per second (m/s)
M = material moisture content (%)
The particle size multiplier in the equation, k, varies with aerodynamic particle size range, as follows:

Aerodynamic Particle Size Multiplier (k) For Equation 1 (US EPA AP-42 document Chapter 13.2.4)	< 30 µm	0.74	Note: It is assumed that k=0.74 for total particulate matter (<30 µm) consistent with the assumption in U.S. EPA AP-42 Chapter 13.2.2
	< 10 µm	0.35	
	< 2.5 µm	0.053	

Input Data:

	Value	Units	Reference
Haul Amount	2000	tonnes/day	2020 Oct 19 Air Inputs
Mean Wind Speed (U) - indoors	1.0	m/s	Covered area, assumed 1m/s as per MECP Procedure Document Table C-2)
Mean Wind Speed (U)	3.82	m/s	MECP - Marathon and Sudbury
Moisture Content	8	%	8.0 -11.0
Operating Hours	12	hrs/day	Air inputs - Oct 2020
Reduction/Mitigation			

Indoor Loading of Concentrate

Indoor Loading	Emission Factor (kg/MT)	Hourly Emission Rate (g/s)	Emission Rate per loader (g/s) - 24 hr emission
TSP	6.10E-05	2.82E-03	1.41E-03
PM10	2.89E-05	1.34E-03	6.68E-04
PM2.5	4.37E-06	2.02E-04	1.01E-04

Notes:
1 - Source modelled as operating 12-hours per day using the hourly emission rates provided above.
2 - Metals emissions calculated in Tab "Metals"

Input Data:

	Value	Units	Reference
Loader - Cat 988	10	tonnes per load	2020 Oct 19 Air Inputs
Number of units	1	Unit	2020 Oct 19 Air Inputs
Operating Hrs	12	hr/day	2020 Oct 19 Air Inputs

Outdoor Loading of Concentrate to Haul Trucks (Source

Unloading into Haul Trucks	Emission Factor (kg/MT)	Hourly Emission Rate (g/s)	Daily (24-hour) Emission Rate (g/s)
TSP	3.48E-04	1.61E-02	8.06E-03
PM10	1.65E-04	7.63E-03	3.81E-03
PM2.5	2.49E-05	1.16E-03	5.78E-04

Notes:

1. Sources modelled using the emission rates noted above and as wind speed dependent using the emission weighting factors provided below.

2 - Metals emissions calculated in Tab "Metals"

Emissions - Wind Speed Dependent Factors to Use in Modelling

Wind Speed (m/s)	Emission Factor (kg/MT)	Wind Speed Dependent Factor for Dispersion Modelling
1.54	1.07E-04	0.307
3.09	2.64E-04	0.759
5.14	5.12E-04	1.471
8.23	9.45E-04	2.712
10.8	1.35E-03	3.862
14.5	1.97E-03	5.664
Average Wind Speed used in Calculations Above		
3.82	3.48E-04	1.000

Road Dust

R1 Main Access Road from Mill to Highway

Input	Value	Units	Source
Silt Content (%)	5.8	%	
Main Access Road from Mill to Highw	6.4	km	Operating Assumptions
Pick up trucks			
Amount	140	Units	Operating Assumptions
Trucks per shift	70	trucks/shift	Operating Assumptions
Segments per day	280	segments/day	Operating Assumptions
Speed	60	km/h	Operating Assumptions
Transport			
Amount	20	Units	Operating Assumptions
Segments per day	40	segments/day	Operating Assumptions
Speed	50	km/h	Operating Assumptions
Bus			
Amount	2	Units	Operating Assumptions
Segments per day	4	segments/day	Operating Assumptions
Speed	50	km/h	Operating Assumptions
Concentrate Truck			
Amount	50	Units	Operating Assumptions
Segments per day	100	segments/day	Operating Assumptions
Speed	50	km/h	Operating Assumptions
Capacity	40	MT	Operating Assumptions
Water Truck			
Amount	1	Units	Operating Assumptions
Segments per day	2	segments/day	Operating Assumptions
Speed	15	km/h	Operating Assumptions
Fuel Truck			
Amount	1	Units	Operating Assumptions
Segments per day	2	segments/day	Operating Assumptions
Mitigation	80	%	Operating Assumptions

Speed on Roads

Vehicle Type	Access Roads	Mill Roads		
Pick up trucks	60	45	kph	2020 Oct 19 Air Inputs
Haul truck	--	30	kph	2020 Oct 19 Air Inputs
Transport	50	45	kph	2020 Oct 19 Air Inputs
Bus	50	--	kph	2020 Oct 19 Air Inputs
Haul truck	50	50	kph	2020 Oct 19 Air Inputs - no haul trucks will be on access road
Water Truck	15	15	kph	2020 Oct 19 Air Inputs
Fuel Truck	60	45	kph	2020 Oct 19 Air Inputs

R1		
Contaminant	**1 hr**	**24**
PM		1.22E+01
PM10		3.20E+00
PM2.5		3.22E-01

Road Travel Source: Npi - Mining Version 3.0 (june 2011) (pg 54)

$$\text{Heavy Duty Vehicle:}\quad EF = k\left(\frac{S(\%)}{12}\right)^{a}\left(\frac{W(t)}{3}\right)^{b}\quad \begin{cases} kg \\ VKT \end{cases}$$

		a	b
PM	1.38	0.7	0.45
PM10	0.42	0.9	0.45
PM2.5	0.0422	0.9	0.45

Main Access Road from Mill to Highway

Equipment	Make	Model	Fuel Type	Hp	Full Weight (kg)	Empty Weight (kg)	Average Weight (kg)	Access Roads	Mill Roads	Number of Trucks	Hrs per day	Total Time spent travelling per day	travel time in 1 hr	hr per day	Trucks per hr	Trips in	Trips out	Total Vehicles Passes	% of vehicles	Weight (kg)	VKT
Pick up trucks	Various	Various	Gasoline	450	2790	2790	2,790	60	45	140	15	29.87	0.1067	1.2444		1	1	280	0.654	1,825.23	1792.00
Haul truck	Caterpillar	793F	Diesel	2650	391000	164000	277,500	--	30										0.000	-	0.00
Transport	Various	Various	Diesel	350	62000	30000	46,000	50	45	20	16	5.12	0.1280	0.2133		1	1	40	0.093	4,299.07	256.00
Bus	Various	Various	Diesel	540	29000	29000	29,000	50	--	2	1	0.51	0.1280	0.0213		1	1	4	0.009	271.03	25.60
Haul truck	Caterpillar	740B	Diesel	490	74000	34500	54,250	50	50	50	16	12.80	0.8480	0.5333	3.3125	53	53	100	0.234	12,675.23	640.00
Water Truck			Diesel	350	30000	30000	30,000	15	15	1	1	0.85	0.4267	0.0356		1	1	2	0.005	140.19	12.80
Fuel Truck	Caterpillar		Diesel	350	30000	30000	30,000	60	45	1	1	0.21	0.1067	0.0089		1	1	2	0.005	140.19	12.80
									TOTAL									**428**	**1**	**19,350.93**	**2,739.20**
									TSP Emission Factor (kg/VKT)	**1.919**											
									PM10 Emission Factor (kg/VKT)	**0.505**											
									PM2.5 Emission Factor (kg/VKT)	**0.051**											
									Emission Rate PM (g/s)	12.170											
									Emission Rate PM10 (g/s)	3.203											
									Emission Rate PM2.5 (g/s)	0.322											

Road Dust **R2 Haul Road from Pit to MRSA**

Input	Value	Units	Source
Silt Content (%)	5.8		
Haul Road from Pit to MRSA	1.5	km	AERMOD road length
Haul Truck			
Return trips per day	227	trips/day	Operating Assumptions
Segments per day	454	segments/day	Operating Assumptions
Speed	50	km/h	Operating Assumptions
Capacity	227	MT	Operating Assumptions
Capacity per day	51525.38	MT/day	Operating Assumptions
Water Truck			
Amount	1	Units	Operating Assumptions
Segments per day	2	segments/day	Operating Assumptions
Speed	15	km/h	Operating Assumptions
Fuel Truck			
Amount	1	Units	Operating Assumptions
Segments per day	2	segments/day	Operating Assumptions
Speed	45	km/h	Operating Assumptions
Mitigation	80	%	Operating Assumptions

R2		
Contaminant	**1 hr**	**24 hr**
PM		2.73E+00
PM10		7.17E-01
PM2.5		7.22E-02

Road Travel Source: Npi - Mining Version 3.0 (june 2011) (pg 54)

$$Heavy\ Duty\ Vehicle:\quad EF = k\left(\frac{s_{(\%)}}{12}\right)^{a}\left(\frac{W_{(t)}}{3}\right)^{b}\quad \left\{\frac{kg}{VKT}\right.$$

		a	b
PM	1.38	0.7	0.45
PM10	0.42	0.9	0.45
PM2.5	0.042279252	0.9	0.45

	Speed on Roads			
Vehicle Type	**Access Roads**	**Mill Roads**		
Pick up trucks	60	45	kph	2020 Oct 19 Air Inputs
Haul truck	--	30	kph	2020 Oct 19 Air Inputs
Transport	50	45	kph	2020 Oct 19 Air Inputs
Bus	50	--	kph	2020 Oct 19 Air Inputs
Haul truck	50	50	kph	2020 Oct 19 Air Inputs - no haul trucks will be on access road
Water Truck	15	15	kph	2020 Oct 19 Air Inputs
Fuel Truck	60	45	kph	2020 Oct 19 Air Inputs

Haul Road from Pit to MRSA

Equipment	Make	Model	Fuel Type	Hp	Full Weight (kg)	Empty Weight (kg)	Average Weight (kg)	Access Roads	Mill Roads	Number of Trucks	Hrs per day	Total Time spent travelling per day	min per hr	hr per day		Trips in	Trips out	Total Vehicles	% of vehicles	Weight (kg)	VKT	Operating 1 hr?	Operating 24 hr
Pick up trucks	Various	Various	Gasoline	450	2790	2790	2,790	60	45										0.000	-	0.00	n	y
Haul truck	Caterpillar	793F	Diesel	2650	391000	164000	277,500	--	30										0.000	-	0.00	n	n
Transport	Various	Various	Diesel	350	62000	30000	46,000	50	45										0.000	-	0.00	y	y
Bus	Various	Various	Diesel	540	29000	29000	29,000	50	--										0.000	-	0.00	n	y
Haul truck	Caterpillar	740B	Diesel	490	74000	34500	54,250	50	50	227	16	13.62	0.8513	0.5675	14.1875	227	227	454	0.991	53,776.20	386.47	n	n
Water Truck			Diesel	350	30000	30000	30,000	15	15	1	1	0.20	0.1000	0.0083		1	1	2	0.004	131.00	0.03	n	y
Fuel Truck	Caterpillar		Diesel	350	30000	30000	30,000	60	45	1	1	0.05	0.0250	0.0021		1	1	2	0.004	131.00	0.01	n	y
									TOTAL									**458**	**1**	**54,038.21**	**386.50**		
									TSP Emission Factor (kg/VKT)	**3.047**													
									PM10 Emission Factor (kg/VKT)	**0.802**													
									PM2.5 Emission Factor (kg/VKT)	**0.081**													
									Emission Rate PM (g/s)	2.726													
									Emission Rate PM10 (g/s)	0.717													
									Emission Rate PM2.5 (g/s)	0.072													

Road Dust **R3** **Haul Road from Pit to Primary Crusher**

Input	Value	Units	Source
Silt Content (%)	5.8		
Haul Road from Pit to Primary C	1.6	km	AERMOD road length
Haul Truck			
Return trips per day	190	trips/day	Operating Assumptions
Segments per day	380	segments/day	Operating Assumptions
Speed	50	km/h	Operating Assumptions
Capacity	227	MT	Operating Assumptions
Capacity per day	43200	MT/day	Operating Assumptions
Mechanical Service Truck			
Amount	1	Units	Operating Assumptions
Segments per day	2	segments/day	Operating Assumptions
Speed	45	km/h	Operating Assumptions
Water Truck			
Amount	1	Units	Operating Assumptions
Segments per day	2	segments/day	Operating Assumptions
Speed	15	km/h	Operating Assumptions
Fuel Truck			
Amount	1	Units	Operating Assumptions
Segments per day	2	segments/day	Operating Assumptions
Speed	45	km/h	Operating Assumptions
Mitigation	80	%	Operating Assumptions

R3		
Contaminant	1 hr	24
PM		2.17E+00
PM10		5.70E-01
PM2.5		5.74E-02

Road Travel **Source: Npi - Mining Version 3.0 (june 2011) (pg 54)**

$$\text{Heavy Duty Vehicle:}\quad EF = k\left(\frac{S_{(mi)}}{12}\right)^{a}\left(\frac{W_{(t)}}{3}\right)^{b}\quad \left\{\frac{kg}{VKT}\right.$$

		a	b
PM	1.38	0.7	0.45
PM10	0.42	0.9	0.45
PM2.5	0.042279252	0.9	0.45

Vehicle Type	Speed on Roads: Access Roads	Speed on Roads: Mill Roads		
Pick up trucks	60	45	kph	2020 Oct 19 Air Inputs
Haul truck	--	30	kph	2020 Oct 19 Air Inputs
Transport	50	45	kph	2020 Oct 19 Air Inputs
Bus	50	--	kph	2020 Oct 19 Air Inputs
Haul truck	50	50	kph	2020 Oct 19 Air Inputs - no haul
Water Truck	15	15	kph	2020 Oct 19 Air Inputs
Fuel Truck	60	45	kph	2020 Oct 19 Air Inputs

										Haul Road from Pit to Primary Crusher											
Equipment	**Make**	**Model**	**Fuel Type**	**Hp**	**Full Weight (kg)**	**Empty Weight (kg)**	**Average Weight (kg)**	**Access Roads**	**Mill Roads**	**Number of Trucks**	**Hrs per day**	**Total Time spent travelling per day**	**min per hr**	**hr per day**		**Trips in**	**Trips out**	**Total Vehicles**	**% of vehicles**	**Weight (kg)**	**VKT**
Pick up trucks	Various	Various	Gasoline	450	2790	2790	2,790	60	45	1	15	0.05	0.0267	0.0022		1	1	2	0.005	14.46	0.01
Haul truck	Caterpillar	793F	Diesel	2650	391000	164000	277,500	--	30										0.000	-	0.00
Transport	Various	Various	Diesel	350	62000	30000	46,000	50	45										0.000	-	0.00
Bus	Various	Various	Diesel	540	29000	29000	29,000	50	--										0.000	-	0.00
Haul truck	Caterpillar	740B	Diesel	490	74000	34500	54,250	50	50	190	16	12.16	0.7600	0.5067	11.8750	190	190	380	0.984	53,406.74	308.05
Water Truck			Diesel	350	30000	30000	30,000	15	15	1	1	0.21	0.1067	0.0089		1	1	2	0.005	155.44	0.03
Fuel Truck	Caterpillar		Diesel	350	30000	30000	30,000	60	45	1	1	0.05	0.0267	0.0022		1	1	2	0.005	155.44	0.01
									TOTAL									**386**	**1**	**53,732.07**	**308.10**
									TSP Emission Factor (kg/VKT)	**3.039**											
									PM10 Emission Factor (kg/VKT)	**0.800**											
									PM2.5 Emission Factor (kg/VKT)	**0.081**											
									Emission Rate PM (g/s)	2.167											
									Emission Rate PM10 (g/s)	0.570											
									Emission Rate PM2.5 (g/s)	0.057											

Road Dust — R4 Haul Road from Pit to Mobile Crusher

Input	Value	Units	Source
Silt Content (%)	5.8		
Haul Road from Pit to Mobile Cr	6.0	km	AERMOD road length
Haul Truck			
Return trips per day	48	trips/day	Operating Assumptions
Segments per day	96	segments/day	Operating Assumptions
Speed	50	km/h	Operating Assumptions
Capacity	227	MT	Operating Assumptions
Capacity per day	10800	MT/day	Operating Assumptions
Mechanical Service Truck			
Amount	1	Units	Operating Assumptions
Segments per day	2	segments/day	Operating Assumptions
Speed	45	km/h	Operating Assumptions
Water Truck			
Amount	1	Units	Operating Assumptions
Segments per day	2	segments/day	Operating Assumptions
Speed	15	km/h	Operating Assumptions
Fuel Truck			
Amount	1	Units	Operating Assumptions
Segments per day	2	segments/day	Operating Assumptions
Speed	45	km/h	Operating Assumptions
Mitigation	80	%	Operating Assumptions

R4		
Contaminant	1 hr	24 hr
PM		1.93E+00
PM10		5.07E-01
PM2.5		5.10E-02

Road Tr: Source: Npi - Mining Version 3.0 (june 2011) (pg 54)

$$\text{Heavy Duty Vehicle:}\quad EF = k\left(\frac{s_{(\%)}}{12}\right)^{a}\left(\frac{W_{(t)}}{3}\right)^{b}\quad \left\{\frac{kg}{VKT}\right.$$

		a	b
PM	1.38	0.7	0.45
PM10	0.42	0.9	0.45
PM2.5	0.042279	0.9	0.45

	Speed on Roads			
Vehicle Type	Access Roads	Mill Roads		
Pick up trucks	60	45	kph	2020 Oct 19 Air Inputs
Haul truck	--	30	kph	2020 Oct 19 Air Inputs
Transport	50	45	kph	2020 Oct 19 Air Inputs
Bus	50	--	kph	2020 Oct 19 Air Inputs
Haul truck	50	50	kph	2020 Oct 19 Air Inputs - no haul trucks will be on access road
Water Truck	15	15	kph	2020 Oct 19 Air Inputs
Fuel Truck	60	45	kph	2020 Oct 19 Air Inputs

Haul Road from Pit to Mobile Crusher

Equipment	Make	Model	Fuel Type	Hp	Full Weight (kg)	Empty Weight (kg)	Average Weight (kg)	Access Roads	Mill Roads	Number of Trucks	Hrs per day	Total Time spent travelling per day	min per hr	hr per day		Trips in	Trips out	Total Vehicles	% of vehicles	Weight (kg)	VKT
Pick up trucks	Various	Various	Gasoline	450	2790	2790	2,790	60	45	1	15	0.20	0.1000	0.0083		1	1	2	0.020	54.71	0.10
Haul truck	Caterpillar	793F	Diesel	2650	391000	164000	277,500	--	30										0.000	-	0.00
Transport	Various	Various	Diesel	350	62000	30000	46,000	50	45										0.000	-	0.00
Bus	Various	Various	Diesel	540	29000	29000	29,000	50	--										0.000	-	0.00
Haul truck	Caterpillar	740B	Diesel	490	74000	34500	54,250	50	50	48	16	11.52	0.7200	0.4800	3.0000	48	48	96	0.941	51,058.82	276.48
Water Truck			Diesel	350	30000	30000	30,000	15	15	1	1	0.80	0.4000	0.0333		1	1	2	0.020	588.24	0.40
Fuel Truck	Caterpillar		Diesel	350	30000	30000	30,000	60	45	1	1	0.20	0.1000	0.0083		1	1	2	0.020	588.24	0.10
									TOTAL									**102**	**1**	**52,290.00**	**277.08**
									TSP Emission Factor (kg/VKT)	**3.002**											
									PM10 Emission Factor (kg/VKT)	**0.790**											
									PM2.5 Emission Factor (kg/VKT)	**0.080**											
									Emission Rate PM (g/s)	1.926											
									Emission Rate PM10 (g/s)	0.507											
									Emission Rate PM2.5 (g/s)	0.051											

Road Dust — R5 Haul Road from Pit to PSMF

Input	Value	Units	Source
Silt Content (%)	5.8		
Haul Road from Pit to PSMF	7.8	km	AERMOD road length
Haul Truck			
Return trips per day	56	trips/day	Operating Assumptions
Segments per day	112	segments/day	Operating Assumptions
Speed	50	km/h	Operating Assumptions
Capacity	227	MT	Operating Assumptions
Capacity per day	12765.44	MT/day	Operating Assumptions
Mechanical Service Truck			
Amount	1	Units	Operating Assumptions
Segments per day	2	segments/day	Operating Assumptions
Speed	45	km/h	Operating Assumptions
Water Truck			
Amount	1	Units	Operating Assumptions
Segments per day	2	segments/day	Operating Assumptions
Speed	15	km/h	Operating Assumptions
Fuel Truck			
Amount	1	Units	Operating Assumptions
Segments per day	2	segments/day	Operating Assumptions
Speed	45	km/h	Operating Assumptions
Mitigation	80	%	Operating Assumptions

R5		
Contaminant	**1hr**	**24hr**
PM		4.44E+00
PM10		1.17E+00
PM2.5		1.18E-01

Road Tra Source: Npi - Mining Version 3.0 (june 2011) (pg 54)

Heavy Duty Vehicle: $EF = k\left(\frac{S(\%)}{12}\right)^{a}\left(\frac{W(t)}{3}\right)^{b}$ $\left\{\frac{kg}{VKT}\right.$

		a	b
PM	1.38	0.7	0.45
PM10	0.42	0.9	0.45
PM2.5	0.042279	0.9	0.45

	Speed on Roads			
Vehicle Type	**Access Roads**	**Mill Roads**		
Pick up trucks	60	45	kph	2020 Oct 19 Air Inputs
Haul truck	--	30	kph	2020 Oct 19 Air Inputs
Transport	50	45	kph	2020 Oct 19 Air Inputs
Bus	50	--	kph	2020 Oct 19 Air Inputs
Haul truck	50	50	kph	2020 Oct 19 Air Inputs - no haul trucks will be on access road
Water Truck	15	15	kph	2020 Oct 19 Air Inputs
Fuel Truck	60	45	kph	2020 Oct 19 Air Inputs

										Haul Road from Pit to PSMF											
Equipment	**Make**	**Model**	**Fuel Type**	**Hp**	**Full Weight (kg)**	**Empty Weight (kg)**	**Average Weight (kg)**	**Access Roads**	**Mill Roads**	**Number of Trucks**	**Hrs per day**	**Total Time spent travelling per day**	**min per hr**	**hr per day**		**Trips in**	**Trips out**	**Total Vehicles**	**% of vehicles**	**Weight (kg)**	**VKT**
Pick up trucks	Various	Various	Gasoline	450	2790	2790	2,790	60	45	1	15	0.26	0.1300	0.0108		1	1	2	0.017	47.29	0.17
Haul truck	Caterpillar	793F	Diesel	2650	391000	164000	277,500	--	30										0.000	-	0.00
Transport	Various	Various	Diesel	350	62000	30000	46,000	50	45										0.000	-	0.00
Bus	Various	Various	Diesel	540	29000	29000	29,000	50	--										0.000	-	0.00
Haul truck	Caterpillar	740B	Diesel	490	74000	34500	54,250	50	50	56	16	17.47	1.0920	0.7280	3.5000	56	56	112	0.949	51,491.53	635.98
Water Truck			Diesel	350	30000	30000	30,000	15	15	1	1	1.04	0.5200	0.0433		1	1	2	0.017	508.47	0.68
Fuel Truck	Caterpillar		Diesel	350	30000	30000	30,000	60	45	1	1	0.26	0.1300	0.0108		1	1	2	0.017	508.47	0.17
									TOTAL									**118**	**1**	**52,555.76**	**636.99**
									TSP Emission Factor (kg/VKT)	**3.009**											
									PM10 Emission Factor (kg/VKT)	**0.792**											
									PM2.5 Emission Factor (kg/VKT)	**0.080**											
									Emission Rate PM (g/s)	4.437											
									Emission Rate PM10 (g/s)	1.168											
									Emission Rate PM2.5 (g/s)	0.118											

Road Dust **R6A Peninsula Road - Highway to Industrial Park Road**

Input	Value	Units	Source
Peninsula Road - Highway to Ind	2	km	Operating Assumptions
Impact Traffic			
Pick up trucks			
Amount	108	units	Operating Assumptions
Trucks per shift	54	trucks/shift	Operating Assumptions
Segments per day	216	segments/day	Operating Assumptions
Speed	80	km/h	Operating Assumptions
Concentrate Truck			
Amount	30	units	Operating Assumptions
Segments per day	60	segments/day	Operating Assumptions
Speed	80	km/h	Operating Assumptions
Capacity	40	MT	Operating Assumptions
Bus			
Amount	2	units	Operating Assumptions
Segments per day	4	segments/day	Operating Assumptions
Speed	80	km/h	Operating Assumptions
Baseline Traffic			
Pick up trucks (Passenger vehicles and motorcycles)			
Segments per day	2745	segments/day	Operating Assumptions
Speed	80	km/h	Operating Assumptions
Transports (long trucks)			
Segments per day	91	segments/day	Operating Assumptions
Speed	80	km/h	Operating Assumptions
Bus			
Segments per day	30	segments/day	Operating Assumptions
Speed	80	km/h	Operating Assumptions
Short Trucks			
Segments per day	151	segments/day	Operating Assumptions
Speed	80	km/h	Operating Assumptions
Silt Loading	0.0505		USEPA AP-42 Section 13.2.1

Contaminant	R6A	
	1 hr	24 hr
PM	--	1.11E-01
PM10	--	2.13E-02
PM2.5	--	5.17E-03

Road Travel on Paved Roads			USEPA-AP 42 Section 13.2.1
PM	3.23	g/VKT	A
PM10	0.62	g/VKT	A
PM2.5	0.15	g/VKT	D

$$E = k(sL)^{0.91} \times (W)^{1.02}$$

where,
E = particulate emission factor (g/VKT)
k = particulate size multiplier (g/VKT)
sL = road surface silt loading (g/m2)
W = average weight of the vehicles traveling the road (tons)

										Background											
Equipment	Make	Model	Fuel Type	Hp	Full Weight (kg)	Empty Weight (kg)	Average Weight (kg)	Peninsula Road	Marina Road	Number of Trucks in a day	Number of Trucks in an hr	(6am - 8pm)	Total hrs per day spent travelling	Fraction per hr			Trips in	Trips out	Total Vehicles	% of vehicles	Weight (kg)	VKT
Pick up trucks	Various	Various	Gasoline	450	2790	2790	2,790	80		1373	92	15	24.00	1.0000			1	1	2745	0.910	2,538.47	5490.00
Haul truck	Caterpillar	793F	Diesel	2650	391000	164000	277,500	80														
Transport	Various	Various	Diesel	350	62000	30000	46,000	80		46	3	14	1.14	0.0813			1	1	91	0.030	1,387.47	182.00
Bus	Various	Various	Diesel	540	29000	29000	29,000	80		15	15	1	0.38	0.3750			1	1	30	0.010	288.37	60.00
Haul truck	Caterpillar	740B	Diesel	490	74000	34500	54,250	80		76	5	16	1.89	0.1180			1	1	151	0.050	2,715.20	302.00
Water Truck			Diesel	350	30000	30000	30,000	80														
Fuel Truck	Caterpillar		Diesel	350	30000	30000	30,000	80														
								TOTAL											**3017**	**1**	**6,929.50**	**6,034.00**
								Emission Factor PM (g/VKT)	1.537													
								Emission Factor PM10 (g/VKT)	0.295													
								Emission Factor PM2.5 (g/VKT)	0.071													
								Emission Rate PM (g/s)	1.07E-01													
								Emission Rate PM10 (g/s)	2.06E-02													
								Emission Rate PM2.5 (g/s)	4.99E-03													

0.11

										Peninsula Road - Highway to Industrial Park Road											
Equipment	Make	Model	Fuel Type	Hp	Full Weight (kg)	Empty Weight (kg)	Average Weight (kg)	Access Roads	Mill Roads	Number of Trucks	Number of Trucks in an hr	Hrs per day	Total hrs per day spent travelling	Fraction per hr			Trips in	Trips out	Total Vehicles	% of vehicles	Weight (kg)	VKT
Pick up trucks	Various	Various	Gasoline	450	2790	2790	2,790	80		108	6.75	15	5.40	1.0000			1	1	216	0.771	2,152.29	97.20
Haul truck	Caterpillar	793F	Diesel	2650	391000	164000	277,500	80														
Transport	Various	Various	Diesel	350	62000	30000	46,000	80													-	0.00
Bus	Various	Various	Diesel	540	29000	29000	29,000	80		2	2	1	0.10	0.0500			1	1	4	0.014	414.29	0.03
Haul truck	Caterpillar	740B	Diesel	490	74000	34500	54,250	80		30	1.88	16	1.50	0.0938			1	1	60	0.214	11,625.00	7.50
Water Truck			Diesel	350	30000	30000	30,000	80	-													
Fuel Truck	Caterpillar		Diesel	350	30000	30000	30,000	80	-													
								TOTAL											**280**	**1**	**14,191.57**	**104.73**
								Emission Factor PM (g/VKT)	3.194													
								Emission Factor PM10 (g/VKT)	0.613													
								Emission Factor PM2.5 (g/VKT)	0.148													
								Emission Rate PM (g/s)	3.87E-03													
								Emission Rate PM10 (g/s)	7.43E-04													
								Emission Rate PM2.5 (g/s)	1.80E-04													

0.00

Road Dust **R6B Peninsula Road - Industrial Park Road to Penn Lake Road**

Input	Value	Units	Source
Peninsula Road - Industrial Park	1.9	km	Operating Assumptions
Impact Traffic			
Pick up trucks			
Amount	108	units	Operating Assumptions
Trucks per shift	54	trucks/shift	Operating Assumptions
Segments per day	216	segments/day	Operating Assumptions
Speed	60	km/h	Operating Assumptions
Concentrate Truck			
Amount	30	units	Operating Assumptions
Segments per day	60	segments/day	Operating Assumptions
Speed	60	km/h	Operating Assumptions
Capacity	40	MT	Operating Assumptions
Bus			
Amount	2	units	Operating Assumptions
Segments per day	4	segments/day	Operating Assumptions
Speed	60	km/h	Operating Assumptions
Baseline Traffic			
Pick up trucks (Passenger vehicles and motorcycles)			
Segments per day	2745	segments/day	Operating Assumptions
Speed	60	km/h	Operating Assumptions
Transports (long trucks)			
Segments per day	91	segments/day	Operating Assumptions
Speed	60	km/h	Operating Assumptions
Bus			
Segments per day	30	segments/day	Operating Assumptions
Speed	60	km/h	Operating Assumptions
Short Trucks			
Segments per day	151	segments/day	Operating Assumptions
Speed	60	km/h	Operating Assumptions
Silt Loading	0.0505		USEPA AP-42 Section 13.2.1

Contaminant	R6B	
	1 hr	24 hr
PM	--	1.07E-01
PM10	--	2.05E-02
PM2.5	--	4.95E-03

Road Travel on Paved Roads			USEPA-AP 42 Section 13.2.1
PM	3.23	g/VKT	A
PM10	0.62	g/VKT	A
PM2.5	0.15	g/VKT	D

$$E = k(sL)^{0.91} \times (W)^{1.02}$$

where,
E = particulate emission factor (g/VKT)
k = particulate size multiplier (g/VKT)
sL = road surface silt loading (g/m2)
W = average weight of the vehicles traveling the road (tons)

										Background											
Equipment	**Make**	**Model**	**Fuel Type**	**Hp**	**Full Weight (kg)**	**Empty Weight (kg)**	**Average Weight (kg)**	**Peninsula Road**	**Marina Road**	**Number of Trucks in a day**	**Number of Trucks in an hr**	**(6am - 8pm)**	**Total hrs per day spent travelling**	**Fraction per hr**			**Trips in**	**Trips out**	**Total Vehicles**	**% of vehicles**	**Weight (kg)**	**VKT**
Pick up trucks	Various	Various	Gasoline	450	2790	2790	2,790	60		1373	92	15	24.00	1.0000			1	1	2745	0.910	2,538.47	5215.50
Haul truck	Caterpillar	793F	Diesel	2650	391000	164000	277,500	60														
Transport	Various	Various	Diesel	350	62000	30000	46,000	60		46	3	14	1.44	0.1029			1	1	91	0.030	1,387.47	172.90
Bus	Various	Various	Diesel	540	29000	29000	29,000	60		15	15	1	0.48	0.4750			1	1	30	0.010	288.37	57.00
Haul truck	Caterpillar	740B	Diesel	490	74000	34500	54,250	60		76	5	16	2.39	0.1494			1	1	151	0.050	2,715.20	286.90
Water Truck			Diesel	350	30000	30000	30,000	60														
Fuel Truck	Caterpillar		Diesel	350	30000	30000	30,000	60														
									TOTAL										**3017**	**1**	**6,929.50**	**5,732.30**
									Emission Factor PM (g/VKT)	1.537												
									Emission Factor PM10 (g/VKT)	0.295												
									Emission Factor PM2.5 (g/VKT)	0.071												
									Emission Rate PM (g/s)	1.02E-01												
									Emission Rate PM10 (g/s)	1.96E-02												
									Emission Rate PM2.5 (g/s)	4.74E-03												

										Peninsula Road - Industrial Park Road to Penn Lake Road											
Equipment	**Make**	**Model**	**Fuel Type**	**Hp**	**Full Weight (kg)**	**Empty Weight (kg)**	**Average Weight (kg)**	**Access Roads**	**Mill Roads**	**Number of Trucks**	**Number of Trucks in an hr**	**Hrs per day**	**Total hrs per day spent travelling**	**Fraction per hr**			**Trips in**	**Trips out**	**Total Vehicles**	**% of vehicles**	**Weight (kg)**	**VKT**
Pick up trucks	Various	Various	Gasoline	450	2790	2790	2,790	60		108	6.75	15	6.84	1.0000			1	1	216	0.771	2,152.29	116.96
Haul truck	Caterpillar	793F	Diesel	2650	391000	164000	277,500	60														
Transport	Various	Various	Diesel	350	62000	30000	46,000	60													-	0.00
Bus	Various	Various	Diesel	540	29000	29000	29,000	60		2	2	1	0.13	0.0633			1	1	4	0.014	414.29	0.04
Haul truck	Caterpillar	740B	Diesel	490	74000	34500	54,250	60		30	1.88	16	1.90	0.1188			1	1	60	0.214	11,625.00	9.03
Water Truck			Diesel	350	30000	30000	30,000	60	-													
Fuel Truck	Caterpillar		Diesel	350	30000	30000	30,000	60	-													
									TOTAL										**280**	**1**	**14,191.57**	**126.03**
									Emission Factor PM (g/VKT)	3.194												
									Emission Factor PM10 (g/VKT)	0.613												
									Emission Factor PM2.5 (g/VKT)	0.148												
									Emission Rate PM (g/s)	4.66E-03												
									Emission Rate PM10 (g/s)	8.94E-04												
									Emission Rate PM2.5 (g/s)	2.16E-04												

Road Dust **R6C Peninsula Road - Penn Lake Road to Hemlo Drive**

Input	Value	Units	Source
Peninsula Road - Penn Lake Roac	0.6	km	Operating Assumptions
Impact Traffic			
Pick up trucks			
Amount	108	units	Operating Assumptions
Trucks per shift	54	trucks/shift	Operating Assumptions
Segments per day	216	segments/day	Operating Assumptions
Speed	50	km/h	Operating Assumptions
Concentrate Truck			
Amount	30	units	Operating Assumptions
Segments per day	60	segments/day	Operating Assumptions
Speed	50	km/h	Operating Assumptions
Capacity	40	MT	Operating Assumptions
Bus			
Amount	2	units	Operating Assumptions
Segments per day	4	segments/day	Operating Assumptions
Speed	50	km/h	Operating Assumptions
Baseline Traffic			
Pick up trucks (Passenger vehicles and motorcycles)			
Segments per day	2745	segments/day	Operating Assumptions
Speed	50	km/h	Operating Assumptions
Transports (long trucks)			
Segments per day	91	segments/day	Operating Assumptions
Speed	50	km/h	Operating Assumptions
Bus			
Segments per day	30	segments/day	Operating Assumptions
Speed	50	km/h	Operating Assumptions
Short Trucks			
Segments per day	151	segments/day	Operating Assumptions
Speed	50	km/h	Operating Assumptions
Silt Loading	0.0505		USEPA AP-42 Section 13.2.1

Contaminant	R6C	
	1 hr	24 hr
PM	--	3.28E-02
PM10	--	6.29E-03
PM2.5	--	1.52E-03

Road Travel on Paved Roads		USEPA-AP 42 Section 13.2.1
PM	3.23 g/VKT	A
PM10	0.62 g/VKT	A
PM2.5	0.15 g/VKT	D

$$E = k(sL)^{0.91} \times (W)^{1.02}$$

where,
E = particulate emission factor (g/VKT)
k = particulate size multiplier (g/VKT)
sL = road surface silt loading (g/m2)
W = average weight of the vehicles traveling the road (tons)

										Background											
Equipment	Make	Model	Fuel Type	Hp	Full Weight (kg)	Empty Weight (kg)	Average Weight (kg)	Peninsula Road	Marina Road	Number of Trucks in a day	Number of Trucks in an hr	(6am - 8pm)	Total hrs per day spent travelling	Fraction per hr			Trips in	Trips out	Total Vehicles	% of vehicles	Weight (kg)	VKT
Pick up trucks	Various	Various	Gasoline	450	2790	2790	2,790	50		1373	92	15	24.00	1.0000			1	1	2745	0.910	2,538.47	1647.00
Haul truck	Caterpillar	793F	Diesel	2650	391000	164000	277,500	50														
Transport	Various	Various	Diesel	350	62000	30000	46,000	50		46	3	14	0.55	0.0390			1	1	91	0.030	1,387.47	54.60
Bus	Various	Various	Diesel	540	29000	29000	29,000	50		15	15	1	0.18	0.1800			1	1	30	0.010	288.37	18.00
Haul truck	Caterpillar	740B	Diesel	490	74000	34500	54,250	50		76	5	16	0.91	0.0566			1	1	151	0.050	2,715.20	90.60
Water Truck			Diesel	350	30000	30000	30,000	50														
Fuel Truck	Caterpillar		Diesel	350	30000	30000	30,000	50														
									TOTAL										**3017**	**1**	**6,929.50**	**1,810.20**
									Emission Factor PM (g/VKT)	1.537											
									Emission Factor PM10 (g/VKT)	0.295											
									Emission Factor PM2.5 (g/VKT)	0.071											
									Emission Rate PM (g/s)	3.22E-02											
									Emission Rate PM10 (g/s)	6.18E-03											
									Emission Rate PM2.5 (g/s)	1.50E-03											

										Peninsula Road - Penn Lake Road to Hemlo Drive											
Equipment	Make	Model	Fuel Type	Hp	Full Weight (kg)	Empty Weight (kg)	Average Weight (kg)	Access Roads	Mill Roads	Number of Trucks	Number of Trucks in an hr	Hrs per day	Total hrs per day spent travelling	Fraction per hr			Trips in	Trips out	Total Vehicles	% of vehicles	Weight (kg)	VKT
Pick up trucks	Various	Various	Gasoline	450	2790	2790	2,790	50		108	6.75	15	2.59	1.0000			1	1	216	0.771	2,152.29	14.00
Haul truck	Caterpillar	793F	Diesel	2650	391000	164000	277,500	50														
Transport	Various	Various	Diesel	350	62000	30000	46,000	50													-	0.00
Bus	Various	Various	Diesel	540	29000	29000	29,000	50		2	2	1	0.05	0.0240			1	1	4	0.014	414.29	0.00
Haul truck	Caterpillar	740B	Diesel	490	74000	34500	54,250	50		30	1.88	16	0.72	0.0450			1	1	60	0.214	11,625.00	1.08
Water Truck			Diesel	350	30000	30000	30,000	50	-													
Fuel Truck	Caterpillar		Diesel	350	30000	30000	30,000	50	-													
									TOTAL										**280**	**1**	**14,191.57**	**15.08**
									Emission Factor PM (g/VKT)	3.194											
									Emission Factor PM10 (g/VKT)	0.613											
									Emission Factor PM2.5 (g/VKT)	0.148											
									Emission Rate PM (g/s)	5.57E-04											
									Emission Rate PM10 (g/s)	1.07E-04											
									Emission Rate PM2.5 (g/s)	2.59E-05											

Road Dust **R6D** **Peninsula Road - Hemlo Drive to Sund Crescent**

Input	Value	Units	Source
Peninsula Road - Hemlo Drive to	0.6	km	Operating Assumptions
Impact Traffic			
Pick up trucks			
Amount	108	units	Operating Assumptions
Trucks per shift	54	trucks/shift	Operating Assumptions
Segments per day	216	segments/day	Operating Assumptions
Speed	40	km/h	Operating Assumptions
Concentrate Truck			
Amount	30	units	Operating Assumptions
Segments per day	60	segments/day	Operating Assumptions
Speed	40	km/h	Operating Assumptions
Capacity	40	MT	Operating Assumptions
Bus			
Amount	2	units	Operating Assumptions
Segments per day	4	segments/day	Operating Assumptions
Speed	40	km/h	Operating Assumptions
Baseline Traffic			
Pick up trucks (Passenger vehicles and motorcycles)			
Segments per day	9100	segments/day	Operating Assumptions
Speed	40	km/h	Operating Assumptions
Transports (long trucks)			
Segments per day	300	segments/day	Operating Assumptions
Speed	40	km/h	Operating Assumptions
Bus			
Segments per day	100	segments/day	Operating Assumptions
Speed	40	km/h	Operating Assumptions
Short Trucks			
Segments per day	500	segments/day	Operating Assumptions
Speed	40	km/h	Operating Assumptions
Silt Loading	0.0505		USEPA AP-42 Section 13.2.1

Contaminant	R6D	
	1 hr	24 hr
PM	--	1.07E-01
PM10	--	2.06E-02
PM2.5	--	4.98E-03

Road Travel on Paved Roads		USEPA-AP 42 Section 13.2.1
PM	3.23	g/VKT A
PM10	0.62	g/VKT A
PM2.5	0.15	g/VKT D

$$E = k(sL)^{0.91} \times (W)^{1.02}$$

where,
E = particulate emission factor (g/VKT)
k = particulate size multiplier (g/VKT)
sL = road surface silt loading (g/m2)
W = average weight of the vehicles traveling the road (tons)

									Background											
Equipment	**Make**	**Model**	**Fuel Type**	**Hp**	**Full Weight (kg)**	**Empty Weight (kg)**	**Average Weight (kg)**	**Peninsula Road**	**Marina Road**	**Number of Trucks in a day**	**Number of Trucks in an hr**	**(6am - 8pm)**	**Total hrs per day spent travelling**	**Fraction per hr**			**Trips in**	**Trips out**	**Total Vehicles**	**% of vehicles**	**Weight (kg)**	**VKT**
Pick up trucks	Various	Various	Gasoline	450	2790	2790	2,790	40		4550	303	15	24.00	1.0000			1	1	9100	0.910	2,538.90	5460.00
Haul truck	Caterpillar	793F	Diesel	2650	391000	164000	277,500	40														
Transoort	Various	Various	Diesel	350	62000	30000	46,000	40		150	11	14	2.25	0.1607			1	1	300	0.030	1,380.00	180.00
Bus	Various	Various	Diesel	540	29000	29000	29,000	40		50	50	1	0.75	0.7500			1	1	100	0.010	290.00	60.00
Haul truck	Caterpillar	740B	Diesel	490	74000	34500	54,250	40		250	16	16	3.75	0.2344			1	1	500	0.050	2,712.50	300.00
Water Truck			Diesel	350	30000	30000	30,000	40														
Fuel Truck	Caterpillar		Diesel	350	30000	30000	30,000	40														
									TOTAL										**10000**	**1**	**6,921.40**	**6,000.00**
									Emission Factor PM (g/VKT)	1.535												
									Emission Factor PM10 (g/VKT)	0.295												
									Emission Factor PM2.5 (g/VKT)	0.071												
									Emission Rate PM (g/s)	1.07E-01												0.11
									Emission Rate PM10 (g/s)	2.05E-02												
									Emission Rate PM2.5 (g/s)	4.95E-03												

										Peninsula Road - Hemlo Drive to Sund Crescent											
Equipment	**Make**	**Model**	**Fuel Type**	**Hp**	**Full Weight (kg)**	**Empty Weight (kg)**	**Average Weight (kg)**	**Access Roads**	**Mill Roads**	**Number of Trucks**	**Number of Trucks in an hr**	**Hrs per day**	**Total hrs per day spent travelling**	**Fraction per hr**			**Trips in**	**Trips out**	**Total Vehicles**	**% of vehicles**	**Weight (kg)**	**VKT**
Pick up trucks	Various	Various	Gasoline	450	2790	2790	2,790	40		108	6.75	15	3.24	1.0000			1	1	216	0.771	2,152.29	17.50
Haul truck	Caterpillar	793F	Diesel	2650	391000	164000	277,500	40														
Transoort	Various	Various	Diesel	350	62000	30000	46,000	40													-	0.00
Bus	Various	Various	Diesel	540	29000	29000	29,000	40		2	2	1	0.06	0.0300			1	1	4	0.014	414.29	0.01
Haul truck	Caterpillar	740B	Diesel	490	74000	34500	54,250	40		30	1.88	16	0.90	0.0563			1	1	60	0.214	11,625.00	1.35
Water Truck			Diesel	350	30000	30000	30,000	40	-													
Fuel Truck	Caterpillar		Diesel	350	30000	30000	30,000	40	-													
									TOTAL										**280**	**1**	**14,191.57**	**18.85**
									Emission Factor PM (g/VKT)	3.194												
									Emission Factor PM10 (g/VKT)	0.613												
									Emission Factor PM2.5 (g/VKT)	0.148												
									Emission Rate PM (g/s)	6.97E-04												0.00
									Emission Rate PM10 (g/s)	1.34E-04												
									Emission Rate PM2.5 (g/s)	3.24E-05												

Road Dust **R6E Peninsula Road - Sund Crescent to Steven's Avenue**

Input	Value	Units	Source
Peninsula Road - Sund Crescent t	0.2	km	Operating Assumptions
Impact Traffic			
Pick up trucks			
Amount	108	units	Operating Assumptions
Trucks per shift	54	trucks/shift	Operating Assumptions
Segments per day	216	segments/day	Operating Assumptions
Speed	40	km/h	Operating Assumptions
Concentrate Truck			
Amount	30	units	Operating Assumptions
Segments per day	60	segments/day	Operating Assumptions
Speed	40	km/h	Operating Assumptions
Capacity	40	MT	Operating Assumptions
Bus			
Amount	2	units	Operating Assumptions
Segments per day	4	segments/day	Operating Assumptions
Speed	40	km/h	Operating Assumptions
Baseline Traffic			
Pick up trucks (Passenger vehicles and motorcycles)			
Segments per day	8054	segments/day	Operating Assumptions
Speed	40	km/h	Operating Assumptions
Transports (long trucks)			
Segments per day	265	segments/day	Operating Assumptions
Speed	40	km/h	Operating Assumptions
Bus			
Segments per day	89	segments/day	Operating Assumptions
Speed	40	km/h	Operating Assumptions
Short Trucks			
Segments per day	442	segments/day	Operating Assumptions
Speed	40	km/h	Operating Assumptions
Silt Loading	0.0505		USEPA AP-42 Section 13.2.1

Contaminant	R6E	
	1 hr	24 hr
PM	--	3.15E-02
PM10	--	6.05E-03
PM2.5	--	1.46E-03

Road Travel on Paved Roads			USEPA-AP 42 Section 13.2.1
PM	3.23	g/VKT	A
PM10	0.62	g/VKT	A
PM2.5	0.15	g/VKT	D

$$E = k(sL)^{0.91} \times (W)^{1.02}$$

where,
E = particulate emission factor (g/VKT)
k = particulate size multiplier (g/VKT)
sL = road surface silt loading (g/m2)
W = average weight of the vehicles traveling the road (tons)

										Background										
Equipment	**Make**	**Model**	**Fuel Type**	**Hp**	**Full Weight (kg)**	**Empty Weight (kg)**	**Average Weight (kg)**	**Peninsula Road**	**Marina Road**	**Number of Trucks in a day**	**Number of Trucks in an hr**	**(6am - 8pm)**	**Total hrs per day spent travelling**	**Fraction per hr**			**Trips in**	**Trips out**	**Total Vehicles**	**% of vehicles**	**Weight (kg)**	**VKT**
Pick up trucks	Various	Various	Gasoline	450	2790	2790	2,790	40		4027	268	15	24.00	1.0000			1	1	8054	0.910	2,539.06	1610.80
Haul truck	Caterpillar	793F	Diesel	2650	391000	164000	277,500	40														
Transport	Various	Various	Diesel	350	62000	30000	46,000	40		133	9	14	0.66	0.0473			1	1	265	0.030	1,377.40	53.00
Bus	Various	Various	Diesel	540	29000	29000	29,000	40		44.5	44.5	1	0.22	0.2225			1	1	89	0.010	291.64	17.80
Haul truck	Caterpillar	740B	Diesel	490	74000	34500	54,250	40		221	14	16	1.11	0.0691			1	1	442	0.050	2,709.44	88.40
Water Truck			Diesel	350	30000	30000	30,000	40														
Fuel Truck	Caterpillar		Diesel	350	30000	30000	30,000	40														
									TOTAL										**8850**	**1**	**6,917.53**	**1,770.00**
									Emission Factor PM (g/VKT)	1.534												
									Emission Factor PM10 (g/VKT)	0.295												
									Emission Factor PM2.5 (g/VKT)	0.071												
									Emission Rate PM (g/s)	3.14E-02												0.03
									Emission Rate PM10 (g/s)	6.03E-03												
									Emission Rate PM2.5 (g/s)	1.46E-03												

										Peninsula Road - Sund Crescent to Steven's Avenue											
Equipment	**Make**	**Model**	**Fuel Type**	**Hp**	**Full Weight (kg)**	**Empty Weight (kg)**	**Average Weight (kg)**	**Access Roads**	**Mill Roads**	**Number of Trucks**	**Number of Trucks in an hr**	**Hrs per day**	**Total hrs per day spent travelling**	**Fraction per hr**			**Trips in**	**Trips out**	**Total Vehicles**	**% of vehicles**	**Weight (kg)**	**VKT**
Pick up trucks	Various	Various	Gasoline	450	2790	2790	2,790	40		108	6.75	15	1.08	1.0000			1	1	216	0.771	2,152.29	1.94
Haul truck	Caterpillar	793F	Diesel	2650	391000	164000	277,500	40														
Transport	Various	Various	Diesel	350	62000	30000	46,000	40													-	0.00
Bus	Various	Various	Diesel	540	29000	29000	29,000	40		2	2	1	0.02	0.0100			1	1	4	0.014	414.29	0.00
Haul truck	Caterpillar	740B	Diesel	490	74000	34500	54,250	40		30	1.88	16	0.30	0.0188			1	1	60	0.214	11,625.00	0.15
Water Truck			Diesel	350	30000	30000	30,000	40	-													
Fuel Truck	Caterpillar		Diesel	350	30000	30000	30,000	40	-													
									TOTAL										**280**	**1**	**14,191.57**	**2.09**
									Emission Factor PM (g/VKT)	3.194												
									Emission Factor PM10 (g/VKT)	0.613												
									Emission Factor PM2.5 (g/VKT)	0.148												
									Emission Rate PM (g/s)	7.74E-05												0.00
									Emission Rate PM10 (g/s)	1.49E-05												
									Emission Rate PM2.5 (g/s)	3.60E-06												

Road Dust

R6F Peninsula Road - Steven's Avenue to Rail Loadout Location

Input	Value	Units	Source
Peninsula Road - Steven's Avenu	1	km	Operating Assumptions
Impact Traffic			
Concentrate Truck			
Amount	30	units	Operating Assumptions
Segments per day	60	segments/day	Operating Assumptions
Speed	50	km/h	Operating Assumptions
Capacity	40	MT	Operating Assumptions
Baseline Traffic			
Pick up trucks (Passenger vehicles and motorcycles)			
Segments per day	637	segments/day	Operating Assumptions
Speed	50	km/h	Operating Assumptions
Transports (long trucks)			
Segments per day	21	segments/day	Operating Assumptions
Speed	50	km/h	Operating Assumptions
Bus			
Segments per day	7	segments/day	Operating Assumptions
Speed	50	km/h	Operating Assumptions
Short Trucks			
Segments per day	35	segments/day	Operating Assumptions
Speed	50	km/h	Operating Assumptions
Silt Loading	0.0505		USEPA AP-42 Section 13.2.1

Contaminant	R6F	
	1 hr	24 hr
PM	--	1.29E-02
PM10	--	2.47E-03
PM2.5	--	5.98E-04

Road Travel on Paved Roads			USEPA-AP 42 Section 13.2.1
PM	3.23	g/VKT	A
PM10	0.62	g/VKT	A
PM2.5	0.15	g/VKT	D

$$E = k(sL)^{0.91} \times (W)^{1.02}$$

where,
E = particulate emission factor (g/VKT)
k = particulate size multiplier (g/VKT)
sL = road surface silt loading (g/m2)
W = average weight of the vehicles traveling the road (tons)

										Background											
Equipment	**Make**	**Model**	**Fuel Type**	**Hp**	**Full Weight (kg)**	**Empty Weight (kg)**	**Average Weight (kg)**	**Peninsula Road**	**Marina Road**	**Number of Trucks in a day**	**Number of Trucks in an hr**	**(6am - 8pm)**	**Total hrs per day spent travelling**	**Fraction per hr**			**Trips in**	**Trips out**	**Total Vehicles**	**% of vehicles**	**Weight (kg)**	**VKT**
Pick up trucks	Various	Various	Gasoline	450	2790	2790	2,790	50		319	21	15	24.00	1.0000			1	1	637	0.910	2,538.90	637.00
Haul truck	Caterpillar	793F	Diesel	2650	391000	164000	277,500	50														
Transport	Various	Various	Diesel	350	62000	30000	46,000	50		11	1	14	0.21	0.0150			1	1	21	0.030	1,380.00	21.00
Bus	Various	Various	Diesel	540	29000	29000	29,000	50		4	3.5	1	0.07	0.0700			1	1	7	0.010	290.00	7.00
Haul truck	Caterpillar	740B	Diesel	490	74000	34500	54,250	50		18	1	16	0.35	0.0219			1	1	35	0.050	2,712.50	35.00
Water Truck			Diesel	350	30000	30000	30,000	50														
Fuel Truck	Caterpillar		Diesel	350	30000	30000	30,000	50														
									TOTAL										**700**	**1**	**6,921.40**	**700.00**
									Emission Factor PM (g/VKT)	1.535												
									Emission Factor PM10 (g/VKT)	0.295												
									Emission Factor PM2.5 (g/VKT)	0.071												
									Emission Rate PM (g/s)	1.24E-02												
									Emission Rate PM10 (g/s)	2.39E-03												
									Emission Rate PM2.5 (g/s)	5.78E-04												

0.01

										Peninsula Road - Steven's Avenue to Rail Loadout Location											
Equipment	**Make**	**Model**	**Fuel Type**	**Hp**	**Full Weight (kg)**	**Empty Weight (kg)**	**Average Weight (kg)**	**Access Roads**	**Mill Roads**	**Number of Trucks**	**Number of Trucks in an hr**	**Hrs per day**	**Total hrs per day spent travelling**	**Fraction per hr**			**Trips in**	**Trips out**	**Total Vehicles**	**% of vehicles**	**Weight (kg)**	**VKT**
Pick up trucks	Various	Various	Gasoline	450	2790	2790	2,790	50													-	0.00
Haul truck	Caterpillar	793F	Diesel	2650	391000	164000	277,500	50														
Transport	Various	Various	Diesel	350	62000	30000	46,000	50													-	0.00
Bus	Various	Various	Diesel	540	29000	29000	29,000	50													-	0.00
Haul truck	Caterpillar	740B	Diesel	490	74000	34500	54,250	50		30	1.88	16	1.20	0.0750					60	1.000	54,250.00	3.00
Water Truck			Diesel	350	30000	30000	30,000	50	-													
Fuel Truck	Caterpillar		Diesel	350	30000	30000	30,000	50	-													
									TOTAL										**60**	**1**	**54,250.00**	**3.00**
									Emission Factor PM (g/VKT)	12.540												
									Emission Factor PM10 (g/VKT)	2.407												
									Emission Factor PM2.5 (g/VKT)	0.582												
									Emission Rate PM (g/s)	4.35E-04												
									Emission Rate PM10 (g/s)	8.36E-05												
									Emission Rate PM2.5 (g/s)	2.02E-05												

0.00

Source: Grading
Source IDs: R1, R2, R3, R4, R5

Description:
A Grader maintains haul roads for efficient operation of haul trucks moving on the haul roads.

Methodology: Emission Factor (EF)
Emission factor for grading operations are found in the US EPA AP42 document Chapter 11 in Table 11.9-2

$E=0.0034(S)^{2.5}$ (TSP<=30um)

where:
S = mean vehicle speed (km/hr)
E = emission factor (kg/VKT)

Input	Value	Units	Source
Units	2	units	2020 Oct 19 Air Inputs
Silt Content	5.8	%	
Moisture Content	4	%	2020 Oct 19 Air Inputs
Mitigation	80	%	2020 Oct 19 Air Inputs
Grader Speed	4.5	km/hr	2020 Oct 19 Air Inputs
Grading Operating hrs	2	hr/24 hr	2020 Oct 19 Air Inputs
Main Access Road from Mill to Highway	6.4	km	Operating Assumptions
Haul Road from Pit to MRSA	1.5	km	AERMOD road length
Haul Road from Pit to Primary Crusher	1.6	km	AERMOD road length
Haul Road from Pit to Mobile Crusher	6	km	AERMOD road length
Haul Road from Pit to PSMF	7.8	km	AERMOD road length

Grading Roads Source: USEPA AP42 Section 11.9-1

EF=k*S^a

$$EF = 0.0034 \times S^a$$

a(TSP)=	2.5	K(TSP)	0.0034
a(PM10)=	2	K(PM10)	0.0056
PM2.5/TSP	0.031		

CoPC	Emission Factor (Kg/VKT)	Total Daily Average Emissions (All Roads) (g/s)
TSP	1.46E-01	6.09E-03
PM10	1.13E-01	4.73E-03
PM2.5	4.53E-03	1.89E-04

Daily (24-hour) Average Emissions per Road Segment

Segment	ID	TSP (g/s)	PM10 (g/s)	PM2.5 (g/s)
Main Access Road from Mill to Highway	R1	1.67E-03	1.30E-03	5.18E-05
Haul Road from Pit to MRSA	R2	3.92E-04	3.04E-04	1.21E-05
Haul Road from Pit to Primary Crusher	R3	4.18E-04	3.24E-04	1.30E-05
Haul Road from Pit to Mobile Crusher	R4	1.57E-03	1.22E-03	4.86E-05
Haul Road from Pit to PSMF	R5	2.04E-03	1.58E-03	6.32E-05

Notes:
1. Grading emissions are added to the road dust emissions to get total particulate and metals emissions per reoad segment for roads R1 - R5
2. Metals are calculated in Tab "Metals"

Propane Emission Inventory

EF Source: USEPA AP-42, Section 1.5 " Liquefied Petroleum Gas Combustion", dated July 2008

Input Details:

Fuel Type:	Propane	
Heating Value (Propane)	0.0915	MMBTU/gal
NOx Emission Factor	13	(lb/103 gal)
PM, filterable Emission Factor	0.2	(lb/103 gal)
PM, condensable Emission Factor	0.5	(lb/103 gal)
PM10 Emission Factor	0.7	(lb/103 gal)
SO2 Emission Factor	0.1	(lb/103 gal)
N2O Emission Factor	0.9	(lb/103 gal)
CO2 Emission Factor	12500	(lb/103 gal)
CO Emission Factor	7.5	(lb/103 gal)
TOC Emission Factor	1	(lb/103 gal)
CH4 Emission Factor	0.2	(lb/103 gal)

Source	Type of Heat	Heat Input Rating (MMBTU/h)	Number of Heaters	Total Input Rating (MMBTU/h)	NO_X (g/s)	PM, filterable (g/s)	PM, condensable (g/s)	PM_{10} (g/s)	$PM_{2.5}$ (g/s)	SO_2 (g/s)	N_2O (g/s)	CO_2 (g/s)	CO (g/s)	TOC (g/s)	CH_4 (g/s)
H1 - Pebble Crusher		5	1	5	8.97E-02	1.38E-03	3.45E-03	4.83E-03	4.83E-03	6.90E-04	6.21E-03	8.62E+01	5.17E-02	6.90E-03	1.38E-03
H2 - Garage	Comfort	5	2	10	1.79E-01	2.76E-03	6.90E-03	9.66E-03	9.66E-03	1.38E-03	1.24E-02	1.72E+02	1.03E-01	1.38E-02	2.76E-03
H1 - Grinding		10	2	20	3.59E-01	1.10E-02	1.38E-02	1.93E-02	1.93E-02	2.76E-03	2.48E-02	3.45E+02	2.07E-01	2.76E-02	5.52E-03
H1 - Concentrator		30	4	120	2.15E+00	3.31E-02	8.28E-02	1.16E-01	1.16E-01	1.66E-02	1.49E-01	2.07E+03	1.24E+00	1.66E-01	3.31E-02
H3 - WWTP		2	1	2	3.59E-02	5.52E-04	1.38E-03	1.93E-03	1.93E-03	2.76E-04	2.48E-03	3.45E+01	2.07E-02	2.76E-03	5.52E-04
H4 - Assay Lab - AMU		3	1	3	5.38E-02	8.28E-04	2.07E-03	2.90E-03	2.90E-03	4.14E-04	3.73E-03	5.17E+01	3.10E-02	4.14E-03	8.28E-04
H4 - Assay Lab - propane furnace		0.5	3	1.5	2.69E-02	4.14E-04	1.03E-03	1.45E-03	1.45E-03	2.07E-04	1.86E-03	2.59E+01	1.55E-02	2.07E-03	4.14E-04
H4 - Assay Heating/Cooling Unit	Comfort	0.5	1	0.5	8.97E-03	1.38E-04	3.45E-04	4.83E-04	4.83E-04	6.90E-05	6.21E-04	8.62E+00	5.17E-03	6.90E-04	1.38E-04
H5 - Administration Building		2	1	2.0	3.59E-02	5.52E-04	1.38E-03	1.93E-03	1.93E-03	2.76E-04	2.48E-03	3.45E+01	2.07E-02	2.76E-03	5.52E-04
Total Emissions (g/s)					**2.69E-01**	**4.14E-03**	**1.03E-02**	**1.45E-02**	**1.45E-02**	**2.07E-03**	**1.86E-02**	**2.59E+02**	**1.55E-01**	**2.07E-02**	**4.14E-03**

Summary of g/VMT emission factors by contaminant/ link - 2021																																
						Pollutant Name and ID																										
Source ID	Description	Assigned Average Speed km/hr	Assigned Average Speed (mph)	Vehicle Distribution	MOVES Generic Link ID	PM	PM10	PM2.5	Carbon Monoxide	Sulphur dioxide (SO_2)	Non-methane hydrocarbons	Oxides of Nitrogen (NOx)	1,3-Butadiene	Acenaphthene	Acenaphthylene	Acetaldehyde	Acrolein	Anthracene	Benzene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(g,h,i)perylene	Chrysene	Fluoranthene	Fluorene	Formaldehyde	Phenanthrene	Pyrene	CO2 Equivalent
						PM	PM10	PM2.5	2	31	Non-methane	3	24	Acenaphthene	Acenaphthylene	26	27	Anthracene	20	Benzo(a)anthrac	Benzo(a)pyrene	Benzo(b)fluoranthe	Benzo(k)fluoranthen	Benzo(g,h,i)peryl	Chrysene	Fluoranthene	Fluorene	25	Phenanthrene	Pyrene	CO2 Equivalent
JANUARY																																
R1	Main Access Road from Mill to Highway 17 (6.4 km)	50	31.1	87% Passenger Truck, 12% Heavy Truck, 1% Bus - 50 km/hr	1	2.0E-01	2.0E-01	1.2E-01	2.0E+00	6.5E-03	1.8E-01	2.5E+00	5.7E-04	5.7E-05	9.6E-05	8.4E-03	1.5E-03	5.2E-05	1.8E-03	2.2E-05	5.2E-06	1.6E-06	2.2E-07	4.2E-07	1.2E-05	9.5E-05	1.1E-04	2.0E-02	1.8E-04	1.2E-04	7.8E+02
R6A	Peninsula Road - Highway to Industrial Park Road (2.0 km)	80	49.7	85% Passenger Car, 6% Passenger Truck, 3% Heavy Truck, 1% Bus, 5% Medium Truck - 80 km/hr	2	5.8E-02	5.8E-02	3.4E-02	1.7E+00	2.8E-03	9.0E-02	6.9E-01	1.7E-04	1.3E-05	2.3E-05	1.8E-03	3.1E-04	1.2E-05	1.0E-03	6.6E-06	4.8E-06	2.2E-06	1.8E-06	9.7E-06	4.1E-06	2.2E-05	2.4E-05	4.1E-03	4.2E-05	2.8E-05	3.5E+02
R6B	Peninsula Road - Industrial Park Road to Penn Lake Road (1.9 km)	60	37.3	85% Passenger Car, 6% Passenger Truck, 3% Heavy Truck, 1% Bus, 5% Medium Truck - 60 km/hr	3	8.8E-02	8.8E-02	4.3E-02	2.1E+00	3.1E-03	1.0E-01	7.6E-01	2.0E-04	1.5E-05	2.8E-05	2.2E-03	3.7E-04	1.4E-05	1.2E-03	8.5E-06	5.6E-06	2.5E-06	2.0E-06	1.0E-05	5.3E-06	2.8E-05	3.0E-05	4.9E-03	5.2E-05	3.6E-05	3.9E+02
R6C	Peninsula Road - Penn Lake Road to Hemlo Drive (0.6 m)	50	31.1	85% Passenger Car, 6% Passenger Truck, 3% Heavy Truck, 1% Bus, 5% Medium Truck - 50 km/hr	4	1.1E-01	1.1E-01	5.3E-02	2.4E+00	3.4E-03	1.1E-01	8.7E-01	2.3E-04	1.7E-05	3.1E-05	2.4E-03	4.1E-04	1.6E-05	1.3E-03	9.5E-06	6.1E-06	2.7E-06	2.1E-06	1.1E-05	5.9E-06	3.1E-05	3.3E-05	5.4E-03	5.8E-05	4.0E-05	4.2E+02
R6D	Peninsula Road - Hemlo Drive to Sund Crescent (0.6 m)	40	24.9	89% Passenger Car, 2% Passenger Truck, 3% Heavy Truck, 1% Bus, 5% Medium Truck - 40 km/hr	5	1.4E-01	1.4E-01	5.9E-02	2.6E+00	3.6E-03	1.2E-01	8.8E-01	2.5E-04	1.8E-05	3.3E-05	2.5E-03	4.2E-04	1.7E-05	1.5E-03	1.1E-05	7.1E-06	3.1E-06	2.5E-06	1.3E-05	6.8E-06	3.5E-05	3.5E-05	5.6E-03	6.2E-05	4.4E-05	4.5E+02
R6E	Peninsula Road - Sund Crescent to Steven's Avenue (0.2 m)	40	24.9	89% Passenger Car, 2% Passenger Truck, 3% Heavy Truck, 1% Bus, 5% Medium Truck - 40 km/hr	5	1.4E-01	1.4E-01	5.9E-02	2.6E+00	3.6E-03	1.2E-01	8.8E-01	2.5E-04	1.8E-05	3.3E-05	2.5E-03	4.2E-04	1.7E-05	1.5E-03	1.1E-05	7.1E-06	3.1E-06	2.5E-06	1.3E-05	6.8E-06	3.5E-05	3.5E-05	5.6E-03	6.2E-05	4.4E-05	4.5E+02
R6F	Steven's Avenue - Steven's Avenue to Rail Loadout Location 2 (0.8 m)	50	31.1	91% Passenger Car, 3% Heavy Truck, 1% Bus, 5% Medium Truck - 50 km/hr	6	1.1E-01	1.1E-01	5.1E-02	2.4E+00	3.2E-03	1.1E-01	8.1E-01	2.1E-04	1.4E-05	2.7E-05	2.0E-03	3.4E-04	1.4E-05	1.3E-03	8.9E-06	6.2E-06	2.8E-06	2.3E-06	1.2E-05	5.6E-06	2.8E-05	2.8E-05	4.5E-03	5.0E-05	3.5E-05	4.0E+02
JULY																																
R1	Main Access Road from Mill to Highway 17 (6.4 km)	50	31.1	87% Passenger Truck, 12% Heavy Truck, 1% Bus - 50 km/hr	1	2.0E-01	2.0E-01	1.2E-01	2.0E+00	6.5E-03	1.8E-01	2.2E+00	5.7E-04	5.7E-05	9.6E-05	8.4E-03	1.5E-03	5.2E-05	1.8E-03	2.2E-05	5.2E-06	1.6E-06	2.2E-07	4.2E-07	1.2E-05	9.5E-05	1.1E-04	2.0E-02	1.8E-04	1.2E-04	7.8E+02
R6A	Peninsula Road - Highway to Industrial Park Road (2.0 km)	80	49.7	85% Passenger Car, 6% Passenger Truck, 3% Heavy Truck, 1% Bus, 5% Medium Truck - 80 km/hr	2	5.3E-02	5.3E-02	3.0E-02	1.7E+00	2.8E-03	9.0E-02	6.1E-01	1.7E-04	1.3E-05	2.3E-05	1.8E-03	3.1E-04	1.2E-05	1.0E-03	5.8E-06	2.8E-06	1.2E-06	8.5E-07	4.2E-06	3.4E-06	2.2E-05	2.4E-05	4.1E-03	4.2E-05	2.8E-05	3.5E+02
R6B	Peninsula Road - Industrial Park Road to Penn Lake Road (1.9 km)	60	37.3	85% Passenger Car, 6% Passenger Truck, 3% Heavy Truck, 1% Bus, 5% Medium Truck - 60 km/hr	3	8.3E-02	8.3E-02	3.9E-02	2.1E+00	3.1E-03	1.0E-01	6.7E-01	2.0E-04	1.5E-05	2.8E-05	2.2E-03	3.7E-04	1.4E-05	1.2E-03	7.6E-06	3.4E-06	1.4E-06	9.4E-07	4.5E-06	4.5E-06	2.8E-05	3.0E-05	4.9E-03	5.2E-05	3.5E-05	3.9E+02
R6C	Peninsula Road - Penn Lake Road to Hemlo Drive (0.6 m)	50	31.1	85% Passenger Car, 6% Passenger Truck, 3% Heavy Truck, 1% Bus, 5% Medium Truck - 50 km/hr	4	1.1E-01	1.1E-01	4.9E-02	2.4E+00	3.4E-03	1.1E-01	7.6E-01	2.3E-04	1.7E-05	3.1E-05	2.4E-03	4.1E-04	1.6E-05	1.3E-03	8.6E-06	3.8E-06	1.5E-06	9.9E-07	4.7E-06	5.1E-06	3.1E-05	3.3E-05	5.4E-03	5.8E-05	4.0E-05	4.2E+02
R6D	Peninsula Road - Hemlo Drive to Sund Crescent (0.6 m)	40	24.9	89% Passenger Car, 2% Passenger Truck, 3% Heavy Truck, 1% Bus, 5% Medium Truck - 40 km/hr	5	1.3E-01	1.3E-01	5.4E-02	2.6E+00	3.6E-03	1.2E-01	7.7E-01	2.5E-04	1.8E-05	3.3E-05	2.5E-03	4.2E-04	1.7E-05	1.5E-03	9.9E-06	4.4E-06	1.8E-06	1.2E-06	5.4E-06	5.9E-06	3.4E-05	3.5E-05	5.6E-03	6.2E-05	4.4E-05	4.5E+02
R6E	Peninsula Road - Sund Crescent to Steven's Avenue (0.2 m)	40	24.9	89% Passenger Car, 2% Passenger Truck, 3% Heavy Truck, 1% Bus, 5% Medium Truck - 40 km/hr	5	1.3E-01	1.3E-01	5.4E-02	2.6E+00	3.6E-03	1.2E-01	7.7E-01	2.5E-04	1.8E-05	3.3E-05	2.5E-03	4.2E-04	1.7E-05	1.5E-03	9.9E-06	4.4E-06	1.8E-06	1.2E-06	5.4E-06	5.9E-06	3.4E-05	3.5E-05	5.6E-03	6.2E-05	4.4E-05	4.5E+02
R6F	Steven's Avenue - Steven's Avenue to Rail Loadout Location 2 (0.8 m)	50	31.1	91% Passenger Car, 3% Heavy Truck, 1% Bus, 5% Medium Truck - 50 km/hr	6	1.1E-01	1.1E-01	4.7E-02	2.4E+00	3.2E-03	1.1E-01	7.1E-01	2.1E-04	1.4E-05	2.7E-05	2.0E-03	3.4E-04	1.4E-05	1.3E-03	7.9E-06	3.7E-06	1.5E-06	1.0E-06	5.0E-06	4.7E-06	2.7E-05	2.8E-05	4.5E-03	5.0E-05	3.5E-05	4.0E+02

Supporting Information for Emission Calculations
Generation PGM - Mobile Emissions

Emissions from On-Road Tailpipe

Source: On-Road Vehicle Emissions during Operation

Description:
On-road vehicle tailpipe emissions due to fuel combustion from road traffic during the operation of the Project during year 2.
Traffic emissions from the following roads are evaluated during operation. Location and traffic data are also listed below.
Daily Traffic Data:

Source ID	Source Description	Road Length (km)	Baseline Traffic Data			Expected Annual Traffic Increase[3]	Project + Baseline Traffic Volume for 2021			
			AADT[1]	Peak Hourly[2]	Traffic Count Year[1]		Daily On-Road Project Traffic[4]	Peak Hour On-Road Project Traffic[4]	AADT[5]	Peak[6]
R1	Main Access Road from Mill to Highway 17 (6.4 km)	6.4	-	-	2011	1%	324	144	-	-
R6A	Peninsula Road - Highway to Industrial Park Road (2.0 km)	2.0	3,017	166	2011	1%	220	110	3,333	183
R6B	Peninsula Road - Industrial Park Road to Penn Lake Road (1.9 km)	1.9	3,017	166	2011	1%	220	110	3,333	183
R6C	Peninsula Road - Penn Lake Road to Hemlo Drive (0.6 m)	0.6	3,017	166	2011	1%	220	110	3,333	183
R6D	Peninsula Road - Hemlo Drive to Sund Crescent (0.6 m)	0.6	10,000	552	2011	1%	220	110	11,046	610
R6E	Peninsula Road - Sund Crescent to Steven's Avenue (0.2 m)	0.2	8,850	487	2011	1%	220	110	9,776	538
R6F	Steven's Avenue - Steven's Avenue to Rail Loadout Location 2 (0.8 m)	1.0	700	39	2011	1%	-	-	773	43

Notes:
(1) Town of Marathon Traffic Count Survey 2011.
(2) Peak PM hourly data are used.
(3) Data assumed by the traffic team.
(4) On-Road Project Vehicles.
(5) Projected AADT for the year 2021.
(6) Projected peak hourly traffic count for the year 2021.

Contaminant(s) of Concern:
NOx, PM, CO, hydrocarbons, and SO_2 emissions are the contaminants of concern from fuel combustions in the mobile equipment engines. Primary speciated VOCs and a key PAH (Benzo(a) pyrene) are also included in the assessment.

Emission Calculations:

Methodology: U.S. EPA MOVES program

EPA's MOtor Vehicle Emission Simulator (MOVES) is a state-of-the-science emission modeling system that estimates emissions for mobile sources at the national, county, and project level for criteria pollutants, greenhouse gases, and air toxics. MOVES2014b project level is used in estimating the vehicle on-road emissions for the project.

Source: On-Road Vehicle Emissions during Operation

Emission Data for On-Road Vehicles - Daily:

Source ID	Contaminant	CAS#	Emission Factor[1] (g/VMT)	ADT[2]	Daily VMT	Emission Rate[3] (g/s)
R1	TSP	N/A (tsp)	2.01E-01	324	1,288	2.99E-03
R1	PM10	N/A (pm10)	2.01E-01			2.99E-03
R1	PM2.5	N/A (pm2.5)	1.20E-01			1.78E-03
R1	CO	630-08-0	2.01E+00			3.00E-02
R1	SO2	7446-09-5	6.52E-03			9.72E-05
R1	Non-methane hydrocarbons	N/A (NMHC)	1.83E-01			2.72E-03
R1	Nox	10102-44-0	2.51E+00			3.74E-02
R1	1,3-butadiene	106-99-0	5.69E-04			8.49E-06
R1	Acenaphthene	83-32-9	5.74E-05			8.56E-07
R1	Acenaphthylene	208-96-8	9.64E-05			1.44E-06
R1	Acetaldehyde	75-07-0	8.41E-03			1.25E-04
R1	Acrolein	107-02-8	1.49E-03			2.23E-05
R1	Anthracene	120-12-7	5.21E-05			7.77E-07
R1	Benzene	71-43-2	1.80E-03			2.68E-05
R1	Benzo(a)anthracene	56-55-3	2.20E-05			3.29E-07
R1	Benzo(a)pyrene	50-32-8	5.22E-06			7.78E-08
R1	Benzo(b)fluoranthene	205-99-2	1.56E-06			2.32E-08
R1	Benzo(k)fluoranthene	207-08-9	2.18E-07			3.26E-09
R1	Benzo(g,h,i)perylene	191-24-2	4.16E-07			6.20E-09
R1	Chrysene	218-01-9	1.20E-05			1.78E-07
R1	Fluoranthene	206-44-0	9.50E-05			1.42E-06
R1	Fluorene	86-73-7	1.08E-04			1.62E-06
R1	Formaldehyde	50-00-0	2.01E-02			3.00E-04
R1	Phenanthrene	85-01-8	1.84E-04			2.75E-06
R1	Pyrene	129-00-0	1.20E-04			1.79E-06
R1	CO2 Equivalent	N/A (CO2e)	7.82E+02			1.17E+01
R6A	TSP	N/A (tsp)	5.76E-02	3,553	4,415	2.94E-03
R6A	PM10	N/A (pm10)	5.76E-02			2.94E-03
R6A	PM2.5	N/A (pm2.5)	3.39E-02			1.73E-03
R6A	CO	630-08-0	1.74E+00			8.88E-02
R6A	SO2	7446-09-5	2.84E-03			1.45E-04
R6A	Non-methane hydrocarbons	N/A (NMHC)	8.96E-02			4.58E-03
R6A	Nox	10102-44-0	6.92E-01			3.54E-02
R6A	1,3-butadiene	106-99-0	1.71E-04			8.72E-06
R6A	Acenaphthene	83-32-9	1.26E-05			6.45E-07
R6A	Acenaphthylene	208-96-8	2.33E-05			1.19E-06
R6A	Acetaldehyde	75-07-0	1.80E-03			9.20E-05
R6A	Acrolein	107-02-8	3.08E-04			1.57E-05
R6A	Anthracene	120-12-7	1.18E-05			6.05E-07
R6A	Benzene	71-43-2	1.04E-03			5.31E-05
R6A	Benzo(a)anthracene	56-55-3	6.64E-06			3.39E-07
R6A	Benzo(a)pyrene	50-32-8	4.83E-06			2.47E-07
R6A	Benzo(b)fluoranthene	205-99-2	2.18E-06			1.11E-07
R6A	Benzo(k)fluoranthene	207-08-9	1.85E-06			9.43E-08
R6A	Benzo(g,h,i)perylene	191-24-2	9.67E-06			4.94E-07
R6A	Chrysene	218-01-9	4.13E-06			2.11E-07
R6A	Fluoranthene	206-44-0	2.23E-05			1.14E-06
R6A	Fluorene	86-73-7	2.42E-05			1.24E-06
R6A	Formaldehyde	50-00-0	4.07E-03			2.08E-04
R6A	Phenanthrene	85-01-8	4.23E-05			2.16E-06
R6A	Pyrene	129-00-0	2.82E-05			1.44E-06
R6A	CO2 Equivalent	N/A (CO2e)	3.54E+02			1.81E+01
R6B	TSP	N/A (tsp)	8.78E-02	3,553	4,194	4.26E-03
R6B	PM10	N/A (pm10)	8.78E-02			4.26E-03
R6B	PM2.5	N/A (pm2.5)	4.33E-02			2.10E-03
R6B	CO	630-08-0	2.09E+00			1.02E-01
R6B	SO2	7446-09-5	3.10E-03			1.50E-04
R6B	Non-methane hydrocarbons	N/A (NMHC)	1.03E-01			4.99E-03
R6B	Nox	10102-44-0	7.62E-01			3.70E-02
R6B	1,3-butadiene	106-99-0	2.05E-04			9.95E-06
R6B	Acenaphthene	83-32-9	1.51E-05			7.31E-07
R6B	Acenaphthylene	208-96-8	2.78E-05			1.35E-06
R6B	Acetaldehyde	75-07-0	2.16E-03			1.05E-04
R6B	Acrolein	107-02-8	3.69E-04			1.79E-05
R6B	Anthracene	120-12-7	1.45E-05			7.03E-07
R6B	Benzene	71-43-2	1.21E-03			5.88E-05
R6B	Benzo(a)anthracene	56-55-3	8.51E-06			4.13E-07
R6B	Benzo(a)pyrene	50-32-8	5.64E-06			2.74E-07
R6B	Benzo(b)fluoranthene	205-99-2	2.48E-06			1.20E-07
R6B	Benzo(k)fluoranthene	207-08-9	2.01E-06			9.78E-08
R6B	Benzo(g,h,i)perylene	191-24-2	1.04E-05			5.07E-07
R6B	Chrysene	218-01-9	5.26E-06			2.55E-07
R6B	Fluoranthene	206-44-0	2.80E-05			1.36E-06
R6B	Fluorene	86-73-7	2.95E-05			1.43E-06
R6B	Formaldehyde	50-00-0	4.88E-03			2.37E-04
R6B	Phenanthrene	85-01-8	5.19E-05			2.52E-06
R6B	Pyrene	129-00-0	3.57E-05			1.73E-06
R6B	CO2 Equivalent	N/A (CO2e)	3.86E+02			1.87E+01
R6C	TSP	N/A (tsp)	1.13E-01	3,553	1,325	1.73E-03
R6C	PM10	N/A (pm10)	1.13E-01			1.73E-03
R6C	PM2.5	N/A (pm2.5)	5.32E-02			8.15E-04
R6C	CO	630-08-0	2.39E+00			3.66E-02
R6C	SO2	7446-09-5	3.40E-03			5.21E-05
R6C	Non-methane hydrocarbons	N/A (NMHC)	1.12E-01			1.72E-03
R6C	Nox	10102-44-0	8.70E-01			1.33E-02
R6C	1,3-butadiene	106-99-0	2.29E-04			3.52E-06
R6C	Acenaphthene	83-32-9	1.68E-05			2.57E-07
R6C	Acenaphthylene	208-96-8	3.09E-05			4.73E-07
R6C	Acetaldehyde	75-07-0	2.40E-03			3.68E-05
R6C	Acrolein	107-02-8	4.10E-04			6.28E-06
R6C	Anthracene	120-12-7	1.62E-05			2.48E-07
R6C	Benzene	71-43-2	1.34E-03			2.05E-05
R6C	Benzo(a)anthracene	56-55-3	9.52E-06			1.46E-07
R6C	Benzo(a)pyrene	50-32-8	6.10E-06			9.35E-08
R6C	Benzo(b)fluoranthene	205-99-2	2.67E-06			4.09E-08
R6C	Benzo(k)fluoranthene	207-08-9	2.13E-06			3.27E-08
R6C	Benzo(g,h,i)perylene	191-24-2	1.10E-05			1.69E-07
R6C	Chrysene	218-01-9	5.87E-06			9.00E-08
R6C	Fluoranthene	206-44-0	3.14E-05			4.82E-07
R6C	Fluorene	86-73-7	3.30E-05			5.06E-07
R6C	Formaldehyde	50-00-0	5.42E-03			8.31E-05
R6C	Phenanthrene	85-01-8	5.80E-05			8.89E-07
R6C	Pyrene	129-00-0	4.01E-05			6.15E-07
R6C	CO2 Equivalent	N/A (CO2e)	4.22E+02			6.48E+00
R6D	TSP	N/A (tsp)	1.36E-01	11,266	4,200	6.62E-03
R6D	PM10	N/A (pm10)	1.36E-01			6.62E-03
R6D	PM2.5	N/A (pm2.5)	5.87E-02			2.85E-03
R6D	CO	630-08-0	2.56E+00			1.24E-01
R6D	SO2	7446-09-5	3.64E-03			1.77E-04
R6D	Non-methane hydrocarbons	N/A (NMHC)	1.24E-01			6.02E-03
R6D	Nox	10102-44-0	8.79E-01			4.27E-02
R6D	1,3-butadiene	106-99-0	2.53E-04			1.23E-05
R6D	Acenaphthene	83-32-9	1.75E-05			8.53E-07
R6D	Acenaphthylene	208-96-8	3.28E-05			1.59E-06
R6D	Acetaldehyde	75-07-0	2.50E-03			1.22E-04
R6D	Acrolein	107-02-8	4.25E-04			2.07E-05
R6D	Anthracene	120-12-7	1.74E-05			8.45E-07
R6D	Benzene	71-43-2	1.51E-03			7.35E-05
R6D	Benzo(a)anthracene	56-55-3	1.09E-05			5.32E-07
R6D	Benzo(a)pyrene	50-32-8	7.10E-06			3.45E-07
R6D	Benzo(b)fluoranthene	205-99-2	3.09E-06			1.50E-07
R6D	Benzo(k)fluoranthene	207-08-9	2.46E-06			1.20E-07
R6D	Benzo(g,h,i)perylene	191-24-2	1.27E-05			6.16E-07
R6D	Chrysene	218-01-9	6.80E-06			3.31E-07
R6D	Fluoranthene	206-44-0	3.45E-05			1.68E-06

Source: On-Road Vehicle Emissions during Operation

R6D	Fluorene	86-73-7	3.52E-05			1.71E-06
R6D	Formaldehyde	50-00-0	5.60E-03			2.72E-04
R6D	Phenanthrene	85-01-8	6.24E-05			3.04E-06
R6D	Pyrene	129-00-0	4.43E-05			2.16E-06
R6D	CO2 Equivalent	N/A (CO2e)	4.54E+02			2.21E+01
R6E	TSP	N/A (tsp)	1.36E-01	9,996	1,242	1.96E-03
R6E	PM10	N/A (pm10)	1.36E-01			1.96E-03
R6E	PM2.5	N/A (pm2.5)	5.87E-02			8.44E-04
R6E	CO	630-08-0	2.56E+00			3.68E-02
R6E	SO2	7446-09-5	3.64E-03			5.23E-05
R6E	Non-methane hydrocarbons	N/A (NMHC)	1.24E-01			1.78E-03
R6E	Nox	10102-44-0	8.79E-01			1.26E-02
R6E	1,3-butadiene	106-99-0	2.53E-04			3.64E-06
R6E	Acenaphthene	83-32-9	1.75E-05			2.52E-07
R6E	Acenaphthylene	208-96-8	3.28E-05			4.71E-07
R6E	Acetaldehyde	75-07-0	2.50E-03			3.60E-05
R6E	Acrolein	107-02-8	4.25E-04			6.11E-06
R6E	Anthracene	120-12-7	1.74E-05			2.50E-07
R6E	Benzene	71-43-2	1.51E-03			2.17E-05
R6E	Benzo(a)anthracene	56-55-3	1.09E-05			1.57E-07
R6E	Benzo(a)pyrene	50-32-8	7.10E-06			1.02E-07
R6E	Benzo(b)fluoranthene	205-99-2	3.09E-06			4.45E-08
R6E	Benzo(k)fluoranthene	207-08-9	2.46E-06			3.54E-08
R6E	Benzo(g,h,i)perylene	191-24-2	1.27E-05			1.82E-07
R6E	Chrysene	218-01-9	6.80E-06			9.78E-08
R6E	Fluoranthene	206-44-0	3.45E-05			4.96E-07
R6E	Fluorene	86-73-7	3.52E-05			5.07E-07
R6E	Formaldehyde	50-00-0	5.60E-03			8.05E-05
R6E	Phenanthrene	85-01-8	6.24E-05			8.98E-07
R6E	Pyrene	129-00-0	4.43E-05			6.38E-07
R6E	CO2 Equivalent	N/A (CO2e)	4.54E+02			6.53E+00
R6F	TSP	N/A (tsp)	1.10E-01	773	480	6.14E-04
R6F	PM10	N/A (pm10)	1.10E-01			6.14E-04
R6F	PM2.5	N/A (pm2.5)	5.14E-02			2.86E-04
R6F	CO	630-08-0	2.42E+00			1.35E-02
R6F	SO2	7446-09-5	3.24E-03			1.80E-05
R6F	Non-methane hydrocarbons	N/A (NMHC)	1.08E-01			6.01E-04
R6F	Nox	10102-44-0	8.10E-01			4.51E-03
R6F	1,3-butadiene	106-99-0	2.08E-04			1.16E-06
R6F	Acenaphthene	83-32-9	1.42E-05			7.89E-08
R6F	Acenaphthylene	208-96-8	2.68E-05			1.49E-07
R6F	Acetaldehyde	75-07-0	2.01E-03			1.12E-05
R6F	Acrolein	107-02-8	3.40E-04			1.89E-06
R6F	Anthracene	120-12-7	1.40E-05			7.78E-08
R6F	Benzene	71-43-2	1.31E-03			7.30E-06
R6F	Benzo(a)anthracene	56-55-3	8.86E-06			4.93E-08
R6F	Benzo(a)pyrene	50-32-8	6.23E-06			3.46E-08
R6F	Benzo(b)fluoranthene	205-99-2	2.76E-06			1.54E-08
R6F	Benzo(k)fluoranthene	207-08-9	2.27E-06			1.26E-08
R6F	Benzo(g,h,i)perylene	191-24-2	1.18E-05			6.54E-08
R6F	Chrysene	218-01-9	5.57E-06			3.10E-08
R6F	Fluoranthene	206-44-0	2.76E-05			1.54E-07
R6F	Fluorene	86-73-7	2.83E-05			1.57E-07
R6F	Formaldehyde	50-00-0	4.47E-03			2.48E-05
R6F	Phenanthrene	85-01-8	5.02E-05			2.79E-07
R6F	Pyrene	129-00-0	3.54E-05			1.97E-07
R6F	CO2 Equivalent	N/A (CO2e)	4.04E+02			2.25E+00

Notes:
(1) Emission factor data are produced by modelling using MOVES.
(2) Project + baseline traffic counts.
(3) Daily average emission rates.

Source: On-Road Vehicle Emissions during Operation

Emission Data for On-Road Vehicles - Hourly:

Source ID	Contaminant	CAS#	Emission Factor[1] (g/VMT)	Peak Hourly[2]	Hourly VMT	Hourly Emission Rate[3] (g/s)
R1	TSP	N/A (tsp)	2.01E-01			3.19E-02
R1	PM10	N/A (pm10)	2.01E-01			3.19E-02
R1	PM2.5	N/A (pm2.5)	1.20E-01			1.90E-02
R1	CO	630-08-0	2.01E+00			3.20E-01
R1	SO2	7446-09-5	6.52E-03			1.04E-03
R1	Non-methane hydrocarbons	N/A (NMHC)	1.83E-01			2.90E-02
R1	Nox	10102-44-0	2.51E+00			3.99E-01
R1	1,3-butadiene	106-99-0	5.69E-04			9.05E-05
R1	Acenaphthene	83-32-9	5.74E-05			9.13E-06
R1	Acenaphthylene	208-96-8	9.64E-05			1.53E-05
R1	Acetaldehyde	75-07-0	8.41E-03			1.34E-03
R1	Acrolein	107-02-8	1.49E-03			2.38E-04
R1	Anthracene	120-12-7	5.21E-05	144	573	8.29E-06
R1	Benzene	71-43-2	1.80E-03			2.86E-04
R1	Benzo(a)anthracene	56-55-3	2.20E-05			3.50E-06
R1	Benzo(a)pyrene	50-32-8	5.22E-06			8.30E-07
R1	Benzo(b)fluoranthene	205-99-2	1.56E-06			2.48E-07
R1	Benzo(k)fluoranthene	207-08-9	2.18E-07			3.48E-08
R1	Benzo(g,h,i)perylene	191-24-2	4.16E-07			6.61E-08
R1	Chrysene	218-01-9	1.20E-05			1.90E-06
R1	Fluoranthene	206-44-0	9.50E-05			1.51E-05
R1	Fluorene	86-73-7	1.08E-04			1.72E-05
R1	Formaldehyde	50-00-0	2.01E-02			3.20E-03
R1	Phenanthrene	85-01-8	1.84E-04			2.93E-05
R1	Pyrene	129-00-0	1.20E-04			1.91E-05
R1	CO2 Equivalent	N/A (CO2e)	7.82E+02			1.24E+02
R6A	TSP	N/A (tsp)	5.76E-02			5.84E-03
R6A	PM10	N/A (pm10)	5.76E-02			5.84E-03
R6A	PM2.5	N/A (pm2.5)	3.39E-02			3.43E-03
R6A	CO	630-08-0	1.74E+00			1.76E-01
R6A	SO2	7446-09-5	2.84E-03			2.88E-04
R6A	Non-methane hydrocarbons	N/A (NMHC)	8.96E-02			9.07E-03
R6A	Nox	10102-44-0	6.92E-01			7.01E-02
R6A	1,3-butadiene	106-99-0	1.71E-04			1.73E-05
R6A	Acenaphthene	83-32-9	1.26E-05			1.28E-06
R6A	Acenaphthylene	208-96-8	2.33E-05			2.36E-06
R6A	Acetaldehyde	75-07-0	1.80E-03			1.82E-04
R6A	Acrolein	107-02-8	3.08E-04			3.12E-05
R6A	Anthracene	120-12-7	1.18E-05	293	365	1.20E-06
R6A	Benzene	71-43-2	1.04E-03			1.05E-04
R6A	Benzo(a)anthracene	56-55-3	6.64E-06			6.72E-07
R6A	Benzo(a)pyrene	50-32-8	4.83E-06			4.89E-07
R6A	Benzo(b)fluoranthene	205-99-2	2.18E-06			2.20E-07
R6A	Benzo(k)fluoranthene	207-08-9	1.85E-06			1.87E-07
R6A	Benzo(g,h,i)perylene	191-24-2	9.67E-06			9.79E-07
R6A	Chrysene	218-01-9	4.13E-06			4.18E-07
R6A	Fluoranthene	206-44-0	2.23E-05			2.26E-06
R6A	Fluorene	86-73-7	2.42E-05			2.45E-06
R6A	Formaldehyde	50-00-0	4.07E-03			4.12E-04
R6A	Phenanthrene	85-01-8	4.23E-05			4.28E-06
R6A	Pyrene	129-00-0	2.82E-05			2.86E-06
R6A	CO2 Equivalent	N/A (CO2e)	3.54E+02			3.59E+01
R6B	TSP	N/A (tsp)	8.78E-02			8.44E-03
R6B	PM10	N/A (pm10)	8.78E-02			8.44E-03
R6B	PM2.5	N/A (pm2.5)	4.33E-02			4.17E-03
R6B	CO	630-08-0	2.09E+00			2.01E-01
R6B	SO2	7446-09-5	3.10E-03			2.98E-04
R6B	Non-methane hydrocarbons	N/A (NMHC)	1.03E-01			9.89E-03
R6B	Nox	10102-44-0	7.62E-01			7.33E-02
R6B	1,3-butadiene	106-99-0	2.05E-04			1.97E-05
R6B	Acenaphthene	83-32-9	1.51E-05			1.45E-06
R6B	Acenaphthylene	208-96-8	2.78E-05			2.67E-06
R6B	Acetaldehyde	75-07-0	2.16E-03			2.08E-04
R6B	Acrolein	107-02-8	3.69E-04			3.55E-05
R6B	Anthracene	120-12-7	1.45E-05	293	346	1.39E-06
R6B	Benzene	71-43-2	1.21E-03			1.17E-04
R6B	Benzo(a)anthracene	56-55-3	8.51E-06			8.18E-07
R6B	Benzo(a)pyrene	50-32-8	5.64E-06			5.42E-07
R6B	Benzo(b)fluoranthene	205-99-2	2.48E-06			2.39E-07
R6B	Benzo(k)fluoranthene	207-08-9	2.01E-06			1.94E-07
R6B	Benzo(g,h,i)perylene	191-24-2	1.04E-05			1.01E-06
R6B	Chrysene	218-01-9	5.26E-06			5.06E-07
R6B	Fluoranthene	206-44-0	2.80E-05			2.69E-06
R6B	Fluorene	86-73-7	2.95E-05			2.84E-06
R6B	Formaldehyde	50-00-0	4.88E-03			4.70E-04
R6B	Phenanthrene	85-01-8	5.19E-05			4.99E-06
R6B	Pyrene	129-00-0	3.57E-05			3.44E-06
R6B	CO2 Equivalent	N/A (CO2e)	3.86E+02			3.71E+01
R6C	TSP	N/A (tsp)	1.13E-01			3.42E-03
R6C	PM10	N/A (pm10)	1.13E-01			3.42E-03
R6C	PM2.5	N/A (pm2.5)	5.32E-02			1.62E-03
R6C	CO	630-08-0	2.39E+00			7.25E-02
R6C	SO2	7446-09-5	3.40E-03			1.03E-04
R6C	Non-methane hydrocarbons	N/A (NMHC)	1.12E-01			3.41E-03
R6C	Nox	10102-44-0	8.70E-01			2.64E-02
R6C	1,3-butadiene	106-99-0	2.29E-04			6.97E-06
R6C	Acenaphthene	83-32-9	1.68E-05			5.09E-07
R6C	Acenaphthylene	208-96-8	3.09E-05			9.38E-07
R6C	Acetaldehyde	75-07-0	2.40E-03			7.29E-05
R6C	Acrolein	107-02-8	4.10E-04			1.25E-05
R6C	Anthracene	120-12-7	1.62E-05	293	109	4.92E-07
R6C	Benzene	71-43-2	1.34E-03			4.06E-05
R6C	Benzo(a)anthracene	56-55-3	9.52E-06			2.89E-07
R6C	Benzo(a)pyrene	50-32-8	6.10E-06			1.85E-07
R6C	Benzo(b)fluoranthene	205-99-2	2.67E-06			8.10E-08
R6C	Benzo(k)fluoranthene	207-08-9	2.13E-06			6.48E-08
R6C	Benzo(g,h,i)perylene	191-24-2	1.10E-05			3.35E-07
R6C	Chrysene	218-01-9	5.87E-06			1.78E-07
R6C	Fluoranthene	206-44-0	3.14E-05			9.54E-07
R6C	Fluorene	86-73-7	3.30E-05			1.00E-06
R6C	Formaldehyde	50-00-0	5.42E-03			1.65E-04
R6C	Phenanthrene	85-01-8	5.80E-05			1.76E-06
R6C	Pyrene	129-00-0	4.01E-05			1.22E-06
R6C	CO2 Equivalent	N/A (CO2e)	4.22E+02			1.28E+01
R6D	TSP	N/A (tsp)	1.36E-01			1.01E-02
R6D	PM10	N/A (pm10)	1.36E-01			1.01E-02
R6D	PM2.5	N/A (pm2.5)	5.87E-02			4.38E-03
R6D	CO	630-08-0	2.56E+00			1.91E-01
R6D	SO2	7446-09-5	3.64E-03			2.71E-04
R6D	Non-methane hydrocarbons	N/A (NMHC)	1.24E-01			9.22E-03
R6D	Nox	10102-44-0	8.79E-01			6.55E-02
R6D	1,3-butadiene	106-99-0	2.53E-04			1.89E-05
R6D	Acenaphthene	83-32-9	1.75E-05			1.31E-06
R6D	Acenaphthylene	208-96-8	3.28E-05			2.44E-06
R6D	Acetaldehyde	75-07-0	2.50E-03			1.86E-04
R6D	Acrolein	107-02-8	4.25E-04			3.17E-05
R6D	Anthracene	120-12-7	1.74E-05	720	268	1.30E-06
R6D	Benzene	71-43-2	1.51E-03			1.13E-04
R6D	Benzo(a)anthracene	56-55-3	1.09E-05			8.15E-07
R6D	Benzo(a)pyrene	50-32-8	7.10E-06			5.29E-07
R6D	Benzo(b)fluoranthene	205-99-2	3.09E-06			2.31E-07
R6D	Benzo(k)fluoranthene	207-08-9	2.46E-06			1.83E-07
R6D	Benzo(g,h,i)perylene	191-24-2	1.27E-05			9.44E-07
R6D	Chrysene	218-01-9	6.80E-06			5.07E-07
R6D	Fluoranthene	206-44-0	3.45E-05			2.57E-06

Source: On-Road Vehicle Emissions during Operation

R6D	Fluorene	86-73-7	3.52E-05			2.63E-06
R6D	Formaldehyde	50-00-0	5.60E-03			4.17E-04
R6D	Phenanthrene	85-01-8	6.24E-05			4.65E-06
R6D	Pyrene	129-00-0	4.43E-05			3.31E-06
R6D	CO2 Equivalent	N/A (CO2e)	4.54E+02			3.38E+01
R6E	TSP	N/A (tsp)	1.36E-01	648	81	3.05E-03
R6E	PM10	N/A (pm10)	1.36E-01			3.05E-03
R6E	PM2.5	N/A (pm2.5)	5.87E-02			1.31E-03
R6E	CO	630-08-0	2.56E+00			5.72E-02
R6E	SO2	7446-09-5	3.64E-03			8.13E-05
R6E	Non-methane hydrocarbons	N/A (NMHC)	1.24E-01			2.77E-03
R6E	Nox	10102-44-0	8.79E-01			1.97E-02
R6E	1,3-butadiene	106-99-0	2.53E-04			5.66E-06
R6E	Acenaphthene	83-32-9	1.75E-05			3.93E-07
R6E	Acenaphthylene	208-96-8	3.28E-05			7.33E-07
R6E	Acetaldehyde	75-07-0	2.50E-03			5.59E-05
R6E	Acrolein	107-02-8	4.25E-04			9.50E-06
R6E	Anthracene	120-12-7	1.74E-05			3.89E-07
R6E	Benzene	71-43-2	1.51E-03			3.38E-05
R6E	Benzo(a)anthracene	56-55-3	1.09E-05			2.45E-07
R6E	Benzo(a)pyrene	50-32-8	7.10E-06			1.59E-07
R6E	Benzo(b)fluoranthene	205-99-2	3.09E-06			6.92E-08
R6E	Benzo(k)fluoranthene	207-08-9	2.46E-06			5.50E-08
R6E	Benzo(g,h,i)perylene	191-24-2	1.27E-05			2.83E-07
R6E	Chrysene	218-01-9	6.80E-06			1.52E-07
R6E	Fluoranthene	206-44-0	3.45E-05			7.72E-07
R6E	Fluorene	86-73-7	3.52E-05			7.88E-07
R6E	Formaldehyde	50-00-0	5.60E-03			1.25E-04
R6E	Phenanthrene	85-01-8	6.24E-05			1.40E-06
R6E	Pyrene	129-00-0	4.43E-05			9.92E-07
R6E	CO2 Equivalent	N/A (CO2e)	4.54E+02			1.02E+01
R6F	TSP	N/A (tsp)	1.10E-01	43	27	8.21E-04
R6F	PM10	N/A (pm10)	1.10E-01			8.21E-04
R6F	PM2.5	N/A (pm2.5)	5.14E-02			3.82E-04
R6F	CO	630-08-0	2.42E+00			1.80E-02
R6F	SO2	7446-09-5	3.24E-03			2.41E-05
R6F	Non-methane hydrocarbons	N/A (NMHC)	1.08E-01			8.04E-04
R6F	Nox	10102-44-0	8.10E-01			6.03E-03
R6F	1,3-butadiene	106-99-0	2.08E-04			1.55E-06
R6F	Acenaphthene	83-32-9	1.42E-05			1.06E-07
R6F	Acenaphthylene	208-96-8	2.68E-05			1.99E-07
R6F	Acetaldehyde	75-07-0	2.01E-03			1.50E-05
R6F	Acrolein	107-02-8	3.40E-04			2.53E-06
R6F	Anthracene	120-12-7	1.40E-05			1.04E-07
R6F	Benzene	71-43-2	1.31E-03			9.76E-06
R6F	Benzo(a)anthracene	56-55-3	8.86E-06			6.59E-08
R6F	Benzo(a)pyrene	50-32-8	6.23E-06			4.63E-08
R6F	Benzo(b)fluoranthene	205-99-2	2.76E-06			2.06E-08
R6F	Benzo(k)fluoranthene	207-08-9	2.27E-06			1.69E-08
R6F	Benzo(g,h,i)perylene	191-24-2	1.18E-05			8.75E-08
R6F	Chrysene	218-01-9	5.57E-06			4.14E-08
R6F	Fluoranthene	206-44-0	2.76E-05			2.05E-07
R6F	Fluorene	86-73-7	2.83E-05			2.11E-07
R6F	Formaldehyde	50-00-0	4.47E-03			3.32E-05
R6F	Phenanthrene	85-01-8	5.02E-05			3.73E-07
R6F	Pyrene	129-00-0	3.54E-05			2.63E-07
R6F	CO2 Equivalent	N/A (CO2e)	4.04E+02			3.00E+00

Notes:
(1) Emission factor data are produced by modelling using MOVES.
(2) Project + baseline traffic counts.
(3) Peak hour emissions rates.

Operating Condition, Individual Maximum Rates of Production:

The emission rate calculation for this source group includes baseline traffic data, Project traffic data, and assumed travelling speed. Meteorological data (temperature and humidity) in January and July are used in the model. The calculated emission rate should be conservative.

Supporting Information for Emission Calculations
Generation PGM - Mobile Emissions

Emissions from Non-Road Tailpipe - Criteria Air Contaminants and PAHs

Source : Combustion emissions from equipment and vehicles

Description:

Emissions due to fuel combustion in heavy equipment are calculated here. Individual equipment emissions are calculated and their emissions are added to their corresponding source.

Contaminant(s) of Concern:
CO, SO_2, Non-methane hydrocarbons, PAHs, VOCs, NOx, PM, PM_{10} and $PM_{2.5}$ emissions are the contaminants of concern.

Methodology: Exhaust Emission standards (EF/ MB)
Emissions are based on the regulated emissions from nonroad equipment. By the end of 2018, all engines will be required to meet the new Tier 4 standards. USEPA "Nonroad Compression-Ignition Engines- Exhaust Emission Standards". Where applicable, Tier 4 standards are used. For other contaminants such as VOCs/ PAHs, speciation profiles from the MOVES documentation "Speciation Profiles and Toxic Emission Factors for Non-road Engines" were applied to the total VOCs. VOCs were calculated based on the ratio of VOC/NMHC as provided in the MOVES documentation. Particulate PAHs speciation profiles were based on PM2.5 emissions

E=R*ES/3600
Where
E is the emission rate (g/s)
R is the equipment rating (kW)
ES is the emission standard dependant on the power rating of the equipment (g/kWhr)

				Range										
				1	2	3	4	5	6	7	8	9	10	11
Power Range (kW)	**Min**			**900**	**560**	**450**	**225**	**130**	**75**	**56**	**37**	**19**	**8**	
	Max				**900**	**560**	**450**	**225**	**130**	**75**	**56**	**37**	**19**	**8**
Exhaust Emission Standards (Tier 4) (g/kWhr)[1]	**Non-methane hydrocarbons**			0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19
	NOx			3.5	3.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
	TSP			0.04	0.04	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.4	0.4
	CO			3.5	3.5	3.5	3.5	3.5	5	5	5	5.5	6.6	8
VOCs/ PAHs (g/kWhr) (Speciation profile from MOVES documentation)[3]	**VOC/ NMHC Ratio[2]**			1.3058	1.3058	1.3058	1.3058	1.3058	1.3058	1.3058	1.3058	1.3058	1.3058	1.3058
	VOCs			2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01
	1,3-Butadiene	**Gaseous**	0.0008	1.98E-04	1.98E-04	1.98E-04	1.98E-04	1.98E-04	1.98E-04	1.98E-04	1.98E-04	1.98E-04	1.98E-04	1.98E-04
	Acenaphthene	**Gaseous**	0.0000526	1.31E-05	1.31E-05	1.31E-05	1.31E-05	1.31E-05	1.31E-05	1.31E-05	1.31E-05	1.31E-05	1.31E-05	1.31E-05
	Acenaphthylene	**Gaseous**	0.0000853	2.12E-05	2.12E-05	2.12E-05	2.12E-05	2.12E-05	2.12E-05	2.12E-05	2.12E-05	2.12E-05	2.12E-05	2.12E-05
	Acetaldehyde	**Gaseous**	0.06934	1.72E-02	1.72E-02	1.72E-02	1.72E-02	1.72E-02	1.72E-02	1.72E-02	1.72E-02	1.72E-02	1.72E-02	1.72E-02
	Acrolein	**Gaseous**	0.00999	2.48E-03	2.48E-03	2.48E-03	2.48E-03	2.48E-03	2.48E-03	2.48E-03	2.48E-03	2.48E-03	2.48E-03	2.48E-03
		Gaseous	0.0000304	7.54E-06	7.54E-06	7.54E-06	7.54E-06	7.54E-06	7.54E-06	7.54E-06	7.54E-06	7.54E-06	7.54E-06	7.54E-06
		Particulate	0.0000265	1.06E-06	1.06E-06	5.30E-07	5.30E-07	5.30E-07	5.30E-07	5.30E-07	7.95E-07	7.95E-07	1.06E-05	1.06E-05
	Anthracene	**Total**		8.60E-06	8.60E-06	8.07E-06	8.07E-06	8.07E-06	8.07E-06	8.07E-06	8.34E-06	8.34E-06	1.81E-05	1.81E-05
	Benzene	**Gaseous**	0.01291	3.20E-03	3.20E-03	3.20E-03	3.20E-03	3.20E-03	3.20E-03	3.20E-03	3.20E-03	3.20E-03	3.20E-03	3.20E-03
		Gaseous	0.0000003	7.44E-08	7.44E-08	7.44E-08	7.44E-08	7.44E-08	7.44E-08	7.44E-08	7.44E-08	7.44E-08	7.44E-08	7.44E-08
		Particulate	0.0000008	3.20E-08	3.20E-08	1.60E-08	1.60E-08	1.60E-08	1.60E-08	1.60E-08	2.40E-08	2.40E-08	3.20E-07	3.20E-07
	Benzo(a)anthracene	**Total**		1.06E-07	1.06E-07	9.04E-08	9.04E-08	9.04E-08	9.04E-08	9.04E-08	9.84E-08	9.84E-08	3.94E-07	3.94E-07
	Benzo(a)pyrene	**Particulate**	0.0000033	1.32E-07	1.32E-07	6.60E-08	6.60E-08	6.60E-08	6.60E-08	6.60E-08	9.90E-08	9.90E-08	1.32E-06	1.32E-06
	Benzo(b)fluoranthene	**Particulate**	0.0000014	5.60E-08	5.60E-08	2.80E-08	2.80E-08	2.80E-08	2.80E-08	2.80E-08	4.20E-08	4.20E-08	5.60E-07	5.60E-07
	Benzo(k)fluoranthene	**Particulate**	0.0000014	5.60E-08	5.60E-08	2.80E-08	2.80E-08	2.80E-08	2.80E-08	2.80E-08	4.20E-08	4.20E-08	5.60E-07	5.60E-07
		Gaseous	0.0000002	4.96E-08	4.96E-08	4.96E-08	4.96E-08	4.96E-08	4.96E-08	4.96E-08	4.96E-08	4.96E-08	4.96E-08	4.96E-08
		Particulate	0.0000002	8.00E-09	8.00E-09	4.00E-09	4.00E-09	4.00E-09	4.00E-09	4.00E-09	6.00E-09	6.00E-09	8.00E-08	8.00E-08
	Benzo(g,h,i)perylene	**Total**		5.76E-08	5.76E-08	5.36E-08	5.36E-08	5.36E-08	5.36E-08	5.36E-08	5.56E-08	5.56E-08	1.30E-07	1.30E-07
		Gaseous	0.0000005	1.24E-07	1.24E-07	1.24E-07	1.24E-07	1.24E-07	1.24E-07	1.24E-07	1.24E-07	1.24E-07	1.24E-07	1.24E-07
		Particulate	0.0000025	1.00E-07	1.00E-07	5.00E-08	5.00E-08	5.00E-08	5.00E-08	5.00E-08	7.50E-08	7.50E-08	1.00E-06	1.00E-06
	Chrysene	**Total**		2.24E-07	2.24E-07	1.74E-07	1.74E-07	1.74E-07	1.74E-07	1.74E-07	1.99E-07	1.99E-07	1.12E-06	1.12E-06
		Gaseous	0.0000457	1.13E-05	1.13E-05	1.13E-05	1.13E-05	1.13E-05	1.13E-05	1.13E-05	1.13E-05	1.13E-05	1.13E-05	1.13E-05
		Particulate	0.0000487	1.95E-06	1.95E-06	9.74E-07	9.74E-07	9.74E-07	9.74E-07	9.74E-07	1.46E-06	1.46E-06	1.95E-05	1.95E-05
	Fluoranthene	**Total**		1.33E-05	1.33E-05	1.23E-05	1.23E-05	1.23E-05	1.23E-05	1.23E-05	1.28E-05	1.28E-05	3.08E-05	3.08E-05
		Gaseous	0.000196	4.86E-05	4.86E-05	4.86E-05	4.86E-05	4.86E-05	4.86E-05	4.86E-05	4.86E-05	4.86E-05	4.86E-05	4.86E-05
		Particulate	0.0000538	2.15E-06	2.15E-06	1.08E-06	1.08E-06	1.08E-06	1.08E-06	1.08E-06	1.61E-06	1.61E-06	2.15E-05	2.15E-05
	Fluorene	**Total**		5.08E-05	5.08E-05	4.97E-05	4.97E-05	4.97E-05	4.97E-05	4.97E-05	5.02E-05	5.02E-05	7.01E-05	7.01E-05
	Formaldehyde	**Gaseous**	0.21744	5.39E-02	5.39E-02	5.39E-02	5.39E-02	5.39E-02	5.39E-02	5.39E-02	5.39E-02	5.39E-02	5.39E-02	5.39E-02
		Gaseous	0.000851	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04
		Particulate	0.000429	1.72E-05	1.72E-05	8.58E-06	8.58E-06	8.58E-06	8.58E-06	8.58E-06	1.29E-05	1.29E-05	1.72E-04	1.72E-04
	Phenanthrene	**Total**		2.28E-04	2.28E-04	2.20E-04	2.20E-04	2.20E-04	2.20E-04	2.20E-04	2.24E-04	2.24E-04	3.83E-04	3.83E-04
		Gaseous	0.0000379	9.40E-06	9.40E-06	9.40E-06	9.40E-06	9.40E-06	9.40E-06	9.40E-06	9.40E-06	9.40E-06	9.40E-06	9.40E-06
		Particulate	0.0000467	1.87E-06	1.87E-06	9.34E-07	9.34E-07	9.34E-07	9.34E-07	9.34E-07	1.40E-06	1.40E-06	1.87E-05	1.87E-05
	Pyrene	**Total**		1.13E-05	1.13E-05	1.03E-05	1.03E-05	1.03E-05	1.03E-05	1.03E-05	1.08E-05	1.08E-05	2.81E-05	2.81E-05

Note:
1 - NMHC and NOx emission stardards for range 7 is applied to ranges 8 - 11 as a surrogate.
2 - Ratio from MOVES documentation US EPA, "Speciation Profiles and Toxic Emission Factors for Non-road Engines". July 2018
3 - Speciation profile in MOVES documentation US EPA, "Speciation Profiles and Toxic Emission Factors for Non-road Engines". July 2018. multiplied by VOC emission factor. Particulate PAHs multiplied by PM2.5 emission factor - conservatively assume PM2.5=PM

Sample Calculation Pyrene (>900kW engine)

VOC emission factor (g/kWh) = NMHC emission factor x VOC/NMHC ratio = 0.19 x 1.3058 =	2.48E-01	g/kWh
Gaseous pyrene emission factor (g/kWh) = VOC emission factor x PAH/VOC ratio = 0.248102 x 0.0000379 =	9.40E-06	g/kWh
Particulate pyrene emission factor (g/kWh) = PM2.5 emission factor x PAH/ particulate ratio = 0.0000467 x 0.04 =	1.87E-06	g/kWh
Pyrene emission factor (g/kWh) = particulate pyrene emission factor + gaseous particulate emission factor = 9.4E-06+ 7.87E-06 =	1.13E-05	g/kWh

Supporting Information for Emission Calculations
Generation PGM - Mobile Emissions

SO_2 Emissions

Diesel Engine Efficiency	45%		"Just the basics: Diesel Energy". US department of energy
Lower Heating Value	132,680	btu/gal	"Alternative Fuels Data Center – Fuel Properties Comparison " from the US Department of Energy
Sulphur content in diesel	15	ppm	Highway, Nonroad, Locomotive, and Marine Diesel Fuel Sulfur Standards
	2.93E-04	kWh/Btu	Conversion
	454	g/lb	
Density of diesel	7.18	lb/gal	"Well-to-Wheels Analysis of future automotive fuels and powertrains in the European context"
Energy output	17.50	kWh/gal	Efficiency x LHV
SO2/ gallon of diesel	0.0978	gSO2/gal	Sulphur content x density x 2
Emissions per energy	0.0056	g/kWh	

Note: There are no exhaust emissions standards for SO_2. Emissions are calculated here dependant on US EPA "Highway, Nonroad, Locomotive, and Marine Diesel Fuel Sulfur Standards"

Equipment List	Rating (hp)	Rating (kW)	Average loading	Average Rating (kW)	Operations Quantity	Power Range	
Production Drill (6-10")	860	641	65%	417	4	2	
Auxiliary Pre-split Drill (4.5-8")	540	403	50%	201	4	4	
Diesel Hydraulic Shovel (34 m³)	3,000	2,237	60%	1,342	2	1	
Wheel Loader (30 m³)	2,000	1,491	39%	582	1	1	
Mining Haul Truck (240t)	2,650	1,976	40%	790	11	1	
Track Dozer (600 HP)	646	482	55%	265	4	3	
Motor Grader (18ft)	304	227	45%	102	2	4	
Water/Sand Truck (120kL tank)	1,016	758	50%	379	1	2	
Wheel Dozer (496 HP)	496	370	50%	185	1	4	
Excavator (49t)	417	311	50%	155	2	4	
Excavator (90t)	524	391	50%	195	1	4	
Emulsion Truck	350	261	45%	117	1	4	
Stemming Loader	96	72	45%	32	1	7	
Wheel Loader 271HP	271	202	40%	81	1	5	
Skid Steer Loader	74	55	45%	25	1	8	
Boom Truck 28t	300	224	45%	101	1	5	
Telehandler	135	101	35%	35	1	6	
Forklift Diesel 4t	60	45	35%	16	1	8	
Mechanic Service Truck	300	224	40%	89	3	5	
Tire Handler Truck	425	317	45%	143	1	4	
Fuel & Lube truck 10Wheel	350	261	45%	117	2	4	
Lube Truck	300	224	45%	101	1	5	
Truck Tractor for trailers	380	283	45%	128	1	4	
Pick-up Truck	-	-	-	-	-	-	pick-up truck is evaluated in the on-road emissions tab
Pit Bus	-	-	-	-	-	-	pit bus is evaluated in the on-road emissions tab
Mobile Air Compressor 185CFM	61	45	40%	18	1	8	
Welding Machine Diesel 400A	33	25	50%	12	2	9	
Light Plant	13	10	70%	7	10	10	
Genset 6kW	10	7	80%	6	3	11	
Genset 60kW	90	67	80%	54	1	7	
Water pump 3" - Gasoline	6	4	40%	2	4	11	
Water Pump 10in - Diesel	160	119	60%	72	2	6	
Diesel Powered Air Heaters	87	65	70%	45	2	7	
Concentrate Truck	489	365	40%	146	2	4	
Excavator (600hp)	600	447	50%	224	3	4	
Compactor	131	98	50%	49	2	6	
Dozer	850	634	55%	349	2	2	

Note:
The majority of the mobile equipment will not operate 24 hours/day. In addition, during the operating period, the mobile equipment will not run full load all the time. Therefore an average loading is assumed for the 24 hour period. For conservatism, all emission estimates are based on diesel fuel.

Supporting Information for Emission Calculations
Generation PGM - Mobile Emissions

Emissions for a single unit	Emissions (g/s) Non-methane hydrocarbons	NOx	TSP	CO	SO2	1,3-butadiene	Acenaphthene	Acenaphthylene	Acetaldehyde	Acrolein	Anthracene	Benzene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(g,h,i)perylene	Chrysene	Fluoranthene	Fluorene	Formaldehyde	Phenanthrene	Pyrene
Production Drill (6-10")	2.20E-02	4.05E-01	4.63E-03	4.05E-01	6.47E-04	2.30E-05	1.51E-06	2.45E-06	1.99E-03	2.87E-04	9.96E-07	3.71E-04	1.23E-08	1.53E-08	6.48E-09	6.48E-09	6.67E-09	2.59E-08	1.54E-06	5.88E-06	6.25E-03	2.64E-05	1.31E-06
Auxiliary Pre-split Drill (4.5-8")	1.06E-02	2.24E-02	1.12E-03	1.96E-01	3.13E-04	1.11E-05	7.30E-07	1.18E-06	9.62E-04	1.39E-04	4.51E-07	1.79E-04	5.06E-09	3.69E-09	1.57E-09	1.57E-09	3.00E-09	9.73E-09	6.89E-07	2.78E-06	3.02E-03	1.23E-05	5.78E-07
Diesel Hydraulic Shovel (34 m³)	7.08E-02	1.30E+00	1.49E-02	1.30E+00	2.08E-03	7.40E-05	4.87E-06	7.89E-06	6.41E-03	9.24E-04	3.21E-06	1.19E-03	3.97E-08	4.92E-08	2.09E-08	2.09E-08	2.15E-08	8.35E-08	4.95E-06	1.89E-05	2.01E-02	8.51E-05	4.20E-06
Wheel Loader (30 m³)	3.07E-02	5.65E-01	6.46E-03	5.65E-01	9.03E-04	3.21E-05	2.11E-06	3.42E-06	2.78E-03	4.00E-04	1.39E-06	5.18E-04	1.72E-08	2.13E-08	9.05E-09	9.05E-09	9.31E-09	3.62E-08	2.15E-06	8.20E-06	8.72E-03	3.69E-05	1.82E-06
Mining Haul Truck (240t)	4.17E-02	7.68E-01	8.78E-03	7.68E-01	1.23E-03	4.36E-05	2.87E-06	4.65E-06	3.78E-03	5.44E-04	1.89E-06	7.03E-04	2.34E-08	2.90E-08	1.23E-08	1.23E-08	1.27E-08	4.92E-08	2.92E-06	1.11E-05	1.18E-02	5.01E-05	2.47E-06
Track Dozer (600 HP)	1.40E-02	2.94E-02	1.47E-03	2.58E-01	4.11E-04	1.46E-05	9.60E-07	1.56E-06	1.27E-03	1.82E-04	5.94E-07	2.36E-04	6.66E-09	4.86E-09	2.06E-09	2.06E-09	3.95E-09	1.28E-08	9.06E-07	3.66E-06	3.97E-03	1.62E-05	7.61E-07
Motor Grader (18ft)	5.38E-03	1.13E-02	5.67E-04	9.92E-02	1.58E-04	5.62E-06	3.70E-07	6.00E-07	4.87E-04	7.02E-05	2.29E-07	9.08E-05	2.56E-09	1.87E-09	7.93E-10	7.93E-10	1.52E-09	4.93E-09	3.49E-07	1.41E-06	1.53E-03	6.23E-06	2.93E-07
Water/Sand Truck (120kL tank)	2.00E-02	3.68E-01	4.21E-03	3.68E-01	5.88E-04	2.09E-05	1.37E-06	2.23E-06	1.81E-03	2.61E-04	9.05E-07	3.37E-04	1.12E-08	1.39E-08	5.89E-09	5.89E-09	6.06E-09	2.36E-08	1.40E-06	5.34E-06	5.68E-03	2.40E-05	1.19E-06
Wheel Dozer (496 HP)	9.76E-03	2.05E-02	1.03E-03	1.80E-01	2.87E-04	1.02E-05	6.70E-07	1.09E-06	8.84E-04	1.27E-04	4.15E-07	1.65E-04	4.65E-09	3.39E-09	1.44E-09	1.44E-09	2.75E-09	8.94E-09	6.32E-07	2.55E-06	2.77E-03	1.13E-05	5.31E-07
Excavator (49t)	8.21E-03	1.73E-02	8.64E-04	1.51E-01	2.41E-04	8.57E-06	5.64E-07	9.14E-07	7.43E-04	1.07E-04	3.49E-07	1.38E-04	3.91E-09	2.85E-09	1.21E-09	1.21E-09	2.32E-09	7.52E-09	5.32E-07	2.15E-06	2.33E-03	9.49E-06	4.46E-07
Excavator (90t)	1.03E-02	2.17E-02	1.09E-03	1.90E-01	3.03E-04	1.08E-05	7.08E-07	1.15E-06	9.34E-04	1.35E-04	4.38E-07	1.74E-04	4.91E-09	3.58E-09	1.52E-09	1.52E-09	2.91E-09	9.45E-09	6.68E-07	2.70E-06	2.93E-03	1.19E-05	5.61E-07
Emulsion Truck	6.20E-03	1.30E-02	6.52E-04	1.14E-01	1.82E-04	6.48E-06	4.26E-07	6.90E-07	5.61E-04	8.09E-05	2.63E-07	1.04E-04	2.95E-09	2.15E-09	9.13E-10	9.13E-10	1.75E-09	5.68E-09	4.02E-07	1.62E-06	1.76E-03	7.17E-06	3.37E-07
Stemming Loader	1.70E-03	3.58E-03	1.79E-04	4.47E-02	5.00E-05	1.78E-06	1.17E-07	1.89E-07	1.54E-04	2.22E-05	7.22E-08	2.87E-05	8.09E-10	5.91E-10	2.51E-10	2.51E-10	4.80E-10	1.56E-09	1.10E-07	4.45E-07	4.83E-04	1.97E-06	9.25E-08
Wheel Loader 271HP	4.27E-03	8.98E-03	4.49E-04	7.86E-02	1.25E-04	4.46E-06	2.93E-07	4.75E-07	3.86E-04	5.57E-05	1.81E-07	7.19E-05	2.03E-09	1.48E-09	6.29E-10	6.29E-10	1.20E-09	3.91E-09	2.76E-07	1.12E-06	1.21E-03	4.93E-06	2.32E-07
Skid Steer Loader	1.31E-03	2.76E-03	2.07E-04	3.45E-02	3.85E-05	1.37E-06	9.00E-08	1.46E-07	1.19E-04	1.71E-05	5.75E-08	2.21E-05	6.79E-10	6.83E-10	2.90E-10	2.90E-10	3.84E-10	1.37E-09	8.83E-08	3.47E-07	3.72E-04	1.55E-06	7.45E-08
Boom Truck 28t	5.31E-03	1.12E-02	5.59E-04	9.79E-02	1.56E-04	5.55E-06	3.65E-07	5.92E-07	4.81E-04	6.93E-05	2.26E-07	8.96E-05	2.53E-09	1.85E-09	7.83E-10	7.83E-10	1.50E-09	4.87E-09	3.44E-07	1.39E-06	1.51E-03	6.14E-06	2.89E-07
Telehandler	1.86E-03	3.91E-03	1.96E-04	4.89E-02	5.47E-05	1.94E-06	1.28E-07	2.07E-07	1.68E-04	2.43E-05	7.90E-08	3.13E-05	8.85E-10	6.46E-10	2.74E-10	2.74E-10	5.25E-10	1.70E-09	1.21E-07	4.86E-07	5.28E-04	2.15E-06	1.01E-07
Forklift Diesel 4t	8.26E-04	1.74E-03	1.30E-04	2.17E-02	2.43E-05	8.63E-07	5.68E-08	9.21E-08	7.48E-05	1.08E-05	3.63E-08	1.39E-05	4.28E-10	4.31E-10	1.83E-10	1.83E-10	2.42E-10	8.66E-10	5.57E-08	2.19E-07	2.35E-04	9.74E-07	4.70E-08
Mechanic Service Truck	4.72E-03	9.94E-03	4.97E-04	8.70E-02	1.39E-04	4.93E-06	3.24E-07	5.26E-07	4.28E-04	6.16E-05	2.01E-07	7.96E-05	2.25E-09	1.64E-09	6.96E-10	6.96E-10	1.33E-09	4.33E-09	3.06E-07	1.24E-06	1.34E-03	5.46E-06	2.57E-07
Tire Handler Truck	7.53E-03	1.58E-02	7.92E-04	1.39E-01	2.21E-04	7.86E-06	5.17E-07	8.38E-07	6.82E-04	9.82E-05	3.20E-07	1.27E-04	3.58E-09	2.61E-09	1.11E-09	1.11E-09	2.12E-09	6.90E-09	4.88E-07	1.97E-06	2.14E-03	8.70E-06	4.10E-07
Fuel & Lube truck 10Wheel	6.20E-03	1.30E-02	6.52E-04	1.14E-01	1.82E-04	6.48E-06	4.26E-07	6.90E-07	5.61E-04	8.09E-05	2.63E-07	1.04E-04	2.95E-09	2.15E-09	9.13E-10	9.13E-10	1.75E-09	5.68E-09	4.02E-07	1.62E-06	1.76E-03	7.17E-06	3.37E-07
Lube Truck	5.31E-03	1.12E-02	5.59E-04	9.79E-02	1.56E-04	5.55E-06	3.65E-07	5.92E-07	4.81E-04	6.93E-05	2.26E-07	8.96E-05	2.53E-09	1.85E-09	7.83E-10	7.83E-10	1.50E-09	4.87E-09	3.44E-07	1.39E-06	1.51E-03	6.14E-06	2.89E-07
Truck Tractor for trailers	6.73E-03	1.42E-02	7.08E-04	1.24E-01	1.98E-04	7.03E-06	4.62E-07	7.50E-07	6.09E-04	8.78E-05	2.86E-07	1.13E-04	3.20E-09	2.34E-09	9.92E-10	9.92E-10	1.90E-09	6.17E-09	4.36E-07	1.76E-06	1.91E-03	7.78E-06	3.66E-07
Pick-up Truck	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pit Bus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mobile Air Compressor 185CFM	9.60E-04	2.02E-03	1.52E-04	2.53E-02	2.82E-05	1.00E-06	6.60E-08	1.07E-07	8.69E-05	1.25E-05	4.21E-08	1.62E-05	4.97E-10	5.00E-10	2.12E-10	2.12E-10	2.81E-10	1.01E-09	6.47E-08	2.54E-07	2.73E-04	1.13E-06	5.46E-08
Welding Machine Diesel 400A	6.49E-04	1.37E-03	1.03E-04	1.88E-02	1.91E-05	6.78E-07	4.46E-08	7.23E-08	5.88E-05	8.47E-06	2.85E-08	1.09E-05	3.36E-10	3.38E-10	1.44E-10	1.44E-10	1.90E-10	6.80E-10	4.37E-08	1.72E-07	1.84E-04	7.66E-07	3.69E-08
Light Plant	3.58E-04	7.54E-04	7.54E-04	1.24E-02	1.05E-05	3.74E-07	2.46E-08	3.99E-08	3.24E-05	4.67E-06	3.42E-08	6.04E-06	7.43E-10	2.49E-09	1.06E-09	1.06E-09	2.44E-10	2.12E-09	5.81E-08	1.32E-07	1.02E-04	7.21E-07	5.29E-08
Genset 6kW	3.15E-04	6.63E-04	6.63E-04	1.33E-02	9.26E-06	3.29E-07	2.16E-08	3.51E-08	2.85E-05	4.11E-06	3.01E-08	5.31E-06	6.54E-10	2.19E-09	9.28E-10	9.28E-10	2.15E-10	1.86E-09	5.11E-08	1.16E-07	8.94E-05	6.34E-07	4.65E-08
Genset 60kW	2.83E-03	5.97E-03	2.98E-04	7.46E-02	8.33E-05	2.96E-06	1.95E-07	3.16E-07	2.57E-04	3.70E-05	1.20E-07	4.78E-05	1.35E-09	9.84E-10	4.18E-10	4.18E-10	8.00E-10	2.60E-09	1.84E-07	7.41E-07	8.05E-04	3.28E-06	1.54E-07
Water pump 3" - Gasoline	8.66E-05	1.82E-04	1.82E-04	3.65E-03	2.55E-06	9.04E-08	5.95E-09	9.64E-09	7.84E-06	1.13E-06	8.27E-09	1.46E-06	1.80E-10	6.02E-10	2.55E-10	2.55E-10	5.91E-11	5.12E-10	1.40E-08	3.20E-08	2.46E-05	1.74E-07	1.28E-08
Water Pump 10in - Diesel	3.78E-03	7.95E-03	3.98E-04	9.94E-02	1.11E-04	3.95E-06	2.60E-07	4.21E-07	3.42E-04	4.93E-05	1.61E-07	6.37E-05	1.80E-09	1.31E-09	5.57E-10	5.57E-10	1.07E-09	3.46E-09	2.45E-07	9.88E-07	1.07E-03	4.37E-06	2.06E-07
Diesel Powered Air Heaters	2.40E-03	5.05E-03	2.52E-04	6.31E-02	7.05E-05	2.50E-06	1.65E-07	2.67E-07	2.17E-04	3.13E-05	1.02E-07	4.04E-05	1.14E-09	8.33E-10	3.53E-10	3.53E-10	6.76E-10	2.20E-09	1.55E-07	6.27E-07	6.81E-04	2.77E-06	1.30E-07
Concentrate Truck	7.70E-03	1.62E-02	8.10E-04	1.42E-01	2.26E-04	8.04E-06	5.29E-07	8.57E-07	6.97E-04	1.00E-04	3.27E-07	1.30E-04	3.66E-09	2.67E-09	1.13E-09	1.13E-09	2.17E-09	7.05E-09	4.99E-07	2.01E-06	2.19E-03	8.90E-06	4.19E-07
Excavator (600hp)	1.18E-02	2.49E-02	1.24E-03	2.17E-01	3.47E-04	1.23E-05	8.11E-07	1.32E-06	1.07E-03	1.54E-04	5.02E-07	1.99E-04	5.62E-09	4.10E-09	1.74E-09	1.74E-09	3.33E-09	1.08E-08	7.65E-07	3.09E-06	3.35E-03	1.37E-05	6.42E-07
Compactor	2.58E-03	5.43E-03	2.71E-04	6.78E-02	7.58E-05	2.69E-06	1.77E-07	2.87E-07	2.33E-04	3.36E-05	1.10E-07	4.35E-05	1.23E-09	8.95E-10	3.80E-10	3.80E-10	7.27E-10	2.36E-09	1.67E-07	6.74E-07	7.32E-04	2.98E-06	1.40E-07
Dozer	1.84E-02	3.39E-01	3.87E-03	3.39E-01	5.41E-04	1.92E-05	1.26E-06	2.05E-06	1.67E-03	2.40E-04	8.33E-07	3.10E-04	1.03E-08	1.28E-08	5.42E-09	5.42E-09	5.58E-09	2.17E-08	1.29E-06	4.92E-06	5.22E-03	2.21E-05	1.09E-06

	Total Number of Units	# of units at each source (Operations) M2C	M3B	M4E	M4F	M4G	M4H	M5B	M6B	M7	R1	R2	R3	R4	R5	R6A	R6B	R6C	R6D	R6E	R6F
Production Drill (6-10")	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Auxiliary Pre-split Drill (4.5-8")	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Diesel Hydraulic Shovel (34 m³)	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Wheel Loader (30 m³)	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mining Haul Truck (240t)	11	0	0	0	0	0	0	0	0	0	3	2	2	3	0	0	0	0	0	0	0
Track Dozer (600 HP)	4	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Motor Grader (18ft)	2	0	0	0	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0
Water/Sand Truck (120kL tank)	1	0	0	0	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0
Wheel Dozer (496 HP)	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Excavator (49t)	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Excavator (90t)	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Emulsion Truck	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Stemming Loader	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Wheel Loader 271HP	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Skid Steer Loader	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Boom Truck 28t	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Telehandler	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Forklift Diesel 4t	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Mechanic Service Truck	3	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0
Tire Handler Truck	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Fuel & Lube truck 10Wheel	2	0	0	0	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0
Lube Truck	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Truck Tractor for trailers	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Pick-up Truck	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pit Bus	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mobile Air Compressor 185CFM	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Welding Machine Diesel 400A	2	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
Light Plant	10	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0
Genset 6kW	3	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0
Genset 60kW	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Water pump 3" - Gasoline	4	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0
Water Pump 10in - Diesel	2	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
Diesel Powered Air Heaters	2	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
Concentrate Truck	2	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3	3	3	3	3
Excavator (600hp)	3	0	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Compactor	2	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dozer	2	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Note: Each column in this table represents a source in the emission inventory. After assigning equipment to each source, the emission rate for 1 equipment is multiplied by the number of equipment assigned to that source in the table below.

Supporting Information for Emission Calculations
Generation PGM - Mobile Emissions

Summary of Non-Road Mobile Emissions (Operations)

	(g/s) (Operations)																			
	CAS	M2C	M3B	M4E	M4F	M4G	M4H	M5B	M6B	M7	R1	R2	R3	R4	R5	R6A	R6B	R6C	R6D	R6E	R6F
TSP	N/A (tsp)	6.08E-02	4.67E-03	1.51E-03	3.87E-03	6.63E-03	3.87E-03	2.11E-03	4.49E-04	1.54E-02	7.86E-03	3.18E-02	2.35E-02	2.35E-02	3.23E-02	2.43E-03	2.43E-03	2.43E-03	2.43E-03	2.43E-03	2.43E-03
PM10	N/A (pm10)	6.08E-02	4.67E-03	1.51E-03	3.87E-03	6.63E-03	3.87E-03	2.11E-03	4.49E-04	1.54E-02	7.86E-03	3.18E-02	2.35E-02	2.35E-02	3.23E-02	2.43E-03	2.43E-03	2.43E-03	2.43E-03	2.43E-03	2.43E-03
PM2.5	N/A (pm2.5)	6.08E-02	4.67E-03	1.51E-03	3.87E-03	6.63E-03	3.87E-03	2.11E-03	4.49E-04	1.54E-02	7.86E-03	3.18E-02	2.35E-02	2.35E-02	3.23E-02	2.43E-03	2.43E-03	2.43E-03	2.43E-03	2.43E-03	2.43E-03
CO	630-08-0	5.86E+00	8.17E-01	2.85E-01	3.39E-01	8.42E-01	3.39E-01	3.70E-01	7.86E-02	1.20E+00	1.01E+00	2.89E+00	2.21E+00	2.21E+00	2.97E+00	4.25E-01	4.25E-01	4.25E-01	4.25E-01	4.25E-01	4.25E-01
SO2	7446-09-5	9.34E-03	1.31E-03	4.23E-04	5.41E-04	1.31E-03	5.41E-04	5.90E-04	1.25E-04	1.51E-03	1.61E-03	4.61E-03	3.52E-03	3.52E-03	4.75E-03	6.79E-04	6.79E-04	6.79E-04	6.79E-04	6.79E-04	6.79E-04
Non-methane hydrocarbons	N/A (NMHC)	3.17E-01	4.44E-02	1.44E-02	1.84E-02	4.46E-02	1.84E-02	2.01E-02	4.27E-03	5.12E-02	5.47E-02	1.57E-01	1.20E-01	1.20E-01	1.61E-01	2.31E-02	2.31E-02	2.31E-02	2.31E-02	2.31E-02	2.31E-02
Nox	10102-44-0	4.92E+00	9.34E-02	3.03E-02	3.39E-01	3.94E-01	3.39E-01	4.23E-02	8.98E-03	1.08E-01	4.41E-01	2.70E+00	1.94E+00	1.94E+00	2.71E+00	4.86E-02	4.86E-02	4.86E-02	4.86E-02	4.86E-02	4.86E-02
1,3-butadiene	106-99-0	3.32E-04	4.64E-05	1.50E-05	1.92E-05	4.66E-05	1.92E-05	2.10E-05	4.46E-06	5.35E-05	5.71E-05	1.64E-04	1.25E-04	1.25E-04	1.69E-04	2.41E-05	2.41E-05	2.41E-05	2.41E-05	2.41E-05	2.41E-05
Acenaphthene	83-32-9	2.18E-05	3.05E-06	9.88E-07	1.26E-06	3.06E-06	1.26E-06	1.38E-06	2.93E-07	3.52E-06	3.76E-06	1.08E-05	8.22E-06	8.22E-06	1.11E-05	1.59E-06	1.59E-06	1.59E-06	1.59E-06	1.59E-06	1.59E-06
Acenaphthylene	208-96-8	3.54E-05	4.94E-06	1.60E-06	2.05E-06	4.97E-06	2.05E-06	2.24E-06	4.75E-07	5.70E-06	6.09E-06	1.75E-05	1.33E-05	1.33E-05	1.80E-05	2.57E-06	2.57E-06	2.57E-06	2.57E-06	2.57E-06	2.57E-06
Acetaldehyde	75-07-0	2.87E-02	4.02E-03	1.30E-03	1.67E-03	4.04E-03	1.67E-03	1.82E-03	3.86E-04	4.64E-03	4.95E-03	1.42E-02	1.08E-02	1.08E-02	1.46E-02	2.09E-03	2.09E-03	2.09E-03	2.09E-03	2.09E-03	2.09E-03
Acrolein	107-02-8	4.14E-03	5.79E-04	1.88E-04	2.40E-04	5.82E-04	2.40E-04	2.62E-04	5.57E-05	6.68E-04	7.13E-04	2.04E-03	1.56E-03	1.56E-03	2.11E-03	3.01E-04	3.01E-04	3.01E-04	3.01E-04	3.01E-04	3.01E-04
Anthracene	120-12-7	1.42E-05	1.89E-06	6.11E-07	8.33E-07	1.95E-06	8.33E-07	8.53E-07	1.81E-07	2.44E-06	2.38E-06	7.06E-06	5.38E-06	5.38E-06	7.26E-06	9.81E-07	9.81E-07	9.81E-07	9.81E-07	9.81E-07	9.81E-07
Benzene	71-43-2	5.35E-03	7.48E-04	2.42E-04	3.10E-04	7.52E-04	3.10E-04	3.38E-04	7.19E-05	8.63E-04	9.22E-04	2.64E-03	2.02E-03	2.02E-03	2.72E-03	3.89E-04	3.89E-04	3.89E-04	3.89E-04	3.89E-04	3.89E-04
Benzo(a)anthracene	56-55-3	1.73E-07	2.11E-08	6.85E-09	1.03E-08	2.28E-08	1.03E-08	9.55E-09	2.03E-09	3.23E-08	2.77E-08	8.68E-08	6.57E-08	6.57E-08	8.91E-08	1.10E-08	1.10E-08	1.10E-08	1.10E-08	1.10E-08	1.10E-08
Benzo(a)pyrene	50-32-8	2.01E-07	1.54E-08	5.00E-09	1.28E-08	2.19E-08	1.28E-08	6.97E-09	1.48E-09	5.07E-08	2.59E-08	1.05E-07	7.75E-08	7.75E-08	1.07E-07	8.02E-09	8.02E-09	8.02E-09	8.02E-09	8.02E-09	8.02E-09
Benzo(b)fluoranthene	205-99-2	8.52E-08	6.54E-09	2.12E-09	5.42E-09	9.28E-09	5.42E-09	2.96E-09	6.29E-10	2.15E-08	1.10E-08	4.45E-08	3.29E-08	3.29E-08	4.52E-08	3.40E-09	3.40E-09	3.40E-09	3.40E-09	3.40E-09	3.40E-09
Benzo(k)fluoranthene	207-08-9	8.52E-08	6.54E-09	2.12E-09	5.42E-09	9.28E-09	5.42E-09	2.96E-09	6.29E-10	2.15E-08	1.10E-08	4.45E-08	3.29E-08	3.29E-08	4.52E-08	3.40E-09	3.40E-09	3.40E-09	3.40E-09	3.40E-09	3.40E-09
Benzo(g,h,i)perylene	191-24-2	9.51E-08	1.25E-08	4.06E-09	5.58E-09	1.30E-08	5.58E-09	5.66E-09	1.20E-09	1.64E-08	1.58E-08	4.73E-08	3.60E-08	3.60E-08	4.86E-08	6.52E-09	6.52E-09	6.52E-09	6.52E-09	6.52E-09	6.52E-09
Chrysene	218-01-9	3.59E-07	4.07E-08	1.32E-08	2.17E-08	4.57E-08	2.17E-08	1.84E-08	3.91E-09	7.18E-08	5.53E-08	1.82E-07	1.37E-07	1.37E-07	1.86E-07	2.12E-08	2.12E-08	2.12E-08	2.12E-08	2.12E-08	2.12E-08
Fluoranthene	206-44-0	2.19E-05	2.88E-06	9.32E-07	1.29E-06	2.98E-06	1.29E-06	1.30E-06	2.76E-07	3.80E-06	3.65E-06	1.09E-05	8.29E-06	8.29E-06	1.12E-05	1.50E-06	1.50E-06	1.50E-06	1.50E-06	1.50E-06	1.50E-06
Fluorene	86-73-7	8.45E-05	1.16E-05	3.76E-06	4.92E-06	1.18E-05	4.92E-06	5.25E-06	1.12E-06	1.39E-05	1.44E-05	4.18E-05	3.19E-05	3.19E-05	4.31E-05	6.04E-06	6.04E-06	6.04E-06	6.04E-06	6.04E-06	6.04E-06
Formaldehyde	50-00-0	9.01E-02	1.26E-02	4.08E-03	5.22E-03	1.27E-02	5.22E-03	5.70E-03	1.21E-03	1.45E-02	1.55E-02	4.45E-02	3.40E-02	3.40E-02	4.58E-02	6.56E-03	6.56E-03	6.56E-03	6.56E-03	6.56E-03	6.56E-03
Phenanthrene	85-01-8	3.79E-04	5.13E-05	1.66E-05	2.21E-05	5.24E-05	2.21E-05	2.32E-05	4.93E-06	6.35E-05	6.41E-05	1.88E-04	1.43E-04	1.43E-04	1.93E-04	2.67E-05	2.67E-05	2.67E-05	2.67E-05	2.67E-05	2.67E-05
Pyrene	129-00-0	1.86E-05	2.41E-06	7.83E-07	1.09E-06	2.52E-06	1.09E-06	1.09E-06	2.32E-07	3.25E-06	3.07E-06	9.24E-06	7.02E-06	7.02E-06	9.50E-06	1.26E-06	1.26E-06	1.26E-06	1.26E-06	1.26E-06	1.26E-06

*Conservatively assume that PM=PM10=PM2.5. "PARTICULATE MATTER EMISSION PROFILES OF ALBERTA HEAVY DUTY VEHICLES". Combustion & Environment Research Group. 2005

Data Quality: Average
The calculation methodology is based on the US EPA reference document for Exhaust Emission Standards and the maximum allowable sulphur content in diesel and fuel consumption of the vehicles resulting in an "Average Data Quality".

Operating Condition, Individual Maximum Rates of Production:
The emission rate calculation for this source is based on the maximum estimated number of equipment. The calculated emission rate should be conservative.

APPENDIX E
Model Predictions – Construction

Table E-1 Special Receptor Predictions (ug/m3) - Construction, Project Alone

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	1,3-BUTADIENE			ACENAPHTHENE			ACENAPHTHYLENE			ACETALDEHYDE					ACROLEIN				ALDEHYDES			ALUMINUM (AL)		
				Averaging Period	24	month	annual	24	month	annual	24	month	annual	0.5	1	24	month	annual	1	24	month	annual	24	month	annual	24	month	annual
				Criteria	10	-	2	-	-	-	-	-	-	500	-	500	-	-	4.5	0.4	-	-	-	-	-	12	-	-
H_1	545937.4	5396170	Wilson Memorial General Hospital		6.57E-04	1.58E-04	1.14E-04	5.25E-05	1.29E-05	8.98E-06	9.40E-05	2.29E-05	1.58E-05	3.13E-01	2.61E-01	3.20E-02	7.99E-03	5.89E-03	3.78E-02	4.64E-03	1.18E-03	8.65E-04	1.86E-01	2.48E-02	1.37E-02	1.06E-01	2.65E-02	2.05E-02
M_1	545694	5403864	PM-10 @ Hare Lake		8.16E-04	2.40E-04	1.36E-04	7.15E-05	2.07E-05	1.23E-05	1.22E-04	3.52E-05	2.12E-05	3.23E-01	2.69E-01	7.05E-02	2.07E-02	1.17E-02	3.88E-02	1.02E-02	2.98E-03	1.68E-03	4.34E-01	7.64E-02	4.46E-02	3.03E-01	8.44E-02	5.06E-02
M_2	545694	5403873	Dustfall @ Hare Lake		8.15E-04	2.39E-04	1.35E-04	7.15E-05	2.06E-05	1.23E-05	1.22E-04	3.52E-05	2.12E-05	3.23E-01	2.69E-01	7.05E-02	2.06E-02	1.16E-02	3.88E-02	1.02E-02	2.98E-03	1.68E-03	4.32E-01	7.67E-02	4.47E-02	3.01E-01	8.43E-02	5.05E-02
M_3	547152	5401222	PM-10 @ Mays Gifts		2.19E-03	6.98E-04	5.34E-04	1.97E-04	5.56E-05	4.02E-05	3.39E-04	9.39E-05	6.71E-05	9.24E-01	7.70E-01	1.89E-01	6.02E-02	4.60E-02	1.11E-01	2.73E-02	8.68E-03	6.63E-03	7.06E-01	1.37E-01	6.69E-02	8.01E-01	2.57E-01	1.99E-01
M_4	547147	5401216	Dustfall @ Mays Gifts		2.17E-03	6.93E-04	5.30E-04	1.96E-04	5.53E-05	3.99E-05	3.37E-04	9.33E-05	6.66E-05	9.14E-01	7.62E-01	1.88E-01	5.97E-02	4.56E-02	1.10E-01	2.71E-02	8.62E-03	6.58E-03	7.08E-01	1.37E-01	6.68E-02	7.94E-01	2.55E-01	1.97E-01
M_5	551637	5402371	PM-10 @ Pic River		9.54E-04	3.86E-04	2.39E-04	1.03E-04	3.43E-05	2.02E-05	1.85E-04	5.89E-05	3.44E-05	5.58E-01	4.65E-01	8.23E-02	3.32E-02	2.05E-02	6.70E-02	1.19E-02	4.79E-03	2.96E-03	6.96E-01	1.17E-01	5.90E-02	2.78E-01	1.18E-01	7.79E-02
M_6	551643	5402374	Dustfall @ Pic River		9.49E-04	3.86E-04	2.39E-04	1.02E-04	3.43E-05	2.02E-05	1.84E-04	5.87E-05	3.44E-05	5.57E-01	4.65E-01	8.19E-02	3.31E-02	2.05E-02	6.70E-02	1.18E-02	4.78E-03	2.96E-03	6.93E-01	1.17E-01	5.89E-02	2.77E-01	1.18E-01	7.78E-02
M_7	549180	5399815	Dustfall @ Airport		4.13E-03	1.85E-03	1.45E-03	2.83E-04	1.28E-04	9.90E-05	4.62E-04	2.10E-04	1.61E-04	1.31E+00	1.09E+00	3.51E-01	1.58E-01	1.23E-01	1.58E-01	5.07E-02	2.27E-02	1.77E-02	4.31E-01	9.00E-02	3.89E-02	6.29E-01	2.81E-01	2.14E-01
M_8	545863	5397092	Dustfall @ Field Office		9.98E-04	4.70E-04	3.65E-04	7.71E-05	3.51E-05	2.78E-05	1.38E-04	6.37E-05	5.02E-05	3.70E-01	3.08E-01	3.66E-02	1.21E-02	9.59E-03	4.49E-02	5.40E-03	1.83E-03	1.47E-03	2.07E-01	3.15E-02	1.67E-02	1.15E-01	3.37E-02	2.54E-02
O_1	547181.4	5398015	Pic Motel		1.06E-03	3.24E-04	2.61E-04	8.58E-05	2.53E-05	2.02E-05	1.53E-04	4.49E-05	3.57E-05	4.74E-01	3.95E-01	5.98E-02	1.55E-02	1.17E-02	5.75E-02	8.75E-03	2.27E-03	1.73E-03	3.10E-01	3.97E-02	2.34E-02	1.80E-01	4.94E-02	3.65E-02
O_2	545734.4	5396873	Marathon Harbour Inn		2.07E-03	8.97E-04	6.60E-04	1.59E-04	6.74E-05	4.95E-05	2.90E-04	1.23E-04	9.03E-05	4.27E-01	3.56E-01	4.86E-02	1.64E-02	1.23E-02	5.33E-02	7.51E-03	2.59E-03	1.95E-03	1.99E-01	2.99E-02	1.58E-02	1.24E-01	4.01E-02	3.09E-02
O_3	545885.4	5396449	Zero-100 Motor Inn		2.24E-03	8.39E-04	6.31E-04	1.70E-04	6.28E-05	4.73E-05	3.09E-04	1.15E-04	8.63E-05	4.19E-01	3.49E-01	4.40E-02	1.49E-02	1.17E-02	5.24E-02	6.91E-03	2.35E-03	1.84E-03	1.68E-01	2.71E-02	1.45E-02	1.09E-01	2.86E-02	2.18E-02
O_4	545987.4	5397641	OPP Station		9.42E-04	3.67E-04	2.84E-04	7.72E-05	2.86E-05	2.18E-05	1.37E-04	5.13E-05	3.91E-05	3.92E-01	3.27E-01	4.36E-02	1.25E-02	9.57E-03	4.74E-02	6.44E-03	1.87E-03	1.44E-03	2.21E-01	3.57E-02	1.92E-02	1.29E-01	3.89E-02	2.87E-02
O_5	545876.4	5396073	Library		4.96E-04	1.43E-04	1.00E-04	4.17E-05	1.18E-05	7.97E-06	7.40E-05	2.07E-05	1.39E-05	3.08E-01	2.57E-01	3.14E-02	7.66E-03	5.63E-03	3.72E-02	4.56E-03	1.12E-03	8.24E-04	1.83E-01	2.43E-02	1.34E-02	1.04E-01	2.59E-02	2.00E-02
P_1	546958.4	5396139	Penn Lake Park and Campground		3.86E-04	9.80E-05	7.80E-05	3.69E-05	8.42E-06	6.31E-06	6.40E-05	1.46E-05	1.08E-05	3.98E-01	3.32E-01	3.23E-02	7.42E-03	5.83E-03	4.79E-02	4.67E-03	1.07E-03	8.45E-04	1.70E-01	2.46E-02	1.40E-02	1.02E-01	2.72E-02	2.14E-02
P_2	548538.4	5392863	Craig's Pit Provincial Nature Reserve		2.57E-04	5.90E-05	3.60E-05	2.60E-05	5.34E-06	2.95E-06	4.50E-05	9.19E-06	5.02E-06	3.70E-01	3.08E-01	2.22E-02	5.00E-03	2.99E-03	4.45E-02	3.20E-03	7.22E-04	4.32E-04	1.41E-01	1.87E-02	7.71E-03	8.79E-02	1.87E-02	1.15E-02
P_3	540005	5402014	Red Sucker Point Provincial Park		2.85E-04	6.60E-05	3.40E-05	2.64E-05	5.95E-06	3.05E-06	4.60E-05	1.02E-05	5.24E-06	1.54E-01	1.28E-01	2.45E-02	5.60E-03	2.87E-03	1.85E-02	3.53E-03	8.08E-04	4.14E-04	1.27E-01	2.08E-02	1.03E-02	9.68E-02	2.21E-02	1.19E-02
P_4	552770	5383776	Pukaskwa National Park		1.13E-04	1.90E-05	1.10E-05	1.07E-05	1.75E-06	9.92E-07	1.80E-05	3.02E-06	1.70E-06	2.32E-01	1.93E-01	9.73E-03	1.62E-03	9.63E-04	2.79E-02	1.41E-03	2.34E-04	1.39E-04	4.65E-02	6.60E-03	3.14E-03	2.94E-02	6.12E-03	3.80E-03
PR_1	553679.4	5385896	Children & Family Learning Centre		9.50E-05	2.20E-05	1.30E-05	8.22E-06	1.80E-06	1.07E-06	1.40E-05	3.05E-06	1.82E-06	1.63E-01	1.36E-01	8.19E-03	1.84E-03	1.06E-03	1.96E-02	1.18E-03	2.66E-04	1.53E-04	3.69E-02	6.26E-03	3.17E-03	2.70E-02	6.44E-03	4.16E-03
PR_2	554004.4	5385858	Pic River Elementary		8.40E-05	2.00E-05	1.20E-05	7.58E-06	1.66E-06	1.04E-06	1.30E-05	2.86E-06	1.77E-06	1.28E-01	1.07E-01	7.26E-03	1.68E-03	1.02E-03	1.54E-02	1.05E-03	2.42E-04	1.48E-04	3.82E-02	6.11E-03	3.08E-03	2.46E-02	6.08E-03	4.05E-03
PR_3	553836.4	5385604	Pic River Private High School		9.00E-05	2.10E-05	1.20E-05	7.91E-06	1.71E-06	1.03E-06	1.40E-05	2.90E-06	1.76E-06	1.50E-01	1.25E-01	7.73E-03	1.76E-03	1.02E-03	1.80E-02	1.11E-03	2.53E-04	1.48E-04	3.66E-02	6.09E-03	3.07E-03	2.57E-02	6.20E-03	4.03E-03
PR_4	553930.4	5386049	Pic River Health Centre		8.60E-05	2.00E-05	1.20E-05	7.78E-06	1.68E-06	1.06E-06	1.30E-05	2.90E-06	1.80E-06	1.28E-01	1.07E-01	7.43E-03	1.72E-03	1.04E-03	1.54E-02	1.07E-03	2.49E-04	1.51E-04	3.88E-02	6.22E-03	3.14E-03	2.52E-02	6.22E-03	4.13E-03
PR_5	552493.4	5384783	BIIDAABAN Healing Lodge		1.23E-04	2.10E-05	1.20E-05	1.18E-05	1.87E-06	1.08E-06	2.00E-05	3.24E-06	1.85E-06	2.49E-01	2.07E-01	1.05E-02	1.75E-03	1.05E-03	2.99E-02	1.52E-03	2.53E-04	1.51E-04	4.98E-02	7.25E-03	3.43E-03	3.15E-02	6.60E-03	4.14E-03
PR_6	552843.4	5390100	Residence		1.51E-04	3.30E-05	2.00E-05	1.24E-05	2.73E-06	1.67E-06	2.10E-05	4.62E-06	2.85E-06	2.10E-01	1.75E-01	1.30E-02	2.80E-03	1.66E-03	2.52E-02	1.88E-03	4.04E-04	2.40E-04	5.74E-02	9.54E-03	4.86E-03	4.18E-02	9.78E-03	6.43E-03
PR_7	553761.4	5387706	Residence		9.40E-05	2.20E-05	1.40E-05	8.35E-06	1.96E-06	1.21E-06	1.40E-05	3.37E-06	2.07E-06	1.34E-01	1.11E-01	8.06E-03	1.89E-03	1.20E-03	1.61E-02	1.16E-03	2.73E-04	1.73E-04	4.41E-02	7.04E-03	3.58E-03	2.75E-02	6.95E-03	4.73E-03
PS_1	545001.3	5404050	North Hare Lake Cottage		6.58E-04	1.93E-04	1.07E-04	5.78E-05	1.66E-05	9.74E-06	9.90E-05	2.84E-05	1.68E-05	2.84E-01	2.37E-01	5.69E-02	1.66E-02	9.16E-03	3.41E-02	8.21E-03	2.40E-03	1.32E-03	3.73E-01	6.16E-02	3.57E-02	2.08E-01	6.72E-02	3.94E-02
PS_2	544331.3	5403100	South Hare Lake Cottage		6.53E-04	1.73E-04	9.30E-05	5.92E-05	1.49E-05	8.05E-06	1.02E-04	2.54E-05	1.38E-05	2.58E-01	2.15E-01	5.64E-02	1.48E-02	7.91E-03	3.10E-02	8.15E-03	2.14E-03	1.14E-03	3.75E-01	4.62E-02	2.56E-02	2.79E-01	6.09E-02	3.41E-02
PS_3	547056.1	5401004	May's Gifts		1.85E-03	5.65E-04	4.21E-04	1.64E-04	4.63E-05	3.24E-05	2.84E-04	7.84E-05	5.44E-05	7.99E-01	6.66E-01	1.60E-01	4.86E-02	3.61E-02	9.59E-02	2.30E-02	7.02E-03	5.21E-03	6.54E-01	1.30E-01	6.26E-02	6.89E-01	2.08E-01	1.54E-01
PS_4	546811.4	5400953	Wayfare Inn		1.73E-03	5.46E-04	3.97E-04	1.58E-04	4.40E-05	3.03E-05	2.73E-04	7.42E-05	5.07E-05	7.70E-01	6.42E-01	1.49E-01	4.70E-02	3.41E-02	9.25E-02	2.16E-02	6.78E-03	4.91E-03	6.19E-01	1.14E-01	5.53E-02	6.60E-01	2.01E-01	1.44E-01
PS_5	546996.4	5401028	Peninsula Inn		1.98E-03	5.85E-04	4.33E-04	1.68E-04	4.73E-05	3.32E-05	2.90E-04	8.00E-05	5.55E-05	8.02E-01	6.68E-01	1.71E-01	5.03E-02	3.72E-02	9.63E-02	2.47E-02	7.26E-03	5.37E-03	6.59E-01	1.27E-01	6.11E-02	7.33E-01	2.15E-01	1.59E-01
PS_6	548471.4	5399489	Travelodge Hotel		1.95E-03	6.95E-04	4.55E-04	1.46E-04	5.10E-05	3.34E-05	2.46E-04	8.53E-05	5.61E-05	9.79E-01	8.16E-01	1.57E-01	5.42E-02	3.44E-02	1.18E-01	2.26E-02	7.84E-03	4.98E-03	3.87E-01	7.34E-02	3.71E-02	3.69E-01	1.24E-01	8.31E-02
PS_7	546903.4	5401056	The Laughing Mooz Eatery Restaurant and Residence		2.10E-03	6.11E-04	4.50E-04	1.71E-04	4.87E-05	3.41E-05	2.95E-04	8.21E-05	5.69E-05	8.13E-01	6.78E-01	1.81E-01	5.26E-02	3.87E-02	9.77E-02	2.61E-02	7.59E-03	5.58E-03	6.54E-01	1.20E-01	5.85E-02	7.75E-01	2.25E-01	1.64E-01
PW_1	545777.4	5397151	Kingdom Hall of Jehovah's Witnesses		1.07E-03	4.07E-04	3.11E-04	8.57E-05	3.14E-05	2.38E-05	1.53E-04	5.65E-05	4.28E-05	3.79E-01	3.16E-01	4.06E-02	1.18E-02	9.03E-03	4.60E-02	6.06E-03	1.79E-03	1.37E-03	2.07E-01	3.17E-02	1.69E-02	1.12E-01	3.41E-02	2.55E-02
PW_2	546331.4	5395942	Parkland Pentecostal Church		3.73E-04	9.60E-05	7.70E-05	4.05E-05	7.96E-06	6.21E-06	7.20E-05	1.37E-05	1.07E-05	2.96E-01	2.47E-01	2.94E-02	6.84E-03	5.38E-03	3.57E-02	4.26E-03	9.92E-04	7.81E-04	2.06E-01	2.15E-02	1.31E-02	9.69E-02	2.51E-02	1.99E-02
PW_3	545857.4	5395715	St. John's United Church		3.68E-04	1.00E-04	7.50E-05	3.87E-05	8.47E-06	6.04E-06	6.80E-05	1.47E-05	1.04E-05	3.03E-01	2.53E-01	2.95E-02	6.59E-03	5.00E-03	3.66E-02	4.28E-03	9.59E-04	7.27E-04	1.88E-01	2.16E-02	1.24E-02	9.68E-02	2.36E-02	1.85E-02
PW_4	545425	5396043	Holy Saviour Roman Catholic Church		4.18E-04	1.21E-04	8.80E-05	3.93E-05	1.02E-05	7.08E-06	7.00E-05	1.79E-05	1.23E-05	3.16E-01	2.64E-01	2.73E-02	7.40E-03	5.30E-03	3.84E-02	3.97E-03	1.08E-03	7.74E-04	1.68E-01	2.52E-02	1.32E-02	9.57E-02	2.55E-02	1.93E-02
PW_5	545390.4	5395989	Anglican Church-Trinity		3.98E-04	1.16E-04	8.40E-05	3.85E-05	9.83E-06	6.77E-06	6.90E-05	1.72E-05	1.18E-05	3.14E-01	2.62E-01	2.70E-02	7.28E-03	5.22E-03	3.81E-02	3.93E-03	1.06E-03	7.60E-04	1.67E-01	2.49E-02	1.31E-02	9.52E-02	2.53E-02	1.91E-02
R_1	547226.4	5398096	Residence		1.34E-03	5.03E-04	3.86E-04	1.06E-04	3.76E-05	2.96E-05	1.87E-04	6.75E-05	5.29E-05	4.93E-01	4.11E-01	6.45E-02	1.71E-02	1.33E-02	6.02E-02	9.50E-03	2.54E-03	2.00E-03	3.20E-01	4.11E-02	2.42E-02	1.86E-01	5.09E-02	3.76E-02
R_10	545421.4	5395954	Residence		3.97E-04	1.14E-04	8.30E-05	3.75E-05	9.66E-06	6.68E-06	6.70E-05	1.69E-05	1.16E-05	3.13E-01	2.61E-01	2.74E-02	7.20E-03	5.18E-03	3.80E-02	3.99E-03	1.05E-03	7.54E-04	1.63E-01	2.47E-02	1.30E-02	9.53E-02	2.50E-02	1.90E-02
R_11	545619.4	5395878	Residence		4.18E-04	1.11E-04	8.30E-05	4.03E-05	9.43E-06	6.63E-06	7.10E-05	1.65E-05	1.15E-05	3.12E-01	2.60E-01	2.95E-02	7.03E-03	5.16E-03	3.79E-02	4.28E-03	1.02E-03	7.52E-04	1.59E-01	2.39E-02	1.28E-02	9.79E-02	2.46E-02	1.89E-02
R_12	545831.4	5396001	Residence		4.16E-04	1.28E-04	9.40E-05	4.15E-05	1.06E-05	7.48E-06	7.30E-05	1.87E-05	1.31E-05	3.04E-01	2.53E-01	3.10E-02	7.38E-03	5.47E-03	3.68E-02	4.50E-03	1.08E-03	7.99E-04	1.80E-01	2.39E-02	1.32E-02	1.02E-01	2.54E-02	1.97E-02
R_13	545806.9	5396173	Residence		5.13E-04	1.66E-04	1.22E-04	4.74E-05	1.35E-05	9.59E-06	8.40E-05	2.39E-05	1.69E-05	3.34E-01	2.78E-01	3.21E-02	8.09E-03	5.93E-03	4.07E-02	4.68E-03	1.19E-03	8.74E-04	1.70E-01	2.53E-02	1.36E-02	1.04E-01	2.65E-02	2.04E-02
R_14	545827.1	5396229	Residence		6.40E-04	1.97E-04	1.37E-04	5.26E-05	1.58E-05	1.07E-05	9.30E-05	2.82E-05	1.89E-05	3.48E-01	2.90E-01	3.31E-02	8.53E-03	6.17E-03	4.26E-02	4.85E-03	1.26E-03	9.11E-04	1.70E-01	2.57E-02	1.38E-02	1.06E-01	2.70E-02	2.07E-02
R_15	545662.4	5396176	Residence		4.91E-04	1.56E-04	1.15E-04	4.45E-05	1.28E-05	9.05E-06	7.90E-05	2.26E-05	1.59E-05	3.33E-01	2.77E-01	3.07E-02	8.01E-03	5.81E-03	4.05E-02	4.47E-03	1.18E-03	8.54E-04	1.63E-01	2.58E-02	1.36E-02	1.02E-01	2.67E-02	2.02E-02
R_16	546254.4	5396485	Residence		5.21E-04	1.68E-04	1.30E-04	5.15E-05	1.34E-05	1.02E-05	9.10E-05	2.36E-05	1.79E-05	3.43E-01	2.86E-01	3.48E-02	8.35E-03	6.50E-03	4.15E-02	5.06E-03	1.22E-03	9.56E-04	2.12E-01	2.54E-02	1.46E-02	1.11E-01	2.87E-02	2.23E-02
R_17	546471.4	5396507	Residence		4.63E-04	1.37E-04	1.05E-04	4.82E-05	1.10E-05	8.35E-06	8.50E-05	1.92E-05	1.45E-05	3.31E-01	2.76E-01	3.36E-02	8.14E-03	6.36E-03	4.00E-02	4.89E-03	1.18E-03	9.27E-04	2.25E-01	2.40E-02	1.47E-02	1.09E-01	2.90E-02	2.27E-02
R_18	546601.4	5396388	Residence		4.47E-04	1.16E-04	9.20E-05	4.38E-05	9.37E-06	7.37E-06	7.80E-05	1.63E-05	1.27E-05	3.32E-01	2.76E-01	3.13E-02	7.78E-03	6.13E-03	4.00E-02	4.54E-03	1.13E-03	8.91E-04	2.19E-01	2.38E-02	1.44E-02	1.03E-01	2.82E-02	2.22E-02
R_19	546856.4	5395581	Residence		3.54E-04	8.50E-05	6.50E-05	3.40E-05	7.27E-06	5.34E-06	5.90E-05	1.25E-05	9.11E-06	4.01E-01	3.34E-01	2.98E-02	6.53E-03	5.09E-03	4.82E-02	4.31E-03	9.46E-04	7.37E-04	1.56E-01	2.26E-02	1.27E-02	9.29E-02	2.40E-02	1.90E-02
R_2	547273.4	5398045	Residence		9.56E-04	2.67E-04	2.15E-04	8.05E-05	2.11E-05	1.68E-05	1.43E-04	3.70E-05	2.95E-05	4.68E-01	3.90E-01	6.16E-02	1.53E-02	1.14E-02	5.69E-02	8.96E-03	2.24E-03	1.67E-03	3.25E-01	4.00E-02	2.40E-02	1.86E-01	5.02E-02	3.71E-02
R_20	546950.4	5395534	Residence		3.57E-04	8.40E-05	6.50E-05	3.44E-05	7.29E-06	5.28E-06	6.00E-05	1.26E-05	9.01E-06	3.93E-01	3.27E-01	3.02E-02	6.57E-03	5.07E-03	4.73E-02	4.36E-03	9.50E-04	7.33E-04	1.52E-01	2.30E-02	1.26E-02	9.23E-02	2.41E-02	1.89E-02
R_21	547201.4	5395416	Residence		3.50E-04	8.30E-05	6.30E-05	3.37E-05	7.30E-06	5.14E-06	5.90E-05	1.26E-05	8.77E-06	3.28E-01	2.73E-01	2.97E-02	6.63E-03	5.00E-03	3.96E-02	4.30E-03	9.59E-04	7.24E-04	1.40E-01	2.37E-02	1.26E-02	8.92E-02	2.43E-02	1.86E-02
R_22	548317.4	5399655	Residence		1.48E-03	5.01E-04	3.29E-04	1.17E-04	3.77E-05	2.49E-05	1.96E-04	6.30E-05	4.17E-05	9.27E-01	7.72E-01	1.23E-01	4.13E-02	2.68E-02	1.12E-01	1.78E-02	5.97E-03	3.87E-03	3.74E-01	7.25E-02	3.93E-02	3.55E-01	1.08E-01	7.53E-02
R_3	545809.4	5397233	Bergagnini Apartment Rental		1.13E-03	4.24E-04	3.23E-04	9.02E-05	3.27E-05	2.47E-05	1.61E-04	5.89E-05	4.45E-05	3.83E-01	3.19E-01	4.20E-02	1.21E-02	9.29E-03	4.67E-02	6.27E-03	1.84E-03	1.41E-03	2.09E-01	3.23E-02	1.73E-02	1.15E-01	3.47E-02	2.59E-02
R_4	546092.4	5396797	Residence		6.13E-04	2.50E-04	1.86E-04	5.58E-05	1.91E-05	1.44E-05	9.90E-05	3.40E-05	2.56E-05	3.52E-01	2.93E-01	3.61E-02	9.56E-03	7.42E-03	4.25E-02	5.28E-03	1.41E-03	1.10E-03	1.80E-01	2.92E-02	1.57E-02	1.17E-01	3.14E-02	2.40E-02
R_5	545971.4	5396490	Condominium		1.78E-03	9.70E-04	6.95E-04	1.31E-04	7.21E-05	5.20E-05	2.40E-04	1.32E-04	9.50E-05	3.60E-01	3.00E-01	4.39E-02	1.57E-02	1.24E-02	4.41E-02	6.66E-03	2.50E-03	1.97E-03	1.78E-01	2.71E-02	1.46E-02	1.10E-01	2.88E-02	2.20E-02
R_6	545655.4	5396521	Residence		1.01E-03	2.94E-04	1.98E-04	8.06E-05	2.29E-05	1.53E-05	1.45E-04	4.11E-05	2.73E-05	3.79E-01	3.16E-01	3.49E-02	9.83E-03	7.07E-03	4.68E-02	5.24E-03	1.48E-03	1.06E-03	1.85E-01	2.80E-02	1.47E-02	1.05E-01	2.98E-02	2.22E-02
R_7	545438.4	5396409	I Sew Studio and Residence		5.85E-04	1.60E-04	1.14E-04	4.88E-05	1.29E-05	9.05E-06	8.60E-05	2.28E-05	1.59E-05	3.44E-01	2.87E-01	2.94E-02	8.25E-03	5.90E-03	4.15E-02	4.33E-03	1.21E-03	8.66E-04	1.83E-01	2.69E-02	1.42E-02	9.77E-02	2.81E-02	2.10E-02
R_8	545380.4	5396244	Bayview Apartments		5.01E-04	1.35E-04	9.70E-05	4.36E-05	1.11E-05	7.77E-06	7.80E-05	1.95E-05	1.36E-05	3.36E-01	2.80E-01	2.75E-02	7.80E-03	5.55E-03	4.05E-02	4.03E-03	1.14E-03	8.11E-04	1.78E-01	2.60E-02	1.37E-02	9.51E-02	2.68E-02	2.00E-02
R_9	545290.4	5396115	Residence		4.43E-04	1.20E-04	8.60E-05	4.06E-05	1.01E-05	6.92E-06	7.20E-05	1.77E-05	1.20E-05	3.37E-01	2.81E-01	2.67E-02	7.46E-03	5.28E-03	4.06E-02	3.90E-03	1.09E-03	7.70E-04	1.74E-01	2.53E-02	1.33E-02	9.21E-02	2.58E-02	1.94E-02
RH_1	546049.4	5395895	Peninsula Manor		4.30E-04	1.03E-04	8.00E-05	4.02E-05	8.66E-06	6.46E-06	7.10E-05	1.50E-05	1.12E-05	3.14E-01	2.62E-01	3.05E-02	6.89E-03	5.29E-03	3.79E-02	4.41E-03	1.00E-03	7.70E-04	1.99E-01	2.19E-02	1.29E-02	1.00E-01	2.47E-02	1.95E-02
RH_2	545320.9	5396197	Senior's Centre		4.71E-04	1.27E-04	9.10E-05	4.20E-05	1.05E-05	7.29E-06	7.50E-05	1.85E-05	1.27E-05	3.39E-01	2.83E-01	2.73E-02	7.63E-03	5.41E-03	4.09E-02	3.98E-03	1.11E-03	7.90E-04	1.77E-01	2.57E-02	1.35E-02	9.29E-02	2.63E-02	1.97E-02
S_1	546339.4	5396625	Holy Saviour School		5.08E-04	1.63E-04	1.26E-04	5.09E-05	1.30E-05	9.91E-06	9.00E-05	2.29E-05	1.74E-05	3.50E-01	2.92E-01	3.54E-02	8.58E-03	6.67E-03	4.23E-02	5.14E-03	1.25E-03	9.78E-04	2.18E-01	2.62E-02	1.51E-02	1.14E-01	2.98E-02	2.31E-02
S_2	545633.4	5396103	Confederation College Northshore Campus		4.62E-04	1.39E-04	1.03E-04	4.28E-05	1.16E-05	8.14E-06	7.60E-05	2.04E-05	1.43E-05	3.27E-01	2.73E-01	3.01E-02	7.70E-03	5.60E-03	3.98E-02	4.39E-03	1.13E-03	8.20E-04	1.60E-01	2.53E-02	1.34E-02	1.01E-01	2.61E-02	1.99E-02
S_3	546200.4	5396037	Marathon High School		4.01E-04	1.07E-04	8.40E-05	4.25E-05	8.79E-06	6.72E-06	7.50E-

Table E-1 Special Receptor Predictions (ug/m3) - Construction, Projec

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	ANTHRACENE			ANTIMONY (SB)			ARSENIC (AS)			BARIUM (BA)			BENZENE			BENZO(A)ANTHRACENE			BENZO(A)PYRENE			BENZO(B)FLUORANTHENE			BENZO(G,H,I)PER	
				24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month
				-	-	-	25	-	-	0.3	-	-	10	-	-	2.3	-	0.45	-	-	-	0.00005	-	0.00001	-	-	-	-	-
H_1	545937.4	5396170	Wilson Memorial General Hospital	4.11E-05	9.45E-06	6.66E-06	2.03E-05	5.13E-06	3.97E-06	2.21E-05	5.54E-06	4.29E-06	4.08E-04	1.02E-04	7.90E-05	8.50E-03	2.08E-03	1.47E-03	1.91E-05	3.42E-06	2.34E-06	1.21E-05	2.13E-06	1.47E-06	6.03E-06	1.33E-06	8.60E-07	2.17E-05	3.81E-06
M_1	545694	5403864	PM-10 @ Hare Lake	3.98E-05	1.16E-05	6.76E-06	5.63E-05	1.63E-05	9.78E-06	6.34E-05	1.76E-05	1.06E-05	1.16E-03	3.26E-04	1.95E-04	1.61E-02	4.65E-03	2.73E-03	4.72E-06	9.62E-07	5.84E-07	2.11E-06	4.86E-07	3.02E-07	7.90E-06	1.44E-06	8.48E-07	4.09E-06	8.11E-07
M_2	545694	5403873	Dustfall @ Hare Lake	3.98E-05	1.16E-05	6.76E-06	5.60E-05	1.63E-05	9.76E-06	6.30E-05	1.76E-05	1.05E-05	1.16E-03	3.25E-04	1.95E-04	1.61E-02	4.65E-03	2.73E-03	4.71E-06	9.65E-07	5.84E-07	2.10E-06	4.87E-07	3.02E-07	7.87E-06	1.45E-06	8.49E-07	4.07E-06	8.14E-07
M_3	547152	5401222	PM-10 @ Mays Gifts	1.08E-04	3.26E-05	2.43E-05	1.55E-04	4.98E-05	3.84E-05	1.67E-04	5.37E-05	4.15E-05	3.09E-03	9.92E-04	7.66E-04	4.40E-02	1.28E-02	9.40E-03	8.59E-06	1.90E-06	1.12E-06	4.38E-06	1.06E-06	6.81E-07	1.33E-05	2.66E-06	1.37E-06	7.12E-06	1.55E-06
M_4	547147	5401216	Dustfall @ Mays Gifts	1.08E-04	3.24E-05	2.41E-05	1.54E-04	4.94E-05	3.81E-05	1.66E-04	5.34E-05	4.12E-05	3.06E-03	9.85E-04	7.60E-04	4.38E-02	1.27E-02	9.34E-03	8.61E-06	1.90E-06	1.11E-06	4.38E-06	1.05E-06	6.78E-07	1.33E-05	2.66E-06	1.37E-06	7.14E-06	1.55E-06
M_5	551637	5402371	PM-10 @ Pic River	5.00E-05	1.91E-05	1.15E-05	5.37E-05	2.28E-05	1.51E-05	5.81E-05	2.46E-05	1.63E-05	1.07E-03	4.55E-04	3.01E-04	2.14E-02	7.65E-03	4.57E-03	7.68E-06	1.56E-06	8.25E-07	3.45E-06	7.94E-07	4.35E-07	1.27E-05	2.23E-06	1.14E-06	6.59E-06	1.27E-06
M_6	551643	5402374	Dustfall @ Pic River	5.02E-05	1.90E-05	1.15E-05	5.33E-05	2.28E-05	1.50E-05	5.78E-05	2.46E-05	1.63E-05	1.07E-03	4.54E-04	3.00E-04	2.14E-02	7.63E-03	4.56E-03	7.65E-06	1.55E-06	8.24E-07	3.43E-06	7.92E-07	4.34E-07	1.26E-05	2.22E-06	1.13E-06	6.56E-06	1.27E-06
M_7	549180	5399815	Dustfall @ Airport	1.85E-04	8.33E-05	6.48E-05	1.22E-04	5.46E-05	4.15E-05	1.31E-04	5.87E-05	4.47E-05	2.43E-03	1.09E-03	8.25E-04	6.70E-02	3.03E-02	2.33E-02	7.46E-06	3.23E-06	2.46E-06	4.52E-06	2.03E-06	1.52E-06	8.24E-06	2.10E-06	1.25E-06	5.16E-06	1.81E-06
M_8	545863	5397092	Dustfall @ Field Office	6.44E-05	3.17E-05	2.43E-05	2.22E-05	6.50E-06	4.91E-06	2.40E-05	7.03E-06	5.31E-06	4.44E-04	1.30E-04	9.80E-05	1.03E-02	3.93E-03	3.11E-03	3.03E-05	1.66E-05	1.22E-05	1.97E-05	1.08E-05	7.90E-06	9.60E-06	4.87E-06	3.72E-06	3.58E-05	1.96E-05
O_1	547181.4	5398015	Pic Motel	6.07E-05	2.00E-05	1.57E-05	3.47E-05	9.56E-06	7.06E-06	3.76E-05	1.03E-05	7.63E-06	6.94E-04	1.91E-04	1.41E-04	1.52E-02	3.93E-03	3.02E-03	1.91E-05	8.61E-06	6.18E-06	1.25E-05	5.68E-06	4.07E-06	9.54E-06	2.81E-06	2.17E-06	2.30E-05	1.05E-05
O_2	545734.4	5396873	Marathon Harbour Inn	1.40E-04	6.19E-05	4.54E-05	2.40E-05	7.76E-06	5.97E-06	2.60E-05	8.38E-06	6.45E-06	4.79E-04	1.55E-04	1.19E-04	1.71E-02	6.40E-03	4.74E-03	7.31E-05	3.37E-05	2.47E-05	4.63E-05	2.13E-05	1.56E-05	2.18E-05	9.66E-06	7.04E-06	8.30E-05	3.82E-05
O_3	545885.4	5396449	Zero-100 Motor Inn	1.54E-04	5.81E-05	4.35E-05	2.11E-05	5.52E-06	4.22E-06	2.29E-05	5.97E-06	4.56E-06	4.22E-04	1.10E-04	8.40E-05	1.66E-02	5.81E-03	4.50E-03	8.29E-05	3.20E-05	2.37E-05	5.23E-05	2.02E-05	1.49E-05	2.40E-05	9.04E-06	6.73E-06	9.36E-05	3.61E-05
O_4	545987.4	5397641	OPP Station	5.77E-05	2.37E-05	1.82E-05	2.48E-05	7.50E-06	5.56E-06	2.69E-05	8.12E-06	6.00E-06	4.96E-04	1.50E-04	1.11E-04	1.18E-02	3.67E-03	2.78E-03	2.42E-05	1.13E-05	8.43E-06	1.58E-05	7.34E-06	5.48E-06	8.59E-06	3.56E-06	2.70E-06	2.90E-05	1.34E-05
O_5	545876.4	5396073	Library	2.99E-05	8.38E-06	5.74E-06	1.99E-05	5.00E-06	3.87E-06	2.16E-05	5.40E-06	4.19E-06	3.99E-04	1.00E-04	7.70E-05	8.36E-03	1.96E-03	1.37E-03	1.37E-05	2.85E-06	1.84E-06	8.70E-06	1.77E-06	1.15E-06	4.25E-06	1.16E-06	7.18E-07	1.55E-05	3.16E-06
P_1	546958.4	5396139	Penn Lake Park and Campground	2.02E-05	5.14E-06	3.99E-06	1.96E-05	5.27E-06	4.14E-06	2.13E-05	5.69E-06	4.47E-06	3.93E-04	1.05E-04	8.30E-05	7.93E-03	1.72E-03	1.31E-03	3.61E-06	9.95E-07	6.82E-07	2.21E-06	6.29E-07	4.20E-07	3.44E-06	6.44E-07	4.08E-07	3.93E-06	1.10E-06
P_2	548538.4	5392863	Craig's Pit Provincial Nature Reserve	1.35E-05	2.98E-06	1.74E-06	1.66E-05	3.61E-06	2.22E-06	1.84E-05	3.91E-06	2.40E-06	3.38E-04	7.20E-05	4.40E-05	5.62E-03	1.17E-03	6.58E-04	1.65E-06	3.00E-07	1.55E-07	7.78E-07	1.61E-07	8.87E-08	2.60E-06	3.71E-07	1.63E-07	1.43E-06	2.71E-07
P_3	540005	5402014	Red Sucker Point Provincial Park	1.43E-05	3.31E-06	1.72E-06	1.76E-05	4.26E-06	2.31E-06	2.02E-05	4.61E-06	2.50E-06	3.70E-04	8.50E-05	4.60E-05	5.83E-03	1.31E-03	6.67E-04	1.53E-06	3.24E-07	1.77E-07	7.14E-07	1.74E-07	9.73E-08	2.35E-06	4.10E-07	2.08E-07	1.38E-06	2.93E-07
P_4	552770	5383776	Pukaskwa National Park	5.75E-06	9.57E-07	5.63E-07	5.65E-06	1.18E-06	7.34E-07	6.14E-06	1.28E-06	7.94E-07	1.13E-04	2.40E-05	1.50E-05	2.34E-03	3.83E-04	2.20E-04	5.42E-07	9.49E-08	5.16E-08	2.73E-07	4.93E-08	2.81E-08	8.53E-07	1.28E-07	6.27E-08	4.63E-07	8.30E-08
PR_1	553679.4	5385896	Children & Family Learning Centre	4.46E-06	1.04E-06	6.14E-07	5.20E-06	1.24E-06	8.04E-07	5.65E-06	1.35E-06	8.70E-07	1.04E-04	2.50E-05	1.60E-05	1.81E-03	4.05E-04	2.38E-04	4.46E-07	9.35E-08	5.45E-08	2.17E-07	4.90E-08	3.02E-08	6.83E-07	1.22E-07	6.40E-08	3.86E-07	8.33E-08
PR_2	554004.4	5385858	Pic River Elementary	4.17E-06	9.50E-07	5.94E-07	4.74E-06	1.17E-06	7.83E-07	5.13E-06	1.27E-06	8.46E-07	9.50E-05	2.30E-05	1.60E-05	1.69E-03	3.68E-04	2.30E-04	4.51E-07	9.15E-08	5.30E-08	2.10E-07	4.82E-08	2.93E-08	7.06E-07	1.19E-07	6.23E-08	3.96E-07	8.13E-08
PR_3	553836.4	5385604	Pic River Private High School	4.29E-06	9.93E-07	5.93E-07	4.94E-06	1.19E-06	7.79E-07	5.36E-06	1.29E-06	8.42E-07	9.90E-05	2.40E-05	1.60E-05	1.75E-03	3.85E-04	2.30E-04	4.34E-07	9.08E-08	5.27E-08	2.07E-07	4.77E-08	2.92E-08	6.77E-07	1.19E-07	6.20E-08	3.81E-07	8.08E-08
PR_4	553930.4	5386049	Pic River Health Centre	4.27E-06	9.76E-07	6.06E-07	4.86E-06	1.20E-06	7.97E-07	5.26E-06	1.30E-06	8.62E-07	9.70E-05	2.40E-05	1.60E-05	1.73E-03	3.78E-04	2.35E-04	4.58E-07	9.32E-08	5.40E-08	2.13E-07	4.91E-08	2.99E-08	7.16E-07	1.21E-07	6.34E-08	4.01E-07	8.29E-08
PR_5	552493.4	5384783	BIIDAABAN Healing Lodge	6.28E-06	1.02E-06	6.13E-07	6.06E-06	1.28E-06	8.00E-07	6.58E-06	1.38E-06	8.65E-07	1.22E-04	2.50E-05	1.60E-05	2.57E-03	4.09E-04	2.39E-04	6.18E-07	1.04E-07	5.66E-08	3.09E-07	5.40E-08	3.09E-08	9.19E-07	1.40E-07	6.86E-08	5.29E-07	9.14E-08
PR_6	552843.4	5390100	Residence	7.16E-06	1.59E-06	9.62E-07	8.04E-06	1.88E-06	1.24E-06	8.73E-06	2.04E-06	1.34E-06	1.61E-04	3.80E-05	2.50E-05	2.82E-03	6.14E-04	3.72E-04	6.68E-07	1.51E-07	8.44E-08	3.16E-07	8.00E-08	4.69E-08	1.06E-06	1.88E-07	9.85E-08	5.93E-07	1.36E-07
PR_7	553761.4	5387706	Residence	4.61E-06	1.08E-06	6.96E-07	5.30E-06	1.34E-06	9.14E-07	5.74E-06	1.45E-06	9.89E-07	1.06E-04	2.70E-05	1.80E-05	1.86E-03	4.29E-04	2.69E-04	5.21E-07	1.08E-07	6.25E-08	2.43E-07	5.70E-08	3.47E-08	8.14E-07	1.38E-07	7.26E-08	4.56E-07	9.59E-08
PS_1	545001.3	5404050	North Hare Lake Cottage	3.21E-05	9.37E-06	5.34E-06	4.01E-05	1.30E-05	7.60E-06	4.35E-05	1.40E-05	8.22E-06	8.03E-04	2.59E-04	1.52E-04	1.30E-02	3.75E-03	2.16E-03	4.06E-06	7.80E-07	4.71E-07	1.81E-06	3.94E-07	2.43E-07	6.79E-06	1.16E-06	6.80E-07	3.52E-06	6.60E-07
PS_2	544331.3	5403100	South Hare Lake Cottage	3.24E-05	8.39E-06	4.53E-06	5.14E-05	1.18E-05	6.58E-06	5.83E-05	1.27E-05	7.12E-06	1.07E-03	2.35E-04	1.31E-04	1.32E-02	3.35E-03	1.80E-03	4.08E-06	6.35E-07	3.69E-07	1.82E-06	3.39E-07	1.98E-07	6.82E-06	8.91E-07	4.98E-07	3.56E-06	5.40E-07
PS_3	547056.1	5401004	May's Gifts	8.82E-05	2.68E-05	1.94E-05	1.33E-04	4.02E-05	2.98E-05	1.44E-04	4.35E-05	3.22E-05	2.66E-03	8.02E-04	5.95E-04	3.62E-02	1.06E-02	7.52E-03	7.85E-06	1.77E-06	1.03E-06	3.91E-06	9.56E-07	6.09E-07	1.22E-05	2.50E-06	1.27E-06	6.56E-06	1.47E-06
PS_4	546811.4	5400953	Wayfare Inn	8.50E-05	2.57E-05	1.82E-05	1.28E-04	3.89E-05	2.79E-05	1.38E-04	4.20E-05	3.01E-05	2.55E-03	7.76E-04	5.56E-04	3.49E-02	1.01E-02	7.05E-03	7.44E-06	1.59E-06	9.37E-07	3.72E-06	8.77E-07	5.62E-07	1.16E-05	2.21E-06	1.13E-06	6.23E-06	1.32E-06
PS_5	546996.4	5401028	Peninsula Inn	9.08E-05	2.75E-05	1.99E-05	1.42E-04	4.16E-05	3.07E-05	1.53E-04	4.50E-05	3.31E-05	2.83E-03	8.30E-04	6.12E-04	3.72E-02	1.08E-02	7.71E-03	7.92E-06	1.74E-06	1.02E-06	3.96E-06	9.47E-07	6.07E-07	1.23E-05	2.44E-06	1.25E-06	6.62E-06	1.44E-06
PS_6	548471.4	5399489	Travelodge Hotel	9.32E-05	3.34E-05	2.22E-05	7.14E-05	2.40E-05	1.61E-05	7.71E-05	2.58E-05	1.74E-05	1.42E-03	4.77E-04	3.21E-04	3.22E-02	1.11E-02	7.11E-03	1.04E-05	3.94E-06	3.14E-06	6.69E-06	2.64E-06	2.12E-06	7.89E-06	2.14E-06	1.54E-06	1.15E-05	4.69E-06
PS_7	546903.4	5401056	The Laughing Mooz Eatery Restaurant and Reside	9.49E-05	2.85E-05	2.05E-05	1.50E-04	4.36E-05	3.17E-05	1.62E-04	4.70E-05	3.42E-05	2.99E-03	8.68E-04	6.32E-04	3.80E-02	1.12E-02	7.95E-03	7.88E-06	1.68E-06	9.92E-07	3.97E-06	9.30E-07	6.01E-07	1.22E-05	2.34E-06	1.20E-06	6.58E-06	1.38E-06
PW_1	545777.4	5397151	Kingdom Hall of Jehovah's Witnesses	6.78E-05	2.68E-05	2.04E-05	2.16E-05	6.57E-06	4.93E-06	2.34E-05	7.11E-06	5.33E-06	4.32E-04	1.31E-04	9.80E-05	1.18E-02	3.70E-03	2.80E-03	2.97E-05	1.31E-05	9.98E-06	1.91E-05	8.48E-06	6.45E-06	1.04E-05	4.11E-06	3.09E-06	3.49E-05	1.55E-05
PW_2	546331.4	5395942	Parkland Pentecostal Church	2.12E-05	5.15E-06	4.06E-06	1.87E-05	4.85E-06	3.84E-06	2.02E-05	5.24E-06	4.15E-06	3.74E-04	9.70E-05	7.70E-05	8.19E-03	1.60E-03	1.23E-03	3.97E-06	1.15E-06	8.70E-07	2.52E-06	7.26E-07	5.40E-07	4.23E-06	6.07E-07	4.46E-07	4.47E-06	1.27E-06
PW_3	545857.4	5395715	St. John's United Church	2.05E-05	5.52E-06	4.03E-06	1.86E-05	4.56E-06	3.58E-06	2.02E-05	4.92E-06	3.86E-06	3.73E-04	9.10E-05	7.10E-05	7.96E-03	1.60E-03	1.16E-03	4.90E-06	1.40E-06	9.67E-07	3.12E-06	8.56E-07	6.00E-07	3.81E-06	7.20E-07	4.61E-07	5.55E-06	1.52E-06
PW_4	545425	5396043	Holy Saviour Roman Catholic Church	2.40E-05	6.88E-06	4.94E-06	1.84E-05	4.93E-06	3.73E-06	2.00E-05	5.33E-06	4.03E-06	3.69E-04	9.80E-05	7.40E-05	7.23E-03	1.85E-03	1.27E-03	7.08E-06	2.05E-06	1.45E-06	4.34E-06	1.27E-06	9.03E-07	4.36E-06	9.39E-07	6.05E-07	7.73E-06	2.26E-06
PW_5	545390.4	5395989	Anglican Church-Trinity	2.26E-05	6.52E-06	4.67E-06	1.83E-05	4.88E-06	3.69E-06	1.99E-05	5.27E-06	3.99E-06	3.67E-04	9.70E-05	7.40E-05	7.15E-03	1.81E-03	1.24E-03	6.35E-06	1.84E-06	1.30E-06	3.88E-06	1.14E-06	8.12E-07	4.24E-06	8.84E-07	5.64E-07	6.91E-06	2.03E-06
R_1	547226.4	5398096	Residence	7.95E-05	3.27E-05	2.45E-05	3.59E-05	9.85E-06	7.27E-06	3.89E-05	1.06E-05	7.85E-06	7.18E-04	1.96E-04	1.45E-04	1.66E-02	4.68E-03	3.81E-03	2.92E-05	1.58E-05	1.11E-05	1.95E-05	1.05E-05	7.40E-06	1.19E-05	4.86E-06	3.65E-06	3.64E-05	1.95E-05
R_10	545421.4	5395954	Residence	2.22E-05	6.38E-06	4.60E-06	1.83E-05	4.83E-06	3.67E-06	1.99E-05	5.22E-06	3.96E-06	3.67E-04	9.60E-05	7.30E-05	7.05E-03	1.78E-03	1.23E-03	5.99E-06	1.77E-06	1.27E-06	3.66E-06	1.09E-06	7.91E-07	4.13E-06	8.64E-07	5.53E-07	6.57E-06	1.94E-06
R_11	545619.4	5395878	Residence	2.37E-05	6.24E-06	4.55E-06	1.88E-05	4.75E-06	3.65E-06	2.05E-05	5.14E-06	3.94E-06	3.78E-04	9.50E-05	7.30E-05	7.81E-03	1.74E-03	1.22E-03	5.85E-06	1.71E-06	1.25E-06	3.59E-06	1.05E-06	7.76E-07	3.95E-06	8.42E-07	5.44E-07	6.41E-06	1.87E-06
R_12	545831.4	5396001	Residence	2.34E-05	7.36E-06	5.31E-06	1.96E-05	4.91E-06	3.80E-06	2.13E-05	5.30E-06	4.11E-06	3.93E-04	9.80E-05	7.60E-05	8.27E-03	1.86E-03	1.32E-03	7.63E-06	2.30E-06	1.62E-06	4.85E-06	1.43E-06	1.01E-06	4.08E-06	1.01E-06	6.54E-07	8.65E-06	2.54E-06
R_13	545806.9	5396173	Residence	3.11E-05	9.98E-06	7.26E-06	2.01E-05	5.13E-06	3.94E-06	2.18E-05	5.54E-06	4.26E-06	4.02E-04	1.02E-04	7.90E-05	8.69E-03	2.14E-03	1.51E-03	1.16E-05	3.73E-06	2.71E-06	7.25E-06	2.33E-06	1.70E-06	4.91E-06	1.42E-06	9.60E-07	1.30E-05	4.15E-06
R_14	545827.1	5396229	Residence	4.01E-05	1.21E-05	8.31E-06	2.03E-05	5.21E-06	4.00E-06	2.20E-05	5.63E-06	4.32E-06	4.07E-04	1.04E-04	8.00E-05	9.13E-03	2.33E-03	1.61E-03	1.68E-05	4.94E-06	3.29E-06	1.05E-05	3.10E-06	2.07E-06	6.06E-06	1.76E-06	1.12E-06	1.88E-05	5.53E-06
R_15	545662.4	5396176	Residence	2.89E-05	9.28E-06	6.76E-06	1.96E-05	5.15E-06	3.91E-06	2.13E-05	5.57E-06	4.23E-06	3.93E-04	1.03E-04	7.80E-05	8.15E-03	2.09E-03	1.46E-03	1.03E-05	3.31E-06	2.43E-06	6.37E-06	2.06E-06	1.52E-06	4.75E-06	1.31E-06	8.83E-07	1.14E-05	3.68E-06
R_16	546254.4	5396485	Residence	3.05E-05	1.00E-05	7.66E-06	2.14E-05	5.55E-06	4.31E-06	2.32E-05	6.00E-06	4.66E-06	4.29E-04	1.11E-04	8.60E-05	9.64E-03	2.11E-03	1.63E-03	9.12E-06	4.05E-06	2.78E-06	5.65E-06	2.56E-06	1.75E-06	5.47E-06	1.37E-06	9.95E-07	1.01E-05	4.57E-06
R_17	546471.4	5396507	Residence	2.68E-05	7.79E-06	5.86E-06	2.10E-05	5.60E-06	4.38E-06	2.28E-05	6.05E-06	4.73E-06	4.21E-04	1.12E-04	8.70E-05	9.39E-03	1.94E-03	1.51E-03	6.74E-06	2.58E-06	1.69E-06	4.28E-06	1.64E-06	1.06E-06	5.11E-06	9.93E-07	6.99E-07	7.63E-06	2.90E-06
R_18	546601.4	5396388	Residence	2.46E-05	6.40E-06	4.95E-06	1.99E-05	5.45E-06	4.29E-06	2.16E-05	5.89E-06	4.64E-06	3.98E-04	1.09E-04	8.60E-05	8.76E-03	1.82E-03	1.41E-03	6.05E-06	1.82E-06	1.19E-06	3.84E-06	1.15E-06	7.43E-07	4.62E-06	7.63E-07	5.56E-07	6.84E-06	2.04E-06
R_19	546856.4	5395581	Residence	1.83E-05	4.32E-06	3.29E-06	1.79E-05	4.65E-06	3.67E-06	1.94E-05	5.02E-06	3.96E-06	3.58E-04	9.30E-05	7.30E-05	7.34E-03	1.52E-03	1.14E-03	2.73E-06	6.69E-07	4.73E-07	1.59E-06	4.14E-07	2.87E-07	2.99E-06	5.36E-07	3.29E-07	2.83E-06	7.13E-07
R_2	547273.4	5398045	Residence	5.23E-05	1.57E-05	1.24E-05	3.60E-05	9.72E-06	7.17E-06	3.89E-05	1.05E-05	7.75E-06	7.18E-04	1.94E-04	1.43E-04	1.50E-02	3.71E-03	2.79E-03	1.32E-05	5.98E-06	4.15E-06	8.72E-06	4.00E-06	2.77E-06	8.69E-06	2.13E-06	1.61E-06	1.63E-05	7.43E-06
R_20	546950.4	5395534	Residence	1.85E-05	4.28E-06	3.24E-06	1.78E-05	4.66E-06	3.65E-06	1.93E-05	5.03E-06	3.95E-06	3.56E-04	9.30E-05	7.30E-05	7.44E-03	1.54E-03	1.13E-03	2.58E-06	6.36E-07	4.47E-07	1.48E-06	3.83E-07	2.71E-07	2.90E-06	5.32E-07	3.21E-07	2.65E-06	6.64E-07
R_21	547201.4	5395416	Residence	1.81E-05	4.23E-06	3.12E-06	1.72E-05	4.69E-06	3.60E-06	1.86E-05	5.07E-06	3.89E-06	3.44E-04	9.40E-05	7.20E-05	7.31E-03	1.56E-03	1.11E-03	2.15E-06	5.90E-07	3.94E-07	1.19E-06	3.56E-07	2.36E-07	2.69E-06	5.24E-07	3.06E-07	2.14E-06	6.15E-07
R_22	548317.4	5399655	Residence	7.06E-05	2.36E-05	1.56E-05	6.86E-05	2.10E-05	1.46E-05	7.42E-05	2.27E-05	1.57E-05	1.37E-03	4.18E-04	2.90E-04	2.62E-02	8.50E-03	5.55E-03	5.78E-06	1.92E-06	1.45E-06	3.47E-06	1.20E-06	9.19E-07	7.15E-06	1.61E-06	1.04E-06	5.48E-06	1.95E-06
R_3	545809.4	5397233	Bergagnini Apartment Rental	7.18E-05	2.80E-05	2.12E-05	2.21E-05	6.70E-06	5.00E-06	2.39E-05	7.25E-06	5.41E-06	4.42E-04	1.34E-04	1.00E-04	1.22E-02	3.83E-03	2.90E-03	3.18E-05	1.37E-05	1.04E-05	2.05E-05	8.91E-06	6.76E-06	1.10E-05	4.31E-06	3.23E-06	3.75E-05	1.63E-05
R_4	546092.4	5396797	Residence	3.63E-05	1.60E-05	1.16E-05	2.26E-05	6.06E-06	4.64E-06	2.45E-05	6.55E-06	5.01E-06	4.53E-04	1.21E-04	9.30E-05	9.83E-03	2.64E-03	2.01E-03	1.45E-05	7.58E-06	4.95E-06	9.22E-06	4.80E-06	3.12E-06	5.89E-06	2.25E-06	1.61E-06	1.65E-05	8.59E-06
R_5	545971.4	5396490	Condominium	1.24E-04	6.76E-05	4.80E-05	2.12E-05	5.56E-06	4.26E-06	2.30E-05	6.01E-06	4.60E-06	4.25E-04	1.11E-04	8.50E-05	1.46E-02	6.40E-03	4.88E-03	6.98E-05	3.77E-05	2.63E-05	4.41E-05	2.38E-05	1.66E-05	1.93E-05	1.05E-05	7.45E-06	7.90E-05	4.26E-05
R_6	545655.4	5396521	Residence	6.54E-05	1.90E-05	1.26E-05	2.03E-05	5.76E-06	4.29E-06	2.20E-05	6.23E-06	4.63E-06	4.06E-04	1.15E-04	8.60E-05	1.05E-02	2.91E-03	2.01E-03	3.01E-05	8.84E-06	5.70E-06	1.89E-05	5.56E-06	3.60E-06	9.95E-06	2.81E-06	1.80E-06	3.37E-05	9.95E-06
R_7	545438.4	5396409	I Sew Studio and Residence	3.52E-05	9.50E-06	6.70E-06	1.88E-05	5.42E-06	4.06E-06	2.04E-05	5.87E-06	4.39E-06	3.77E-04	1.08E-04	8.10E-05	8.35E-03	2.12E-03	1.48E-03	1.28E-05	3.43E-06	2.36E-06	7.97E-06	2.14E-06	1.49E-06	5.40E-06	1.31E-06	8.75E-07	1.42E-05	3.83E-06
R_8	545380.4	5396244	Bayview Apartments	2.95E-05	7.82E-06	5.55E-06	1.83E-05	5.16E-06	3.88E-06	1.99E-05	5.59E-06	4.19E-06	3.67E-04	1.03E-04	7.70E-05	7.88E-03	1.96E-03	1.35E-03	9.85E-06	2.54E-06	1.75E-06	6.09E-06	1.58E-06	1.10E-06	4.88E-06	1.05E-06	6.97E-07	1.09E-05	2.81E-06
R_9	545290.4	5396115	Residence	2.56E-05	6.77E-06	4.78E-06	1.78E-05	4.99E-06	3.75E-06	1.92E-05	5.40E-06	4.05E-06	3.55E-04	1.00E-04	7.50E-05	7.57E-03	1.85E-03	1.26E-03	7.79E-06	1.98E-06	1.35E-06	4.79E-06	1.23E-06	8.43E-07	4.44E-06	9.10E-07	5.82E-07	8.54E-06	2.18E-06
RH_1	546049.4	5395895	Peninsula Manor	2.50E-05	5.62E-06

Table E-1 Special Receptor Predictions (ug/m3) - Construction, Projec

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	YLENE	BENZO(K)FLUORANTHENE			BERYLLIUM (BE)			BISMUTH (BI)			BORON (B)			BROMINE (BR)			CADMIUM (CD)			CALCIUM (CA)			CAO			
				annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24
				-	-	-	-	0.01	-	-	2.5	-	-	120	-	-	20	-	-	0.025	-	0.005	-	-	-	10	-	-	37330
H_1	545937.4	5396170	Wilson Memorial General Hospital	2.61E-06	4.22E-06	7.98E-07	5.43E-07	4.95E-06	1.24E-06	9.59E-07	1.86E-05	4.69E-06	3.63E-06	9.00E-05	2.27E-05	1.76E-05	0.00E+00	0.00E+00	0.00E+00	5.40E-06	1.36E-06	1.05E-06	1.10E-01	2.76E-02	2.14E-02	0.00E+00	0.00E+00	0.00E+00	3.39E-02
M_1	545694	5403864	PM-10 @ Hare Lake	4.98E-07	1.65E-06	3.36E-07	2.03E-07	1.44E-05	3.95E-06	2.36E-06	5.16E-05	1.49E-05	8.94E-06	2.50E-04	7.23E-05	4.33E-05	0.00E+00	0.00E+00	0.00E+00	1.51E-05	4.32E-06	2.59E-06	3.11E-01	8.79E-02	5.27E-02	0.00E+00	0.00E+00	0.00E+00	7.60E-02
M_2	545694	5403873	Dustfall @ Hare Lake	4.99E-07	1.64E-06	3.37E-07	2.03E-07	1.43E-05	3.94E-06	2.36E-06	5.12E-05	1.49E-05	8.92E-06	2.49E-04	7.21E-05	4.33E-05	0.00E+00	0.00E+00	0.00E+00	1.50E-05	4.31E-06	2.59E-06	3.09E-01	8.77E-02	5.26E-02	0.00E+00	0.00E+00	0.00E+00	7.59E-02
M_3	547152	5401222	PM-10 @ Mays Gifts	9.07E-07	3.08E-06	6.80E-07	3.98E-07	3.74E-05	1.20E-05	9.27E-06	1.42E-04	4.55E-05	3.51E-05	6.87E-04	2.21E-04	1.70E-04	0.00E+00	0.00E+00	0.00E+00	4.11E-05	1.32E-05	1.02E-05	8.34E-01	2.68E-01	2.07E-01	0.00E+00	0.00E+00	0.00E+00	2.05E-01
M_4	547147	5401216	Dustfall @ Mays Gifts	9.06E-07	3.08E-06	6.79E-07	3.97E-07	3.71E-05	1.19E-05	9.19E-06	1.40E-04	4.52E-05	3.49E-05	6.81E-04	2.19E-04	1.69E-04	0.00E+00	0.00E+00	0.00E+00	4.07E-05	1.31E-05	1.01E-05	8.27E-01	2.66E-01	2.05E-01	0.00E+00	0.00E+00	0.00E+00	2.03E-01
M_5	551637	5402371	PM-10 @ Pic River	6.66E-07	2.67E-06	5.33E-07	2.82E-07	1.30E-05	5.51E-06	3.64E-06	4.91E-05	2.09E-05	1.38E-05	2.38E-04	1.01E-04	6.68E-05	0.00E+00	0.00E+00	0.00E+00	1.42E-05	6.05E-06	3.99E-06	2.89E-01	1.23E-01	8.11E-02	0.00E+00	0.00E+00	0.00E+00	8.83E-02
M_6	551643	5402374	Dustfall @ Pic River	6.65E-07	2.66E-06	5.31E-07	2.81E-07	1.29E-05	5.50E-06	3.63E-06	4.88E-05	2.08E-05	1.38E-05	2.37E-04	1.01E-04	6.67E-05	0.00E+00	0.00E+00	0.00E+00	1.41E-05	6.04E-06	3.99E-06	2.88E-01	1.23E-01	8.10E-02	0.00E+00	0.00E+00	0.00E+00	8.78E-02
M_7	549180	5399815	Dustfall @ Airport	1.21E-06	2.15E-06	8.13E-07	6.19E-07	2.94E-05	1.31E-05	9.99E-06	1.11E-04	4.98E-05	3.79E-05	5.40E-04	2.42E-04	1.84E-04	0.00E+00	0.00E+00	0.00E+00	3.23E-05	1.44E-05	1.10E-05	6.55E-01	2.93E-01	2.23E-01	0.00E+00	0.00E+00	0.00E+00	3.70E-01
M_8	545863	5397092	Dustfall @ Field Office	1.44E-05	7.03E-06	3.82E-06	2.82E-06	5.38E-06	1.57E-06	1.19E-06	2.03E-05	5.94E-06	4.49E-06	9.80E-05	2.88E-05	2.18E-05	0.00E+00	0.00E+00	0.00E+00	5.88E-06	1.72E-06	1.30E-06	1.20E-01	3.50E-02	2.64E-02	0.00E+00	0.00E+00	0.00E+00	3.50E-02
O_1	547181.4	5398015	Pic Motel	7.53E-06	4.84E-06	2.07E-06	1.52E-06	8.40E-06	2.31E-06	1.70E-06	3.18E-05	8.74E-06	6.46E-06	1.54E-04	4.24E-05	3.13E-05	0.00E+00	0.00E+00	0.00E+00	9.21E-06	2.53E-06	1.87E-06	1.87E-01	5.15E-02	3.80E-02	0.00E+00	0.00E+00	0.00E+00	5.92E-02
O_2	545734.4	5396873	Marathon Harbour Inn	2.79E-05	1.62E-05	7.46E-06	5.45E-06	5.81E-06	1.87E-06	1.44E-06	2.19E-05	7.10E-06	5.47E-06	1.06E-04	3.44E-05	2.65E-05	0.00E+00	0.00E+00	0.00E+00	6.36E-06	2.06E-06	1.58E-06	1.29E-01	4.18E-02	3.22E-02	0.00E+00	0.00E+00	0.00E+00	3.25E-02
O_3	545885.4	5396449	Zero-100 Motor Inn	2.67E-05	1.83E-05	7.04E-06	5.22E-06	5.12E-06	1.33E-06	1.02E-06	1.93E-05	5.05E-06	3.86E-06	9.30E-05	2.45E-05	1.87E-05	0.00E+00	0.00E+00	0.00E+00	5.59E-06	1.46E-06	1.12E-06	1.14E-01	2.97E-02	2.27E-02	0.00E+00	0.00E+00	0.00E+00	3.40E-02
O_4	545987.4	5397641	OPP Station	1.00E-05	5.64E-06	2.65E-06	1.99E-06	6.01E-06	1.82E-06	1.34E-06	2.27E-05	6.86E-06	5.08E-06	1.10E-04	3.33E-05	2.46E-05	0.00E+00	0.00E+00	0.00E+00	6.58E-06	1.99E-06	1.47E-06	1.34E-01	4.04E-02	2.99E-02	0.00E+00	0.00E+00	0.00E+00	4.10E-02
O_5	545876.4	5396073	Library	2.05E-06	3.04E-06	6.72E-07	4.33E-07	4.85E-06	1.21E-06	9.35E-07	1.82E-05	4.57E-06	3.54E-06	8.80E-05	2.22E-05	1.72E-05	0.00E+00	0.00E+00	0.00E+00	5.29E-06	1.33E-06	1.03E-06	1.08E-01	2.69E-02	2.09E-02	0.00E+00	0.00E+00	0.00E+00	3.32E-02
P_1	546958.4	5396139	Penn Lake Park and Campground	7.28E-07	9.88E-07	2.54E-07	1.79E-07	4.77E-06	1.27E-06	1.00E-06	1.80E-05	4.82E-06	3.78E-06	8.70E-05	2.34E-05	1.83E-05	0.00E+00	0.00E+00	0.00E+00	5.21E-06	1.40E-06	1.10E-06	1.06E-01	2.84E-02	2.23E-02	0.00E+00	0.00E+00	0.00E+00	3.45E-02
P_2	548538.4	5392863	Craig's Pit Provincial Nature Reserve	1.43E-07	5.71E-07	9.74E-08	4.84E-08	4.14E-06	8.76E-07	5.36E-07	1.51E-05	3.30E-06	2.03E-06	7.40E-05	1.60E-05	9.84E-06	0.00E+00	0.00E+00	0.00E+00	4.41E-06	9.57E-07	5.88E-07	9.06E-02	1.95E-02	1.20E-02	0.00E+00	0.00E+00	0.00E+00	2.36E-02
P_3	540005	5402014	Red Sucker Point Provincial Park	1.64E-07	5.16E-07	1.07E-07	5.67E-08	4.61E-06	1.03E-06	5.58E-07	1.61E-05	3.89E-06	2.11E-06	7.80E-05	1.89E-05	1.02E-05	0.00E+00	0.00E+00	0.00E+00	4.73E-06	1.13E-06	6.12E-07	9.85E-02	2.30E-02	1.24E-02	0.00E+00	0.00E+00	0.00E+00	2.62E-02
P_4	552770	5383776	Pukaskwa National Park	4.61E-08	1.87E-07	3.16E-08	1.68E-08	1.38E-06	2.86E-07	1.78E-07	5.17E-06	1.08E-06	6.72E-07	2.50E-05	5.24E-06	3.26E-06	0.00E+00	0.00E+00	0.00E+00	1.50E-06	3.14E-07	1.95E-07	3.06E-02	6.37E-03	3.96E-03	0.00E+00	0.00E+00	0.00E+00	1.04E-02
PR_1	553679.4	5385896	Children & Family Learning Centre	4.90E-08	1.54E-07	3.08E-08	1.76E-08	1.26E-06	3.01E-07	1.94E-07	4.76E-06	1.14E-06	7.35E-07	2.30E-05	5.51E-06	3.57E-06	0.00E+00	0.00E+00	0.00E+00	1.38E-06	3.29E-07	2.13E-07	2.81E-02	6.70E-03	4.33E-03	0.00E+00	0.00E+00	0.00E+00	8.68E-03
PR_2	554004.4	5385858	Pic River Elementary	4.77E-08	1.54E-07	3.02E-08	1.71E-08	1.15E-06	2.84E-07	1.89E-07	4.33E-06	1.07E-06	7.16E-07	2.10E-05	5.20E-06	3.47E-06	0.00E+00	0.00E+00	0.00E+00	1.26E-06	3.11E-07	2.08E-07	2.56E-02	6.33E-03	4.22E-03	0.00E+00	0.00E+00	0.00E+00	7.70E-03
PR_3	553836.4	5385604	Pic River Private High School	4.74E-08	1.48E-07	2.99E-08	1.70E-08	1.20E-06	2.90E-07	1.88E-07	4.52E-06	1.09E-06	7.12E-07	2.20E-05	5.30E-06	3.45E-06	0.00E+00	0.00E+00	0.00E+00	1.31E-06	3.17E-07	2.06E-07	2.67E-02	6.44E-03	4.20E-03	0.00E+00	0.00E+00	0.00E+00	8.18E-03
PR_4	553930.4	5386049	Pic River Health Centre	4.86E-08	1.56E-07	3.07E-08	1.74E-08	1.18E-06	2.90E-07	1.93E-07	4.44E-06	1.10E-06	7.29E-07	2.20E-05	5.31E-06	3.54E-06	0.00E+00	0.00E+00	0.00E+00	1.29E-06	3.18E-07	2.11E-07	2.62E-02	6.46E-03	4.30E-03	0.00E+00	0.00E+00	0.00E+00	7.88E-03
PR_5	552493.4	5384783	BIIDAABAN Healing Lodge	5.06E-08	2.14E-07	3.46E-08	1.84E-08	1.48E-06	3.08E-07	1.93E-07	5.54E-06	1.17E-06	7.32E-07	2.70E-05	5.66E-06	3.55E-06	0.00E+00	0.00E+00	0.00E+00	1.61E-06	3.38E-07	2.12E-07	3.27E-02	6.87E-03	4.31E-03	0.00E+00	0.00E+00	0.00E+00	1.12E-02
PR_6	552843.4	5390100	Residence	7.58E-08	2.29E-07	4.88E-08	2.72E-08	1.96E-06	4.57E-07	3.00E-07	7.36E-06	1.72E-06	1.14E-06	3.60E-05	8.36E-06	5.51E-06	0.00E+00	0.00E+00	0.00E+00	2.14E-06	5.00E-07	3.29E-07	4.35E-02	1.02E-02	6.70E-03	0.00E+00	0.00E+00	0.00E+00	1.38E-02
PR_7	553761.4	5387706	Residence	5.63E-08	1.78E-07	3.53E-08	2.01E-08	1.28E-06	3.25E-07	2.21E-07	4.85E-06	1.23E-06	8.36E-07	2.40E-05	5.94E-06	4.05E-06	0.00E+00	0.00E+00	0.00E+00	1.41E-06	3.55E-07	2.42E-07	2.86E-02	7.23E-03	4.93E-03	0.00E+00	0.00E+00	0.00E+00	8.54E-03
PS_1	545001.3	5404050	North Hare Lake Cottage	4.04E-07	1.42E-06	2.72E-07	1.63E-07	9.74E-06	3.14E-06	1.84E-06	3.67E-05	1.19E-05	6.95E-06	1.78E-04	5.75E-05	3.37E-05	0.00E+00	0.00E+00	0.00E+00	1.06E-05	3.44E-06	2.02E-06	2.16E-01	6.99E-02	4.10E-02	0.00E+00	0.00E+00	0.00E+00	6.11E-02
PS_2	544331.3	5403100	South Hare Lake Cottage	3.21E-07	1.43E-06	2.21E-07	1.26E-07	1.32E-05	2.84E-06	1.59E-06	4.70E-05	1.08E-05	6.02E-06	2.29E-04	5.21E-05	2.92E-05	0.00E+00	0.00E+00	0.00E+00	1.38E-05	3.12E-06	1.75E-06	2.85E-01	6.34E-02	3.55E-02	0.00E+00	0.00E+00	0.00E+00	6.05E-02
PS_3	547056.1	5401004	May's Gifts	8.58E-07	2.79E-06	6.25E-07	3.59E-07	3.22E-05	9.71E-06	7.20E-06	1.22E-04	3.68E-05	2.73E-05	5.91E-04	1.78E-04	1.32E-04	0.00E+00	0.00E+00	0.00E+00	3.53E-05	1.07E-05	7.90E-06	7.18E-01	2.17E-01	1.61E-01	0.00E+00	0.00E+00	0.00E+00	1.72E-01
PS_4	546811.4	5400953	Wayfare Inn	7.87E-07	2.65E-06	5.62E-07	3.27E-07	3.08E-05	9.39E-06	6.72E-06	1.17E-04	3.56E-05	2.55E-05	5.67E-04	1.73E-04	1.24E-04	0.00E+00	0.00E+00	0.00E+00	3.39E-05	1.03E-05	7.39E-06	6.88E-01	2.10E-01	1.50E-01	0.00E+00	0.00E+00	0.00E+00	1.61E-01
PS_5	546996.4	5401028	Peninsula Inn	8.46E-07	2.82E-06	6.16E-07	3.56E-07	3.42E-05	1.00E-05	7.40E-06	1.30E-04	3.81E-05	2.80E-05	6.29E-04	1.85E-04	1.36E-04	0.00E+00	0.00E+00	0.00E+00	3.76E-05	1.10E-05	8.13E-06	7.64E-01	2.24E-01	1.65E-01	0.00E+00	0.00E+00	0.00E+00	1.84E-01
PS_6	548471.4	5399489	Travelodge Hotel	3.77E-06	3.02E-06	1.10E-06	8.74E-07	1.72E-05	5.78E-06	3.88E-06	6.53E-05	2.19E-05	1.47E-05	3.17E-04	1.06E-04	7.13E-05	0.00E+00	0.00E+00	0.00E+00	1.89E-05	6.35E-06	4.26E-06	3.84E-01	1.29E-01	8.66E-02	0.00E+00	0.00E+00	0.00E+00	1.64E-01
PS_7	546903.4	5401056	The Laughing Mooz Eatery Restaurant and Reside	8.22E-07	2.81E-06	5.98E-07	3.50E-07	3.62E-05	1.05E-05	7.65E-06	1.37E-04	3.98E-05	2.90E-05	6.65E-04	1.93E-04	1.41E-04	0.00E+00	0.00E+00	0.00E+00	3.97E-05	1.15E-05	8.40E-06	8.07E-01	2.34E-01	1.71E-01	0.00E+00	0.00E+00	0.00E+00	1.94E-01
PW_1	545777.4	5397151	Kingdom Hall of Jehovah's Witnesses	1.17E-05	7.05E-06	3.05E-06	2.32E-06	5.24E-06	1.59E-06	1.19E-06	1.98E-05	6.01E-06	4.51E-06	9.60E-05	2.91E-05	2.19E-05	0.00E+00	0.00E+00	0.00E+00	5.73E-06	1.74E-06	1.31E-06	1.17E-01	3.54E-02	2.66E-02	0.00E+00	0.00E+00	0.00E+00	3.57E-02
PW_2	546331.4	5395942	Parkland Pentecostal Church	9.46E-07	1.18E-06	2.90E-07	2.19E-07	4.53E-06	1.17E-06	9.27E-07	1.71E-05	4.44E-06	3.51E-06	8.30E-05	2.15E-05	1.70E-05	0.00E+00	0.00E+00	0.00E+00	4.95E-06	1.29E-06	1.02E-06	1.01E-01	2.61E-02	2.07E-02	0.00E+00	0.00E+00	0.00E+00	3.12E-02
PW_3	545857.4	5395715	St. John's United Church	1.06E-06	1.19E-06	3.47E-07	2.38E-07	4.53E-06	1.10E-06	8.64E-07	1.70E-05	4.17E-06	3.27E-06	8.30E-05	2.02E-05	1.59E-05	0.00E+00	0.00E+00	0.00E+00	4.94E-06	1.21E-06	9.48E-07	1.01E-01	2.45E-02	1.93E-02	0.00E+00	0.00E+00	0.00E+00	3.15E-02
PW_4	545425	5396043	Holy Saviour Roman Catholic Church	1.60E-06	1.72E-06	4.91E-07	3.45E-07	4.48E-06	1.19E-06	9.02E-07	1.69E-05	4.51E-06	3.41E-06	8.20E-05	2.19E-05	1.65E-05	0.00E+00	0.00E+00	0.00E+00	4.89E-06	1.31E-06	9.90E-07	9.95E-02	2.66E-02	2.01E-02	0.00E+00	0.00E+00	0.00E+00	2.84E-02
PW_5	545390.4	5395989	Anglican Church-Trinity	1.44E-06	1.61E-06	4.46E-07	3.13E-07	4.45E-06	1.18E-06	8.91E-07	1.68E-05	4.46E-06	3.37E-06	8.10E-05	2.16E-05	1.64E-05	0.00E+00	0.00E+00	0.00E+00	4.86E-06	1.29E-06	9.78E-07	9.90E-02	2.63E-02	1.99E-02	0.00E+00	0.00E+00	0.00E+00	2.81E-02
R_1	547226.4	5398096	Residence	1.38E-05	7.43E-06	3.81E-06	2.73E-06	8.69E-06	2.38E-06	1.75E-06	3.29E-05	9.00E-06	6.65E-06	1.59E-04	4.37E-05	3.22E-05	0.00E+00	0.00E+00	0.00E+00	9.53E-06	2.61E-06	1.93E-06	1.94E-01	5.30E-02	3.91E-02	0.00E+00	0.00E+00	0.00E+00	6.13E-02
R_10	545421.4	5395954	Residence	1.40E-06	1.55E-06	4.28E-07	3.05E-07	4.46E-06	1.17E-06	8.86E-07	1.68E-05	4.41E-06	3.35E-06	8.10E-05	2.14E-05	1.63E-05	0.00E+00	0.00E+00	0.00E+00	4.87E-06	1.28E-06	9.72E-07	9.90E-02	2.60E-02	1.97E-02	0.00E+00	0.00E+00	0.00E+00	2.86E-02
R_11	545619.4	5395878	Residence	1.37E-06	1.46E-06	4.20E-07	3.00E-07	4.58E-06	1.15E-06	8.82E-07	1.72E-05	4.35E-06	3.34E-06	8.40E-05	2.11E-05	1.62E-05	0.00E+00	0.00E+00	0.00E+00	5.00E-06	1.26E-06	9.68E-07	1.02E-01	2.56E-02	1.97E-02	0.00E+00	0.00E+00	0.00E+00	3.08E-02
R_12	545831.4	5396001	Residence	1.80E-06	1.74E-06	5.50E-07	3.84E-07	4.77E-06	1.19E-06	9.18E-07	1.79E-05	4.49E-06	3.48E-06	8.70E-05	2.17E-05	1.68E-05	0.00E+00	0.00E+00	0.00E+00	5.21E-06	1.30E-06	1.01E-06	1.06E-01	2.64E-02	2.05E-02	0.00E+00	0.00E+00	0.00E+00	3.27E-02
R_13	545806.9	5396173	Residence	3.03E-06	2.73E-06	8.66E-07	6.23E-07	4.88E-06	1.24E-06	9.52E-07	1.84E-05	4.69E-06	3.60E-06	8.90E-05	2.27E-05	1.75E-05	0.00E+00	0.00E+00	0.00E+00	5.32E-06	1.36E-06	1.04E-06	1.08E-01	2.76E-02	2.12E-02	0.00E+00	0.00E+00	0.00E+00	3.29E-02
R_14	545827.1	5396229	Residence	3.69E-06	3.86E-06	1.13E-06	7.52E-07	4.94E-06	1.26E-06	9.66E-07	1.86E-05	4.76E-06	3.66E-06	9.00E-05	2.31E-05	1.77E-05	0.00E+00	0.00E+00	0.00E+00	5.39E-06	1.38E-06	1.06E-06	1.10E-01	2.81E-02	2.15E-02	0.00E+00	0.00E+00	0.00E+00	3.32E-02
R_15	545662.4	5396176	Residence	2.71E-06	2.43E-06	7.74E-07	5.62E-07	4.77E-06	1.25E-06	9.45E-07	1.80E-05	4.71E-06	3.58E-06	8.70E-05	2.28E-05	1.73E-05	0.00E+00	0.00E+00	0.00E+00	5.21E-06	1.37E-06	1.04E-06	1.06E-01	2.78E-02	2.11E-02	0.00E+00	0.00E+00	0.00E+00	3.14E-02
R_16	546254.4	5396485	Residence	3.11E-06	2.18E-06	9.15E-07	6.42E-07	5.20E-06	1.34E-06	1.04E-06	1.96E-05	5.08E-06	3.94E-06	9.50E-05	2.46E-05	1.91E-05	0.00E+00	0.00E+00	0.00E+00	5.68E-06	1.47E-06	1.14E-06	1.16E-01	2.99E-02	2.32E-02	0.00E+00	0.00E+00	0.00E+00	3.59E-02
R_17	546471.4	5396507	Residence	1.88E-06	1.68E-06	5.93E-07	4.04E-07	5.11E-06	1.35E-06	1.06E-06	1.92E-05	5.12E-06	4.01E-06	9.30E-05	2.48E-05	1.94E-05	0.00E+00	0.00E+00	0.00E+00	5.58E-06	1.48E-06	1.16E-06	1.14E-01	3.02E-02	2.36E-02	0.00E+00	0.00E+00	0.00E+00	3.53E-02
R_18	546601.4	5396388	Residence	1.31E-06	1.48E-06	4.26E-07	2.93E-07	4.83E-06	1.32E-06	1.04E-06	1.82E-05	4.99E-06	3.92E-06	8.80E-05	2.42E-05	1.90E-05	0.00E+00	0.00E+00	0.00E+00	5.28E-06	1.45E-06	1.14E-06	1.07E-01	2.94E-02	2.31E-02	0.00E+00	0.00E+00	0.00E+00	3.31E-02
R_19	546856.4	5395581	Residence	4.92E-07	7.64E-07	1.88E-07	1.29E-07	4.34E-06	1.12E-06	8.86E-07	1.64E-05	4.25E-06	3.35E-06	7.90E-05	2.06E-05	1.63E-05	0.00E+00	0.00E+00	0.00E+00	4.75E-06	1.23E-06	9.73E-07	9.65E-02	2.50E-02	1.98E-02	0.00E+00	0.00E+00	0.00E+00	3.18E-02
R_2	547273.4	5398045	Residence	5.18E-06	3.56E-06	1.48E-06	1.06E-06	8.70E-06	2.34E-06	1.73E-06	3.29E-05	8.88E-06	6.56E-06	1.59E-04	4.31E-05	3.18E-05	0.00E+00	0.00E+00	0.00E+00	9.54E-06	2.58E-06	1.90E-06	1.94E-01	5.23E-02	3.86E-02	0.00E+00	0.00E+00	0.00E+00	6.27E-02
R_20	546950.4	5395534	Residence	4.62E-07	7.33E-07	1.82E-07	1.24E-07	4.32E-06	1.12E-06	8.82E-07	1.63E-05	4.26E-06	3.34E-06	7.90E-05	2.06E-05	1.62E-05	0.00E+00	0.00E+00	0.00E+00	4.72E-06	1.23E-06	9.68E-07	9.59E-02	2.51E-02	1.97E-02	0.00E+00	0.00E+00	0.00E+00	3.22E-02
R_21	547201.4	5395416	Residence	4.00E-07	6.52E-07	1.68E-07	1.12E-07	4.17E-06	1.13E-06	8.70E-07	1.57E-05	4.29E-06	3.29E-06	7.60E-05	2.08E-05	1.60E-05	0.00E+00	0.00E+00	0.00E+00	4.56E-06	1.24E-06	9.55E-07	9.27E-02	2.53E-02	1.94E-02	0.00E+00	0.00E+00	0.00E+00	3.17E-02
R_22	548317.4	5399655	Residence	1.50E-06	1.78E-06	5.64E-07	4.23E-07	1.66E-05	5.06E-06	3.52E-06	6.27E-05	1.92E-05	1.33E-05	3.04E-04	9.30E-05	6.46E-05	0.00E+00	0.00E+00	0.00E+00	1.82E-05	5.56E-06	3.86E-06	3.70E-01	1.13E-01	7.84E-02	0.00E+00	0.00E+00	0.00E+00	1.30E-01
R_3	545809.4	5397233	Bergagnini Apartment Rental	1.23E-05	7.56E-06	3.21E-06	2.43E-06	5.36E-06	1.62E-06	1.21E-06	2.02E-05	6.13E-06	4.58E-06	9.80E-05	2.97E-05	2.22E-05	0.00E+00	0.00E+00	0.00E+00	5.86E-06	1.78E-06	1.33E-06	1.19E-01	3.61E-02	2.69E-02	0.00E+00	0.00E+00	0.00E+00	3.66E-02
R_4	546092.4	5396797	Residence	5.59E-06	3.22E-06	1.69E-06	1.12E-06	5.50E-06	1.46E-06	1.12E-06	2.07E-05	5.54E-06	4.24E-06	1.00E-04	2.69E-05	2.06E-05	0.00E+00	0.00E+00	0.00E+00	6.00E-06	1.61E-06	1.23E-06	1.22E-01	3.26E-02	2.50E-02	0.00E+00	0.00E+00	0.00E+00	3.65E-02
R_5	545971.4	5396490	Condominium	2.97E-05	1.53E-05	8.29E-06	5.79E-06	5.16E-06	1.34E-06	1.03E-06	1.94E-05	5.08E-06	3.89E-06	9.40E-05	2.47E-05	1.89E-05	0.00E+00	0.00E+00	0.00E+00	5.63E-06	1.47E-06	1.13E-06	1.15E-01	3.00E-02	2.29E-02	0.00E+00	0.00E+00	0.00E+00	3.47E-02
R_6	545655.4	5396521	Residence	6.43E-06	6.79E-06	1.99E-06	1.28E-06	4.92E-06	1.39E-06	1.04E-06	1.85E-05	5.26E-06	3.92E-06	9.00E-05	2.55E-05	1.90E-05	0.00E+00	0.00E+00	0.00E+00	5.38E-06	1.53E-06	1.14E-06	1.09E-01	3.10E-02	2.31E-02	0.00E+00	0.00E+00	0.00E+00	3.11E-02
R_7	545438.4	5396409	I Sew Studio and Residence	2.65E-06	3.01E-06	8.00E-07	5.50E-07	4.57E-06	1.31E-06	9.80E-07	1.72E-05	4.96E-06	3.71E-06	8.40E-05	2.40E-05	1.80E-05	0.00E+00	0.00E+00	0.00E+00	5.00E-06	1.44E-06	1.08E-06	1.02E-01	2.92E-02	2.19E-02	0.00E+00	0.00E+00	0.00E+00	2.91E-02
R_8	545380.4	5396244	Bayview Apartments	1.95E-06	2.34E-06	6.01E-07	4.13E-07	4.45E-06	1.25E-06	9.36E-07	1.68E-05	4.72E-06	3.54E-06	8.10E-05	2.29E-05	1.72E-05	0.00E+00	0.00E+00	0.00E+00	4.86E-06	1.37E-06	1.03E-06	9.89E-02	2.78E-02	2.09E-02	0.00E+00	0.00E+00	0.00E+00	2.80E-02
R_9	545290.4	5396115	Residence	1.49E-06	1.89E-06	4.78E-07	3.24E-07	4.31E-06	1.21E-06	9.05E-07	1.62E-05	4.56E-06	3.43E-06	7.90E-05	2.21E-05	1.66E-05	0.00E+00	0.00E+00	0.00E+00	4.71E-06	1.32E-06	9.93E-07	9.58E-02	2.69E-02	2.02E-02	0.00E+00	0.00E+00	0.00E+00	2.75E-02
RH_1	546049.4	5395895	Peninsula Manor	1.17E-06	1.91E-06	3.65E-07	2.62E-07

Table E-1 Special Receptor Predictions (ug/m3) - Construction, Projec

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	CH4		CHROMIUM (CR)			CHRYSENE			CO						COBALT (CO)			COPPER (CU)			DIBENZ(A,H)PERYLENE			FLUORANTHENE		
				month	annual	24	month	annual	24	month	annual	0.5	1	8	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual
				-	-	0.5	-	-	-	-	-	6000	36200	15700	-	-	-	0.1	-	-	50	-	-	-	-	-	-	-	-
H_1	545937.4	5396170	Wilson Memorial General Hospital	7.70E-03	5.73E-03	7.96E-04	2.00E-04	1.55E-04	1.24E-05	2.63E-06	1.74E-06	1.60E+02	1.32E+02	2.72E+01	1.76E+01	2.45E+00	1.77E+00	2.75E-04	6.90E-05	5.35E-05	2.17E-03	5.34E-04	4.13E-04	1.04E-06	1.39E-07	7.64E-08	7.73E-05	1.75E-05	1.22E-05
M_1	545694	5403864	PM-10 @ Hare Lake	2.22E-02	1.26E-02	2.23E-03	6.37E-04	3.82E-04	1.12E-05	2.16E-06	1.29E-06	6.25E+02	5.14E+02	6.56E+01	9.98E+01	7.08E+00	2.90E+00	7.68E-04	2.20E-04	1.32E-04	7.09E-03	1.71E-03	1.02E-03	2.43E-06	4.27E-07	2.49E-07	6.95E-05	2.02E-05	1.20E-05
M_2	545694	5403873	Dustfall @ Hare Lake	2.22E-02	1.26E-02	2.22E-03	6.35E-04	3.81E-04	1.12E-05	2.17E-06	1.29E-06	6.24E+02	5.14E+02	6.55E+01	9.88E+01	7.04E+00	2.90E+00	7.63E-04	2.19E-04	1.31E-04	7.04E-03	1.71E-03	1.02E-03	2.42E-06	4.29E-07	2.50E-07	6.96E-05	2.02E-05	1.20E-05
M_3	547152	5401222	PM-10 @ Mays Gifts	6.45E-02	4.92E-02	6.05E-03	1.94E-03	1.50E-03	2.00E-05	4.21E-06	2.32E-06	5.54E+02	4.56E+02	6.72E+01	6.13E+01	1.39E+01	1.02E+01	2.09E-03	6.70E-04	5.18E-04	1.61E-02	5.16E-03	3.98E-03	3.95E-06	7.66E-07	3.74E-07	1.91E-04	5.47E-05	3.98E-05
M_4	547147	5401216	Dustfall @ Mays Gifts	6.41E-02	4.88E-02	6.00E-03	1.93E-03	1.49E-03	2.00E-05	4.21E-06	2.31E-06	5.54E+02	4.56E+02	6.73E+01	6.13E+01	1.38E+01	1.01E+01	2.07E-03	6.66E-04	5.13E-04	1.59E-02	5.12E-03	3.95E-03	3.96E-06	7.66E-07	3.74E-07	1.90E-04	5.44E-05	3.96E-05
M_5	551637	5402371	PM-10 @ Pic River	3.58E-02	2.21E-02	2.10E-03	8.90E-04	5.88E-04	1.82E-05	3.41E-06	1.77E-06	6.97E+02	5.74E+02	7.34E+01	5.73E+01	7.69E+00	4.91E+00	7.24E-04	3.07E-04	2.03E-04	5.65E-03	2.38E-03	1.57E-03	3.89E-06	6.56E-07	3.30E-07	9.62E-05	3.35E-05	1.99E-05
M_6	551643	5402374	Dustfall @ Pic River	3.57E-02	2.20E-02	2.08E-03	8.89E-04	5.87E-04	1.81E-05	3.40E-06	1.77E-06	7.00E+02	5.77E+02	7.37E+01	5.74E+01	7.68E+00	4.90E+00	7.19E-04	3.07E-04	2.03E-04	5.62E-03	2.37E-03	1.57E-03	3.88E-06	6.54E-07	3.29E-07	9.58E-05	3.35E-05	1.98E-05
M_7	549180	5399815	Dustfall @ Airport	1.66E-01	1.29E-01	4.75E-03	2.13E-03	1.62E-03	1.30E-05	4.53E-06	3.26E-06	3.39E+02	2.80E+02	1.22E+02	7.59E+01	3.31E+01	2.55E+01	1.64E-03	7.33E-04	5.58E-04	1.26E-02	5.64E-03	4.28E-03	2.41E-06	5.03E-07	2.18E-07	2.91E-04	1.32E-04	1.02E-04
M_8	545863	5397092	Dustfall @ Field Office	9.85E-03	6.97E-03	8.67E-04	2.54E-04	1.92E-04	2.00E-05	1.05E-05	7.90E-06	1.94E+02	1.59E+02	2.75E+01	1.62E+01	5.54E+00	4.44E+00	2.99E-04	8.80E-05	6.62E-05	2.35E-03	6.81E-04	5.11E-04	1.16E-06	1.76E-07	9.35E-08	1.21E-04	6.03E-05	4.61E-05
O_1	547181.4	5398015	Pic Motel	1.49E-02	1.09E-02	1.36E-03	3.73E-04	2.75E-04	1.63E-05	5.68E-06	4.33E-06	2.84E+02	2.34E+02	3.53E+01	1.93E+01	4.59E+00	3.76E+00	4.68E-04	1.29E-04	9.51E-05	3.64E-03	9.92E-04	7.33E-04	1.73E-06	2.22E-07	1.31E-07	1.10E-04	3.69E-05	2.90E-05
O_2	545734.4	5396873	Marathon Harbour Inn	9.23E-03	6.52E-03	9.36E-04	3.03E-04	2.33E-04	4.72E-05	2.13E-05	1.55E-05	1.94E+02	1.60E+02	6.73E+01	4.40E+01	1.00E+01	7.44E+00	3.23E-04	1.05E-04	8.05E-05	2.53E-03	8.07E-04	6.20E-04	1.11E-06	1.67E-07	8.84E-08	2.68E-04	1.19E-04	8.70E-05
O_3	545885.4	5396449	Zero-100 Motor Inn	8.35E-03	6.06E-03	8.23E-04	2.16E-04	1.65E-04	5.26E-05	2.00E-05	1.49E-05	2.00E+02	1.65E+02	6.12E+01	4.85E+01	9.27E+00	7.11E+00	2.84E-04	7.40E-05	5.68E-05	2.24E-03	5.76E-04	4.39E-04	9.37E-07	1.52E-07	8.10E-08	2.95E-04	1.12E-04	8.34E-05
O_4	545987.4	5397641	OPP Station	1.13E-02	8.00E-03	9.69E-04	2.93E-04	2.17E-04	1.68E-05	7.43E-06	5.61E-06	1.82E+02	1.50E+02	2.38E+01	1.55E+01	4.77E+00	3.72E+00	3.34E-04	1.01E-04	7.48E-05	2.62E-03	7.88E-04	5.78E-04	1.24E-06	1.99E-07	1.07E-07	1.08E-04	4.47E-05	3.42E-05
O_5	545876.4	5396073	Library	7.50E-03	5.58E-03	7.80E-04	1.95E-04	1.51E-04	8.58E-06	2.27E-06	1.43E-06	1.57E+02	1.29E+02	2.12E+01	1.67E+01	2.27E+00	1.62E+00	2.69E-04	6.70E-05	5.22E-05	2.13E-03	5.21E-04	4.03E-04	1.02E-06	1.36E-07	7.48E-08	5.56E-05	1.55E-05	1.04E-05
P_1	546958.4	5396139	Penn Lake Park and Campground	7.81E-03	6.12E-03	7.68E-04	2.06E-04	1.62E-04	5.22E-06	1.10E-06	7.28E-07	2.38E+02	1.96E+02	2.65E+01	1.71E+01	2.04E+00	1.45E+00	2.65E-04	7.10E-05	5.58E-05	2.08E-03	5.47E-04	4.31E-04	9.52E-07	1.37E-07	7.83E-08	3.67E-05	9.21E-06	6.98E-06
P_2	548538.4	5392863	Craig's Pit Provincial Nature Reserve	5.33E-03	3.19E-03	6.52E-04	1.41E-04	8.70E-05	3.78E-06	5.74E-07	2.64E-07	3.66E+02	3.01E+02	4.13E+01	2.00E+01	1.70E+00	7.35E-01	2.25E-04	4.90E-05	2.99E-05	1.95E-03	3.85E-04	2.32E-04	7.87E-07	1.05E-07	4.31E-08	2.49E-05	5.30E-06	2.98E-06
P_3	540005	5402014	Red Sucker Point Provincial Park	5.99E-03	3.07E-03	7.02E-04	1.66E-04	9.00E-05	3.37E-06	6.32E-07	3.25E-07	4.60E+02	3.79E+02	4.75E+01	4.46E+01	2.75E+00	7.45E-01	2.41E-04	5.70E-05	3.11E-05	2.42E-03	4.49E-04	2.41E-04	7.09E-07	1.16E-07	5.77E-08	2.57E-05	5.88E-06	3.04E-06
P_4	552770	5383776	Pukaskwa National Park	1.73E-03	1.03E-03	2.21E-04	4.60E-05	2.90E-05	1.22E-06	1.94E-07	9.82E-08	7.56E+01	6.23E+01	7.87E+00	4.45E+00	4.39E-01	2.34E-01	7.60E-05	1.60E-05	9.90E-06	6.07E-04	1.24E-04	7.70E-05	2.60E-07	3.69E-08	1.76E-08	1.04E-05	1.72E-06	9.85E-07
PR_1	553679.4	5385896	Children & Family Learning Centre	1.96E-03	1.13E-03	2.03E-04	4.90E-05	3.10E-05	1.01E-06	1.86E-07	1.01E-07	9.53E+01	7.85E+01	1.02E+01	6.38E+00	4.56E-01	2.56E-01	7.00E-05	1.70E-05	1.08E-05	5.53E-04	1.31E-04	8.40E-05	2.06E-07	3.50E-08	1.77E-08	7.94E-06	1.79E-06	1.07E-06
PR_2	554004.4	5385858	Pic River Elementary	1.79E-03	1.09E-03	1.85E-04	4.60E-05	3.10E-05	1.02E-06	1.83E-07	9.84E-08	1.17E+02	9.61E+01	1.23E+01	6.65E+00	4.69E-01	2.47E-01	6.40E-05	1.60E-05	1.05E-05	4.99E-04	1.24E-04	8.20E-05	2.14E-07	3.42E-08	1.72E-08	7.36E-06	1.63E-06	1.03E-06
PR_3	553836.4	5385604	Pic River Private High School	1.87E-03	1.09E-03	1.93E-04	4.70E-05	3.00E-05	9.77E-07	1.81E-07	9.80E-08	1.06E+02	8.74E+01	1.10E+01	5.83E+00	4.29E-01	2.47E-01	6.70E-05	1.60E-05	1.05E-05	5.24E-04	1.26E-04	8.20E-05	2.05E-07	3.40E-08	1.72E-08	7.66E-06	1.70E-06	1.03E-06
PR_4	553930.4	5386049	Pic River Health Centre	1.84E-03	1.11E-03	1.90E-04	4.70E-05	3.10E-05	1.03E-06	1.86E-07	1.00E-07	1.26E+02	1.04E+02	1.33E+01	6.17E+00	4.60E-01	2.52E-01	6.60E-05	1.60E-05	1.07E-05	5.13E-04	1.26E-04	8.30E-05	2.17E-07	3.48E-08	1.75E-08	7.55E-06	1.67E-06	1.05E-06
PR_5	552493.4	5384783	BIIDAABAN Healing Lodge	1.87E-03	1.12E-03	2.37E-04	5.00E-05	3.10E-05	1.37E-06	2.13E-07	1.07E-07	6.53E+01	5.38E+01	6.86E+00	4.46E+00	4.88E-01	2.55E-01	8.20E-05	1.70E-05	1.08E-05	6.51E-04	1.33E-04	8.40E-05	2.79E-07	4.06E-08	1.92E-08	1.14E-05	1.84E-06	1.07E-06
PR_6	552843.4	5390100	Residence	2.98E-03	1.77E-03	3.15E-04	7.40E-05	4.90E-05	1.53E-06	2.89E-07	1.56E-07	1.55E+02	1.28E+02	1.71E+01	8.16E+00	6.58E-01	3.98E-01	1.09E-04	2.50E-05	1.67E-05	8.59E-04	1.99E-04	1.30E-04	3.21E-07	5.34E-08	2.72E-08	1.22E-05	2.71E-06	1.67E-06
PR_7	553761.4	5387706	Residence	2.01E-03	1.28E-03	2.07E-04	5.20E-05	3.60E-05	1.18E-06	2.12E-07	1.15E-07	1.05E+02	8.65E+01	1.12E+01	9.37E+00	5.93E-01	2.90E-01	7.20E-05	1.80E-05	1.23E-05	5.75E-04	1.41E-04	9.60E-05	2.46E-07	3.94E-08	2.00E-08	8.12E-06	1.93E-06	1.21E-06
PS_1	545001.3	5404050	North Hare Lake Cottage	1.79E-02	9.87E-03	1.57E-03	5.06E-04	2.97E-04	9.66E-06	1.75E-06	1.03E-06	4.38E+02	3.61E+02	4.62E+01	2.93E+01	4.09E+00	2.27E+00	5.41E-04	1.75E-04	1.02E-04	4.26E-03	1.36E-03	7.93E-04	2.09E-06	3.45E-07	2.00E-07	5.62E-05	1.63E-05	9.50E-06
PS_2	544331.3	5403100	South Hare Lake Cottage	1.59E-02	8.50E-03	2.04E-03	4.59E-04	2.57E-04	9.69E-06	1.37E-06	7.70E-07	5.10E+02	4.20E+02	5.33E+01	1.06E+02	6.04E+00	1.96E+00	7.02E-04	1.58E-04	8.87E-05	6.71E-03	1.23E-03	6.86E-04	2.10E-06	2.59E-07	1.43E-07	5.74E-05	1.46E-05	7.91E-06
PS_3	547056.1	5401004	May's Gifts	5.22E-02	3.87E-02	5.20E-03	1.57E-03	1.16E-03	1.82E-05	3.90E-06	2.10E-06	5.23E+02	4.31E+02	6.58E+01	6.10E+01	1.13E+01	8.11E+00	1.80E-03	5.42E-04	4.02E-04	1.38E-02	4.18E-03	3.09E-03	3.66E-06	7.26E-07	3.50E-07	1.59E-04	4.55E-05	3.22E-05
PS_4	546811.4	5400953	Wayfare Inn	5.03E-02	3.64E-02	4.99E-03	1.52E-03	1.09E-03	1.73E-05	3.48E-06	1.89E-06	5.44E+02	4.48E+02	6.78E+01	5.48E+01	1.11E+01	7.63E+00	1.72E-03	5.24E-04	3.75E-04	1.32E-02	4.04E-03	2.89E-03	3.46E-06	6.39E-07	3.10E-07	1.53E-04	4.33E-05	3.01E-05
PS_5	546996.4	5401028	Peninsula Inn	5.39E-02	3.98E-02	5.54E-03	1.62E-03	1.20E-03	1.84E-05	3.83E-06	2.08E-06	5.42E+02	4.46E+02	6.97E+01	5.98E+01	1.17E+01	8.33E+00	1.91E-03	5.61E-04	4.13E-04	1.47E-02	4.32E-03	3.18E-03	3.69E-06	7.08E-07	3.42E-07	1.63E-04	4.66E-05	3.29E-05
PS_6	548471.4	5399489	Travelodge Hotel	5.67E-02	3.58E-02	2.79E-03	9.34E-04	6.27E-04	1.24E-05	3.97E-06	2.92E-06	5.27E+02	4.34E+02	6.22E+01	5.48E+01	1.21E+01	7.90E+00	9.61E-04	3.22E-04	2.17E-04	7.41E-03	2.48E-03	1.67E-03	2.16E-06	4.11E-07	2.07E-07	1.55E-04	5.55E-05	3.72E-05
PS_7	546903.4	5401056	The Laughing Mooz Eatery Restaurant and Reside	5.64E-02	4.14E-02	5.85E-03	1.70E-03	1.24E-03	1.83E-05	3.70E-06	2.02E-06	5.52E+02	4.54E+02	7.27E+01	5.63E+01	1.23E+01	8.62E+00	2.02E-03	5.87E-04	4.27E-04	1.55E-02	4.52E-03	3.28E-03	3.66E-06	6.74E-07	3.27E-07	1.66E-04	4.80E-05	3.38E-05
PW_1	545777.4	5397151	Kingdom Hall of Jehovah's Witnesses	9.92E-03	7.00E-03	8.44E-04	2.57E-04	1.93E-04	2.09E-05	8.62E-06	6.52E-06	1.82E+02	1.50E+02	2.67E+01	1.73E+01	5.04E+00	3.90E+00	2.91E-04	8.90E-05	6.65E-05	2.29E-03	6.90E-04	5.13E-04	1.16E-06	1.77E-07	9.47E-08	1.28E-04	5.08E-05	3.86E-05
PW_2	546331.4	5395942	Parkland Pentecostal Church	7.12E-03	5.57E-03	7.29E-04	1.89E-04	1.50E-04	6.44E-06	1.11E-06	8.23E-07	2.38E+02	1.96E+02	2.68E+01	1.25E+01	1.84E+00	1.38E+00	2.52E-04	6.50E-05	5.17E-05	1.98E-03	5.04E-04	4.00E-04	1.15E-06	1.20E-07	7.32E-08	4.09E-05	9.20E-06	7.19E-06
PW_3	545857.4	5395715	St. John's United Church	6.75E-03	5.14E-03	7.28E-04	1.78E-04	1.40E-04	5.81E-06	1.31E-06	8.66E-07	1.69E+02	1.39E+02	2.20E+01	1.46E+01	1.74E+00	1.32E+00	2.51E-04	6.10E-05	4.82E-05	1.99E-03	4.74E-04	3.72E-04	1.05E-06	1.21E-07	6.93E-08	3.89E-05	1.00E-05	7.18E-06
PW_4	545425	5396043	Holy Saviour Roman Catholic Church	7.47E-03	5.34E-03	7.20E-04	1.92E-04	1.46E-04	7.31E-06	1.75E-06	1.18E-06	2.11E+02	1.74E+02	2.30E+01	1.17E+01	2.15E+00	1.47E+00	2.49E-04	6.60E-05	5.03E-05	1.96E-03	5.16E-04	3.89E-04	9.39E-07	1.41E-07	7.37E-08	4.48E-05	1.26E-05	8.94E-06
PW_5	545390.4	5395989	Anglican Church-Trinity	7.39E-03	5.28E-03	7.17E-04	1.90E-04	1.44E-04	7.06E-06	1.63E-06	1.09E-06	2.11E+02	1.74E+02	2.29E+01	1.14E+01	2.09E+00	1.43E+00	2.47E-04	6.60E-05	4.97E-05	1.95E-03	5.11E-04	3.84E-04	9.32E-07	1.40E-07	7.30E-08	4.35E-05	1.19E-05	8.42E-06
R_1	547226.4	5398096	Residence	1.54E-02	1.12E-02	1.40E-03	3.84E-04	2.84E-04	2.15E-05	1.01E-05	7.40E-06	2.90E+02	2.39E+02	4.20E+01	2.38E+01	6.13E+00	5.06E+00	4.84E-04	1.33E-04	9.79E-05	3.76E-03	1.02E-03	7.55E-04	1.79E-06	2.30E-07	1.35E-07	1.46E-04	6.11E-05	4.58E-05
R_10	545421.4	5395954	Residence	7.32E-03	5.25E-03	7.17E-04	1.88E-04	1.43E-04	6.85E-06	1.59E-06	1.06E-06	2.10E+02	1.73E+02	2.27E+01	1.22E+01	2.05E+00	1.41E+00	2.47E-04	6.50E-05	4.94E-05	1.95E-03	5.05E-04	3.82E-04	9.13E-07	1.38E-07	7.24E-08	4.22E-05	1.17E-05	8.28E-06
R_11	545619.4	5395878	Residence	7.14E-03	5.24E-03	7.37E-04	1.85E-04	1.42E-04	6.56E-06	1.55E-06	1.05E-06	1.75E+02	1.44E+02	1.96E+01	1.57E+01	1.94E+00	1.40E+00	2.54E-04	6.40E-05	4.92E-05	2.01E-03	4.96E-04	3.80E-04	8.88E-07	1.34E-07	7.15E-08	4.45E-05	1.14E-05	8.19E-06
R_12	545831.4	5396001	Residence	7.35E-03	5.47E-03	7.67E-04	1.91E-04	1.48E-04	6.53E-06	1.92E-06	1.29E-06	1.54E+02	1.27E+02	2.10E+01	1.66E+01	2.10E+00	1.54E+00	2.65E-04	6.60E-05	5.12E-05	2.09E-03	5.11E-04	3.95E-04	1.00E-06	1.34E-07	7.36E-08	4.41E-05	1.35E-05	9.62E-06
R_13	545806.9	5396173	Residence	7.73E-03	5.67E-03	7.85E-04	2.00E-04	1.54E-04	9.04E-06	2.82E-06	1.96E-06	1.71E+02	1.41E+02	2.40E+01	1.76E+01	2.55E+00	1.85E+00	2.71E-04	6.90E-05	5.31E-05	2.14E-03	5.35E-04	4.10E-04	9.51E-07	1.42E-07	7.63E-08	5.82E-05	1.86E-05	1.34E-05
R_14	545827.1	5396229	Residence	7.86E-03	5.76E-03	7.94E-04	2.03E-04	1.56E-04	1.22E-05	3.58E-06	2.33E-06	1.75E+02	1.44E+02	2.72E+01	1.82E+01	2.88E+00	2.02E+00	2.74E-04	7.00E-05	5.39E-05	2.17E-03	5.44E-04	4.16E-04	9.53E-07	1.44E-07	7.73E-08	7.56E-05	2.27E-05	1.54E-05
R_15	545662.4	5396176	Residence	7.76E-03	5.61E-03	7.68E-04	2.01E-04	1.53E-04	8.25E-06	2.57E-06	1.79E-06	2.02E+02	1.66E+02	2.27E+01	1.59E+01	2.49E+00	1.77E+00	2.65E-04	6.90E-05	5.27E-05	2.09E-03	5.38E-04	4.07E-04	9.09E-07	1.44E-07	7.62E-08	5.40E-05	1.72E-05	1.24E-05
R_16	546254.4	5396485	Residence	8.32E-03	6.26E-03	8.36E-04	2.17E-04	1.68E-04	9.15E-06	2.77E-06	2.03E-06	1.77E+02	1.46E+02	2.38E+01	1.58E+01	2.50E+00	1.99E+00	2.89E-04	7.50E-05	5.81E-05	2.28E-03	5.77E-04	4.48E-04	1.19E-06	1.42E-07	8.17E-08	5.81E-05	1.86E-05	1.41E-05
R_17	546471.4	5396507	Residence	8.35E-03	6.40E-03	8.23E-04	2.19E-04	1.71E-04	8.14E-06	1.94E-06	1.36E-06	2.31E+02	1.90E+02	2.64E+01	1.30E+01	2.24E+00	1.75E+00	2.84E-04	7.50E-05	5.90E-05	2.24E-03	5.82E-04	4.56E-04	1.26E-06	1.34E-07	8.24E-08	5.14E-05	1.42E-05	1.05E-05
R_18	546601.4	5396388	Residence	8.08E-03	6.29E-03	7.77E-04	2.13E-04	1.67E-04	7.11E-06	1.46E-06	1.05E-06	2.49E+02	2.05E+02	2.79E+01	1.36E+01	2.08E+00	1.61E+00	2.68E-04	7.30E-05	5.78E-05	2.11E-03	5.66E-04	4.46E-04	1.23E-06	1.33E-07	8.06E-08	4.49E-05	1.15E-05	8.80E-06
R_19	546856.4	5395581	Residence	6.89E-03	5.38E-03	6.99E-04	1.82E-04	1.43E-04	4.42E-06	8.85E-07	5.69E-07	3.11E+02	2.56E+02	3.39E+01	1.72E+01	1.82E+00	1.25E+00	2.41E-04	6.30E-05	4.94E-05	1.90E-03	4.83E-04	3.82E-04	8.75E-07	1.27E-07	7.08E-08	3.34E-05	7.69E-06	5.72E-06
R_2	547273.4	5398045	Residence	1.54E-02	1.11E-02	1.40E-03	3.79E-04	2.80E-04	1.43E-05	4.11E-06	3.10E-06	2.93E+02	2.41E+02	3.68E+01	1.96E+01	4.15E+00	3.33E+00	4.85E-04	1.31E-04	9.66E-05	3.77E-03	1.01E-03	7.45E-04	1.82E-06	2.24E-07	1.34E-07	9.36E-05	2.86E-05	2.25E-05
R_20	546950.4	5395534	Residence	6.93E-03	5.36E-03	6.95E-04	1.82E-04	1.43E-04	4.29E-06	8.73E-07	5.53E-07	4.16E+02	3.43E+02	4.32E+01	1.83E+01	1.85E+00	1.24E+00	2.40E-04	6.30E-05	4.92E-05	1.89E-03	4.83E-04	3.80E-04	8.52E-07	1.29E-07	7.07E-08	3.38E-05	7.64E-06	5.62E-06
R_21	547201.4	5395416	Residence	7.04E-03	5.31E-03	6.71E-04	1.83E-04	1.41E-04	4.04E-06	8.45E-07	5.19E-07	3.53E+02	2.90E+02	3.88E+01	2.98E+01	2.36E+00	1.23E+00	2.32E-04	6.30E-05	4.86E-05	1.86E-03	4.88E-04	3.75E-04	7.85E-07	1.32E-07	7.06E-08	3.29E-05	7.54E-06	5.40E-06
R_22	548317.4	5399655	Residence	4.38E-02	2.83E-02	2.68E-03	8.19E-04	5.68E-04	1.08E-05	2.69E-06	1.85E-06	5.22E+02	4.30E+02	6.21E+01	3.19E+01	9.07E+00	6.04E+00	9.24E-04	2.83E-04	1.96E-04	7.16E-03	2.18E-03	1.51E-03	2.09E-06	4.06E-07	2.20E-07	1.19E-04	3.91E-05	2.61E-05
R_3	545809.4	5397233	Bergagnini Apartment Rental	1.01E-02	7.15E-03	8.63E-04	2.62E-04	1.95E-04	2.23E-05	9.02E-06	6.80E-06	1.88E+02	1.55E+02	2.73E+01	1.79E+01	5.23E+00	4.03E+00	2.98E-04	9.00E-05	6.74E-05	2.34E-03	7.03E-04	5.20E-04	1.17E-06	1.81E-07	9.66E-08	1.35E-04	5.30E-05	4.02E-05
R_4	546092.4	5396797	Residence	9.17E-03	6.66E-03	8.84E-04	2.37E-04	1.81E-04	1.06E-05	4.90E-06	3.39E-06	1.85E+02	1.52E+02	2.38E+01	1.78E+01	3.34E+00	2.61E+00	3.05E-04	8.20E-05	6.25E-05	2.41E-03	6.32E-04	4.82E-04	1.01E-06	1.63E-07	8.75E-08	6.84E-05	3.01E-05	2.16E-05
R_5	545971.4	5396490	Condominium	8.39E-03	6.13E-03	8.30E-04	2.17E-04	1.66E-04	4.31E-05	2.34E-05	1.65E-05	1.76E+02	1.45E+02	6.16E+01	3.87E+01	1.05E+01	7.77E+00	2.86E-04	7.50E-05	5.74E-05	2.26E-03	5.80E-04	4.43E-04	9.96E-07	1.51E-07	8.15E-08	2.39E-04	1.30E-04	9.21E-05
R_6	545655.4	5396521	Residence	8.55E-03	6.07E-03	7.92E-04	2.25E-04	1.67E-04	2.07E-05	5.95E-06	3.83E-06	2.22E+02	1.83E+02	3.27E+01	2.15E+01	3.85E+00	2.68E+00	2.73E-04	7.80E-05	5.78E-05	2.15E-03	6.03E-04	4.46E-04	1.03E-06	1.57E-07	8.24E-08	1.24E-04	3.59E-05	2.37E-05
R_7	545438.4	5396409	I Sew Studio and Residence	8.12E-03	5.73E-03	7.36E-04	2.12E-04	1.58E-04	1.01E-05	2.61E-06	1.76E-06	1.48E+02	1.22E+02	2.08E+01	1.21E+01	2.61E+00	1.78E+00	2.54E-04	7.30E-05	5.47E-05	1.99E-03	5.69E-04	4.22E-04	1.03E-06	1.50E-07	7.93E-08	6.57E-05	1.76E-05	1.23E-05
R_8	545380.4	5396244	Bayview Apartments	7.80E-03	5.52E-03	7.16E-04	2.02E-04	1.51E-04	8.31E-06	2.04E-06	1.37E-06	1.59E+02	1.31E+02	1.92E+01	1.03E+01	2.37E+00	1.59E+00	2.47E-04	7.00E-05	5.22E-05	1.94E-03	5.42E-04	4.03E-04	9.96E-07	1.46E-07	7.65E-08	5.48E-05	1.44E-05	1.01E-05
R_9	545290.4	5396115	Residence	7.56E-03	5.34E-03	6.94E-04	1.95E-04	1.46E-04	7.39E-06	1.68E-06	1.12E-06	1.47E+02	1.21E+02	1.77E+01	9.09E+00	2.21E+00	1.45E+00	2.39E-04	6.70E-05	5.05E-05	1.88E-03	5.24E-04	3.90E-04	9.75E-07	1.42E-07	7.45E-08	4.73E-05	1.23E-05	8.63E-06
RH_1	546049.4	5395895	Peninsula Manor	7.08E-03	5.43E-03	7.52E-04	1.87E-04	1.47E-04	6.75E-06

Table E-1 Special Receptor Predictions (ug/m3) - Construction, Projec

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	FLUORENE			FORMALDEHYDE			GALLIUM (GA)			GOLD (AU)			HYDROCHLORIC ACID (HCL)			HYDROFLUORIC ACID (HF)			INDENO(1,2,3-CD)PYRENE			IRON (FE)			IRON SULFID	
				24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month
				-	-	-	65	-	-	-	-	-	1.25	-	-	20	-	-	0.86	0.34	-	-	-	-	-	-	-	-	-
H_1	545937.4	5396170	Wilson Memorial General Hospital	1.40E-04	3.73E-05	2.62E-05	9.98E-02	2.44E-02	1.80E-02	9.00E-05	2.27E-05	1.76E-05	9.34E-08	2.32E-08	1.79E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.25E-06	1.66E-07	9.15E-08	4.81E-01	1.21E-01	9.40E-02	0.00E+00	0.00E+00
M_1	545694	5403864	PM-10 @ Hare Lake	2.56E-04	7.43E-05	4.37E-05	2.21E-01	6.48E-02	3.65E-02	2.50E-04	7.21E-05	4.33E-05	2.90E-07	7.40E-08	4.42E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.91E-06	5.11E-07	2.99E-07	1.33E+00	3.86E-01	2.31E-01	0.00E+00	0.00E+00
M_2	545694	5403873	Dustfall @ Hare Lake	2.56E-04	7.42E-05	4.36E-05	2.21E-01	6.47E-02	3.65E-02	2.48E-04	7.20E-05	4.32E-05	2.88E-07	7.39E-08	4.41E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.89E-06	5.14E-07	2.99E-07	1.32E+00	3.85E-01	2.31E-01	0.00E+00	0.00E+00
M_3	547152	5401222	PM-10 @ Mays Gifts	7.03E-04	2.04E-04	1.49E-04	5.93E-01	1.89E-01	1.44E-01	6.86E-04	2.20E-04	1.70E-04	6.98E-07	2.24E-07	1.73E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.73E-06	9.17E-07	4.48E-07	3.67E+00	1.18E+00	9.10E-01	0.00E+00	0.00E+00
M_4	547147	5401216	Dustfall @ Mays Gifts	6.99E-04	2.02E-04	1.48E-04	5.88E-01	1.87E-01	1.43E-01	6.80E-04	2.19E-04	1.69E-04	6.92E-07	2.23E-07	1.71E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.74E-06	9.16E-07	4.47E-07	3.64E+00	1.17E+00	9.02E-01	0.00E+00	0.00E+00
M_5	551637	5402371	PM-10 @ Pic River	3.42E-04	1.22E-04	7.29E-05	2.58E-01	1.04E-01	6.44E-02	2.37E-04	1.01E-04	6.66E-05	2.44E-07	1.03E-07	6.81E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.66E-06	7.85E-07	3.95E-07	1.27E+00	5.40E-01	3.57E-01	0.00E+00	0.00E+00
M_6	551643	5402374	Dustfall @ Pic River	3.44E-04	1.22E-04	7.28E-05	2.57E-01	1.04E-01	6.43E-02	2.36E-04	1.01E-04	6.65E-05	2.43E-07	1.03E-07	6.80E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.64E-06	7.82E-07	3.94E-07	1.26E+00	5.39E-01	3.56E-01	0.00E+00	0.00E+00
M_7	549180	5399815	Dustfall @ Airport	1.07E-03	4.85E-04	3.75E-04	1.10E+00	4.94E-01	3.84E-01	5.40E-04	2.42E-04	1.84E-04	5.47E-07	2.45E-07	1.86E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.88E-06	6.02E-07	2.60E-07	2.88E+00	1.29E+00	9.81E-01	0.00E+00	0.00E+00
M_8	545863	5397092	Dustfall @ Field Office	1.92E-04	8.17E-05	6.49E-05	1.11E-01	3.54E-02	2.74E-02	9.80E-05	2.88E-05	2.17E-05	1.01E-07	2.95E-08	2.22E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.39E-06	2.11E-07	1.12E-07	5.25E-01	1.54E-01	1.16E-01	0.00E+00	0.00E+00
O_1	547181.4	5398015	Pic Motel	2.60E-04	7.01E-05	5.56E-05	1.84E-01	4.72E-02	3.52E-02	1.54E-04	4.23E-05	3.12E-05	1.57E-07	4.31E-08	3.18E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.08E-06	2.66E-07	1.57E-07	8.22E-01	2.26E-01	1.67E-01	0.00E+00	0.00E+00
O_2	545734.4	5396873	Marathon Harbour Inn	3.64E-04	1.45E-04	1.07E-04	1.37E-01	4.39E-02	3.32E-02	1.06E-04	3.43E-05	2.64E-05	1.09E-07	3.50E-08	2.69E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.33E-06	2.00E-07	1.06E-07	5.67E-01	1.84E-01	1.41E-01	0.00E+00	0.00E+00
O_3	545885.4	5396449	Zero-100 Motor Inn	3.71E-04	1.33E-04	1.02E-04	1.21E-01	4.02E-02	3.13E-02	9.30E-05	2.44E-05	1.87E-05	9.65E-08	2.50E-08	1.90E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.12E-06	1.82E-07	9.69E-08	4.98E-01	1.31E-01	9.98E-02	0.00E+00	0.00E+00
O_4	545987.4	5397641	OPP Station	2.15E-04	7.20E-05	5.48E-05	1.32E-01	3.72E-02	2.82E-02	1.10E-04	3.32E-05	2.46E-05	1.13E-07	3.41E-08	2.51E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.48E-06	2.39E-07	1.29E-07	5.87E-01	1.78E-01	1.32E-01	0.00E+00	0.00E+00
O_5	545876.4	5396073	Library	1.37E-04	3.46E-05	2.40E-05	9.80E-02	2.34E-02	1.73E-02	8.80E-05	2.21E-05	1.71E-05	9.15E-08	2.26E-08	1.75E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.22E-06	1.63E-07	8.95E-08	4.72E-01	1.18E-01	9.17E-02	0.00E+00	0.00E+00
P_1	546958.4	5396139	Penn Lake Park and Campground	1.28E-04	2.82E-05	2.15E-05	1.01E-01	2.32E-02	1.82E-02	8.70E-05	2.33E-05	1.83E-05	8.97E-08	2.37E-08	1.87E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.14E-06	1.64E-07	9.37E-08	4.65E-01	1.25E-01	9.80E-02	0.00E+00	0.00E+00
P_2	548538.4	5392863	Craig's Pit Provincial Nature Reserve	9.00E-05	1.88E-05	1.06E-05	6.95E-02	1.56E-02	9.37E-03	7.30E-05	1.60E-05	9.82E-06	8.14E-08	1.65E-08	1.00E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.41E-07	1.25E-07	5.16E-08	3.91E-01	8.53E-02	5.25E-02	0.00E+00	0.00E+00
P_3	540005	5402014	Red Sucker Point Provincial Park	9.30E-05	2.10E-05	1.07E-05	7.67E-02	1.75E-02	8.98E-03	7.80E-05	1.88E-05	1.02E-05	9.66E-08	1.94E-08	1.05E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.48E-07	1.39E-07	6.91E-08	4.15E-01	1.01E-01	5.46E-02	0.00E+00	0.00E+00
P_4	552770	5383776	Pukaskwa National Park	3.80E-05	6.14E-06	3.52E-06	3.05E-02	5.07E-03	3.02E-03	2.50E-05	5.23E-06	3.25E-06	2.61E-08	5.36E-09	3.33E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.12E-07	4.42E-08	2.10E-08	1.34E-01	2.80E-02	1.74E-02	0.00E+00	0.00E+00
PR_1	553679.4	5385896	Children & Family Learning Centre	2.90E-05	6.47E-06	3.82E-06	2.57E-02	5.77E-03	3.32E-03	2.30E-05	5.50E-06	3.56E-06	2.38E-08	5.67E-09	3.64E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.47E-07	4.19E-08	2.12E-08	1.23E-01	2.94E-02	1.90E-02	0.00E+00	0.00E+00
PR_2	554004.4	5385858	Pic River Elementary	2.70E-05	5.89E-06	3.69E-06	2.28E-02	5.25E-03	3.20E-03	2.10E-05	5.19E-06	3.46E-06	2.16E-08	5.34E-09	3.54E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.56E-07	4.09E-08	2.06E-08	1.12E-01	2.78E-02	1.85E-02	0.00E+00	0.00E+00
PR_3	553836.4	5385604	Pic River Private High School	2.80E-05	6.16E-06	3.69E-06	2.42E-02	5.50E-03	3.20E-03	2.20E-05	5.29E-06	3.45E-06	2.26E-08	5.45E-09	3.53E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.45E-07	4.07E-08	2.05E-08	1.17E-01	2.83E-02	1.84E-02	0.00E+00	0.00E+00
PR_4	553930.4	5386049	Pic River Health Centre	2.80E-05	6.05E-06	3.76E-06	2.33E-02	5.40E-03	3.27E-03	2.20E-05	5.30E-06	3.53E-06	2.21E-08	5.46E-09	3.61E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.59E-07	4.16E-08	2.10E-08	1.15E-01	2.84E-02	1.89E-02	0.00E+00	0.00E+00
PR_5	552493.4	5384783	BIIDAABAN Healing Lodge	4.10E-05	6.56E-06	3.83E-06	3.30E-02	5.49E-03	3.28E-03	2.70E-05	5.64E-06	3.54E-06	2.79E-08	5.77E-09	3.62E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.33E-07	4.85E-08	2.30E-08	1.43E-01	3.02E-02	1.89E-02	0.00E+00	0.00E+00
PR_6	552843.4	5390100	Residence	4.50E-05	9.82E-06	5.96E-06	4.07E-02	8.77E-03	5.20E-03	3.60E-05	8.34E-06	5.50E-06	3.69E-08	8.59E-09	5.63E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.84E-07	6.39E-08	3.25E-08	1.90E-01	4.46E-02	2.94E-02	0.00E+00	0.00E+00
PR_7	553761.4	5387706	Residence	3.00E-05	6.88E-06	4.32E-06	2.53E-02	5.92E-03	3.75E-03	2.30E-05	5.93E-06	4.05E-06	2.41E-08	6.09E-09	4.14E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.95E-07	4.71E-08	2.40E-08	1.26E-01	3.17E-02	2.16E-02	0.00E+00	0.00E+00
PS_1	545001.3	5404050	North Hare Lake Cottage	2.07E-04	5.98E-05	3.45E-05	1.78E-01	5.21E-02	2.87E-02	1.77E-04	5.74E-05	3.37E-05	1.84E-07	5.89E-08	3.44E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.50E-06	4.12E-07	2.39E-07	9.49E-01	3.07E-01	1.80E-01	0.00E+00	0.00E+00
PS_2	544331.3	5403100	South Hare Lake Cottage	2.11E-04	5.34E-05	2.88E-05	1.77E-01	4.65E-02	2.48E-02	2.28E-04	5.20E-05	2.91E-05	2.72E-07	5.33E-08	2.98E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.51E-06	3.09E-07	1.72E-07	1.21E+00	2.78E-01	1.56E-01	0.00E+00	0.00E+00
PS_3	547056.1	5401004	May's Gifts	5.79E-04	1.68E-04	1.20E-04	5.01E-01	1.52E-01	1.13E-01	5.90E-04	1.78E-04	1.32E-04	5.99E-07	1.81E-07	1.34E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.38E-06	8.69E-07	4.19E-07	3.16E+00	9.52E-01	7.06E-01	0.00E+00	0.00E+00
PS_4	546811.4	5400953	Wayfare Inn	5.58E-04	1.61E-04	1.12E-04	4.69E-01	1.47E-01	1.07E-01	5.66E-04	1.72E-04	1.23E-04	5.75E-07	1.75E-07	1.25E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.14E-06	7.65E-07	3.70E-07	3.03E+00	9.21E-01	6.60E-01	0.00E+00	0.00E+00
PS_5	546996.4	5401028	Peninsula Inn	5.94E-04	1.73E-04	1.23E-04	5.37E-01	1.58E-01	1.17E-01	6.28E-04	1.84E-04	1.36E-04	6.38E-07	1.88E-07	1.38E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.41E-06	8.47E-07	4.09E-07	3.36E+00	9.85E-01	7.26E-01	0.00E+00	0.00E+00
PS_6	548471.4	5399489	Travelodge Hotel	5.22E-04	1.81E-04	1.17E-04	4.89E-01	1.69E-01	1.07E-01	3.16E-04	1.06E-04	7.12E-05	3.21E-07	1.08E-07	7.24E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.59E-06	4.92E-07	2.48E-07	1.69E+00	5.67E-01	3.81E-01	0.00E+00	0.00E+00
PS_7	546903.4	5401056	The Laughing Mooz Eatery Restaurant and Reside	6.07E-04	1.78E-04	1.26E-04	5.67E-01	1.65E-01	1.21E-01	6.64E-04	1.93E-04	1.40E-04	6.74E-07	1.96E-07	1.43E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.38E-06	8.06E-07	3.92E-07	3.55E+00	1.03E+00	7.51E-01	0.00E+00	0.00E+00
PW_1	545777.4	5397151	Kingdom Hall of Jehovah's Witnesses	2.24E-04	7.53E-05	5.71E-05	1.21E-01	3.47E-02	2.61E-02	9.60E-05	2.91E-05	2.18E-05	9.86E-08	2.98E-08	2.23E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.39E-06	2.12E-07	1.13E-07	5.11E-01	1.56E-01	1.17E-01	0.00E+00	0.00E+00
PW_2	546331.4	5395942	Parkland Pentecostal Church	1.33E-04	2.64E-05	2.05E-05	9.18E-02	2.13E-02	1.67E-02	8.30E-05	2.15E-05	1.70E-05	8.54E-08	2.19E-08	1.73E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.38E-06	1.44E-07	8.76E-08	4.42E-01	1.15E-01	9.09E-02	0.00E+00	0.00E+00
PW_3	545857.4	5395715	St. John's United Church	1.29E-04	2.70E-05	1.95E-05	9.23E-02	2.04E-02	1.55E-02	8.20E-05	2.02E-05	1.58E-05	8.55E-08	2.06E-08	1.61E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.26E-06	1.45E-07	8.29E-08	4.41E-01	1.08E-01	8.47E-02	0.00E+00	0.00E+00
PW_4	545425	5396043	Holy Saviour Roman Catholic Church	1.22E-04	3.17E-05	2.19E-05	8.47E-02	2.28E-02	1.63E-02	8.20E-05	2.18E-05	1.65E-05	8.43E-08	2.23E-08	1.69E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.12E-06	1.68E-07	8.82E-08	4.36E-01	1.17E-01	8.84E-02	0.00E+00	0.00E+00
PW_5	545390.4	5395989	Anglican Church-Trinity	1.20E-04	3.08E-05	2.12E-05	8.39E-02	2.25E-02	1.61E-02	8.10E-05	2.16E-05	1.63E-05	8.39E-08	2.21E-08	1.67E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.12E-06	1.67E-07	8.74E-08	4.34E-01	1.15E-01	8.74E-02	0.00E+00	0.00E+00
R_1	547226.4	5398096	Residence	3.00E-04	9.11E-05	7.44E-05	1.96E-01	5.13E-02	3.92E-02	1.59E-04	4.36E-05	3.22E-05	1.63E-07	4.43E-08	3.28E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.14E-06	2.75E-07	1.62E-07	8.51E-01	2.33E-01	1.72E-01	0.00E+00	0.00E+00
R_10	545421.4	5395954	Residence	1.18E-04	3.03E-05	2.10E-05	8.51E-02	2.22E-02	1.60E-02	8.10E-05	2.14E-05	1.62E-05	8.39E-08	2.19E-08	1.66E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.09E-06	1.65E-07	8.67E-08	4.34E-01	1.14E-01	8.68E-02	0.00E+00	0.00E+00
R_11	545619.4	5395878	Residence	1.30E-04	2.96E-05	2.08E-05	9.16E-02	2.17E-02	1.59E-02	8.30E-05	2.10E-05	1.62E-05	8.65E-08	2.15E-08	1.65E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.06E-06	1.60E-07	8.56E-08	4.46E-01	1.12E-01	8.64E-02	0.00E+00	0.00E+00
R_12	545831.4	5396001	Residence	1.36E-04	3.22E-05	2.29E-05	9.65E-02	2.27E-02	1.68E-02	8.70E-05	2.17E-05	1.68E-05	9.00E-08	2.22E-08	1.72E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.20E-06	1.60E-07	8.81E-08	4.64E-01	1.16E-01	9.00E-02	0.00E+00	0.00E+00
R_13	545806.9	5396173	Residence	1.47E-04	3.85E-05	2.73E-05	9.93E-02	2.46E-02	1.80E-02	8.90E-05	2.27E-05	1.74E-05	9.20E-08	2.32E-08	1.78E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.14E-06	1.70E-07	9.13E-08	4.75E-01	1.21E-01	9.33E-02	0.00E+00	0.00E+00
R_14	545827.1	5396229	Residence	1.58E-04	4.32E-05	2.96E-05	1.02E-01	2.57E-02	1.86E-02	9.00E-05	2.31E-05	1.77E-05	9.32E-08	2.36E-08	1.81E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.14E-06	1.72E-07	9.25E-08	4.81E-01	1.23E-01	9.47E-02	0.00E+00	0.00E+00
R_15	545662.4	5396176	Residence	1.38E-04	3.72E-05	2.62E-05	9.48E-02	2.44E-02	1.77E-02	8.70E-05	2.28E-05	1.73E-05	9.00E-08	2.33E-08	1.77E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.09E-06	1.73E-07	9.12E-08	4.65E-01	1.22E-01	9.26E-02	0.00E+00	0.00E+00
R_16	546254.4	5396485	Residence	1.62E-04	3.81E-05	2.93E-05	1.08E-01	2.57E-02	1.98E-02	9.50E-05	2.46E-05	1.91E-05	9.81E-08	2.50E-08	1.94E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.42E-06	1.70E-07	9.77E-08	5.06E-01	1.31E-01	1.02E-01	0.00E+00	0.00E+00
R_17	546471.4	5396507	Residence	1.55E-04	3.33E-05	2.59E-05	1.05E-01	2.52E-02	1.96E-02	9.30E-05	2.48E-05	1.94E-05	9.64E-08	2.52E-08	1.98E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.50E-06	1.61E-07	9.86E-08	4.98E-01	1.33E-01	1.04E-01	0.00E+00	0.00E+00
R_18	546601.4	5396388	Residence	1.43E-04	3.02E-05	2.38E-05	9.77E-02	2.42E-02	1.90E-02	8.80E-05	2.41E-05	1.90E-05	9.09E-08	2.46E-08	1.94E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.47E-06	1.60E-07	9.65E-08	4.71E-01	1.29E-01	1.02E-01	0.00E+00	0.00E+00
R_19	546856.4	5395581	Residence	1.18E-04	2.48E-05	1.85E-05	9.33E-02	2.04E-02	1.59E-02	7.90E-05	2.06E-05	1.62E-05	8.18E-08	2.10E-08	1.66E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.05E-06	1.51E-07	8.47E-08	4.23E-01	1.10E-01	8.69E-02	0.00E+00	0.00E+00
R_2	547273.4	5398045	Residence	2.51E-04	6.38E-05	4.94E-05	1.90E-01	4.72E-02	3.48E-02	1.59E-04	4.30E-05	3.17E-05	1.63E-07	4.37E-08	3.23E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.18E-06	2.68E-07	1.61E-07	8.51E-01	2.30E-01	1.70E-01	0.00E+00	0.00E+00
R_20	546950.4	5395534	Residence	1.20E-04	2.50E-05	1.83E-05	9.46E-02	2.05E-02	1.58E-02	7.90E-05	2.06E-05	1.62E-05	8.14E-08	2.10E-08	1.65E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.02E-06	1.54E-07	8.47E-08	4.21E-01	1.10E-01	8.64E-02	0.00E+00	0.00E+00
R_21	547201.4	5395416	Residence	1.17E-04	2.52E-05	1.80E-05	9.31E-02	2.07E-02	1.56E-02	7.60E-05	2.08E-05	1.59E-05	7.87E-08	2.12E-08	1.63E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.39E-07	1.58E-07	8.45E-08	4.06E-01	1.11E-01	8.53E-02	0.00E+00	0.00E+00
R_22	548317.4	5399655	Residence	4.21E-04	1.37E-04	8.97E-05	3.85E-01	1.29E-01	8.37E-02	3.04E-04	9.29E-05	6.45E-05	3.10E-07	9.45E-08	6.56E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.50E-06	4.85E-07	2.63E-07	1.62E+00	4.97E-01	3.45E-01	0.00E+00	0.00E+00
R_3	545809.4	5397233	Bergagnini Apartment Rental	2.34E-04	7.82E-05	5.92E-05	1.25E-01	3.56E-02	2.68E-02	9.80E-05	2.97E-05	2.21E-05	1.01E-07	3.04E-08	2.26E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.40E-06	2.16E-07	1.16E-07	5.23E-01	1.59E-01	1.18E-01	0.00E+00	0.00E+00
R_4	546092.4	5396797	Residence	1.69E-04	5.01E-05	3.82E-05	1.11E-01	2.91E-02	2.22E-02	1.00E-04	2.68E-05	2.05E-05	1.04E-07	2.74E-08	2.09E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.21E-06	1.95E-07	1.05E-07	5.35E-01	1.43E-01	1.10E-01	0.00E+00	0.00E+00
R_5	545971.4	5396490	Condominium	2.93E-04	1.50E-04	1.11E-04	1.28E-01	4.19E-02	3.30E-02	9.40E-05	2.46E-05	1.88E-05	9.74E-08	2.51E-08	1.92E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.19E-06	1.81E-07	9.76E-08	5.02E-01	1.32E-01	1.01E-01	0.00E+00	0.00E+00
R_6	545655.4	5396521	Residence	2.04E-04	5.75E-05	3.91E-05	1.03E-01	2.92E-02	2.10E-02	9.00E-05	2.55E-05	1.90E-05	9.26E-08	2.61E-08	1.94E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.24E-06	1.87E-07	9.86E-08	4.80E-01	1.36E-01	1.02E-01	0.00E+00	0.00E+00
R_7	545438.4	5396409	I Sew Studio and Residence	1.43E-04	3.73E-05	2.63E-05	8.98E-02	2.53E-02	1.80E-02	8.30E-05	2.40E-05	1.80E-05	8.59E-08	2.46E-08	1.83E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.23E-06	1.80E-07	9.49E-08	4.46E-01	1.28E-01	9.61E-02	0.00E+00	0.00E+00
R_8	545380.4	5396244	Bayview Apartments	1.34E-04	3.39E-05	2.35E-05	8.50E-02	2.40E-02	1.70E-02	8.10E-05	2.29E-05	1.72E-05	8.36E-08	2.34E-08	1.75E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.19E-06	1.74E-07	9.16E-08	4.34E-01	1.22E-01	9.18E-02	0.00E+00	0.00E+00
R_9	545290.4	5396115	Residence	1.27E-04	3.15E-05	2.16E-05	8.29E-02	2.30E-02	1.63E-02	7.90E-05	2.21E-05	1.66E-05	8.10E-08	2.27E-08	1.69E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.17E-06	1.70E-07	8.91E-08	4.20E-01	1.18E-01	8.87E-02	0.00E+00	0.00E+00
RH_1	546049.4	5395895	Peninsula Manor	1.34E-04	2.78E-05	2.08E-05

Table E-1 Special Receptor Predictions (ug/m3) - Construction, Projec

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	E	LANTHANUM (LA)			LANTHANUM CHLORIDE (LACL3)			LEAD (PB)			MAGNESIUM (MG)			MANGANESE (MN)			MERCURY (HG)			MOLYBDENUM (MO)			N2O			
				annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	10-min
				-	-	-	-	2.5	-	-	0.5	0.2	-	72	-	-	0.4	-	-	2	-	-	120	-	-	9000	-	-	50
H_1	545937.4	5396170	Wilson Memorial General Hospital	0.00E+00	1.50E-04	3.70E-05	2.86E-05	0.00E+00	0.00E+00	0.00E+00	2.44E-05	6.08E-06	4.70E-06	1.25E-01	3.16E-02	2.45E-02	4.60E-03	1.16E-03	8.99E-04	9.04E-06	2.28E-06	1.76E-06	1.11E-05	2.79E-06	2.16E-06	1.07E-01	2.42E-02	1.80E-02	5.92E-03
M_1	545694	5403864	PM-10 @ Hare Lake	0.00E+00	4.82E-04	1.18E-04	7.06E-05	0.00E+00	0.00E+00	0.00E+00	7.27E-05	1.94E-05	1.16E-05	3.40E-01	1.00E-01	6.02E-02	1.27E-02	3.69E-03	2.21E-03	2.51E-05	7.24E-06	4.34E-06	3.27E-05	8.88E-06	5.31E-06	2.39E-01	6.99E-02	3.96E-02	1.00E-02
M_2	545694	5403873	Dustfall @ Hare Lake	0.00E+00	4.78E-04	1.18E-04	7.05E-05	0.00E+00	0.00E+00	0.00E+00	7.22E-05	1.93E-05	1.16E-05	3.38E-01	1.00E-01	6.01E-02	1.26E-02	3.68E-03	2.21E-03	2.49E-05	7.22E-06	4.33E-06	3.25E-05	8.86E-06	5.30E-06	2.39E-01	6.98E-02	3.95E-02	1.00E-02
M_3	547152	5401222	PM-10 @ Mays Gifts	0.00E+00	1.11E-03	3.58E-04	2.76E-04	0.00E+00	0.00E+00	0.00E+00	1.83E-04	5.88E-05	4.54E-05	9.55E-01	3.07E-01	2.37E-01	3.51E-02	1.13E-02	8.70E-03	6.88E-05	2.21E-05	1.71E-05	8.41E-05	2.70E-05	2.08E-05	6.46E-01	2.02E-01	1.54E-01	1.22E-02
M_4	547147	5401216	Dustfall @ Mays Gifts	0.00E+00	1.11E-03	3.55E-04	2.73E-04	0.00E+00	0.00E+00	0.00E+00	1.82E-04	5.84E-05	4.50E-05	9.47E-01	3.05E-01	2.35E-01	3.48E-02	1.12E-02	8.63E-03	6.82E-05	2.19E-05	1.69E-05	8.34E-05	2.68E-05	2.07E-05	6.41E-01	2.01E-01	1.53E-01	1.23E-02
M_5	551637	5402371	PM-10 @ Pic River	0.00E+00	3.91E-04	1.65E-04	1.09E-04	0.00E+00	0.00E+00	0.00E+00	6.39E-05	2.70E-05	1.79E-05	3.30E-01	1.41E-01	9.28E-02	1.21E-02	5.16E-03	3.41E-03	2.38E-05	1.01E-05	6.69E-06	2.92E-05	1.24E-05	8.18E-06	2.77E-01	1.13E-01	6.93E-02	1.33E-02
M_6	551643	5402374	Dustfall @ Pic River	0.00E+00	3.89E-04	1.64E-04	1.09E-04	0.00E+00	0.00E+00	0.00E+00	6.35E-05	2.70E-05	1.78E-05	3.28E-01	1.40E-01	9.26E-02	1.21E-02	5.15E-03	3.40E-03	2.37E-05	1.01E-05	6.68E-06	2.91E-05	1.24E-05	8.17E-06	2.76E-01	1.12E-01	6.92E-02	1.33E-02
M_7	549180	5399815	Dustfall @ Airport	0.00E+00	8.74E-04	3.91E-04	2.97E-04	0.00E+00	0.00E+00	0.00E+00	1.44E-04	6.45E-05	4.90E-05	7.51E-01	3.36E-01	2.55E-01	2.76E-02	1.23E-02	9.38E-03	5.41E-05	2.42E-05	1.84E-05	6.59E-05	2.95E-05	2.24E-05	1.15E+00	5.17E-01	4.02E-01	1.02E-02
M_8	545863	5397092	Dustfall @ Field Office	0.00E+00	1.62E-04	4.72E-05	3.54E-05	0.00E+00	0.00E+00	0.00E+00	2.65E-05	7.72E-06	5.82E-06	1.36E-01	4.00E-02	3.03E-02	5.02E-03	1.47E-03	1.11E-03	9.85E-06	2.89E-06	2.18E-06	1.21E-05	3.54E-06	2.67E-06	1.10E-01	3.09E-02	2.19E-02	6.55E-03
O_1	547181.4	5398015	Pic Motel	0.00E+00	2.52E-04	6.88E-05	5.08E-05	0.00E+00	0.00E+00	0.00E+00	4.12E-05	1.13E-05	8.35E-06	2.14E-01	5.89E-02	4.35E-02	7.86E-03	2.17E-03	1.60E-03	1.54E-05	4.25E-06	3.13E-06	1.89E-05	5.19E-06	3.83E-06	1.86E-01	4.68E-02	3.41E-02	8.25E-03
O_2	545734.4	5396873	Marathon Harbour Inn	0.00E+00	1.75E-04	5.59E-05	4.30E-05	0.00E+00	0.00E+00	0.00E+00	2.85E-05	9.18E-06	7.06E-06	1.48E-01	4.78E-02	3.68E-02	5.42E-03	1.76E-03	1.35E-03	1.06E-05	3.44E-06	2.65E-06	1.31E-05	4.21E-06	3.24E-06	1.02E-01	2.90E-02	2.05E-02	6.37E-03
O_3	545885.4	5396449	Zero-100 Motor Inn	0.00E+00	1.55E-04	3.99E-05	3.04E-05	0.00E+00	0.00E+00	0.00E+00	2.52E-05	6.55E-06	4.99E-06	1.30E-01	3.40E-02	2.60E-02	4.76E-03	1.25E-03	9.54E-04	9.35E-06	2.45E-06	1.87E-06	1.15E-05	3.00E-06	2.29E-06	1.07E-01	2.62E-02	1.90E-02	6.18E-03
O_4	545987.4	5397641	OPP Station	0.00E+00	1.81E-04	5.45E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00	2.96E-05	8.92E-06	6.58E-06	1.53E-01	4.62E-02	3.42E-02	5.61E-03	1.70E-03	1.26E-03	1.10E-05	3.33E-06	2.47E-06	1.35E-05	4.08E-06	3.02E-06	1.29E-01	3.54E-02	2.51E-02	6.91E-03
O_5	545876.4	5396073	Library	0.00E+00	1.47E-04	3.61E-05	2.79E-05	0.00E+00	0.00E+00	0.00E+00	2.39E-05	5.93E-06	4.59E-06	1.23E-01	3.08E-02	2.39E-02	4.51E-03	1.13E-03	8.77E-04	8.86E-06	2.22E-06	1.72E-06	1.09E-05	2.72E-06	2.10E-06	1.05E-01	2.35E-02	1.75E-02	5.84E-03
P_1	546958.4	5396139	Penn Lake Park and Campground	0.00E+00	1.44E-04	3.79E-05	2.98E-05	0.00E+00	0.00E+00	0.00E+00	2.34E-05	6.23E-06	4.90E-06	1.21E-01	3.25E-02	2.55E-02	4.45E-03	1.19E-03	9.37E-04	8.73E-06	2.34E-06	1.84E-06	1.07E-05	2.86E-06	2.25E-06	1.08E-01	2.45E-02	1.92E-02	6.19E-03
P_2	548538.4	5392863	Craig's Pit Provincial Nature Reserve	0.00E+00	1.34E-04	2.66E-05	1.60E-05	0.00E+00	0.00E+00	0.00E+00	2.07E-05	4.32E-06	2.63E-06	1.01E-01	2.22E-02	1.37E-02	3.74E-03	8.16E-04	5.02E-04	7.36E-06	1.60E-06	9.86E-07	9.39E-06	1.97E-06	1.21E-06	7.38E-02	1.67E-02	1.00E-02	4.87E-03
P_3	540005	5402014	Red Sucker Point Provincial Park	0.00E+00	1.63E-04	3.11E-05	1.67E-05	0.00E+00	0.00E+00	0.00E+00	2.37E-05	5.07E-06	2.74E-06	1.05E-01	2.62E-02	1.42E-02	3.95E-03	9.63E-04	5.22E-04	7.84E-06	1.89E-06	1.02E-06	1.06E-05	2.32E-06	1.26E-06	8.22E-02	1.88E-02	9.64E-03	4.43E-03
P_4	552770	5383776	Pukaskwa National Park	0.00E+00	4.20E-05	8.57E-06	5.32E-06	0.00E+00	0.00E+00	0.00E+00	6.79E-06	1.40E-06	8.72E-07	3.47E-02	7.28E-03	4.52E-03	1.28E-03	2.68E-04	1.66E-04	2.51E-06	5.25E-07	3.26E-07	3.10E-06	6.43E-07	3.99E-07	3.25E-02	5.40E-03	3.23E-03	2.08E-03
PR_1	553679.4	5385896	Children & Family Learning Centre	0.00E+00	3.80E-05	9.09E-06	5.83E-06	0.00E+00	0.00E+00	0.00E+00	6.22E-06	1.48E-06	9.55E-07	3.20E-02	7.64E-03	4.95E-03	1.18E-03	2.81E-04	1.82E-04	2.31E-06	5.52E-07	3.57E-07	2.85E-06	6.78E-07	4.37E-07	2.71E-02	6.14E-03	3.55E-03	1.74E-03
PR_2	554004.4	5385858	Pic River Elementary	0.00E+00	3.50E-05	8.56E-06	5.67E-06	0.00E+00	0.00E+00	0.00E+00	5.64E-06	1.40E-06	9.29E-07	2.92E-02	7.22E-03	4.82E-03	1.07E-03	2.65E-04	1.77E-04	2.10E-06	5.21E-07	3.48E-07	2.58E-06	6.39E-07	4.26E-07	2.41E-02	5.59E-03	3.42E-03	1.76E-03
PR_3	553836.4	5385604	Pic River Private High School	0.00E+00	3.60E-05	8.73E-06	5.64E-06	0.00E+00	0.00E+00	0.00E+00	5.90E-06	1.42E-06	9.25E-07	3.04E-02	7.35E-03	4.80E-03	1.12E-03	2.70E-04	1.76E-04	2.20E-06	5.30E-07	3.46E-07	2.70E-06	6.52E-07	4.24E-07	2.55E-02	5.85E-03	3.42E-03	1.72E-03
PR_4	553930.4	5386049	Pic River Health Centre	0.00E+00	3.50E-05	8.75E-06	5.78E-06	0.00E+00	0.00E+00	0.00E+00	5.79E-06	1.43E-06	9.47E-07	2.99E-02	7.38E-03	4.91E-03	1.10E-03	2.71E-04	1.80E-04	2.16E-06	5.32E-07	3.54E-07	2.65E-06	6.54E-07	4.34E-07	2.46E-02	5.75E-03	3.50E-03	1.79E-03
PR_5	552493.4	5384783	BIIDAABAN Healing Lodge	0.00E+00	4.50E-05	9.23E-06	5.79E-06	0.00E+00	0.00E+00	0.00E+00	7.28E-06	1.51E-06	9.50E-07	3.72E-02	7.86E-03	4.93E-03	1.37E-03	2.89E-04	1.81E-04	2.69E-06	5.66E-07	3.55E-07	3.32E-06	6.93E-07	4.35E-07	3.51E-02	5.85E-03	3.51E-03	2.23E-03
PR_6	552843.4	5390100	Residence	0.00E+00	5.90E-05	1.38E-05	9.00E-06	0.00E+00	0.00E+00	0.00E+00	9.64E-06	2.25E-06	1.48E-06	4.95E-02	1.16E-02	7.65E-03	1.82E-03	4.26E-04	2.81E-04	3.57E-06	8.37E-07	5.52E-07	4.41E-06	1.03E-06	6.76E-07	4.33E-02	9.33E-03	5.56E-03	2.60E-03
PR_7	553761.4	5387706	Residence	0.00E+00	3.90E-05	9.76E-06	6.62E-06	0.00E+00	0.00E+00	0.00E+00	6.31E-06	1.60E-06	1.09E-06	3.27E-02	8.25E-03	5.63E-03	1.20E-03	3.03E-04	2.07E-04	2.36E-06	5.95E-07	4.06E-07	2.89E-06	7.30E-07	4.97E-07	2.67E-02	6.30E-03	4.01E-03	2.03E-03
PS_1	545001.3	5404050	North Hare Lake Cottage	0.00E+00	2.95E-04	9.44E-05	5.50E-05	0.00E+00	0.00E+00	0.00E+00	4.79E-05	1.54E-05	9.02E-06	2.47E-01	7.98E-02	4.69E-02	9.07E-03	2.93E-03	1.72E-03	1.78E-05	5.76E-06	3.38E-06	2.19E-05	7.06E-06	4.13E-06	1.92E-01	5.61E-02	3.10E-02	8.94E-03
PS_2	544331.3	5403100	South Hare Lake Cottage	0.00E+00	4.55E-04	8.53E-05	4.75E-05	0.00E+00	0.00E+00	0.00E+00	6.76E-05	1.40E-05	7.80E-06	3.09E-01	7.24E-02	4.06E-02	1.16E-02	2.66E-03	1.49E-03	2.29E-05	5.22E-06	2.92E-06	3.03E-05	6.40E-06	3.58E-06	1.90E-01	5.00E-02	2.67E-02	8.45E-03
PS_3	547056.1	5401004	May's Gifts	0.00E+00	9.56E-04	2.89E-04	2.14E-04	0.00E+00	0.00E+00	0.00E+00	1.57E-04	4.76E-05	3.52E-05	8.22E-01	2.48E-01	1.84E-01	3.02E-02	9.11E-03	6.75E-03	5.92E-05	1.79E-05	1.32E-05	7.23E-05	2.18E-05	1.62E-05	3.41E-01	1.64E-01	1.21E-01	1.16E-02
PS_4	546811.4	5400953	Wayfare Inn	0.00E+00	9.16E-04	2.80E-04	2.00E-04	0.00E+00	0.00E+00	0.00E+00	1.51E-04	4.60E-05	3.29E-05	7.88E-01	2.40E-01	1.72E-01	2.89E-02	8.81E-03	6.31E-03	5.68E-05	1.73E-05	1.24E-05	6.93E-05	2.11E-05	1.51E-05	5.06E-01	1.58E-01	1.14E-01	1.13E-02
PS_5	546996.4	5401028	Peninsula Inn	0.00E+00	1.02E-03	2.99E-04	2.20E-04	0.00E+00	0.00E+00	0.00E+00	1.68E-04	4.92E-05	3.62E-05	8.75E-01	2.57E-01	1.89E-01	3.21E-02	9.42E-03	6.94E-03	6.30E-05	1.85E-05	1.36E-05	7.69E-05	2.26E-05	1.66E-05	5.79E-01	1.69E-01	1.25E-01	1.18E-02
PS_6	548471.4	5399489	Travelodge Hotel	0.00E+00	5.14E-04	1.72E-04	1.16E-04	0.00E+00	0.00E+00	0.00E+00	8.45E-05	2.83E-05	1.90E-05	4.40E-01	1.48E-01	9.91E-02	1.62E-02	5.42E-03	3.64E-03	3.17E-05	1.06E-05	7.14E-06	3.87E-05	1.30E-05	8.72E-06	5.12E-01	1.77E-01	1.12E-01	1.02E-02
PS_7	546903.4	5401056	The Laughing Mooz Eatery Restaurant and Reside	0.00E+00	1.07E-03	3.13E-04	2.28E-04	0.00E+00	0.00E+00	0.00E+00	1.77E-04	5.15E-05	3.75E-05	9.25E-01	2.68E-01	1.95E-01	3.40E-02	9.86E-03	7.18E-03	6.66E-05	1.93E-05	1.41E-05	8.13E-05	2.36E-05	1.72E-05	6.10E-01	1.77E-01	1.30E-01	1.19E-02
PW_1	545777.4	5397151	Kingdom Hall of Jehovah's Witnesses	0.00E+00	1.58E-04	4.78E-05	3.56E-05	0.00E+00	0.00E+00	0.00E+00	2.58E-05	7.81E-06	5.84E-06	1.33E-01	4.05E-02	3.04E-02	4.89E-03	1.49E-03	1.12E-03	9.60E-06	2.92E-06	2.19E-06	1.18E-05	3.58E-06	2.68E-06	1.12E-01	3.11E-02	2.20E-02	6.50E-03
PW_2	546331.4	5395942	Parkland Pentecostal Church	0.00E+00	1.37E-04	3.49E-05	2.77E-05	0.00E+00	0.00E+00	0.00E+00	2.23E-05	5.74E-06	4.55E-06	1.15E-01	2.99E-02	2.37E-02	4.22E-03	1.10E-03	8.69E-04	8.29E-06	2.15E-06	1.71E-06	1.02E-05	2.63E-06	2.09E-06	9.80E-02	2.23E-02	1.75E-02	5.96E-03
PW_3	545857.4	5395715	St. John's United Church	0.00E+00	1.37E-04	3.29E-05	2.58E-05	0.00E+00	0.00E+00	0.00E+00	2.23E-05	5.40E-06	4.24E-06	1.15E-01	2.81E-02	2.20E-02	4.21E-03	1.03E-03	8.10E-04	8.28E-06	2.02E-06	1.59E-06	1.02E-05	2.48E-06	1.94E-06	9.90E-02	2.12E-02	1.61E-02	5.64E-03
PW_4	545425	5396043	Holy Saviour Roman Catholic Church	0.00E+00	1.35E-04	3.58E-05	2.69E-05	0.00E+00	0.00E+00	0.00E+00	2.20E-05	5.86E-06	4.42E-06	1.13E-01	3.04E-02	2.30E-02	4.17E-03	1.12E-03	8.45E-04	8.19E-06	2.19E-06	1.66E-06	1.01E-05	2.68E-06	2.03E-06	8.94E-02	2.34E-02	1.68E-02	5.73E-03
PW_5	545390.4	5395989	Anglican Church-Trinity	0.00E+00	1.35E-04	3.54E-05	2.66E-05	0.00E+00	0.00E+00	0.00E+00	2.19E-05	5.79E-06	4.37E-06	1.13E-01	3.00E-02	2.27E-02	4.15E-03	1.10E-03	8.35E-04	8.15E-06	2.16E-06	1.64E-06	1.00E-05	2.65E-06	2.00E-06	8.87E-02	2.32E-02	1.66E-02	5.68E-03
R_1	547226.4	5398096	Residence	0.00E+00	2.61E-04	7.08E-05	5.23E-05	0.00E+00	0.00E+00	0.00E+00	4.27E-05	1.16E-05	8.60E-06	2.21E-01	6.07E-02	4.48E-02	8.13E-03	2.23E-03	1.65E-03	1.60E-05	4.37E-06	3.23E-06	1.96E-05	5.34E-06	3.94E-06	1.92E-01	4.84E-02	3.52E-02	8.51E-03
R_10	545421.4	5395954	Residence	0.00E+00	1.35E-04	3.50E-05	2.64E-05	0.00E+00	0.00E+00	0.00E+00	2.19E-05	5.73E-06	4.34E-06	1.13E-01	2.97E-02	2.26E-02	4.15E-03	1.09E-03	8.30E-04	8.15E-06	2.14E-06	1.63E-06	1.00E-05	2.63E-06	1.99E-06	8.99E-02	2.30E-02	1.65E-02	5.74E-03
R_11	545619.4	5395878	Residence	0.00E+00	1.39E-04	3.44E-05	2.63E-05	0.00E+00	0.00E+00	0.00E+00	2.26E-05	5.64E-06	4.32E-06	1.16E-01	2.93E-02	2.25E-02	4.26E-03	1.08E-03	8.26E-04	8.37E-06	2.11E-06	1.62E-06	1.03E-05	2.58E-06	1.98E-06	9.70E-02	2.24E-02	1.64E-02	5.78E-03
R_12	545831.4	5396001	Residence	0.00E+00	1.45E-04	3.54E-05	2.74E-05	0.00E+00	0.00E+00	0.00E+00	2.35E-05	5.81E-06	4.50E-06	1.21E-01	3.02E-02	2.34E-02	4.44E-03	1.11E-03	8.60E-04	8.71E-06	2.18E-06	1.69E-06	1.07E-05	2.66E-06	2.06E-06	1.03E-01	2.31E-02	1.72E-02	5.79E-03
R_13	545806.9	5396173	Residence	0.00E+00	1.48E-04	3.71E-05	2.84E-05	0.00E+00	0.00E+00	0.00E+00	2.40E-05	6.08E-06	4.67E-06	1.23E-01	3.16E-02	2.43E-02	4.54E-03	1.16E-03	8.92E-04	8.91E-06	2.28E-06	1.75E-06	1.10E-05	2.79E-06	2.14E-06	1.04E-01	2.43E-02	1.78E-02	6.01E-03
R_14	545827.1	5396229	Residence	0.00E+00	1.50E-04	3.77E-05	2.88E-05	0.00E+00	0.00E+00	0.00E+00	2.43E-05	6.18E-06	4.74E-06	1.25E-01	3.21E-02	2.47E-02	4.60E-03	1.18E-03	9.06E-04	9.02E-06	2.31E-06	1.78E-06	1.11E-05	2.83E-06	2.17E-06	1.05E-01	2.47E-02	1.81E-02	6.05E-03
R_15	545662.4	5396176	Residence	0.00E+00	1.44E-04	3.73E-05	2.82E-05	0.00E+00	0.00E+00	0.00E+00	2.35E-05	6.11E-06	4.63E-06	1.21E-01	3.17E-02	2.41E-02	4.44E-03	1.17E-03	8.86E-04	8.72E-06	2.29E-06	1.74E-06	1.07E-05	2.80E-06	2.12E-06	9.90E-02	2.43E-02	1.76E-02	5.98E-03
R_16	546254.4	5396485	Residence	0.00E+00	1.58E-04	4.00E-05	3.11E-05	0.00E+00	0.00E+00	0.00E+00	2.56E-05	6.57E-06	5.10E-06	1.32E-01	3.42E-02	2.66E-02	4.84E-03	1.26E-03	9.75E-04	9.50E-06	2.46E-06	1.91E-06	1.17E-05	3.01E-06	2.34E-06	1.13E-01	2.61E-02	1.96E-02	6.21E-03
R_17	546471.4	5396507	Residence	0.00E+00	1.55E-04	4.03E-05	3.16E-05	0.00E+00	0.00E+00	0.00E+00	2.52E-05	6.63E-06	5.19E-06	1.29E-01	3.45E-02	2.70E-02	4.76E-03	1.27E-03	9.91E-04	9.35E-06	2.49E-06	1.94E-06	1.15E-05	3.04E-06	2.38E-06	1.11E-01	2.62E-02	2.01E-02	6.37E-03
R_18	546601.4	5396388	Residence	0.00E+00	1.46E-04	3.92E-05	3.09E-05	0.00E+00	0.00E+00	0.00E+00	2.38E-05	6.45E-06	5.08E-06	1.22E-01	3.36E-02	2.64E-02	4.50E-03	1.24E-03	9.71E-04	8.83E-06	2.42E-06	1.91E-06	1.09E-05	2.96E-06	2.33E-06	1.04E-01	2.53E-02	1.97E-02	6.23E-03
R_19	546856.4	5395581	Residence	0.00E+00	1.31E-04	3.35E-05	2.65E-05	0.00E+00	0.00E+00	0.00E+00	2.14E-05	5.50E-06	4.35E-06	1.10E-01	2.87E-02	2.26E-02	4.05E-03	1.05E-03	8.30E-04	7.94E-06	2.07E-06	1.63E-06	9.77E-06	2.52E-06	1.99E-06	9.99E-02	2.16E-02	1.69E-02	5.86E-03
R_2	547273.4	5398045	Residence	0.00E+00	2.61E-04	6.98E-05	5.16E-05	0.00E+00	0.00E+00	0.00E+00	4.27E-05	1.15E-05	8.49E-06	2.21E-01	5.99E-02	4.42E-02	8.14E-03	2.20E-03	1.62E-03	1.60E-05	4.31E-06	3.18E-06	1.96E-05	5.27E-06	3.89E-06	1.96E-01	4.82E-02	3.49E-02	8.76E-03
R_20	546950.4	5395534	Residence	0.00E+00	1.31E-04	3.35E-05	2.63E-05	0.00E+00	0.00E+00	0.00E+00	2.12E-05	5.51E-06	4.33E-06	1.09E-01	2.87E-02	2.25E-02	4.02E-03	1.05E-03	8.26E-04	7.89E-06	2.07E-06	1.62E-06	9.72E-06	2.53E-06	1.98E-06	1.01E-01	2.17E-02	1.68E-02	5.86E-03
R_21	547201.4	5395416	Residence	0.00E+00	1.26E-04	3.38E-05	2.60E-05	0.00E+00	0.00E+00	0.00E+00	2.05E-05	5.55E-06	4.27E-06	1.06E-01	2.89E-02	2.22E-02	3.88E-03	1.06E-03	8.16E-04	7.62E-06	2.08E-06	1.60E-06	9.39E-06	2.55E-06	1.96E-06	9.93E-02	2.21E-02	1.66E-02	5.69E-03
R_22	548317.4	5399655	Residence	0.00E+00	4.96E-04	1.51E-04	1.05E-04	0.00E+00	0.00E+00	0.00E+00	8.14E-05	2.48E-05	1.72E-05	4.23E-01	1.29E-01	8.98E-02	1.55E-02	4.75E-03	3.30E-03	3.05E-05	9.32E-06	6.47E-06	3.73E-05	1.14E-05	7.90E-06	4.07E-01	1.37E-01	8.87E-02	9.92E-03
R_3	545809.4	5397233	Bergagnini Apartment Rental	0.00E+00	1.62E-04	4.87E-05	3.61E-05	0.00E+00	0.00E+00	0.00E+00	2.64E-05	7.97E-06	5.92E-06	1.36E-01	4.12E-02	3.08E-02	5.00E-03	1.52E-03	1.13E-03	9.81E-06	2.97E-06	2.22E-06	1.21E-05	3.65E-06	2.72E-06	1.15E-01	3.18E-02	2.24E-02	6.55E-03
R_4	546092.4	5396797	Residence	0.00E+00	1.67E-04	4.38E-05	3.34E-05	0.00E+00	0.00E+00	0.00E+00	2.71E-05	7.18E-06	5.49E-06	1.39E-01	3.73E-02	2.86E-02	5.12E-03	1.37E-03	1.05E-03	1.00E-05	2.69E-06	2.06E-06	1.24E-05	3.29E-06	2.52E-06	1.15E-01	2.88E-02	2.09E-02	6.48E-03
R_5	545971.4	5396490	Condominium	0.00E+00	1.56E-04	4.02E-05	3.07E-05	0.00E+00	0.00E+00	0.00E+00	2.54E-05	6.59E-06	5.04E-06	1.31E-01	3.43E-02	2.62E-02	4.80E-03	1.26E-03	9.64E-04	9.43E-06	2.47E-06	1.89E-06	1.16E-05	3.02E-06	2.31E-06	1.09E-01	2.63E-02	1.92E-02	6.26E-03
R_6	545655.4	5396521	Residence	0.00E+00	1.49E-04	4.17E-05	3.09E-05	0.00E+00	0.00E+00	0.00E+00	2.42E-05	6.83E-06	5.08E-06	1.25E-01	3.54E-02	2.64E-02	4.58E-03	1.30E-03	9.71E-04	9.00E-06	2.56E-06	1.90E-06	1.11E-05	3.13E-06	2.33E-06	9.79E-02	2.68E-02	1.91E-02	6.04E-03
R_7	545438.4	5396409	I Sew Studio and Residence	0.00E+00	1.38E-04	3.94E-05	2.93E-05	0.00E+00	0.00E+00	0.00E+00	2.25E-05	6.45E-06	4.81E-06	1.16E-01	3.34E-02	2.50E-02	4.26E-03	1.23E-03	9.19E-04	8.36E-06	2.41E-06	1.80E-06	1.03E-05	2.95E-06	2.20E-06	9.16E-02	2.55E-02	1.80E-02	5.98E-03
R_8	545380.4	5396244	Bayview Apartments	0.00E+00	1.34E-04	3.75E-05	2.80E-05	0.00E+00	0.00E+00	0.00E+00	2.19E-05	6.14E-06	4.59E-06	1.13E-01	3.18E-02	2.39E-02	4.15E-03	1.17E-03	8.77E-04	8.14E-06	2.29E-06	1.72E-06	1.00E-05	2.81E-06	2.10E-06	8.81E-02	2.45E-02	1.73E-02	5.87E-03
R_9	545290.4	5396115	Residence	0.00E+00	1.30E-04	3.63E-05	2.70E-05	0.00E+00	0.00E+00	0.00E+00	2.12E-05	5.93E-06	4.44E-06	1.09E-01	3.07E-02	2.31E-02	4.02E-03	1.13E-03	8.48E-04	7.88E-06	2.21E-06	1.66E-06	9.69E-06	2.72E-06	2.03E-06	8.66E-02	2.37E-02	1.68E-02	5.76E-03
RH_1	546049.4	5395895	Peninsula Manor	0.00E+00	1.42E-04	3.44E-05

Table E-1 Special Receptor Predictions (ug/m3) - Construction, Projec

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	NAPHTHALENE			NICKEL (NI)		NITRIC ACID (HNO3)			NON-METHANE HYDROCARBONS			NO2 (See Note 3)			PALLADIUM (PD)			PHENANTHRENE			PHOSPHOROUS (P)			PLATINUM (PT)		
				24	month	annual	24	annual	24	month	annual	24	month	annual	1	24	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual
				22.5	-	-	0.2	0.04	35	-	-	-	-	-	400	200	-	10	-	-	-	-	-	-	-	-	0.2	-	-
H_1	545937.4	5396170	Wilson Memorial General Hospital	3.92E-04	5.20E-05	2.87E-05	7.10E-04	1.40E-04	0.00E+00	0.00E+00	0.00E+00	4.41E-01	1.16E-01	8.45E-02	1.00E+02	1.18E+01	1.50E+00	2.67E-07	6.49E-08	5.02E-08	5.50E-04	1.30E-04	9.30E-05	1.22E-02	3.08E-03	2.39E-03	1.71E-07	4.24E-08	3.28E-08
M_1	545694	5403864	PM-10 @ Hare Lake	9.12E-04	1.61E-04	9.38E-05	2.05E-03	3.40E-04	0.00E+00	0.00E+00	0.00E+00	7.79E-01	2.29E-01	1.29E-01	1.29E+02	2.33E+01	3.41E+00	9.40E-07	2.09E-07	1.24E-07	1.08E-03	3.15E-04	1.83E-04	3.24E-02	9.77E-03	5.87E-03	5.41E-07	1.36E-07	8.09E-08
M_2	545694	5403873	Dustfall @ Hare Lake	9.09E-04	1.61E-04	9.39E-05	2.03E-03	3.40E-04	0.00E+00	0.00E+00	0.00E+00	7.79E-01	2.28E-01	1.29E-01	1.29E+02	2.33E+01	3.41E+00	9.33E-07	2.08E-07	1.24E-07	1.08E-03	3.14E-04	1.83E-04	3.22E-02	9.75E-03	5.86E-03	5.37E-07	1.35E-07	8.07E-08
M_3	547152	5401222	PM-10 @ Mays Gifts	1.48E-03	2.88E-04	1.41E-04	5.40E-03	1.34E-03	0.00E+00	0.00E+00	0.00E+00	2.09E+00	6.65E-01	5.09E-01	1.99E+02	5.38E+01	8.95E+00	1.95E-06	6.26E-07	4.82E-07	2.96E-03	8.76E-04	6.49E-04	9.31E-02	2.99E-02	2.31E-02	1.28E-06	4.10E-07	3.16E-07
M_4	547147	5401216	Dustfall @ Mays Gifts	1.49E-03	2.88E-04	1.40E-04	5.35E-03	1.33E-03	0.00E+00	0.00E+00	0.00E+00	2.07E+00	6.61E-01	5.05E-01	1.99E+02	5.36E+01	8.90E+00	1.93E-06	6.21E-07	4.78E-07	2.94E-03	8.71E-04	6.44E-04	9.23E-02	2.97E-02	2.29E-02	1.27E-06	4.07E-07	3.14E-07
M_5	551637	5402371	PM-10 @ Pic River	1.46E-03	2.47E-04	1.24E-04	1.87E-03	5.20E-04	0.00E+00	0.00E+00	0.00E+00	9.09E-01	3.67E-01	2.27E-01	1.79E+02	3.56E+01	5.23E+00	6.91E-07	2.89E-07	1.91E-07	1.39E-03	5.14E-04	3.10E-04	3.22E-02	1.37E-02	9.04E-03	4.47E-07	1.89E-07	1.25E-07
M_6	551643	5402374	Dustfall @ Pic River	1.46E-03	2.46E-04	1.24E-04	1.86E-03	5.20E-04	0.00E+00	0.00E+00	0.00E+00	9.05E-01	3.66E-01	2.27E-01	1.79E+02	3.54E+01	5.23E+00	6.86E-07	2.88E-07	1.91E-07	1.40E-03	5.14E-04	3.09E-04	3.20E-02	1.37E-02	9.03E-03	4.45E-07	1.88E-07	1.24E-07
M_7	549180	5399815	Dustfall @ Airport	9.05E-04	1.89E-04	8.18E-05	4.24E-03	1.44E-03	0.00E+00	0.00E+00	0.00E+00	3.90E+00	1.75E+00	1.36E+00	2.53E+02	6.61E+01	2.31E+01	1.52E-06	6.83E-07	5.19E-07	4.75E-03	2.14E-03	1.65E-03	7.32E-02	3.28E-02	2.49E-02	1.00E-06	4.49E-07	3.41E-07
M_8	545863	5397092	Dustfall @ Field Office	4.35E-04	6.60E-05	3.52E-05	7.80E-04	1.70E-04	0.00E+00	0.00E+00	0.00E+00	6.30E-01	2.68E-01	2.15E-01	1.09E+02	1.35E+01	2.59E+00	2.88E-07	8.31E-08	6.20E-08	6.28E-04	2.16E-04	1.71E-04	1.33E-02	3.90E-03	2.95E-03	1.86E-07	5.40E-08	4.06E-08
O_1	547181.4	5398015	Pic Motel	6.52E-04	8.40E-05	4.92E-05	1.21E-03	2.50E-04	0.00E+00	0.00E+00	0.00E+00	8.22E-01	2.26E-01	1.84E-01	1.51E+02	2.02E+01	2.93E+00	4.43E-07	1.20E-07	8.90E-08	9.54E-04	2.46E-04	1.86E-04	2.08E-02	5.75E-03	4.24E-03	2.88E-07	7.88E-08	5.82E-08
O_2	545734.4	5396873	Marathon Harbour Inn	4.18E-04	6.30E-05	3.32E-05	8.40E-04	2.10E-04	0.00E+00	0.00E+00	0.00E+00	1.17E+00	4.79E-01	3.54E-01	1.25E+02	1.64E+01	3.52E+00	3.09E-07	9.79E-08	7.53E-08	9.17E-04	3.24E-04	2.41E-04	1.44E-02	4.66E-03	3.59E-03	2.00E-07	6.40E-08	4.92E-08
O_3	545885.4	5396449	Zero-100 Motor Inn	3.52E-04	5.70E-05	3.04E-05	7.40E-04	1.50E-04	0.00E+00	0.00E+00	0.00E+00	1.22E+00	4.43E-01	3.38E-01	1.25E+02	1.41E+01	3.33E+00	2.76E-07	7.01E-08	5.33E-08	8.57E-04	2.92E-04	2.29E-04	1.26E-02	3.32E-03	2.53E-03	1.77E-07	4.57E-08	3.48E-08
O_4	545987.4	5397641	OPP Station	4.64E-04	7.50E-05	4.04E-05	8.70E-04	1.90E-04	0.00E+00	0.00E+00	0.00E+00	6.72E-01	2.34E-01	1.81E-01	1.11E+02	1.50E+01	2.51E+00	3.21E-07	9.61E-08	7.02E-08	7.27E-04	2.13E-04	1.62E-04	1.48E-02	4.50E-03	3.34E-03	2.07E-07	6.24E-08	4.59E-08
O_5	545876.4	5396073	Library	3.84E-04	5.10E-05	2.81E-05	7.00E-04	1.30E-04	0.00E+00	0.00E+00	0.00E+00	3.69E-01	1.07E-01	7.71E-02	9.94E+01	1.16E+01	1.43E+00	2.62E-07	6.33E-08	4.89E-08	5.41E-04	1.24E-04	8.80E-05	1.19E-02	3.00E-03	2.33E-03	1.68E-07	4.13E-08	3.20E-08
P_1	546958.4	5396139	Penn Lake Park and Campground	3.58E-04	5.20E-05	2.94E-05	6.90E-04	1.40E-04	0.00E+00	0.00E+00	0.00E+00	3.62E-01	8.65E-02	6.89E-02	1.09E+02	1.06E+01	1.44E+00	2.55E-07	6.63E-08	5.23E-08	5.26E-04	1.15E-04	8.80E-05	1.18E-02	3.17E-03	2.49E-03	1.64E-07	4.34E-08	3.42E-08
P_2	548538.4	5392863	Craig's Pit Provincial Nature Reserve	2.96E-04	3.90E-05	1.62E-05	5.90E-04	8.00E-05	0.00E+00	0.00E+00	0.00E+00	2.45E-01	5.58E-02	3.35E-02	7.79E+01	8.19E+00	7.53E-01	2.52E-07	4.73E-08	2.82E-08	3.70E-04	7.80E-05	4.50E-05	9.68E-03	2.16E-03	1.33E-03	1.51E-07	3.04E-08	1.84E-08
P_3	540005	5402014	Red Sucker Point Provincial Park	2.66E-04	4.40E-05	2.17E-05	6.50E-04	8.00E-05	0.00E+00	0.00E+00	0.00E+00	2.71E-01	6.24E-02	3.21E-02	7.93E+01	7.40E+00	8.24E-01	3.32E-07	5.50E-08	2.94E-08	3.89E-04	8.80E-05	4.50E-05	1.01E-02	2.55E-03	1.39E-03	1.82E-07	3.56E-08	1.91E-08
P_4	552770	5383776	Pukaskwa National Park	9.80E-05	1.40E-05	6.60E-06	2.00E-04	3.00E-05	0.00E+00	0.00E+00	0.00E+00	1.08E-01	1.80E-02	1.07E-02	3.59E+01	3.03E+00	2.64E-01	7.50E-08	1.51E-08	9.35E-09	1.56E-04	2.60E-05	1.50E-05	3.37E-03	7.10E-04	4.41E-04	4.79E-08	9.81E-09	6.09E-09
PR_1	553679.4	5385896	Children & Family Learning Centre	7.80E-05	1.30E-05	6.66E-06	1.80E-04	3.00E-05	0.00E+00	0.00E+00	0.00E+00	9.08E-02	2.05E-02	1.18E-02	2.64E+01	2.33E+00	2.79E-01	6.79E-08	1.61E-08	1.03E-08	1.20E-04	2.70E-05	1.60E-05	3.11E-03	7.44E-04	4.82E-04	4.37E-08	1.04E-08	6.67E-09
PR_2	554004.4	5385858	Pic River Elementary	8.00E-05	1.30E-05	6.48E-06	1.70E-04	3.00E-05	0.00E+00	0.00E+00	0.00E+00	8.04E-02	1.87E-02	1.14E-02	3.14E+01	2.13E+00	2.71E-01	6.10E-08	1.51E-08	9.97E-09	1.13E-04	2.50E-05	1.60E-05	2.84E-03	7.03E-04	4.70E-04	3.95E-08	9.79E-09	6.49E-09
PR_3	553836.4	5385604	Pic River Private High School	7.70E-05	1.30E-05	6.45E-06	1.70E-04	3.00E-05	0.00E+00	0.00E+00	0.00E+00	8.57E-02	1.95E-02	1.14E-02	2.43E+01	2.22E+00	2.70E-01	6.42E-08	1.55E-08	9.93E-09	1.17E-04	2.60E-05	1.60E-05	2.96E-03	7.15E-04	4.67E-04	4.14E-08	9.98E-09	6.46E-09
PR_4	553930.4	5386049	Pic River Health Centre	8.10E-05	1.30E-05	6.59E-06	1.70E-04	3.00E-05	0.00E+00	0.00E+00	0.00E+00	8.23E-02	1.92E-02	1.17E-02	2.97E+01	2.19E+00	2.76E-01	6.27E-08	1.55E-08	1.02E-08	1.16E-04	2.60E-05	1.60E-05	2.91E-03	7.18E-04	4.79E-04	4.06E-08	1.00E-08	6.61E-09
PR_5	552493.4	5384783	BIIDAABAN Healing Lodge	1.05E-04	1.50E-05	7.22E-06	2.10E-04	3.00E-05	0.00E+00	0.00E+00	0.00E+00	1.17E-01	1.95E-02	1.17E-02	3.92E+01	3.40E+00	2.88E-01	8.03E-08	1.62E-08	1.02E-08	1.71E-04	2.70E-05	1.60E-05	3.62E-03	7.66E-04	4.80E-04	5.13E-08	1.06E-08	6.63E-09
PR_6	552843.4	5390100	Residence	1.21E-04	2.00E-05	1.02E-05	2.80E-04	4.00E-05	0.00E+00	0.00E+00	0.00E+00	1.44E-01	3.12E-02	1.85E-02	3.45E+01	3.42E+00	4.35E-01	1.06E-07	2.44E-08	1.58E-08	1.92E-04	4.20E-05	2.50E-05	4.81E-03	1.13E-03	7.46E-04	6.78E-08	1.58E-08	1.03E-08
PR_7	553761.4	5387706	Residence	9.30E-05	1.50E-05	7.53E-06	1.90E-04	3.00E-05	0.00E+00	0.00E+00	0.00E+00	8.92E-02	2.11E-02	1.34E-02	4.11E+01	2.39E+00	3.16E-01	7.76E-08	1.72E-08	1.16E-08	1.25E-04	2.90E-05	1.80E-05	3.18E-03	8.03E-04	5.49E-04	4.42E-08	1.12E-08	7.58E-09
PS_1	545001.3	5404050	North Hare Lake Cottage	7.84E-04	1.29E-04	7.51E-05	1.40E-03	2.70E-04	0.00E+00	0.00E+00	0.00E+00	6.28E-01	1.84E-01	1.01E-01	1.14E+02	1.85E+01	2.71E+00	5.23E-07	1.67E-07	9.65E-08	8.75E-04	2.53E-04	1.44E-04	2.40E-02	7.77E-03	4.57E-03	3.37E-07	1.08E-07	6.30E-08
PS_2	544331.3	5403100	South Hare Lake Cottage	7.88E-04	9.70E-05	5.39E-05	1.88E-03	2.30E-04	0.00E+00	0.00E+00	0.00E+00	6.23E-01	1.64E-01	8.78E-02	1.13E+02	1.82E+01	2.14E+00	9.03E-07	1.50E-07	8.35E-08	8.84E-04	2.26E-04	1.21E-04	2.93E-02	7.05E-03	3.95E-03	5.08E-07	9.76E-08	5.45E-08
PS_3	547056.1	5401004	May's Gifts	1.38E-03	2.73E-04	1.32E-04	4.64E-03	1.04E-03	0.00E+00	0.00E+00	0.00E+00	1.77E+00	5.38E-01	4.00E-01	1.81E+02	4.64E+01	7.47E+00	1.67E-06	5.06E-07	3.74E-07	2.42E-03	7.20E-04	5.17E-04	8.02E-02	2.42E-02	1.79E-02	1.10E-06	3.32E-07	2.46E-07
PS_4	546811.4	5400953	Wayfare Inn	1.30E-03	2.40E-04	1.16E-04	4.45E-03	9.70E-04	0.00E+00	0.00E+00	0.00E+00	1.65E+00	5.20E-01	3.77E-01	1.76E+02	4.43E+01	6.84E+00	1.60E-06	4.90E-07	3.50E-07	2.33E-03	6.88E-04	4.85E-04	7.69E-02	2.34E-02	1.68E-02	1.05E-06	3.21E-07	2.29E-07
PS_5	546996.4	5401028	Peninsula Inn	1.39E-03	2.66E-04	1.29E-04	4.94E-03	1.07E-03	0.00E+00	0.00E+00	0.00E+00	1.89E+00	5.57E-01	4.12E-01	1.85E+02	4.72E+01	7.53E+00	1.78E-06	5.24E-07	3.85E-07	2.48E-03	7.39E-04	5.31E-04	8.54E-02	2.50E-02	1.84E-02	1.17E-06	3.43E-07	2.53E-07
PS_6	548471.4	5399489	Travelodge Hotel	8.14E-04	1.54E-04	7.79E-05	2.49E-03	5.60E-04	0.00E+00	0.00E+00	0.00E+00	1.79E+00	6.28E-01	4.05E-01	2.28E+02	3.43E+01	7.26E+00	8.99E-07	3.01E-07	2.02E-07	2.22E-03	7.65E-04	4.86E-04	4.29E-02	1.44E-02	9.67E-03	5.89E-07	1.97E-07	1.33E-07
PS_7	546903.4	5401056	The Laughing Mooz Eatery Restaurant and Reside	1.37E-03	2.53E-04	1.23E-04	5.22E-03	1.10E-03	0.00E+00	0.00E+00	0.00E+00	2.00E+00	5.83E-01	4.29E-01	1.86E+02	4.77E+01	7.57E+00	1.88E-06	5.48E-07	3.98E-07	2.55E-03	7.67E-04	5.48E-04	9.02E-02	2.62E-02	1.91E-02	1.23E-06	3.59E-07	2.61E-07
PW_1	545777.4	5397151	Kingdom Hall of Jehovah's Witnesses	4.36E-04	6.70E-05	3.56E-05	7.60E-04	1.70E-04	0.00E+00	0.00E+00	0.00E+00	7.07E-01	2.47E-01	1.89E-01	1.10E+02	1.43E+01	2.41E+00	2.80E-07	8.42E-08	6.23E-08	6.98E-04	2.08E-04	1.57E-04	1.29E-02	3.94E-03	2.96E-03	1.81E-07	5.47E-08	4.07E-08
PW_2	546331.4	5395942	Parkland Pentecostal Church	4.33E-04	4.50E-05	2.75E-05	6.50E-04	1.30E-04	0.00E+00	0.00E+00	0.00E+00	3.38E-01	8.23E-02	6.57E-02	1.00E+02	1.22E+01	1.34E+00	2.44E-07	6.11E-08	4.85E-08	5.27E-04	1.06E-04	8.10E-05	1.12E-02	2.92E-03	2.31E-03	1.57E-07	4.00E-08	3.17E-08
PW_3	545857.4	5395715	St. John's United Church	3.94E-04	4.50E-05	2.61E-05	6.50E-04	1.20E-04	0.00E+00	0.00E+00	0.00E+00	3.37E-01	8.29E-02	6.24E-02	9.39E+01	1.15E+01	1.26E+00	2.45E-07	5.76E-08	4.52E-08	5.16E-04	1.04E-04	7.60E-05	1.11E-02	2.74E-03	2.15E-03	1.57E-07	3.77E-08	2.95E-08
PW_4	545425	5396043	Holy Saviour Roman Catholic Church	3.53E-04	5.30E-05	2.77E-05	6.40E-04	1.30E-04	0.00E+00	0.00E+00	0.00E+00	3.37E-01	9.68E-02	7.00E-02	9.82E+01	1.03E+01	1.35E+00	2.40E-07	6.30E-08	4.72E-08	4.57E-04	1.19E-04	8.20E-05	1.10E-02	2.96E-03	2.24E-03	1.55E-07	4.09E-08	3.08E-08
PW_5	545390.4	5395989	Anglican Church-Trinity	3.50E-04	5.20E-05	2.75E-05	6.40E-04	1.30E-04	0.00E+00	0.00E+00	0.00E+00	3.31E-01	9.38E-02	6.77E-02	9.74E+01	1.02E+01	1.33E+00	2.39E-07	6.23E-08	4.67E-08	4.52E-04	1.17E-04	8.10E-05	1.10E-02	2.93E-03	2.22E-03	1.54E-07	4.05E-08	3.05E-08
R_1	547226.4	5398096	Residence	6.72E-04	8.60E-05	5.08E-05	1.25E-03	2.50E-04	0.00E+00	0.00E+00	0.00E+00	9.73E-01	3.09E-01	2.49E-01	1.58E+02	2.14E+01	3.43E+00	4.59E-07	1.24E-07	9.16E-08	1.03E-03	2.81E-04	2.21E-04	2.16E-02	5.92E-03	4.37E-03	2.98E-07	8.11E-08	6.00E-08
R_10	545421.4	5395954	Residence	3.43E-04	5.20E-05	2.72E-05	6.40E-04	1.30E-04	0.00E+00	0.00E+00	0.00E+00	3.37E-01	9.24E-02	6.70E-02	9.75E+01	9.95E+00	1.32E+00	2.39E-07	6.16E-08	4.64E-08	4.56E-04	1.15E-04	8.00E-05	1.10E-02	2.90E-03	2.20E-03	1.54E-07	4.01E-08	3.03E-08
R_11	545619.4	5395878	Residence	3.34E-04	5.00E-05	2.69E-05	6.60E-04	1.30E-04	0.00E+00	0.00E+00	0.00E+00	3.58E-01	9.03E-02	6.67E-02	9.70E+01	1.05E+01	1.31E+00	2.47E-07	6.03E-08	4.61E-08	5.03E-04	1.12E-04	7.90E-05	1.13E-02	2.85E-03	2.19E-03	1.59E-07	3.93E-08	3.02E-08
R_12	545831.4	5396001	Residence	3.78E-04	5.00E-05	2.77E-05	6.90E-04	1.30E-04	0.00E+00	0.00E+00	0.00E+00	3.66E-01	9.94E-02	7.34E-02	9.87E+01	1.14E+01	1.39E+00	2.58E-07	6.21E-08	4.80E-08	5.34E-04	1.19E-04	8.50E-05	1.17E-02	2.95E-03	2.28E-03	1.65E-07	4.06E-08	3.14E-08
R_13	545806.9	5396173	Residence	3.58E-04	5.30E-05	2.87E-05	7.00E-04	1.40E-04	0.00E+00	0.00E+00	0.00E+00	4.11E-01	1.20E-01	8.81E-02	1.03E+02	1.14E+01	1.52E+00	2.63E-07	6.51E-08	4.98E-08	5.53E-04	1.33E-04	9.40E-05	1.20E-02	3.08E-03	2.37E-03	1.69E-07	4.25E-08	3.26E-08
R_14	545827.1	5396229	Residence	3.58E-04	5.40E-05	2.91E-05	7.10E-04	1.40E-04	0.00E+00	0.00E+00	0.00E+00	4.47E-01	1.35E-01	9.59E-02	1.06E+02	1.17E+01	1.59E+00	2.66E-07	6.61E-08	5.06E-08	5.74E-04	1.42E-04	9.90E-05	1.21E-02	3.13E-03	2.40E-03	1.71E-07	4.31E-08	3.30E-08
R_15	545662.4	5396176	Residence	3.42E-04	5.40E-05	2.86E-05	6.90E-04	1.40E-04	0.00E+00	0.00E+00	0.00E+00	3.94E-01	1.15E-01	8.43E-02	1.03E+02	1.04E+01	1.49E+00	2.57E-07	6.55E-08	4.95E-08	5.20E-04	1.31E-04	9.20E-05	1.17E-02	3.09E-03	2.35E-03	1.65E-07	4.27E-08	3.23E-08
R_16	546254.4	5396485	Residence	4.46E-04	5.30E-05	3.07E-05	7.50E-04	1.50E-04	0.00E+00	0.00E+00	0.00E+00	4.34E-01	1.21E-01	9.49E-02	1.05E+02	1.34E+01	1.65E+00	2.81E-07	7.01E-08	5.44E-08	6.13E-04	1.33E-04	1.03E-04	1.28E-02	3.34E-03	2.59E-03	1.80E-07	4.58E-08	3.56E-08
R_17	546471.4	5396507	Residence	4.72E-04	5.10E-05	3.10E-05	7.40E-04	1.50E-04	0.00E+00	0.00E+00	0.00E+00	4.03E-01	1.06E-01	8.36E-02	1.10E+02	1.36E+01	1.59E+00	2.75E-07	7.06E-08	5.53E-08	6.01E-04	1.27E-04	9.80E-05	1.26E-02	3.37E-03	2.63E-03	1.77E-07	4.62E-08	3.62E-08
R_18	546601.4	5396388	Residence	4.61E-04	5.00E-05	3.03E-05	7.00E-04	1.50E-04	0.00E+00	0.00E+00	0.00E+00	3.78E-01	9.45E-02	7.67E-02	1.03E+02	1.30E+01	1.52E+00	2.59E-07	6.87E-08	5.42E-08	5.62E-04	1.20E-04	9.30E-05	1.19E-02	3.28E-03	2.58E-03	1.67E-07	4.50E-08	3.54E-08
R_19	546856.4	5395581	Residence	3.29E-04	4.80E-05	2.66E-05	6.30E-04	1.30E-04	0.00E+00	0.00E+00	0.00E+00	3.33E-01	7.61E-02	5.90E-02	1.03E+02	9.81E+00	1.27E+00	2.33E-07	5.86E-08	4.64E-08	4.86E-04	1.01E-04	7.60E-05	1.07E-02	2.80E-03	2.20E-03	1.50E-07	3.84E-08	3.03E-08
R_2	547273.4	5398045	Residence	6.84E-04	8.40E-05	5.06E-05	1.25E-03	2.50E-04	0.00E+00	0.00E+00	0.00E+00	7.88E-01	2.05E-01	1.63E-01	1.55E+02	2.06E+01	2.84E+00	4.60E-07	1.22E-07	9.04E-08	9.53E-04	2.39E-04	1.77E-04	2.16E-02	5.84E-03	4.31E-03	2.99E-07	8.01E-08	5.92E-08
R_20	546950.4	5395534	Residence	3.20E-04	4.80E-05	2.66E-05	6.20E-04	1.30E-04	0.00E+00	0.00E+00	0.00E+00	3.37E-01	7.61E-02	5.85E-02	1.03E+02	9.95E+00	1.26E+00	2.32E-07	5.86E-08	4.62E-08	4.93E-04	1.02E-04	7.60E-05	1.06E-02	2.80E-03	2.19E-03	1.49E-07	3.84E-08	3.02E-08
R_21	547201.4	5395416	Residence	2.95E-04	5.00E-05	2.66E-05	6.00E-04	1.30E-04	0.00E+00	0.00E+00	0.00E+00	3.31E-01	7.58E-02	5.74E-02	1.01E+02	9.77E+00	1.25E+00	2.51E-07	5.92E-08	4.56E-08	4.85E-04	1.04E-04	7.50E-05	1.03E-02	2.82E-03	2.16E-03	1.44E-07	3.87E-08	2.98E-08
R_22	548317.4	5399655	Residence	7.87E-04	1.52E-04	8.27E-05	2.39E-03	5.10E-04	0.00E+00	0.00E+00	0.00E+00	1.38E+00	4.66E-01	3.04E-01	2.13E+02	2.90E+01	5.87E+00	8.72E-07	2.64E-07	1.83E-07	1.79E-03	5.88E-04	3.82E-04	4.12E-02	1.26E-02	8.76E-03	5.68E-07	1.73E-07	1.20E-07
R_3	545809.4	5397233	Bergagnini Apartment Rental	4.40E-04	6.80E-05	3.63E-05	7.70E-04	1.70E-04	0.00E+00	0.00E+00	0.00E+00	7.41E-01	2.57E-01	1.96E-01	1.11E+02	1.46E+01	2.48E+00	2.86E-07	8.59E-08	6.32E-08	7.22E-04	2.14E-04	1.62E-04	1.32E-02	4.02E-03	3.01E-03	1.85E-07	5.57E-08	4.13E-08
R_4	546092.4	5396797	Residence	3.79E-04	6.10E-05	3.29E-05	7.90E-04	1.60E-04	0.00E+00	0.00E+00	0.00E+00	4.81E-01	1.60E-01	1.24E-01	1.07E+02	1.25E+01	1.92E+00	2.96E-07	7.69E-08	5.86E-08	6.20E-04	1.58E-04	1.21E-04	1.35E-02	3.64E-03	2.79E-03	1.90E-07	5.01E-08	3.83E-08
R_5	545971.4	5396490	Condominium	3.74E-04	5.70E-05	3.06E-05	7.40E-04	1.50E-04	0.00E+00	0.00E+00	0.00E+00	9.21E-01	5.03E-01	3.69E-01	1.10E+02	1.52E+01	3.56E+00	2.78E-07	7.05E-08	5.38E-08	8.24E-04	3.15E-04	2.46E-04	1.27E-02	3.34E-03	2.56E-03	1.79E-07	4.60E-08	3.52E-08
R_6	545655.4	5396521	Residence	3.89E-04	5.90E-05	3.10E-05	7.10E-04	1.50E-04	0.00E+00	0.00E+00	0.00E+00	6.42E-01	1.85E-01	1.27E-01	1.14E+02	1.25E+01	1.87E+00	2.64E-07	7.34E-08	5.42E-08	6.11E-04	1.69E-04	1.18E-04	1.21E-02	3.45E-03	2.58E-03	1.70E-07	4.78E-08	3.54E-08
R_7	545438.4	5396409	I Sew Studio and Residence	3.86E-04	5.70E-05	2.98E-05	6.60E-04	1.40E-04	0.00E+00	0.00E+00	0.00E+00	4.29E-01	1.17E-01	8.47E-02	9.93E+01	1.15E+01	1.52E+00	2.44E-07	6.95E-08	5.13E-08	5.22E-04	1.34E-04	9.30E-05	1.13E-02	3.25E-03	2.44E-03	1.58E-07	4.51E-08	3.35E-08
R_8	545380.4	5396244	Bayview Apartments	3.74E-04	5.50E-05	2.88E-05	6.40E-04	1.40E-04	0.00E+00	0.00E+00	0.00E+00	3.81E-01	1.04E-01	7.53E-02	9.82E+01	1.10E+01	1.42E+00	2.38E-07	6.61E-08	4.90E-08	4.96E-04	1.26E-04	8.70E-05	1.10E-02	3.10E-03	2.33E-03	1.53E-07	4.29E-08	3.20E-08
R_9	545290.4	5396115	Residence	3.67E-04	5.30E-05	2.80E-05	6.20E-04	1.30E-04	0.00E+00	0.00E+00	0.00E+00	3.48E-01	9.63E-02	6.89E-02	9.56E+01	1.07E+01	1.35E+00	2.30E-07	6.40E-08	4.74E-08	4.79E-04	1.19E-04	8.20E-05	1.06E-02	2.99E-03	2.25E-03	1.49E-07	4.15E-08	3.09E-08
RH_1	546049.4	5395895	Peninsula Manor	4.19E-04	4.

Table E-1 Special Receptor Predictions (ug/m3) - Construction, Projec

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	PM10 (see Note 1)			PM10 (see Note 2)	PM2.5 (See Note 1)			PM2.5 (See Note 2)		POTASSIUM (K)			PROPYLENE			PYRENE			SCANDIUM (SC)			SILICA			SILICON (SI	
				24	month	annual	24	24	month	annual	24	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month
				-	-	-	50	-	-	-	27	8.8	1	-	-	4000	-	-	-	-	-	-	-	-	5	-	-	27	-
H_1	545937.4	5396170	Wilson Memorial General Hospital	3.10E+00	8.18E-01	6.24E-01	1.01E+00	5.57E-01	1.49E-01	1.10E-01	2.95E-01	4.21E-02	6.91E-03	1.75E-03	1.35E-03	8.41E-03	1.12E-03	6.16E-04	8.94E-05	1.94E-05	1.35E-05	1.59E-05	3.99E-06	3.09E-06	1.37E+00	3.33E-01	2.58E-01	6.43E-06	2.09E-07
M_1	545694	5403864	PM-10 @ Hare Lake	9.78E+00	2.30E+00	1.37E+00	5.75E+00	1.18E+00	3.65E-01	2.19E-01	7.08E-01	9.36E-02	1.70E-02	5.53E-03	3.32E-03	1.96E-02	3.45E-03	2.01E-03	6.02E-05	1.75E-05	1.05E-05	4.45E-05	1.27E-05	7.61E-06	4.55E+00	1.06E+00	6.31E-01	1.81E-06	6.48E-08
M_2	545694	5403873	Dustfall @ Hare Lake	9.71E+00	2.30E+00	1.37E+00	5.69E+00	1.17E+00	3.64E-01	2.19E-01	7.03E-01	9.34E-02	1.70E-02	5.52E-03	3.32E-03	1.95E-02	3.46E-03	2.02E-03	6.03E-05	1.75E-05	1.05E-05	4.42E-05	1.27E-05	7.60E-06	4.52E+00	1.06E+00	6.30E-01	1.83E-06	6.54E-08
M_3	547152	5401222	PM-10 @ Mays Gifts	2.13E+01	6.61E+00	5.03E+00	4.27E+00	3.54E+00	1.12E+00	8.68E-01	1.59E+00	3.95E-01	5.29E-02	1.70E-02	1.31E-02	3.19E-02	6.18E-03	3.02E-03	1.66E-04	4.73E-05	3.43E-05	1.21E-04	3.87E-05	2.99E-05	9.83E+00	3.07E+00	2.34E+00	2.64E-04	8.58E-06
M_4	547147	5401216	Dustfall @ Mays Gifts	2.11E+01	6.56E+00	4.99E+00	4.25E+00	3.52E+00	1.11E+00	8.62E-01	1.58E+00	3.92E-01	5.24E-02	1.68E-02	1.30E-02	3.20E-02	6.18E-03	3.01E-03	1.65E-04	4.70E-05	3.41E-05	1.20E-04	3.85E-05	2.97E-05	9.75E+00	3.04E+00	2.32E+00	2.69E-04	8.75E-06
M_5	551637	5402371	PM-10 @ Pic River	7.66E+00	3.29E+00	2.16E+00	3.46E+00	1.38E+00	5.49E-01	3.46E-01	8.39E-01	1.59E-01	1.83E-02	7.78E-03	5.12E-03	3.14E-02	5.29E-03	2.66E-03	8.53E-05	2.93E-05	1.73E-05	4.18E-05	1.77E-05	1.17E-05	3.52E+00	1.51E+00	9.95E-01	2.25E-06	7.32E-08
M_6	551643	5402374	Dustfall @ Pic River	7.61E+00	3.29E+00	2.16E+00	3.46E+00	1.38E+00	5.48E-01	3.45E-01	8.36E-01	1.59E-01	1.82E-02	7.76E-03	5.11E-03	3.13E-02	5.27E-03	2.66E-03	8.50E-05	2.92E-05	1.73E-05	4.15E-05	1.77E-05	1.17E-05	3.50E+00	1.51E+00	9.94E-01	2.24E-06	7.32E-08
M_7	549180	5399815	Dustfall @ Airport	1.76E+01	7.77E+00	5.91E+00	4.36E+00	2.74E+00	1.20E+00	9.13E-01	9.90E-01	1.03E-01	4.16E-02	1.86E-02	1.41E-02	1.94E-02	4.06E-03	1.76E-03	2.53E-04	1.15E-04	8.92E-05	9.47E-05	4.24E-05	3.22E-05	7.97E+00	3.52E+00	2.67E+00	4.78E-06	1.56E-07
M_8	545863	5397092	Dustfall @ Field Office	4.30E+00	1.63E+00	1.30E+00	8.79E-01	8.55E-01	3.59E-01	2.87E-01	3.49E-01	7.76E-02	7.54E-03	2.20E-03	1.67E-03	9.34E-03	1.42E-03	7.54E-04	1.45E-04	7.46E-05	5.62E-05	1.73E-05	5.06E-06	3.82E-06	1.49E+00	4.27E-01	3.25E-01	1.81E-05	5.89E-07
O_1	547181.4	5398015	Pic Motel	5.98E+00	1.70E+00	1.35E+00	1.38E+00	1.12E+00	3.22E-01	2.61E-01	4.58E-01	6.26E-02	1.18E-02	3.26E-03	2.40E-03	1.40E-02	1.79E-03	1.06E-03	1.19E-04	4.33E-05	3.30E-05	2.70E-05	7.44E-06	5.49E-06	2.27E+00	6.13E-01	4.55E-01	7.15E-06	2.44E-07
O_2	545734.4	5396873	Marathon Harbour Inn	5.24E+00	2.13E+00	1.72E+00	1.72E+00	1.15E+00	4.70E-01	3.70E-01	1.51E+00	4.59E-01	8.15E-03	2.64E-03	2.04E-03	8.98E-03	1.35E-03	7.13E-04	3.30E-04	1.48E-04	1.09E-04	1.87E-05	6.03E-06	4.65E-06	1.82E+00	6.50E-01	4.90E-01	1.84E-05	6.00E-07
O_3	545885.4	5396449	Zero-100 Motor Inn	4.56E+00	1.49E+00	1.20E+00	9.73E-01	1.12E+00	3.91E-01	3.04E-01	3.07E-01	5.13E-02	7.15E-03	1.88E-03	1.44E-03	7.56E-03	1.22E-03	6.53E-04	3.67E-04	1.40E-04	1.04E-04	1.64E-05	4.30E-06	3.28E-06	1.42E+00	3.61E-01	2.76E-01	9.56E-06	3.11E-07
O_4	545987.4	5397641	OPP Station	4.60E+00	1.59E+00	1.25E+00	9.88E-01	9.12E-01	3.36E-01	2.61E-01	3.26E-01	5.63E-02	8.43E-03	2.53E-03	1.89E-03	9.96E-03	1.61E-03	8.66E-04	1.21E-04	5.36E-05	4.07E-05	1.93E-05	5.84E-06	4.32E-06	1.65E+00	4.89E-01	3.59E-01	2.40E-05	7.81E-07
O_5	545876.4	5396073	Library	3.04E+00	7.85E-01	5.97E-01	1.01E+00	5.47E-01	1.41E-01	1.03E-01	2.82E-01	4.08E-02	6.77E-03	1.70E-03	1.32E-03	8.23E-03	1.10E-03	6.04E-04	6.34E-05	1.69E-05	1.13E-05	1.55E-05	3.89E-06	3.02E-06	1.34E+00	3.25E-01	2.52E-01	6.81E-06	2.22E-07
P_1	546958.4	5396139	Penn Lake Park and Campground	2.91E+00	7.57E-01	6.01E-01	1.06E+00	5.04E-01	1.25E-01	9.79E-02	2.49E-01	3.85E-02	6.68E-03	1.80E-03	1.41E-03	7.68E-03	1.11E-03	6.32E-04	3.48E-05	8.86E-06	6.71E-06	1.53E-05	4.10E-06	3.22E-06	1.31E+00	3.39E-01	2.68E-01	3.11E-06	1.06E-07
P_2	548538.4	5392863	Craig's Pit Provincial Nature Reserve	2.69E+00	5.27E-01	3.16E-01	1.26E+00	3.69E-01	8.45E-02	4.97E-02	2.01E-01	1.99E-02	4.56E-03	1.19E-03	7.53E-04	6.35E-03	8.44E-04	3.48E-04	2.18E-05	4.70E-06	2.65E-06	1.30E-05	2.81E-06	1.73E-06	1.24E+00	2.41E-01	1.45E-01	8.52E-07	3.01E-08
P_3	540005	5402014	Red Sucker Point Provincial Park	3.34E+00	6.10E-01	3.27E-01	2.42E+00	4.11E-01	9.92E-02	5.24E-02	2.02E-01	2.25E-02	5.72E-03	1.44E-03	7.82E-04	5.72E-03	9.37E-04	4.66E-04	2.24E-05	5.20E-06	2.71E-06	1.40E-05	3.32E-06	1.80E-06	1.58E+00	2.80E-01	1.50E-01	3.64E-07	1.31E-08
P_4	552770	5383776	Pukaskwa National Park	8.25E-01	1.70E-01	1.05E-01	2.64E-01	1.46E-01	2.76E-02	1.66E-02	7.81E-02	7.01E-03	1.92E-03	4.03E-04	2.50E-04	2.10E-03	2.98E-04	1.42E-04	9.06E-06	1.51E-06	8.71E-07	4.41E-06	9.21E-07	5.72E-07	3.79E-01	7.80E-02	4.81E-02	2.32E-07	7.49E-09
PR_1	553679.4	5385896	Children & Family Learning Centre	7.50E-01	1.78E-01	1.14E-01	3.63E-01	1.22E-01	2.87E-02	1.81E-02	6.19E-02	7.57E-03	1.77E-03	4.22E-04	2.73E-04	1.67E-03	2.82E-04	1.43E-04	6.93E-06	1.57E-06	9.43E-07	4.06E-06	9.68E-07	6.26E-07	3.45E-01	8.17E-02	5.26E-02	2.86E-07	1.15E-08
PR_2	554004.4	5385858	Pic River Elementary	6.76E-01	1.67E-01	1.11E-01	3.80E-01	1.07E-01	2.68E-02	1.76E-02	5.73E-02	7.31E-03	1.61E-03	3.99E-04	2.66E-04	1.73E-03	2.76E-04	1.39E-04	6.40E-06	1.44E-06	9.13E-07	3.69E-06	9.13E-07	6.09E-07	3.12E-01	7.69E-02	5.11E-02	2.85E-07	1.14E-08
PR_3	553836.4	5385604	Pic River Private High School	7.10E-01	1.71E-01	1.11E-01	3.33E-01	1.14E-01	2.75E-02	1.75E-02	5.98E-02	7.31E-03	1.68E-03	4.06E-04	2.65E-04	1.65E-03	2.75E-04	1.38E-04	6.68E-06	1.49E-06	9.11E-07	3.85E-06	9.30E-07	6.06E-07	3.27E-01	7.85E-02	5.09E-02	2.78E-07	1.12E-08
PR_4	553930.4	5386049	Pic River Health Centre	6.94E-01	1.71E-01	1.13E-01	3.55E-01	1.10E-01	2.74E-02	1.79E-02	5.88E-02	7.46E-03	1.65E-03	4.08E-04	2.71E-04	1.75E-03	2.81E-04	1.42E-04	6.57E-06	1.47E-06	9.31E-07	3.79E-06	9.34E-07	6.21E-07	3.20E-01	7.86E-02	5.21E-02	2.90E-07	1.16E-08
PR_5	552493.4	5384783	BIIDAABAN Healing Lodge	9.02E-01	1.84E-01	1.14E-01	2.67E-01	1.60E-01	2.97E-02	1.81E-02	8.59E-02	7.60E-03	2.05E-03	4.35E-04	2.72E-04	2.25E-03	3.27E-04	1.55E-04	9.98E-06	1.62E-06	9.49E-07	4.73E-06	9.93E-07	6.23E-07	4.09E-01	8.41E-02	5.24E-02	2.53E-07	8.15E-09
PR_6	552843.4	5390100	Residence	1.16E+00	2.70E-01	1.77E-01	4.69E-01	1.90E-01	4.35E-02	2.80E-02	8.85E-02	1.17E-02	2.73E-03	6.41E-04	4.22E-04	2.59E-03	4.31E-04	2.19E-04	1.06E-05	2.38E-06	1.47E-06	6.27E-06	1.47E-06	9.67E-07	5.34E-01	1.24E-01	8.12E-02	4.23E-07	1.65E-08
PR_7	553761.4	5387706	Residence	7.96E-01	1.91E-01	1.30E-01	5.26E-01	1.20E-01	3.07E-02	2.05E-02	6.30E-02	8.51E-03	1.81E-03	4.56E-04	3.11E-04	1.99E-03	3.17E-04	1.62E-04	7.06E-06	1.71E-06	1.07E-06	4.13E-06	1.04E-06	7.12E-07	3.75E-01	8.77E-02	5.97E-02	3.24E-07	1.30E-08
PS_1	545001.3	5404050	North Hare Lake Cottage	5.79E+00	1.83E+00	1.07E+00	1.92E+00	9.35E-01	2.92E-01	1.71E-01	4.36E-01	7.36E-02	1.36E-02	4.40E-03	2.59E-03	1.68E-02	2.78E-03	1.61E-03	4.87E-05	1.41E-05	8.31E-06	3.13E-05	1.01E-05	5.92E-06	2.66E+00	8.45E-01	4.91E-01	2.33E-07	8.33E-09
PS_2	544331.3	5403100	South Hare Lake Cottage	9.18E+00	1.65E+00	9.16E-01	5.87E+00	9.91E-01	2.66E-01	1.46E-01	6.11E-01	6.17E-02	1.43E-02	3.99E-03	2.24E-03	1.69E-02	2.09E-03	1.16E-03	4.99E-05	1.27E-05	6.92E-06	4.07E-05	9.16E-06	5.13E-06	4.31E+00	7.60E-01	4.23E-01	3.75E-08	1.35E-09
PS_3	547056.1	5401004	May's Gifts	1.75E+01	5.38E+00	3.95E+00	3.74E+00	3.00E+00	9.07E-01	6.75E-01	1.34E+00	3.04E-01	4.55E-02	1.37E-02	1.02E-02	2.95E-02	5.86E-03	2.82E-03	1.38E-04	3.95E-05	2.78E-05	1.04E-04	3.13E-05	2.32E-05	8.12E+00	2.49E+00	1.83E+00	2.38E-04	7.74E-06
PS_4	546811.4	5400953	Wayfare Inn	1.67E+01	5.13E+00	3.66E+00	3.45E+00	2.83E+00	9.00E-01	6.41E-01	1.26E+00	3.01E-01	4.37E-02	1.33E-02	9.50E-03	2.79E-02	5.16E-03	2.50E-03	1.33E-04	3.75E-05	2.60E-05	9.95E-05	3.03E-05	2.17E-05	7.77E+00	2.38E+00	1.70E+00	3.56E-04	1.16E-05
PS_5	546996.4	5401028	Peninsula Inn	1.84E+01	5.52E+00	4.04E+00	3.74E+00	3.24E+00	9.47E-01	6.99E-01	1.49E+00	3.21E-01	4.85E-02	1.42E-02	1.05E-02	2.98E-02	5.71E-03	2.76E-03	1.42E-04	4.03E-05	2.84E-05	1.11E-04	3.24E-05	2.39E-05	8.55E+00	2.56E+00	1.88E+00	3.43E-04	1.12E-05
PS_6	548471.4	5399489	Travelodge Hotel	1.06E+01	3.59E+00	2.44E+00	2.91E+00	1.80E+00	5.90E-01	4.03E-01	7.78E-01	9.74E-02	2.44E-02	8.17E-03	5.48E-03	1.75E-02	3.31E-03	1.67E-03	1.43E-04	5.18E-05	3.54E-05	5.55E-05	1.86E-05	1.25E-05	4.68E+00	1.55E+00	1.04E+00	6.90E-06	2.25E-07
PS_7	546903.4	5401056	The Laughing Mooz Eatery Restaurant and Reside	1.92E+01	5.71E+00	4.14E+00	3.69E+00	3.44E+00	1.01E+00	7.32E-01	1.61E+00	3.47E-01	5.12E-02	1.48E-02	1.08E-02	2.95E-02	5.44E-03	2.64E-03	1.44E-04	4.15E-05	2.91E-05	1.17E-04	3.39E-05	2.47E-05	8.95E+00	2.65E+00	1.92E+00	4.41E-04	1.43E-05
PW_1	545777.4	5397151	Kingdom Hall of Jehovah's Witnesses	4.52E+00	1.53E+00	1.21E+00	9.00E-01	9.47E-01	3.37E-01	2.58E-01	3.05E-01	7.31E-02	7.35E-03	2.22E-03	1.68E-03	9.35E-03	1.43E-03	7.64E-04	1.49E-04	6.14E-05	4.67E-05	1.68E-05	5.12E-06	3.84E-06	1.45E+00	4.33E-01	3.25E-01	2.16E-05	7.04E-07
PW_2	546331.4	5395942	Parkland Pentecostal Church	2.85E+00	7.08E-01	5.65E-01	8.25E-01	5.21E-01	1.19E-01	9.31E-02	2.81E-01	3.69E-02	6.34E-03	1.66E-03	1.31E-03	9.29E-03	9.70E-04	5.90E-04	3.79E-05	9.21E-06	7.17E-06	1.45E-05	3.78E-06	2.99E-06	1.26E+00	3.13E-01	2.49E-01	2.66E-06	7.51E-08
PW_3	545857.4	5395715	St. John's United Church	2.83E+00	6.81E-01	5.30E-01	9.00E-01	5.11E-01	1.17E-01	8.81E-02	2.71E-01	3.60E-02	6.32E-03	1.55E-03	1.22E-03	8.46E-03	9.75E-04	5.59E-04	3.57E-05	1.02E-05	7.31E-06	1.45E-05	3.55E-06	2.78E-06	1.25E+00	2.96E-01	2.32E-01	5.09E-06	1.66E-07
PW_4	545425	5396043	Holy Saviour Roman Catholic Church	2.83E+00	7.60E-01	5.68E-01	7.00E-01	4.97E-01	1.32E-01	9.67E-02	2.54E-01	4.33E-02	6.26E-03	1.67E-03	1.27E-03	7.58E-03	1.14E-03	5.95E-04	4.65E-05	1.32E-05	9.47E-06	1.44E-05	3.84E-06	2.91E-06	1.23E+00	3.24E-01	2.44E-01	1.51E-05	4.90E-07
PW_5	545390.4	5395989	Anglican Church-Trinity	2.81E+00	7.46E-01	5.57E-01	6.94E-01	4.91E-01	1.29E-01	9.43E-02	2.61E-01	4.12E-02	6.23E-03	1.65E-03	1.26E-03	7.52E-03	1.13E-03	5.89E-04	4.38E-05	1.24E-05	8.82E-06	1.43E-05	3.80E-06	2.87E-06	1.23E+00	3.21E-01	2.40E-01	1.51E-05	4.91E-07
R_1	547226.4	5398096	Residence	6.83E+00	2.06E+00	1.70E+00	1.41E+00	1.34E+00	4.44E-01	3.56E-01	4.69E-01	6.44E-02	1.22E-02	3.36E-03	2.48E-03	1.44E-02	1.85E-03	1.09E-03	1.63E-04	7.40E-05	5.42E-05	2.80E-05	7.66E-06	5.66E-06	2.33E+00	6.31E-01	4.69E-01	7.46E-06	2.55E-07
R_10	545421.4	5395954	Residence	2.81E+00	7.37E-01	5.53E-01	7.33E-01	4.95E-01	1.28E-01	9.34E-02	2.50E-01	4.11E-02	6.23E-03	1.64E-03	1.25E-03	7.36E-03	1.12E-03	5.84E-04	4.24E-05	1.21E-05	8.66E-06	1.43E-05	3.76E-06	2.85E-06	1.23E+00	3.17E-01	2.39E-01	1.43E-05	4.63E-07
R_11	545619.4	5395878	Residence	2.89E+00	7.23E-01	5.49E-01	9.10E-01	5.21E-01	1.25E-01	9.26E-02	2.57E-01	3.88E-02	6.40E-03	1.62E-03	1.24E-03	7.16E-03	1.08E-03	5.77E-04	4.37E-05	1.18E-05	8.56E-06	1.47E-05	3.70E-06	2.84E-06	1.26E+00	3.11E-01	2.37E-01	9.94E-06	3.23E-07
R_12	545831.4	5396001	Residence	3.00E+00	7.57E-01	5.80E-01	9.85E-01	5.41E-01	1.34E-01	9.94E-02	2.76E-01	4.01E-02	6.66E-03	1.67E-03	1.29E-03	8.11E-03	1.08E-03	5.94E-04	4.59E-05	1.45E-05	1.03E-05	1.53E-05	3.82E-06	2.96E-06	1.32E+00	3.19E-01	2.47E-01	7.10E-06	2.31E-07
R_13	545806.9	5396173	Residence	3.15E+00	8.29E-01	6.30E-01	9.89E-01	5.77E-01	1.53E-01	1.13E-01	2.75E-01	4.40E-02	6.81E-03	1.75E-03	1.34E-03	7.68E-03	1.14E-03	6.15E-04	6.49E-05	2.08E-05	1.50E-05	1.56E-05	3.99E-06	3.07E-06	1.35E+00	3.35E-01	2.57E-01	8.80E-06	2.86E-07
R_14	545827.1	5396229	Residence	3.25E+00	8.72E-01	6.54E-01	1.00E+00	6.06E-01	1.65E-01	1.19E-01	2.79E-01	4.49E-02	6.90E-03	1.77E-03	1.36E-03	7.68E-03	1.16E-03	6.24E-04	8.69E-05	2.60E-05	1.76E-05	1.58E-05	4.06E-06	3.11E-06	1.36E+00	3.40E-01	2.61E-01	8.87E-06	2.88E-07
R_15	545662.4	5396176	Residence	3.06E+00	8.27E-01	6.20E-01	8.67E-01	5.54E-01	1.50E-01	1.10E-01	2.56E-01	4.54E-02	6.67E-03	1.75E-03	1.33E-03	7.33E-03	1.16E-03	6.15E-04	5.81E-05	1.90E-05	1.38E-05	1.53E-05	4.01E-06	3.05E-06	1.31E+00	3.39E-01	2.55E-01	1.18E-05	3.83E-07
R_16	546254.4	5396485	Residence	3.36E+00	8.55E-01	6.85E-01	9.45E-01	6.23E-01	1.53E-01	1.22E-01	3.15E-01	4.57E-02	7.26E-03	1.89E-03	1.47E-03	9.57E-03	1.15E-03	6.59E-04	5.84E-05	2.10E-05	1.57E-05	1.67E-05	4.32E-06	3.35E-06	1.44E+00	3.59E-01	2.80E-01	3.61E-06	1.17E-07
R_17	546471.4	5396507	Residence	3.27E+00	8.34E-01	6.66E-01	9.27E-01	6.02E-01	1.43E-01	1.13E-01	3.13E-01	4.43E-02	7.15E-03	1.91E-03	1.49E-03	1.01E-02	1.09E-03	6.64E-04	4.97E-05	1.53E-05	1.12E-05	1.64E-05	4.36E-06	3.41E-06	1.42E+00	3.61E-01	2.84E-01	3.46E-06	8.95E-08
R_18	546601.4	5396388	Residence	3.05E+00	7.99E-01	6.39E-01	8.80E-01	5.59E-01	1.34E-01	1.06E-01	2.95E-01	4.17E-02	6.76E-03	1.86E-03	1.46E-03	9.89E-03	1.08E-03	6.51E-04	4.50E-05	1.20E-05	8.97E-06	1.55E-05	4.24E-06	3.34E-06	1.34E+00	3.52E-01	2.78E-01	3.66E-06	9.48E-08
R_19	546856.4	5395581	Residence	2.65E+00	6.65E-01	5.29E-01	1.10E+00	4.63E-01	1.11E-01	8.52E-02	2.28E-01	3.39E-02	6.08E-03	1.59E-03	1.25E-03	7.06E-03	1.02E-03	5.71E-04	2.97E-05	7.20E-06	5.36E-06	1.39E-05	3.62E-06	2.86E-06	1.19E+00	3.00E-01	2.38E-01	2.57E-06	8.39E-08
R_2	547273.4	5398045	Residence	5.82E+00	1.60E+00	1.25E+00	1.40E+00	1.06E+00	2.89E-01	2.30E-01	4.67E-01	6.35E-02	1.22E-02	3.32E-03	2.44E-03	1.47E-02	1.80E-03	1.09E-03	9.60E-05	3.23E-05	2.46E-05	2.80E-05	7.56E-06	5.58E-06	2.33E+00	6.23E-01	4.63E-01	7.18E-06	2.45E-07
R_20	546950.4	5395534	Residence	2.64E+00	6.65E-01	5.25E-01	1.16E+00	4.64E-01	1.11E-01	8.46E-02	2.33E-01	3.36E-02	6.04E-03	1.59E-03	1.24E-03	6.88E-03	1.04E-03	5.71E-04	2.99E-05	7.11E-06	5.24E-06	1.39E-05	3.62E-06	2.84E-06	1.19E+00	3.00E-01	2.37E-01	2.61E-06	8.90E-08
R_21	547201.4	5395416	Residence	2.58E+00	6.70E-01	5.17E-01	1.68E+00	4.50E-01	1.11E-01	8.30E-02	2.30E-01	3.31E-02	5.83E-03	1.60E-03	1.23E-03	6.33E-03	1.07E-03	5.70E-04	2.90E-05	6.92E-06	4.98E-06	1.34E-05	3.65E-06	2.80E-06	1.21E+00	3.03E-01	2.34E-01	2.69E-06	9.18E-08
R_22	548317.4	5399655	Residence	9.93E+00	3.01E+00	2.10E+00	3.73E+00	1.62E+00	4.83E-01	3.37E-01	9.33E-01	1.04E-01	2.34E-02	7.16E-03	4.97E-03	1.69E-02	3.27E-03	1.77E-03	1.06E-04	3.51E-05	2.36E-05	5.34E-05	1.63E-05	1.13E-05	4.52E+00	1.35E+00	9.38E-01	7.90E-06	2.58E-07
R_3	545809.4	5397233	Bergagnini Apartment Rental	4.75E+00	1.62E+00	1.27E+00	9.12E-01	1.00E+00	3.58E-01	2.74E-01	3.06E-01	6.43E-02	7.51E-03	2.26E-03	1.70E-03	9.45E-03	1.46E-03	7.80E-04	1.59E-04	6.42E-05	4.87E-05	1.72E-05	5.22E-06	3.89E-06	1.48E+00	4.40E-01	3.27E-01	2.21E-05	7.19E-07
R_4	546092.4	5396797	Residence	3.64E+00	1.02E+00	8.06E-01	1.01E+00	6.66E-01	1.95E-01	1.52E-01	3.53E-01	6.53E-02	7.68E-03	2.06E-03	1.58E-03	8.13E-03	1.32E-03	7.06E-04	7.21E-05	3.61E-05	2.51E-05	1.76E-05	4.72E-06	3.61E-06	1.53E+00	3.97E-01	3.05E-01	8.03E-06	2.61E-07
R_5	545971.4	5396490	Condominium	4.33E+00	1.60E+00	1.27E+00	9.95E-01	9.56E-01	4.29E-01	3.28E-01	3.04E-01	5.16E-02	7.21E-03	1.89E-03	1.45E-03	8.04E-03	1.22E-03	6.58E-04	3.01E-04	1.64E-04	1.15E-04	1.66E-05	4.33E-06	3.31E-06	1.43E+00	3.63E-01	2.78E-01	8.08E-06	2.63E-07
R_6	545655.4	5396521	Residence	3.39E+00	1.05E+00	7.70E-01	7.98E-01	6.74E-01	2.07E-01	1.49E-01	4.57E-01	6.65E-02	6.89E-03	1.95E-03	1.46E-03	8.34E-03	1.26E-03	6.65E-04	1.47E-04	4.27E-05	2.80E-05	1.58E-05	4.48E-06	3.34E-06	1.35E+00	3.88E-01	2.84E-01	1.58E-05	5.13E-07
R_7	545438.4	5396409	I Sew Studio and Residence	2.96E+00	8.72E-01	6.49E-01	8.38E-01	5.55E-01	1.54E-01	1.13E-01	3.37E-01	6.21E-02	6.40E-03	1.83E-03	1.38E-03	8.28E-03	1.21E-03	6.39E-04	7.28E-05	1.95E-05	1.36E-05	1.47E-05	4.22E-06	3.16E-06	1.27E+00	3.62E-01	2.69E-01	1.86E-05	6.04E-07
R_8	545380.4	5396244	Bayview Apartments	2.80E+00	8.09E-01	6.00E-01	7.72E-01	5.16E-01	1.42E-01	1.03E-01	2.89E-01	5.00E-02	6.23E-03	1.75E-03	1.32E-03	8.04E-03	1.18E-03	6.17E-04	5.93E-05	1.55E-05	1.09E-05	1.43E-05	4.02E-06	3.02E-06	1.23E+00	3.42E-01	2.54E-01	1.77E-05	5.76E-07
R_9	545290.4	5396115	Residence	2.68E+00	7.69E-01	5.68E-01	7.50E-01	4.95E-01	1.33E-01	9.62E-02	2.77E-01	4.45E-02	6.04E-03	1.69E-03	1.28E-03	7.87E-03	1.14E-03	6.01E-04	5.01E-05	1.30E-05	9.07E-06	1.38E-05	3.88E-06	2.92E-06	1.18E+00	3.29E-01	2.45E-01	1.76E-05	5.72E-07
RH_1	546049.4	5395895	Peninsula Manor	2.93E+00	7.10E-01	5.59E-01	8.

Table E-1 Special Receptor Predictions (ug/m3) - Construction, Projec

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	)	SILVER (AG)			SO2				SODIUM (NA)			SODIUM CARBOXYMETHYL CELLULOSE			STRONTIUM (SR)			THALLIUM (TL)			TITANIUM (TI)			TOC		
				annual	24	month	annual	1	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual
				-	1	-	-	100	-	-	10	-	-	-	120	-	-	120	-	-	0.5	-	-	120	-	-	-	-	-
H_1	545937.4	5396170	Wilson Memorial General Hospital	7.52E-09	2.12E-06	5.23E-07	4.05E-07	1.55E+00	7.08E-02	5.17E-03	3.13E-03	1.27E-02	3.16E-03	2.45E-03	0.00E+00	0.00E+00	0.00E+00	7.75E-04	1.95E-04	1.51E-04	9.10E-05	2.29E-05	1.77E-05	8.11E-03	2.07E-03	1.61E-03	4.49E-03	7.73E-04	5.70E-04
M_1	545694	5403864	PM-10 @ Hare Lake	1.43E-09	6.73E-06	1.67E-06	9.98E-07	1.04E+01	4.59E-01	2.48E-02	5.90E-03	3.76E-02	1.01E-02	6.03E-03	0.00E+00	0.00E+00	0.00E+00	2.21E-03	6.19E-04	3.71E-04	2.60E-04	7.28E-05	4.36E-05	2.01E-02	6.55E-03	3.95E-03	1.05E-02	3.03E-03	1.67E-03
M_2	545694	5403873	Dustfall @ Hare Lake	1.44E-09	6.68E-06	1.67E-06	9.96E-07	1.03E+01	4.55E-01	2.46E-02	5.89E-03	3.73E-02	1.01E-02	6.02E-03	0.00E+00	0.00E+00	0.00E+00	2.19E-03	6.18E-04	3.70E-04	2.58E-04	7.26E-05	4.35E-05	2.00E-02	6.54E-03	3.94E-03	1.05E-02	3.04E-03	1.67E-03
M_3	547152	5401222	PM-10 @ Mays Gifts	4.64E-07	1.58E-05	5.06E-06	3.90E-06	5.10E+00	2.91E-01	2.66E-02	1.79E-02	9.54E-02	3.06E-02	2.36E-02	0.00E+00	0.00E+00	0.00E+00	5.87E-03	1.89E-03	1.46E-03	6.91E-04	2.22E-04	1.71E-04	6.27E-02	2.02E-02	1.56E-02	3.15E-02	6.90E-03	4.18E-03
M_4	547147	5401216	Dustfall @ Mays Gifts	4.61E-07	1.56E-05	5.02E-06	3.87E-06	5.09E+00	2.91E-01	2.64E-02	1.77E-02	9.46E-02	3.04E-02	2.35E-02	0.00E+00	0.00E+00	0.00E+00	5.82E-03	1.87E-03	1.44E-03	6.85E-04	2.20E-04	1.70E-04	6.22E-02	2.00E-02	1.55E-02	3.13E-02	6.86E-03	4.16E-03
M_5	551637	5402371	PM-10 @ Pic River	1.26E-09	5.52E-06	2.33E-06	1.54E-06	5.91E+00	2.59E-01	1.99E-02	9.65E-03	3.32E-02	1.41E-02	9.29E-03	0.00E+00	0.00E+00	0.00E+00	2.04E-03	8.65E-04	5.71E-04	2.40E-04	1.02E-04	6.72E-05	2.16E-02	9.21E-03	6.08E-03	1.82E-02	4.71E-03	2.47E-03
M_6	551643	5402374	Dustfall @ Pic River	1.26E-09	5.49E-06	2.32E-06	1.53E-06	5.93E+00	2.59E-01	1.98E-02	9.64E-03	3.30E-02	1.40E-02	9.28E-03	0.00E+00	0.00E+00	0.00E+00	2.03E-03	8.64E-04	5.70E-04	2.38E-04	1.02E-04	6.71E-05	2.14E-02	9.20E-03	6.07E-03	1.81E-02	4.69E-03	2.47E-03
M_7	549180	5399815	Dustfall @ Airport	3.96E-09	1.23E-05	5.52E-06	4.20E-06	3.34E+00	2.09E-01	5.54E-02	4.19E-02	7.49E-02	3.35E-02	2.55E-02	0.00E+00	0.00E+00	0.00E+00	4.61E-03	2.07E-03	1.57E-03	5.42E-04	2.42E-04	1.84E-04	4.94E-02	2.21E-02	1.68E-02	2.19E-02	3.48E-03	2.24E-03
M_8	545863	5397092	Dustfall @ Field Office	1.57E-08	2.29E-06	6.66E-07	5.00E-07	8.72E-01	4.20E-02	9.10E-03	7.18E-03	1.38E-02	4.02E-03	3.03E-03	0.00E+00	0.00E+00	0.00E+00	8.43E-04	2.47E-04	1.86E-04	9.90E-05	2.90E-05	2.19E-05	8.88E-03	2.62E-03	1.99E-03	4.69E-03	9.75E-04	6.96E-04
O_1	547181.4	5398015	Pic Motel	1.34E-08	3.56E-06	9.72E-07	7.18E-07	1.15E+00	6.19E-02	8.78E-03	6.50E-03	2.15E-02	5.89E-03	4.35E-03	0.00E+00	0.00E+00	0.00E+00	1.32E-03	3.62E-04	2.68E-04	1.55E-04	4.26E-05	3.15E-05	1.40E-02	3.87E-03	2.86E-03	6.97E-03	1.42E-03	1.07E-03
O_2	545734.4	5396873	Marathon Harbour Inn	1.53E-08	2.47E-06	7.90E-07	6.07E-07	8.61E-01	4.91E-02	1.51E-02	1.14E-02	1.49E-02	4.78E-03	3.68E-03	0.00E+00	0.00E+00	0.00E+00	9.11E-04	2.94E-04	2.26E-04	1.07E-04	3.46E-05	2.66E-05	9.61E-03	3.14E-03	2.42E-03	4.36E-03	9.13E-04	6.51E-04
O_3	545885.4	5396449	Zero-100 Motor Inn	9.74E-09	2.19E-06	5.64E-07	4.30E-07	1.49E+00	7.98E-02	1.38E-02	1.08E-02	1.31E-02	3.41E-03	2.60E-03	0.00E+00	0.00E+00	0.00E+00	8.02E-04	2.10E-04	1.60E-04	9.40E-05	2.46E-05	1.88E-05	8.40E-03	2.23E-03	1.71E-03	4.67E-03	8.02E-04	6.02E-04
O_4	545987.4	5397641	OPP Station	2.03E-08	2.56E-06	7.70E-07	5.66E-07	8.49E-01	4.11E-02	8.68E-03	6.22E-03	1.54E-02	4.64E-03	3.42E-03	0.00E+00	0.00E+00	0.00E+00	9.43E-04	2.85E-04	2.11E-04	1.11E-04	3.35E-05	2.48E-05	9.93E-03	3.02E-03	2.25E-03	5.44E-03	1.16E-03	8.11E-04
O_5	545876.4	5396073	Library	7.63E-09	2.07E-06	5.10E-07	3.95E-07	1.55E+00	6.99E-02	4.97E-03	2.89E-03	1.24E-02	3.08E-03	2.39E-03	0.00E+00	0.00E+00	0.00E+00	7.59E-04	1.90E-04	1.47E-04	8.90E-05	2.23E-05	1.73E-05	7.95E-03	2.02E-03	1.57E-03	4.38E-03	7.54E-04	5.56E-04
P_1	546958.4	5396139	Penn Lake Park and Campground	6.32E-09	2.03E-06	5.36E-07	4.22E-07	1.35E+00	6.56E-02	4.76E-03	2.70E-03	1.22E-02	3.25E-03	2.55E-03	0.00E+00	0.00E+00	0.00E+00	7.47E-04	2.00E-04	1.57E-04	8.80E-05	2.35E-05	1.85E-05	7.87E-03	2.13E-03	1.67E-03	3.64E-03	8.15E-04	6.05E-04
P_2	548538.4	5392863	Craig's Pit Provincial Nature Reserve	1.84E-09	1.87E-06	3.75E-07	2.27E-07	1.84E+00	8.48E-02	5.32E-03	1.48E-03	1.07E-02	2.25E-03	1.37E-03	0.00E+00	0.00E+00	0.00E+00	6.41E-04	1.37E-04	8.40E-05	7.50E-05	1.61E-05	9.90E-06	6.20E-03	1.44E-03	8.96E-04	2.59E-03	5.22E-04	3.18E-04
P_3	540005	5402014	Red Sucker Point Provincial Park	4.72E-10	2.27E-06	4.39E-07	2.36E-07	5.05E+00	2.14E-01	1.15E-02	1.59E-03	1.22E-02	2.64E-03	1.43E-03	0.00E+00	0.00E+00	0.00E+00	7.01E-04	1.62E-04	8.80E-05	8.30E-05	1.90E-05	1.03E-05	6.72E-03	1.71E-03	9.30E-04	2.53E-03	6.10E-04	3.43E-04
P_4	552770	5383776	Pukaskwa National Park	3.50E-10	5.91E-07	1.21E-07	7.52E-08	4.74E-01	2.06E-02	1.37E-03	4.60E-04	3.53E-03	7.31E-04	4.54E-04	0.00E+00	0.00E+00	0.00E+00	2.15E-04	4.50E-05	2.80E-05	2.50E-05	5.28E-06	3.28E-06	2.24E-03	4.76E-04	2.96E-04	7.51E-04	1.71E-04	1.01E-04
PR_1	553679.4	5385896	Children & Family Learning Centre	4.03E-10	5.40E-07	1.28E-07	8.23E-08	7.04E-01	3.02E-02	1.43E-03	5.00E-04	3.24E-03	7.71E-04	4.97E-04	0.00E+00	0.00E+00	0.00E+00	1.98E-04	4.70E-05	3.10E-05	2.30E-05	5.55E-06	3.59E-06	2.08E-03	4.97E-04	3.24E-04	6.25E-04	1.65E-04	1.06E-04
PR_2	554004.4	5385858	Pic River Elementary	3.88E-10	4.88E-07	1.21E-07	8.01E-08	7.38E-01	3.13E-02	1.48E-03	4.85E-04	2.94E-03	7.27E-04	4.83E-04	0.00E+00	0.00E+00	0.00E+00	1.80E-04	4.50E-05	3.00E-05	2.10E-05	5.24E-06	3.49E-06	1.90E-03	4.71E-04	3.15E-04	6.08E-04	1.62E-04	1.04E-04
PR_3	553836.4	5385604	Pic River Private High School	3.88E-10	5.11E-07	1.23E-07	7.97E-08	6.39E-01	2.75E-02	1.32E-03	4.83E-04	3.07E-03	7.41E-04	4.81E-04	0.00E+00	0.00E+00	0.00E+00	1.88E-04	4.50E-05	3.00E-05	2.20E-05	5.34E-06	3.48E-06	1.98E-03	4.79E-04	3.14E-04	6.07E-04	1.61E-04	1.03E-04
PR_4	553930.4	5386049	Pic River Health Centre	3.95E-10	5.01E-07	1.24E-07	8.16E-08	6.80E-01	2.88E-02	1.41E-03	4.94E-04	3.01E-03	7.43E-04	4.93E-04	0.00E+00	0.00E+00	0.00E+00	1.85E-04	4.60E-05	3.00E-05	2.20E-05	5.36E-06	3.56E-06	1.95E-03	4.81E-04	3.21E-04	6.20E-04	1.65E-04	1.05E-04
PR_5	552493.4	5384783	BIIDAABAN Healing Lodge	3.85E-10	6.34E-07	1.30E-07	8.19E-08	4.70E-01	2.04E-02	1.54E-03	5.01E-04	3.78E-03	7.88E-04	4.94E-04	0.00E+00	0.00E+00	0.00E+00	2.31E-04	4.80E-05	3.00E-05	2.70E-05	5.69E-06	3.57E-06	2.41E-03	5.14E-04	3.23E-04	8.40E-04	1.89E-04	1.10E-04
PR_6	552843.4	5390100	Residence	5.61E-10	8.38E-07	1.95E-07	1.27E-07	8.82E-01	3.81E-02	1.94E-03	7.70E-04	5.01E-03	1.17E-03	7.68E-04	0.00E+00	0.00E+00	0.00E+00	3.06E-04	7.20E-05	4.70E-05	3.60E-05	8.43E-06	5.55E-06	3.20E-03	7.55E-04	5.01E-04	9.54E-04	2.58E-04	1.64E-04
PR_7	553761.4	5387706	Residence	4.31E-10	5.46E-07	1.38E-07	9.36E-08	1.06E+00	4.46E-02	1.98E-03	5.68E-04	3.29E-03	8.30E-04	5.65E-04	0.00E+00	0.00E+00	0.00E+00	2.02E-04	5.10E-05	3.50E-05	2.40E-05	5.99E-06	4.08E-06	2.13E-03	5.38E-04	3.69E-04	6.88E-04	1.90E-04	1.21E-04
PS_1	545001.3	5404050	North Hare Lake Cottage	1.60E-10	4.16E-06	1.33E-06	7.77E-07	2.38E+00	1.18E-01	1.07E-02	4.54E-03	2.49E-02	8.03E-03	4.69E-03	0.00E+00	0.00E+00	0.00E+00	1.53E-03	4.92E-04	2.89E-04	1.79E-04	5.79E-05	3.39E-05	1.60E-02	5.21E-03	3.07E-03	8.18E-03	2.21E-03	1.23E-03
PS_2	544331.3	5403100	South Hare Lake Cottage	3.60E-11	6.34E-06	1.20E-06	6.72E-07	1.16E+01	4.98E-01	2.35E-02	3.99E-03	3.48E-02	7.27E-03	4.06E-03	0.00E+00	0.00E+00	0.00E+00	2.03E-03	4.46E-04	2.50E-04	2.39E-04	5.25E-05	2.94E-05	1.79E-02	4.74E-03	2.66E-03	8.94E-03	1.64E-03	9.63E-04
PS_3	547056.1	5401004	May's Gifts	3.06E-07	1.35E-05	4.09E-06	3.03E-06	5.12E+00	2.91E-01	2.17E-02	1.45E-02	8.20E-02	2.48E-02	1.84E-02	0.00E+00	0.00E+00	0.00E+00	5.05E-03	1.53E-03	1.13E-03	5.94E-04	1.79E-04	1.33E-04	5.41E-02	1.63E-02	1.21E-02	2.44E-02	5.90E-03	3.61E-03
PS_4	546811.4	5400953	Wayfare Inn	2.96E-07	1.30E-05	3.96E-06	2.83E-06	4.57E+00	2.61E-01	2.12E-02	1.36E-02	7.86E-02	2.40E-02	1.72E-02	0.00E+00	0.00E+00	0.00E+00	4.84E-03	1.48E-03	1.06E-03	5.69E-04	1.73E-04	1.24E-04	5.19E-02	1.58E-02	1.13E-02	2.40E-02	5.19E-03	3.13E-03
PS_5	546996.4	5401028	Peninsula Inn	3.53E-07	1.44E-05	4.23E-06	3.11E-06	5.00E+00	2.85E-01	2.25E-02	1.48E-02	8.73E-02	2.56E-02	1.89E-02	0.00E+00	0.00E+00	0.00E+00	5.38E-03	1.58E-03	1.16E-03	6.32E-04	1.86E-04	1.37E-04	5.76E-02	1.69E-02	1.24E-02	2.55E-02	5.83E-03	3.55E-03
PS_6	548471.4	5399489	Travelodge Hotel	8.48E-09	7.26E-06	2.43E-06	1.63E-06	4.76E+00	2.20E-01	2.34E-02	1.37E-02	4.40E-02	1.47E-02	9.90E-03	0.00E+00	0.00E+00	0.00E+00	2.71E-03	9.08E-04	6.10E-04	3.18E-04	1.07E-04	7.16E-05	2.89E-02	9.70E-03	6.51E-03	1.31E-02	3.14E-03	2.00E-03
PS_7	546903.4	5401056	The Laughing Mooz Eatery Restaurant and Reside	3.83E-07	1.52E-05	4.43E-06	3.22E-06	4.68E+00	2.67E-01	2.34E-02	1.52E-02	9.22E-02	2.68E-02	1.95E-02	0.00E+00	0.00E+00	0.00E+00	5.68E-03	1.65E-03	1.20E-03	6.68E-04	1.94E-04	1.41E-04	6.09E-02	1.76E-02	1.29E-02	2.66E-02	5.64E-03	3.41E-03
PW_1	545777.4	5397151	Kingdom Hall of Jehovah's Witnesses	1.76E-08	2.23E-06	6.75E-07	5.03E-07	7.78E-01	3.65E-02	8.78E-03	6.38E-03	1.34E-02	4.07E-03	3.04E-03	0.00E+00	0.00E+00	0.00E+00	8.22E-04	2.50E-04	1.87E-04	9.70E-05	2.94E-05	2.20E-05	8.66E-03	2.64E-03	1.99E-03	4.59E-03	9.98E-04	7.03E-04
PW_2	546331.4	5395942	Parkland Pentecostal Church	5.16E-09	1.94E-06	4.93E-07	3.91E-07	9.71E-01	4.71E-02	4.28E-03	2.55E-03	1.16E-02	2.99E-03	2.37E-03	0.00E+00	0.00E+00	0.00E+00	7.10E-04	1.84E-04	1.46E-04	8.40E-05	2.16E-05	1.71E-05	7.45E-03	1.96E-03	1.55E-03	3.77E-03	7.44E-04	5.56E-04
PW_3	545857.4	5395715	St. John's United Church	6.21E-09	1.94E-06	4.65E-07	3.64E-07	1.39E+00	6.26E-02	4.29E-03	2.42E-03	1.16E-02	2.81E-03	2.21E-03	0.00E+00	0.00E+00	0.00E+00	7.09E-04	1.73E-04	1.36E-04	8.30E-05	2.03E-05	1.59E-05	7.42E-03	1.84E-03	1.45E-03	4.00E-03	7.00E-04	5.14E-04
PW_4	545425	5396043	Holy Saviour Roman Catholic Church	1.21E-08	1.91E-06	5.05E-07	3.81E-07	9.43E-01	4.46E-02	4.20E-03	2.66E-03	1.15E-02	3.05E-03	2.30E-03	0.00E+00	0.00E+00	0.00E+00	7.01E-04	1.87E-04	1.42E-04	8.20E-05	2.20E-05	1.66E-05	7.37E-03	1.99E-03	1.51E-03	3.84E-03	7.35E-04	5.34E-04
PW_5	545390.4	5395989	Anglican Church-Trinity	1.21E-08	1.90E-06	5.00E-07	3.76E-07	9.29E-01	4.39E-02	4.11E-03	2.59E-03	1.14E-02	3.01E-03	2.28E-03	0.00E+00	0.00E+00	0.00E+00	6.98E-04	1.85E-04	1.40E-04	8.20E-05	2.18E-05	1.65E-05	7.33E-03	1.96E-03	1.49E-03	3.80E-03	7.29E-04	5.29E-04
R_1	547226.4	5398096	Residence	1.38E-08	3.68E-06	1.00E-06	7.40E-07	1.18E+00	6.60E-02	1.05E-02	8.53E-03	2.22E-02	6.06E-03	4.48E-03	0.00E+00	0.00E+00	0.00E+00	1.36E-03	3.73E-04	2.76E-04	1.60E-04	4.39E-05	3.24E-05	1.45E-02	3.99E-03	2.94E-03	7.11E-03	1.46E-03	1.10E-03
R_10	545421.4	5395954	Residence	1.16E-08	1.90E-06	4.94E-07	3.74E-07	1.03E+00	4.80E-02	4.13E-03	2.56E-03	1.14E-02	2.98E-03	2.26E-03	0.00E+00	0.00E+00	0.00E+00	6.98E-04	1.83E-04	1.39E-04	8.20E-05	2.15E-05	1.64E-05	7.33E-03	1.94E-03	1.48E-03	3.85E-03	7.19E-04	5.25E-04
R_11	545619.4	5395878	Residence	9.22E-09	1.96E-06	4.86E-07	3.72E-07	1.44E+00	6.50E-02	4.60E-03	2.55E-03	1.17E-02	2.93E-03	2.25E-03	0.00E+00	0.00E+00	0.00E+00	7.18E-04	1.80E-04	1.38E-04	8.40E-05	2.12E-05	1.63E-05	7.52E-03	1.92E-03	1.48E-03	4.08E-03	6.99E-04	5.23E-04
R_12	545831.4	5396001	Residence	7.71E-09	2.04E-06	5.01E-07	3.87E-07	1.54E+00	6.94E-02	4.89E-03	2.77E-03	1.22E-02	3.03E-03	2.34E-03	0.00E+00	0.00E+00	0.00E+00	7.47E-04	1.86E-04	1.44E-04	8.80E-05	2.19E-05	1.69E-05	7.82E-03	1.98E-03	1.54E-03	4.30E-03	7.38E-04	5.45E-04
R_13	545806.9	5396173	Residence	8.92E-09	2.09E-06	5.24E-07	4.02E-07	1.51E+00	6.92E-02	5.34E-03	3.23E-03	1.25E-02	3.17E-03	2.43E-03	0.00E+00	0.00E+00	0.00E+00	7.64E-04	1.95E-04	1.49E-04	9.00E-05	2.29E-05	1.76E-05	8.00E-03	2.07E-03	1.59E-03	4.42E-03	7.57E-04	5.65E-04
R_14	545827.1	5396229	Residence	9.03E-09	2.11E-06	5.32E-07	4.08E-07	1.51E+00	6.97E-02	5.52E-03	3.47E-03	1.26E-02	3.22E-03	2.47E-03	0.00E+00	0.00E+00	0.00E+00	7.73E-04	1.98E-04	1.52E-04	9.10E-05	2.32E-05	1.78E-05	8.10E-03	2.10E-03	1.62E-03	4.49E-03	7.68E-04	5.73E-04
R_15	545662.4	5396176	Residence	1.06E-08	2.04E-06	5.27E-07	3.99E-07	1.31E+00	6.07E-02	5.04E-03	3.11E-03	1.22E-02	3.18E-03	2.41E-03	0.00E+00	0.00E+00	0.00E+00	7.47E-04	1.95E-04	1.48E-04	8.80E-05	2.30E-05	1.74E-05	7.84E-03	2.08E-03	1.58E-03	4.27E-03	7.53E-04	5.60E-04
R_16	546254.4	5396485	Residence	6.61E-09	2.22E-06	5.65E-07	4.39E-07	1.41E+00	6.47E-02	5.35E-03	3.48E-03	1.33E-02	3.42E-03	2.66E-03	0.00E+00	0.00E+00	0.00E+00	8.14E-04	2.11E-04	1.63E-04	9.60E-05	2.48E-05	1.92E-05	8.53E-03	2.25E-03	1.74E-03	4.73E-03	8.42E-04	6.20E-04
R_17	546471.4	5396507	Residence	6.45E-09	2.18E-06	5.70E-07	4.46E-07	9.70E-01	4.64E-02	4.94E-03	3.15E-03	1.31E-02	3.45E-03	2.70E-03	0.00E+00	0.00E+00	0.00E+00	8.01E-04	2.12E-04	1.66E-04	9.40E-05	2.50E-05	1.95E-05	8.40E-03	2.27E-03	1.77E-03	4.46E-03	8.52E-04	6.33E-04
R_18	546601.4	5396388	Residence	6.45E-09	2.06E-06	5.55E-07	4.37E-07	1.07E+00	5.21E-02	4.71E-03	2.93E-03	1.24E-02	3.36E-03	2.65E-03	0.00E+00	0.00E+00	0.00E+00	7.56E-04	2.07E-04	1.63E-04	8.90E-05	2.43E-05	1.91E-05	7.95E-03	2.21E-03	1.74E-03	3.97E-03	8.23E-04	6.23E-04
R_19	546856.4	5395581	Residence	5.34E-09	1.85E-06	4.73E-07	3.74E-07	1.54E+00	7.18E-02	4.57E-03	2.37E-03	1.11E-02	2.87E-03	2.26E-03	0.00E+00	0.00E+00	0.00E+00	6.80E-04	1.76E-04	1.39E-04	8.00E-05	2.07E-05	1.64E-05	7.15E-03	1.88E-03	1.48E-03	3.26E-03	7.30E-04	5.38E-04
R_2	547273.4	5398045	Residence	1.34E-08	3.69E-06	9.87E-07	7.30E-07	1.26E+00	6.57E-02	8.23E-03	5.89E-03	2.22E-02	5.98E-03	4.42E-03	0.00E+00	0.00E+00	0.00E+00	1.37E-03	3.68E-04	2.72E-04	1.61E-04	4.33E-05	3.20E-05	1.45E-02	3.94E-03	2.90E-03	6.90E-03	1.44E-03	1.09E-03
R_20	546950.4	5395534	Residence	5.23E-09	1.84E-06	4.74E-07	3.72E-07	1.74E+00	7.76E-02	4.90E-03	2.37E-03	1.11E-02	2.87E-03	2.25E-03	0.00E+00	0.00E+00	0.00E+00	6.76E-04	1.77E-04	1.38E-04	8.00E-05	2.08E-05	1.63E-05	7.10E-03	1.89E-03	1.48E-03	3.38E-03	7.31E-04	5.37E-04
R_21	547201.4	5395416	Residence	4.81E-09	1.78E-06	4.78E-07	3.68E-07	3.30E+00	1.41E-01	7.32E-03	2.38E-03	1.07E-02	2.89E-03	2.22E-03	0.00E+00	0.00E+00	0.00E+00	6.53E-04	1.78E-04	1.37E-04	7.70E-05	2.09E-05	1.61E-05	6.85E-03	1.90E-03	1.46E-03	3.54E-03	7.62E-04	5.31E-04
R_22	548317.4	5399655	Residence	1.03E-08	7.01E-06	2.13E-06	1.48E-06	2.62E+00	1.24E-01	1.60E-02	1.07E-02	4.24E-02	1.29E-02	8.97E-03	0.00E+00	0.00E+00	0.00E+00	2.60E-03	7.95E-04	5.52E-04	3.06E-04	9.35E-05	6.49E-05	2.77E-02	8.49E-03	5.90E-03	1.43E-02	3.33E-03	2.21E-03
R_3	545809.4	5397233	Bergagnini Apartment Rental	1.81E-08	2.28E-06	6.88E-07	5.10E-07	7.69E-01	3.78E-02	9.08E-03	6.61E-03	1.37E-02	4.15E-03	3.08E-03	0.00E+00	0.00E+00	0.00E+00	8.40E-04	2.54E-04	1.90E-04	9.90E-05	2.99E-05	2.23E-05	8.85E-03	2.69E-03	2.02E-03	4.72E-03	1.02E-03	7.19E-04
R_4	546092.4	5396797	Residence	9.45E-09	2.35E-06	6.19E-07	4.72E-07	1.54E+00	7.09E-02	6.42E-03	4.40E-03	1.41E-02	3.74E-03	2.86E-03	0.00E+00	0.00E+00	0.00E+00	8.61E-04	2.30E-04	1.76E-04	1.01E-04	2.70E-05	2.07E-05	9.02E-03	2.45E-03	1.88E-03	5.10E-03	8.79E-04	6.58E-04
R_5	545971.4	5396490	Condominium	8.95E-09	2.21E-06	5.68E-07	4.34E-07	1.54E+00	7.63E-02	1.55E-02	1.18E-02	1.32E-02	3.43E-03	2.63E-03	0.00E+00	0.00E+00	0.00E+00	8.08E-04	2.11E-04	1.61E-04	9.50E-05	2.48E-05	1.90E-05	8.47E-03	2.25E-03	1.72E-03	4.74E-03	8.15E-04	6.08E-04
R_6	545655.4	5396521	Residence	1.33E-08	2.10E-06	5.90E-07	4.37E-07	9.56E-01	4.82E-02	6.70E-03	4.45E-03	1.26E-02	3.56E-03	2.64E-03	0.00E+00	0.00E+00	0.00E+00	7.71E-04	2.18E-04	1.63E-04	9.10E-05	2.57E-05	1.91E-05	8.10E-03	2.32E-03	1.73E-03	4.33E-03	8.40E-04	6.07E-04
R_7	545438.4	5396409	I Sew Studio and Residence	1.44E-08	1.95E-06	5.57E-07	4.14E-07	7.91E-01	3.51E-02	5.20E-03	3.14E-03	1.17E-02	3.35E-03	2.50E-03	0.00E+00	0.00E+00	0.00E+00	7.16E-04	2.06E-04	1.54E-04	8.40E-05	2.42E-05	1.81E-05	7.54E-03	2.18E-03	1.64E-03	3.75E-03	8.07E-04	5.74E-04
R_8	545380.4	5396244	Bayview Apartments	1.37E-08	1.89E-06	5.30E-07	3.95E-07	8.05E-01	3.54E-02	4.77E-03	2.84E-03	1.14E-02	3.19E-03	2.39E-03	0.00E+00	0.00E+00	0.00E+00	6.97E-04	1.96E-04	1.47E-04	8.20E-05	2.31E-05	1.73E-05	7.34E-03	2.08E-03	1.57E-03	3.68E-03	7.74E-04	5.52E-04
R_9	545290.4	5396115	Residence	1.34E-08	1.83E-06	5.12E-07	3.82E-07	7.86E-01	3.45E-02	4.54E-03	2.63E-03	1.10E-02	3.09E-03	2.31E-03	0.00E+00	0.00E+00	0.00E+00	6.75E-04	1.89E-04	1.42E-04	7.90E-05	2.23E-05	1.67E-05	7.11E-03	2.01E-03	1.51E-03	3.53E-03	7.52E-04	5.36E-04
RH_1	546049.4	5395895	Peninsula Manor	5.62E-09	2.00E-06	4.87E-07	3.83E-07	1.23E+00

Table E-1 Special Receptor Predictions (ug/m3) - Construction, Projec

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	TOC (METHANE)			TOLUENE			TSP (See Note 1)			TSP (See Note 2)		TUNGSTEN (W)			URANIUM (U)			VANADIUM (V)			XYLENES				ZINC (ZN)	
				24	month	annual	24	month	annual	24	month	annual	24	annual	24	month	annual	24	month	annual	24	month	annual	10-Min	24	month	annual	24	month
				37330	-	-	2000	-	-	-	-	-	120	60	5	-	-	0.15	-	0.03	2	-	-	3000	730	-	-	120	-
H_1	545937.4	5396170	Wilson Memorial General Hospital	2.84E-01	3.77E-02	2.08E-02	8.47E-04	1.13E-04	6.20E-05	9.46E+00	2.63E+00	2.01E+00	2.18E+00	3.38E-01	5.17E-04	1.31E-04	1.02E-04	9.20E-05	2.32E-05	1.79E-05	1.47E-03	3.73E-04	2.89E-04	8.78E-03	5.82E-04	7.70E-05	4.26E-05	4.92E-04	1.24E-04
M_1	545694	5403864	PM-10 @ Hare Lake	6.61E-01	1.16E-01	6.79E-02	1.97E-03	3.47E-04	2.03E-04	2.52E+01	7.27E+00	4.37E+00	1.19E+01	8.02E-01	1.37E-03	4.16E-04	2.50E-04	2.54E-04	7.36E-05	4.42E-05	3.89E-03	1.18E-03	7.11E-04	1.49E-02	1.36E-03	2.38E-04	1.39E-04	1.40E-03	3.94E-04
M_2	545694	5403873	Dustfall @ Hare Lake	6.58E-01	1.17E-01	6.80E-02	1.96E-03	3.49E-04	2.03E-04	2.51E+01	7.26E+00	4.36E+00	1.18E+01	8.00E-01	1.36E-03	4.15E-04	2.50E-04	2.53E-04	7.35E-05	4.41E-05	3.86E-03	1.18E-03	7.09E-04	1.49E-02	1.35E-03	2.40E-04	1.39E-04	1.39E-03	3.93E-04
M_3	547152	5401222	PM-10 @ Mays Gifts	1.07E+00	2.09E-01	1.02E-01	3.21E-03	6.22E-04	3.04E-04	6.91E+01	2.21E+01	1.71E+01	1.37E+01	3.58E+00	3.97E-03	1.28E-03	9.84E-04	7.00E-04	2.25E-04	1.74E-04	1.13E-02	3.62E-03	2.80E-03	1.81E-02	2.20E-03	4.27E-04	2.09E-04	3.74E-03	1.20E-03
M_4	547147	5401216	Dustfall @ Mays Gifts	1.08E+00	2.08E-01	1.02E-01	3.22E-03	6.22E-04	3.03E-04	6.85E+01	2.20E+01	1.70E+01	1.36E+01	3.55E+00	3.93E-03	1.27E-03	9.77E-04	6.94E-04	2.23E-04	1.72E-04	1.12E-02	3.60E-03	2.78E-03	1.82E-02	2.21E-03	4.27E-04	2.08E-04	3.70E-03	1.19E-03
M_5	551637	5402371	PM-10 @ Pic River	1.06E+00	1.79E-01	8.98E-02	3.16E-03	5.33E-04	2.68E-04	2.40E+01	1.02E+01	6.73E+00	7.39E+00	1.61E+00	1.37E-03	5.83E-04	3.85E-04	2.42E-04	1.03E-04	6.80E-05	3.89E-03	1.66E-03	1.10E-03	1.97E-02	2.17E-03	3.66E-04	1.84E-04	1.30E-03	5.50E-04
M_6	551643	5402374	Dustfall @ Pic River	1.06E+00	1.78E-01	8.97E-02	3.15E-03	5.31E-04	2.68E-04	2.38E+01	1.02E+01	6.72E+00	7.38E+00	1.60E+00	1.36E-03	5.82E-04	3.85E-04	2.41E-04	1.03E-04	6.79E-05	3.87E-03	1.66E-03	1.09E-03	1.97E-02	2.16E-03	3.65E-04	1.84E-04	1.29E-03	5.49E-04
M_7	549180	5399815	Dustfall @ Airport	6.56E-01	1.37E-01	5.92E-02	1.96E-03	4.09E-04	1.77E-04	5.47E+01	2.45E+01	1.87E+01	1.12E+01	9.80E-01	3.12E-03	1.40E-03	1.06E-03	5.51E-04	2.47E-04	1.87E-04	8.87E-03	3.97E-03	3.02E-03	1.52E-02	1.34E-03	2.81E-04	1.21E-04	2.93E-03	1.31E-03
M_8	545863	5397092	Dustfall @ Field Office	3.15E-01	4.80E-02	2.55E-02	9.41E-04	1.43E-04	7.60E-05	1.50E+01	5.95E+00	4.78E+00	2.21E+00	4.56E-01	5.65E-04	1.66E-04	1.26E-04	1.00E-04	2.94E-05	2.22E-05	1.61E-03	4.72E-04	3.57E-04	9.72E-03	6.46E-04	9.80E-05	5.22E-05	5.36E-04	1.57E-04
O_1	547181.4	5398015	Pic Motel	4.72E-01	6.05E-02	3.56E-02	1.41E-03	1.81E-04	1.06E-04	2.04E+01	5.94E+00	4.81E+00	3.49E+00	5.77E-01	8.87E-04	2.45E-04	1.81E-04	1.57E-04	4.32E-05	3.19E-05	2.52E-03	6.96E-04	5.14E-04	1.22E-02	9.68E-04	1.24E-04	7.31E-05	8.38E-04	2.31E-04
O_2	545734.4	5396873	Marathon Harbour Inn	3.03E-01	4.55E-02	2.41E-02	9.04E-04	1.36E-04	7.20E-05	1.59E+01	6.07E+00	4.96E+00	3.26E+00	1.03E+00	6.11E-04	1.98E-04	1.53E-04	1.08E-04	3.50E-05	2.70E-05	1.74E-03	5.64E-04	4.35E-04	9.45E-03	6.21E-04	9.30E-05	4.93E-05	5.79E-04	1.87E-04
O_3	545885.4	5396449	Zero-100 Motor Inn	2.55E-01	4.13E-02	2.20E-02	7.61E-04	1.23E-04	6.60E-05	1.47E+01	4.83E+00	3.88E+00	2.13E+00	3.69E-01	5.36E-04	1.41E-04	1.08E-04	9.50E-05	2.49E-05	1.91E-05	1.52E-03	4.01E-04	3.07E-04	9.18E-03	5.23E-04	8.50E-05	4.52E-05	5.09E-04	1.33E-04
O_4	545987.4	5397641	OPP Station	3.36E-01	5.43E-02	2.92E-02	1.00E-03	1.62E-04	8.70E-05	1.60E+01	5.85E+00	4.61E+00	2.50E+00	4.79E-01	6.32E-04	1.91E-04	1.42E-04	1.12E-04	3.39E-05	2.51E-05	1.80E-03	5.44E-04	4.04E-04	1.03E-02	6.89E-04	1.11E-04	5.99E-05	5.99E-04	1.81E-04
O_5	545876.4	5396073	Library	2.78E-01	3.70E-02	2.04E-02	8.29E-04	1.10E-04	6.10E-05	9.29E+00	2.52E+00	1.92E+00	2.17E+00	3.30E-01	5.07E-04	1.28E-04	9.90E-05	9.00E-05	2.26E-05	1.75E-05	1.44E-03	3.64E-04	2.82E-04	8.67E-03	5.70E-04	7.60E-05	4.17E-05	4.82E-04	1.21E-04
P_1	546958.4	5396139	Penn Lake Park and Campground	2.59E-01	3.74E-02	2.13E-02	7.74E-04	1.12E-04	6.40E-05	8.97E+00	2.44E+00	1.93E+00	2.31E+00	3.43E-01	5.01E-04	1.35E-04	1.06E-04	8.90E-05	2.38E-05	1.87E-05	1.42E-03	3.84E-04	3.01E-04	9.19E-03	5.32E-04	7.70E-05	4.37E-05	4.75E-04	1.27E-04
P_2	548538.4	5392863	Craig's Pit Provincial Nature Reserve	2.14E-01	2.85E-02	1.17E-02	6.39E-04	8.50E-05	3.50E-05	7.42E+00	1.63E+00	1.00E+00	2.77E+00	1.86E-01	4.10E-04	9.20E-05	5.70E-05	7.50E-05	1.63E-05	1.00E-05	1.17E-03	2.61E-04	1.61E-04	7.23E-03	4.39E-04	5.80E-05	2.41E-05	4.06E-04	8.70E-05
P_3	540005	5402014	Red Sucker Point Provincial Park	1.93E-01	3.16E-02	1.57E-02	5.76E-04	9.40E-05	4.70E-05	7.88E+00	1.91E+00	1.04E+00	4.78E+00	1.96E-01	4.28E-04	1.09E-04	5.90E-05	7.90E-05	1.92E-05	1.04E-05	1.22E-03	3.09E-04	1.68E-04	6.58E-03	3.95E-04	6.50E-05	3.22E-05	4.42E-04	1.03E-04
P_4	552770	5383776	Pukaskwa National Park	7.09E-02	1.00E-02	4.78E-03	2.11E-04	3.00E-05	1.40E-05	2.53E+00	5.31E-01	3.30E-01	6.04E-01	6.25E-02	1.43E-04	3.00E-05	1.90E-05	2.60E-05	5.34E-06	3.32E-06	4.08E-04	8.60E-05	5.30E-05	3.09E-03	1.45E-04	2.10E-05	9.80E-06	1.37E-04	2.90E-05
PR_1	553679.4	5385896	Children & Family Learning Centre	5.62E-02	9.53E-03	4.82E-03	1.68E-04	2.80E-05	1.40E-05	2.33E+00	5.58E-01	3.61E-01	7.30E-01	6.79E-02	1.32E-04	3.20E-05	2.10E-05	2.40E-05	5.61E-06	3.63E-06	3.77E-04	9.00E-05	5.80E-05	2.59E-03	1.15E-04	2.00E-05	9.89E-06	1.26E-04	3.00E-05
PR_2	554004.4	5385858	Pic River Elementary	5.82E-02	9.31E-03	4.69E-03	1.74E-04	2.80E-05	1.40E-05	2.12E+00	5.26E-01	3.52E-01	7.70E-01	6.56E-02	1.21E-04	3.00E-05	2.00E-05	2.10E-05	5.30E-06	3.54E-06	3.43E-04	8.50E-05	5.70E-05	2.62E-03	1.19E-04	1.90E-05	9.62E-06	1.14E-04	2.80E-05
PR_3	553836.4	5385604	Pic River Private High School	5.58E-02	9.27E-03	4.67E-03	1.66E-04	2.80E-05	1.40E-05	2.21E+00	5.36E-01	3.50E-01	6.72E-01	6.56E-02	1.26E-04	3.00E-05	2.00E-05	2.20E-05	5.40E-06	3.52E-06	3.58E-04	8.70E-05	5.70E-05	2.56E-03	1.14E-04	1.90E-05	9.58E-06	1.20E-04	2.90E-05
PR_4	553930.4	5386049	Pic River Health Centre	5.90E-02	9.47E-03	4.78E-03	1.76E-04	2.80E-05	1.40E-05	2.17E+00	5.38E-01	3.58E-01	7.23E-01	6.69E-02	1.24E-04	3.10E-05	2.00E-05	2.20E-05	5.42E-06	3.60E-06	3.52E-04	8.70E-05	5.80E-05	2.66E-03	1.21E-04	1.90E-05	9.79E-06	1.17E-04	2.90E-05
PR_5	552493.4	5384783	BIIDAABAN Healing Lodge	7.58E-02	1.10E-02	5.23E-03	2.26E-04	3.30E-05	1.60E-05	2.73E+00	5.73E-01	3.60E-01	6.60E-01	6.79E-02	1.54E-04	3.30E-05	2.00E-05	2.70E-05	5.76E-06	3.62E-06	4.37E-04	9.30E-05	5.80E-05	3.31E-03	1.55E-04	2.30E-05	1.07E-05	1.47E-04	3.10E-05
PR_6	552843.4	5390100	Residence	8.74E-02	1.45E-02	7.41E-03	2.61E-04	4.30E-05	2.20E-05	3.60E+00	8.47E-01	5.59E-01	9.54E-01	1.05E-01	2.05E-04	4.80E-05	3.20E-05	3.60E-05	8.52E-06	5.61E-06	5.81E-04	1.37E-04	9.00E-05	3.86E-03	1.79E-04	3.00E-05	1.52E-05	1.95E-04	4.60E-05
PR_7	553761.4	5387706	Residence	6.71E-02	1.07E-02	5.45E-03	2.00E-04	3.20E-05	1.60E-05	2.37E+00	6.02E-01	4.11E-01	1.05E+00	7.65E-02	1.35E-04	3.40E-05	2.30E-05	2.40E-05	6.05E-06	4.13E-06	3.85E-04	9.70E-05	6.60E-05	3.02E-03	1.38E-04	2.20E-05	1.12E-05	1.28E-04	3.20E-05
PS_1	545001.3	5404050	North Hare Lake Cottage	5.68E-01	9.38E-02	5.44E-02	1.69E-03	2.80E-04	1.62E-04	1.79E+01	5.79E+00	3.40E+00	4.51E+00	6.25E-01	1.02E-03	3.31E-04	1.94E-04	1.81E-04	5.86E-05	3.44E-05	2.90E-03	9.41E-04	5.53E-04	1.33E-02	1.16E-03	1.92E-04	1.12E-04	9.70E-04	3.13E-04
PS_2	544331.3	5403100	South Hare Lake Cottage	5.71E-01	7.04E-02	3.90E-02	1.70E-03	2.10E-04	1.16E-04	2.30E+01	5.25E+00	2.94E+00	1.20E+01	5.43E-01	1.23E-03	3.00E-04	1.68E-04	2.32E-04	5.31E-05	2.97E-05	3.50E-03	8.54E-04	4.78E-04	1.25E-02	1.17E-03	1.44E-04	8.00E-05	1.28E-03	2.84E-04
PS_3	547056.1	5401004	May's Gifts	9.96E-01	1.98E-01	9.53E-02	2.97E-03	5.90E-04	2.84E-04	5.94E+01	1.79E+01	1.33E+01	1.18E+01	2.76E+00	3.42E-03	1.03E-03	7.64E-04	6.02E-04	1.82E-04	1.35E-04	9.71E-03	2.93E-03	2.17E-03	1.73E-02	2.04E-03	4.05E-04	1.95E-04	3.21E-03	9.70E-04
PS_4	546811.4	5400953	Wayfare Inn	9.42E-01	1.74E-01	8.43E-02	2.81E-03	5.19E-04	2.51E-04	5.69E+01	1.73E+01	1.24E+01	1.07E+01	2.73E+00	3.28E-03	9.97E-04	7.14E-04	5.78E-04	1.76E-04	1.26E-04	9.31E-03	2.83E-03	2.03E-03	1.68E-02	1.93E-03	3.57E-04	1.73E-04	3.08E-03	9.38E-04
PS_5	546996.4	5401028	Peninsula Inn	1.00E+00	1.93E-01	9.31E-02	3.00E-03	5.75E-04	2.78E-04	6.32E+01	1.85E+01	1.37E+01	1.31E+01	2.92E+00	3.64E-03	1.07E-03	7.86E-04	6.41E-04	1.88E-04	1.39E-04	1.03E-02	3.03E-03	2.23E-03	1.75E-02	2.06E-03	3.95E-04	1.91E-04	3.42E-03	1.00E-03
PS_6	548471.4	5399489	Travelodge Hotel	5.89E-01	1.12E-01	5.64E-02	1.76E-03	3.34E-04	1.68E-04	3.35E+01	1.16E+01	7.99E+00	7.42E+00	9.09E-01	1.83E-03	6.13E-04	4.12E-04	3.23E-04	1.08E-04	7.27E-05	5.20E-03	1.74E-03	1.17E-03	1.51E-02	1.21E-03	2.29E-04	1.16E-04	1.72E-03	5.77E-04
PS_7	546903.4	5401056	The Laughing Mooz Eatery Restaurant and Reside	9.96E-01	1.83E-01	8.91E-02	2.97E-03	5.47E-04	2.66E-04	6.67E+01	1.94E+01	1.41E+01	1.42E+01	3.15E+00	3.84E-03	1.12E-03	8.12E-04	6.77E-04	1.97E-04	1.43E-04	1.09E-02	3.17E-03	2.31E-03	1.76E-02	2.04E-03	3.76E-04	1.83E-04	3.61E-03	1.05E-03
PW_1	545777.4	5397151	Kingdom Hall of Jehovah's Witnesses	3.15E-01	4.83E-02	2.58E-02	9.41E-04	1.44E-04	7.70E-05	1.61E+01	5.66E+00	4.39E+00	2.27E+00	4.53E-01	5.51E-04	1.68E-04	1.26E-04	9.80E-05	2.97E-05	2.23E-05	1.57E-03	4.77E-04	3.59E-04	9.65E-03	6.47E-04	9.90E-05	5.29E-05	5.22E-04	1.59E-04
PW_2	546331.4	5395942	Parkland Pentecostal Church	3.14E-01	3.27E-02	1.99E-02	9.36E-04	9.80E-05	5.90E-05	8.66E+00	2.28E+00	1.81E+00	2.01E+00	3.20E-01	4.75E-04	1.24E-04	9.80E-05	8.40E-05	2.19E-05	1.74E-05	1.35E-03	3.53E-04	2.79E-04	8.84E-03	6.43E-04	6.70E-05	4.08E-05	4.51E-04	1.17E-04
PW_3	545857.4	5395715	St. John's United Church	2.86E-01	3.29E-02	1.89E-02	8.52E-04	9.80E-05	5.60E-05	8.59E+00	2.18E+00	1.70E+00	1.96E+00	3.02E-01	4.74E-04	1.17E-04	9.20E-05	8.40E-05	2.06E-05	1.62E-05	1.35E-03	3.32E-04	2.60E-04	8.37E-03	5.85E-04	6.70E-05	3.87E-05	4.51E-04	1.10E-04
PW_4	545425	5396043	Holy Saviour Roman Catholic Church	2.56E-01	3.83E-02	2.01E-02	7.63E-04	1.14E-04	6.00E-05	8.76E+00	2.40E+00	1.82E+00	1.74E+00	3.25E-01	4.69E-04	1.26E-04	9.60E-05	8.30E-05	2.23E-05	1.69E-05	1.33E-03	3.58E-04	2.71E-04	8.51E-03	5.24E-04	7.90E-05	4.11E-05	4.46E-04	1.19E-04
PW_5	545390.4	5395989	Anglican Church-Trinity	2.54E-01	3.80E-02	1.99E-02	7.57E-04	1.13E-04	5.90E-05	8.69E+00	2.36E+00	1.79E+00	1.74E+00	3.19E-01	4.67E-04	1.25E-04	9.40E-05	8.30E-05	2.20E-05	1.67E-05	1.33E-03	3.54E-04	2.68E-04	8.44E-03	5.20E-04	7.80E-05	4.08E-05	4.43E-04	1.18E-04
R_1	547226.4	5398096	Residence	4.87E-01	6.25E-02	3.68E-02	1.45E-03	1.87E-04	1.10E-04	2.41E+01	7.90E+00	6.36E+00	3.57E+00	5.93E-01	9.18E-04	2.52E-04	1.86E-04	1.62E-04	4.45E-05	3.28E-05	2.61E-03	7.17E-04	5.29E-04	1.26E-02	9.98E-04	1.28E-04	7.55E-05	8.67E-04	2.37E-04
R_10	545421.4	5395954	Residence	2.48E-01	3.77E-02	1.97E-02	7.42E-04	1.12E-04	5.90E-05	8.69E+00	2.33E+00	1.77E+00	1.74E+00	3.17E-01	4.67E-04	1.23E-04	9.40E-05	8.30E-05	2.18E-05	1.66E-05	1.33E-03	3.50E-04	2.67E-04	8.52E-03	5.09E-04	7.70E-05	4.04E-05	4.44E-04	1.16E-04
R_11	545619.4	5395878	Residence	2.42E-01	3.64E-02	1.95E-02	7.21E-04	1.09E-04	5.80E-05	8.88E+00	2.30E+00	1.76E+00	1.99E+00	3.12E-01	4.79E-04	1.21E-04	9.30E-05	8.50E-05	2.15E-05	1.65E-05	1.36E-03	3.45E-04	2.66E-04	8.58E-03	4.95E-04	7.50E-05	3.99E-05	4.56E-04	1.15E-04
R_12	545831.4	5396001	Residence	2.74E-01	3.65E-02	2.00E-02	8.16E-04	1.09E-04	6.00E-05	9.15E+00	2.43E+00	1.86E+00	2.13E+00	3.24E-01	4.99E-04	1.25E-04	9.70E-05	8.90E-05	2.22E-05	1.72E-05	1.42E-03	3.57E-04	2.76E-04	8.60E-03	5.61E-04	7.50E-05	4.11E-05	4.75E-04	1.18E-04
R_13	545806.9	5396173	Residence	2.59E-01	3.86E-02	2.08E-02	7.73E-04	1.15E-04	6.20E-05	9.66E+00	2.65E+00	2.03E+00	2.14E+00	3.39E-01	5.10E-04	1.31E-04	1.01E-04	9.10E-05	2.32E-05	1.78E-05	1.45E-03	3.73E-04	2.87E-04	8.92E-03	5.31E-04	7.90E-05	4.26E-05	4.85E-04	1.24E-04
R_14	545827.1	5396229	Residence	2.59E-01	3.92E-02	2.10E-02	7.74E-04	1.17E-04	6.30E-05	9.99E+00	2.80E+00	2.10E+00	2.17E+00	3.45E-01	5.17E-04	1.33E-04	1.02E-04	9.20E-05	2.35E-05	1.81E-05	1.47E-03	3.79E-04	2.91E-04	8.98E-03	5.32E-04	8.00E-05	4.31E-05	4.91E-04	1.26E-04
R_15	545662.4	5396176	Residence	2.47E-01	3.92E-02	2.07E-02	7.39E-04	1.17E-04	6.20E-05	9.46E+00	2.63E+00	1.99E+00	1.92E+00	3.40E-01	5.00E-04	1.32E-04	1.00E-04	8.90E-05	2.33E-05	1.77E-05	1.42E-03	3.74E-04	2.85E-04	8.88E-03	5.07E-04	8.00E-05	4.25E-05	4.75E-04	1.24E-04
R_16	546254.4	5396485	Residence	3.23E-01	3.87E-02	2.22E-02	9.64E-04	1.16E-04	6.60E-05	1.03E+01	2.76E+00	2.21E+00	2.25E+00	3.66E-01	5.44E-04	1.42E-04	1.10E-04	9.70E-05	2.51E-05	1.95E-05	1.55E-03	4.04E-04	3.13E-04	9.23E-03	6.62E-04	7.90E-05	4.56E-05	5.18E-04	1.34E-04
R_17	546471.4	5396507	Residence	3.42E-01	3.66E-02	2.24E-02	1.02E-03	1.09E-04	6.70E-05	9.94E+00	2.70E+00	2.15E+00	2.26E+00	3.68E-01	5.35E-04	1.43E-04	1.12E-04	9.50E-05	2.53E-05	1.98E-05	1.52E-03	4.08E-04	3.19E-04	9.45E-03	7.01E-04	7.50E-05	4.60E-05	5.09E-04	1.35E-04
R_18	546601.4	5396388	Residence	3.34E-01	3.63E-02	2.20E-02	9.96E-04	1.08E-04	6.60E-05	9.29E+00	2.58E+00	2.06E+00	2.16E+00	3.58E-01	5.06E-04	1.40E-04	1.10E-04	9.00E-05	2.46E-05	1.94E-05	1.44E-03	3.97E-04	3.12E-04	9.24E-03	6.84E-04	7.40E-05	4.50E-05	4.81E-04	1.31E-04
R_19	546856.4	5395581	Residence	2.38E-01	3.44E-02	1.93E-02	7.11E-04	1.03E-04	5.80E-05	8.14E+00	2.14E+00	1.69E+00	2.37E+00	3.05E-01	4.55E-04	1.19E-04	9.40E-05	8.10E-05	2.10E-05	1.66E-05	1.30E-03	3.39E-04	2.67E-04	8.70E-03	4.88E-04	7.10E-05	3.95E-05	4.32E-04	1.12E-04
R_2	547273.4	5398045	Residence	4.95E-01	6.09E-02	3.66E-02	1.48E-03	1.82E-04	1.09E-04	1.95E+01	5.46E+00	4.33E+00	3.57E+00	5.85E-01	9.19E-04	2.49E-04	1.84E-04	1.63E-04	4.39E-05	3.24E-05	2.61E-03	7.07E-04	5.22E-04	1.30E-02	1.02E-03	1.25E-04	7.50E-05	8.68E-04	2.34E-04
R_20	546950.4	5395534	Residence	2.32E-01	3.50E-02	1.93E-02	6.93E-04	1.05E-04	5.70E-05	8.08E+00	2.14E+00	1.68E+00	2.48E+00	3.04E-01	4.52E-04	1.19E-04	9.30E-05	8.00E-05	2.10E-05	1.65E-05	1.29E-03	3.39E-04	2.65E-04	8.70E-03	4.76E-04	7.20E-05	3.95E-05	4.30E-04	1.12E-04
R_21	547201.4	5395416	Residence	2.14E-01	3.60E-02	1.92E-02	6.38E-04	1.07E-04	5.70E-05	7.78E+00	2.15E+00	1.65E+00	3.42E+00	3.01E-01	4.37E-04	1.20E-04	9.20E-05	7.80E-05	2.12E-05	1.63E-05	1.24E-03	3.42E-04	2.62E-04	8.44E-03	4.38E-04	7.40E-05	3.94E-05	4.15E-04	1.13E-04
R_22	548317.4	5399655	Residence	5.70E-01	1.10E-01	5.99E-02	1.70E-03	3.30E-04	1.79E-04	3.11E+01	9.66E+00	6.75E+00	9.98E+00	9.63E-01	1.75E-03	5.37E-04	3.73E-04	3.10E-04	9.48E-05	6.59E-05	4.99E-03	1.53E-03	1.06E-03	1.47E-02	1.17E-03	2.26E-04	1.23E-04	1.66E-03	5.06E-04
R_3	545809.4	5397233	Bergagnini Apartment Rental	3.19E-01	4.92E-02	2.63E-02	9.52E-04	1.47E-04	7.90E-05	1.71E+01	6.06E+00	4.70E+00	2.30E+00	4.47E-01	5.63E-04	1.71E-04	1.28E-04	1.00E-04	3.03E-05	2.26E-05	1.60E-03	4.86E-04	3.64E-04	9.73E-03	6.54E-04	1.01E-04	5.39E-05	5.34E-04	1.62E-04
R_4	546092.4	5396797	Residence	2.74E-01	4.44E-02	2.38E-02	8.19E-04	1.33E-04	7.10E-05	1.12E+01	3.26E+00	2.60E+00	2.26E+00	4.17E-01	5.75E-04	1.55E-04	1.19E-04	1.02E-04	2.74E-05	2.10E-05	1.64E-03	4.41E-04	3.37E-04	9.63E-03	5.62E-04	9.10E-05	4.88E-05	5.47E-04	1.46E-04
R_5	545971.4	5396490	Condominium	2.71E-01	4.12E-02	2.22E-02	8.09E-04	1.23E-04	6.60E-05	1.35E+01	5.16E+00	4.11E+00	2.18E+00	3.72E-01	5.40E-04	1.42E-04	1.09E-04	9.60E-05	2.51E-05	1.92E-05	1.54E-03	4.04E-04	3.10E-04	9.29E-03	5.56E-04	8.40E-05	4.55E-05	5.14E-04	1.34E-04
R_6	545655.4	5396521	Residence	2.82E-01	4.26E-02	2.24E-02	8.40E-04	1.27E-04	6.70E-05	1.07E+01	3.30E+00	2.46E+00	1.98E+00	3.96E-01	5.16E-04	1.47E-04	1.10E-04	9.20E-05	2.60E-05	1.94E-05	1.47E-03	4.18E-04	3.12E-04	8.96E-03	5.77E-04	8.70E-05	4.60E-05	4.90E-04	1.39E-04
R_7	545438.4	5396409	I Sew Studio and Residence	2.79E-01	4.09E-02	2.16E-02	8.33E-04	1.22E-04	6.40E-05	9.03E+00	2.74E+00	2.06E+00	2.03E+00	3.74E-01	4.80E-04	1.38E-04	1.04E-04	8.50E-05	2.45E-05	1.83E-05	1.36E-03	3.93E-04	2.95E-04	8.87E-03	5.72E-04	8.40E-05	4.42E-05	4.55E-04	1.31E-04
R_8	545380.4	5396244	Bayview Apartments	2.71E-01	3.96E-02	2.08E-02	8.09E-04	1.18E-04	6.20E-05	8.69E+00	2.55E+00	1.92E+00	1.90E+00	3.45E-01	4.67E-04	1.32E-04	9.90E-05	8.30E-05	2.33E-05	1.75E-05	1.33E-03	3.75E-04	2.82E-04	8.71E-03	5.56E-04	8.10E-05	4.27E-05	4.43E-04	1.25E-04
R_9	545290.4	5396115	Residence	2.66E-01	3.86E-02	2.03E-02	7.93E-04	1.15E-04	6.10E-05	8.33E+00	2.42E+00	1.82E+00	1.85E+00	3.28E-01	4.52E-04	1.27E-04	9.60E-05	8.00E-05	2.25E-05	1.69E-05	1.29E-03	3.62E-04	2.72E-04	8.56E-03	5.44E-04	7.90E-05	4.16E-05	4.29E-04	1.20E-04
RH_1	546049.4	5395895	Peninsula Manor	3.04E-01	3.33E-02	1.97E-02	9.06E-

Table E-1 Special Receptor Predictions (ug/m3) - Construction, Projec

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description		DUSTFALL (g/m2)		
				annual	24	month	annual
				-		7	
H_1	545937.4	5396170	Wilson Memorial General Hospital	9.60E-05	1.25E-02	1.17E-01	8.45E-01
M_1	545694	5403864	PM-10 @ Hare Lake	2.36E-04	1.79E-02	2.31E-01	1.78E+00
M_2	545694	5403873	Dustfall @ Hare Lake	2.35E-04	1.79E-02	2.31E-01	1.78E+00
M_3	547152	5401222	PM-10 @ Mays Gifts	9.26E-04	7.94E-02	1.15E+00	9.86E+00
M_4	547147	5401216	Dustfall @ Mays Gifts	9.19E-04	7.89E-02	1.15E+00	9.79E+00
M_5	551637	5402371	PM-10 @ Pic River	3.63E-04	2.61E-02	3.55E-01	3.21E+00
M_6	551643	5402374	Dustfall @ Pic River	3.63E-04	2.61E-02	3.54E-01	3.20E+00
M_7	549180	5399815	Dustfall @ Airport	9.98E-04	5.93E-02	1.21E+00	1.25E+01
M_8	545863	5397092	Dustfall @ Field Office	1.18E-04	1.97E-02	3.05E-01	2.95E+00
O_1	547181.4	5398015	Pic Motel	1.70E-04	2.53E-02	3.09E-01	2.62E+00
O_2	545734.4	5396873	Marathon Harbour Inn	1.44E-04	2.41E-02	3.86E-01	3.51E+00
O_3	545885.4	5396449	Zero-100 Motor Inn	1.02E-04	2.31E-02	3.19E-01	2.64E+00
O_4	545987.4	5397641	OPP Station	1.34E-04	1.85E-02	3.08E-01	2.78E+00
O_5	545876.4	5396073	Library	9.30E-05	1.23E-02	1.12E-01	7.94E-01
P_1	546958.4	5396139	Penn Lake Park and Campground	1.00E-04	1.11E-02	1.01E-01	7.25E-01
P_2	548538.4	5392863	Craig's Pit Provincial Nature Reserve	5.40E-05	7.07E-03	4.66E-02	3.00E-01
P_3	540005	5402014	Red Sucker Point Provincial Park	5.60E-05	5.83E-03	4.99E-02	3.32E-01
P_4	552770	5383776	Pukaskwa National Park	1.80E-05	2.27E-03	1.28E-02	8.88E-02
PR_1	553679.4	5385896	Children & Family Learning Centre	1.90E-05	2.29E-03	1.27E-02	9.95E-02
PR_2	554004.4	5385858	Pic River Elementary	1.90E-05	2.27E-03	1.21E-02	9.61E-02
PR_3	553836.4	5385604	Pic River Private High School	1.90E-05	2.24E-03	1.22E-02	9.57E-02
PR_4	553930.4	5386049	Pic River Health Centre	1.90E-05	2.31E-03	1.24E-02	9.83E-02
PR_5	552493.4	5384783	BIIDAABAN Healing Lodge	1.90E-05	2.58E-03	1.43E-02	9.82E-02
PR_6	552843.4	5390100	Residence	3.00E-05	3.25E-03	2.03E-02	1.59E-01
PR_7	553761.4	5387706	Residence	2.20E-05	2.58E-03	1.44E-02	1.15E-01
PS_1	545001.3	5404050	North Hare Lake Cottage	1.83E-04	1.51E-02	1.65E-01	1.27E+00
PS_2	544331.3	5403100	South Hare Lake Cottage	1.59E-04	1.38E-02	1.63E-01	1.15E+00
PS_3	547056.1	5401004	May's Gifts	7.19E-04	6.49E-02	9.07E-01	7.45E+00
PS_4	546811.4	5400953	Wayfare Inn	6.72E-04	6.28E-02	8.79E-01	7.04E+00
PS_5	546996.4	5401028	Peninsula Inn	7.39E-04	6.62E-02	9.36E-01	7.72E+00
PS_6	548471.4	5399489	Travelodge Hotel	3.88E-04	3.20E-02	4.77E-01	4.11E+00
PS_7	546903.4	5401056	The Laughing Mooz Eatery Restaurant and Reside	7.64E-04	6.80E-02	9.83E-01	8.11E+00
PW_1	545777.4	5397151	Kingdom Hall of Jehovah's Witnesses	1.19E-04	2.08E-02	3.16E-01	2.71E+00
PW_2	546331.4	5395942	Parkland Pentecostal Church	9.30E-05	1.13E-02	9.90E-02	7.09E-01
PW_3	545857.4	5395715	St. John's United Church	8.60E-05	1.11E-02	9.64E-02	6.75E-01
PW_4	545425	5396043	Holy Saviour Roman Catholic Church	9.00E-05	1.22E-02	1.14E-01	7.70E-01
PW_5	545390.4	5395989	Anglican Church-Trinity	8.90E-05	1.19E-02	1.11E-01	7.46E-01
R_1	547226.4	5398096	Residence	1.75E-04	3.15E-02	4.38E-01	4.03E+00
R_10	545421.4	5395954	Residence	8.80E-05	1.19E-02	1.09E-01	7.39E-01
R_11	545619.4	5395878	Residence	8.80E-05	1.19E-02	1.05E-01	7.23E-01
R_12	545831.4	5396001	Residence	9.20E-05	1.21E-02	1.09E-01	7.65E-01
R_13	545806.9	5396173	Residence	9.50E-05	1.32E-02	1.23E-01	8.69E-01
R_14	545827.1	5396229	Residence	9.60E-05	1.40E-02	1.31E-01	9.30E-01
R_15	545662.4	5396176	Residence	9.40E-05	1.32E-02	1.24E-01	8.58E-01
R_16	546254.4	5396485	Residence	1.04E-04	1.32E-02	1.27E-01	9.36E-01
R_17	546471.4	5396507	Residence	1.06E-04	1.31E-02	1.21E-01	8.80E-01
R_18	546601.4	5396388	Residence	1.03E-04	1.25E-02	1.14E-01	8.20E-01
R_19	546856.4	5395581	Residence	8.80E-05	9.72E-03	8.48E-02	6.08E-01
R_2	547273.4	5398045	Residence	1.73E-04	2.28E-02	2.63E-01	2.15E+00
R_20	546950.4	5395534	Residence	8.80E-05	9.57E-03	8.30E-02	5.96E-01
R_21	547201.4	5395416	Residence	8.70E-05	9.09E-03	7.78E-02	5.68E-01
R_22	548317.4	5399655	Residence	3.51E-04	3.52E-02	3.88E-01	3.05E+00
R_3	545809.4	5397233	Bergagnini Apartment Rental	1.21E-04	2.20E-02	3.43E-01	2.98E+00
R_4	546092.4	5396797	Residence	1.12E-04	1.44E-02	1.52E-01	1.19E+00
R_5	545971.4	5396490	Condominium	1.03E-04	1.54E-02	2.51E-01	2.49E+00
R_6	545655.4	5396521	Residence	1.03E-04	1.63E-02	1.76E-01	1.25E+00
R_7	545438.4	5396409	I Sew Studio and Residence	9.80E-05	1.34E-02	1.37E-01	9.35E-01
R_8	545380.4	5396244	Bayview Apartments	9.30E-05	1.26E-02	1.24E-01	8.40E-01
R_9	545290.4	5396115	Residence	9.00E-05	1.20E-02	1.16E-01	7.78E-01
RH_1	546049.4	5395895	Peninsula Manor	9.10E-05	1.13E-02	1.00E-01	7.11E-01
RH_2	545320.9	5396197	Senior's Centre	9.20E-05	1.23E-02	1.21E-01	8.11E-01
S_1	546339.4	5396625	Holy Saviour School	1.08E-04	1.37E-02	1.31E-01	9.62E-01
S_2	545633.4	5396103	Confederation College Northshore Campus	9.30E-05	1.28E-02	1.18E-01	8.13E-01
S_3	546200.4	5396037	Marathon High School	9.40E-05	1.17E-02	1.04E-01	7.43E-01
S_4	546261.4	5395968	Ecole secondaire Cite-Superieure	9.30E-05	1.14E-02	1.00E-01	7.19E-01

Table E-1 Special Receptor Predictions (ug/m3) - Construction, Project Alone

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	1,3-BUTADIENE			ACENAPHTHENE			ACENAPHTHYLENE			ACETALDEHYDE					ACROLEIN				ALDEHYDES			ALUMINUM (AL)		
				Averaging Period	24	month	annual	24	month	annual	24	month	annual	0.5	1	24	month	annual	1	24	month	annual	24	month	annual	24	month	annual
				Criteria	10	-	2	-	-	-	-	-	-	500	-	500	-	-	4.5	0.4	-	-	-	-	-	12	-	-
S_5	547019.4	5395083	Marathon Children and Family Centre		3.41E-04	7.70E-05	5.70E-05	3.30E-05	6.81E-06	4.72E-06	5.70E-05	1.17E-05	8.04E-06	3.41E-01	2.84E-01	2.90E-02	6.19E-03	4.62E-03	4.10E-02	4.19E-03	8.95E-04	6.67E-04	1.39E-01	2.27E-02	1.21E-02	8.90E-02	2.24E-02	1.73E-02
S_6	547000.4	5395036	Margaret Twomey Public School		3.38E-04	7.60E-05	5.70E-05	3.28E-05	6.73E-06	4.67E-06	5.70E-05	1.16E-05	7.96E-06	3.41E-01	2.84E-01	2.88E-02	6.12E-03	4.57E-03	4.11E-02	4.16E-03	8.85E-04	6.60E-04	1.38E-01	2.25E-02	1.20E-02	8.84E-02	2.22E-02	1.72E-02
W_1	547291.4	5399861	Shack Lake (northeast)		9.23E-04	2.87E-04	2.21E-04	8.53E-05	2.52E-05	1.79E-05	1.47E-04	4.32E-05	3.03E-05	6.47E-01	5.39E-01	7.90E-02	2.42E-02	1.85E-02	7.79E-02	1.14E-02	3.50E-03	2.67E-03	3.50E-01	8.22E-02	4.29E-02	3.04E-01	9.42E-02	7.13E-02
W_10	546975.3	5406486	Bamoos Lake (south)		7.27E-04	2.21E-04	1.36E-04	6.36E-05	1.79E-05	1.15E-05	1.12E-04	3.04E-05	1.95E-05	3.69E-01	3.08E-01	6.30E-02	1.91E-02	1.17E-02	4.43E-02	9.07E-03	2.75E-03	1.69E-03	3.30E-01	6.66E-02	3.30E-02	3.89E-01	9.65E-02	5.47E-02
W_11	545484.3	5405866	Bamoos Lake (west)		6.80E-04	1.72E-04	1.04E-04	6.56E-05	1.73E-05	9.97E-06	1.15E-04	3.02E-05	1.73E-05	3.62E-01	3.01E-01	5.88E-02	1.49E-02	8.93E-03	4.34E-02	8.48E-03	2.15E-03	1.29E-03	3.61E-01	8.41E-02	4.15E-02	2.80E-01	6.76E-02	3.77E-02
W_12	546576.3	5407157	Bamoos Lake (north)		7.94E-04	2.07E-04	1.18E-04	6.01E-05	1.64E-05	9.83E-06	1.00E-04	2.76E-05	1.67E-05	4.66E-01	3.88E-01	6.87E-02	1.78E-02	1.02E-02	5.60E-02	9.91E-03	2.57E-03	1.47E-03	2.88E-01	5.82E-02	2.74E-02	3.41E-01	7.32E-02	4.06E-02
W_13	546777.3	5406831	Bamoos Lake (center)		8.18E-04	2.30E-04	1.31E-04	6.26E-05	1.83E-05	1.09E-05	1.05E-04	3.07E-05	1.85E-05	4.88E-01	4.06E-01	7.08E-02	1.99E-02	1.13E-02	5.86E-02	1.02E-02	2.87E-03	1.63E-03	3.06E-01	6.33E-02	3.04E-02	3.60E-01	8.31E-02	4.59E-02
W_14	554944.3	5408229	Page Lake (south)		6.09E-04	1.52E-04	7.30E-05	4.60E-05	1.17E-05	5.65E-06	7.70E-05	1.95E-05	9.47E-06	3.73E-01	3.11E-01	5.27E-02	1.31E-02	6.28E-03	4.47E-02	7.60E-03	1.89E-03	9.05E-04	1.18E-01	2.18E-02	1.13E-02	2.26E-01	4.86E-02	2.59E-02
W_15	555054.3	5408904	Page Lake (center)		4.74E-04	1.16E-04	5.80E-05	3.44E-05	8.87E-06	4.53E-06	5.70E-05	1.48E-05	7.60E-06	3.58E-01	2.99E-01	4.09E-02	1.00E-02	4.98E-03	4.30E-02	5.90E-03	1.45E-03	7.18E-04	1.05E-01	1.61E-02	9.47E-03	1.21E-01	3.69E-02	2.07E-02
W_16	555065.3	5409498	Page Lake (north)		2.88E-04	8.60E-05	4.60E-05	2.46E-05	6.61E-06	3.70E-06	4.20E-05	1.11E-05	6.22E-06	3.08E-01	2.57E-01	2.49E-02	7.40E-03	3.99E-03	3.70E-02	3.59E-03	1.07E-03	5.75E-04	9.69E-02	1.43E-02	8.48E-03	1.13E-01	2.96E-02	1.72E-02
W_17	556593.4	5402127	Peacock Lake (east)		3.29E-04	1.27E-04	5.90E-05	4.30E-05	1.11E-05	5.16E-06	7.80E-05	1.89E-05	8.83E-06	3.30E-01	2.75E-01	2.79E-02	1.08E-02	5.04E-03	3.96E-02	4.03E-03	1.56E-03	7.28E-04	3.12E-01	3.58E-02	1.66E-02	1.23E-01	3.87E-02	1.92E-02
W_18	556043.4	5401267	Peacock Lake (south)		4.16E-04	1.20E-04	6.10E-05	4.68E-05	1.15E-05	5.28E-06	8.50E-05	2.00E-05	9.02E-06	3.64E-01	3.04E-01	3.58E-02	1.02E-02	5.17E-03	4.37E-02	5.17E-03	1.47E-03	7.47E-04	3.25E-01	4.77E-02	1.67E-02	1.67E-01	3.72E-02	1.91E-02
W_19	556277.4	5402069	Peacock Lake (west)		3.61E-04	1.30E-04	6.20E-05	4.39E-05	1.14E-05	5.43E-06	7.90E-05	1.95E-05	9.29E-06	3.44E-01	2.87E-01	3.12E-02	1.11E-02	5.32E-03	4.13E-02	4.51E-03	1.61E-03	7.68E-04	3.08E-01	3.66E-02	1.74E-02	1.19E-01	4.02E-02	2.01E-02
W_2	547105.4	5399507	Shack Lake (center)		8.27E-04	2.48E-04	1.91E-04	7.82E-05	2.17E-05	1.55E-05	1.35E-04	3.72E-05	2.62E-05	5.92E-01	4.93E-01	7.04E-02	2.09E-02	1.57E-02	7.13E-02	1.02E-02	3.02E-03	2.27E-03	3.19E-01	6.94E-02	3.71E-02	2.62E-01	8.07E-02	6.02E-02
W_20	556444.4	5402420	Peacock Lake (north)		3.77E-04	1.35E-04	6.30E-05	4.19E-05	1.20E-05	5.47E-06	7.70E-05	2.06E-05	9.36E-06	3.29E-01	2.75E-01	3.25E-02	1.16E-02	5.35E-03	3.96E-02	4.70E-03	1.67E-03	7.72E-04	3.23E-01	4.06E-02	1.77E-02	1.46E-01	4.19E-02	2.07E-02
W_21	556424.4	5402100	Peacock Lake (center)		3.32E-04	1.29E-04	6.10E-05	4.35E-05	1.12E-05	5.32E-06	7.90E-05	1.92E-05	9.09E-06	3.46E-01	2.89E-01	2.87E-02	1.10E-02	5.20E-03	4.16E-02	4.15E-03	1.58E-03	7.51E-04	3.12E-01	3.64E-02	1.70E-02	1.20E-01	3.95E-02	1.98E-02
W_22	550202.4	5397449	Three Finger Lake (north)		8.32E-04	1.37E-04	8.90E-05	7.88E-05	1.17E-05	7.44E-06	1.36E-04	2.00E-05	1.26E-05	5.78E-01	4.82E-01	7.15E-02	1.17E-02	7.47E-03	6.96E-02	1.03E-02	1.68E-03	1.08E-03	3.15E-01	3.61E-02	2.00E-02	2.93E-01	3.87E-02	2.56E-02
W_23	550175.4	5396992	Three Finger Lake (center)		7.39E-04	1.21E-04	7.70E-05	7.24E-05	1.03E-05	6.45E-06	1.26E-04	1.75E-05	1.10E-05	5.35E-01	4.46E-01	6.35E-02	1.02E-02	6.42E-03	6.44E-02	9.18E-03	1.48E-03	9.27E-04	3.11E-01	3.28E-02	1.80E-02	2.68E-01	3.43E-02	2.26E-02
W_24	549830.4	5396526	Three Finger Lake (south)		5.71E-04	1.13E-04	7.00E-05	6.20E-05	9.79E-06	5.77E-06	1.09E-04	1.67E-05	9.81E-06	5.13E-01	4.28E-01	4.91E-02	9.57E-03	5.82E-03	6.18E-02	7.10E-03	1.38E-03	8.40E-04	3.21E-01	3.06E-02	1.53E-02	1.83E-01	3.27E-02	2.06E-02
W_25	546947.4	5396628	Penn Lake (north)		4.57E-04	1.21E-04	9.40E-05	4.28E-05	9.49E-06	7.53E-06	7.60E-05	1.63E-05	1.29E-05	3.61E-01	3.01E-01	3.40E-02	8.41E-03	6.64E-03	4.36E-02	4.94E-03	1.22E-03	9.64E-04	2.10E-01	2.62E-02	1.54E-02	1.10E-01	3.06E-02	2.40E-02
W_26	547059.4	5396126	Penn Lake (center)		3.95E-04	9.80E-05	7.70E-05	3.78E-05	8.47E-06	6.26E-06	6.60E-05	1.46E-05	1.07E-05	4.06E-01	3.38E-01	3.32E-02	7.45E-03	5.84E-03	4.88E-02	4.79E-03	1.08E-03	8.46E-04	1.69E-01	2.52E-02	1.40E-02	1.02E-01	2.74E-02	2.14E-02
W_27	546991.4	5395773	Penn Lake (south)		3.70E-04	8.90E-05	6.90E-05	3.56E-05	7.69E-06	5.64E-06	6.20E-05	1.33E-05	9.63E-06	3.95E-01	3.30E-01	3.12E-02	6.87E-03	5.34E-03	4.76E-02	4.51E-03	9.95E-04	7.73E-04	1.59E-01	2.37E-02	1.31E-02	9.55E-02	2.52E-02	1.98E-02
W_28	544637	5401700	Angler Creek at Model Property Boundary		6.99E-04	1.90E-04	1.11E-04	6.79E-05	1.72E-05	9.13E-06	1.19E-04	2.95E-05	1.55E-05	3.27E-01	2.72E-01	6.04E-02	1.62E-02	9.50E-03	3.92E-02	8.72E-03	2.35E-03	1.37E-03	3.29E-01	6.15E-02	2.35E-02	2.37E-01	6.82E-02	4.05E-02
W_29	551284	5407805	Pic River In-Flow to Model Property Boundary		8.46E-04	1.94E-04	1.14E-04	6.88E-05	1.52E-05	8.73E-06	1.16E-04	2.55E-05	1.46E-05	6.44E-01	5.37E-01	7.32E-02	1.67E-02	9.79E-03	7.75E-02	1.06E-02	2.41E-03	1.41E-03	1.93E-01	3.21E-02	1.65E-02	2.17E-01	6.22E-02	4.00E-02
W_3	546725.4	5399334	Shack Lake (southwest)		7.73E-04	2.24E-04	1.68E-04	6.97E-05	1.99E-05	1.38E-05	1.20E-04	3.41E-05	2.34E-05	5.51E-01	4.59E-01	6.58E-02	1.89E-02	1.38E-02	6.63E-02	9.51E-03	2.72E-03	2.00E-03	2.83E-01	6.63E-02	3.42E-02	2.47E-01	7.43E-02	5.40E-02
W_30	551654	5401167	Pic River Out-Flow from Model Property Boundary		6.37E-04	3.05E-04	1.98E-04	6.63E-05	2.46E-05	1.58E-05	1.17E-04	4.16E-05	2.67E-05	4.23E-01	3.53E-01	5.47E-02	2.59E-02	1.68E-02	5.08E-02	7.89E-03	3.74E-03	2.43E-03	3.75E-01	7.34E-02	3.63E-02	1.96E-01	8.18E-02	5.54E-02
W_4	545636.3	5403829	Hare Lake (east)		8.05E-04	2.37E-04	1.34E-04	7.00E-05	2.03E-05	1.21E-05	1.19E-04	3.47E-05	2.08E-05	3.19E-01	2.66E-01	6.96E-02	2.04E-02	1.15E-02	3.83E-02	1.00E-02	2.95E-03	1.66E-03	4.35E-01	7.29E-02	4.34E-02	3.05E-01	8.37E-02	5.00E-02
W_5	545048.3	5403557	Hare Lake (south)		7.23E-04	2.09E-04	1.15E-04	6.48E-05	1.74E-05	1.01E-05	1.13E-04	2.96E-05	1.73E-05	2.91E-01	2.42E-01	6.24E-02	1.80E-02	9.85E-03	3.49E-02	9.01E-03	2.60E-03	1.42E-03	3.97E-01	5.32E-02	3.34E-02	2.94E-01	7.45E-02	4.28E-02
W_6	543955.3	5403079	Hare Lake (west)		6.02E-04	1.55E-04	8.20E-05	5.51E-05	1.34E-05	7.17E-06	9.50E-05	2.29E-05	1.23E-05	2.42E-01	2.02E-01	5.20E-02	1.33E-02	7.00E-03	2.91E-02	7.51E-03	1.91E-03	1.01E-03	3.33E-01	4.27E-02	2.32E-02	2.52E-01	5.37E-02	2.99E-02
W_7	544603.3	5403943	Hare Lake (north)		6.07E-04	1.75E-04	9.60E-05	5.14E-05	1.49E-05	8.64E-06	8.80E-05	2.53E-05	1.48E-05	2.66E-01	2.22E-01	5.24E-02	1.51E-02	8.20E-03	3.20E-02	7.56E-03	2.17E-03	1.18E-03	3.38E-01	4.98E-02	3.08E-02	1.94E-01	6.10E-02	3.51E-02
W_8	544830.3	5403751	Hare Lake (center)		6.71E-04	1.91E-04	1.04E-04	5.74E-05	1.61E-05	9.30E-06	1.01E-04	2.73E-05	1.60E-05	2.78E-01	2.31E-01	5.79E-02	1.65E-02	8.94E-03	3.33E-02	8.36E-03	2.38E-03	1.29E-03	3.24E-01	4.92E-02	3.20E-02	2.23E-01	6.72E-02	3.86E-02
W_9	549326.3	5406972	Bamoos Lake (east)		1.82E-03	4.43E-04	2.45E-04	1.28E-04	3.08E-05	1.78E-05	2.10E-04	5.05E-05	2.95E-05	1.16E+00	9.69E-01	1.58E-01	3.83E-02	2.11E-02	1.40E-01	2.27E-02	5.52E-03	3.05E-03	2.60E-01	4.21E-02	2.28E-02	6.50E-01	1.13E-01	7.46E-02
Maximum of Special Receptors					**4.13E-03**	**1.85E-03**	**1.45E-03**	**2.83E-04**	**1.28E-04**	**9.90E-05**	**4.62E-04**	**2.10E-04**	**1.61E-04**	**1.31E+00**	**1.09E+00**	**3.51E-01**	**1.58E-01**	**1.23E-01**	**1.58E-01**	**5.07E-02**	**2.27E-02**	**1.77E-02**	**7.08E-01**	**1.37E-01**	**6.69E-02**	**8.01E-01**	**2.81E-01**	**2.14E-01**
Max % of Criteria					**0.0%**	-	**0.1%**	-	-	-	-	-	-	**0.3%**	-	**0.1%**	-	-	**3.5%**	**12.7%**	-	-	-	-	-	**6.7%**	-	-

Table E-1 Special Receptor Predictions (ug/m3) - Construction, Projec

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	ANTHRACENE			ANTIMONY (SB)			ARSENIC (AS)			BARIUM (BA)			BENZENE			BENZO(A)ANTHRACENE			BENZO(A)PYRENE			BENZO(B)FLUORANTHENE			BENZO(G,H,I)PER	
				24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month
				-	-	-	25	-	-	0.3	-	-	10	-	-	2.3	-	0.45	-	-	-	0.00005	-	0.00001	-	-	-	-	-
S_5	547019.4	5395083	Marathon Children and Family Centre	1.76E-05	3.92E-06	2.83E-06	1.71E-05	4.32E-06	3.35E-06	1.86E-05	4.67E-06	3.62E-06	3.43E-04	8.60E-05	6.70E-05	7.16E-03	1.46E-03	1.03E-03	2.11E-06	5.10E-07	3.30E-07	1.20E-06	3.06E-07	1.96E-07	2.65E-06	4.91E-07	2.80E-07	2.11E-06	5.22E-07
S_6	547000.4	5395036	Margaret Twomey Public School	1.75E-05	3.86E-06	2.80E-06	1.70E-05	4.28E-06	3.32E-06	1.85E-05	4.63E-06	3.58E-06	3.41E-04	8.50E-05	6.60E-05	7.10E-03	1.44E-03	1.02E-03	2.12E-06	4.95E-07	3.26E-07	1.18E-06	2.99E-07	1.93E-07	2.63E-06	4.84E-07	2.78E-07	2.12E-06	5.10E-07
W_1	547291.4	5399861	Shack Lake (northeast)	4.66E-05	1.42E-05	1.06E-05	5.88E-05	1.82E-05	1.38E-05	6.35E-05	1.97E-05	1.49E-05	1.17E-03	3.63E-04	2.75E-04	1.88E-02	5.56E-03	4.01E-03	4.32E-06	1.34E-06	8.94E-07	2.25E-06	7.62E-07	5.28E-07	6.56E-06	1.64E-06	9.20E-07	3.81E-06	1.28E-06
W_10	546975.3	5406486	Bamoos Lake (south)	3.31E-05	1.04E-05	6.52E-06	7.27E-05	1.86E-05	1.06E-05	8.13E-05	2.02E-05	1.14E-05	1.49E-03	3.72E-04	2.11E-04	1.36E-02	4.10E-03	2.60E-03	3.75E-06	8.15E-07	4.37E-07	1.77E-06	4.10E-07	2.35E-07	6.04E-06	1.25E-06	6.33E-07	3.15E-06	6.76E-07
W_11	545484.3	5405866	Bamoos Lake (west)	3.35E-05	8.92E-06	5.31E-06	5.12E-05	1.30E-05	7.28E-06	5.86E-05	1.41E-05	7.88E-06	1.07E-03	2.60E-04	1.46E-04	1.41E-02	3.73E-03	2.18E-03	4.02E-06	9.88E-07	5.11E-07	1.85E-06	4.73E-07	2.55E-07	6.62E-06	1.56E-06	7.79E-07	3.46E-06	8.42E-07
W_12	546576.3	5407157	Bamoos Lake (north)	3.60E-05	9.62E-06	5.62E-06	6.27E-05	1.41E-05	7.82E-06	7.12E-05	1.53E-05	8.48E-06	1.31E-03	2.82E-04	1.57E-04	1.41E-02	3.79E-03	2.24E-03	3.27E-06	7.12E-07	3.70E-07	1.53E-06	3.62E-07	2.01E-07	5.30E-06	1.09E-06	5.28E-07	2.79E-06	5.95E-07
W_13	546777.3	5406831	Bamoos Lake (center)	3.73E-05	1.07E-05	6.24E-06	6.64E-05	1.60E-05	8.83E-06	7.52E-05	1.74E-05	9.58E-06	1.38E-03	3.21E-04	1.77E-04	1.46E-02	4.22E-03	2.48E-03	3.44E-06	7.71E-07	4.10E-07	1.60E-06	3.90E-07	2.22E-07	5.61E-06	1.19E-06	5.85E-07	2.94E-06	6.44E-07
W_14	554944.3	5408229	Page Lake (south)	2.77E-05	6.96E-06	3.36E-06	4.02E-05	9.32E-06	4.97E-06	4.72E-05	1.01E-05	5.40E-06	8.62E-04	1.87E-04	1.00E-04	1.08E-02	2.72E-03	1.31E-03	1.51E-06	3.31E-07	1.73E-07	7.82E-07	1.98E-07	1.01E-07	2.23E-06	4.36E-07	2.25E-07	1.30E-06	2.69E-07
W_15	555054.3	5408904	Page Lake (center)	2.12E-05	5.32E-06	2.68E-06	2.32E-05	7.07E-06	3.97E-06	2.54E-05	7.70E-06	4.31E-06	4.68E-04	1.42E-04	8.00E-05	8.16E-03	2.07E-03	1.05E-03	1.28E-06	2.51E-07	1.45E-07	6.83E-07	1.51E-07	8.42E-08	1.96E-06	3.23E-07	1.89E-07	1.13E-06	2.03E-07
W_16	555065.3	5409498	Page Lake (north)	1.36E-05	3.95E-06	2.17E-06	2.09E-05	5.69E-06	3.30E-06	2.37E-05	6.18E-06	3.59E-06	4.34E-04	1.14E-04	6.60E-05	5.49E-03	1.54E-03	8.49E-04	1.17E-06	2.03E-07	1.28E-07	5.72E-07	1.19E-07	7.26E-08	1.81E-06	2.77E-07	1.68E-07	1.02E-06	1.71E-07
W_17	556593.4	5402127	Peacock Lake (east)	1.89E-05	6.23E-06	2.91E-06	2.38E-05	7.48E-06	3.72E-06	2.57E-05	8.09E-06	4.02E-06	4.75E-04	1.49E-04	7.40E-05	8.65E-03	2.47E-03	1.15E-03	3.37E-06	5.20E-07	2.44E-07	1.48E-06	2.74E-07	1.29E-07	5.67E-06	6.95E-07	3.23E-07	2.90E-06	4.39E-07
W_18	556043.4	5401267	Peacock Lake (south)	2.10E-05	6.19E-06	2.99E-06	3.01E-05	7.19E-06	3.68E-06	3.48E-05	7.77E-06	3.99E-06	6.37E-04	1.43E-04	7.40E-05	9.45E-03	2.50E-03	1.18E-03	3.64E-06	6.54E-07	2.51E-07	1.64E-06	3.30E-07	1.34E-07	5.94E-06	9.10E-07	3.27E-07	3.18E-06	5.64E-07
W_19	556277.4	5402069	Peacock Lake (west)	1.96E-05	6.41E-06	3.06E-06	2.31E-05	7.77E-06	3.88E-06	2.49E-05	8.40E-06	4.20E-06	4.61E-04	1.55E-04	7.70E-05	8.88E-03	2.54E-03	1.21E-03	3.35E-06	5.33E-07	2.55E-07	1.48E-06	2.81E-07	1.35E-07	5.60E-06	7.10E-07	3.37E-07	2.87E-06	4.49E-07
W_2	547105.4	5399507	Shack Lake (center)	4.23E-05	1.24E-05	9.23E-06	5.08E-05	1.56E-05	1.16E-05	5.48E-05	1.69E-05	1.26E-05	1.01E-03	3.11E-04	2.32E-04	1.71E-02	4.78E-03	3.43E-03	4.28E-06	1.29E-06	8.90E-07	2.23E-06	7.57E-07	5.35E-07	6.00E-06	1.43E-06	8.31E-07	3.86E-06	1.30E-06
W_20	556444.4	5402420	Peacock Lake (north)	1.96E-05	6.69E-06	3.08E-06	2.83E-05	8.09E-06	4.00E-06	3.05E-05	8.75E-06	4.32E-06	5.64E-04	1.62E-04	8.00E-05	8.32E-03	2.67E-03	1.22E-03	3.45E-06	5.69E-07	2.56E-07	1.51E-06	2.96E-07	1.35E-07	5.86E-06	7.82E-07	3.43E-07	2.99E-06	4.80E-07
W_21	556424.4	5402100	Peacock Lake (center)	1.92E-05	6.33E-06	3.00E-06	2.33E-05	7.62E-06	3.82E-06	2.51E-05	8.24E-06	4.13E-06	4.64E-04	1.52E-04	7.60E-05	8.75E-03	2.50E-03	1.18E-03	3.38E-06	5.28E-07	2.50E-07	1.49E-06	2.78E-07	1.33E-07	5.67E-06	7.06E-07	3.31E-07	2.90E-06	4.46E-07
W_22	550202.4	5397449	Three Finger Lake (north)	4.24E-05	6.70E-06	4.36E-06	5.43E-05	7.48E-06	4.94E-06	6.12E-05	8.08E-06	5.34E-06	1.12E-03	1.49E-04	9.90E-05	1.72E-02	2.61E-03	1.65E-03	3.97E-06	6.85E-07	3.96E-07	1.93E-06	3.81E-07	2.23E-07	5.90E-06	7.30E-07	4.18E-07	3.21E-06	6.34E-07
W_23	550175.4	5396992	Three Finger Lake (center)	3.83E-05	5.87E-06	3.76E-06	4.96E-05	6.63E-06	4.36E-06	5.60E-05	7.16E-06	4.71E-06	1.03E-03	1.32E-04	8.70E-05	1.57E-02	2.28E-03	1.43E-03	3.84E-06	6.09E-07	3.47E-07	1.85E-06	3.37E-07	1.95E-07	5.80E-06	6.56E-07	3.73E-07	3.27E-06	5.65E-07
W_24	549830.4	5396526	Three Finger Lake (south)	3.12E-05	5.56E-06	3.39E-06	3.47E-05	6.32E-06	3.98E-06	3.83E-05	6.84E-06	4.30E-06	7.05E-04	1.26E-04	7.90E-05	1.32E-02	2.17E-03	1.28E-03	3.79E-06	4.84E-07	3.06E-07	1.78E-06	2.70E-07	1.74E-07	5.94E-06	6.04E-07	3.21E-07	3.17E-06	4.44E-07
W_25	546947.4	5396628	Penn Lake (north)	2.43E-05	6.51E-06	4.92E-06	2.13E-05	5.93E-06	4.64E-06	2.30E-05	6.40E-06	5.01E-06	4.25E-04	1.18E-04	9.30E-05	8.58E-03	1.95E-03	1.50E-03	4.95E-06	1.70E-06	1.01E-06	3.04E-06	1.08E-06	6.32E-07	4.45E-06	7.08E-07	5.23E-07	5.43E-06	1.90E-06
W_26	547059.4	5396126	Penn Lake (center)	2.05E-05	5.12E-06	3.94E-06	1.97E-05	5.30E-06	4.14E-06	2.13E-05	5.72E-06	4.48E-06	3.93E-04	1.06E-04	8.30E-05	8.15E-03	1.74E-03	1.31E-03	3.51E-06	9.45E-07	6.45E-07	2.07E-06	5.97E-07	3.97E-07	3.38E-06	6.40E-07	3.99E-07	3.68E-06	1.04E-06
W_27	546991.4	5395773	Penn Lake (south)	1.92E-05	4.58E-06	3.50E-06	1.84E-05	4.88E-06	3.82E-06	2.00E-05	5.27E-06	4.13E-06	3.68E-04	9.70E-05	7.60E-05	7.68E-03	1.60E-03	1.19E-03	2.75E-06	7.91E-07	5.26E-07	1.75E-06	4.86E-07	3.21E-07	3.16E-06	5.69E-07	3.51E-07	3.08E-06	8.48E-07
W_28	544637	5401700	Angler Creek at Model Property Boundary	3.48E-05	9.45E-06	5.31E-06	4.59E-05	1.32E-05	7.83E-06	4.96E-05	1.42E-05	8.46E-06	9.15E-04	2.63E-04	1.56E-04	1.46E-02	3.80E-03	2.07E-03	3.86E-06	8.33E-07	3.83E-07	1.86E-06	4.35E-07	2.16E-07	6.11E-06	1.18E-06	4.71E-07	3.30E-06	7.22E-07
W_29	551284	5407805	Pic River In-Flow to Model Property Boundary	3.97E-05	8.99E-06	5.21E-06	4.10E-05	1.19E-05	7.69E-06	4.54E-05	1.30E-05	8.36E-06	8.36E-04	2.40E-04	1.54E-04	1.58E-02	3.52E-03	2.03E-03	2.35E-06	4.74E-07	2.55E-07	1.26E-06	2.74E-07	1.51E-07	3.64E-06	6.35E-07	3.30E-07	1.97E-06	3.88E-07
W_3	546725.4	5399334	Shack Lake (southwest)	3.86E-05	1.12E-05	8.20E-06	4.77E-05	1.43E-05	1.04E-05	5.16E-05	1.55E-05	1.13E-05	9.52E-04	2.86E-04	2.08E-04	1.54E-02	4.35E-03	3.04E-03	3.56E-06	1.20E-06	8.32E-07	1.89E-06	6.91E-07	4.99E-07	5.24E-06	1.36E-06	7.69E-07	3.18E-06	1.19E-06
W_30	551654	5401167	Pic River Out-Flow from Model Property Boundar	3.28E-05	1.45E-05	9.36E-06	3.78E-05	1.58E-05	1.07E-05	4.09E-05	1.71E-05	1.16E-05	7.55E-04	3.15E-04	2.14E-04	1.39E-02	5.58E-03	3.60E-03	4.45E-06	1.10E-06	6.20E-07	2.10E-06	5.82E-07	3.42E-07	6.85E-06	1.42E-06	7.31E-07	3.85E-06	8.91E-07
W_4	545636.3	5403829	Hare Lake (east)	3.91E-05	1.15E-05	6.67E-06	5.66E-05	1.62E-05	9.66E-06	6.37E-05	1.75E-05	1.04E-05	1.17E-03	3.23E-04	1.93E-04	1.58E-02	4.59E-03	2.69E-03	4.74E-06	9.26E-07	5.71E-07	2.11E-06	4.70E-07	2.96E-07	7.93E-06	1.38E-06	8.26E-07	4.10E-06	7.80E-07
W_5	545048.3	5403557	Hare Lake (south)	3.43E-05	9.98E-06	5.64E-06	5.43E-05	1.44E-05	8.26E-06	6.13E-05	1.56E-05	8.93E-06	1.13E-03	2.87E-04	1.65E-04	1.40E-02	3.96E-03	2.25E-03	4.29E-06	6.77E-07	4.57E-07	1.91E-06	3.63E-07	2.42E-07	7.22E-06	1.00E-06	6.41E-07	3.75E-06	5.74E-07
W_6	543955.3	5403079	Hare Lake (west)	3.00E-05	7.54E-06	4.03E-06	4.62E-05	1.04E-05	5.79E-06	5.26E-05	1.12E-05	6.26E-06	9.65E-04	2.07E-04	1.15E-04	1.22E-02	3.01E-03	1.60E-03	3.65E-06	5.90E-07	3.38E-07	1.64E-06	3.14E-07	1.82E-07	6.07E-06	8.23E-07	4.52E-07	3.19E-06	5.04E-07
W_7	544603.3	5403943	Hare Lake (north)	2.91E-05	8.44E-06	4.76E-06	3.74E-05	1.18E-05	6.79E-06	4.05E-05	1.27E-05	7.34E-06	7.48E-04	2.35E-04	1.36E-04	1.16E-02	3.36E-03	1.92E-03	3.70E-06	6.44E-07	4.15E-07	1.66E-06	3.33E-07	2.16E-07	6.16E-06	9.30E-07	5.89E-07	3.21E-06	5.46E-07
W_8	544830.3	5403751	Hare Lake (center)	3.19E-05	9.18E-06	5.16E-06	4.17E-05	1.30E-05	7.45E-06	4.66E-05	1.40E-05	8.06E-06	8.57E-04	2.59E-04	1.49E-04	1.27E-02	3.64E-03	2.07E-03	3.57E-06	6.42E-07	4.36E-07	1.61E-06	3.43E-07	2.29E-07	5.91E-06	9.27E-07	6.15E-07	3.09E-06	5.41E-07
W_9	549326.3	5406972	Bamoos Lake (east)	7.99E-05	1.94E-05	1.10E-05	1.17E-04	2.16E-05	1.43E-05	1.36E-04	2.35E-05	1.56E-05	2.48E-03	4.34E-04	2.88E-04	3.06E-02	7.41E-03	4.23E-03	3.10E-06	6.49E-07	3.94E-07	1.66E-06	3.90E-07	2.57E-07	4.84E-06	8.45E-07	4.77E-07	2.66E-06	5.29E-07
Maximum of Special Receptors				**1.85E-04**	**8.33E-05**	**6.48E-05**	**1.55E-04**	**5.46E-05**	**4.15E-05**	**1.67E-04**	**5.87E-05**	**4.47E-05**	**3.09E-03**	**1.09E-03**	**8.25E-04**	**6.70E-02**	**3.03E-02**	**2.33E-02**	**8.29E-05**	**3.77E-05**	**2.63E-05**	**5.23E-05**	**2.38E-05**	**1.66E-05**	**2.40E-05**	**1.05E-05**	**7.45E-06**	**9.36E-05**	**4.26E-05**
Max % of Criteria				-	-	-	**0.0%**	-	-	**0.1%**	-	-	**0.0%**	-	-	**2.9%**	-	**5.2%**	-	-	-	**104.6%**	-	**165.8%**	-	-	-	-	-

Table E-1 Special Receptor Predictions (ug/m3) - Construction, Projec

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	YLENE	BENZO(K)FLUORANTHENE			BERYLLIUM (BE)			BISMUTH (BI)			BORON (B)			BROMINE (BR)			CADMIUM (CD)			CALCIUM (CA)			CAO			
				annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24
				-	-	-	-	0.01	-	-	2.5	-	-	120	-	-	20	-	-	0.025	-	0.005	-	-	-	10	-	-	37330
S_5	547019.4	5395083	Marathon Children and Family Centre	3.29E-07	6.38E-07	1.52E-07	9.61E-08	4.16E-06	1.05E-06	8.09E-07	1.57E-05	3.95E-06	3.06E-06	7.60E-05	1.92E-05	1.48E-05	0.00E+00	0.00E+00	0.00E+00	4.55E-06	1.15E-06	8.88E-07	9.25E-02	2.33E-02	1.80E-02	0.00E+00	0.00E+00	0.00E+00	3.09E-02
S_6	547000.4	5395036	Margaret Twomey Public School	3.25E-07	6.33E-07	1.49E-07	9.50E-08	4.13E-06	1.03E-06	8.01E-07	1.56E-05	3.92E-06	3.03E-06	7.50E-05	1.90E-05	1.47E-05	0.00E+00	0.00E+00	0.00E+00	4.52E-06	1.14E-06	8.79E-07	9.19E-02	2.31E-02	1.79E-02	0.00E+00	0.00E+00	0.00E+00	3.07E-02
W_1	547291.4	5399861	Shack Lake (northeast)	8.53E-07	1.50E-06	4.36E-07	2.84E-07	1.42E-05	4.40E-06	3.33E-06	5.38E-05	1.66E-05	1.26E-05	2.61E-04	8.07E-05	6.12E-05	0.00E+00	0.00E+00	0.00E+00	1.56E-05	4.82E-06	3.66E-06	3.17E-01	9.80E-02	7.43E-02	0.00E+00	0.00E+00	0.00E+00	8.55E-02
W_10	546975.3	5406486	Bamoos Lake (south)	3.62E-07	1.31E-06	2.88E-07	1.56E-07	1.84E-05	4.51E-06	2.56E-06	6.66E-05	1.70E-05	9.65E-06	3.23E-04	8.26E-05	4.68E-05	0.00E+00	0.00E+00	0.00E+00	1.94E-05	4.94E-06	2.80E-06	4.00E-01	1.00E-01	5.69E-02	0.00E+00	0.00E+00	0.00E+00	6.66E-02
W_11	545484.3	5405866	Bamoos Lake (west)	4.36E-07	1.41E-06	3.46E-07	1.79E-07	1.33E-05	3.16E-06	1.76E-06	4.69E-05	1.19E-05	6.66E-06	2.28E-04	5.75E-05	3.23E-05	0.00E+00	0.00E+00	0.00E+00	1.38E-05	3.44E-06	1.93E-06	2.86E-01	7.01E-02	3.93E-02	0.00E+00	0.00E+00	0.00E+00	6.21E-02
W_12	546576.3	5407157	Bamoos Lake (north)	3.08E-07	1.15E-06	2.54E-07	1.32E-07	1.62E-05	3.42E-06	1.90E-06	5.74E-05	1.29E-05	7.15E-06	2.79E-04	6.25E-05	3.47E-05	0.00E+00	0.00E+00	0.00E+00	1.68E-05	3.74E-06	2.08E-06	3.49E-01	7.61E-02	4.22E-02	0.00E+00	0.00E+00	0.00E+00	7.28E-02
W_13	546777.3	5406831	Bamoos Lake (center)	3.41E-07	1.21E-06	2.75E-07	1.46E-07	1.71E-05	3.89E-06	2.14E-06	6.08E-05	1.46E-05	8.08E-06	2.95E-04	7.10E-05	3.92E-05	0.00E+00	0.00E+00	0.00E+00	1.78E-05	4.25E-06	2.34E-06	3.68E-01	8.64E-02	4.77E-02	0.00E+00	0.00E+00	0.00E+00	7.50E-02
W_14	554944.3	5408229	Page Lake (south)	1.41E-07	5.33E-07	1.20E-07	6.17E-08	1.08E-05	2.28E-06	1.21E-06	3.69E-05	8.53E-06	4.55E-06	1.79E-04	4.14E-05	2.21E-05	0.00E+00	0.00E+00	0.00E+00	1.09E-05	2.48E-06	1.32E-06	2.28E-01	5.05E-02	2.69E-02	0.00E+00	0.00E+00	0.00E+00	5.60E-02
W_15	555054.3	5408904	Page Lake (center)	1.19E-07	4.50E-07	9.06E-08	5.14E-08	5.69E-06	1.73E-06	9.66E-07	2.12E-05	6.47E-06	3.63E-06	1.03E-04	3.14E-05	1.76E-05	0.00E+00	0.00E+00	0.00E+00	6.17E-06	1.88E-06	1.05E-06	1.26E-01	3.83E-02	2.15E-02	0.00E+00	0.00E+00	0.00E+00	4.34E-02
W_16	555065.3	5409498	Page Lake (north)	1.06E-07	4.08E-07	7.25E-08	4.47E-08	5.37E-06	1.38E-06	8.04E-07	1.91E-05	5.21E-06	3.02E-06	9.30E-05	2.52E-05	1.47E-05	0.00E+00	0.00E+00	0.00E+00	5.59E-06	1.51E-06	8.77E-07	1.16E-01	3.07E-02	1.79E-02	0.00E+00	0.00E+00	0.00E+00	2.63E-02
W_17	556593.4	5402127	Peacock Lake (east)	2.07E-07	1.17E-06	1.74E-07	8.16E-08	5.75E-06	1.81E-06	8.98E-07	2.18E-05	6.84E-06	3.40E-06	1.06E-04	3.32E-05	1.65E-05	0.00E+00	0.00E+00	0.00E+00	6.31E-06	1.98E-06	9.85E-07	1.28E-01	4.03E-02	2.00E-02	0.00E+00	0.00E+00	0.00E+00	2.99E-02
W_18	556043.4	5401267	Peacock Lake (south)	2.14E-07	1.26E-06	2.18E-07	8.34E-08	7.95E-06	1.74E-06	8.92E-07	2.76E-05	6.58E-06	3.37E-06	1.34E-04	3.19E-05	1.63E-05	0.00E+00	0.00E+00	0.00E+00	8.12E-06	1.91E-06	9.77E-07	1.69E-01	3.87E-02	1.99E-02	0.00E+00	0.00E+00	0.00E+00	3.81E-02
W_19	556277.4	5402069	Peacock Lake (west)	2.16E-07	1.16E-06	1.78E-07	8.53E-08	5.57E-06	1.88E-06	9.38E-07	2.11E-05	7.11E-06	3.55E-06	1.02E-04	3.45E-05	1.72E-05	0.00E+00	0.00E+00	0.00E+00	6.12E-06	2.06E-06	1.03E-06	1.24E-01	4.19E-02	2.09E-02	0.00E+00	0.00E+00	0.00E+00	3.36E-02
W_2	547105.4	5399507	Shack Lake (center)	8.93E-07	1.47E-06	4.05E-07	2.75E-07	1.23E-05	3.77E-06	2.81E-06	4.64E-05	1.43E-05	1.06E-05	2.25E-04	6.91E-05	5.16E-05	0.00E+00	0.00E+00	0.00E+00	1.35E-05	4.13E-06	3.09E-06	2.73E-01	8.40E-02	6.27E-02	0.00E+00	0.00E+00	0.00E+00	7.60E-02
W_20	556444.4	5402420	Peacock Lake (north)	2.17E-07	1.21E-06	1.92E-07	8.62E-08	6.83E-06	1.96E-06	9.66E-07	2.58E-05	7.40E-06	3.65E-06	1.25E-04	3.59E-05	1.77E-05	0.00E+00	0.00E+00	0.00E+00	7.49E-06	2.15E-06	1.06E-06	1.52E-01	4.36E-02	2.15E-02	0.00E+00	0.00E+00	0.00E+00	3.48E-02
W_21	556424.4	5402100	Peacock Lake (center)	2.13E-07	1.18E-06	1.77E-07	8.38E-08	5.62E-06	1.84E-06	9.23E-07	2.13E-05	6.97E-06	3.49E-06	1.03E-04	3.38E-05	1.69E-05	0.00E+00	0.00E+00	0.00E+00	6.17E-06	2.02E-06	1.01E-06	1.25E-01	4.11E-02	2.06E-02	0.00E+00	0.00E+00	0.00E+00	3.09E-02
W_22	550202.4	5397449	Three Finger Lake (north)	3.58E-07	1.35E-06	2.10E-07	1.23E-07	1.39E-05	1.81E-06	1.19E-06	4.97E-05	6.84E-06	4.52E-06	2.42E-04	3.32E-05	2.19E-05	0.00E+00	0.00E+00	0.00E+00	1.45E-05	1.98E-06	1.31E-06	3.00E-01	4.03E-02	2.66E-02	0.00E+00	0.00E+00	0.00E+00	7.59E-02
W_23	550175.4	5396992	Three Finger Lake (center)	3.15E-07	1.31E-06	1.87E-07	1.08E-07	1.27E-05	1.60E-06	1.05E-06	4.54E-05	6.06E-06	3.99E-06	2.21E-04	2.94E-05	1.93E-05	0.00E+00	0.00E+00	0.00E+00	1.33E-05	1.76E-06	1.16E-06	2.74E-01	3.57E-02	2.35E-02	0.00E+00	0.00E+00	0.00E+00	6.76E-02
W_24	549830.4	5396526	Three Finger Lake (south)	2.79E-07	1.30E-06	1.58E-07	9.52E-08	8.61E-06	1.53E-06	9.61E-07	3.18E-05	5.78E-06	3.64E-06	1.54E-04	2.80E-05	1.76E-05	0.00E+00	0.00E+00	0.00E+00	9.25E-06	1.68E-06	1.05E-06	1.89E-01	3.41E-02	2.14E-02	0.00E+00	0.00E+00	0.00E+00	5.27E-02
W_25	546947.4	5396628	Penn Lake (north)	1.11E-06	1.31E-06	4.08E-07	2.57E-07	5.15E-06	1.43E-06	1.12E-06	1.95E-05	5.42E-06	4.24E-06	9.40E-05	2.63E-05	2.06E-05	0.00E+00	0.00E+00	0.00E+00	5.64E-06	1.57E-06	1.23E-06	1.15E-01	3.19E-02	2.50E-02	0.00E+00	0.00E+00	0.00E+00	3.56E-02
W_26	547059.4	5396126	Penn Lake (center)	6.86E-07	9.67E-07	2.45E-07	1.71E-07	4.77E-06	1.28E-06	1.00E-06	1.80E-05	4.85E-06	3.79E-06	8.70E-05	2.35E-05	1.84E-05	0.00E+00	0.00E+00	0.00E+00	5.21E-06	1.40E-06	1.10E-06	1.06E-01	2.85E-02	2.23E-02	0.00E+00	0.00E+00	0.00E+00	3.54E-02
W_27	546991.4	5395773	Penn Lake (south)	5.51E-07	8.27E-07	2.06E-07	1.42E-07	4.47E-06	1.18E-06	9.24E-07	1.68E-05	4.46E-06	3.50E-06	8.20E-05	2.16E-05	1.70E-05	0.00E+00	0.00E+00	0.00E+00	4.88E-06	1.29E-06	1.01E-06	9.93E-02	2.63E-02	2.06E-02	0.00E+00	0.00E+00	0.00E+00	3.33E-02
W_28	544637	5401700	Angler Creek at Model Property Boundary	3.36E-07	1.36E-06	2.87E-07	1.29E-07	1.11E-05	3.18E-06	1.89E-06	4.20E-05	1.21E-05	7.16E-06	2.04E-04	5.85E-05	3.47E-05	0.00E+00	0.00E+00	0.00E+00	1.22E-05	3.50E-06	2.07E-06	2.47E-01	7.10E-02	4.22E-02	0.00E+00	0.00E+00	0.00E+00	6.46E-02
W_29	551284	5407805	Pic River In-Flow to Model Property Boundary	2.07E-07	8.56E-07	1.70E-07	9.15E-08	1.02E-05	2.91E-06	1.87E-06	3.76E-05	1.09E-05	7.04E-06	1.82E-04	5.29E-05	3.41E-05	0.00E+00	0.00E+00	0.00E+00	1.09E-05	3.17E-06	2.04E-06	2.24E-01	6.45E-02	4.16E-02	0.00E+00	0.00E+00	0.00E+00	7.75E-02
W_3	546725.4	5399334	Shack Lake (southwest)	8.38E-07	1.22E-06	3.83E-07	2.55E-07	1.15E-05	3.47E-06	2.52E-06	4.36E-05	1.31E-05	9.55E-06	2.12E-04	6.36E-05	4.63E-05	0.00E+00	0.00E+00	0.00E+00	1.27E-05	3.80E-06	2.77E-06	2.57E-01	7.73E-02	5.63E-02	0.00E+00	0.00E+00	0.00E+00	7.12E-02
W_30	551654	5401167	Pic River Out-Flow from Model Property Bounda	4.89E-07	1.51E-06	3.57E-07	2.00E-07	9.15E-06	3.82E-06	2.59E-06	3.46E-05	1.45E-05	9.79E-06	1.68E-04	7.01E-05	4.75E-05	0.00E+00	0.00E+00	0.00E+00	1.00E-05	4.19E-06	2.84E-06	2.04E-01	8.52E-02	5.77E-02	0.00E+00	0.00E+00	0.00E+00	5.82E-02
W_4	545636.3	5403829	Hare Lake (east)	4.87E-07	1.66E-06	3.23E-07	1.98E-07	1.44E-05	3.91E-06	2.33E-06	5.18E-05	1.48E-05	8.83E-06	2.52E-04	7.16E-05	4.28E-05	0.00E+00	0.00E+00	0.00E+00	1.51E-05	4.28E-06	2.56E-06	3.13E-01	8.71E-02	5.20E-02	0.00E+00	0.00E+00	0.00E+00	7.49E-02
W_5	545048.3	5403557	Hare Lake (south)	3.92E-07	1.50E-06	2.36E-07	1.58E-07	1.39E-05	3.48E-06	2.00E-06	4.97E-05	1.31E-05	7.56E-06	2.42E-04	6.37E-05	3.66E-05	0.00E+00	0.00E+00	0.00E+00	1.45E-05	3.81E-06	2.19E-06	3.01E-01	7.75E-02	4.45E-02	0.00E+00	0.00E+00	0.00E+00	6.69E-02
W_6	543955.3	5403079	Hare Lake (west)	2.95E-07	1.27E-06	2.04E-07	1.15E-07	1.20E-05	2.51E-06	1.40E-06	4.24E-05	9.49E-06	5.29E-06	2.06E-04	4.60E-05	2.57E-05	0.00E+00	0.00E+00	0.00E+00	1.24E-05	2.75E-06	1.53E-06	2.57E-01	5.59E-02	3.12E-02	0.00E+00	0.00E+00	0.00E+00	5.57E-02
W_7	544603.3	5403943	Hare Lake (north)	3.58E-07	1.29E-06	2.23E-07	1.43E-07	9.08E-06	2.85E-06	1.64E-06	3.42E-05	1.08E-05	6.21E-06	1.66E-04	5.22E-05	3.01E-05	0.00E+00	0.00E+00	0.00E+00	9.92E-06	3.12E-06	1.80E-06	2.02E-01	6.34E-02	3.66E-02	0.00E+00	0.00E+00	0.00E+00	5.62E-02
W_8	544830.3	5403751	Hare Lake (center)	3.75E-07	1.25E-06	2.23E-07	1.51E-07	1.05E-05	3.14E-06	1.80E-06	3.81E-05	1.19E-05	6.82E-06	1.85E-04	5.75E-05	3.30E-05	0.00E+00	0.00E+00	0.00E+00	1.11E-05	3.44E-06	1.98E-06	2.29E-01	6.99E-02	4.02E-02	0.00E+00	0.00E+00	0.00E+00	6.21E-02
W_9	549326.3	5406972	Bamoos Lake (east)	3.07E-07	1.13E-06	2.36E-07	1.47E-07	3.11E-05	5.28E-06	3.49E-06	1.07E-04	1.97E-05	1.31E-05	5.20E-04	9.57E-05	6.36E-05	0.00E+00	0.00E+00	0.00E+00	3.15E-05	5.73E-06	3.81E-06	6.58E-01	1.17E-01	7.75E-02	0.00E+00	0.00E+00	0.00E+00	1.67E-01
Maximum of Special Receptors				**2.97E-05**	**1.83E-05**	**8.29E-06**	**5.79E-06**	**3.74E-05**	**1.31E-05**	**9.99E-06**	**1.42E-04**	**4.98E-05**	**3.79E-05**	**6.87E-04**	**2.42E-04**	**1.84E-04**	**0.00E+00**	**0.00E+00**	**0.00E+00**	**4.11E-05**	**1.44E-05**	**1.10E-05**	**8.34E-01**	**2.93E-01**	**2.23E-01**	**0.00E+00**	**0.00E+00**	**0.00E+00**	**3.70E-01**
Max % of Criteria				-	-	-	-	**0.4%**	-	-	**0.0%**	-	-	**0.0%**	-	-	**0.0%**	-	-	**0.2%**	-	**0.2%**	-	-	-	**0.0%**	-	-	**0.0%**

Table E-1 Special Receptor Predictions (ug/m3) - Construction, Projec

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	CH4		CHROMIUM (CR)			CHRYSENE			CO						COBALT (CO)			COPPER (CU)			DIBENZ(A,H)PERYLENE			FLUORANTHENE		
				month	annual	24	month	annual	24	month	annual	0.5	1	8	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual
				-	-	0.5	-	-	-	-	-	6000	36200	15700	-	-	-	0.1	-	-	50	-	-	-	-	-	-	-	-
S_5	547019.4	5395083	Marathon Children and Family Centre	6.58E-03	4.91E-03	6.70E-04	1.69E-04	1.31E-04	3.97E-06	7.86E-07	4.67E-07	3.86E+02	3.18E+02	4.02E+01	2.63E+01	2.10E+00	1.13E+00	2.31E-04	5.80E-05	4.51E-05	1.82E-03	4.52E-04	3.49E-04	7.76E-07	1.27E-07	6.78E-08	3.22E-05	6.98E-06	4.90E-06
S_6	547000.4	5395036	Margaret Twomey Public School	6.51E-03	4.86E-03	6.65E-04	1.67E-04	1.29E-04	3.95E-06	7.73E-07	4.63E-07	3.87E+02	3.18E+02	4.02E+01	2.60E+01	2.08E+00	1.12E+00	2.30E-04	5.80E-05	4.47E-05	1.81E-03	4.47E-04	3.46E-04	7.71E-07	1.26E-07	6.73E-08	3.19E-05	6.88E-06	4.85E-06
W_1	547291.4	5399861	Shack Lake (northeast)	2.60E-02	1.98E-02	2.30E-03	7.10E-04	5.38E-04	9.71E-06	2.55E-06	1.50E-06	2.57E+02	2.12E+02	3.61E+01	1.90E+01	6.06E+00	4.27E+00	7.92E-04	2.45E-04	1.86E-04	6.10E-03	1.90E-03	1.43E-03	1.96E-06	4.60E-07	2.40E-07	8.33E-05	2.50E-05	1.81E-05
W_10	546975.3	5406486	Bamoos Lake (south)	2.04E-02	1.25E-02	2.87E-03	7.27E-04	4.12E-04	8.71E-06	1.88E-06	9.82E-07	9.33E+02	7.69E+02	9.64E+01	1.01E+02	6.18E+00	2.84E+00	9.89E-04	2.51E-04	1.42E-04	8.89E-03	1.96E-03	1.11E-03	1.85E-06	3.73E-07	1.85E-07	6.09E-05	1.75E-05	1.12E-05
W_11	545484.3	5405866	Bamoos Lake (west)	1.60E-02	9.61E-03	2.04E-03	5.07E-04	2.84E-04	9.53E-06	2.28E-06	1.16E-06	9.03E+02	7.44E+02	9.45E+01	1.20E+02	7.53E+00	2.32E+00	7.01E-04	1.75E-04	9.82E-05	6.91E-03	1.41E-03	7.65E-04	2.02E-06	4.71E-07	2.32E-07	6.27E-05	1.66E-05	9.64E-06
W_12	546576.3	5407157	Bamoos Lake (north)	1.90E-02	1.08E-02	2.49E-03	5.51E-04	3.06E-04	7.70E-06	1.65E-06	8.22E-07	5.85E+02	4.82E+02	6.53E+01	1.25E+02	7.02E+00	2.50E+00	8.57E-04	1.90E-04	1.06E-04	8.23E-03	1.50E-03	8.31E-04	1.61E-06	3.25E-07	1.53E-07	5.91E-05	1.61E-05	9.62E-06
W_13	546777.3	5406831	Bamoos Lake (center)	2.12E-02	1.20E-02	2.64E-03	6.26E-04	3.45E-04	8.12E-06	1.79E-06	9.11E-07	4.48E+02	3.69E+02	4.84E+01	1.25E+02	7.35E+00	2.75E+00	9.07E-04	2.16E-04	1.19E-04	8.61E-03	1.70E-03	9.37E-04	1.71E-06	3.54E-07	1.70E-07	6.15E-05	1.80E-05	1.07E-05
W_14	554944.3	5408229	Page Lake (south)	1.39E-02	6.68E-03	1.62E-03	3.65E-04	1.95E-04	3.39E-06	7.20E-07	3.69E-07	9.56E+02	7.87E+02	1.02E+02	1.32E+02	5.80E+00	1.90E+00	5.55E-04	1.26E-04	6.71E-05	6.00E-03	1.01E-03	5.33E-04	6.58E-07	1.22E-07	6.30E-08	4.53E-05	1.15E-05	5.58E-06
W_15	555054.3	5408904	Page Lake (center)	1.07E-02	5.30E-03	9.10E-04	2.77E-04	1.55E-04	2.86E-06	5.38E-07	3.08E-07	1.30E+03	1.07E+03	1.35E+02	6.62E+01	3.78E+00	1.53E+00	3.14E-04	9.60E-05	5.36E-05	3.06E-03	7.67E-04	4.25E-04	5.90E-07	8.98E-08	5.30E-08	3.41E-05	8.76E-06	4.47E-06
W_16	555065.3	5409498	Page Lake (north)	7.89E-03	4.25E-03	8.29E-04	2.23E-04	1.29E-04	2.66E-06	4.34E-07	2.70E-07	1.13E+03	9.30E+02	1.21E+02	4.27E+01	2.76E+00	1.24E+00	2.85E-04	7.70E-05	4.46E-05	2.71E-03	6.07E-04	3.53E-04	5.42E-07	7.99E-08	4.74E-08	2.39E-05	6.54E-06	3.65E-06
W_17	556593.4	5402127	Peacock Lake (east)	1.16E-02	5.41E-03	9.29E-04	2.92E-04	1.45E-04	8.06E-06	1.08E-06	5.00E-07	1.89E+02	1.56E+02	2.08E+01	1.04E+01	2.49E+00	1.21E+00	3.21E-04	1.01E-04	5.01E-05	2.48E-03	7.82E-04	3.88E-04	1.74E-06	2.00E-07	9.29E-08	3.99E-05	1.09E-05	5.09E-06
W_18	556043.4	5401267	Peacock Lake (south)	1.09E-02	5.54E-03	1.21E-03	2.81E-04	1.44E-04	8.49E-06	1.37E-06	5.08E-07	7.25E+02	5.97E+02	7.48E+01	8.07E+01	4.01E+00	1.32E+00	4.14E-04	9.70E-05	4.97E-05	4.23E-03	7.48E-04	3.86E-04	1.82E-06	2.67E-07	9.35E-08	4.37E-05	1.13E-05	5.21E-06
W_19	556277.4	5402069	Peacock Lake (west)	1.19E-02	5.71E-03	9.01E-04	3.03E-04	1.51E-04	7.99E-06	1.10E-06	5.23E-07	2.45E+02	2.01E+02	2.59E+01	2.02E+01	2.56E+00	1.29E+00	3.11E-04	1.05E-04	5.23E-05	2.40E-03	8.12E-04	4.05E-04	1.72E-06	2.05E-07	9.70E-08	4.08E-05	1.12E-05	5.36E-06
W_2	547105.4	5399507	Shack Lake (center)	2.24E-02	1.68E-02	1.98E-03	6.09E-04	4.54E-04	9.01E-06	2.24E-06	1.37E-06	2.49E+02	2.05E+02	3.08E+01	1.71E+01	5.27E+00	3.66E+00	6.84E-04	2.10E-04	1.57E-04	5.26E-03	1.63E-03	1.21E-03	1.78E-06	3.88E-07	2.08E-07	7.64E-05	2.17E-05	1.58E-05
W_20	556444.4	5402420	Peacock Lake (north)	1.24E-02	5.73E-03	1.10E-03	3.16E-04	1.56E-04	8.30E-06	1.20E-06	5.31E-07	2.65E+02	2.19E+02	2.84E+01	1.57E+01	2.68E+00	1.29E+00	3.81E-04	1.09E-04	5.39E-05	2.95E-03	8.47E-04	4.18E-04	1.81E-06	2.27E-07	9.90E-08	3.86E-05	1.18E-05	5.39E-06
W_21	556424.4	5402100	Peacock Lake (center)	1.17E-02	5.58E-03	9.08E-04	2.98E-04	1.49E-04	8.07E-06	1.09E-06	5.14E-07	2.13E+02	1.75E+02	2.31E+01	1.34E+01	2.52E+00	1.25E+00	3.14E-04	1.03E-04	5.14E-05	2.42E-03	7.97E-04	3.99E-04	1.75E-06	2.04E-07	9.53E-08	4.03E-05	1.11E-05	5.24E-06
W_22	550202.4	5397449	Three Finger Lake (north)	1.24E-02	7.96E-03	2.15E-03	2.92E-04	1.93E-04	8.87E-06	1.16E-06	6.77E-07	2.53E+02	2.09E+02	2.93E+01	1.01E+02	4.58E+00	1.79E+00	7.41E-04	1.01E-04	6.66E-05	6.88E-03	7.79E-04	5.14E-04	1.76E-06	2.02E-07	1.12E-07	7.64E-05	1.16E-05	7.52E-06
W_23	550175.4	5396992	Three Finger Lake (center)	1.09E-02	6.85E-03	1.97E-03	2.59E-04	1.70E-04	8.66E-06	1.04E-06	6.01E-07	2.49E+02	2.05E+02	2.62E+01	9.37E+01	4.16E+00	1.55E+00	6.77E-04	8.90E-05	5.87E-05	6.31E-03	6.94E-04	4.54E-04	1.74E-06	1.84E-07	1.00E-07	6.99E-05	1.02E-05	6.51E-06
W_24	549830.4	5396526	Three Finger Lake (south)	1.02E-02	6.22E-03	1.37E-03	2.47E-04	1.55E-04	8.69E-06	9.46E-07	5.21E-07	3.97E+02	3.27E+02	4.12E+01	3.70E+01	2.46E+00	1.39E+00	4.71E-04	8.50E-05	5.36E-05	3.98E-03	6.63E-04	4.14E-04	1.80E-06	1.71E-07	8.54E-08	5.93E-05	9.71E-06	5.84E-06
W_25	546947.4	5396628	Penn Lake (north)	8.82E-03	6.90E-03	8.31E-04	2.31E-04	1.81E-04	6.88E-06	1.35E-06	9.65E-07	2.09E+02	1.72E+02	2.32E+01	1.45E+01	2.18E+00	1.69E+00	2.87E-04	8.00E-05	6.25E-05	2.24E-03	6.15E-04	4.82E-04	1.17E-06	1.46E-07	8.62E-08	4.40E-05	1.15E-05	8.67E-06
W_26	547059.4	5396126	Penn Lake (center)	7.84E-03	6.14E-03	7.68E-04	2.07E-04	1.62E-04	5.10E-06	1.08E-06	7.07E-07	3.43E+02	2.83E+02	3.73E+01	1.90E+01	2.08E+00	1.45E+00	2.65E-04	7.10E-05	5.58E-05	2.09E-03	5.50E-04	4.31E-04	9.48E-07	1.41E-07	7.85E-08	3.73E-05	9.17E-06	6.87E-06
W_27	546991.4	5395773	Penn Lake (south)	7.24E-03	5.63E-03	7.19E-04	1.90E-04	1.49E-04	4.77E-06	9.46E-07	6.12E-07	3.90E+02	3.21E+02	4.21E+01	1.82E+01	1.96E+00	1.32E+00	2.48E-04	6.60E-05	5.15E-05	1.95E-03	5.07E-04	3.98E-04	8.90E-07	1.32E-07	7.34E-08	3.50E-05	8.17E-06	6.09E-06
W_28	544637	5401700	Angler Creek at Model Property Boundary	1.74E-02	1.02E-02	1.79E-03	5.15E-04	3.06E-04	8.96E-06	1.79E-06	7.52E-07	6.77E+02	5.58E+02	7.24E+01	6.06E+01	4.26E+00	2.30E+00	6.19E-04	1.78E-04	1.05E-04	4.84E-03	1.37E-03	8.17E-04	1.84E-06	3.44E-07	1.31E-07	6.51E-05	1.68E-05	9.06E-06
W_29	551284	5407805	Pic River In-Flow to Model Property Boundary	1.78E-02	1.04E-02	1.62E-03	4.67E-04	3.01E-04	5.53E-06	1.03E-06	5.46E-07	8.14E+02	6.70E+02	8.57E+01	4.40E+01	5.17E+00	2.78E+00	5.57E-04	1.61E-04	1.04E-04	4.79E-03	1.29E-03	8.24E-04	1.08E-06	1.80E-07	9.22E-08	6.71E-05	1.50E-05	8.62E-06
W_3	546725.4	5399334	Shack Lake (southwest)	2.02E-02	1.48E-02	1.86E-03	5.60E-04	4.08E-04	7.75E-06	2.12E-06	1.26E-06	3.30E+02	2.72E+02	3.54E+01	2.08E+01	5.00E+00	3.25E+00	6.43E-04	1.93E-04	1.41E-04	4.97E-03	1.50E-03	1.09E-03	1.58E-06	3.71E-07	1.91E-07	6.85E-05	1.99E-05	1.41E-05
W_30	551654	5401167	Pic River Out-Flow from Model Property Bounda	2.76E-02	1.79E-02	1.48E-03	6.17E-04	4.18E-04	9.91E-06	2.21E-06	1.20E-06	8.06E+02	6.64E+02	9.22E+01	3.95E+01	5.82E+00	3.89E+00	5.10E-04	2.13E-04	1.44E-04	3.96E-03	1.64E-03	1.12E-03	2.10E-06	4.11E-07	2.03E-07	6.34E-05	2.46E-05	1.58E-05
W_4	545636.3	5403829	Hare Lake (east)	2.20E-02	1.24E-02	2.24E-03	6.31E-04	3.77E-04	1.13E-05	2.08E-06	1.25E-06	6.24E+02	5.14E+02	6.54E+01	1.01E+02	7.10E+00	2.86E+00	7.72E-04	2.18E-04	1.30E-04	7.13E-03	1.70E-03	1.01E-03	2.43E-06	4.08E-07	2.42E-07	6.81E-05	1.99E-05	1.18E-05
W_5	545048.3	5403557	Hare Lake (south)	1.93E-02	1.06E-02	2.16E-03	5.61E-04	3.23E-04	1.02E-05	1.50E-06	9.84E-07	6.01E+02	4.95E+02	6.27E+01	1.02E+02	6.75E+00	2.43E+00	7.41E-04	1.94E-04	1.11E-04	6.93E-03	1.51E-03	8.62E-04	2.22E-06	2.98E-07	1.87E-07	6.20E-05	1.71E-05	9.89E-06
W_6	543955.3	5403079	Hare Lake (west)	1.42E-02	7.52E-03	1.84E-03	4.05E-04	2.26E-04	8.63E-06	1.27E-06	6.98E-07	5.37E+02	4.42E+02	5.60E+01	9.90E+01	5.64E+00	1.75E+00	6.33E-04	1.40E-04	7.80E-05	6.10E-03	1.09E-03	6.04E-04	1.86E-06	2.39E-07	1.30E-07	5.33E-05	1.32E-05	7.05E-06
W_7	544603.3	5403943	Hare Lake (north)	1.62E-02	8.82E-03	1.46E-03	4.59E-04	2.65E-04	8.77E-06	1.41E-06	8.96E-07	4.23E+02	3.48E+02	4.45E+01	2.45E+01	3.67E+00	2.02E+00	5.04E-04	1.59E-04	9.15E-05	3.97E-03	1.24E-03	7.08E-04	1.89E-06	2.78E-07	1.72E-07	5.02E-05	1.46E-05	8.44E-06
W_8	544830.3	5403751	Hare Lake (center)	1.77E-02	9.62E-03	1.65E-03	5.06E-04	2.91E-04	8.44E-06	1.40E-06	9.39E-07	5.58E+02	4.59E+02	5.82E+01	6.47E+01	5.21E+00	2.21E+00	5.67E-04	1.75E-04	1.00E-04	5.10E-03	1.36E-03	7.77E-04	1.81E-06	2.75E-07	1.79E-07	5.50E-05	1.58E-05	9.10E-06
W_9	549326.3	5406972	Bamoos Lake (east)	4.05E-02	2.24E-02	4.68E-03	8.45E-04	5.61E-04	7.25E-06	1.40E-06	8.46E-07	1.98E+03	1.63E+03	2.28E+02	3.43E+02	1.42E+01	4.98E+00	1.61E-03	2.91E-04	1.93E-04	1.69E-02	2.36E-03	1.55E-03	1.46E-06	2.35E-07	1.27E-07	1.27E-04	3.06E-05	1.77E-05
Maximum of Special Receptors				**1.66E-01**	**1.29E-01**	**6.05E-03**	**2.13E-03**	**1.62E-03**	**5.26E-05**	**2.34E-05**	**1.65E-05**	**1.98E+03**	**1.63E+03**	**2.28E+02**	**3.43E+02**	**3.31E+01**	**2.55E+01**	**2.09E-03**	**7.33E-04**	**5.58E-04**	**1.69E-02**	**5.64E-03**	**4.28E-03**	**3.96E-06**	**7.66E-07**	**3.74E-07**	**2.95E-04**	**1.32E-04**	**1.02E-04**
Max % of Criteria				-	-	**1.2%**	-	-	-	-	-	**33.1%**	**4.5%**	**1.5%**	-	-	-	**2.1%**	-	-	**0.0%**	-	-	-	-	-	-	-	-

Table E-1 Special Receptor Predictions (ug/m3) - Construction, Projec

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	FLUORENE			FORMALDEHYDE			GALLIUM (GA)			GOLD (AU)			HYDROCHLORIC ACID (HCL)			HYDROFLUORIC ACID (HF)			INDENO(1,2,3-CD)PYRENE			IRON (FE)			IRON SULFID	
				24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month
				-	-	-	65	-	-	-	-	-	1.25	-	-	20	-	-	0.86	0.34	-	-	-	-	-	-	-	-	-
S_5	547019.4	5395083	Marathon Children and Family Centre	1.15E-04	2.36E-05	1.66E-05	9.09E-02	1.93E-02	1.44E-02	7.60E-05	1.91E-05	1.48E-05	7.85E-08	1.96E-08	1.51E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.29E-07	1.52E-07	8.12E-08	4.05E-01	1.02E-01	7.93E-02	0.00E+00	0.00E+00
S_6	547000.4	5395036	Margaret Twomey Public School	1.14E-04	2.33E-05	1.64E-05	9.02E-02	1.91E-02	1.43E-02	7.50E-05	1.89E-05	1.47E-05	7.79E-08	1.94E-08	1.50E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.23E-07	1.50E-07	8.05E-08	4.03E-01	1.01E-01	7.85E-02	0.00E+00	0.00E+00
W_1	547291.4	5399861	Shack Lake (northeast)	3.01E-04	8.92E-05	6.44E-05	2.48E-01	7.59E-02	5.80E-02	2.60E-04	8.05E-05	6.11E-05	2.65E-07	8.23E-08	6.22E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.35E-06	5.50E-07	2.87E-07	1.39E+00	4.31E-01	3.27E-01	0.00E+00	0.00E+00
W_10	546975.3	5406486	Bamoos Lake (south)	2.18E-04	6.53E-05	4.14E-05	1.97E-01	5.98E-02	3.68E-02	3.23E-04	8.24E-05	4.67E-05	3.67E-07	8.47E-08	4.80E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.21E-06	4.46E-07	2.21E-07	1.72E+00	4.41E-01	2.50E-01	0.00E+00	0.00E+00
W_11	545484.3	5405866	Bamoos Lake (west)	2.26E-04	5.98E-05	3.49E-05	1.84E-01	4.66E-02	2.80E-02	2.28E-04	5.74E-05	3.22E-05	2.77E-07	6.02E-08	3.31E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.42E-06	5.63E-07	2.78E-07	1.21E+00	3.07E-01	1.72E-01	0.00E+00	0.00E+00
W_12	546576.3	5407157	Bamoos Lake (north)	2.24E-04	6.03E-05	3.56E-05	2.16E-01	5.60E-02	3.18E-02	2.79E-04	6.24E-05	3.46E-05	3.33E-07	6.46E-08	3.58E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.93E-06	3.89E-07	1.83E-07	1.48E+00	3.34E-01	1.85E-01	0.00E+00	0.00E+00
W_13	546777.3	5406831	Bamoos Lake (center)	2.32E-04	6.71E-05	3.96E-05	2.22E-01	6.24E-02	3.54E-02	2.95E-04	7.08E-05	3.91E-05	3.49E-07	7.33E-08	4.04E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.05E-06	4.24E-07	2.03E-07	1.57E+00	3.79E-01	2.09E-01	0.00E+00	0.00E+00
W_14	554944.3	5408229	Page Lake (south)	1.71E-04	4.31E-05	2.08E-05	1.65E-01	4.11E-02	1.97E-02	1.79E-04	4.13E-05	2.20E-05	2.34E-07	4.32E-08	2.29E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.88E-07	1.46E-07	7.55E-08	9.47E-01	2.21E-01	1.18E-01	0.00E+00	0.00E+00
W_15	555054.3	5408904	Page Lake (center)	1.29E-04	3.29E-05	1.67E-05	1.28E-01	3.14E-02	1.56E-02	1.03E-04	3.13E-05	1.76E-05	1.20E-07	3.28E-08	1.83E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.06E-07	1.08E-07	6.34E-08	5.50E-01	1.67E-01	9.40E-02	0.00E+00	0.00E+00
W_16	555065.3	5409498	Page Lake (north)	8.80E-05	2.44E-05	1.35E-05	7.80E-02	2.32E-02	1.25E-02	9.30E-05	2.52E-05	1.46E-05	1.10E-07	2.61E-08	1.52E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.49E-07	9.57E-08	5.67E-08	4.93E-01	1.35E-01	7.82E-02	0.00E+00	0.00E+00
W_17	556593.4	5402127	Peacock Lake (east)	1.39E-04	3.95E-05	1.84E-05	8.76E-02	3.39E-02	1.58E-02	1.05E-04	3.31E-05	1.64E-05	1.07E-07	3.39E-08	1.68E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.09E-06	2.40E-07	1.11E-07	5.64E-01	1.77E-01	8.80E-02	0.00E+00	0.00E+00
W_18	556043.4	5401267	Peacock Lake (south)	1.52E-04	4.02E-05	1.88E-05	1.12E-01	3.19E-02	1.62E-02	1.34E-04	3.18E-05	1.63E-05	1.68E-07	3.25E-08	1.67E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.17E-06	3.19E-07	1.12E-07	7.10E-01	1.70E-01	8.72E-02	0.00E+00	0.00E+00
W_19	556277.4	5402069	Peacock Lake (west)	1.43E-04	4.06E-05	1.94E-05	9.77E-02	3.49E-02	1.67E-02	1.02E-04	3.44E-05	1.72E-05	1.04E-07	3.52E-08	1.76E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.06E-06	2.45E-07	1.16E-07	5.47E-01	1.84E-01	9.18E-02	0.00E+00	0.00E+00
W_2	547105.4	5399507	Shack Lake (center)	2.73E-04	7.66E-05	5.51E-05	2.21E-01	6.55E-02	4.92E-02	2.25E-04	6.90E-05	5.15E-05	2.29E-07	7.05E-08	5.24E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.14E-06	4.65E-07	2.48E-07	1.20E+00	3.69E-01	2.76E-01	0.00E+00	0.00E+00
W_20	556444.4	5402420	Peacock Lake (north)	1.34E-04	4.27E-05	1.95E-05	1.02E-01	3.62E-02	1.68E-02	1.25E-04	3.58E-05	1.77E-05	1.28E-07	3.67E-08	1.81E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.16E-06	2.72E-07	1.18E-07	6.69E-01	1.92E-01	9.46E-02	0.00E+00	0.00E+00
W_21	556424.4	5402100	Peacock Lake (center)	1.41E-04	4.01E-05	1.90E-05	8.99E-02	3.44E-02	1.63E-02	1.03E-04	3.37E-05	1.69E-05	1.05E-07	3.45E-08	1.73E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.09E-06	2.44E-07	1.14E-07	5.51E-01	1.80E-01	9.03E-02	0.00E+00	0.00E+00
W_22	550202.4	5397449	Three Finger Lake (north)	2.76E-04	4.18E-05	2.66E-05	2.24E-01	3.66E-02	2.34E-02	2.41E-04	3.31E-05	2.19E-05	2.81E-07	3.38E-08	2.23E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.11E-06	2.42E-07	1.34E-07	1.28E+00	1.77E-01	1.17E-01	0.00E+00	0.00E+00
W_23	550175.4	5396992	Three Finger Lake (center)	2.52E-04	3.66E-05	2.30E-05	1.99E-01	3.21E-02	2.01E-02	2.20E-04	2.93E-05	1.93E-05	2.57E-07	3.00E-08	1.97E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.08E-06	2.20E-07	1.20E-07	1.17E+00	1.57E-01	1.03E-01	0.00E+00	0.00E+00
W_24	549830.4	5396526	Three Finger Lake (south)	2.12E-04	3.48E-05	2.06E-05	1.54E-01	3.00E-02	1.82E-02	1.54E-04	2.80E-05	1.76E-05	1.67E-07	2.87E-08	1.79E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.15E-06	2.05E-07	1.02E-07	8.22E-01	1.50E-01	9.42E-02	0.00E+00	0.00E+00
W_25	546947.4	5396628	Penn Lake (north)	1.40E-04	3.21E-05	2.50E-05	1.06E-01	2.62E-02	2.06E-02	9.40E-05	2.62E-05	2.05E-05	9.67E-08	2.67E-08	2.09E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.40E-06	1.75E-07	1.03E-07	5.04E-01	1.40E-01	1.10E-01	0.00E+00	0.00E+00
W_26	547059.4	5396126	Penn Lake (center)	1.31E-04	2.85E-05	2.14E-05	1.04E-01	2.32E-02	1.82E-02	8.70E-05	2.35E-05	1.83E-05	8.98E-08	2.39E-08	1.87E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.13E-06	1.68E-07	9.40E-08	4.65E-01	1.25E-01	9.81E-02	0.00E+00	0.00E+00
W_27	546991.4	5395773	Penn Lake (south)	1.23E-04	2.62E-05	1.94E-05	9.77E-02	2.14E-02	1.67E-02	8.10E-05	2.16E-05	1.69E-05	8.42E-08	2.20E-08	1.73E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.07E-06	1.59E-07	8.78E-08	4.35E-01	1.16E-01	9.05E-02	0.00E+00	0.00E+00
W_28	544637	5401700	Angler Creek at Model Property Boundary	2.34E-04	6.08E-05	3.30E-05	1.89E-01	5.09E-02	2.98E-02	2.03E-04	5.84E-05	3.46E-05	2.09E-07	5.95E-08	3.54E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.20E-06	4.12E-07	1.57E-07	1.09E+00	3.12E-01	1.85E-01	0.00E+00	0.00E+00
W_29	551284	5407805	Pic River In-Flow to Model Property Boundary	2.51E-04	5.60E-05	3.23E-05	2.30E-01	5.25E-02	3.07E-02	1.82E-04	5.28E-05	3.41E-05	2.00E-07	5.53E-08	3.54E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.29E-06	2.15E-07	1.10E-07	9.71E-01	2.82E-01	1.82E-01	0.00E+00	0.00E+00
W_3	546725.4	5399334	Shack Lake (southwest)	2.47E-04	6.98E-05	4.89E-05	2.06E-01	5.90E-02	4.33E-02	2.11E-04	6.35E-05	4.62E-05	2.16E-07	6.50E-08	4.71E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.89E-06	4.44E-07	2.29E-07	1.13E+00	3.39E-01	2.47E-01	0.00E+00	0.00E+00
W_30	551654	5401167	Pic River Out-Flow from Model Property Bounda	2.24E-04	8.93E-05	5.76E-05	1.72E-01	8.12E-02	5.28E-02	1.67E-04	7.00E-05	4.74E-05	1.71E-07	7.13E-08	4.83E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.51E-06	4.91E-07	2.43E-07	8.95E-01	3.74E-01	2.53E-01	0.00E+00	0.00E+00
W_4	545636.3	5403829	Hare Lake (east)	2.51E-04	7.32E-05	4.30E-05	2.18E-01	6.41E-02	3.61E-02	2.51E-04	7.15E-05	4.27E-05	2.92E-07	7.34E-08	4.36E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.91E-06	4.88E-07	2.90E-07	1.34E+00	3.82E-01	2.29E-01	0.00E+00	0.00E+00
W_5	545048.3	5403557	Hare Lake (south)	2.24E-04	6.31E-05	3.60E-05	1.96E-01	5.64E-02	3.09E-02	2.41E-04	6.36E-05	3.66E-05	2.82E-07	6.52E-08	3.74E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.66E-06	3.56E-07	2.23E-07	1.28E+00	3.40E-01	1.96E-01	0.00E+00	0.00E+00
W_6	543955.3	5403079	Hare Lake (west)	1.95E-04	4.81E-05	2.56E-05	1.63E-01	4.16E-02	2.19E-02	2.05E-04	4.59E-05	2.56E-05	2.46E-07	4.71E-08	2.62E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.23E-06	2.86E-07	1.55E-07	1.09E+00	2.46E-01	1.37E-01	0.00E+00	0.00E+00
W_7	544603.3	5403943	Hare Lake (north)	1.86E-04	5.36E-05	3.06E-05	1.64E-01	4.72E-02	2.57E-02	1.65E-04	5.21E-05	3.00E-05	1.71E-07	5.35E-08	3.07E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.26E-06	3.33E-07	2.06E-07	8.85E-01	2.78E-01	1.61E-01	0.00E+00	0.00E+00
W_8	544830.3	5403751	Hare Lake (center)	2.02E-04	5.81E-05	3.31E-05	1.82E-01	5.16E-02	2.80E-02	1.85E-04	5.74E-05	3.30E-05	2.10E-07	5.89E-08	3.37E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.17E-06	3.29E-07	2.14E-07	9.84E-01	3.07E-01	1.76E-01	0.00E+00	0.00E+00
W_9	549326.3	5406972	Bamoos Lake (east)	4.85E-04	1.17E-04	6.70E-05	4.94E-01	1.20E-01	6.63E-02	5.19E-04	9.55E-05	6.34E-05	6.65E-07	1.01E-07	6.63E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.74E-06	2.82E-07	1.52E-07	2.75E+00	5.10E-01	3.39E-01	0.00E+00	0.00E+00
Maximum of Special Receptors				**1.07E-03**	**4.85E-04**	**3.75E-04**	**1.10E+00**	**4.94E-01**	**3.84E-01**	**6.86E-04**	**2.42E-04**	**1.84E-04**	**6.98E-07**	**2.45E-07**	**1.86E-07**	**0.00E+00**	**0.00E+00**	**0.00E+00**	**0.00E+00**	**0.00E+00**	**0.00E+00**	**4.74E-06**	**9.17E-07**	**4.48E-07**	**3.67E+00**	**1.29E+00**	**9.81E-01**	**0.00E+00**	**0.00E+00**
Max % of Criteria				-	-	-	**1.7%**	-	-	-	-	-	**0.0%**	-	-	**0.0%**	-	-	**0.0%**	**0.0%**	-	-	-	-	-	-	-	-	-

Table E-1 Special Receptor Predictions (ug/m3) - Construction, Projec

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	E	LANTHANUM (LA)			LANTHANUM CHLORIDE (LACL3)			LEAD (PB)			MAGNESIUM (MG)			MANGANESE (MN)			MERCURY (HG)			MOLYBDENUM (MO)			N2O			
				annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	10-min
				-	-	-	-	2.5	-	-	0.5	0.2	-	72	-	-	0.4	-	-	2	-	-	120	-	-	9000	-	-	50
S_5	547019.4	5395083	Marathon Children and Family Centre	0.00E+00	1.26E-04	3.13E-05	2.42E-05	0.00E+00	0.00E+00	0.00E+00	2.05E-05	5.13E-06	3.97E-06	1.05E-01	2.66E-02	2.06E-02	3.88E-03	9.79E-04	7.58E-04	7.61E-06	1.92E-06	1.49E-06	9.37E-06	2.35E-06	1.82E-06	9.70E-02	2.06E-02	1.54E-02	5.63E-03
S_6	547000.4	5395036	Margaret Twomey Public School	0.00E+00	1.25E-04	3.10E-05	2.39E-05	0.00E+00	0.00E+00	0.00E+00	2.04E-05	5.08E-06	3.93E-06	1.05E-01	2.64E-02	2.04E-02	3.85E-03	9.69E-04	7.50E-04	7.56E-06	1.90E-06	1.47E-06	9.31E-06	2.33E-06	1.80E-06	9.63E-02	2.04E-02	1.52E-02	5.61E-03
W_1	547291.4	5399861	Shack Lake (northeast)	0.00E+00	4.23E-04	1.32E-04	9.92E-05	0.00E+00	0.00E+00	0.00E+00	6.95E-05	2.16E-05	1.63E-05	3.63E-01	1.12E-01	8.51E-02	1.33E-02	4.12E-03	3.12E-03	2.61E-05	8.08E-06	6.13E-06	3.19E-05	9.89E-06	7.49E-06	2.70E-01	8.17E-02	6.22E-02	9.53E-03
W_10	546975.3	5406486	Bamoos Lake (south)	0.00E+00	6.06E-04	1.36E-04	7.69E-05	0.00E+00	0.00E+00	0.00E+00	9.26E-05	2.22E-05	1.26E-05	4.41E-01	1.15E-01	6.50E-02	1.64E-02	4.21E-03	2.39E-03	3.24E-05	8.27E-06	4.69E-06	4.18E-05	1.01E-05	5.75E-06	2.08E-01	6.38E-02	3.93E-02	8.82E-03
W_11	545484.3	5405866	Bamoos Lake (west)	0.00E+00	4.67E-04	9.70E-05	5.30E-05	0.00E+00	0.00E+00	0.00E+00	6.84E-05	1.56E-05	8.66E-06	3.07E-01	7.95E-02	4.48E-02	1.15E-02	2.93E-03	1.65E-03	2.28E-05	5.76E-06	3.23E-06	3.06E-05	7.14E-06	3.97E-06	1.94E-01	5.03E-02	3.02E-02	8.22E-03
W_12	546576.3	5407157	Bamoos Lake (north)	0.00E+00	5.57E-04	1.04E-04	5.74E-05	0.00E+00	0.00E+00	0.00E+00	8.27E-05	1.69E-05	9.35E-06	3.77E-01	8.67E-02	4.81E-02	1.41E-02	3.19E-03	1.77E-03	2.79E-05	6.26E-06	3.48E-06	3.70E-05	7.71E-06	4.28E-06	2.27E-01	5.94E-02	3.39E-02	7.42E-03
W_13	546777.3	5406831	Bamoos Lake (center)	0.00E+00	5.84E-04	1.18E-04	6.48E-05	0.00E+00	0.00E+00	0.00E+00	8.70E-05	1.91E-05	1.06E-05	4.00E-01	9.85E-02	5.44E-02	1.49E-02	3.62E-03	2.00E-03	2.96E-05	7.11E-06	3.93E-06	3.90E-05	8.75E-06	4.83E-06	2.34E-01	6.62E-02	3.77E-02	7.82E-03
W_14	554944.3	5408229	Page Lake (south)	0.00E+00	4.02E-04	6.95E-05	3.68E-05	0.00E+00	0.00E+00	0.00E+00	5.66E-05	1.12E-05	5.97E-06	2.38E-01	5.73E-02	3.06E-02	9.01E-03	2.11E-03	1.13E-03	1.80E-05	4.14E-06	2.21E-06	2.50E-05	5.13E-06	2.73E-06	1.75E-01	4.36E-02	2.09E-02	3.77E-03
W_15	555054.3	5408904	Page Lake (center)	0.00E+00	2.05E-04	5.29E-05	2.94E-05	0.00E+00	0.00E+00	0.00E+00	2.89E-05	8.53E-06	4.76E-06	1.42E-01	4.34E-02	2.44E-02	5.25E-03	1.60E-03	8.98E-04	1.03E-05	3.14E-06	1.76E-06	1.28E-05	3.89E-06	2.18E-06	1.35E-01	3.33E-02	1.66E-02	3.38E-03
W_16	555065.3	5409498	Page Lake (north)	0.00E+00	1.84E-04	4.19E-05	2.44E-05	0.00E+00	0.00E+00	0.00E+00	2.74E-05	6.81E-06	3.96E-06	1.26E-01	3.50E-02	2.03E-02	4.70E-03	1.29E-03	7.48E-04	9.30E-06	2.53E-06	1.47E-06	1.23E-05	3.11E-06	1.81E-06	8.23E-02	2.47E-02	1.33E-02	3.11E-03
W_17	556593.4	5402127	Peacock Lake (east)	0.00E+00	1.72E-04	5.42E-05	2.69E-05	0.00E+00	0.00E+00	0.00E+00	2.82E-05	8.88E-06	4.41E-06	1.47E-01	4.61E-02	2.29E-02	5.39E-03	1.69E-03	8.41E-04	1.06E-05	3.32E-06	1.65E-06	1.29E-05	4.07E-06	2.02E-06	9.37E-02	3.63E-02	1.70E-02	7.25E-03
W_18	556043.4	5401267	Peacock Lake (south)	0.00E+00	2.85E-04	5.19E-05	2.67E-05	0.00E+00	0.00E+00	0.00E+00	4.11E-05	8.52E-06	4.38E-06	1.80E-01	4.43E-02	2.27E-02	6.76E-03	1.63E-03	8.34E-04	1.34E-05	3.19E-06	1.64E-06	1.83E-05	3.90E-06	2.01E-06	1.19E-01	3.43E-02	1.74E-02	7.64E-03
W_19	556277.4	5402069	Peacock Lake (west)	0.00E+00	1.66E-04	5.62E-05	2.81E-05	0.00E+00	0.00E+00	0.00E+00	2.73E-05	9.22E-06	4.60E-06	1.42E-01	4.79E-02	2.39E-02	5.23E-03	1.76E-03	8.78E-04	1.03E-05	3.45E-06	1.72E-06	1.25E-05	4.22E-06	2.11E-06	1.06E-01	3.73E-02	1.79E-02	7.46E-03
W_2	547105.4	5399507	Shack Lake (center)	0.00E+00	3.65E-04	1.13E-04	8.37E-05	0.00E+00	0.00E+00	0.00E+00	6.00E-05	1.85E-05	1.38E-05	3.13E-01	9.60E-02	7.17E-02	1.15E-02	3.53E-03	2.64E-03	2.25E-05	6.92E-06	5.17E-06	2.75E-05	8.48E-06	6.32E-06	2.40E-01	7.04E-02	5.27E-02	9.24E-03
W_20	556444.4	5402420	Peacock Lake (north)	0.00E+00	2.04E-04	5.87E-05	2.89E-05	0.00E+00	0.00E+00	0.00E+00	3.35E-05	9.61E-06	4.74E-06	1.74E-01	4.98E-02	2.46E-02	6.40E-03	1.83E-03	9.04E-04	1.26E-05	3.59E-06	1.77E-06	1.54E-05	4.40E-06	2.17E-06	1.09E-01	3.88E-02	1.80E-02	7.01E-03
W_21	556424.4	5402100	Peacock Lake (center)	0.00E+00	1.68E-04	5.52E-05	2.76E-05	0.00E+00	0.00E+00	0.00E+00	2.75E-05	9.05E-06	4.53E-06	1.43E-01	4.69E-02	2.35E-02	5.27E-03	1.73E-03	8.64E-04	1.03E-05	3.38E-06	1.69E-06	1.26E-05	4.14E-06	2.07E-06	9.74E-02	3.68E-02	1.75E-02	7.40E-03
W_22	550202.4	5397449	Three Finger Lake (north)	0.00E+00	4.68E-04	5.40E-05	3.56E-05	0.00E+00	0.00E+00	0.00E+00	7.04E-05	8.86E-06	5.85E-06	3.28E-01	4.61E-02	3.05E-02	1.22E-02	1.69E-03	1.12E-03	2.42E-05	3.32E-06	2.19E-06	3.16E-05	4.06E-06	2.68E-06	2.37E-01	3.88E-02	2.50E-02	8.55E-03
W_23	550175.4	5396992	Three Finger Lake (center)	0.00E+00	4.29E-04	4.80E-05	3.14E-05	0.00E+00	0.00E+00	0.00E+00	6.44E-05	7.86E-06	5.16E-06	2.99E-01	4.08E-02	2.69E-02	1.12E-02	1.50E-03	9.87E-04	2.21E-05	2.94E-06	1.94E-06	2.89E-05	3.60E-06	2.37E-06	2.11E-01	3.42E-02	2.15E-02	8.11E-03
W_24	549830.4	5396526	Three Finger Lake (south)	0.00E+00	2.73E-04	4.59E-05	2.87E-05	0.00E+00	0.00E+00	0.00E+00	4.29E-05	7.51E-06	4.71E-06	2.12E-01	3.89E-02	2.45E-02	7.85E-03	1.43E-03	9.00E-04	1.54E-05	2.81E-06	1.77E-06	1.95E-05	3.44E-06	2.16E-06	1.66E-01	3.20E-02	1.95E-02	7.60E-03
W_25	546947.4	5396628	Penn Lake (north)	0.00E+00	1.55E-04	4.26E-05	3.34E-05	0.00E+00	0.00E+00	0.00E+00	2.53E-05	7.01E-06	5.49E-06	1.31E-01	3.65E-02	2.86E-02	4.81E-03	1.34E-03	1.05E-03	9.45E-06	2.63E-06	2.06E-06	1.16E-05	3.21E-06	2.52E-06	1.12E-01	2.77E-02	2.16E-02	6.48E-03
W_26	547059.4	5396126	Penn Lake (center)	0.00E+00	1.44E-04	3.81E-05	2.99E-05	0.00E+00	0.00E+00	0.00E+00	2.35E-05	6.27E-06	4.91E-06	1.21E-01	3.27E-02	2.55E-02	4.45E-03	1.20E-03	9.38E-04	8.73E-06	2.35E-06	1.84E-06	1.07E-05	2.87E-06	2.25E-06	1.11E-01	2.46E-02	1.93E-02	6.25E-03
W_27	546991.4	5395773	Penn Lake (south)	0.00E+00	1.35E-04	3.51E-05	2.76E-05	0.00E+00	0.00E+00	0.00E+00	2.20E-05	5.77E-06	4.53E-06	1.13E-01	3.01E-02	2.36E-02	4.16E-03	1.11E-03	8.66E-04	8.17E-06	2.17E-06	1.70E-06	1.01E-05	2.65E-06	2.08E-06	1.05E-01	2.27E-02	1.77E-02	6.00E-03
W_28	544637	5401700	Angler Creek at Model Property Boundary	0.00E+00	3.35E-04	9.50E-05	5.66E-05	0.00E+00	0.00E+00	0.00E+00	5.46E-05	1.56E-05	9.28E-06	2.83E-01	8.13E-02	4.82E-02	1.04E-02	2.99E-03	1.77E-03	2.04E-05	5.86E-06	3.48E-06	2.50E-05	7.16E-06	4.25E-06	2.03E-01	5.48E-02	3.19E-02	8.55E-03
W_29	551284	5407805	Pic River In-Flow to Model Property Boundary	0.00E+00	3.28E-04	8.93E-05	5.69E-05	0.00E+00	0.00E+00	0.00E+00	5.12E-05	1.44E-05	9.23E-06	2.50E-01	7.32E-02	4.73E-02	9.27E-03	2.69E-03	1.74E-03	1.83E-05	5.30E-06	3.42E-06	2.32E-05	6.56E-06	4.22E-06	2.42E-01	5.55E-02	3.25E-02	5.84E-03
W_3	546725.4	5399334	Shack Lake (southwest)	0.00E+00	3.44E-04	1.04E-04	7.52E-05	0.00E+00	0.00E+00	0.00E+00	5.65E-05	1.70E-05	1.24E-05	2.94E-01	8.83E-02	6.44E-02	1.08E-02	3.25E-03	2.37E-03	2.12E-05	6.37E-06	4.64E-06	2.59E-05	7.80E-06	5.67E-06	2.25E-01	6.35E-02	4.63E-02	8.95E-03
W_30	551654	5401167	Pic River Out-Flow from Model Property Bounda	0.00E+00	2.74E-04	1.14E-04	7.73E-05	0.00E+00	0.00E+00	0.00E+00	4.49E-05	1.87E-05	1.27E-05	2.33E-01	9.75E-02	6.60E-02	8.56E-03	3.58E-03	2.42E-03	1.68E-05	7.02E-06	4.75E-06	2.06E-05	8.58E-06	5.81E-06	1.82E-01	8.64E-02	5.62E-02	1.08E-02
W_4	545636.3	5403829	Hare Lake (east)	0.00E+00	4.85E-04	1.17E-04	6.98E-05	0.00E+00	0.00E+00	0.00E+00	7.31E-05	1.92E-05	1.14E-05	3.42E-01	9.95E-02	5.95E-02	1.27E-02	3.66E-03	2.19E-03	2.52E-05	7.17E-06	4.29E-06	3.29E-05	8.80E-06	5.25E-06	2.36E-01	6.91E-02	3.90E-02	1.01E-02
W_5	545048.3	5403557	Hare Lake (south)	0.00E+00	4.71E-04	1.04E-04	5.97E-05	0.00E+00	0.00E+00	0.00E+00	7.06E-05	1.71E-05	9.79E-06	3.28E-01	8.85E-02	5.09E-02	1.22E-02	3.25E-03	1.87E-03	2.42E-05	6.38E-06	3.67E-06	3.17E-05	7.83E-06	4.49E-06	2.10E-01	6.05E-02	3.33E-02	9.28E-03
W_6	543955.3	5403079	Hare Lake (west)	0.00E+00	4.13E-04	7.54E-05	4.18E-05	0.00E+00	0.00E+00	0.00E+00	6.11E-05	1.23E-05	6.86E-06	2.78E-01	6.39E-02	3.56E-02	1.04E-02	2.35E-03	1.31E-03	2.06E-05	4.61E-06	2.57E-06	2.74E-05	5.65E-06	3.15E-06	1.75E-01	4.46E-02	2.36E-02	7.91E-03
W_7	544603.3	5403943	Hare Lake (north)	0.00E+00	2.74E-04	8.56E-05	4.91E-05	0.00E+00	0.00E+00	0.00E+00	4.47E-05	1.40E-05	8.05E-06	2.30E-01	7.24E-02	4.18E-02	8.46E-03	2.66E-03	1.54E-03	1.66E-05	5.22E-06	3.01E-06	2.04E-05	6.41E-06	3.69E-06	1.76E-01	5.07E-02	2.77E-02	8.44E-03
W_8	544830.3	5403751	Hare Lake (center)	0.00E+00	3.48E-04	9.43E-05	5.38E-05	0.00E+00	0.00E+00	0.00E+00	5.31E-05	1.54E-05	8.84E-06	2.55E-01	7.98E-02	4.59E-02	9.39E-03	2.93E-03	1.69E-03	1.85E-05	5.76E-06	3.31E-06	2.40E-05	7.06E-06	4.05E-06	1.95E-01	5.54E-02	3.02E-02	8.93E-03
W_9	549326.3	5406972	Bamoos Lake (east)	0.00E+00	1.14E-03	1.63E-04	1.07E-04	0.00E+00	0.00E+00	0.00E+00	1.62E-04	2.61E-05	1.72E-05	6.92E-01	1.32E-01	8.80E-02	2.62E-02	4.88E-03	3.24E-03	5.21E-05	9.58E-06	6.37E-06	7.16E-05	1.19E-05	7.87E-06	5.20E-01	1.26E-01	7.01E-02	7.68E-03
Maximum of Special Receptors				**0.00E+00**	**1.14E-03**	**3.91E-04**	**2.97E-04**	**0.00E+00**	**0.00E+00**	**0.00E+00**	**1.83E-04**	**6.45E-05**	**4.90E-05**	**9.55E-01**	**3.36E-01**	**2.55E-01**	**3.51E-02**	**1.23E-02**	**9.38E-03**	**6.88E-05**	**2.42E-05**	**1.84E-05**	**8.41E-05**	**2.95E-05**	**2.24E-05**	**1.15E+00**	**5.17E-01**	**4.02E-01**	**1.33E-02**
Max % of Criteria				-	-	-	-	**0.0%**	-	-	**0.0%**	**0.0%**	-	**1.3%**	-	-	**8.8%**	-	-	**0.0%**	-	-	**0.0%**	-	-	**0.0%**	-	-	**0.0%**

Table E-1 Special Receptor Predictions (ug/m3) - Construction, Projec

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	NAPHTHALENE			NICKEL (NI)		NITRIC ACID (HNO3)			NON-METHANE HYDROCARBONS			NO2 (See Note 3)			PALLADIUM (PD)			PHENANTHRENE			PHOSPHOROUS (P)			PLATINUM (PT)		
				24	month	annual	24	annual	24	month	annual	24	month	annual	1	24	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual
				22.5	-	-	0.2	0.04	35	-	-	-	-	-	400	200	-	10	-	-	-	-	-	-	-	-	0.2	-	-
S_5	547019.4	5395083	Marathon Children and Family Centre	2.92E-04	4.80E-05	2.55E-05	6.00E-04	1.20E-04	0.00E+00	0.00E+00	0.00E+00	3.22E-01	7.05E-02	5.26E-02	1.00E+02	9.57E+00	1.17E+00	2.25E-07	5.50E-08	4.24E-08	4.74E-04	9.70E-05	6.90E-05	1.02E-02	2.60E-03	2.01E-03	1.44E-07	3.58E-08	2.77E-08
S_6	547000.4	5395036	Margaret Twomey Public School	2.90E-04	4.70E-05	2.53E-05	6.00E-04	1.20E-04	0.00E+00	0.00E+00	0.00E+00	3.20E-01	6.96E-02	5.20E-02	9.99E+01	9.50E+00	1.16E+00	2.23E-07	5.45E-08	4.20E-08	4.70E-04	9.60E-05	6.90E-05	1.02E-02	2.57E-03	1.99E-03	1.43E-07	3.55E-08	2.74E-08
W_1	547291.4	5399861	Shack Lake (northeast)	7.37E-04	1.73E-04	9.01E-05	2.05E-03	4.80E-04	0.00E+00	0.00E+00	0.00E+00	8.76E-01	2.70E-01	2.07E-01	1.54E+02	2.37E+01	4.39E+00	7.39E-07	2.31E-07	1.74E-07	1.26E-03	3.74E-04	2.73E-04	3.54E-02	1.09E-02	8.29E-03	4.85E-07	1.51E-07	1.14E-07
W_10	546975.3	5406486	Bamoos Lake (south)	6.94E-04	1.40E-04	6.95E-05	2.62E-03	3.70E-04	0.00E+00	0.00E+00	0.00E+00	6.96E-01	2.11E-01	1.30E-01	1.32E+02	1.98E+01	3.01E+00	1.16E-06	2.39E-07	1.36E-07	9.02E-04	2.81E-04	1.76E-04	4.22E-02	1.12E-02	6.33E-03	6.81E-07	1.55E-07	8.79E-08
W_11	545484.3	5405866	Bamoos Lake (west)	7.60E-04	1.77E-04	8.73E-05	1.89E-03	2.50E-04	0.00E+00	0.00E+00	0.00E+00	6.50E-01	1.64E-01	9.87E-02	1.20E+02	2.00E+01	2.90E+00	9.42E-07	1.75E-07	9.34E-08	9.27E-04	2.46E-04	1.45E-04	2.89E-02	7.72E-03	4.37E-03	5.20E-07	1.11E-07	6.06E-08
W_12	546576.3	5407157	Bamoos Lake (north)	6.06E-04	1.22E-04	5.76E-05	2.30E-03	2.70E-04	0.00E+00	0.00E+00	0.00E+00	7.59E-01	1.97E-01	1.12E-01	1.22E+02	1.70E+01	2.53E+00	1.11E-06	1.84E-07	1.02E-07	9.72E-04	2.60E-04	1.52E-04	3.57E-02	8.43E-03	4.68E-03	6.23E-07	1.18E-07	6.56E-08
W_13	546777.3	5406831	Bamoos Lake (center)	6.43E-04	1.33E-04	6.38E-05	2.43E-03	3.10E-04	0.00E+00	0.00E+00	0.00E+00	7.82E-01	2.20E-01	1.25E-01	1.26E+02	1.76E+01	2.81E+00	1.15E-06	2.09E-07	1.15E-07	1.01E-03	2.89E-04	1.69E-04	3.79E-02	9.58E-03	5.29E-03	6.53E-07	1.34E-07	7.41E-08
W_14	554944.3	5408229	Page Lake (south)	2.47E-04	4.60E-05	2.37E-05	1.53E-03	1.70E-04	0.00E+00	0.00E+00	0.00E+00	5.82E-01	1.45E-01	6.94E-02	1.44E+02	1.04E+01	1.41E+00	8.46E-07	1.25E-07	6.58E-08	7.44E-04	1.87E-04	9.00E-05	2.21E-02	5.56E-03	2.97E-03	4.44E-07	7.93E-08	4.20E-08
W_15	555054.3	5408904	Page Lake (center)	2.22E-04	3.40E-05	1.99E-05	8.20E-04	1.40E-04	0.00E+00	0.00E+00	0.00E+00	4.53E-01	1.11E-01	5.51E-02	9.42E+01	8.13E+00	1.14E+00	4.30E-07	9.51E-08	5.25E-08	5.67E-04	1.42E-04	7.20E-05	1.38E-02	4.21E-03	2.37E-03	2.26E-07	6.03E-08	3.35E-08
W_16	555065.3	5409498	Page Lake (north)	2.04E-04	3.00E-05	1.78E-05	7.60E-04	1.20E-04	0.00E+00	0.00E+00	0.00E+00	2.75E-01	8.19E-02	4.41E-02	8.35E+01	6.55E+00	9.52E-01	3.64E-07	7.49E-08	4.34E-08	3.69E-04	1.06E-04	5.80E-05	1.19E-02	3.40E-03	1.98E-03	2.06E-07	4.79E-08	2.78E-08
W_17	556593.4	5402127	Peacock Lake (east)	6.56E-04	7.50E-05	3.49E-05	8.30E-04	1.30E-04	0.00E+00	0.00E+00	0.00E+00	3.10E-01	1.20E-01	5.60E-02	9.86E+01	1.52E+01	1.39E+00	3.01E-07	9.53E-08	4.72E-08	5.40E-04	1.66E-04	7.80E-05	1.43E-02	4.49E-03	2.23E-03	1.97E-07	6.20E-08	3.08E-08
W_18	556043.4	5401267	Peacock Lake (south)	6.83E-04	1.00E-04	3.51E-05	1.12E-03	1.30E-04	0.00E+00	0.00E+00	0.00E+00	3.96E-01	1.13E-01	5.75E-02	1.19E+02	1.63E+01	1.43E+00	5.84E-07	9.09E-08	4.71E-08	5.94E-04	1.66E-04	7.90E-05	1.68E-02	4.32E-03	2.21E-03	3.16E-07	5.94E-08	3.06E-08
W_19	556277.4	5402069	Peacock Lake (west)	6.48E-04	7.70E-05	3.65E-05	8.00E-04	1.40E-04	0.00E+00	0.00E+00	0.00E+00	3.44E-01	1.24E-01	5.91E-02	1.03E+02	1.53E+01	1.47E+00	2.91E-07	9.88E-08	4.94E-08	5.58E-04	1.71E-04	8.20E-05	1.39E-02	4.66E-03	2.33E-03	1.90E-07	6.44E-08	3.22E-08
W_2	547105.4	5399507	Shack Lake (center)	6.71E-04	1.46E-04	7.80E-05	1.77E-03	4.10E-04	0.00E+00	0.00E+00	0.00E+00	7.83E-01	2.34E-01	1.77E-01	1.47E+02	2.20E+01	3.77E+00	6.38E-07	1.98E-07	1.47E-07	1.13E-03	3.21E-04	2.33E-04	3.05E-02	9.36E-03	7.00E-03	4.18E-07	1.29E-07	9.60E-08
W_20	556444.4	5402420	Peacock Lake (north)	6.79E-04	8.50E-05	3.72E-05	9.90E-04	1.40E-04	0.00E+00	0.00E+00	0.00E+00	3.59E-01	1.28E-01	5.93E-02	9.71E+01	1.53E+01	1.48E+00	3.58E-07	1.03E-07	5.08E-08	5.36E-04	1.79E-04	8.20E-05	1.70E-02	4.86E-03	2.40E-03	2.34E-07	6.71E-08	3.31E-08
W_21	556424.4	5402100	Peacock Lake (center)	6.56E-04	7.70E-05	3.58E-05	8.10E-04	1.30E-04	0.00E+00	0.00E+00	0.00E+00	3.17E-01	1.22E-01	5.78E-02	1.01E+02	1.53E+01	1.44E+00	2.94E-07	9.70E-08	4.85E-08	5.47E-04	1.69E-04	8.00E-05	1.40E-02	4.57E-03	2.29E-03	1.92E-07	6.32E-08	3.16E-08
W_22	550202.4	5397449	Three Finger Lake (north)	6.62E-04	7.60E-05	4.20E-05	1.98E-03	1.70E-04	0.00E+00	0.00E+00	0.00E+00	7.90E-01	1.30E-01	8.37E-02	1.40E+02	2.29E+01	1.94E+00	9.15E-07	9.46E-08	6.24E-08	1.15E-03	1.77E-04	1.12E-04	3.12E-02	4.49E-03	2.97E-03	5.24E-07	6.18E-08	4.08E-08
W_23	550175.4	5396992	Three Finger Lake (center)	6.54E-04	6.90E-05	3.77E-05	1.81E-03	1.50E-04	0.00E+00	0.00E+00	0.00E+00	7.02E-01	1.14E-01	7.19E-02	1.32E+02	2.15E+01	1.69E+00	8.40E-07	8.47E-08	5.51E-08	1.04E-03	1.55E-04	9.70E-05	2.85E-02	3.98E-03	2.62E-03	4.80E-07	5.50E-08	3.60E-08
W_24	549830.4	5396526	Three Finger Lake (south)	6.75E-04	6.40E-05	3.21E-05	1.24E-03	1.40E-04	0.00E+00	0.00E+00	0.00E+00	5.43E-01	1.07E-01	6.52E-02	1.18E+02	1.96E+01	1.49E+00	5.07E-07	8.08E-08	5.02E-08	8.59E-04	1.47E-04	8.70E-05	2.05E-02	3.79E-03	2.39E-03	3.09E-07	5.25E-08	3.28E-08
W_25	546947.4	5396628	Penn Lake (north)	4.41E-04	5.50E-05	3.24E-05	7.40E-04	1.60E-04	0.00E+00	0.00E+00	0.00E+00	4.03E-01	9.93E-02	8.07E-02	1.15E+02	1.26E+01	1.63E+00	2.73E-07	7.45E-08	5.86E-08	5.52E-04	1.30E-04	1.00E-04	1.28E-02	3.56E-03	2.79E-03	1.77E-07	4.88E-08	3.83E-08
W_26	547059.4	5396126	Penn Lake (center)	3.56E-04	5.30E-05	2.95E-05	6.90E-04	1.40E-04	0.00E+00	0.00E+00	0.00E+00	3.71E-01	8.71E-02	6.87E-02	1.10E+02	1.09E+01	1.44E+00	2.56E-07	6.67E-08	5.24E-08	5.40E-04	1.15E-04	8.80E-05	1.18E-02	3.19E-03	2.49E-03	1.65E-07	4.37E-08	3.42E-08
W_27	546991.4	5395773	Penn Lake (south)	3.35E-04	5.00E-05	2.76E-05	6.40E-04	1.30E-04	0.00E+00	0.00E+00	0.00E+00	3.48E-01	8.01E-02	6.22E-02	1.05E+02	1.02E+01	1.33E+00	2.40E-07	6.15E-08	4.84E-08	5.09E-04	1.07E-04	8.00E-05	1.10E-02	2.93E-03	2.30E-03	1.54E-07	4.02E-08	3.16E-08
W_28	544637	5401700	Angler Creek at Model Property Boundary	6.92E-04	1.29E-04	4.93E-05	1.60E-03	2.70E-04	0.00E+00	0.00E+00	0.00E+00	6.68E-01	1.80E-01	1.06E-01	1.18E+02	2.07E+01	2.29E+00	5.93E-07	1.66E-07	9.94E-08	9.59E-04	2.55E-04	1.41E-04	2.76E-02	7.93E-03	4.70E-03	3.83E-07	1.09E-07	6.48E-08
W_29	551284	5407805	Pic River In-Flow to Model Property Boundary	4.07E-04	6.80E-05	3.47E-05	1.47E-03	2.70E-04	0.00E+00	0.00E+00	0.00E+00	8.09E-01	1.85E-01	1.08E-01	1.39E+02	1.79E+01	2.12E+00	6.14E-07	1.61E-07	1.02E-07	1.08E-03	2.41E-04	1.40E-04	2.41E-02	7.10E-03	4.60E-03	3.71E-07	1.02E-07	6.50E-08
W_3	546725.4	5399334	Shack Lake (southwest)	5.94E-04	1.39E-04	7.19E-05	1.66E-03	3.60E-04	0.00E+00	0.00E+00	0.00E+00	7.32E-01	2.11E-01	1.56E-01	1.42E+02	1.90E+01	3.36E+00	6.04E-07	1.83E-07	1.32E-07	1.03E-03	2.92E-04	2.06E-04	2.87E-02	8.60E-03	6.28E-03	3.94E-07	1.19E-07	8.62E-08
W_30	551654	5401167	Pic River Out-Flow from Model Property Bounda	7.88E-04	1.54E-04	7.64E-05	1.32E-03	3.70E-04	0.00E+00	0.00E+00	0.00E+00	6.06E-01	2.88E-01	1.87E-01	1.40E+02	2.14E+01	4.00E+00	4.83E-07	1.99E-07	1.35E-07	8.99E-04	3.82E-04	2.46E-04	2.27E-02	9.50E-03	6.43E-03	3.14E-07	1.31E-07	8.85E-08
W_4	545636.3	5403829	Hare Lake (east)	9.15E-04	1.53E-04	9.11E-05	2.06E-03	3.40E-04	0.00E+00	0.00E+00	0.00E+00	7.69E-01	2.26E-01	1.27E-01	1.30E+02	2.31E+01	3.34E+00	9.46E-07	2.07E-07	1.22E-07	1.07E-03	3.10E-04	1.80E-04	3.26E-02	9.69E-03	5.80E-03	5.44E-07	1.34E-07	7.99E-08
W_5	545048.3	5403557	Hare Lake (south)	8.35E-04	1.12E-04	7.01E-05	1.98E-03	2.90E-04	0.00E+00	0.00E+00	0.00E+00	6.90E-01	1.99E-01	1.09E-01	1.19E+02	1.96E+01	2.72E+00	9.24E-07	1.84E-07	1.05E-07	9.27E-04	2.69E-04	1.52E-04	3.12E-02	8.62E-03	4.96E-03	5.27E-07	1.19E-07	6.84E-08
W_6	543955.3	5403079	Hare Lake (west)	7.00E-04	9.00E-05	4.87E-05	1.70E-03	2.00E-04	0.00E+00	0.00E+00	0.00E+00	5.74E-01	1.47E-01	7.77E-02	1.09E+02	1.64E+01	1.92E+00	8.23E-07	1.33E-07	7.34E-08	8.19E-04	2.03E-04	1.08E-04	2.63E-02	6.22E-03	3.47E-03	4.61E-07	8.62E-08	4.79E-08
W_7	544603.3	5403943	Hare Lake (north)	7.10E-04	1.05E-04	6.47E-05	1.31E-03	2.40E-04	0.00E+00	0.00E+00	0.00E+00	5.79E-01	1.67E-01	9.09E-02	1.08E+02	1.68E+01	2.38E+00	4.87E-07	1.51E-07	8.62E-08	7.90E-04	2.28E-04	1.28E-04	2.24E-02	7.05E-03	4.08E-03	3.14E-07	9.79E-08	5.62E-08
W_8	544830.3	5403751	Hare Lake (center)	6.80E-04	1.03E-04	6.74E-05	1.50E-03	2.60E-04	0.00E+00	0.00E+00	0.00E+00	6.40E-01	1.82E-01	9.91E-02	1.14E+02	1.77E+01	2.54E+00	6.69E-07	1.66E-07	9.45E-08	8.62E-04	2.47E-04	1.39E-04	2.48E-02	7.77E-03	4.48E-03	3.91E-07	1.08E-07	6.17E-08
W_9	549326.3	5406972	Bamoos Lake (east)	5.47E-04	8.80E-05	4.79E-05	4.39E-03	5.00E-04	0.00E+00	0.00E+00	0.00E+00	1.74E+00	4.23E-01	2.34E-01	2.10E+02	2.18E+01	3.79E+00	2.36E-06	2.94E-07	1.91E-07	2.14E-03	5.18E-04	2.93E-04	6.46E-02	1.28E-02	8.54E-03	1.26E-06	1.85E-07	1.22E-07
Maximum of Special Receptors				**1.49E-03**	**2.88E-04**	**1.41E-04**	**5.40E-03**	**1.44E-03**	**0.00E+00**	**0.00E+00**	**0.00E+00**	**3.90E+00**	**1.75E+00**	**1.36E+00**	**2.53E+02**	**6.61E+01**	**2.31E+01**	**2.36E-06**	**6.83E-07**	**5.19E-07**	**4.75E-03**	**2.14E-03**	**1.65E-03**	**9.31E-02**	**3.28E-02**	**2.49E-02**	**1.28E-06**	**4.49E-07**	**3.41E-07**
Max % of Criteria				**0.0%**	-	-	**2.7%**	**3.6%**	**0.0%**	-	-	-	-	-	**63.1%**	**33.1%**	-	**0.0%**	-	-	-	-	-	-	-	-	**0.0%**	-	-

Table E-1 Special Receptor Predictions (ug/m3) - Construction, Projec

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	PM10 (see Note 1)			PM10 (see Note 2)	PM2.5 (See Note 1)			PM2.5 (See Note 2)		POTASSIUM (K)			PROPYLENE			PYRENE			SCANDIUM (SC)			SILICA			SILICON (SI
				24	month	annual	24	24	month	annual	24	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month
				-	-	-	50	-	-	-	27	8.8	1	-	-	4000	-	-	-	-	-	-	-	-	5	-	-	27	-
S_5	547019.4	5395083	Marathon Children and Family Centre	2.53E+00	6.25E-01	4.80E-01	1.49E+00	4.48E-01	1.05E-01	7.67E-02	2.29E-01	3.06E-02	5.82E-03	1.47E-03	1.14E-03	6.26E-03	1.02E-03	5.47E-04	2.84E-05	6.38E-06	4.47E-06	1.34E-05	3.37E-06	2.61E-06	1.14E+00	2.82E-01	2.18E-01	2.38E-06	8.12E-08
S_6	547000.4	5395036	Margaret Twomey Public School	2.51E+00	6.19E-01	4.75E-01	1.47E+00	4.45E-01	1.04E-01	7.60E-02	2.27E-01	3.03E-02	5.78E-03	1.46E-03	1.13E-03	6.22E-03	1.01E-03	5.43E-04	2.81E-05	6.27E-06	4.42E-06	1.33E-05	3.33E-06	2.58E-06	1.14E+00	2.80E-01	2.16E-01	2.33E-06	7.96E-08
W_1	547291.4	5399861	Shack Lake (northeast)	8.10E+00	2.55E+00	1.92E+00	1.82E+00	1.32E+00	4.24E-01	3.13E-01	6.00E-01	1.29E-01	2.01E-02	6.18E-03	4.70E-03	1.58E-02	3.71E-03	1.93E-03	7.30E-05	2.21E-05	1.60E-05	4.58E-05	1.42E-05	1.07E-05	3.74E+00	1.17E+00	8.80E-01	2.09E-05	7.14E-07
W_10	546975.3	5406486	Bamoos Lake (south)	1.22E+01	2.68E+00	1.52E+00	5.95E+00	1.25E+00	3.75E-01	2.23E-01	6.09E-01	8.98E-02	1.99E-02	6.31E-03	3.58E-03	1.49E-02	3.01E-03	1.49E-03	5.35E-05	1.51E-05	9.70E-06	5.73E-05	1.45E-05	8.22E-06	5.75E+00	1.25E+00	7.05E-01	3.53E-06	1.97E-07
W_11	545484.3	5405866	Bamoos Lake (west)	9.63E+00	1.95E+00	1.04E+00	6.80E+00	9.59E-01	2.93E-01	1.68E-01	6.24E-01	7.56E-02	1.38E-02	4.14E-03	2.47E-03	1.63E-02	3.80E-03	1.87E-03	5.48E-05	1.45E-05	8.42E-06	4.06E-05	1.01E-05	5.67E-06	4.54E+00	8.97E-01	4.80E-01	2.16E-06	7.72E-08
W_12	546576.3	5407157	Bamoos Lake (north)	1.13E+01	2.02E+00	1.12E+00	7.10E+00	1.12E+00	3.04E-01	1.76E-01	6.58E-01	7.89E-02	1.49E-02	4.76E-03	2.65E-03	1.30E-02	2.63E-03	1.24E-03	5.05E-05	1.39E-05	8.33E-06	4.97E-05	1.10E-05	6.10E-06	5.33E+00	9.40E-01	5.21E-01	1.18E-06	6.91E-08
W_13	546777.3	5406831	Bamoos Lake (center)	1.18E+01	2.29E+00	1.27E+00	7.21E+00	1.19E+00	3.44E-01	1.97E-01	6.82E-01	8.75E-02	1.72E-02	5.41E-03	2.99E-03	1.38E-02	2.86E-03	1.37E-03	5.26E-05	1.54E-05	9.25E-06	5.25E-05	1.25E-05	6.89E-06	5.57E+00	1.07E+00	5.88E-01	1.65E-06	9.28E-08
W_14	554944.3	5408229	Page Lake (south)	8.33E+00	1.35E+00	7.15E-01	7.05E+00	7.88E-01	2.07E-01	1.06E-01	4.68E-01	4.38E-02	1.16E-02	3.11E-03	1.65E-03	5.31E-03	9.83E-04	5.09E-04	3.89E-05	9.88E-06	4.81E-06	3.22E-05	7.28E-06	3.88E-06	3.97E+00	6.27E-01	3.33E-01	0.00E+00	0.00E+00
W_15	555054.3	5408904	Page Lake (center)	4.25E+00	1.03E+00	5.72E-01	3.57E+00	5.51E-01	1.57E-01	8.43E-02	2.77E-01	3.48E-02	7.85E-03	2.35E-03	1.32E-03	4.76E-03	7.25E-04	4.27E-04	2.92E-05	7.54E-06	3.86E-06	1.81E-05	5.52E-06	3.10E-06	2.02E+00	4.79E-01	2.66E-01	0.00E+00	0.00E+00
W_16	555065.3	5409498	Page Lake (north)	3.71E+00	8.16E-01	4.75E-01	2.32E+00	3.68E-01	1.22E-01	6.97E-02	2.09E-01	2.82E-02	5.10E-03	1.92E-03	1.10E-03	4.37E-03	6.45E-04	3.82E-04	2.08E-05	5.64E-06	3.16E-06	1.65E-05	4.44E-06	2.58E-06	1.75E+00	3.79E-01	2.21E-01	0.00E+00	0.00E+00
W_17	556593.4	5402127	Peacock Lake (east)	3.52E+00	1.07E+00	5.31E-01	1.59E+00	5.83E-01	1.74E-01	8.44E-02	4.27E-01	3.56E-02	8.12E-03	2.55E-03	1.26E-03	1.41E-02	1.62E-03	7.49E-04	3.54E-05	9.56E-06	4.46E-06	1.85E-05	5.82E-06	2.89E-06	1.62E+00	4.92E-01	2.44E-01	4.07E-07	1.33E-08
W_18	556043.4	5401267	Peacock Lake (south)	5.84E+00	1.05E+00	5.28E-01	4.33E+00	6.42E-01	1.75E-01	8.41E-02	4.29E-01	3.54E-02	8.06E-03	2.45E-03	1.25E-03	1.47E-02	2.15E-03	7.54E-04	3.89E-05	9.95E-06	4.58E-06	2.40E-05	5.60E-06	2.87E-06	2.76E+00	4.76E-01	2.42E-01	1.50E-07	4.88E-09
W_19	556277.4	5402069	Peacock Lake (west)	3.42E+00	1.11E+00	5.55E-01	1.59E+00	5.97E-01	1.79E-01	8.83E-02	4.27E-01	3.74E-02	7.88E-03	2.65E-03	1.32E-03	1.39E-02	1.65E-03	7.83E-04	3.62E-05	9.83E-06	4.70E-06	1.80E-05	6.05E-06	3.02E-06	1.57E+00	5.11E-01	2.55E-01	4.10E-07	1.34E-08
W_2	547105.4	5399507	Shack Lake (center)	7.04E+00	2.19E+00	1.63E+00	1.67E+00	1.18E+00	3.66E-01	2.67E-01	5.52E-01	1.09E-01	1.73E-02	5.29E-03	3.97E-03	1.44E-02	3.13E-03	1.67E-03	6.72E-05	1.94E-05	1.42E-05	3.95E-05	1.21E-05	9.06E-06	3.23E+00	1.00E+00	7.43E-01	1.58E-05	5.38E-07
W_20	556444.4	5402420	Peacock Lake (north)	4.15E+00	1.16E+00	5.71E-01	1.59E+00	6.70E-01	1.90E-01	9.03E-02	4.28E-01	3.78E-02	9.64E-03	2.76E-03	1.36E-03	1.46E-02	1.83E-03	7.99E-04	3.44E-05	1.03E-05	4.72E-06	2.20E-05	6.30E-06	3.11E-06	1.91E+00	5.33E-01	2.63E-01	5.34E-07	1.74E-08
W_21	556424.4	5402100	Peacock Lake (center)	3.45E+00	1.09E+00	5.46E-01	1.58E+00	5.88E-01	1.77E-01	8.68E-02	4.26E-01	3.67E-02	7.94E-03	2.60E-03	1.30E-03	1.41E-02	1.64E-03	7.69E-04	3.58E-05	9.71E-06	4.60E-06	1.81E-05	5.93E-06	2.97E-06	1.58E+00	5.01E-01	2.51E-01	4.10E-07	1.34E-08
W_22	550202.4	5397449	Three Finger Lake (north)	9.72E+00	1.08E+00	7.09E-01	6.22E+00	1.12E+00	1.75E-01	1.13E-01	6.89E-01	4.38E-02	1.48E-02	2.55E-03	1.68E-03	1.42E-02	1.63E-03	9.01E-04	6.69E-05	1.03E-05	6.69E-06	4.29E-05	5.82E-06	3.85E-06	4.54E+00	4.91E-01	3.23E-01	2.02E-06	6.59E-08
W_23	550175.4	5396992	Three Finger Lake (center)	8.92E+00	9.60E-01	6.25E-01	5.76E+00	1.02E+00	1.55E-01	9.96E-02	6.37E-01	3.90E-02	1.34E-02	2.25E-03	1.48E-03	1.40E-02	1.48E-03	8.10E-04	6.13E-05	8.98E-06	5.79E-06	3.92E-05	5.16E-06	3.39E-06	4.16E+00	4.39E-01	2.85E-01	1.85E-06	6.04E-08
W_24	549830.4	5396526	Three Finger Lake (south)	5.58E+00	9.16E-01	5.67E-01	2.48E+00	8.53E-01	1.48E-01	9.00E-02	4.61E-01	3.43E-02	1.10E-02	2.14E-03	1.35E-03	1.45E-02	1.38E-03	6.89E-04	5.23E-05	8.56E-06	5.20E-06	2.72E-05	4.92E-06	3.10E-06	2.58E+00	4.18E-01	2.59E-01	1.71E-06	5.59E-08
W_25	546947.4	5396628	Penn Lake (north)	3.15E+00	8.59E-01	6.84E-01	9.57E-01	5.53E-01	1.42E-01	1.13E-01	2.84E-01	4.41E-02	7.24E-03	2.02E-03	1.58E-03	9.47E-03	1.18E-03	6.95E-04	4.22E-05	1.20E-05	8.59E-06	1.66E-05	4.61E-06	3.61E-06	1.41E+00	3.82E-01	3.01E-01	3.58E-06	1.22E-07
W_26	547059.4	5396126	Penn Lake (center)	2.92E+00	7.60E-01	6.01E-01	1.17E+00	5.09E-01	1.26E-01	9.76E-02	2.49E-01	3.84E-02	6.68E-03	1.81E-03	1.41E-03	7.65E-03	1.14E-03	6.33E-04	3.43E-05	8.76E-06	6.56E-06	1.53E-05	4.12E-06	3.22E-06	1.31E+00	3.41E-01	2.69E-01	3.28E-06	1.12E-07
W_27	546991.4	5395773	Penn Lake (south)	2.73E+00	6.99E-01	5.52E-01	1.16E+00	4.79E-01	1.16E-01	8.92E-02	2.38E-01	3.54E-02	6.25E-03	1.67E-03	1.30E-03	7.18E-03	1.07E-03	5.92E-04	3.11E-05	7.69E-06	5.74E-06	1.43E-05	3.80E-06	2.98E-06	1.23E+00	3.15E-01	2.48E-01	2.85E-06	9.74E-08
W_28	544637	5401700	Angler Creek at Model Property Boundary	6.46E+00	1.82E+00	1.08E+00	3.34E+00	1.10E+00	3.02E-01	1.73E-01	5.08E-01	7.22E-02	1.57E-02	4.50E-03	2.66E-03	1.49E-02	2.77E-03	1.06E-03	5.71E-05	1.47E-05	7.92E-06	3.57E-05	1.03E-05	6.09E-06	2.99E+00	8.38E-01	5.00E-01	1.20E-05	4.33E-07
W_29	551284	5407805	Pic River In-Flow to Model Property Boundary	6.43E+00	1.73E+00	1.10E+00	2.61E+00	9.64E-01	2.63E-01	1.63E-01	5.35E-01	6.67E-02	1.23E-02	3.94E-03	2.57E-03	8.73E-03	1.45E-03	7.44E-04	5.78E-05	1.29E-05	7.42E-06	3.22E-05	9.30E-06	6.00E-06	2.98E+00	8.02E-01	5.11E-01	2.90E-09	9.44E-11
W_3	546725.4	5399334	Shack Lake (southwest)	6.70E+00	2.02E+00	1.46E+00	1.46E+00	1.12E+00	3.36E-01	2.40E-01	5.19E-01	9.96E-02	1.63E-02	4.85E-03	3.56E-03	1.28E-02	2.99E-03	1.54E-03	6.01E-05	1.78E-05	1.27E-05	3.72E-05	1.12E-05	8.13E-06	3.06E+00	9.25E-01	6.67E-01	2.80E-05	9.09E-07
W_30	551654	5401167	Pic River Out-Flow from Model Property Boundar	5.19E+00	2.25E+00	1.53E+00	2.40E+00	8.57E-01	3.62E-01	2.42E-01	4.47E-01	9.49E-02	1.29E-02	5.40E-03	3.64E-03	1.69E-02	3.31E-03	1.64E-03	5.62E-05	2.16E-05	1.38E-05	2.94E-05	1.23E-05	8.33E-06	2.42E+00	1.03E+00	7.01E-01	3.00E-07	1.06E-08
W_4	545636.3	5403829	Hare Lake (east)	9.83E+00	2.28E+00	1.35E+00	5.79E+00	1.18E+00	3.61E-01	2.16E-01	7.11E-01	9.21E-02	1.69E-02	5.48E-03	3.28E-03	1.96E-02	3.29E-03	1.96E-03	5.90E-05	1.73E-05	1.03E-05	4.47E-05	1.26E-05	7.52E-06	4.58E+00	1.05E+00	6.23E-01	1.46E-06	5.20E-08
W_5	545048.3	5403557	Hare Lake (south)	9.50E+00	2.01E+00	1.15E+00	5.73E+00	1.09E+00	3.19E-01	1.84E-01	6.53E-01	7.73E-02	1.56E-02	4.88E-03	2.81E-03	1.79E-02	2.40E-03	1.51E-03	5.43E-05	1.48E-05	8.63E-06	4.29E-05	1.12E-05	6.44E-06	4.44E+00	9.31E-01	5.31E-01	5.50E-08	1.97E-09
W_6	543955.3	5403079	Hare Lake (west)	8.36E+00	1.46E+00	8.07E-01	5.47E+00	8.97E-01	2.36E-01	1.29E-01	5.53E-01	5.47E-02	1.29E-02	3.52E-03	1.97E-03	1.50E-02	1.93E-03	1.05E-03	4.64E-05	1.15E-05	6.18E-06	3.67E-05	8.08E-06	4.51E-06	3.92E+00	6.73E-01	3.72E-01	6.12E-08	2.20E-09
W_7	544603.3	5403943	Hare Lake (north)	5.36E+00	1.66E+00	9.50E-01	1.59E+00	8.55E-01	2.64E-01	1.53E-01	3.86E-01	6.53E-02	1.27E-02	3.99E-03	2.31E-03	1.52E-02	2.25E-03	1.39E-03	4.34E-05	1.27E-05	7.38E-06	2.91E-05	9.16E-06	5.29E-06	2.47E+00	7.65E-01	4.38E-01	3.10E-08	1.11E-09
W_8	544830.3	5403751	Hare Lake (center)	7.00E+00	1.82E+00	1.04E+00	3.74E+00	9.39E-01	2.89E-01	1.67E-01	4.99E-01	7.08E-02	1.41E-02	4.40E-03	2.53E-03	1.46E-02	2.22E-03	1.45E-03	4.82E-05	1.37E-05	7.96E-06	3.28E-05	1.01E-05	5.80E-06	3.25E+00	8.42E-01	4.80E-01	4.05E-08	1.45E-09
W_9	549326.3	5406972	Bamoos Lake (east)	2.32E+01	3.06E+00	2.04E+00	1.85E+01	1.92E+00	4.91E-01	3.13E-01	1.38E+00	1.36E-01	2.82E-02	7.29E-03	4.82E-03	1.17E-02	1.90E-03	1.03E-03	1.08E-04	2.60E-05	1.51E-05	9.32E-05	1.68E-05	1.12E-05	1.10E+01	1.42E+00	9.50E-01	1.77E-07	6.78E-09
Maximum of Special Receptors				**2.32E+01**	**7.77E+00**	**5.91E+00**	**1.85E+01**	**3.54E+00**	**1.20E+00**	**9.13E-01**	**1.61E+00**	**4.59E-01**	**5.29E-02**	**1.86E-02**	**1.41E-02**	**3.20E-02**	**6.18E-03**	**3.02E-03**	**3.67E-04**	**1.64E-04**	**1.15E-04**	**1.21E-04**	**4.24E-05**	**3.22E-05**	**1.10E+01**	**3.52E+00**	**2.67E+00**	**4.41E-04**	**1.43E-05**
Max % of Criteria				-	-	-	**37.0%**	-	-	-	**6.0%**	**5.2%**	**5.3%**	-	-	**0.0%**	-	-	-	-	-	-	-	-	**220.7%**	-	-	**0.0%**	-

Table E-1 Special Receptor Predictions (ug/m3) - Construction, Projec

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description		SILVER (AG)			SO2				SODIUM (NA)			SODIUM CARBOXYMETHYL CELLULOSE			STRONTIUM (SR)			THALLIUM (TL)			TITANIUM (TI)			TOC		
				annual	24	month	annual	1	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual
				-	1	-	-	100	-	-	10	-	-	-	120	-	-	120	-	-	0.5	-	-	120	-	-	-	-	-	-	-	-
S_5	547019.4	5395083	Marathon Children and Family Centre	4.53E-09	1.78E-06	4.42E-07	3.42E-07	2.90E+00	1.24E-01	6.49E-03	2.20E-03	1.07E-02	2.67E-03	2.07E-03	0.00E+00	0.00E+00	0.00E+00	6.52E-04	1.64E-04	1.27E-04	7.70E-05	1.93E-05	1.49E-05	6.84E-03	1.75E-03	1.35E-03	3.35E-03	7.04E-04	5.03E-04
S_6	547000.4	5395036	Margaret Twomey Public School	4.49E-09	1.77E-06	4.38E-07	3.38E-07	2.87E+00	1.22E-01	6.42E-03	2.18E-03	1.06E-02	2.64E-03	2.05E-03	0.00E+00	0.00E+00	0.00E+00	6.48E-04	1.62E-04	1.26E-04	7.60E-05	1.91E-05	1.48E-05	6.79E-03	1.73E-03	1.34E-03	3.31E-03	6.96E-04	4.98E-04
W_1	547291.4	5399861	Shack Lake (northeast)	4.41E-08	5.98E-06	1.86E-06	1.40E-06	1.08E+00	5.96E-02	1.24E-02	7.80E-03	3.62E-02	1.12E-02	8.50E-03	0.00E+00	0.00E+00	0.00E+00	2.23E-03	6.90E-04	5.23E-04	2.62E-04	8.12E-05	6.15E-05	2.38E-02	7.34E-03	5.59E-03	1.32E-02	3.06E-03	2.14E-03
W_10	546975.3	5406486	Bamoos Lake (south)	4.34E-09	8.47E-06	1.91E-06	1.09E-06	1.10E+01	4.74E-01	2.21E-02	5.71E-03	4.79E-02	1.15E-02	6.54E-03	0.00E+00	0.00E+00	0.00E+00	2.83E-03	7.07E-04	4.01E-04	3.34E-04	8.32E-05	4.72E-05	2.66E-02	7.48E-03	4.24E-03	8.66E-03	1.88E-03	1.07E-03
W_11	545484.3	5405866	Bamoos Lake (west)	1.86E-09	6.50E-06	1.37E-06	7.48E-07	1.35E+01	5.74E-01	2.66E-02	4.95E-03	3.52E-02	8.12E-03	4.51E-03	0.00E+00	0.00E+00	0.00E+00	2.03E-03	4.95E-04	2.77E-04	2.40E-04	5.82E-05	3.25E-05	1.73E-02	5.11E-03	2.93E-03	1.06E-02	2.39E-03	1.17E-03
W_12	546576.3	5407157	Bamoos Lake (north)	1.97E-09	7.76E-06	1.46E-06	8.11E-07	1.37E+01	5.88E-01	2.62E-02	5.13E-03	4.26E-02	8.77E-03	4.86E-03	0.00E+00	0.00E+00	0.00E+00	2.48E-03	5.36E-04	2.98E-04	2.92E-04	6.31E-05	3.50E-05	2.17E-02	5.62E-03	3.13E-03	5.72E-03	1.33E-03	7.69E-04
W_13	546777.3	5406831	Bamoos Lake (center)	2.42E-09	8.13E-06	1.66E-06	9.15E-07	1.38E+01	5.92E-01	2.68E-02	5.56E-03	4.49E-02	9.95E-03	5.49E-03	0.00E+00	0.00E+00	0.00E+00	2.62E-03	6.09E-04	3.36E-04	3.08E-04	7.17E-05	3.95E-05	2.32E-02	6.40E-03	3.54E-03	6.29E-03	1.47E-03	8.63E-04
W_14	554944.3	5408229	Page Lake (south)	0.00E+00	5.56E-06	9.80E-07	5.19E-07	1.55E+01	6.49E-01	2.57E-02	5.00E-03	2.90E-02	5.84E-03	3.10E-03	0.00E+00	0.00E+00	0.00E+00	1.63E-03	3.56E-04	1.89E-04	1.92E-04	4.19E-05	2.23E-05	1.36E-02	3.69E-03	1.98E-03	2.54E-03	7.84E-04	4.17E-04
W_15	555054.3	5408904	Page Lake (center)	0.00E+00	2.84E-06	7.46E-07	4.15E-07	7.77E+00	3.26E-01	1.63E-02	4.09E-03	1.48E-02	4.43E-03	2.48E-03	0.00E+00	0.00E+00	0.00E+00	8.89E-04	2.70E-04	1.51E-04	1.05E-04	3.18E-05	1.78E-05	9.11E-03	2.79E-03	1.58E-03	1.78E-03	6.39E-04	3.47E-04
W_16	555065.3	5409498	Page Lake (north)	0.00E+00	2.56E-06	5.91E-07	3.44E-07	4.90E+00	2.07E-01	9.69E-03	3.32E-03	1.41E-02	3.54E-03	2.06E-03	0.00E+00	0.00E+00	0.00E+00	8.23E-04	2.17E-04	1.26E-04	9.70E-05	2.55E-05	1.48E-05	7.28E-03	2.27E-03	1.32E-03	1.74E-03	5.32E-04	3.04E-04
W_17	556593.4	5402127	Peacock Lake (east)	2.29E-10	2.43E-06	7.66E-07	3.80E-07	1.04E+00	4.50E-02	4.51E-03	2.37E-03	1.47E-02	4.62E-03	2.29E-03	0.00E+00	0.00E+00	0.00E+00	9.03E-04	2.84E-04	1.41E-04	1.06E-04	3.34E-05	1.66E-05	9.62E-03	3.01E-03	1.50E-03	5.20E-03	1.15E-03	5.81E-04
W_18	556043.4	5401267	Peacock Lake (south)	8.69E-11	3.95E-06	7.33E-07	3.78E-07	9.25E+00	3.91E-01	1.58E-02	2.82E-03	2.11E-02	4.43E-03	2.28E-03	0.00E+00	0.00E+00	0.00E+00	1.21E-03	2.73E-04	1.40E-04	1.42E-04	3.21E-05	1.65E-05	9.84E-03	2.91E-03	1.48E-03	6.19E-03	1.24E-03	5.91E-04
W_19	556277.4	5402069	Peacock Lake (west)	2.31E-10	2.35E-06	7.95E-07	3.97E-07	1.78E+00	8.32E-02	5.75E-03	2.53E-03	1.42E-02	4.80E-03	2.40E-03	0.00E+00	0.00E+00	0.00E+00	8.75E-04	2.95E-04	1.47E-04	1.03E-04	3.47E-05	1.73E-05	9.34E-03	3.13E-03	1.57E-03	5.40E-03	1.23E-03	6.17E-04
W_2	547105.4	5399507	Shack Lake (center)	3.49E-08	5.16E-06	1.59E-06	1.18E-06	1.01E+00	5.10E-02	1.08E-02	6.71E-03	3.13E-02	9.63E-03	7.17E-03	0.00E+00	0.00E+00	0.00E+00	1.92E-03	5.92E-04	4.41E-04	2.26E-04	6.96E-05	5.19E-05	2.06E-02	6.29E-03	4.71E-03	1.11E-02	2.54E-03	1.79E-03
W_20	556444.4	5402420	Peacock Lake (north)	3.00E-10	2.88E-06	8.29E-07	4.09E-07	1.74E+00	7.43E-02	4.89E-03	2.52E-03	1.74E-02	5.00E-03	2.47E-03	0.00E+00	0.00E+00	0.00E+00	1.07E-03	3.07E-04	1.52E-04	1.26E-04	3.61E-05	1.78E-05	1.14E-02	3.26E-03	1.61E-03	5.22E-03	1.23E-03	6.15E-04
W_21	556424.4	5402100	Peacock Lake (center)	2.31E-10	2.37E-06	7.80E-07	3.90E-07	1.03E+00	5.11E-02	4.61E-03	2.45E-03	1.43E-02	4.71E-03	2.36E-03	0.00E+00	0.00E+00	0.00E+00	8.82E-04	2.89E-04	1.45E-04	1.04E-04	3.40E-05	1.70E-05	9.41E-03	3.07E-03	1.54E-03	5.30E-03	1.19E-03	5.99E-04
W_22	550202.4	5397449	Three Finger Lake (north)	1.77E-09	6.52E-06	7.63E-07	5.03E-07	1.07E+01	4.66E-01	1.74E-02	3.50E-03	3.63E-02	4.61E-03	3.05E-03	0.00E+00	0.00E+00	0.00E+00	2.13E-03	2.84E-04	1.87E-04	2.51E-04	3.33E-05	2.20E-05	1.93E-02	3.02E-03	2.00E-03	5.68E-03	1.16E-03	7.49E-04
W_23	550175.4	5396992	Three Finger Lake (center)	1.83E-09	5.98E-06	6.79E-07	4.44E-07	9.98E+00	4.34E-01	1.61E-02	3.06E-03	3.32E-02	4.09E-03	2.69E-03	0.00E+00	0.00E+00	0.00E+00	1.95E-03	2.51E-04	1.65E-04	2.29E-04	2.95E-05	1.94E-05	1.76E-02	2.68E-03	1.76E-03	5.58E-03	1.09E-03	6.80E-04
W_24	549830.4	5396526	Three Finger Lake (south)	2.18E-09	3.83E-06	6.48E-07	4.05E-07	3.30E+00	1.53E-01	6.75E-03	2.66E-03	2.23E-02	3.91E-03	2.45E-03	0.00E+00	0.00E+00	0.00E+00	1.34E-03	2.40E-04	1.51E-04	1.58E-04	2.82E-05	1.77E-05	1.33E-02	2.54E-03	1.61E-03	6.27E-03	1.10E-03	6.58E-04
W_25	546947.4	5396628	Penn Lake (north)	7.49E-09	2.19E-06	6.02E-07	4.73E-07	1.14E+00	5.61E-02	4.96E-03	3.09E-03	1.32E-02	3.65E-03	2.86E-03	0.00E+00	0.00E+00	0.00E+00	8.08E-04	2.25E-04	1.76E-04	9.50E-05	2.64E-05	2.07E-05	8.55E-03	2.40E-03	1.88E-03	4.13E-03	8.95E-04	6.76E-04
W_26	547059.4	5396126	Penn Lake (center)	6.21E-09	2.03E-06	5.39E-07	4.22E-07	1.59E+00	7.55E-02	5.05E-03	2.71E-03	1.22E-02	3.26E-03	2.55E-03	0.00E+00	0.00E+00	0.00E+00	7.48E-04	2.01E-04	1.57E-04	8.80E-05	2.36E-05	1.85E-05	7.86E-03	2.15E-03	1.67E-03	3.71E-03	8.20E-04	6.05E-04
W_27	546991.4	5395773	Penn Lake (south)	5.59E-09	1.91E-06	4.96E-07	3.90E-07	1.65E+00	7.65E-02	4.88E-03	2.49E-03	1.14E-02	3.01E-03	2.36E-03	0.00E+00	0.00E+00	0.00E+00	7.00E-04	1.85E-04	1.45E-04	8.20E-05	2.18E-05	1.71E-05	7.35E-03	1.98E-03	1.55E-03	3.47E-03	7.60E-04	5.59E-04
W_28	544637	5401700	Angler Creek at Model Property Boundary	1.37E-08	4.73E-06	1.34E-06	8.00E-07	6.86E+00	2.91E-01	1.29E-02	4.60E-03	2.84E-02	8.13E-03	4.83E-03	0.00E+00	0.00E+00	0.00E+00	1.74E-03	5.00E-04	2.97E-04	2.05E-04	5.88E-05	3.49E-05	1.86E-02	5.34E-03	3.16E-03	9.01E-03	2.02E-03	1.00E-03
W_29	551284	5407805	Pic River In-Flow to Model Property Boundary	2.57E-12	4.60E-06	1.26E-06	8.03E-07	4.77E+00	2.06E-01	1.88E-02	6.93E-03	2.65E-02	7.47E-03	4.80E-03	0.00E+00	0.00E+00	0.00E+00	1.59E-03	4.55E-04	2.93E-04	1.87E-04	5.35E-05	3.45E-05	1.55E-02	4.70E-03	3.06E-03	3.07E-03	8.25E-04	5.31E-04
W_3	546725.4	5399334	Shack Lake (southwest)	3.71E-08	4.87E-06	1.47E-06	1.06E-06	1.71E+00	9.77E-02	1.10E-02	6.00E-03	2.94E-02	8.86E-03	6.44E-03	0.00E+00	0.00E+00	0.00E+00	1.81E-03	5.44E-04	3.96E-04	2.13E-04	6.40E-05	4.66E-05	1.93E-02	5.78E-03	4.23E-03	1.09E-02	2.33E-03	1.59E-03
W_30	551654	5401167	Pic River Out-Flow from Model Property Bounda	3.13E-10	3.88E-06	1.61E-06	1.09E-06	3.83E+00	1.74E-01	1.24E-02	7.34E-03	2.34E-02	9.75E-03	6.60E-03	0.00E+00	0.00E+00	0.00E+00	1.44E-03	6.00E-04	4.06E-04	1.69E-04	7.05E-05	4.78E-05	1.52E-02	6.40E-03	4.33E-03	7.83E-03	2.26E-03	1.42E-03
W_4	545636.3	5403829	Hare Lake (east)	1.12E-09	6.77E-06	1.66E-06	9.86E-07	1.06E+01	4.64E-01	2.49E-02	5.80E-03	3.78E-02	1.00E-02	5.96E-03	0.00E+00	0.00E+00	0.00E+00	2.22E-03	6.13E-04	3.66E-04	2.61E-04	7.22E-05	4.31E-05	2.02E-02	6.50E-03	3.90E-03	1.06E-02	2.92E-03	1.62E-03
W_5	545048.3	5403557	Hare Lake (south)	3.85E-11	6.56E-06	1.47E-06	8.44E-07	1.08E+01	4.73E-01	2.45E-02	4.90E-03	3.65E-02	8.89E-03	5.10E-03	0.00E+00	0.00E+00	0.00E+00	2.13E-03	5.46E-04	3.14E-04	2.51E-04	6.42E-05	3.69E-05	1.92E-02	5.79E-03	3.34E-03	9.03E-03	1.96E-03	1.26E-03
W_6	543955.3	5403079	Hare Lake (west)	5.40E-11	5.75E-06	1.06E-06	5.91E-07	1.09E+01	4.68E-01	2.23E-02	3.58E-03	3.15E-02	6.42E-03	3.57E-03	0.00E+00	0.00E+00	0.00E+00	1.83E-03	3.94E-04	2.20E-04	2.15E-04	4.63E-05	2.58E-05	1.60E-02	4.17E-03	2.34E-03	7.78E-03	1.46E-03	8.51E-04
W_7	544603.3	5403943	Hare Lake (north)	2.32E-11	3.87E-06	1.21E-06	6.93E-07	1.92E+00	9.67E-02	9.53E-03	4.03E-03	2.32E-02	7.28E-03	4.19E-03	0.00E+00	0.00E+00	0.00E+00	1.42E-03	4.47E-04	2.58E-04	1.67E-04	5.26E-05	3.03E-05	1.49E-02	4.73E-03	2.74E-03	7.84E-03	1.80E-03	1.06E-03
W_8	544830.3	5403751	Hare Lake (center)	2.82E-11	4.86E-06	1.33E-06	7.61E-07	6.61E+00	2.94E-01	1.77E-02	4.45E-03	2.75E-02	8.03E-03	4.60E-03	0.00E+00	0.00E+00	0.00E+00	1.62E-03	4.92E-04	2.83E-04	1.91E-04	5.79E-05	3.33E-05	1.65E-02	5.21E-03	3.01E-03	8.42E-03	1.88E-03	1.16E-03
W_9	549326.3	5406972	Bamoos Lake (east)	2.78E-10	1.57E-05	2.29E-06	1.50E-06	2.97E+01	1.67E+00	5.30E-02	9.94E-03	8.29E-02	1.36E-02	8.96E-03	0.00E+00	0.00E+00	0.00E+00	4.70E-03	8.25E-04	5.47E-04	5.54E-04	9.71E-05	6.43E-05	3.70E-02	8.47E-03	5.67E-03	7.17E-03	1.28E-03	8.88E-04
Maximum of Special Receptors				**4.64E-07**	**1.58E-05**	**5.52E-06**	**4.20E-06**	**2.97E+01**	**1.67E+00**	**5.54E-02**	**4.19E-02**	**9.54E-02**	**3.35E-02**	**2.55E-02**	**0.00E+00**	**0.00E+00**	**0.00E+00**	**5.87E-03**	**2.07E-03**	**1.57E-03**	**6.91E-04**	**2.42E-04**	**1.84E-04**	**6.27E-02**	**2.21E-02**	**1.68E-02**	**3.15E-02**	**6.90E-03**	**4.18E-03**
Max % of Criteria				**-**	**0.0%**	**-**	**-**	**29.7%**	**-**	**-**	**0.4%**	**-**	**-**	**-**	**0.0%**	**-**	**-**	**0.0%**	**-**	**-**	**0.1%**	**-**	**-**	**0.1%**	**-**	**-**	**-**	**-**	**-**

Table E-1 Special Receptor Predictions (ug/m3) - Construction, Projec

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	TOC (METHANE)			TOLUENE			TSP (See Note 1)			TSP (See Note 2)		TUNGSTEN (W)			URANIUM (U)			VANADIUM (V)			XYLENES				ZINC (ZN)	
				24	month	annual	24	month	annual	24	month	annual	24	annual	24	month	annual	24	month	annual	24	month	annual	10-Min	24	month	annual	24	month
				37330	-	-	2000	-	-	-	-	-	120	60	5	-	-	0.15	-	0.03	2	-	-	3000	730	-	-	120	-
S_5	547019.4	5395083	Marathon Children and Family Centre	2.11E-01	3.45E-02	1.85E-02	6.31E-04	1.03E-04	5.50E-05	7.76E+00	1.98E+00	1.53E+00	3.02E+00	2.80E-01	4.36E-04	1.11E-04	8.60E-05	7.70E-05	1.95E-05	1.51E-05	1.24E-03	3.14E-04	2.43E-04	8.35E-03	4.33E-04	7.10E-05	3.78E-05	4.14E-04	1.04E-04
S_6	547000.4	5395036	Margaret Twomey Public School	2.10E-01	3.42E-02	1.83E-02	6.27E-04	1.02E-04	5.50E-05	7.70E+00	1.96E+00	1.51E+00	2.99E+00	2.77E-01	4.33E-04	1.09E-04	8.50E-05	7.70E-05	1.93E-05	1.50E-05	1.23E-03	3.11E-04	2.41E-04	8.32E-03	4.30E-04	7.00E-05	3.75E-05	4.12E-04	1.03E-04
W_1	547291.4	5399861	Shack Lake (northeast)	5.34E-01	1.25E-01	6.53E-02	1.59E-03	3.74E-04	1.95E-04	2.64E+01	8.19E+00	6.24E+00	4.98E+00	1.20E+00	1.51E-03	4.65E-04	3.53E-04	2.66E-04	8.22E-05	6.23E-05	4.28E-03	1.32E-03	1.00E-03	1.41E-02	1.09E-03	2.57E-04	1.34E-04	1.42E-03	4.39E-04
W_10	546975.3	5406486	Bamoos Lake (south)	5.03E-01	1.01E-01	5.03E-02	1.50E-03	3.03E-04	1.50E-04	3.23E+01	8.28E+00	4.70E+00	1.19E+01	8.41E-01	1.78E-03	4.75E-04	2.69E-04	3.29E-04	8.41E-05	4.77E-05	5.07E-03	1.35E-03	7.66E-04	1.31E-02	1.03E-03	2.08E-04	1.03E-04	1.79E-03	4.50E-04
W_11	545484.3	5405866	Bamoos Lake (west)	5.50E-01	1.28E-01	6.32E-02	1.64E-03	3.82E-04	1.89E-04	2.28E+01	5.79E+00	3.26E+00	1.34E+01	6.32E-01	1.22E-03	3.28E-04	1.86E-04	2.31E-04	5.85E-05	3.29E-05	3.45E-03	9.32E-04	5.28E-04	1.22E-02	1.13E-03	2.63E-04	1.30E-04	1.28E-03	3.14E-04
W_12	546576.3	5407157	Bamoos Lake (north)	4.39E-01	8.86E-02	4.17E-02	1.31E-03	2.64E-04	1.25E-04	2.79E+01	6.28E+00	3.49E+00	1.41E+01	7.00E-01	1.50E-03	3.59E-04	1.99E-04	2.83E-04	6.37E-05	3.53E-05	4.27E-03	1.02E-03	5.66E-04	1.10E-02	9.00E-04	1.82E-04	8.55E-05	1.56E-03	3.41E-04
W_13	546777.3	5406831	Bamoos Lake (center)	4.65E-01	9.64E-02	4.62E-02	1.39E-03	2.88E-04	1.38E-04	2.95E+01	7.13E+00	3.94E+00	1.44E+01	7.79E-01	1.60E-03	4.08E-04	2.25E-04	3.00E-04	7.23E-05	3.99E-05	4.54E-03	1.16E-03	6.40E-04	1.16E-02	9.54E-04	1.98E-04	9.47E-05	1.65E-03	3.87E-04
W_14	554944.3	5408229	Page Lake (south)	1.79E-01	3.32E-02	1.72E-02	5.35E-04	9.90E-05	5.10E-05	1.79E+01	4.16E+00	2.22E+00	1.35E+01	4.28E-01	9.21E-04	2.36E-04	1.26E-04	1.82E-04	4.21E-05	2.25E-05	2.62E-03	6.72E-04	3.59E-04	5.60E-03	3.67E-04	6.80E-05	3.52E-05	1.03E-03	2.26E-04
W_15	555054.3	5408904	Page Lake (center)	1.61E-01	2.45E-02	1.44E-02	4.79E-04	7.30E-05	4.30E-05	1.04E+01	3.15E+00	1.77E+00	6.84E+00	3.43E-01	5.87E-04	1.79E-04	1.01E-04	1.05E-04	3.20E-05	1.79E-05	1.67E-03	5.09E-04	2.87E-04	5.02E-03	3.29E-04	5.00E-05	2.96E-05	5.64E-04	1.72E-04
W_16	555065.3	5409498	Page Lake (north)	1.48E-01	2.18E-02	1.29E-02	4.40E-04	6.50E-05	3.90E-05	9.29E+00	2.54E+00	1.47E+00	4.63E+00	2.80E-01	5.02E-04	1.45E-04	8.40E-05	9.40E-05	2.57E-05	1.49E-05	1.43E-03	4.12E-04	2.39E-04	4.61E-03	3.02E-04	4.50E-05	2.65E-05	5.20E-04	1.38E-04
W_17	556593.4	5402127	Peacock Lake (east)	4.75E-01	5.46E-02	2.53E-02	1.42E-03	1.63E-04	7.50E-05	1.06E+01	3.35E+00	1.67E+00	4.08E+00	3.21E-01	6.09E-04	1.91E-04	9.50E-05	1.08E-04	3.38E-05	1.68E-05	1.73E-03	5.43E-04	2.70E-04	1.08E-02	9.74E-04	1.12E-04	5.18E-05	5.74E-04	1.80E-04
W_18	556043.4	5401267	Peacock Lake (south)	4.95E-01	7.26E-02	2.55E-02	1.48E-03	2.17E-04	7.60E-05	1.35E+01	3.23E+00	1.65E+00	8.43E+00	3.22E-01	7.06E-04	1.84E-04	9.40E-05	1.36E-04	3.25E-05	1.67E-05	2.01E-03	5.23E-04	2.68E-04	1.13E-02	1.01E-03	1.49E-04	5.22E-05	7.60E-04	1.73E-04
W_19	556277.4	5402069	Peacock Lake (west)	4.69E-01	5.57E-02	2.64E-02	1.40E-03	1.66E-04	7.90E-05	1.03E+01	3.48E+00	1.74E+00	4.08E+00	3.39E-01	5.91E-04	1.99E-04	9.90E-05	1.04E-04	3.51E-05	1.75E-05	1.68E-03	5.65E-04	2.82E-04	1.11E-02	9.62E-04	1.14E-04	5.42E-05	5.57E-04	1.87E-04
W_2	547105.4	5399507	Shack Lake (center)	4.86E-01	1.06E-01	5.65E-02	1.45E-03	3.15E-04	1.69E-04	2.28E+01	7.04E+00	5.30E+00	4.50E+00	1.01E+00	1.30E-03	3.99E-04	2.98E-04	2.29E-04	7.04E-05	5.26E-05	3.70E-03	1.13E-03	8.47E-04	1.37E-02	9.96E-04	2.17E-04	1.16E-04	1.22E-03	3.76E-04
W_20	556444.4	5402420	Peacock Lake (north)	4.92E-01	6.19E-02	2.70E-02	1.47E-03	1.85E-04	8.00E-05	1.26E+01	3.63E+00	1.79E+00	4.08E+00	3.41E-01	7.23E-04	2.07E-04	1.02E-04	1.28E-04	3.66E-05	1.81E-05	2.06E-03	5.88E-04	2.90E-04	1.04E-02	1.01E-03	1.27E-04	5.52E-05	6.82E-04	1.95E-04
W_21	556424.4	5402100	Peacock Lake (center)	4.75E-01	5.54E-02	2.59E-02	1.42E-03	1.65E-04	7.70E-05	1.04E+01	3.42E+00	1.71E+00	4.06E+00	3.31E-01	5.96E-04	1.95E-04	9.80E-05	1.05E-04	3.44E-05	1.72E-05	1.69E-03	5.54E-04	2.77E-04	1.10E-02	9.74E-04	1.14E-04	5.32E-05	5.61E-04	1.84E-04
W_22	550202.4	5397449	Three Finger Lake (north)	4.79E-01	5.50E-02	3.04E-02	1.43E-03	1.64E-04	9.10E-05	2.43E+01	3.37E+00	2.24E+00	1.28E+01	4.10E-01	1.32E-03	1.91E-04	1.26E-04	2.45E-04	3.38E-05	2.23E-05	3.74E-03	5.44E-04	3.60E-04	1.27E-02	9.82E-04	1.13E-04	6.23E-05	1.35E-03	1.80E-04
W_23	550175.4	5396992	Three Finger Lake (center)	4.74E-01	5.00E-02	2.73E-02	1.41E-03	1.49E-04	8.20E-05	2.22E+01	2.99E+00	1.97E+00	1.18E+01	3.63E-01	1.20E-03	1.69E-04	1.12E-04	2.24E-04	2.99E-05	1.97E-05	3.41E-03	4.82E-04	3.17E-04	1.20E-02	9.71E-04	1.03E-04	5.60E-05	1.23E-03	1.60E-04
W_24	549830.4	5396526	Three Finger Lake (south)	4.89E-01	4.66E-02	2.33E-02	1.46E-03	1.39E-04	6.90E-05	1.56E+01	2.85E+00	1.80E+00	5.48E+00	3.13E-01	8.67E-04	1.61E-04	1.02E-04	1.57E-04	2.86E-05	1.80E-05	2.47E-03	4.59E-04	2.89E-04	1.13E-02	1.00E-03	9.60E-05	4.77E-05	8.49E-04	1.53E-04
W_25	546947.4	5396628	Penn Lake (north)	3.20E-01	3.98E-02	2.35E-02	9.54E-04	1.19E-04	7.00E-05	9.90E+00	2.78E+00	2.20E+00	2.24E+00	3.85E-01	5.43E-04	1.52E-04	1.19E-04	9.60E-05	2.68E-05	2.10E-05	1.54E-03	4.31E-04	3.37E-04	9.62E-03	6.55E-04	8.20E-05	4.81E-05	5.14E-04	1.43E-04
W_26	547059.4	5396126	Penn Lake (center)	2.58E-01	3.83E-02	2.14E-02	7.70E-04	1.14E-04	6.40E-05	8.96E+00	2.45E+00	1.93E+00	2.53E+00	3.44E-01	5.01E-04	1.36E-04	1.06E-04	8.90E-05	2.39E-05	1.87E-05	1.42E-03	3.86E-04	3.01E-04	9.27E-03	5.29E-04	7.80E-05	4.38E-05	4.75E-04	1.28E-04
W_27	546991.4	5395773	Penn Lake (south)	2.42E-01	3.61E-02	2.00E-02	7.23E-04	1.08E-04	6.00E-05	8.37E+00	2.25E+00	1.77E+00	2.49E+00	3.18E-01	4.68E-04	1.25E-04	9.80E-05	8.30E-05	2.21E-05	1.73E-05	1.33E-03	3.55E-04	2.78E-04	8.90E-03	4.97E-04	7.40E-05	4.09E-05	4.45E-04	1.18E-04
W_28	544637	5401700	Angler Creek at Model Property Boundary	5.02E-01	9.36E-02	3.57E-02	1.50E-03	2.79E-04	1.07E-04	2.06E+01	5.90E+00	3.50E+00	6.69E+00	6.52E-01	1.18E-03	3.38E-04	2.00E-04	2.07E-04	5.96E-05	3.54E-05	3.34E-03	9.60E-04	5.69E-04	1.27E-02	1.03E-03	1.92E-04	7.32E-05	1.11E-03	3.18E-04
W_29	551284	5407805	Pic River In-Flow to Model Property Boundary	2.95E-01	4.89E-02	2.51E-02	8.79E-04	1.46E-04	7.50E-05	1.84E+01	5.32E+00	3.43E+00	5.86E+00	6.40E-01	1.02E-03	3.02E-04	1.96E-04	1.86E-04	5.38E-05	3.48E-05	2.90E-03	8.58E-04	5.56E-04	8.67E-03	6.04E-04	1.00E-04	5.15E-05	1.01E-03	2.89E-04
W_3	546725.4	5399334	Shack Lake (southwest)	4.31E-01	1.01E-01	5.21E-02	1.29E-03	3.01E-04	1.56E-04	2.14E+01	6.48E+00	4.76E+00	4.27E+00	9.15E-01	1.22E-03	3.66E-04	2.67E-04	2.16E-04	6.48E-05	4.72E-05	3.47E-03	1.04E-03	7.60E-04	1.33E-02	8.82E-04	2.07E-04	1.07E-04	1.15E-03	3.46E-04
W_30	551654	5401167	Pic River Out-Flow from Model Property Bounda	5.71E-01	1.12E-01	5.53E-02	1.70E-03	3.34E-04	1.65E-04	1.68E+01	7.10E+00	4.80E+00	5.03E+00	9.29E-01	9.66E-04	4.05E-04	2.74E-04	1.71E-04	7.15E-05	4.84E-05	2.75E-03	1.15E-03	7.79E-04	1.60E-02	1.17E-03	2.29E-04	1.13E-04	9.13E-04	3.81E-04
W_4	545636.3	5403829	Hare Lake (east)	6.63E-01	1.11E-01	6.60E-02	1.98E-03	3.31E-04	1.97E-04	2.53E+01	7.21E+00	4.31E+00	1.20E+01	7.91E-01	1.37E-03	4.12E-04	2.47E-04	2.56E-04	7.30E-05	4.36E-05	3.91E-03	1.17E-03	7.02E-04	1.51E-02	1.36E-03	2.28E-04	1.35E-04	1.40E-03	3.90E-04
W_5	545048.3	5403557	Hare Lake (south)	6.05E-01	8.10E-02	5.08E-02	1.80E-03	2.42E-04	1.52E-04	2.43E+01	6.41E+00	3.69E+00	1.19E+01	6.74E-01	1.31E-03	3.67E-04	2.11E-04	2.45E-04	6.50E-05	3.73E-05	3.73E-03	1.04E-03	6.01E-04	1.38E-02	1.24E-03	1.66E-04	1.04E-04	1.35E-03	3.47E-04
W_6	543955.3	5403079	Hare Lake (west)	5.07E-01	6.50E-02	3.53E-02	1.51E-03	1.94E-04	1.05E-04	2.07E+01	4.64E+00	2.59E+00	1.11E+01	4.80E-01	1.11E-03	2.65E-04	1.48E-04	2.09E-04	4.69E-05	2.61E-05	3.15E-03	7.53E-04	4.21E-04	1.17E-02	1.04E-03	1.33E-04	7.24E-05	1.16E-03	2.50E-04
W_7	544603.3	5403943	Hare Lake (north)	5.15E-01	7.58E-02	4.68E-02	1.54E-03	2.26E-04	1.40E-04	1.67E+01	5.25E+00	3.04E+00	3.79E+00	5.58E-01	9.52E-04	3.00E-04	1.74E-04	1.69E-04	5.31E-05	3.07E-05	2.71E-03	8.53E-04	4.93E-04	1.25E-02	1.06E-03	1.55E-04	9.60E-05	9.04E-04	2.84E-04
W_8	544830.3	5403751	Hare Lake (center)	4.93E-01	7.49E-02	4.88E-02	1.47E-03	2.24E-04	1.46E-04	1.86E+01	5.79E+00	3.33E+00	7.95E+00	6.11E-01	1.05E-03	3.31E-04	1.91E-04	1.88E-04	5.86E-05	3.37E-05	3.00E-03	9.41E-04	5.42E-04	1.33E-02	1.01E-03	1.54E-04	1.00E-04	1.03E-03	3.13E-04
W_9	549326.3	5406972	Bamoos Lake (east)	3.96E-01	6.41E-02	3.47E-02	1.18E-03	1.91E-04	1.03E-04	5.19E+01	9.61E+00	6.38E+00	3.60E+01	1.21E+00	2.70E-03	5.45E-04	3.63E-04	5.27E-04	9.75E-05	6.47E-05	7.67E-03	1.55E-03	1.03E-03	1.14E-02	8.12E-04	1.31E-04	7.11E-05	2.96E-03	5.24E-04
Maximum of Special Receptors				**1.08E+00**	**2.09E-01**	**1.02E-01**	**3.22E-03**	**6.22E-04**	**3.04E-04**	**6.91E+01**	**2.45E+01**	**1.87E+01**	**3.60E+01**	**3.58E+00**	**3.97E-03**	**1.40E-03**	**1.06E-03**	**7.00E-04**	**2.47E-04**	**1.87E-04**	**1.13E-02**	**3.97E-03**	**3.02E-03**	**1.97E-02**	**2.21E-03**	**4.27E-04**	**2.09E-04**	**3.74E-03**	**1.31E-03**
Max % of Criteria				**0.0%**	-	-	**0.0%**	-	-	-	-	-	**30.0%**	**6.0%**	**0.1%**	-	-	**0.5%**	-	**0.6%**	**0.6%**	-	-	**0.0%**	**0.0%**	-	-	**0.0%**	-

Table E-1 Special Receptor Predictions (ug/m3) - Construction, Projec

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description		DUSTFALL (g/m2)		
				annual	24	month	annual
				-		7	
S_5	547019.4	5395083	Marathon Children and Family Centre	8.10E-05	8.66E-03	7.19E-02	5.15E-01
S_6	547000.4	5395036	Margaret Twomey Public School	8.00E-05	8.60E-03	7.11E-02	5.09E-01
W_1	547291.4	5399861	Shack Lake (northeast)	3.33E-04	3.38E-02	3.97E-01	2.89E+00
W_10	546975.3	5406486	Bamoos Lake (south)	2.55E-04	3.07E-02	1.94E-01	1.67E+00
W_11	545484.3	5405866	Bamoos Lake (west)	1.76E-04	1.27E-02	1.14E-01	9.81E-01
W_12	546576.3	5407157	Bamoos Lake (north)	1.89E-04	1.51E-02	1.32E-01	1.02E+00
W_13	546777.3	5406831	Bamoos Lake (center)	2.14E-04	1.72E-02	1.50E-01	1.19E+00
W_14	554944.3	5408229	Page Lake (south)	1.20E-04	1.09E-02	1.27E-01	9.27E-01
W_15	555054.3	5408904	Page Lake (center)	9.60E-05	1.06E-02	1.06E-01	7.44E-01
W_16	555065.3	5409498	Page Lake (north)	8.00E-05	9.70E-03	9.08E-02	6.24E-01
W_17	556593.4	5402127	Peacock Lake (east)	9.00E-05	1.36E-02	7.61E-02	5.16E-01
W_18	556043.4	5401267	Peacock Lake (south)	8.90E-05	9.75E-03	6.91E-02	5.08E-01
W_19	556277.4	5402069	Peacock Lake (west)	9.40E-05	1.42E-02	8.04E-02	5.47E-01
W_2	547105.4	5399507	Shack Lake (center)	2.81E-04	2.92E-02	3.32E-01	2.38E+00
W_20	556444.4	5402420	Peacock Lake (north)	9.60E-05	1.45E-02	8.25E-02	5.62E-01
W_21	556424.4	5402100	Peacock Lake (center)	9.20E-05	1.39E-02	7.82E-02	5.33E-01
W_22	550202.4	5397449	Three Finger Lake (north)	1.19E-04	1.48E-02	1.28E-01	8.02E-01
W_23	550175.4	5396992	Three Finger Lake (center)	1.05E-04	1.31E-02	1.12E-01	6.92E-01
W_24	549830.4	5396526	Three Finger Lake (south)	9.60E-05	1.30E-02	1.02E-01	6.24E-01
W_25	546947.4	5396628	Penn Lake (north)	1.12E-04	1.27E-02	1.19E-01	8.65E-01
W_26	547059.4	5396126	Penn Lake (center)	1.00E-04	1.10E-02	9.96E-02	7.18E-01
W_27	546991.4	5395773	Penn Lake (south)	9.20E-05	1.02E-02	8.96E-02	6.44E-01
W_28	544637	5401700	Angler Creek at Model Property Boundary	1.89E-04	2.11E-02	2.48E-01	1.58E+00
W_29	551284	5407805	Pic River In-Flow to Model Property Boundary	1.86E-04	3.03E-02	2.47E-01	1.92E+00
W_3	546725.4	5399334	Shack Lake (southwest)	2.52E-04	2.58E-02	3.02E-01	2.12E+00
W_30	551654	5401167	Pic River Out-Flow from Model Property Boundar	2.58E-04	2.05E-02	2.58E-01	2.22E+00
W_4	545636.3	5403829	Hare Lake (east)	2.33E-04	1.76E-02	2.28E-01	1.76E+00
W_5	545048.3	5403557	Hare Lake (south)	1.99E-04	1.56E-02	1.91E-01	1.45E+00
W_6	543955.3	5403079	Hare Lake (west)	1.40E-04	1.24E-02	1.42E-01	9.82E-01
W_7	544603.3	5403943	Hare Lake (north)	1.64E-04	1.37E-02	1.46E-01	1.11E+00
W_8	544830.3	5403751	Hare Lake (center)	1.80E-04	1.46E-02	1.67E-01	1.27E+00
W_9	549326.3	5406972	Bamoos Lake (east)	3.47E-04	3.79E-02	3.02E-01	2.47E+00
Maximum of Special Receptors				**9.98E-04**	**7.94E-02**	**1.21E+00**	**1.25E+01**
Max % of Criteria				**-**	**-**	**17.3%**	**-**

Table E-2 Fence Line Receptor Predictions (ug/m3) - Operations, Project Alone

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	1,3-BUTADIENE			ACENAPHTHENE			ACENAPHTHYLENE			ACETALDEHYDE					ACROLEIN		
				Averaging Period	24	month	annual	24	month	annual	24	month	annual	0.5	1	24	month	annual	1	24	month
				Criteria	10	-	2	-	-	-	-	-	-	500	-	500	-	-	4.5	0.4	-
Maximum of Fence Line Receptors					8.39E-03	3.07E-03	2.44E-03	5.70E-04	2.09E-04	1.67E-04	9.31E-04	3.44E-04	2.73E-04	2.65E+00	2.21E+00	7.26E-01	2.66E-01	2.11E-01	3.19E-01	1.05E-01	3.83E-02
Max % of Criteria					0.1%	-	0.1%	-	-	-	-	-	-	0.5%	-	0.1%	-	-	7.1%	26.2%	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by MECP Guideline A-10, Section 7.4.1 for facilities with a fugitive dust BMP. These model predictions were used for comparison to the applicable critiera.

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier 3 assumption).

Table E-2 Fence Line Receptor Predictions (ug/m3) - Operations, Project Alone

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant		ALDEHYDES			ALUMINUM (AL)			ANTHRACENE			ANTIMONY (SB)			ARSENIC (AS)			E
				Averaging Period	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24
				Criteria	-	-	-	-	12	-	-	-	-	-	25	-	-	0.3	-	-	10
Maximum of Fence Line Receptors					3.05E-02	1.00E+00	2.26E-01	1.10E-01	2.84E+00	1.12E+00	8.96E-01	3.61E-04	1.31E-04	1.06E-04	5.50E-04	2.17E-04	1.73E-04	5.93E-04	2.34E-04	1.87E-04	1.10E-02
Max % of Criteria					-	-	-	-	**23.7%**	-	-	-	-	-	**0.0%**	-	-	**0.2%**	-	-	**0.1%**

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by M

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier 3

Table E-2 Fence Line Receptor Predictions (ug/m3) - Operations, Project Alone

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	ARIUM (BA)		BENZENE			BENZO(A)ANTHRACENE			BENZO(A)PYRENE			BENZO(B)FLUORANTHENE			BENZO(G,H,I)PERYLENE		
				Averaging Period	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual
				Criteria	-	-	2.3	-	0.45	-	-	-	0.00005	-	0.00001	-	-	-	-	-	-
Maximum of Fence Line Receptors					4.33E-03	3.46E-03	1.38E-01	5.01E-02	4.05E-02	1.21E-05	4.12E-06	3.01E-06	7.21E-06	2.47E-06	1.83E-06	1.89E-05	4.28E-06	2.22E-06	1.00E-05	2.53E-06	1.48E-06
Max % of Criteria					-	-	6.0%	-	9.0%	-	-	-	14.4%	-	18.3%	-	-	-	-	-	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by M

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier 3

Table E-2 Fence Line Receptor Predictions (ug/m3) - Operations, Project Alone

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	BENZO(K)FLUORANTHENE			BERYLLIUM (BE)			BISMUTH (BI)			BORON (B)			BROMINE (BR)			CADMIUM (C	
				Averaging Period	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month
				Criteria	-	-	-	0.01	-	-	2.5	-	-	120	-	-	20	-	-	0.025	-
Maximum of Fence Line Receptors					4.51E-06	1.36E-06	8.87E-07	1.33E-04	5.23E-05	4.18E-05	5.03E-04	1.98E-04	1.58E-04	2.44E-03	9.62E-04	7.68E-04	0.00E+00	0.00E+00	0.00E+00	1.46E-04	5.75E-05
Max % of Criteria					-	-	-	1.3%	-	-	0.0%	-	-	0.0%	-	-	0.0%	-	-	0.6%	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by M

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier 3

Table E-2 Fence Line Receptor Predictions (ug/m3) - Operations, Project Alone

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	D)	CALCIUM (CA)			CAO			CH4			CHROMIUM (CR)			CHRYSENE			
				Averaging Period	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	0.5
				Criteria	0.005	-	-	-	10	-	-	37330	-	-	0.5	-	-	-	-	-	6000
Maximum of Fence Line Receptors					4.59E-05	2.96E+00	1.17E+00	9.33E-01	0.00E+00	0.00E+00	0.00E+00	7.71E-01	2.82E-01	2.24E-01	2.14E-02	8.47E-03	6.76E-03	2.86E-05	7.78E-06	4.74E-06	2.34E+03
Max % of Criteria					0.9%	-	-	-	0.0%	-	-	0.0%	-	-	4.3%	-	-	-	-	-	39.1%

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by M

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier 3

Table E-2 Fence Line Receptor Predictions (ug/m3) - Operations, Project Alone

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	CO					COBALT (CO)			COPPER (CU)			DIBENZ(A,H)PERYLENE			FLUORANTHENE		
				Averaging Period	1	8	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual
				Criteria	36200	15700	-	-	-	0.1	-	-	50	-	-	-	-	-	-	-	-
Maximum of Fence Line Receptors					1.93E+03	2.64E+02	3.84E+02	5.55E+01	4.46E+01	7.41E-03	2.92E-03	2.34E-03	5.68E-02	2.24E-02	1.79E-02	5.61E-06	1.26E-06	6.13E-07	5.63E-04	2.06E-04	1.65E-04
Max % of Criteria					5.3%	1.7%	-	-	-	7.4%	-	-	0.1%	-	-	-	-	-	-	-	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by M

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier 3

Table E-2 Fence Line Receptor Predictions (ug/m3) - Operations, Project Alone

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	FLUORENE			FORMALDEHYDE			GALLIUM (GA)			GOLD (AU)			HYDROCHLORIC ACID (HCL)			HYDROFLUORIC A	
				Averaging Period	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month
				Criteria	-	-	-	65	-	-	-	-	-	1.25	-	-	20	-	-	0.86	0.34
Maximum of Fence Line Receptors					2.18E-03	7.92E-04	6.39E-04	2.28E+00	8.34E-01	6.63E-01	2.43E-03	9.60E-04	7.67E-04	2.47E-06	9.75E-07	7.79E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max % of Criteria					-	-	-	3.5%	-	-	-	-	-	0.0%	-	-	0.0%	-	-	0.0%	0.0%

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by M

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier 3

Table E-2 Fence Line Receptor Predictions (ug/m3) - Operations, Project Alone

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	CID (HF)	INDENO(1,2,3-CD)PYRENE			IRON (FE)			IRON SULFIDE			LANTHANUM (LA)			LANTHANUM CHLORIDE (LACL3)			
				Averaging Period	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24
				Criteria	-	-	-	-	-	-	-	-	-	-	-	-	-	2.5	-	-	0.5
Maximum of Fence Line Receptors					0.00E+00	6.72E-06	1.51E-06	7.34E-07	1.30E+01	5.14E+00	4.10E+00	0.00E+00	0.00E+00	0.00E+00	3.93E-03	1.55E-03	1.24E-03	0.00E+00	0.00E+00	0.00E+00	6.49E-04
Max % of Criteria					-	-	-	-	-	-	-	-	-	-	-	-	-	0.0%	-	-	0.1%

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by M

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier 3

Table E-2 Fence Line Receptor Predictions (ug/m3) - Operations, Project Alone

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	LEAD (PB)		MAGNESIUM (MG)			MANGANESE (MN)			MERCURY (HG)			MOLYBDENUM (MO)			N2O		
				Averaging Period	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual
				Criteria	0.2	-	72	-	-	0.4	-	-	2	-	-	120	-	-	9000	-	-
Maximum of Fence Line Receptors					2.56E-04	2.05E-04	3.39E+00	1.34E+00	1.07E+00	1.24E-01	4.91E-02	3.93E-02	2.44E-04	9.64E-05	7.70E-05	2.98E-04	1.18E-04	9.40E-05	2.41E+00	8.78E-01	6.99E-01
Max % of Criteria					0.1%	-	4.7%	-	-	31.1%	-	-	0.0%	-	-	0.0%	-	-	0.0%	-	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by M

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier 3

Table E-2 Fence Line Receptor Predictions (ug/m3) - Operations, Project Alone

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	NAPHTHALENE				NICKEL (NI)		NITRIC ACID (HNO3)			NON-METHANE HYDROCARBONS			NO2 (See Note 3)			PALLADIUM (	
				Averaging Period	10-min	24	month	annual	24	annual	24	month	annual	24	month	annual	1	24	annual	24	month
				Criteria	50	22.5	-	-	0.2	0.04	35	-	-	-	-	-	400	200	-	10	-
Maximum of Fence Line Receptors					1.47E-02	2.11E-03	4.74E-04	2.31E-04	1.91E-02	6.03E-03	0.00E+00	0.00E+00	0.00E+00	8.02E+00	2.94E+00	2.34E+00	3.97E+02	1.13E+02	3.31E+01	6.87E-06	2.71E-06
Max % of Criteria					0.0%	0.0%	-	-	9.6%	15.1%	0.0%	-	-	-	-	-	99.2%	56.6%	-	0.0%	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by M

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier 3

Table E-2 Fence Line Receptor Predictions (ug/m3) - Operations, Project Alone

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	PD)	PHENANTHRENE			PHOSPHOROUS (P)			PLATINUM (PT)			PM10 (see Note 1)			PM10 (see Note 2)	PM2.5 (See Note 1)		
				Averaging Period	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	24	month	annual
				Criteria	-	-	-	-	-	-	-	0.2	-	-	-	-	-	50	-	-	-
Maximum of Fence Line Receptors					2.17E-06	9.68E-03	3.51E-03	2.83E-03	3.31E-01	1.31E-01	1.04E-01	4.51E-06	1.78E-06	1.42E-06	7.50E+01	2.63E+01	2.13E+01	2.09E+01	1.42E+01	5.26E+00	2.00E+00
Max % of Criteria					-	-	-	-	-	-	-	0.0%	-	-	-	-	-	41.8%	-	-	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by M

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier 3

Table E-2 Fence Line Receptor Predictions (ug/m3) - Operations, Project Alone

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	PM2.5 (See Note 2)		POTASSIUM (K)			PROPYLENE			PYRENE			SCANDIUM (SC)			SILICA		
				Averaging Period	24	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual
				Criteria	27	8.8	1	-	-	4000	-	-	-	-	-	-	-	-	5	-	-
Maximum of Fence Line Receptors					1.16E+01	1.72E+00	1.88E-01	7.41E-02	5.92E-02	4.53E-02	1.02E-02	4.95E-03	4.78E-04	1.75E-04	1.41E-04	4.28E-04	1.69E-04	1.35E-04	3.51E+01	1.23E+01	9.96E+00
Max % of Criteria					43.0%	19.6%	18.8%	-	-	0.0%	-	-	-	-	-	-	-	-	702.5%	-	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by M

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier 3

Table E-2 Fence Line Receptor Predictions (ug/m3) - Operations, Project Alone

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	SILICON (SI)			SILVER (AG)			SO2				SODIUM (NA)			SODIUM CARBOXYMETHYL CELLULOSE			ST
				Averaging Period	24	month	annual	24	month	annual	1	24	month	annual	24	month	annual	24	month	annual	24
				Criteria	27	-	-	1	-	-	100	-	-	10	-	-	-	120	-	-	120
Maximum of Fence Line Receptors					7.75E-04	2.53E-05	1.86E-06	5.57E-05	2.20E-05	1.76E-05	3.36E+01	1.88E+00	1.06E-01	7.27E-02	3.38E-01	1.33E-01	1.07E-01	0.00E+00	0.00E+00	0.00E+00	2.08E-02
Max % of Criteria					0.0%	-	-	0.0%	-	-	33.6%	-	-	0.7%	-	-	-	0.0%	-	-	0.0%

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by M

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier 3

Table E-2 Fence Line Receptor Predictions (ug/m3) - Operations, Project Alone

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	RONTIUM (SR)		THALLIUM (TL)			TITANIUM (TI)			TOC			TOC (METHANE)			TOLUENE		
				Averaging Period	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual
				Criteria	-	-	0.5	-	-	120	-	-	-	-	-	37330	-	-	2000	-	-
Maximum of Fence Line Receptors					8.22E-03	6.57E-03	2.45E-03	9.67E-04	7.72E-04	2.23E-01	8.81E-02	7.04E-02	7.85E-02	1.58E-02	9.55E-03	1.53E+00	3.43E-01	1.67E-01	4.56E-03	1.03E-03	4.98E-04
Max % of Criteria					-	-	0.5%	-	-	0.2%	-	-	-	-	-	0.0%	-	-	0.0%	-	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by M

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier 3

Table E-2 Fence Line Receptor Predictions (ug/m3) - Operations, Project Alone

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	TSP (See Note 1)			TSP (See Note 2)		TUNGSTEN (W)			URANIUM (U)			VANADIUM (V)			XYLENES		
				Averaging Period	24	month	annual	24	annual	24	month	annual	24	month	annual	24	month	annual	10-Min	24	month
				Criteria	-	-	-	120	60	5	-	-	0.15	-	0.03	2	-	-	3000	730	-
Maximum of Fence Line Receptors					2.44E+02	9.62E+01	7.69E+01	7.63E+01	2.22E+01	1.41E-02	5.57E-03	4.45E-03	2.48E-03	9.81E-04	7.83E-04	4.01E-02	1.58E-02	1.26E-02	2.18E-02	3.13E-03	7.04E-04
Max % of Criteria					-	-	-	63.6%	37.0%	0.3%	-	-	1.7%	-	2.6%	2.0%	-	-	0.0%	0.0%	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by M

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier 3

Table E-2 Fence Line Receptor Predictions (ug/m3) - Operations, Project Alone

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant		ZINC (ZN)			DUSTFALL (g/m2)		
				Averaging Period	annual	24	month	annual	24	month	annual
				Criteria	-	120	-	-	0	7	0
Maximum of Fence Line Receptors					3.42E-04	1.33E-02	5.23E-03	4.18E-03	1.70E-01	6.24E+00	5.91E+01
Max % of Criteria					-	0.0%	-	-	-	89.1%	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by M

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier 3

Table E-3 Special Receptor Predictions (ug/m3) - Construction, Cumulative (Project + Background)

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	1,3-BUTADIENE			ACENAPHTHENE			ACENAPHTHYLENE			ACETALDEHYDE					ACROLEIN				ALDEHYDES			ALUMINUM (AL)			ANTHRACENE		
				Averaging Period	24	month	annual	24	month	annual	24	month	annual	0.5	1	24	month	annual	1	24	month	annual	24	month	annual	24	month	annual	24	month	annual
				Criteria	10	-	2	-	-	-	-	-	-	500	-	500	-	-	4.5	0.4	-	-	-	-	-	12	-	-	-	-	-
				Background Concentration (ug/m3)	1.09E-01	4.21E-02	7.32E-02	1.81E-03	6.98E-04	9.10E-04	1.79E-03	6.91E-04	1.06E-03	1.18E+01	9.74E+00	4.00E+00	1.54E+00	1.60E+00	1.22E-01	5.00E-02	1.93E-02	2.30E-02				5.88E-01	2.27E-01	2.84E-01	4.49E-04	1.73E-04	2.51E-04
H_1	545937.4	5396170	Wilson Memorial General Hospital		1.10E-01	4.22E-02	7.33E-02	1.86E-03	7.11E-04	9.19E-04	1.88E-03	7.14E-04	1.08E-03	1.21E+01	1.00E+01	4.03E+00	1.55E+00	1.61E+00	1.60E-01	5.46E-02	2.05E-02	2.39E-02	1.86E-01	2.48E-02	1.37E-02	6.94E-01	2.53E-01	3.05E-01	4.90E-04	1.83E-04	2.58E-04
M_1	545694	5403864	PM-10 @ Hare Lake		1.10E-01	4.23E-02	7.33E-02	1.88E-03	7.19E-04	9.23E-04	1.91E-03	7.26E-04	1.08E-03	1.21E+01	1.00E+01	4.07E+00	1.56E+00	1.61E+00	1.61E-01	6.02E-02	2.23E-02	2.47E-02	4.34E-01	7.64E-02	4.46E-02	8.91E-01	3.11E-01	3.35E-01	4.89E-04	1.85E-04	2.58E-04
M_2	545694	5403873	Dustfall @ Hare Lake		1.10E-01	4.23E-02	7.33E-02	1.88E-03	7.19E-04	9.23E-04	1.91E-03	7.26E-04	1.08E-03	1.21E+01	1.00E+01	4.07E+00	1.56E+00	1.61E+00	1.61E-01	6.02E-02	2.23E-02	2.47E-02	4.32E-01	7.67E-02	4.47E-02	8.89E-01	3.11E-01	3.34E-01	4.89E-04	1.85E-04	2.58E-04
M_3	547152	5401222	PM-10 @ Mays Gifts		1.11E-01	4.28E-02	7.37E-02	2.01E-03	7.54E-04	9.51E-04	2.13E-03	7.85E-04	1.13E-03	1.27E+01	1.05E+01	4.19E+00	1.60E+00	1.65E+00	2.33E-01	7.73E-02	2.80E-02	2.96E-02	7.06E-01	1.37E-01	6.69E-02	1.39E+00	4.84E-01	4.83E-01	5.57E-04	2.06E-04	2.76E-04
M_4	547147	5401216	Dustfall @ Mays Gifts		1.11E-01	4.27E-02	7.37E-02	2.01E-03	7.54E-04	9.50E-04	2.13E-03	7.84E-04	1.13E-03	1.27E+01	1.05E+01	4.19E+00	1.60E+00	1.65E+00	2.32E-01	7.71E-02	2.79E-02	2.96E-02	7.08E-01	1.37E-01	6.68E-02	1.38E+00	4.82E-01	4.81E-01	5.57E-04	2.06E-04	2.76E-04
M_5	551637	5402371	PM-10 @ Pic River		1.10E-01	4.24E-02	7.34E-02	1.91E-03	7.33E-04	9.31E-04	1.98E-03	7.50E-04	1.10E-03	1.24E+01	1.02E+01	4.08E+00	1.58E+00	1.62E+00	1.89E-01	6.19E-02	2.41E-02	2.60E-02	6.96E-01	1.17E-01	5.90E-02	8.66E-01	3.45E-01	3.62E-01	4.99E-04	1.92E-04	2.63E-04
M_6	551643	5402374	Dustfall @ Pic River		1.10E-01	4.24E-02	7.34E-02	1.91E-03	7.33E-04	9.31E-04	1.97E-03	7.49E-04	1.10E-03	1.24E+01	1.02E+01	4.08E+00	1.58E+00	1.62E+00	1.89E-01	6.18E-02	2.41E-02	2.60E-02	6.93E-01	1.17E-01	5.89E-02	8.65E-01	3.45E-01	3.62E-01	4.99E-04	1.92E-04	2.63E-04
M_7	549180	5399815	Dustfall @ Airport		1.13E-01	4.39E-02	7.46E-02	2.09E-03	8.27E-04	1.01E-03	2.25E-03	9.00E-04	1.22E-03	1.31E+01	1.08E+01	4.35E+00	1.70E+00	1.72E+00	2.80E-01	1.01E-01	4.20E-02	4.07E-02	4.31E-01	9.00E-02	3.89E-02	1.22E+00	5.08E-01	4.98E-01	6.34E-04	2.57E-04	3.16E-04
M_8	545863	5397092	Dustfall @ Field Office		1.10E-01	4.25E-02	7.36E-02	1.89E-03	7.34E-04	9.38E-04	1.93E-03	7.54E-04	1.11E-03	1.22E+01	1.00E+01	4.04E+00	1.56E+00	1.61E+00	1.67E-01	5.54E-02	2.11E-02	2.45E-02	2.07E-01	3.15E-02	1.67E-02	7.03E-01	2.61E-01	3.09E-01	5.13E-04	2.05E-04	2.76E-04
O_1	547181.4	5398015	Pic Motel		1.10E-01	4.24E-02	7.35E-02	1.90E-03	7.24E-04	9.31E-04	1.94E-03	7.36E-04	1.10E-03	1.23E+01	1.01E+01	4.06E+00	1.56E+00	1.61E+00	1.79E-01	5.88E-02	2.16E-02	2.47E-02	3.10E-01	3.97E-02	2.34E-02	7.68E-01	2.76E-01	3.21E-01	5.10E-04	1.93E-04	2.67E-04
O_2	545734.4	5396873	Marathon Harbour Inn		1.11E-01	4.30E-02	7.39E-02	1.97E-03	7.66E-04	9.60E-04	2.08E-03	8.14E-04	1.15E-03	1.23E+01	1.01E+01	4.05E+00	1.56E+00	1.61E+00	1.75E-01	5.75E-02	2.19E-02	2.49E-02	1.99E-01	2.99E-02	1.58E-02	7.12E-01	2.67E-01	3.15E-01	5.89E-04	2.35E-04	2.97E-04
O_3	545885.4	5396449	Zero-100 Motor Inn		1.11E-01	4.29E-02	7.38E-02	1.98E-03	7.61E-04	9.58E-04	2.10E-03	8.05E-04	1.15E-03	1.22E+01	1.01E+01	4.04E+00	1.56E+00	1.61E+00	1.74E-01	5.69E-02	2.16E-02	2.48E-02	1.68E-01	2.71E-02	1.45E-02	6.97E-01	2.55E-01	3.06E-01	6.03E-04	2.31E-04	2.95E-04
O_4	545987.4	5397641	OPP Station		1.10E-01	4.24E-02	7.35E-02	1.89E-03	7.27E-04	9.32E-04	1.93E-03	7.42E-04	1.10E-03	1.22E+01	1.01E+01	4.04E+00	1.56E+00	1.61E+00	1.69E-01	5.64E-02	2.12E-02	2.44E-02	2.21E-01	3.57E-02	1.92E-02	7.17E-01	2.66E-01	3.13E-01	5.07E-04	1.97E-04	2.70E-04
O_5	545876.4	5396073	Library		1.09E-01	4.22E-02	7.33E-02	1.85E-03	7.10E-04	9.18E-04	1.86E-03	7.11E-04	1.08E-03	1.21E+01	1.00E+01	4.03E+00	1.55E+00	1.61E+00	1.59E-01	5.46E-02	2.04E-02	2.38E-02	1.83E-01	2.43E-02	1.34E-02	6.92E-01	2.53E-01	3.04E-01	4.79E-04	1.82E-04	2.57E-04
P_1	546958.4	5396139	Penn Lake Park and Campground		1.09E-01	4.22E-02	7.33E-02	1.85E-03	7.07E-04	9.17E-04	1.85E-03	7.05E-04	1.07E-03	1.22E+01	1.01E+01	4.03E+00	1.55E+00	1.61E+00	1.70E-01	5.47E-02	2.04E-02	2.38E-02	1.70E-01	2.46E-02	1.40E-02	6.90E-01	2.54E-01	3.05E-01	4.69E-04	1.78E-04	2.55E-04
P_2	548538.4	5392863	Craig's Pit Provincial Nature Reserve		1.09E-01	4.21E-02	7.32E-02	1.84E-03	7.04E-04	9.13E-04	1.84E-03	7.00E-04	1.07E-03	1.22E+01	1.00E+01	4.02E+00	1.55E+00	1.60E+00	1.66E-01	5.32E-02	2.00E-02	2.34E-02	1.41E-01	1.87E-02	7.71E-03	6.76E-01	2.46E-01	2.95E-01	4.62E-04	1.76E-04	2.53E-04
P_3	540005	5402014	Red Sucker Point Provincial Park		1.09E-01	4.21E-02	7.32E-02	1.84E-03	7.04E-04	9.14E-04	1.84E-03	7.01E-04	1.07E-03	1.20E+01	9.87E+00	4.02E+00	1.55E+00	1.60E+00	1.40E-01	5.35E-02	2.01E-02	2.34E-02	1.27E-01	2.08E-02	1.03E-02	6.85E-01	2.49E-01	2.96E-01	4.63E-04	1.77E-04	2.53E-04
P_4	552770	5383776	Pukaskwa National Park		1.09E-01	4.21E-02	7.32E-02	1.82E-03	7.00E-04	9.11E-04	1.81E-03	6.94E-04	1.06E-03	1.21E+01	9.93E+00	4.01E+00	1.54E+00	1.60E+00	1.50E-01	5.14E-02	1.95E-02	2.31E-02	4.65E-02	6.60E-03	3.14E-03	6.17E-01	2.33E-01	2.88E-01	4.55E-04	1.74E-04	2.52E-04
PR_1	553679.4	5385896	Children & Family Learning Centre		1.09E-01	4.21E-02	7.32E-02	1.82E-03	7.00E-04	9.12E-04	1.80E-03	6.94E-04	1.06E-03	1.20E+01	9.88E+00	4.01E+00	1.55E+00	1.60E+00	1.41E-01	5.12E-02	1.96E-02	2.32E-02	3.69E-02	6.26E-03	3.17E-03	6.15E-01	2.33E-01	2.88E-01	4.53E-04	1.74E-04	2.52E-04
PR_2	554004.4	5385858	Pic River Elementary		1.09E-01	4.21E-02	7.32E-02	1.82E-03	7.00E-04	9.12E-04	1.80E-03	6.94E-04	1.06E-03	1.20E+01	9.85E+00	4.01E+00	1.55E+00	1.60E+00	1.37E-01	5.10E-02	1.95E-02	2.31E-02	3.82E-02	6.11E-03	3.08E-03	6.13E-01	2.33E-01	2.88E-01	4.53E-04	1.74E-04	2.52E-04
PR_3	553836.4	5385604	Pic River Private High School		1.09E-01	4.21E-02	7.32E-02	1.82E-03	7.00E-04	9.12E-04	1.80E-03	6.94E-04	1.06E-03	1.20E+01	9.86E+00	4.01E+00	1.55E+00	1.60E+00	1.40E-01	5.11E-02	1.95E-02	2.31E-02	3.66E-02	6.09E-03	3.07E-03	6.14E-01	2.33E-01	2.88E-01	4.53E-04	1.74E-04	2.52E-04
PR_4	553930.4	5386049	Pic River Health Centre		1.09E-01	4.21E-02	7.32E-02	1.82E-03	7.00E-04	9.12E-04	1.80E-03	6.94E-04	1.06E-03	1.20E+01	9.85E+00	4.01E+00	1.55E+00	1.60E+00	1.37E-01	5.11E-02	1.95E-02	2.32E-02	3.88E-02	6.22E-03	3.14E-03	6.13E-01	2.33E-01	2.88E-01	4.53E-04	1.74E-04	2.52E-04
PR_5	552493.4	5384783	BIIDAABAN Healing Lodge		1.09E-01	4.21E-02	7.32E-02	1.82E-03	7.00E-04	9.12E-04	1.81E-03	6.94E-04	1.06E-03	1.21E+01	9.95E+00	4.01E+00	1.55E+00	1.60E+00	1.52E-01	5.15E-02	1.95E-02	2.32E-02	4.98E-02	7.25E-03	3.43E-03	6.20E-01	2.33E-01	2.88E-01	4.55E-04	1.74E-04	2.52E-04
PR_6	552843.4	5390100	Residence		1.09E-01	4.21E-02	7.32E-02	1.82E-03	7.01E-04	9.12E-04	1.81E-03	6.95E-04	1.07E-03	1.20E+01	9.91E+00	4.01E+00	1.55E+00	1.60E+00	1.47E-01	5.19E-02	1.97E-02	2.32E-02	5.74E-02	9.54E-03	4.86E-03	6.30E-01	2.37E-01	2.90E-01	4.56E-04	1.75E-04	2.52E-04
PR_7	553761.4	5387706	Residence		1.09E-01	4.21E-02	7.32E-02	1.82E-03	7.00E-04	9.12E-04	1.80E-03	6.94E-04	1.06E-03	1.20E+01	9.85E+00	4.01E+00	1.55E+00	1.60E+00	1.38E-01	5.12E-02	1.96E-02	2.32E-02	4.41E-02	7.04E-03	3.58E-03	6.15E-01	2.34E-01	2.89E-01	4.54E-04	1.74E-04	2.52E-04
PS_1	545001.3	5404050	North Hare Lake Cottage		1.10E-01	4.22E-02	7.33E-02	1.87E-03	7.15E-04	9.20E-04	1.89E-03	7.19E-04	1.08E-03	1.21E+01	9.98E+00	4.06E+00	1.56E+00	1.61E+00	1.56E-01	5.82E-02	2.17E-02	2.43E-02	3.73E-01	6.16E-02	3.57E-02	7.96E-01	2.94E-01	3.23E-01	4.81E-04	1.83E-04	2.57E-04
PS_2	544331.3	5403100	South Hare Lake Cottage		1.10E-01	4.22E-02	7.33E-02	1.87E-03	7.13E-04	9.19E-04	1.89E-03	7.16E-04	1.08E-03	1.21E+01	9.95E+00	4.06E+00	1.56E+00	1.61E+00	1.53E-01	5.81E-02	2.14E-02	2.41E-02	3.75E-01	4.62E-02	2.56E-02	8.67E-01	2.88E-01	3.18E-01	4.81E-04	1.82E-04	2.56E-04
PS_3	547056.1	5401004	May's Gifts		1.11E-01	4.26E-02	7.36E-02	1.97E-03	7.45E-04	9.43E-04	2.07E-03	7.69E-04	1.12E-03	1.26E+01	1.04E+01	4.16E+00	1.59E+00	1.64E+00	2.18E-01	7.30E-02	2.63E-02	2.82E-02	6.54E-01	1.30E-01	6.26E-02	1.28E+00	4.35E-01	4.38E-01	5.37E-04	2.00E-04	2.71E-04
PS_4	546811.4	5400953	Wayfare Inn		1.11E-01	4.26E-02	7.36E-02	1.97E-03	7.42E-04	9.41E-04	2.06E-03	7.65E-04	1.11E-03	1.26E+01	1.04E+01	4.15E+00	1.59E+00	1.63E+00	2.14E-01	7.16E-02	2.61E-02	2.79E-02	6.19E-01	1.14E-01	5.53E-02	1.25E+00	4.28E-01	4.28E-01	5.34E-04	1.99E-04	2.70E-04
PS_5	546996.4	5401028	Peninsula Inn		1.11E-01	4.26E-02	7.36E-02	1.98E-03	7.46E-04	9.44E-04	2.08E-03	7.71E-04	1.12E-03	1.26E+01	1.04E+01	4.17E+00	1.59E+00	1.64E+00	2.18E-01	7.47E-02	2.65E-02	2.84E-02	6.59E-01	1.27E-01	6.11E-02	1.32E+00	4.42E-01	4.43E-01	5.40E-04	2.01E-04	2.71E-04
PS_6	548471.4	5399489	Travelodge Hotel		1.11E-01	4.28E-02	7.37E-02	1.96E-03	7.49E-04	9.44E-04	2.04E-03	7.76E-04	1.12E-03	1.28E+01	1.06E+01	4.16E+00	1.60E+00	1.63E+00	2.40E-01	7.26E-02	2.71E-02	2.80E-02	3.87E-01	7.34E-02	3.71E-02	9.57E-01	3.51E-01	3.67E-01	5.42E-04	2.07E-04	2.74E-04
PS_7	546903.4	5401056	The Laughing Mooz Eatery Restaurant and Residence		1.11E-01	4.27E-02	7.37E-02	1.98E-03	7.47E-04	9.45E-04	2.09E-03	7.73E-04	1.12E-03	1.26E+01	1.04E+01	4.18E+00	1.60E+00	1.64E+00	2.19E-01	7.61E-02	2.69E-02	2.86E-02	6.54E-01	1.20E-01	5.85E-02	1.36E+00	4.52E-01	4.48E-01	5.44E-04	2.02E-04	2.72E-04
PW_1	545777.4	5397151	Kingdom Hall of Jehovah's Witnesses		1.10E-01	4.25E-02	7.35E-02	1.90E-03	7.30E-04	9.34E-04	1.94E-03	7.47E-04	1.11E-03	1.22E+01	1.01E+01	4.04E+00	1.56E+00	1.61E+00	1.68E-01	5.61E-02	2.11E-02	2.44E-02	2.07E-01	3.17E-02	1.69E-02	7.00E-01	2.61E-01	3.10E-01	5.17E-04	2.00E-04	2.72E-04
PW_2	546331.4	5395942	Parkland Pentecostal Church		1.09E-01	4.22E-02	7.33E-02	1.85E-03	7.06E-04	9.17E-04	1.86E-03	7.04E-04	1.07E-03	1.21E+01	9.99E+00	4.03E+00	1.55E+00	1.61E+00	1.57E-01	5.43E-02	2.03E-02	2.38E-02	2.06E-01	2.15E-02	1.31E-02	6.85E-01	2.52E-01	3.04E-01	4.70E-04	1.78E-04	2.55E-04
PW_3	545857.4	5395715	St. John's United Church		1.09E-01	4.22E-02	7.33E-02	1.85E-03	7.07E-04	9.17E-04	1.86E-03	7.05E-04	1.07E-03	1.21E+01	9.99E+00	4.03E+00	1.55E+00	1.60E+00	1.58E-01	5.43E-02	2.03E-02	2.37E-02	1.88E-01	2.16E-02	1.24E-02	6.85E-01	2.50E-01	3.02E-01	4.69E-04	1.79E-04	2.55E-04
PW_4	545425	5396043	Holy Saviour Roman Catholic Church		1.09E-01	4.22E-02	7.33E-02	1.85E-03	7.09E-04	9.18E-04	1.86E-03	7.09E-04	1.07E-03	1.21E+01	1.00E+01	4.03E+00	1.55E+00	1.61E+00	1.60E-01	5.40E-02	2.04E-02	2.38E-02	1.68E-01	2.52E-02	1.32E-02	6.84E-01	2.52E-01	3.03E-01	4.73E-04	1.80E-04	2.56E-04
PW_5	545390.4	5395989	Anglican Church-Trinity		1.09E-01	4.22E-02	7.33E-02	1.85E-03	7.08E-04	9.17E-04	1.86E-03	7.08E-04	1.07E-03	1.21E+01	1.00E+01	4.03E+00	1.55E+00	1.61E+00	1.60E-01	5.39E-02	2.04E-02	2.38E-02	1.67E-01	2.49E-02	1.31E-02	6.83E-01	2.52E-01	3.03E-01	4.72E-04	1.80E-04	2.56E-04
R_1	547226.4	5398096	Residence		1.10E-01	4.26E-02	7.36E-02	1.92E-03	7.36E-04	9.40E-04	1.98E-03	7.58E-04	1.12E-03	1.23E+01	1.02E+01	4.06E+00	1.56E+00	1.61E+00	1.82E-01	5.95E-02	2.18E-02	2.50E-02	3.20E-01	4.11E-02	2.42E-02	7.74E-01	2.78E-01	3.22E-01	5.29E-04	2.06E-04	2.76E-04
R_10	545421.4	5395954	Residence		1.09E-01	4.22E-02	7.33E-02	1.85E-03	7.08E-04	9.17E-04	1.86E-03	7.08E-04	1.07E-03	1.21E+01	1.00E+01	4.03E+00	1.55E+00	1.61E+00	1.60E-01	5.40E-02	2.03E-02	2.38E-02	1.63E-01	2.47E-02	1.30E-02	6.83E-01	2.52E-01	3.03E-01	4.71E-04	1.80E-04	2.56E-04
R_11	545619.4	5395878	Residence		1.09E-01	4.22E-02	7.33E-02	1.85E-03	7.08E-04	9.17E-04	1.86E-03	7.07E-04	1.07E-03	1.21E+01	1.00E+01	4.03E+00	1.55E+00	1.61E+00	1.60E-01	5.43E-02	2.03E-02	2.38E-02	1.59E-01	2.39E-02	1.28E-02	6.86E-01	2.51E-01	3.03E-01	4.73E-04	1.79E-04	2.56E-04
R_12	545831.4	5396001	Residence		1.09E-01	4.22E-02	7.33E-02	1.85E-03	7.09E-04	9.18E-04	1.86E-03	7.09E-04	1.08E-03	1.21E+01	9.99E+00	4.03E+00	1.55E+00	1.61E+00	1.59E-01	5.45E-02	2.04E-02	2.38E-02	1.80E-01	2.39E-02	1.32E-02	6.90E-01	2.52E-01	3.04E-01	4.72E-04	1.81E-04	2.57E-04
R_13	545806.9	5396173	Residence		1.10E-01	4.22E-02	7.33E-02	1.86E-03	7.12E-04	9.20E-04	1.87E-03	7.15E-04	1.08E-03	1.22E+01	1.00E+01	4.03E+00	1.55E+00	1.61E+00	1.62E-01	5.47E-02	2.05E-02	2.39E-02	1.70E-01	2.53E-02	1.36E-02	6.92E-01	2.53E-01	3.04E-01	4.80E-04	1.83E-04	2.59E-04
R_14	545827.1	5396229	Residence		1.10E-01	4.23E-02	7.33E-02	1.86E-03	7.14E-04	9.21E-04	1.88E-03	7.19E-04	1.08E-03	1.22E+01	1.00E+01	4.03E+00	1.55E+00	1.61E+00	1.64E-01	5.48E-02	2.06E-02	2.39E-02	1.70E-01	2.57E-02	1.38E-02	6.94E-01	2.54E-01	3.05E-01	4.89E-04	1.85E-04	2.60E-04
R_15	545662.4	5396176	Residence		1.09E-01	4.22E-02	7.33E-02	1.85E-03	7.11E-04	9.20E-04	1.87E-03	7.13E-04	1.08E-03	1.22E+01	1.00E+01	4.03E+00	1.55E+00	1.61E+00	1.62E-01	5.45E-02	2.05E-02	2.39E-02	1.63E-01	2.58E-02	1.36E-02	6.90E-01	2.54E-01	3.04E-01	4.78E-04	1.83E-04	2.58E-04
R_16	546254.4	5396485	Residence		1.10E-01	4.22E-02	7.33E-02	1.86E-03	7.12E-04	9.21E-04	1.88E-03	7.14E-04	1.08E-03	1.22E+01	1.00E+01	4.03E+00	1.55E+00	1.61E+00	1.63E-01	5.51E-02	2.05E-02	2.40E-02	2.12E-01	2.54E-02	1.46E-02	6.99E-01	2.56E-01	3.06E-01	4.79E-04	1.83E-04	2.59E-04
R_17	546471.4	5396507	Residence		1.09E-01	4.22E-02	7.33E-02	1.86E-03	7.09E-04	9.19E-04	1.88E-03	7.10E-04	1.08E-03	1.22E+01	1.00E+01	4.03E+00	1.55E+00	1.61E+00	1.62E-01	5.49E-02	2.05E-02	2.39E-02	2.25E-01	2.40E-02	1.47E-02	6.97E-01	2.56E-01	3.07E-01	4.76E-04	1.81E-04	2.57E-04
R_18	546601.4	5396388	Residence		1.09E-01	4.22E-02	7.33E-02	1.85E-03	7.08E-04	9.18E-04	1.87E-03	7.07E-04	1.08E-03	1.22E+01	1.00E+01	4.03E+00	1.55E+00	1.61E+00	1.62E-01	5.45E-02	2.04E-02	2.39E-02	2.19E-01	2.38E-02	1.44E-02	6.91E-01	2.55E-01	3.06E-01	4.74E-04	1.80E-04	2.56E-04
R_19	546856.4	5395581	Residence		1.09E-01	4.21E-02	7.33E-02	1.84E-03	7.06E-04	9.16E-04	1.85E-03	7.03E-04	1.07E-03	1.22E+01	1.01E+01	4.03E+00	1.55E+00	1.61E+00	1.70E-01	5.43E-02	2.02E-02	2.37E-02	1.56E-01	2.26E-02	1.27E-02	6.81E-01	2.51E-01	3.03E-01	4.67E-04	1.78E-04	2.55E-04
R_2	547273.4	5398045	Residence		1.10E-01	4.23E-02	7.34E-02	1.89E-03	7.19E-04	9.27E-04	1.93E-03	7.28E-04	1.09E-03	1.23E+01	1.01E+01	4.06E+00	1.56E+00	1.61E+00	1.79E-01	5.90E-02	2.15E-02	2.47E-02	3.25E-01	4.00E-02	2.40E-02	7.74E-01	2.77E-01	3.21E-01	5.01E-04	1.89E-04	2.64E-04
R_20	546950.4	5395534	Residence		1.09E-01	4.21E-02	7.33E-02	1.84E-03	7.06E-04	9.16E-04	1.85E-03	7.03E-04	1.07E-03	1.22E+01	1.01E+01	4.03E+00	1.55E+00	1.61E+00	1.69E-01	5.44E-02	2.02E-02	2.37E-02	1.52E-01	2.30E-02	1.26E-02	6.80E-01	2.51E-01	3.03E-01	4.68E-04	1.78E-04	2.55E-04
R_21	547201.4	5395416	Residence		1.09E-01	4.21E-02	7.33E-02	1.84E-03	7.06E-04	9.16E-04	1.85E-03	7.03E-04	1.07E-03	1.22E+01	1.00E+01	4.03E+00	1.55E+00	1.61E+00	1.61E-01	5.43E-02	2.03E-02	2.37E-02	1.40E-01	2.37E-02	1.26E-02	6.77E-01	2.51E-01	3.03E-01	4.67E-04	1.77E-04	2.55E-04
R_22	548317.4	5399655	Residence		1.10E-01	4.26E-02	7.35E-02	1.93E-03	7.36E-04	9.35E-04	1.99E-03	7.54E-04	1.10E-03	1.28E+01	1.05E+01	4.12E+00	1.58E+00	1.63E+00	2.33E-01	6.78E-02	2.53E-02	2.69E-02	3.74E-01	7.25E-02	3.93E-02	9.43E-01	3.35E-01	3.59E-01	5.20E-04	1.97E-04	2.67E-04
R_3	545809.4	5397233	Bergagnini Apartment Rental		1.10E-01	4.25E-02	7.35E-02	1.90E-03	7.31E-04	9.35E-04	1.95E-03	7.50E-04	1.11E-03	1.22E+01	1.01E+01	4.04E+00	1.56E+00	1.61E+00	1.68E-01	5.63E-02	2.11E-02	2.44E-02	2.09E-01	3.23E-02	1.73E-02	7.03E-01	2.62E-01	3.10E-01	5.21E-04	2.01E-04	2.73E-04
R_4	546092.4	5396797	Residence		1.10E-01	4.23E-02	7.34E-02	1.87E-03	7.17E-04	9.25E-04	1.89E-03	7.25E-04	1.09E-03	1.22E+01	1.00E+01	4.04E+00	1.55E+00	1.61E+00	1.64E-01	5.53E-02	2.07E-02	2.41E-02	1.80E-01	2.92E-02	1.57E-02	7.05E-01	2.58E-01	3.08E-01	4.85E-04	1.89E-04	2.63E-04
R_5	545971.4	5396490	Condominium		1.11E-01	4.30E-02	7.39E-02	1.94E-03	7.70E-04	9.62E-04	2.03E-03	8.22E-04	1.16E-03	1.22E+01	1.00E+01	4.04E+00	1.56E+00	1.61E+00	1.66E-01	5.67E-02	2.18E-02	2.50E-02	1.78E-01	2.71E-02	1.46E-02	6.98E-01	2.56E-01	3.06E-01	5.73E-04	2.41E-04	2.99E-04
R_6	545655.4	5396521	Residence		1.10E-01	4.24E-02	7.34E-02	1.89E-03	7.21E-04	9.26E-04	1.94E-03	7.32E-04	1.09E-03	1.22E+01	1.01E+01	4.03E+00	1.55E+00	1.61E+00	1.69E-01	5.52E-02	2.08E-02	2.41E-02	1.85E-01	2.80E-02	1.47E-02	6.93E-01	2.57E-01	3.06E-01	5.14E-04	1.92E-04	2.64E-04
R_7	545438.4	5396409	I S

Table E-3 Special Receptor Predictions (ug/m3) - Construc

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	ANTIMONY (SB)			ARSENIC (AS)			BARIUM (BA)			BENZENE			BENZO(A)ANTHRACENE			BENZO(A)PYRENE			BENZO(B)FLUORANTHENE			BENZO(G,H,I)PERYLENE			BENZO(K)FLUORANTHENE			BERYLLIUM (BE)		
				24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual
				25	-	-	0.3	-	-	10	-	-	2.3	-	0.45	-	-	-	0.00005	-	0.00001	-	-	-	-	-	-	-	-	-	0.01	-	-
				2.71E-02	1.05E-02	9.39E-03				3.99E-02	1.54E-02	1.92E-02	1.44E+00	5.56E-01	9.02E-01	2.14E-04	8.26E-05	1.07E-04	2.06E-04	7.95E-05	1.03E-04	3.19E-04	1.23E-04	2.07E-04	2.80E-04	1.08E-04	1.32E-04	1.04E-04	4.03E-05	6.07E-05			
H_1	545937.4	5396170	Wilson Memorial General Hospital	2.71E-02	1.05E-02	9.39E-03	2.21E-05	5.54E-06	4.29E-06	4.03E-02	1.55E-02	1.93E-02	1.45E+00	5.58E-01	9.03E-01	2.33E-04	8.60E-05	1.09E-04	2.18E-04	8.16E-05	1.04E-04	3.25E-04	1.24E-04	2.08E-04	3.02E-04	1.12E-04	1.34E-04	1.09E-04	4.11E-05	6.12E-05	4.95E-06	1.24E-06	9.59E-07
M_1	545694	5403864	PM-10 @ Hare Lake	2.72E-02	1.05E-02	9.40E-03	6.34E-05	1.76E-05	1.06E-05	4.11E-02	1.57E-02	1.94E-02	1.46E+00	5.60E-01	9.05E-01	2.19E-04	8.35E-05	1.07E-04	2.08E-04	8.00E-05	1.03E-04	3.27E-04	1.24E-04	2.08E-04	2.84E-04	1.09E-04	1.32E-04	1.06E-04	4.06E-05	6.09E-05	1.44E-05	3.95E-06	2.36E-06
M_2	545694	5403873	Dustfall @ Hare Lake	2.72E-02	1.05E-02	9.40E-03	6.30E-05	1.76E-05	1.05E-05	4.11E-02	1.57E-02	1.94E-02	1.46E+00	5.60E-01	9.05E-01	2.19E-04	8.35E-05	1.07E-04	2.08E-04	8.00E-05	1.03E-04	3.27E-04	1.24E-04	2.08E-04	2.84E-04	1.09E-04	1.32E-04	1.06E-04	4.06E-05	6.09E-05	1.43E-05	3.94E-06	2.36E-06
M_3	547152	5401222	PM-10 @ Mays Gifts	2.73E-02	1.05E-02	9.43E-03	1.67E-04	5.37E-05	4.15E-05	4.30E-02	1.64E-02	2.00E-02	1.48E+00	5.68E-01	9.11E-01	2.23E-04	8.45E-05	1.08E-04	2.10E-04	8.05E-05	1.04E-04	3.32E-04	1.26E-04	2.09E-04	2.87E-04	1.10E-04	1.33E-04	1.07E-04	4.10E-05	6.11E-05	3.74E-05	1.20E-05	9.27E-06
M_4	547147	5401216	Dustfall @ Mays Gifts	2.73E-02	1.05E-02	9.43E-03	1.66E-04	5.34E-05	4.12E-05	4.30E-02	1.64E-02	2.00E-02	1.48E+00	5.68E-01	9.11E-01	2.23E-04	8.45E-05	1.08E-04	2.10E-04	8.05E-05	1.04E-04	3.32E-04	1.26E-04	2.09E-04	2.87E-04	1.10E-04	1.33E-04	1.07E-04	4.10E-05	6.11E-05	3.71E-05	1.19E-05	9.19E-06
M_5	551637	5402371	PM-10 @ Pic River	2.72E-02	1.05E-02	9.41E-03	5.81E-05	2.46E-05	1.63E-05	4.10E-02	1.58E-02	1.95E-02	1.46E+00	5.63E-01	9.07E-01	2.22E-04	8.41E-05	1.08E-04	2.09E-04	8.03E-05	1.03E-04	3.31E-04	1.25E-04	2.08E-04	2.87E-04	1.09E-04	1.32E-04	1.07E-04	4.08E-05	6.10E-05	1.30E-05	5.51E-06	3.64E-06
M_6	551643	5402374	Dustfall @ Pic River	2.72E-02	1.05E-02	9.41E-03	5.78E-05	2.46E-05	1.63E-05	4.10E-02	1.58E-02	1.95E-02	1.46E+00	5.63E-01	9.07E-01	2.22E-04	8.41E-05	1.08E-04	2.09E-04	8.03E-05	1.03E-04	3.31E-04	1.25E-04	2.08E-04	2.87E-04	1.09E-04	1.32E-04	1.07E-04	4.08E-05	6.10E-05	1.29E-05	5.50E-06	3.63E-06
M_7	549180	5399815	Dustfall @ Airport	2.72E-02	1.05E-02	9.43E-03	1.31E-04	5.87E-05	4.47E-05	4.23E-02	1.65E-02	2.00E-02	1.51E+00	5.86E-01	9.25E-01	2.21E-04	8.58E-05	1.09E-04	2.11E-04	8.15E-05	1.05E-04	3.27E-04	1.25E-04	2.09E-04	2.85E-04	1.10E-04	1.33E-04	1.07E-04	4.11E-05	6.13E-05	2.94E-05	1.31E-05	9.99E-06
M_8	545863	5397092	Dustfall @ Field Office	2.71E-02	1.05E-02	9.39E-03	2.40E-05	7.03E-06	5.31E-06	4.03E-02	1.55E-02	1.93E-02	1.45E+00	5.60E-01	9.05E-01	2.44E-04	9.92E-05	1.19E-04	2.26E-04	9.02E-05	1.11E-04	3.28E-04	1.28E-04	2.11E-04	3.16E-04	1.28E-04	1.46E-04	1.11E-04	4.41E-05	6.35E-05	5.38E-06	1.57E-06	1.19E-06
O_1	547181.4	5398015	Pic Motel	2.71E-02	1.05E-02	9.40E-03	3.76E-05	1.03E-05	7.63E-06	4.06E-02	1.56E-02	1.93E-02	1.46E+00	5.60E-01	9.05E-01	2.33E-04	9.12E-05	1.13E-04	2.18E-04	8.52E-05	1.07E-04	3.28E-04	1.26E-04	2.10E-04	3.03E-04	1.19E-04	1.39E-04	1.09E-04	4.24E-05	6.22E-05	8.40E-06	2.31E-06	1.70E-06
O_2	545734.4	5396873	Marathon Harbour Inn	2.71E-02	1.05E-02	9.40E-03	2.60E-05	8.38E-06	6.45E-06	4.04E-02	1.55E-02	1.93E-02	1.46E+00	5.62E-01	9.07E-01	2.87E-04	1.16E-04	1.31E-04	2.52E-04	1.01E-04	1.19E-04	3.40E-04	1.33E-04	2.14E-04	3.63E-04	1.46E-04	1.60E-04	1.21E-04	4.77E-05	6.62E-05	5.81E-06	1.87E-06	1.44E-06
O_3	545885.4	5396449	Zero-100 Motor Inn	2.71E-02	1.05E-02	9.39E-03	2.29E-05	5.97E-06	4.56E-06	4.03E-02	1.55E-02	1.93E-02	1.46E+00	5.61E-01	9.07E-01	2.97E-04	1.15E-04	1.30E-04	2.58E-04	9.97E-05	1.18E-04	3.43E-04	1.32E-04	2.14E-04	3.74E-04	1.44E-04	1.58E-04	1.23E-04	4.73E-05	6.59E-05	5.12E-06	1.33E-06	1.02E-06
O_4	545987.4	5397641	OPP Station	2.71E-02	1.05E-02	9.40E-03	2.69E-05	8.12E-06	6.00E-06	4.04E-02	1.55E-02	1.93E-02	1.45E+00	5.59E-01	9.05E-01	2.38E-04	9.39E-05	1.15E-04	2.22E-04	8.68E-05	1.08E-04	3.27E-04	1.27E-04	2.10E-04	3.09E-04	1.21E-04	1.42E-04	1.10E-04	4.29E-05	6.27E-05	6.01E-06	1.82E-06	1.34E-06
O_5	545876.4	5396073	Library	2.71E-02	1.05E-02	9.39E-03	2.16E-05	5.40E-06	4.19E-06	4.03E-02	1.55E-02	1.93E-02	1.45E+00	5.58E-01	9.03E-01	2.28E-04	8.54E-05	1.09E-04	2.15E-04	8.13E-05	1.04E-04	3.23E-04	1.24E-04	2.08E-04	2.96E-04	1.11E-04	1.34E-04	1.07E-04	4.10E-05	6.11E-05	4.85E-06	1.21E-06	9.35E-07
P_1	546958.4	5396139	Penn Lake Park and Campground	2.71E-02	1.05E-02	9.39E-03	2.13E-05	5.69E-06	4.47E-06	4.03E-02	1.55E-02	1.93E-02	1.45E+00	5.57E-01	9.03E-01	2.18E-04	8.36E-05	1.07E-04	2.08E-04	8.01E-05	1.03E-04	3.22E-04	1.24E-04	2.08E-04	2.84E-04	1.09E-04	1.32E-04	1.05E-04	4.05E-05	6.09E-05	4.77E-06	1.27E-06	1.00E-06
P_2	548538.4	5392863	Craig's Pit Provincial Nature Reserve	2.71E-02	1.05E-02	9.39E-03	1.84E-05	3.91E-06	2.40E-06	4.02E-02	1.55E-02	1.92E-02	1.45E+00	5.57E-01	9.03E-01	2.16E-04	8.29E-05	1.07E-04	2.07E-04	7.96E-05	1.03E-04	3.21E-04	1.23E-04	2.08E-04	2.81E-04	1.08E-04	1.32E-04	1.05E-04	4.04E-05	6.07E-05	4.14E-06	8.76E-07	5.36E-07
P_3	540005	5402014	Red Sucker Point Provincial Park	2.71E-02	1.05E-02	9.39E-03	2.02E-05	4.61E-06	2.50E-06	4.03E-02	1.55E-02	1.92E-02	1.45E+00	5.57E-01	9.03E-01	2.16E-04	8.29E-05	1.07E-04	2.07E-04	7.97E-05	1.03E-04	3.21E-04	1.23E-04	2.08E-04	2.81E-04	1.08E-04	1.32E-04	1.05E-04	4.04E-05	6.08E-05	4.61E-06	1.03E-06	5.58E-07
P_4	552770	5383776	Pukaskwa National Park	2.71E-02	1.05E-02	9.39E-03	6.14E-06	1.28E-06	7.94E-07	4.00E-02	1.54E-02	1.92E-02	1.44E+00	5.56E-01	9.02E-01	2.15E-04	8.27E-05	1.07E-04	2.06E-04	7.95E-05	1.03E-04	3.19E-04	1.23E-04	2.07E-04	2.80E-04	1.08E-04	1.32E-04	1.05E-04	4.03E-05	6.07E-05	1.38E-06	2.86E-07	1.78E-07
PR_1	553679.4	5385896	Children & Family Learning Centre	2.71E-02	1.05E-02	9.39E-03	5.65E-06	1.35E-06	8.70E-07	4.00E-02	1.54E-02	1.92E-02	1.44E+00	5.56E-01	9.02E-01	2.14E-04	8.27E-05	1.07E-04	2.06E-04	7.95E-05	1.03E-04	3.19E-04	1.23E-04	2.07E-04	2.80E-04	1.08E-04	1.32E-04	1.05E-04	4.03E-05	6.07E-05	1.26E-06	3.01E-07	1.94E-07
PR_2	554004.4	5385858	Pic River Elementary	2.71E-02	1.05E-02	9.39E-03	5.13E-06	1.27E-06	8.46E-07	4.00E-02	1.54E-02	1.92E-02	1.44E+00	5.56E-01	9.02E-01	2.14E-04	8.27E-05	1.07E-04	2.06E-04	7.95E-05	1.03E-04	3.19E-04	1.23E-04	2.07E-04	2.80E-04	1.08E-04	1.32E-04	1.05E-04	4.03E-05	6.07E-05	1.15E-06	2.84E-07	1.89E-07
PR_3	553836.4	5385604	Pic River Private High School	2.71E-02	1.05E-02	9.39E-03	5.36E-06	1.29E-06	8.42E-07	4.00E-02	1.54E-02	1.92E-02	1.44E+00	5.56E-01	9.02E-01	2.14E-04	8.27E-05	1.07E-04	2.06E-04	7.95E-05	1.03E-04	3.19E-04	1.23E-04	2.07E-04	2.80E-04	1.08E-04	1.32E-04	1.05E-04	4.03E-05	6.07E-05	1.20E-06	2.90E-07	1.88E-07
PR_4	553930.4	5386049	Pic River Health Centre	2.71E-02	1.05E-02	9.39E-03	5.26E-06	1.30E-06	8.62E-07	4.00E-02	1.54E-02	1.92E-02	1.44E+00	5.56E-01	9.02E-01	2.14E-04	8.27E-05	1.07E-04	2.06E-04	7.95E-05	1.03E-04	3.19E-04	1.23E-04	2.07E-04	2.80E-04	1.08E-04	1.32E-04	1.05E-04	4.03E-05	6.07E-05	1.18E-06	2.90E-07	1.93E-07
PR_5	552493.4	5384783	BIIDAABAN Healing Lodge	2.71E-02	1.05E-02	9.39E-03	6.58E-06	1.38E-06	8.65E-07	4.00E-02	1.54E-02	1.92E-02	1.44E+00	5.56E-01	9.02E-01	2.15E-04	8.27E-05	1.07E-04	2.06E-04	7.95E-05	1.03E-04	3.20E-04	1.23E-04	2.07E-04	2.81E-04	1.08E-04	1.32E-04	1.05E-04	4.03E-05	6.07E-05	1.48E-06	3.08E-07	1.93E-07
PR_6	552843.4	5390100	Residence	2.71E-02	1.05E-02	9.39E-03	8.73E-06	2.04E-06	1.34E-06	4.01E-02	1.54E-02	1.92E-02	1.44E+00	5.56E-01	9.02E-01	2.15E-04	8.27E-05	1.07E-04	2.06E-04	7.96E-05	1.03E-04	3.20E-04	1.23E-04	2.07E-04	2.81E-04	1.08E-04	1.32E-04	1.05E-04	4.03E-05	6.07E-05	1.96E-06	4.57E-07	3.00E-07
PR_7	553761.4	5387706	Residence	2.71E-02	1.05E-02	9.39E-03	5.74E-06	1.45E-06	9.89E-07	4.00E-02	1.54E-02	1.92E-02	1.44E+00	5.56E-01	9.02E-01	2.15E-04	8.27E-05	1.07E-04	2.06E-04	7.95E-05	1.03E-04	3.19E-04	1.23E-04	2.07E-04	2.80E-04	1.08E-04	1.32E-04	1.05E-04	4.03E-05	6.07E-05	1.28E-06	3.25E-07	2.21E-07
PS_1	545001.3	5404050	North Hare Lake Cottage	2.71E-02	1.05E-02	9.40E-03	4.35E-05	1.40E-05	8.22E-06	4.07E-02	1.57E-02	1.94E-02	1.45E+00	5.59E-01	9.04E-01	2.18E-04	8.33E-05	1.07E-04	2.08E-04	7.99E-05	1.03E-04	3.25E-04	1.24E-04	2.08E-04	2.84E-04	1.09E-04	1.32E-04	1.06E-04	4.06E-05	6.09E-05	9.74E-06	3.14E-06	1.84E-06
PS_2	544331.3	5403100	South Hare Lake Cottage	2.72E-02	1.05E-02	9.40E-03	5.83E-05	1.27E-05	7.12E-06	4.10E-02	1.56E-02	1.93E-02	1.45E+00	5.59E-01	9.04E-01	2.18E-04	8.32E-05	1.07E-04	2.08E-04	7.98E-05	1.03E-04	3.25E-04	1.24E-04	2.08E-04	2.84E-04	1.09E-04	1.32E-04	1.06E-04	4.05E-05	6.08E-05	1.32E-05	2.84E-06	1.59E-06
PS_3	547056.1	5401004	May's Gifts	2.72E-02	1.05E-02	9.42E-03	1.44E-04	4.35E-05	3.22E-05	4.26E-02	1.62E-02	1.98E-02	1.48E+00	5.66E-01	9.10E-01	2.22E-04	8.43E-05	1.08E-04	2.10E-04	8.04E-05	1.04E-04	3.31E-04	1.25E-04	2.09E-04	2.87E-04	1.10E-04	1.32E-04	1.07E-04	4.09E-05	6.11E-05	3.22E-05	9.71E-06	7.20E-06
PS_4	546811.4	5400953	Wayfare Inn	2.72E-02	1.05E-02	9.42E-03	1.38E-04	4.20E-05	3.01E-05	4.24E-02	1.62E-02	1.98E-02	1.47E+00	5.66E-01	9.09E-01	2.21E-04	8.42E-05	1.08E-04	2.10E-04	8.04E-05	1.04E-04	3.30E-04	1.25E-04	2.08E-04	2.86E-04	1.09E-04	1.32E-04	1.07E-04	4.08E-05	6.10E-05	3.08E-05	9.39E-06	6.72E-06
PS_5	546996.4	5401028	Peninsula Inn	2.72E-02	1.05E-02	9.42E-03	1.53E-04	4.50E-05	3.31E-05	4.27E-02	1.62E-02	1.98E-02	1.48E+00	5.66E-01	9.10E-01	2.22E-04	8.43E-05	1.08E-04	2.10E-04	8.04E-05	1.04E-04	3.31E-04	1.25E-04	2.09E-04	2.87E-04	1.09E-04	1.32E-04	1.07E-04	4.09E-05	6.11E-05	3.42E-05	1.00E-05	7.40E-06
PS_6	548471.4	5399489	Travelodge Hotel	2.72E-02	1.05E-02	9.41E-03	7.71E-05	2.58E-05	1.74E-05	4.13E-02	1.59E-02	1.95E-02	1.46E+00	5.67E-01	9.09E-01	2.24E-04	8.65E-05	1.10E-04	2.13E-04	8.21E-05	1.05E-04	3.27E-04	1.25E-04	2.09E-04	2.92E-04	1.13E-04	1.35E-04	1.07E-04	4.14E-05	6.16E-05	1.72E-05	5.78E-06	3.88E-06
PS_7	546903.4	5401056	The Laughing Mooz Eatery Restauran	2.72E-02	1.05E-02	9.42E-03	1.62E-04	4.70E-05	3.42E-05	4.29E-02	1.63E-02	1.98E-02	1.48E+00	5.67E-01	9.10E-01	2.22E-04	8.42E-05	1.08E-04	2.10E-04	8.04E-05	1.04E-04	3.31E-04	1.25E-04	2.09E-04	2.87E-04	1.09E-04	1.32E-04	1.07E-04	4.09E-05	6.10E-05	3.62E-05	1.05E-05	7.65E-06
PW_1	545777.4	5397151	Kingdom Hall of Jehovah's Witnesses	2.71E-02	1.05E-02	9.39E-03	2.34E-05	7.11E-06	5.33E-06	4.03E-02	1.55E-02	1.93E-02	1.45E+00	5.59E-01	9.05E-01	2.44E-04	9.57E-05	1.17E-04	2.25E-04	8.80E-05	1.09E-04	3.29E-04	1.27E-04	2.10E-04	3.15E-04	1.23E-04	1.43E-04	1.11E-04	4.33E-05	6.30E-05	5.24E-06	1.59E-06	1.19E-06
PW_2	546331.4	5395942	Parkland Pentecostal Church	2.71E-02	1.05E-02	9.39E-03	2.02E-05	5.24E-06	4.15E-06	4.03E-02	1.55E-02	1.93E-02	1.45E+00	5.57E-01	9.03E-01	2.18E-04	8.37E-05	1.08E-04	2.09E-04	8.02E-05	1.04E-04	3.23E-04	1.24E-04	2.08E-04	2.84E-04	1.09E-04	1.33E-04	1.06E-04	4.06E-05	6.09E-05	4.53E-06	1.17E-06	9.27E-07
PW_3	545857.4	5395715	St. John's United Church	2.71E-02	1.05E-02	9.39E-03	2.02E-05	4.92E-06	3.86E-06	4.03E-02	1.55E-02	1.93E-02	1.45E+00	5.57E-01	9.03E-01	2.19E-04	8.40E-05	1.08E-04	2.09E-04	8.03E-05	1.04E-04	3.22E-04	1.24E-04	2.08E-04	2.86E-04	1.10E-04	1.33E-04	1.06E-04	4.06E-05	6.09E-05	4.53E-06	1.10E-06	8.64E-07
PW_4	545425	5396043	Holy Saviour Roman Catholic Church	2.71E-02	1.05E-02	9.39E-03	2.00E-05	5.33E-06	4.03E-06	4.03E-02	1.55E-02	1.93E-02	1.45E+00	5.57E-01	9.03E-01	2.21E-04	8.46E-05	1.08E-04	2.10E-04	8.08E-05	1.04E-04	3.23E-04	1.24E-04	2.08E-04	2.88E-04	1.10E-04	1.33E-04	1.06E-04	4.08E-05	6.10E-05	4.48E-06	1.19E-06	9.02E-07
PW_5	545390.4	5395989	Anglican Church-Trinity	2.71E-02	1.05E-02	9.39E-03	1.99E-05	5.27E-06	3.99E-06	4.03E-02	1.55E-02	1.93E-02	1.45E+00	5.57E-01	9.03E-01	2.20E-04	8.44E-05	1.08E-04	2.10E-04	8.06E-05	1.04E-04	3.23E-04	1.24E-04	2.08E-04	2.87E-04	1.10E-04	1.33E-04	1.06E-04	4.07E-05	6.10E-05	4.45E-06	1.18E-06	8.91E-07
R_1	547226.4	5398096	Residence	2.71E-02	1.05E-02	9.40E-03	3.89E-05	1.06E-05	7.85E-06	4.06E-02	1.56E-02	1.93E-02	1.46E+00	5.60E-01	9.06E-01	2.43E-04	9.83E-05	1.18E-04	2.25E-04	9.00E-05	1.10E-04	3.31E-04	1.28E-04	2.11E-04	3.16E-04	1.28E-04	1.45E-04	1.12E-04	4.41E-05	6.34E-05	8.69E-06	2.38E-06	1.75E-06
R_10	545421.4	5395954	Residence	2.71E-02	1.05E-02	9.39E-03	1.99E-05	5.22E-06	3.96E-06	4.03E-02	1.55E-02	1.93E-02	1.45E+00	5.57E-01	9.03E-01	2.20E-04	8.43E-05	1.08E-04	2.10E-04	8.06E-05	1.04E-04	3.23E-04	1.24E-04	2.08E-04	2.87E-04	1.10E-04	1.33E-04	1.06E-04	4.07E-05	6.10E-05	4.46E-06	1.17E-06	8.86E-07
R_11	545619.4	5395878	Residence	2.71E-02	1.05E-02	9.39E-03	2.05E-05	5.14E-06	3.94E-06	4.03E-02	1.55E-02	1.93E-02	1.45E+00	5.57E-01	9.03E-01	2.20E-04	8.43E-05	1.08E-04	2.10E-04	8.05E-05	1.04E-04	3.23E-04	1.24E-04	2.08E-04	2.86E-04	1.10E-04	1.33E-04	1.06E-04	4.07E-05	6.10E-05	4.58E-06	1.15E-06	8.82E-07
R_12	545831.4	5396001	Residence	2.71E-02	1.05E-02	9.39E-03	2.13E-05	5.30E-06	4.11E-06	4.03E-02	1.55E-02	1.93E-02	1.45E+00	5.57E-01	9.03E-01	2.22E-04	8.49E-05	1.08E-04	2.11E-04	8.09E-05	1.04E-04	3.23E-04	1.24E-04	2.08E-04	2.89E-04	1.11E-04	1.33E-04	1.06E-04	4.08E-05	6.11E-05	4.77E-06	1.19E-06	9.18E-07
R_13	545806.9	5396173	Residence	2.71E-02	1.05E-02	9.39E-03	2.18E-05	5.54E-06	4.26E-06	4.03E-02	1.55E-02	1.93E-02	1.45E+00	5.58E-01	9.04E-01	2.26E-04	8.63E-05	1.10E-04	2.13E-04	8.18E-05	1.05E-04	3.24E-04	1.24E-04	2.08E-04	2.93E-04	1.12E-04	1.35E-04	1.07E-04	4.11E-05	6.13E-05	4.88E-06	1.24E-06	9.52E-07
R_14	545827.1	5396229	Residence	2.71E-02	1.05E-02	9.39E-03	2.20E-05	5.63E-06	4.32E-06	4.03E-02	1.55E-02	1.93E-02	1.45E+00	5.58E-01	9.04E-01	2.31E-04	8.75E-05	1.10E-04	2.17E-04	8.26E-05	1.05E-04	3.25E-04	1.25E-04	2.08E-04	2.99E-04	1.14E-04	1.35E-04	1.08E-04	4.14E-05	6.15E-05	4.94E-06	1.26E-06	9.66E-07
R_15	545662.4	5396176	Residence	2.71E-02	1.05E-02	9.39E-03	2.13E-05	5.57E-06	4.23E-06	4.03E-02	1.55E-02	1.93E-02	1.45E+00	5.58E-01	9.03E-01	2.24E-04	8.59E-05	1.09E-04	2.12E-04	8.15E-05	1.05E-04	3.23E-04	1.24E-04	2.08E-04	2.91E-04	1.12E-04	1.34E-04	1.07E-04	4.11E-05	6.13E-05	4.77E-06	1.25E-06	9.45E-07
R_16	546254.4	5396485	Residence	2.71E-02	1.05E-02	9.39E-03	2.32E-05	6.00E-06	4.66E-06	4.03E-02	1.55E-02	1.93E-02	1.45E+00	5.58E-01	9.04E-01	2.23E-04	8.66E-05	1.10E-04	2.12E-04	8.20E-05	1.05E-04	3.24E-04	1.24E-04	2.08E-04	2.90E-04	1.13E-04	1.35E-04	1.07E-04	4.12E-05	6.13E-05	5.20E-06	1.34E-06	1.04E-06
R_17	546471.4	5396507	Residence	2.71E-02	1.05E-02	9.39E-03	2.28E-05	6.05E-06	4.73E-06	4.03E-02	1.55E-02	1.93E-02	1.45E+00	5.58E-01	9.04E-01	2.21E-04	8.52E-05	1.08E-04	2.10E-04	8.11E-05	1.04E-04	3.24E-04	1.24E-04	2.08E-04	2.88E-04	1.11E-04	1.34E-04	1.06E-04	4.09E-05	6.11E-05	5.11E-06	1.35E-06	1.06E-06
R_18	546601.4	5396388	Residence	2.71E-02	1.05E-02	9.39E-03	2.16E-05	5.89E-06	4.64E-06	4.03E-02	1.55E-02	1.93E-02	1.45E+00	5.57E-01	9.03E-01	2.20E-04	8.44E-05	1.08E-04	2.10E-04	8.06E-05	1.04E-04	3.23E-04	1.24E-04	2.08E-04	2.87E-04	1.10E-04	1.33E-04	1.06E-04	4.07E-05	6.10E-05	4.83E-06	1.32E-06	1.04E-06
R_19	546856.4	5395581	Residence	2.71E-02	1.05E-02	9.39E-03	1.94E-05	5.02E-06	3.96E-06	4.03E-02	1.55E-02	1.93E-02	1.45E+00	5.57E-01	9.03E-01	2.17E-04	8.32E-05	1.07E-04	2.08E-04	7.99E-05	1.03E-04	3.22E-04	1.23E-04	2.08E-04	2.83E-04	1.09E-04	1.32E-04	1.05E-04	4.05E-05	6.08E-05	4.34E-06	1.12E-06	8.86E-07
R_2	547273.4	5398045	Residence	2.71E-02	1.05E-02	9.40E-03	3.89E-05	1.05E-05	7.75E-06	4.06E-02	1.56E-02	1.93E-02	1.45E+00	5.59E-01	9.05E-01	2.27E-04	8.85E-05	1.11E-04	2.15E-04	8.35E-05	1.06E-04	3.27E-04	1.25E-04	2.09E-04	2.96E-04	1.15E-04	1.37E-04	1.08E-04	4.18E-05	6.18E-05	8.70E-06	2.34E-06	1.73E-06
R_20	546950.4	5395534	Residence	2.71E-02	1.05E-02	9.39E-03	1.93E-05	5.03E-06	3.95E-06	4.03E-02	1.55E-02	1.93E-02	1.45E+00	5.57E-01	9.03E-01	2.17E-04	8.32E-05	1.07E-04	2.07E-04	7.99E-05	1.03E-04	3.22E-04	1.23E-04	2.08E-04	2.83E-04	1.09E-04	1.32E-04	1.05E-04	4.05E-05	6.08E-05	4.32E-06	1.12E-06	8.82E-07
R_21	547201.4	5395416	Residence	2.71E-02	1.05E-02	9.39E-03	1.86E-05	5.07E-06	3.89E-06	4.02E-02	1.55E-02	1.93E-02	1.45E+00	5.57E-01	9.03E-01	2.16E-04	8.32E-05	1.07E-04	2.07E-04	7.98E-05	1.03E-04	3.21E-04	1.23E-04	2.08E-04	2.82E-04	1.09E-04	1.32E-04	1.05E-04	4.04E-05	6.08E-05	4.17E-06	1.13E-06	8.70E-07
R_22	548317.4	5399655

Table E-3 Special Receptor Predictions (ug/m3) - Construc

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	BISMUTH (BI)			BORON (B)			BROMINE (BR)			CADMIUM (CD)			CALCIUM (CA)			CAO			CH4			CHROMIUM (CR)			CHRYSENE		
				24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual
				2.5	-	-	120	-	-	20	-	-	0.025	-	0.005	-	-	-	10	-	-	37330	-	-	0.5	-	-	-	-	-
													1.20E-02	4.63E-03	3.62E-03	1.74E+00	6.71E-01	7.62E-01							1.46E-03	5.63E-04	6.76E-04	2.65E-04	1.02E-04	1.57E-04
H_1	545937.4	5396170	Wilson Memorial General Hospital	1.86E-05	4.69E-06	3.63E-06	9.00E-05	2.27E-05	1.76E-05	0.00E+00	0.00E+00	0.00E+00	1.20E-02	4.63E-03	3.62E-03	1.85E+00	6.99E-01	7.83E-01	0.00E+00	0.00E+00	0.00E+00	3.39E-02	7.70E-03	5.73E-03	2.26E-03	7.63E-04	8.31E-04	2.77E-04	1.05E-04	1.59E-04
M_1	545694	5403864	PM-10 @ Hare Lake	5.16E-05	1.49E-05	8.94E-06	2.50E-04	7.23E-05	4.33E-05	0.00E+00	0.00E+00	0.00E+00	1.20E-02	4.63E-03	3.62E-03	2.05E+00	7.59E-01	8.15E-01	0.00E+00	0.00E+00	0.00E+00	7.60E-02	2.22E-02	1.26E-02	3.69E-03	1.20E-03	1.06E-03	2.76E-04	1.04E-04	1.58E-04
M_2	545694	5403873	Dustfall @ Hare Lake	5.12E-05	1.49E-05	8.92E-06	2.49E-04	7.21E-05	4.33E-05	0.00E+00	0.00E+00	0.00E+00	1.20E-02	4.63E-03	3.62E-03	2.05E+00	7.59E-01	8.15E-01	0.00E+00	0.00E+00	0.00E+00	7.59E-02	2.22E-02	1.26E-02	3.68E-03	1.20E-03	1.06E-03	2.76E-04	1.04E-04	1.58E-04
M_3	547152	5401222	PM-10 @ Mays Gifts	1.42E-04	4.55E-05	3.51E-05	6.87E-04	2.21E-04	1.70E-04	0.00E+00	0.00E+00	0.00E+00	1.20E-02	4.64E-03	3.63E-03	2.57E+00	9.39E-01	9.69E-01	0.00E+00	0.00E+00	0.00E+00	2.05E-01	6.45E-02	4.92E-02	7.51E-03	2.51E-03	2.18E-03	2.85E-04	1.06E-04	1.59E-04
M_4	547147	5401216	Dustfall @ Mays Gifts	1.40E-04	4.52E-05	3.49E-05	6.81E-04	2.19E-04	1.69E-04	0.00E+00	0.00E+00	0.00E+00	1.20E-02	4.64E-03	3.63E-03	2.57E+00	9.37E-01	9.67E-01	0.00E+00	0.00E+00	0.00E+00	2.03E-01	6.41E-02	4.88E-02	7.46E-03	2.49E-03	2.16E-03	2.85E-04	1.06E-04	1.59E-04
M_5	551637	5402371	PM-10 @ Pic River	4.91E-05	2.09E-05	1.38E-05	2.38E-04	1.01E-04	6.68E-05	0.00E+00	0.00E+00	0.00E+00	1.20E-02	4.64E-03	3.62E-03	2.03E+00	7.94E-01	8.43E-01	0.00E+00	0.00E+00	0.00E+00	8.83E-02	3.58E-02	2.21E-02	3.56E-03	1.45E-03	1.26E-03	2.83E-04	1.06E-04	1.59E-04
M_6	551643	5402374	Dustfall @ Pic River	4.88E-05	2.08E-05	1.38E-05	2.37E-04	1.01E-04	6.67E-05	0.00E+00	0.00E+00	0.00E+00	1.20E-02	4.64E-03	3.62E-03	2.03E+00	7.94E-01	8.43E-01	0.00E+00	0.00E+00	0.00E+00	8.78E-02	3.57E-02	2.20E-02	3.54E-03	1.45E-03	1.26E-03	2.83E-04	1.06E-04	1.59E-04
M_7	549180	5399815	Dustfall @ Airport	1.11E-04	4.98E-05	3.79E-05	5.40E-04	2.42E-04	1.84E-04	0.00E+00	0.00E+00	0.00E+00	1.20E-02	4.64E-03	3.63E-03	2.40E+00	9.65E-01	9.85E-01	0.00E+00	0.00E+00	0.00E+00	3.70E-01	1.66E-01	1.29E-01	6.21E-03	2.69E-03	2.29E-03	2.78E-04	1.07E-04	1.60E-04
M_8	545863	5397092	Dustfall @ Field Office	2.03E-05	5.94E-06	4.49E-06	9.80E-05	2.88E-05	2.18E-05	0.00E+00	0.00E+00	0.00E+00	1.20E-02	4.63E-03	3.62E-03	1.86E+00	7.06E-01	7.88E-01	0.00E+00	0.00E+00	0.00E+00	3.50E-02	9.85E-03	6.97E-03	2.33E-03	8.17E-04	8.68E-04	2.85E-04	1.13E-04	1.65E-04
O_1	547181.4	5398015	Pic Motel	3.18E-05	8.74E-06	6.46E-06	1.54E-04	4.24E-05	3.13E-05	0.00E+00	0.00E+00	0.00E+00	1.20E-02	4.63E-03	3.62E-03	1.93E+00	7.23E-01	8.00E-01	0.00E+00	0.00E+00	0.00E+00	5.92E-02	1.49E-02	1.09E-02	2.82E-03	9.36E-04	9.51E-04	2.81E-04	1.08E-04	1.61E-04
O_2	545734.4	5396873	Marathon Harbour Inn	2.19E-05	7.10E-06	5.47E-06	1.06E-04	3.44E-05	2.65E-05	0.00E+00	0.00E+00	0.00E+00	1.20E-02	4.63E-03	3.62E-03	1.87E+00	7.13E-01	7.94E-01	0.00E+00	0.00E+00	0.00E+00	3.25E-02	9.23E-03	6.52E-03	2.40E-03	8.66E-04	9.09E-04	3.12E-04	1.24E-04	1.72E-04
O_3	545885.4	5396449	Zero-100 Motor Inn	1.93E-05	5.05E-06	3.86E-06	9.30E-05	2.45E-05	1.87E-05	0.00E+00	0.00E+00	0.00E+00	1.20E-02	4.63E-03	3.62E-03	1.85E+00	7.01E-01	7.85E-01	0.00E+00	0.00E+00	0.00E+00	3.40E-02	8.35E-03	6.06E-03	2.28E-03	7.79E-04	8.41E-04	3.18E-04	1.22E-04	1.72E-04
O_4	545987.4	5397641	OPP Station	2.27E-05	6.86E-06	5.08E-06	1.10E-04	3.33E-05	2.46E-05	0.00E+00	0.00E+00	0.00E+00	1.20E-02	4.63E-03	3.62E-03	1.87E+00	7.12E-01	7.92E-01	0.00E+00	0.00E+00	0.00E+00	4.10E-02	1.13E-02	8.00E-03	2.43E-03	8.56E-04	8.93E-04	2.82E-04	1.10E-04	1.63E-04
O_5	545876.4	5396073	Library	1.82E-05	4.57E-06	3.54E-06	8.80E-05	2.22E-05	1.72E-05	0.00E+00	0.00E+00	0.00E+00	1.20E-02	4.63E-03	3.62E-03	1.85E+00	6.98E-01	7.83E-01	0.00E+00	0.00E+00	0.00E+00	3.32E-02	7.50E-03	5.58E-03	2.24E-03	7.58E-04	8.27E-04	2.74E-04	1.05E-04	1.58E-04
P_1	546958.4	5396139	Penn Lake Park and Campground	1.80E-05	4.82E-06	3.78E-06	8.70E-05	2.34E-05	1.83E-05	0.00E+00	0.00E+00	0.00E+00	1.20E-02	4.63E-03	3.62E-03	1.85E+00	7.00E-01	7.84E-01	0.00E+00	0.00E+00	0.00E+00	3.45E-02	7.81E-03	6.12E-03	2.23E-03	7.69E-04	8.38E-04	2.70E-04	1.03E-04	1.58E-04
P_2	548538.4	5392863	Craig's Pit Provincial Nature Reserve	1.51E-05	3.30E-06	2.03E-06	7.40E-05	1.60E-05	9.84E-06	0.00E+00	0.00E+00	0.00E+00	1.20E-02	4.63E-03	3.62E-03	1.83E+00	6.91E-01	7.74E-01	0.00E+00	0.00E+00	0.00E+00	2.36E-02	5.33E-03	3.19E-03	2.11E-03	7.04E-04	7.63E-04	2.69E-04	1.03E-04	1.57E-04
P_3	540005	5402014	Red Sucker Point Provincial Park	1.61E-05	3.89E-06	2.11E-06	7.80E-05	1.89E-05	1.02E-05	0.00E+00	0.00E+00	0.00E+00	1.20E-02	4.63E-03	3.62E-03	1.84E+00	6.94E-01	7.74E-01	0.00E+00	0.00E+00	0.00E+00	2.62E-02	5.99E-03	3.07E-03	2.16E-03	7.29E-04	7.66E-04	2.68E-04	1.03E-04	1.57E-04
P_4	552770	5383776	Pukaskwa National Park	5.17E-06	1.08E-06	6.72E-07	2.50E-05	5.24E-06	3.26E-06	0.00E+00	0.00E+00	0.00E+00	1.20E-02	4.63E-03	3.62E-03	1.77E+00	6.78E-01	7.66E-01	0.00E+00	0.00E+00	0.00E+00	1.04E-02	1.73E-03	1.03E-03	1.68E-03	6.09E-04	7.05E-04	2.66E-04	1.02E-04	1.57E-04
PR_1	553679.4	5385896	Children & Family Learning Centre	4.76E-06	1.14E-06	7.35E-07	2.30E-05	5.51E-06	3.57E-06	0.00E+00	0.00E+00	0.00E+00	1.20E-02	4.63E-03	3.62E-03	1.77E+00	6.78E-01	7.66E-01	0.00E+00	0.00E+00	0.00E+00	8.68E-03	1.96E-03	1.13E-03	1.66E-03	6.12E-04	7.07E-04	2.66E-04	1.02E-04	1.57E-04
PR_2	554004.4	5385858	Pic River Elementary	4.33E-06	1.07E-06	7.16E-07	2.10E-05	5.20E-06	3.47E-06	0.00E+00	0.00E+00	0.00E+00	1.20E-02	4.63E-03	3.62E-03	1.77E+00	6.78E-01	7.66E-01	0.00E+00	0.00E+00	0.00E+00	7.70E-03	1.79E-03	1.09E-03	1.65E-03	6.09E-04	7.07E-04	2.66E-04	1.02E-04	1.57E-04
PR_3	553836.4	5385604	Pic River Private High School	4.52E-06	1.09E-06	7.12E-07	2.20E-05	5.30E-06	3.45E-06	0.00E+00	0.00E+00	0.00E+00	1.20E-02	4.63E-03	3.62E-03	1.77E+00	6.78E-01	7.66E-01	0.00E+00	0.00E+00	0.00E+00	8.18E-03	1.87E-03	1.09E-03	1.65E-03	6.10E-04	7.06E-04	2.66E-04	1.02E-04	1.57E-04
PR_4	553930.4	5386049	Pic River Health Centre	4.44E-06	1.10E-06	7.29E-07	2.20E-05	5.31E-06	3.54E-06	0.00E+00	0.00E+00	0.00E+00	1.20E-02	4.63E-03	3.62E-03	1.77E+00	6.78E-01	7.66E-01	0.00E+00	0.00E+00	0.00E+00	7.88E-03	1.84E-03	1.11E-03	1.65E-03	6.10E-04	7.07E-04	2.66E-04	1.02E-04	1.57E-04
PR_5	552493.4	5384783	BIIDAABAN Healing Lodge	5.54E-06	1.17E-06	7.32E-07	2.70E-05	5.66E-06	3.55E-06	0.00E+00	0.00E+00	0.00E+00	1.20E-02	4.63E-03	3.62E-03	1.77E+00	6.78E-01	7.66E-01	0.00E+00	0.00E+00	0.00E+00	1.12E-02	1.87E-03	1.12E-03	1.70E-03	6.13E-04	7.07E-04	2.66E-04	1.02E-04	1.57E-04
PR_6	552843.4	5390100	Residence	7.36E-06	1.72E-06	1.14E-06	3.60E-05	8.36E-06	5.51E-06	0.00E+00	0.00E+00	0.00E+00	1.20E-02	4.63E-03	3.62E-03	1.78E+00	6.82E-01	7.69E-01	0.00E+00	0.00E+00	0.00E+00	1.38E-02	2.98E-03	1.77E-03	1.78E-03	6.37E-04	7.25E-04	2.67E-04	1.03E-04	1.57E-04
PR_7	553761.4	5387706	Residence	4.85E-06	1.23E-06	8.36E-07	2.40E-05	5.94E-06	4.05E-06	0.00E+00	0.00E+00	0.00E+00	1.20E-02	4.63E-03	3.62E-03	1.77E+00	6.79E-01	7.67E-01	0.00E+00	0.00E+00	0.00E+00	8.54E-03	2.01E-03	1.28E-03	1.67E-03	6.15E-04	7.12E-04	2.66E-04	1.02E-04	1.57E-04
PS_1	545001.3	5404050	North Hare Lake Cottage	3.67E-05	1.19E-05	6.95E-06	1.78E-04	5.75E-05	3.37E-05	0.00E+00	0.00E+00	0.00E+00	1.20E-02	4.63E-03	3.62E-03	1.96E+00	7.41E-01	8.03E-01	0.00E+00	0.00E+00	0.00E+00	6.11E-02	1.79E-02	9.87E-03	3.03E-03	1.07E-03	9.73E-04	2.75E-04	1.04E-04	1.58E-04
PS_2	544331.3	5403100	South Hare Lake Cottage	4.70E-05	1.08E-05	6.02E-06	2.29E-04	5.21E-05	2.92E-05	0.00E+00	0.00E+00	0.00E+00	1.20E-02	4.63E-03	3.62E-03	2.03E+00	7.35E-01	7.97E-01	0.00E+00	0.00E+00	0.00E+00	6.05E-02	1.59E-02	8.50E-03	3.50E-03	1.02E-03	9.33E-04	2.75E-04	1.04E-04	1.58E-04
PS_3	547056.1	5401004	May's Gifts	1.22E-04	3.68E-05	2.73E-05	5.91E-04	1.78E-04	1.32E-04	0.00E+00	0.00E+00	0.00E+00	1.20E-02	4.64E-03	3.63E-03	2.46E+00	8.88E-01	9.23E-01	0.00E+00	0.00E+00	0.00E+00	1.72E-01	5.22E-02	3.87E-02	6.66E-03	2.13E-03	1.84E-03	2.83E-04	1.06E-04	1.59E-04
PS_4	546811.4	5400953	Wayfare Inn	1.17E-04	3.56E-05	2.55E-05	5.67E-04	1.73E-04	1.24E-04	0.00E+00	0.00E+00	0.00E+00	1.20E-02	4.64E-03	3.63E-03	2.43E+00	8.81E-01	9.12E-01	0.00E+00	0.00E+00	0.00E+00	1.61E-01	5.03E-02	3.64E-02	6.45E-03	2.08E-03	1.76E-03	2.82E-04	1.06E-04	1.59E-04
PS_5	546996.4	5401028	Peninsula Inn	1.30E-04	3.81E-05	2.80E-05	6.29E-04	1.85E-04	1.36E-04	0.00E+00	0.00E+00	0.00E+00	1.20E-02	4.64E-03	3.63E-03	2.50E+00	8.95E-01	9.27E-01	0.00E+00	0.00E+00	0.00E+00	1.84E-01	5.39E-02	3.98E-02	7.00E-03	2.19E-03	1.87E-03	2.83E-04	1.06E-04	1.59E-04
PS_6	548471.4	5399489	Travelodge Hotel	6.53E-05	2.19E-05	1.47E-05	3.17E-04	1.06E-04	7.13E-05	0.00E+00	0.00E+00	0.00E+00	1.20E-02	4.64E-03	3.62E-03	2.12E+00	8.00E-01	8.49E-01	0.00E+00	0.00E+00	0.00E+00	1.64E-01	5.67E-02	3.58E-02	4.25E-03	1.50E-03	1.30E-03	2.77E-04	1.06E-04	1.60E-04
PS_7	546903.4	5401056	The Laughing Mooz Eatery Restauran	1.37E-04	3.98E-05	2.90E-05	6.65E-04	1.93E-04	1.41E-04	0.00E+00	0.00E+00	0.00E+00	1.20E-02	4.64E-03	3.63E-03	2.55E+00	9.06E-01	9.33E-01	0.00E+00	0.00E+00	0.00E+00	1.94E-01	5.64E-02	4.14E-02	7.31E-03	2.26E-03	1.91E-03	2.83E-04	1.06E-04	1.59E-04
PW_1	545777.4	5397151	Kingdom Hall of Jehovah's Witnesses	1.98E-05	6.01E-06	4.51E-06	9.60E-05	2.91E-05	2.19E-05	0.00E+00	0.00E+00	0.00E+00	1.20E-02	4.63E-03	3.62E-03	1.86E+00	7.07E-01	7.89E-01	0.00E+00	0.00E+00	0.00E+00	3.57E-02	9.92E-03	7.00E-03	2.30E-03	8.20E-04	8.69E-04	2.86E-04	1.11E-04	1.63E-04
PW_2	546331.4	5395942	Parkland Pentecostal Church	1.71E-05	4.44E-06	3.51E-06	8.30E-05	2.15E-05	1.70E-05	0.00E+00	0.00E+00	0.00E+00	1.20E-02	4.63E-03	3.62E-03	1.84E+00	6.97E-01	7.83E-01	0.00E+00	0.00E+00	0.00E+00	3.12E-02	7.12E-03	5.57E-03	2.19E-03	7.52E-04	8.26E-04	2.71E-04	1.03E-04	1.58E-04
PW_3	545857.4	5395715	St. John's United Church	1.70E-05	4.17E-06	3.27E-06	8.30E-05	2.02E-05	1.59E-05	0.00E+00	0.00E+00	0.00E+00	1.20E-02	4.63E-03	3.62E-03	1.84E+00	6.96E-01	7.81E-01	0.00E+00	0.00E+00	0.00E+00	3.15E-02	6.75E-03	5.14E-03	2.19E-03	7.41E-04	8.16E-04	2.71E-04	1.04E-04	1.58E-04
PW_4	545425	5396043	Holy Saviour Roman Catholic Church	1.69E-05	4.51E-06	3.41E-06	8.20E-05	2.19E-05	1.65E-05	0.00E+00	0.00E+00	0.00E+00	1.20E-02	4.63E-03	3.62E-03	1.84E+00	6.98E-01	7.82E-01	0.00E+00	0.00E+00	0.00E+00	2.84E-02	7.47E-03	5.34E-03	2.18E-03	7.55E-04	8.22E-04	2.72E-04	1.04E-04	1.58E-04
PW_5	545390.4	5395989	Anglican Church-Trinity	1.68E-05	4.46E-06	3.37E-06	8.10E-05	2.16E-05	1.64E-05	0.00E+00	0.00E+00	0.00E+00	1.20E-02	4.63E-03	3.62E-03	1.84E+00	6.98E-01	7.82E-01	0.00E+00	0.00E+00	0.00E+00	2.81E-02	7.39E-03	5.28E-03	2.18E-03	7.53E-04	8.20E-04	2.72E-04	1.04E-04	1.58E-04
R_1	547226.4	5398096	Residence	3.29E-05	9.00E-06	6.65E-06	1.59E-04	4.37E-05	3.22E-05	0.00E+00	0.00E+00	0.00E+00	1.20E-02	4.63E-03	3.62E-03	1.93E+00	7.24E-01	8.01E-01	0.00E+00	0.00E+00	0.00E+00	6.13E-02	1.54E-02	1.12E-02	2.86E-03	9.47E-04	9.60E-04	2.87E-04	1.12E-04	1.64E-04
R_10	545421.4	5395954	Residence	1.68E-05	4.41E-06	3.35E-06	8.10E-05	2.14E-05	1.63E-05	0.00E+00	0.00E+00	0.00E+00	1.20E-02	4.63E-03	3.62E-03	1.84E+00	6.97E-01	7.82E-01	0.00E+00	0.00E+00	0.00E+00	2.86E-02	7.32E-03	5.25E-03	2.18E-03	7.51E-04	8.19E-04	2.72E-04	1.04E-04	1.58E-04
R_11	545619.4	5395878	Residence	1.72E-05	4.35E-06	3.34E-06	8.40E-05	2.11E-05	1.62E-05	0.00E+00	0.00E+00	0.00E+00	1.20E-02	4.63E-03	3.62E-03	1.84E+00	6.97E-01	7.82E-01	0.00E+00	0.00E+00	0.00E+00	3.08E-02	7.14E-03	5.24E-03	2.20E-03	7.48E-04	8.18E-04	2.72E-04	1.04E-04	1.58E-04
R_12	545831.4	5396001	Residence	1.79E-05	4.49E-06	3.48E-06	8.70E-05	2.17E-05	1.68E-05	0.00E+00	0.00E+00	0.00E+00	1.20E-02	4.63E-03	3.62E-03	1.85E+00	6.98E-01	7.82E-01	0.00E+00	0.00E+00	0.00E+00	3.27E-02	7.35E-03	5.47E-03	2.23E-03	7.54E-04	8.24E-04	2.72E-04	1.04E-04	1.58E-04
R_13	545806.9	5396173	Residence	1.84E-05	4.69E-06	3.60E-06	8.90E-05	2.27E-05	1.75E-05	0.00E+00	0.00E+00	0.00E+00	1.20E-02	4.63E-03	3.62E-03	1.85E+00	6.99E-01	7.83E-01	0.00E+00	0.00E+00	0.00E+00	3.29E-02	7.73E-03	5.67E-03	2.25E-03	7.63E-04	8.30E-04	2.74E-04	1.05E-04	1.59E-04
R_14	545827.1	5396229	Residence	1.86E-05	4.76E-06	3.66E-06	9.00E-05	2.31E-05	1.77E-05	0.00E+00	0.00E+00	0.00E+00	1.20E-02	4.63E-03	3.62E-03	1.85E+00	6.99E-01	7.84E-01	0.00E+00	0.00E+00	0.00E+00	3.32E-02	7.86E-03	5.76E-03	2.25E-03	7.66E-04	8.32E-04	2.77E-04	1.06E-04	1.59E-04
R_15	545662.4	5396176	Residence	1.80E-05	4.71E-06	3.58E-06	8.70E-05	2.28E-05	1.73E-05	0.00E+00	0.00E+00	0.00E+00	1.20E-02	4.63E-03	3.62E-03	1.85E+00	6.99E-01	7.83E-01	0.00E+00	0.00E+00	0.00E+00	3.14E-02	7.76E-03	5.61E-03	2.23E-03	7.64E-04	8.29E-04	2.73E-04	1.05E-04	1.59E-04
R_16	546254.4	5396485	Residence	1.96E-05	5.08E-06	3.94E-06	9.50E-05	2.46E-05	1.91E-05	0.00E+00	0.00E+00	0.00E+00	1.20E-02	4.63E-03	3.62E-03	1.86E+00	7.01E-01	7.85E-01	0.00E+00	0.00E+00	0.00E+00	3.59E-02	8.32E-03	6.26E-03	2.30E-03	7.80E-04	8.44E-04	2.74E-04	1.05E-04	1.59E-04
R_17	546471.4	5396507	Residence	1.92E-05	5.12E-06	4.01E-06	9.30E-05	2.48E-05	1.94E-05	0.00E+00	0.00E+00	0.00E+00	1.20E-02	4.63E-03	3.62E-03	1.85E+00	7.02E-01	7.86E-01	0.00E+00	0.00E+00	0.00E+00	3.53E-02	8.35E-03	6.40E-03	2.28E-03	7.82E-04	8.47E-04	2.73E-04	1.04E-04	1.58E-04
R_18	546601.4	5396388	Residence	1.82E-05	4.99E-06	3.92E-06	8.80E-05	2.42E-05	1.90E-05	0.00E+00	0.00E+00	0.00E+00	1.20E-02	4.63E-03	3.62E-03	1.85E+00	7.01E-01	7.85E-01	0.00E+00	0.00E+00	0.00E+00	3.31E-02	8.08E-03	6.29E-03	2.24E-03	7.76E-04	8.43E-04	2.72E-04	1.04E-04	1.58E-04
R_19	546856.4	5395581	Residence	1.64E-05	4.25E-06	3.35E-06	7.90E-05	2.06E-05	1.63E-05	0.00E+00	0.00E+00	0.00E+00	1.20E-02	4.63E-03	3.62E-03	1.84E+00	6.96E-01	7.82E-01	0.00E+00	0.00E+00	0.00E+00	3.18E-02	6.89E-03	5.38E-03	2.16E-03	7.45E-04	8.19E-04	2.69E-04	1.03E-04	1.58E-04
R_2	547273.4	5398045	Residence	3.29E-05	8.88E-06	6.56E-06	1.59E-04	4.31E-05	3.18E-05	0.00E+00	0.00E+00	0.00E+00	1.20E-02	4.63E-03	3.62E-03	1.93E+00	7.24E-01	8.01E-01	0.00E+00	0.00E+00	0.00E+00	6.27E-02	1.54E-02	1.11E-02	2.86E-03	9.42E-04	9.56E-04	2.79E-04	1.06E-04	1.60E-04
R_20	546950.4	5395534	Residence	1.63E-05	4.26E-06	3.34E-06	7.90E-05	2.06E-05	1.62E-05	0.00E+00	0.00E+00	0.00E+00	1.20E-02	4.63E-03	3.62E-03	1.84E+00	6.96E-01	7.82E-01	0.00E+00	0.00E+00	0.00E+00	3.22E-02	6.93E-03	5.36E-03	2.16E-03	7.45E-04	8.19E-04	2.69E-04	1.03E-04	1.58E-04
R_21	547201.4	5395416	Residence	1.57E-05	4.29E-06	3.29E-06	7.60E-05	2.08E-05	1.60E-05	0.00E+00	0.00E+00	0.00E+00	1.20E-02	4.63E-03	3.62E-03	1.83E+00	6.97E-01	7.81E-01	0.00E+00	0.00E+00	0.00E+00	3.17E-02	7.04E-03	5.31E-03	2.13E-03	7.46E-04	8.17E-04	2.69E-04	1.03E-04	1.57E-04
R_22	548317.4	5399655	Residence	6.27E-05	1.92E-05	1.33E-05	3.04E-04	9.30E-05	6.46E-05	0.00E+00	0.00E+00	0.00E+00	1.20E-02	4.64E-03	3.62E-03	2.11E+00	7.84E-01	8.40E-01	0.00E+00	0.00E+00	0.00E+00	1.30E-01	4.38E-02	2.83E-02	4.14E-03	1.38E-03	1.24E-03	2.76E-04	1.05E-04	1.59E-04
R_3	545809.4	5397233	Bergagnini Apartment Rental	2.02E-05	6.13E-06	4.58E-06	9.80E-05	2.97E-05	2.22E-05	0.00E+00	0.00E+00	0.00E+00	1.20E-02	4.63E-03	3.62E-03	1.86E+00	7.07E-01	7.89E-01	0.00E+00	0.00E+00	0.00E+00	3.66E-02	1.01E-02	7.15E-03	2.32E-03	8.25E-04	8.71E-04	2.87E-04	1.11E-04	1.64E-04
R_4	546092.4	5396797	Residence	2.07E-05	5.54E-06	4.24E-06	1.00E-04	2.69E-05	2.06E-05	0.00E+00	0.00E+00	0.00E+00	1.20E-02	4.63E-03	3.62E-03	1.86E+00	7.04E-01	7.87E-01	0.00E+00	0.00E+00	0.00E+00	3.65E-02	9.17E-03	6.66E-03	2.34E-03	8.00E-04	8.57E-04	2.76E-04	1.07E-04	1.60E-04
R_5	545971.4	5396490	Condominium	1.94E-05	5.08E-06	3.89E-06	9.40E-05	2.47E-05	1.89E-05	0.00E+00	0.00E+00	0.00E+00	1.20E-02	4.63E-03	3.62E-03	1.85E+00	7.01E-01	7.85E-01	0.00E+00	0.00E+00	0.00E+00	3.47E-02	8.39E-03	6.13E-03	2.29E-03	7.80E-04	8.42E-04	3.08E-04	1.26E-04	1.73E-04
R_6	545655.4	5396521	Residence	1.85E-05	5.26E-06	3.92E-06	9.00E-05	2.55E-05	1.90E-05	0.00E+00	0.00E+00	0.00E+00	1.20E-02	4.63E-03	3.62E-03	1.85E+00	7.02E-01	7.85E-01	0.00E+00	0.00E+00	0.00E+00	3.11E-02	8.55E-03	6.07E-03	2.25E-03	7.88E-04	8.43E-04	2.86E-04	1.08E-04	1.61E-04
R_7	545438.4	5396409	I Sew Studio and Residence	1.72E-05	4.96E-06	3.71E-06	8.40E-05	2.40E-05	1.80E-05	0.00E+00	0.00E+00	0.00E+00	1.20E-02	4.63E-03	3.62E-03	1.84E+00	7.01E-01	7.84E-01	0.00E+00	0.00E+00	0.00E+00	2.91E-02	8.12E-03	5.73E-03	2.20E-03

Table E-3 Special Receptor Predictions (ug/m3) - Construc

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	CO						COBALT (CO)			COPPER (CU)			DIBENZ(A,H)PERYLENE			FLUORANTHENE			FLUORENE			FORMALDEHYDE			GALLIUM (GA)			GOLD (AU)		
				0.5	1	8	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual
				-	36200	15700	-	-	-	0.1	-	-	50	-	-	-	-	-	-	-	-	-	-	-	65	-	-	-	-	-	1.25	-	-
				1.17E+03	9.65E+02	9.65E+02	9.65E+02	3.72E+02	5.91E+02										1.91E-03	7.37E-04	1.06E-03	2.91E-03	1.12E-03	1.62E-03	5.40E+00	2.08E+00	1.90E+00						
H_1	545937.4	5396170	Wilson Memorial General Hospital	1.33E+03	1.10E+03	9.92E+02	9.82E+02	3.75E+02	5.93E+02	2.75E-04	6.90E-05	5.35E-05	2.17E-03	5.34E-04	4.13E-04	1.04E-06	1.39E-07	7.64E-08	1.99E-03	7.54E-04	1.07E-03	3.05E-03	1.16E-03	1.65E-03	5.50E+00	2.11E+00	1.92E+00	9.00E-05	2.27E-05	1.76E-05	9.34E-08	2.32E-08	1.79E-08
M_1	545694	5403864	PM-10 @ Hare Lake	1.79E+03	1.48E+03	1.03E+03	1.06E+03	3.79E+02	5.94E+02	7.68E-04	2.20E-04	1.32E-04	7.09E-03	1.71E-03	1.02E-03	2.43E-06	4.27E-07	2.49E-07	1.98E-03	7.57E-04	1.07E-03	3.17E-03	1.20E-03	1.66E-03	5.62E+00	2.15E+00	1.94E+00	2.50E-04	7.21E-05	4.33E-05	2.90E-07	7.40E-08	4.42E-08
M_2	545694	5403873	Dustfall @ Hare Lake	1.79E+03	1.48E+03	1.03E+03	1.06E+03	3.79E+02	5.94E+02	7.63E-04	2.19E-04	1.31E-04	7.04E-03	1.71E-03	1.02E-03	2.42E-06	4.29E-07	2.50E-07	1.98E-03	7.57E-04	1.07E-03	3.17E-03	1.20E-03	1.66E-03	5.62E+00	2.15E+00	1.94E+00	2.48E-04	7.20E-05	4.32E-05	2.88E-07	7.39E-08	4.41E-08
M_3	547152	5401222	PM-10 @ Mays Gifts	1.72E+03	1.42E+03	1.03E+03	1.03E+03	3.86E+02	6.01E+02	2.09E-03	6.70E-04	5.18E-04	1.61E-02	5.16E-03	3.98E-03	3.95E-06	7.66E-07	3.74E-07	2.10E-03	7.92E-04	1.10E-03	3.61E-03	1.33E-03	1.77E-03	5.99E+00	2.27E+00	2.04E+00	6.86E-04	2.20E-04	1.70E-04	6.98E-07	2.24E-07	1.73E-07
M_4	547147	5401216	Dustfall @ Mays Gifts	1.72E+03	1.42E+03	1.03E+03	1.03E+03	3.86E+02	6.01E+02	2.07E-03	6.66E-04	5.13E-04	1.59E-02	5.12E-03	3.95E-03	3.96E-06	7.66E-07	3.74E-07	2.10E-03	7.91E-04	1.10E-03	3.61E-03	1.33E-03	1.77E-03	5.99E+00	2.27E+00	2.04E+00	6.80E-04	2.19E-04	1.69E-04	6.92E-07	2.23E-07	1.71E-07
M_5	551637	5402371	PM-10 @ Pic River	1.87E+03	1.54E+03	1.04E+03	1.02E+03	3.80E+02	5.96E+02	7.24E-04	3.07E-04	2.03E-04	5.65E-03	2.38E-03	1.57E-03	3.89E-06	6.56E-07	3.30E-07	2.01E-03	7.70E-04	1.08E-03	3.25E-03	1.25E-03	1.69E-03	5.66E+00	2.19E+00	1.96E+00	2.37E-04	1.01E-04	6.66E-05	2.44E-07	1.03E-07	6.81E-08
M_6	551643	5402374	Dustfall @ Pic River	1.87E+03	1.54E+03	1.04E+03	1.02E+03	3.80E+02	5.96E+02	7.19E-04	3.07E-04	2.03E-04	5.62E-03	2.37E-03	1.57E-03	3.88E-06	6.54E-07	3.29E-07	2.01E-03	7.70E-04	1.08E-03	3.25E-03	1.24E-03	1.69E-03	5.66E+00	2.19E+00	1.96E+00	2.36E-04	1.01E-04	6.65E-05	2.43E-07	1.03E-07	6.80E-08
M_7	549180	5399815	Dustfall @ Airport	1.51E+03	1.24E+03	1.09E+03	1.04E+03	4.05E+02	6.16E+02	1.64E-03	7.33E-04	5.58E-04	1.26E-02	5.64E-03	4.28E-03	2.41E-06	5.03E-07	2.18E-07	2.20E-03	8.69E-04	1.16E-03	3.98E-03	1.61E-03	2.00E-03	6.50E+00	2.58E+00	2.28E+00	5.40E-04	2.42E-04	1.84E-04	5.47E-07	2.45E-07	1.86E-07
M_8	545863	5397092	Dustfall @ Field Office	1.36E+03	1.12E+03	9.92E+02	9.81E+02	3.78E+02	5.95E+02	2.99E-04	8.80E-05	6.62E-05	2.35E-03	6.81E-04	5.11E-04	1.16E-06	1.76E-07	9.35E-08	2.03E-03	7.97E-04	1.11E-03	3.10E-03	1.20E-03	1.69E-03	5.51E+00	2.12E+00	1.93E+00	9.80E-05	2.88E-05	2.17E-05	1.01E-07	2.95E-08	2.22E-08
O_1	547181.4	5398015	Pic Motel	1.45E+03	1.20E+03	1.00E+03	9.84E+02	3.77E+02	5.95E+02	4.68E-04	1.29E-04	9.51E-05	3.64E-03	9.92E-04	7.33E-04	1.73E-06	2.22E-07	1.31E-07	2.02E-03	7.74E-04	1.09E-03	3.17E-03	1.19E-03	1.68E-03	5.58E+00	2.13E+00	1.94E+00	1.54E-04	4.23E-05	3.12E-05	1.57E-07	4.31E-08	3.18E-08
O_2	545734.4	5396873	Marathon Harbour Inn	1.36E+03	1.12E+03	1.03E+03	1.01E+03	3.82E+02	5.98E+02	3.23E-04	1.05E-04	8.05E-05	2.53E-03	8.07E-04	6.20E-04	1.11E-06	1.67E-07	8.84E-08	2.18E-03	8.56E-04	1.15E-03	3.27E-03	1.27E-03	1.73E-03	5.54E+00	2.13E+00	1.93E+00	1.06E-04	3.43E-05	2.64E-05	1.09E-07	3.50E-08	2.69E-08
O_3	545885.4	5396449	Zero-100 Motor Inn	1.37E+03	1.13E+03	1.03E+03	1.01E+03	3.81E+02	5.98E+02	2.84E-04	7.40E-05	5.68E-05	2.24E-03	5.76E-04	4.39E-04	9.37E-07	1.52E-07	8.10E-08	2.21E-03	8.49E-04	1.14E-03	3.28E-03	1.26E-03	1.72E-03	5.52E+00	2.12E+00	1.93E+00	9.30E-05	2.44E-05	1.87E-05	9.65E-08	2.50E-08	1.90E-08
O_4	545987.4	5397641	OPP Station	1.35E+03	1.11E+03	9.88E+02	9.80E+02	3.77E+02	5.95E+02	3.34E-04	1.01E-04	7.48E-05	2.62E-03	7.88E-04	5.78E-04	1.24E-06	1.99E-07	1.07E-07	2.02E-03	7.82E-04	1.10E-03	3.13E-03	1.19E-03	1.68E-03	5.53E+00	2.12E+00	1.93E+00	1.10E-04	3.32E-05	2.46E-05	1.13E-07	3.41E-08	2.51E-08
O_5	545876.4	5396073	Library	1.33E+03	1.09E+03	9.86E+02	9.81E+02	3.74E+02	5.92E+02	2.69E-04	6.70E-05	5.22E-05	2.13E-03	5.21E-04	4.03E-04	1.02E-06	1.36E-07	7.48E-08	1.97E-03	7.52E-04	1.07E-03	3.05E-03	1.16E-03	1.65E-03	5.50E+00	2.11E+00	1.92E+00	8.80E-05	2.21E-05	1.71E-05	9.15E-08	2.26E-08	1.75E-08
P_1	546958.4	5396139	Penn Lake Park and Campground	1.41E+03	1.16E+03	9.91E+02	9.82E+02	3.74E+02	5.92E+02	2.65E-04	7.10E-05	5.58E-05	2.08E-03	5.47E-04	4.31E-04	9.52E-07	1.37E-07	7.83E-08	1.95E-03	7.46E-04	1.07E-03	3.04E-03	1.15E-03	1.64E-03	5.50E+00	2.11E+00	1.92E+00	8.70E-05	2.33E-05	1.83E-05	8.97E-08	2.37E-08	1.87E-08
P_2	548538.4	5392863	Craig's Pit Provincial Nature Reserve	1.54E+03	1.27E+03	1.01E+03	9.85E+02	3.74E+02	5.92E+02	2.25E-04	4.90E-05	2.99E-05	1.95E-03	3.85E-04	2.32E-04	7.87E-07	1.05E-07	4.31E-08	1.93E-03	7.42E-04	1.06E-03	3.00E-03	1.14E-03	1.63E-03	5.47E+00	2.10E+00	1.91E+00	7.30E-05	1.60E-05	9.82E-06	8.14E-08	1.65E-08	1.00E-08
P_3	540005	5402014	Red Sucker Point Provincial Park	1.63E+03	1.34E+03	1.01E+03	1.01E+03	3.75E+02	5.92E+02	2.41E-04	5.70E-05	3.11E-05	2.42E-03	4.49E-04	2.41E-04	7.09E-07	1.16E-07	5.77E-08	1.94E-03	7.43E-04	1.06E-03	3.00E-03	1.14E-03	1.63E-03	5.48E+00	2.10E+00	1.91E+00	7.80E-05	1.88E-05	1.02E-05	9.66E-08	1.94E-08	1.05E-08
P_4	552770	5383776	Pukaskwa National Park	1.25E+03	1.03E+03	9.73E+02	9.69E+02	3.73E+02	5.91E+02	7.60E-05	1.60E-05	9.90E-06	6.07E-04	1.24E-04	7.70E-05	2.60E-07	3.69E-08	1.76E-08	1.92E-03	7.39E-04	1.06E-03	2.95E-03	1.13E-03	1.62E-03	5.43E+00	2.09E+00	1.90E+00	2.50E-05	5.23E-06	3.25E-06	2.61E-08	5.36E-09	3.33E-09
PR_1	553679.4	5385896	Children & Family Learning Centre	1.26E+03	1.04E+03	9.75E+02	9.71E+02	3.73E+02	5.91E+02	7.00E-05	1.70E-05	1.08E-05	5.53E-04	1.31E-04	8.40E-05	2.06E-07	3.50E-08	1.77E-08	1.92E-03	7.39E-04	1.06E-03	2.94E-03	1.13E-03	1.62E-03	5.43E+00	2.09E+00	1.90E+00	2.30E-05	5.50E-06	3.56E-06	2.38E-08	5.67E-09	3.64E-09
PR_2	554004.4	5385858	Pic River Elementary	1.29E+03	1.06E+03	9.77E+02	9.71E+02	3.73E+02	5.91E+02	6.40E-05	1.60E-05	1.05E-05	4.99E-04	1.24E-04	8.20E-05	2.14E-07	3.42E-08	1.72E-08	1.92E-03	7.39E-04	1.06E-03	2.94E-03	1.13E-03	1.62E-03	5.42E+00	2.09E+00	1.90E+00	2.10E-05	5.19E-06	3.46E-06	2.16E-08	5.34E-09	3.54E-09
PR_3	553836.4	5385604	Pic River Private High School	1.28E+03	1.05E+03	9.76E+02	9.71E+02	3.73E+02	5.91E+02	6.70E-05	1.60E-05	1.05E-05	5.24E-04	1.26E-04	8.20E-05	2.05E-07	3.40E-08	1.72E-08	1.92E-03	7.39E-04	1.06E-03	2.94E-03	1.13E-03	1.62E-03	5.42E+00	2.09E+00	1.90E+00	2.20E-05	5.29E-06	3.45E-06	2.26E-08	5.45E-09	3.53E-09
PR_4	553930.4	5386049	Pic River Health Centre	1.30E+03	1.07E+03	9.78E+02	9.71E+02	3.73E+02	5.91E+02	6.60E-05	1.60E-05	1.07E-05	5.13E-04	1.26E-04	8.30E-05	2.17E-07	3.48E-08	1.75E-08	1.92E-03	7.39E-04	1.06E-03	2.94E-03	1.13E-03	1.62E-03	5.42E+00	2.09E+00	1.90E+00	2.20E-05	5.30E-06	3.53E-06	2.21E-08	5.46E-09	3.61E-09
PR_5	552493.4	5384783	BIIDAABAN Healing Lodge	1.23E+03	1.02E+03	9.72E+02	9.69E+02	3.73E+02	5.91E+02	8.20E-05	1.70E-05	1.08E-05	6.51E-04	1.33E-04	8.40E-05	2.79E-07	4.06E-08	1.92E-08	1.92E-03	7.39E-04	1.06E-03	2.95E-03	1.13E-03	1.62E-03	5.43E+00	2.09E+00	1.90E+00	2.70E-05	5.64E-06	3.54E-06	2.79E-08	5.77E-09	3.62E-09
PR_6	552843.4	5390100	Residence	1.32E+03	1.09E+03	9.82E+02	9.73E+02	3.73E+02	5.91E+02	1.09E-04	2.50E-05	1.67E-05	8.59E-04	1.99E-04	1.30E-04	3.21E-07	5.34E-08	2.72E-08	1.92E-03	7.40E-04	1.06E-03	2.96E-03	1.13E-03	1.63E-03	5.44E+00	2.09E+00	1.91E+00	3.60E-05	8.34E-06	5.50E-06	3.69E-08	8.59E-09	5.63E-09
PR_7	553761.4	5387706	Residence	1.27E+03	1.05E+03	9.76E+02	9.74E+02	3.73E+02	5.91E+02	7.20E-05	1.80E-05	1.23E-05	5.75E-04	1.41E-04	9.60E-05	2.46E-07	3.94E-08	2.00E-08	1.92E-03	7.39E-04	1.06E-03	2.94E-03	1.13E-03	1.63E-03	5.43E+00	2.09E+00	1.90E+00	2.30E-05	5.93E-06	4.05E-06	2.41E-08	6.09E-09	4.14E-09
PS_1	545001.3	5404050	North Hare Lake Cottage	1.61E+03	1.33E+03	1.01E+03	9.94E+02	3.76E+02	5.93E+02	5.41E-04	1.75E-04	1.02E-04	4.26E-03	1.36E-03	7.93E-04	2.09E-06	3.45E-07	2.00E-07	1.97E-03	7.53E-04	1.07E-03	3.12E-03	1.18E-03	1.66E-03	5.58E+00	2.14E+00	1.93E+00	1.77E-04	5.74E-05	3.37E-05	1.84E-07	5.89E-08	3.44E-08
PS_2	544331.3	5403100	South Hare Lake Cottage	1.68E+03	1.38E+03	1.02E+03	1.07E+03	3.78E+02	5.93E+02	7.02E-04	1.58E-04	8.87E-05	6.71E-03	1.23E-03	6.86E-04	2.10E-06	2.59E-07	1.43E-07	1.97E-03	7.52E-04	1.07E-03	3.12E-03	1.18E-03	1.65E-03	5.58E+00	2.13E+00	1.92E+00	2.28E-04	5.20E-05	2.91E-05	2.72E-07	5.33E-08	2.98E-08
PS_3	547056.1	5401004	May's Gifts	1.69E+03	1.40E+03	1.03E+03	1.03E+03	3.84E+02	5.99E+02	1.80E-03	5.42E-04	4.02E-04	1.38E-02	4.18E-03	3.09E-03	3.66E-06	7.26E-07	3.50E-07	2.07E-03	7.82E-04	1.09E-03	3.49E-03	1.29E-03	1.74E-03	5.90E+00	2.24E+00	2.01E+00	5.90E-04	1.78E-04	1.32E-04	5.99E-07	1.81E-07	1.34E-07
PS_4	546811.4	5400953	Wayfare Inn	1.71E+03	1.41E+03	1.03E+03	1.02E+03	3.83E+02	5.98E+02	1.72E-03	5.24E-04	3.75E-04	1.32E-02	4.04E-03	2.89E-03	3.46E-06	6.39E-07	3.10E-07	2.06E-03	7.80E-04	1.09E-03	3.47E-03	1.28E-03	1.73E-03	5.87E+00	2.23E+00	2.01E+00	5.66E-04	1.72E-04	1.23E-04	5.75E-07	1.75E-07	1.25E-07
PS_5	546996.4	5401028	Peninsula Inn	1.71E+03	1.41E+03	1.03E+03	1.02E+03	3.84E+02	5.99E+02	1.91E-03	5.61E-04	4.13E-04	1.47E-02	4.32E-03	3.18E-03	3.69E-06	7.08E-07	3.42E-07	2.07E-03	7.84E-04	1.09E-03	3.50E-03	1.30E-03	1.74E-03	5.94E+00	2.24E+00	2.02E+00	6.28E-04	1.84E-04	1.36E-04	6.38E-07	1.88E-07	1.38E-07
PS_6	548471.4	5399489	Travelodge Hotel	1.70E+03	1.40E+03	1.03E+03	1.02E+03	3.84E+02	5.99E+02	9.61E-04	3.22E-04	2.17E-04	7.41E-03	2.48E-03	1.67E-03	2.16E-06	4.11E-07	2.07E-07	2.07E-03	7.92E-04	1.10E-03	3.43E-03	1.30E-03	1.74E-03	5.89E+00	2.25E+00	2.01E+00	3.16E-04	1.06E-04	7.12E-05	3.21E-07	1.08E-07	7.24E-08
PS_7	546903.4	5401056	The Laughing Mooz Eatery Restauran	1.72E+03	1.42E+03	1.04E+03	1.02E+03	3.85E+02	5.99E+02	2.02E-03	5.87E-04	4.27E-04	1.55E-02	4.52E-03	3.28E-03	3.66E-06	6.74E-07	3.27E-07	2.08E-03	7.85E-04	1.10E-03	3.52E-03	1.30E-03	1.75E-03	5.97E+00	2.25E+00	2.02E+00	6.64E-04	1.93E-04	1.40E-04	6.74E-07	1.96E-07	1.43E-07
PW_1	545777.4	5397151	Kingdom Hall of Jehovah's Witnesses	1.35E+03	1.11E+03	9.91E+02	9.82E+02	3.77E+02	5.95E+02	2.91E-04	8.90E-05	6.65E-05	2.29E-03	6.90E-04	5.13E-04	1.16E-06	1.77E-07	9.47E-08	2.04E-03	7.88E-04	1.10E-03	3.13E-03	1.20E-03	1.68E-03	5.52E+00	2.12E+00	1.93E+00	9.60E-05	2.91E-05	2.18E-05	9.86E-08	2.98E-08	2.23E-08
PW_2	546331.4	5395942	Parkland Pentecostal Church	1.41E+03	1.16E+03	9.92E+02	9.77E+02	3.74E+02	5.92E+02	2.52E-04	6.50E-05	5.17E-05	1.98E-03	5.04E-04	4.00E-04	1.15E-06	1.20E-07	7.32E-08	1.95E-03	7.46E-04	1.07E-03	3.04E-03	1.15E-03	1.64E-03	5.49E+00	2.10E+00	1.92E+00	8.30E-05	2.15E-05	1.70E-05	8.54E-08	2.19E-08	1.73E-08
PW_3	545857.4	5395715	St. John's United Church	1.34E+03	1.10E+03	9.87E+02	9.79E+02	3.74E+02	5.92E+02	2.51E-04	6.10E-05	4.82E-05	1.99E-03	4.74E-04	3.72E-04	1.05E-06	1.21E-07	6.93E-08	1.95E-03	7.47E-04	1.07E-03	3.04E-03	1.15E-03	1.64E-03	5.49E+00	2.10E+00	1.92E+00	8.20E-05	2.02E-05	1.58E-05	8.55E-08	2.06E-08	1.61E-08
PW_4	545425	5396043	Holy Saviour Roman Catholic Church	1.38E+03	1.14E+03	9.88E+02	9.76E+02	3.74E+02	5.92E+02	2.49E-04	6.60E-05	5.03E-05	1.96E-03	5.16E-04	3.89E-04	9.39E-07	1.41E-07	7.37E-08	1.95E-03	7.50E-04	1.07E-03	3.03E-03	1.15E-03	1.64E-03	5.48E+00	2.11E+00	1.92E+00	8.20E-05	2.18E-05	1.65E-05	8.43E-08	2.23E-08	1.69E-08
PW_5	545390.4	5395989	Anglican Church-Trinity	1.38E+03	1.14E+03	9.88E+02	9.76E+02	3.74E+02	5.92E+02	2.47E-04	6.60E-05	4.97E-05	1.95E-03	5.11E-04	3.84E-04	9.32E-07	1.40E-07	7.30E-08	1.95E-03	7.49E-04	1.07E-03	3.03E-03	1.15E-03	1.64E-03	5.48E+00	2.11E+00	1.92E+00	8.10E-05	2.16E-05	1.63E-05	8.39E-08	2.21E-08	1.67E-08
R_1	547226.4	5398096	Residence	1.46E+03	1.20E+03	1.01E+03	9.89E+02	3.78E+02	5.96E+02	4.84E-04	1.33E-04	9.79E-05	3.76E-03	1.02E-03	7.55E-04	1.79E-06	2.30E-07	1.35E-07	2.06E-03	7.98E-04	1.11E-03	3.21E-03	1.21E-03	1.70E-03	5.60E+00	2.13E+00	1.94E+00	1.59E-04	4.36E-05	3.22E-05	1.63E-07	4.43E-08	3.28E-08
R_10	545421.4	5395954	Residence	1.38E+03	1.14E+03	9.87E+02	9.77E+02	3.74E+02	5.92E+02	2.47E-04	6.50E-05	4.94E-05	1.95E-03	5.05E-04	3.82E-04	9.13E-07	1.38E-07	7.24E-08	1.95E-03	7.49E-04	1.07E-03	3.03E-03	1.15E-03	1.64E-03	5.49E+00	2.11E+00	1.92E+00	8.10E-05	2.14E-05	1.62E-05	8.39E-08	2.19E-08	1.66E-08
R_11	545619.4	5395878	Residence	1.34E+03	1.11E+03	9.84E+02	9.80E+02	3.74E+02	5.92E+02	2.54E-04	6.40E-05	4.92E-05	2.01E-03	4.96E-04	3.80E-04	8.88E-07	1.34E-07	7.15E-08	1.95E-03	7.48E-04	1.07E-03	3.04E-03	1.15E-03	1.64E-03	5.49E+00	2.11E+00	1.92E+00	8.30E-05	2.10E-05	1.62E-05	8.65E-08	2.15E-08	1.65E-08
R_12	545831.4	5396001	Residence	1.32E+03	1.09E+03	9.86E+02	9.81E+02	3.74E+02	5.92E+02	2.65E-04	6.60E-05	5.12E-05	2.09E-03	5.11E-04	3.95E-04	1.00E-06	1.34E-07	7.36E-08	1.95E-03	7.50E-04	1.07E-03	3.05E-03	1.16E-03	1.64E-03	5.50E+00	2.11E+00	1.92E+00	8.70E-05	2.17E-05	1.68E-05	9.00E-08	2.22E-08	1.72E-08
R_13	545806.9	5396173	Residence	1.34E+03	1.11E+03	9.89E+02	9.82E+02	3.75E+02	5.93E+02	2.71E-04	6.90E-05	5.31E-05	2.14E-03	5.35E-04	4.10E-04	9.51E-07	1.42E-07	7.63E-08	1.97E-03	7.56E-04	1.07E-03	3.06E-03	1.16E-03	1.65E-03	5.50E+00	2.11E+00	1.92E+00	8.90E-05	2.27E-05	1.74E-05	9.20E-08	2.32E-08	1.78E-08
R_14	545827.1	5396229	Residence	1.34E+03	1.11E+03	9.92E+02	9.83E+02	3.75E+02	5.93E+02	2.74E-04	7.00E-05	5.39E-05	2.17E-03	5.44E-04	4.16E-04	9.53E-07	1.44E-07	7.73E-08	1.99E-03	7.60E-04	1.08E-03	3.07E-03	1.17E-03	1.65E-03	5.50E+00	2.11E+00	1.92E+00	9.00E-05	2.31E-05	1.77E-05	9.32E-08	2.36E-08	1.81E-08
R_15	545662.4	5396176	Residence	1.37E+03	1.13E+03	9.87E+02	9.81E+02	3.75E+02	5.93E+02	2.65E-04	6.90E-05	5.27E-05	2.09E-03	5.38E-04	4.07E-04	9.09E-07	1.44E-07	7.62E-08	1.96E-03	7.54E-04	1.07E-03	3.05E-03	1.16E-03	1.65E-03	5.49E+00	2.11E+00	1.92E+00	8.70E-05	2.28E-05	1.73E-05	9.00E-08	2.33E-08	1.77E-08
R_16	546254.4	5396485	Residence	1.35E+03	1.11E+03	9.88E+02	9.80E+02	3.75E+02	5.93E+02	2.89E-04	7.50E-05	5.81E-05	2.28E-03	5.77E-04	4.48E-04	1.19E-06	1.42E-07	8.17E-08	1.97E-03	7.56E-04	1.08E-03	3.07E-03	1.16E-03	1.65E-03	5.51E+00	2.11E+00	1.92E+00	9.50E-05	2.46E-05	1.91E-05	9.81E-08	2.50E-08	1.94E-08
R_17	546471.4	5396507	Residence	1.40E+03	1.16E+03	9.91E+02	9.78E+02	3.74E+02	5.93E+02	2.84E-04	7.50E-05	5.90E-05	2.24E-03	5.82E-04	4.56E-04	1.26E-06	1.34E-07	8.24E-08	1.96E-03	7.51E-04	1.07E-03	3.07E-03	1.16E-03	1.65E-03	5.50E+00	2.11E+00	1.92E+00	9.30E-05	2.48E-05	1.94E-05	9.64E-08	2.52E-08	1.98E-08
R_18	546601.4	5396388	Residence	1.42E+03	1.17E+03	9.93E+02	9.78E+02	3.74E+02	5.92E+02	2.68E-04	7.30E-05	5.78E-05	2.11E-03	5.66E-04	4.46E-04	1.23E-06	1.33E-07	8.06E-08	1.95E-03	7.48E-04	1.07E-03	3.05E-03	1.15E-03	1.64E-03	5.50E+00	2.11E+00	1.92E+00	8.80E-05	2.41E-05	1.90E-05	9.09E-08	2.46E-08	1.94E-08
R_19	546856.4	5395581	Residence	1.48E+03	1.22E+03	9.99E+02	9.82E+02	3.74E+02	5.92E+02	2.41E-04	6.30E-05	4.94E-05	1.90E-03	4.83E-04	3.82E-04	8.75E-07	1.27E-07	7.08E-08	1.94E-03	7.45E-04	1.07E-03	3.03E-03	1.15E-03	1.64E-03	5.49E+00	2.10E+00	1.92E+00	7.90E-05	2.06E-05	1.62E-05	8.18E-08	2.10E-08	1.66E-08
R_2	547273.4	5398045	Residence	1.46E+03	1.21E+03	1.00E+03	9.84E+02	3.76E+02	5.94E+02	4.85E-04	1.31E-04	9.66E-05	3.77E-03	1.01E-03	7.45E-04	1.82E-06	2.24E-07	1.34E-07	2.00E-03	7.66E-04	1.08E-03	3.16E-03	1.19E-03	1.67E-03	5.59E+00	2.13E+00	1.93E+00	1.59E-04	4.30E-05	3.17E-05	1.63E-07	4.37E-08	3.23E-08
R_20	546950.4	5395534	Residence	1.59E+03	1.31E+03	1.01E+03	9.83E+02	3.74E+02	5.92E+02	2.40E-04	6.30E-05	4.92E-05	1.89E-03	4.83E-04	3.80E-04	8.52E-07	1.29E-07	7.07E-08	1.94E-03	7.45E-04	1.07E-03	3.03E-03	1.15E-03	1.64E-03	5.49E+00	2.10E+00	1.92E+00	7.90E-05	2.06E-05	1.62E-05	8.14E-08	2.10E-08	1.65E-08
R_21	547201.4	5395416	Residence	1.52E+03	1.26E+03	1.00E+03	9.94E+02	3.75E+02	5.92E+02	2.32E-04	6.30E-05	4.86E-05	1.86E-03	4.88E-04	3.75E-04	7.85E-07	1.32E-07	7.06E-08	1.94E-03	7.44E-04	1.07E-03	3.03E-03	1.15E-03	1.64E-03	5.49E+00	2.10E+00	1.92E+00	7.60E-05	2.08E-05	1.59E-05	7.87E-08	2.12E-08	1.63E-08
R_22	548317.4	5399655	Residence	1.69E+03	1.39E+03	1.03E+03	9.97E+02	3.81E+02	5.97E+02	9.24E-04	2.83E-04	1.96E-04	7.16E-03	2.18E-03	1.51E-03	2.09E-06	4.06

Table E-3 Special Receptor Predictions (ug/m3) - Construc

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	HYDROCHLORIC ACID (HCL)			HYDROFLUORIC ACID (HF)			INDENO(1,2,3-CD)PYRENE			IRON (FE)			IRON SULFIDE			LANTHANUM (LA)			LANTHANUM CHLORIDE (LACL3)			LEAD (PB)			MAGNESIUM (MG)			MANGANESE (MN)		
				24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual
				20	-	-	0.86	0.34	-	-	-	-	-	-	-	-	-	-	-	-	-	2.5	-	-	0.5	0.2	-	72	-	-	0.4	-	-
													3.85E-01	1.49E-01	1.91E-01										5.74E-03	2.21E-03	3.01E-03				1.42E-02	5.48E-03	7.71E-03
H_1	545937.4	5396170	Wilson Memorial General Hospital	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.25E-06	1.66E-07	9.15E-08	8.66E-01	2.70E-01	2.85E-01	0.00E+00	0.00E+00	0.00E+00	1.50E-04	3.70E-05	2.86E-05	0.00E+00	0.00E+00	0.00E+00	5.76E-03	2.22E-03	3.01E-03	1.25E-01	3.16E-02	2.45E-02	1.88E-02	6.64E-03	8.61E-03
M_1	545694	5403864	PM-10 @ Hare Lake	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.91E-06	5.11E-07	2.99E-07	1.71E+00	5.34E-01	4.22E-01	0.00E+00	0.00E+00	0.00E+00	4.82E-04	1.18E-04	7.06E-05	0.00E+00	0.00E+00	0.00E+00	5.81E-03	2.23E-03	3.02E-03	3.40E-01	1.00E-01	6.02E-02	2.69E-02	9.17E-03	9.92E-03
M_2	545694	5403873	Dustfall @ Hare Lake	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.89E-06	5.14E-07	2.99E-07	1.71E+00	5.33E-01	4.22E-01	0.00E+00	0.00E+00	0.00E+00	4.78E-04	1.18E-04	7.05E-05	0.00E+00	0.00E+00	0.00E+00	5.81E-03	2.23E-03	3.02E-03	3.38E-01	1.00E-01	6.01E-02	2.68E-02	9.16E-03	9.92E-03
M_3	547152	5401222	PM-10 @ Mays Gifts	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.73E-06	9.17E-07	4.48E-07	4.05E+00	1.33E+00	1.10E+00	0.00E+00	0.00E+00	0.00E+00	1.11E-03	3.58E-04	2.76E-04	0.00E+00	0.00E+00	0.00E+00	5.92E-03	2.27E-03	3.06E-03	9.55E-01	3.07E-01	2.37E-01	4.93E-02	1.67E-02	1.64E-02
M_4	547147	5401216	Dustfall @ Mays Gifts	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.74E-06	9.16E-07	4.47E-07	4.02E+00	1.32E+00	1.09E+00	0.00E+00	0.00E+00	0.00E+00	1.11E-03	3.55E-04	2.73E-04	0.00E+00	0.00E+00	0.00E+00	5.92E-03	2.27E-03	3.06E-03	9.47E-01	3.05E-01	2.35E-01	4.90E-02	1.67E-02	1.63E-02
M_5	551637	5402371	PM-10 @ Pic River	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.66E-06	7.85E-07	3.95E-07	1.66E+00	6.88E-01	5.48E-01	0.00E+00	0.00E+00	0.00E+00	3.91E-04	1.65E-04	1.09E-04	0.00E+00	0.00E+00	0.00E+00	5.80E-03	2.24E-03	3.03E-03	3.30E-01	1.41E-01	9.28E-02	2.63E-02	1.06E-02	1.11E-02
M_6	551643	5402374	Dustfall @ Pic River	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.64E-06	7.82E-07	3.94E-07	1.65E+00	6.88E-01	5.47E-01	0.00E+00	0.00E+00	0.00E+00	3.89E-04	1.64E-04	1.09E-04	0.00E+00	0.00E+00	0.00E+00	5.80E-03	2.24E-03	3.03E-03	3.28E-01	1.40E-01	9.26E-02	2.63E-02	1.06E-02	1.11E-02
M_7	549180	5399815	Dustfall @ Airport	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.88E-06	6.02E-07	2.60E-07	3.27E+00	1.44E+00	1.17E+00	0.00E+00	0.00E+00	0.00E+00	8.74E-04	3.91E-04	2.97E-04	0.00E+00	0.00E+00	0.00E+00	5.88E-03	2.28E-03	3.06E-03	7.51E-01	3.36E-01	2.55E-01	4.18E-02	1.78E-02	1.71E-02
M_8	545863	5397092	Dustfall @ Field Office	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.39E-06	2.11E-07	1.12E-07	9.10E-01	3.02E-01	3.07E-01	0.00E+00	0.00E+00	0.00E+00	1.62E-04	4.72E-05	3.54E-05	0.00E+00	0.00E+00	0.00E+00	5.77E-03	2.22E-03	3.02E-03	1.36E-01	4.00E-02	3.03E-02	1.92E-02	6.95E-03	8.82E-03
O_1	547181.4	5398015	Pic Motel	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.08E-06	2.66E-07	1.57E-07	1.21E+00	3.75E-01	3.58E-01	0.00E+00	0.00E+00	0.00E+00	2.52E-04	6.88E-05	5.08E-05	0.00E+00	0.00E+00	0.00E+00	5.78E-03	2.23E-03	3.02E-03	2.14E-01	5.89E-02	4.35E-02	2.21E-02	7.64E-03	9.31E-03
O_2	545734.4	5396873	Marathon Harbour Inn	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.33E-06	2.00E-07	1.06E-07	9.52E-01	3.32E-01	3.32E-01	0.00E+00	0.00E+00	0.00E+00	1.75E-04	5.59E-05	4.30E-05	0.00E+00	0.00E+00	0.00E+00	5.77E-03	2.22E-03	3.02E-03	1.48E-01	4.78E-02	3.68E-02	1.96E-02	7.23E-03	9.06E-03
O_3	545885.4	5396449	Zero-100 Motor Inn	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.12E-06	1.82E-07	9.69E-08	8.83E-01	2.79E-01	2.91E-01	0.00E+00	0.00E+00	0.00E+00	1.55E-04	3.99E-05	3.04E-05	0.00E+00	0.00E+00	0.00E+00	5.77E-03	2.22E-03	3.01E-03	1.30E-01	3.40E-02	2.60E-02	1.90E-02	6.73E-03	8.66E-03
O_4	545987.4	5397641	OPP Station	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.48E-06	2.39E-07	1.29E-07	9.72E-01	3.26E-01	3.23E-01	0.00E+00	0.00E+00	0.00E+00	1.81E-04	5.45E-05	4.00E-05	0.00E+00	0.00E+00	0.00E+00	5.77E-03	2.22E-03	3.02E-03	1.53E-01	4.62E-02	3.42E-02	1.98E-02	7.18E-03	8.97E-03
O_5	545876.4	5396073	Library	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.22E-06	1.63E-07	8.95E-08	8.57E-01	2.67E-01	2.83E-01	0.00E+00	0.00E+00	0.00E+00	1.47E-04	3.61E-05	2.79E-05	0.00E+00	0.00E+00	0.00E+00	5.76E-03	2.22E-03	3.01E-03	1.23E-01	3.08E-02	2.39E-02	1.87E-02	6.61E-03	8.59E-03
P_1	546958.4	5396139	Penn Lake Park and Campground	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.14E-06	1.64E-07	9.37E-08	8.50E-01	2.73E-01	2.89E-01	0.00E+00	0.00E+00	0.00E+00	1.44E-04	3.79E-05	2.98E-05	0.00E+00	0.00E+00	0.00E+00	5.76E-03	2.22E-03	3.01E-03	1.21E-01	3.25E-02	2.55E-02	1.86E-02	6.67E-03	8.65E-03
P_2	548538.4	5392863	Craig's Pit Provincial Nature Reserve	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.41E-07	1.25E-07	5.16E-08	7.76E-01	2.34E-01	2.44E-01	0.00E+00	0.00E+00	0.00E+00	1.34E-04	2.66E-05	1.60E-05	0.00E+00	0.00E+00	0.00E+00	5.76E-03	2.22E-03	3.01E-03	1.01E-01	2.22E-02	1.37E-02	1.79E-02	6.29E-03	8.21E-03
P_3	540005	5402014	Red Sucker Point Provincial Park	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.48E-07	1.39E-07	6.91E-08	8.00E-01	2.49E-01	2.46E-01	0.00E+00	0.00E+00	0.00E+00	1.63E-04	3.11E-05	1.67E-05	0.00E+00	0.00E+00	0.00E+00	5.76E-03	2.22E-03	3.01E-03	1.05E-01	2.62E-02	1.42E-02	1.82E-02	6.44E-03	8.23E-03
P_4	552770	5383776	Pukaskwa National Park	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.12E-07	4.42E-08	2.10E-08	5.19E-01	1.77E-01	2.08E-01	0.00E+00	0.00E+00	0.00E+00	4.20E-05	8.57E-06	5.32E-06	0.00E+00	0.00E+00	0.00E+00	5.75E-03	2.22E-03	3.01E-03	3.47E-02	7.28E-03	4.52E-03	1.55E-02	5.75E-03	7.88E-03
PR_1	553679.4	5385896	Children & Family Learning Centre	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.47E-07	4.19E-08	2.12E-08	5.08E-01	1.78E-01	2.10E-01	0.00E+00	0.00E+00	0.00E+00	3.80E-05	9.09E-06	5.83E-06	0.00E+00	0.00E+00	0.00E+00	5.75E-03	2.22E-03	3.01E-03	3.20E-02	7.64E-03	4.95E-03	1.54E-02	5.76E-03	7.89E-03
PR_2	554004.4	5385858	Pic River Elementary	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.56E-07	4.09E-08	2.06E-08	4.97E-01	1.76E-01	2.10E-01	0.00E+00	0.00E+00	0.00E+00	3.50E-05	8.56E-06	5.67E-06	0.00E+00	0.00E+00	0.00E+00	5.75E-03	2.22E-03	3.01E-03	2.92E-02	7.22E-03	4.82E-03	1.53E-02	5.74E-03	7.89E-03
PR_3	553836.4	5385604	Pic River Private High School	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.45E-07	4.07E-08	2.05E-08	5.02E-01	1.77E-01	2.09E-01	0.00E+00	0.00E+00	0.00E+00	3.60E-05	8.73E-06	5.64E-06	0.00E+00	0.00E+00	0.00E+00	5.75E-03	2.22E-03	3.01E-03	3.04E-02	7.35E-03	4.80E-03	1.53E-02	5.75E-03	7.89E-03
PR_4	553930.4	5386049	Pic River Health Centre	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.59E-07	4.16E-08	2.10E-08	5.00E-01	1.77E-01	2.10E-01	0.00E+00	0.00E+00	0.00E+00	3.50E-05	8.75E-06	5.78E-06	0.00E+00	0.00E+00	0.00E+00	5.75E-03	2.22E-03	3.01E-03	2.99E-02	7.38E-03	4.91E-03	1.53E-02	5.75E-03	7.89E-03
PR_5	552493.4	5384783	BIIDAABAN Healing Lodge	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.33E-07	4.85E-08	2.30E-08	5.28E-01	1.79E-01	2.10E-01	0.00E+00	0.00E+00	0.00E+00	4.50E-05	9.23E-06	5.79E-06	0.00E+00	0.00E+00	0.00E+00	5.75E-03	2.22E-03	3.01E-03	3.72E-02	7.86E-03	4.93E-03	1.56E-02	5.77E-03	7.89E-03
PR_6	552843.4	5390100	Residence	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.84E-07	6.39E-08	3.25E-08	5.75E-01	1.93E-01	2.20E-01	0.00E+00	0.00E+00	0.00E+00	5.90E-05	1.38E-05	9.00E-06	0.00E+00	0.00E+00	0.00E+00	5.75E-03	2.22E-03	3.01E-03	4.95E-02	1.16E-02	7.65E-03	1.60E-02	5.90E-03	7.99E-03
PR_7	553761.4	5387706	Residence	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.95E-07	4.71E-08	2.40E-08	5.11E-01	1.80E-01	2.13E-01	0.00E+00	0.00E+00	0.00E+00	3.90E-05	9.76E-06	6.62E-06	0.00E+00	0.00E+00	0.00E+00	5.75E-03	2.22E-03	3.01E-03	3.27E-02	8.25E-03	5.63E-03	1.54E-02	5.78E-03	7.92E-03
PS_1	545001.3	5404050	North Hare Lake Cottage	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.50E-06	4.12E-07	2.39E-07	1.33E+00	4.55E-01	3.71E-01	0.00E+00	0.00E+00	0.00E+00	2.95E-04	9.44E-05	5.50E-05	0.00E+00	0.00E+00	0.00E+00	5.79E-03	2.23E-03	3.02E-03	2.47E-01	7.98E-02	4.69E-02	2.33E-02	8.41E-03	9.43E-03
PS_2	544331.3	5403100	South Hare Lake Cottage	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.51E-06	3.09E-07	1.72E-07	1.60E+00	4.27E-01	3.47E-01	0.00E+00	0.00E+00	0.00E+00	4.55E-04	8.53E-05	4.75E-05	0.00E+00	0.00E+00	0.00E+00	5.81E-03	2.23E-03	3.02E-03	3.09E-01	7.24E-02	4.06E-02	2.58E-02	8.14E-03	9.20E-03
PS_3	547056.1	5401004	May's Gifts	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.38E-06	8.69E-07	4.19E-07	3.54E+00	1.10E+00	8.97E-01	0.00E+00	0.00E+00	0.00E+00	9.56E-04	2.89E-04	2.14E-04	0.00E+00	0.00E+00	0.00E+00	5.90E-03	2.26E-03	3.05E-03	8.22E-01	2.48E-01	1.84E-01	4.44E-02	1.46E-02	1.45E-02
PS_4	546811.4	5400953	Wayfare Inn	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.14E-06	7.65E-07	3.70E-07	3.41E+00	1.07E+00	8.51E-01	0.00E+00	0.00E+00	0.00E+00	9.16E-04	2.80E-04	2.00E-04	0.00E+00	0.00E+00	0.00E+00	5.89E-03	2.26E-03	3.04E-03	7.88E-01	2.40E-01	1.72E-01	4.31E-02	1.43E-02	1.40E-02
PS_5	546996.4	5401028	Peninsula Inn	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.41E-06	8.47E-07	4.09E-07	3.75E+00	1.13E+00	9.17E-01	0.00E+00	0.00E+00	0.00E+00	1.02E-03	2.99E-04	2.20E-04	0.00E+00	0.00E+00	0.00E+00	5.91E-03	2.26E-03	3.05E-03	8.75E-01	2.57E-01	1.89E-01	4.63E-02	1.49E-02	1.47E-02
PS_6	548471.4	5399489	Travelodge Hotel	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.38E-06	8.06E-07	3.92E-07	3.94E+00	1.18E+00	9.42E-01	0.00E+00	0.00E+00	0.00E+00	1.07E-03	3.13E-04	2.28E-04	0.00E+00	0.00E+00	0.00E+00	5.82E-03	2.24E-03	3.03E-03	4.40E-01	1.48E-01	9.91E-02	3.04E-02	1.09E-02	1.14E-02
PS_7	546903.4	5401056	The Laughing Mooz Eatery Restauran	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.38E-06	8.06E-07	3.92E-07	3.94E+00	1.18E+00	9.42E-01	0.00E+00	0.00E+00	0.00E+00	1.07E-03	3.13E-04	2.28E-04	0.00E+00	0.00E+00	0.00E+00	5.92E-03	2.27E-03	3.05E-03	9.25E-01	2.68E-01	1.95E-01	4.82E-02	1.53E-02	1.49E-02
PW_1	545777.4	5397151	Kingdom Hall of Jehovah's Witnesses	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.39E-06	2.12E-07	1.13E-07	8.96E-01	3.04E-01	3.08E-01	0.00E+00	0.00E+00	0.00E+00	1.58E-04	4.78E-05	3.56E-05	0.00E+00	0.00E+00	0.00E+00	5.77E-03	2.22E-03	3.02E-03	1.33E-01	4.05E-02	3.04E-02	1.91E-02	6.97E-03	8.83E-03
PW_2	546331.4	5395942	Parkland Pentecostal Church	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.38E-06	1.44E-07	8.76E-08	8.27E-01	2.63E-01	2.82E-01	0.00E+00	0.00E+00	0.00E+00	1.37E-04	3.49E-05	2.77E-05	0.00E+00	0.00E+00	0.00E+00	5.76E-03	2.22E-03	3.01E-03	1.15E-01	2.99E-02	2.37E-02	1.84E-02	6.58E-03	8.58E-03
PW_3	545857.4	5395715	St. John's United Church	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.26E-06	1.45E-07	8.29E-08	8.26E-01	2.56E-01	2.76E-01	0.00E+00	0.00E+00	0.00E+00	1.37E-04	3.29E-05	2.58E-05	0.00E+00	0.00E+00	0.00E+00	5.76E-03	2.22E-03	3.01E-03	1.15E-01	2.81E-02	2.20E-02	1.84E-02	6.51E-03	8.52E-03
PW_4	545425	5396043	Holy Saviour Roman Catholic Church	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.12E-06	1.68E-07	8.82E-08	8.21E-01	2.65E-01	2.79E-01	0.00E+00	0.00E+00	0.00E+00	1.35E-04	3.58E-05	2.69E-05	0.00E+00	0.00E+00	0.00E+00	5.76E-03	2.22E-03	3.01E-03	1.13E-01	3.04E-02	2.30E-02	1.84E-02	6.59E-03	8.56E-03
PW_5	545390.4	5395989	Anglican Church-Trinity	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.12E-06	1.67E-07	8.74E-08	8.19E-01	2.64E-01	2.78E-01	0.00E+00	0.00E+00	0.00E+00	1.35E-04	3.54E-05	2.66E-05	0.00E+00	0.00E+00	0.00E+00	5.76E-03	2.22E-03	3.01E-03	1.13E-01	3.00E-02	2.27E-02	1.83E-02	6.58E-03	8.55E-03
R_1	547226.4	5398096	Residence	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.14E-06	2.75E-07	1.62E-07	1.24E+00	3.82E-01	3.63E-01	0.00E+00	0.00E+00	0.00E+00	2.61E-04	7.08E-05	5.23E-05	0.00E+00	0.00E+00	0.00E+00	5.78E-03	2.23E-03	3.02E-03	2.21E-01	6.07E-02	4.48E-02	2.23E-02	7.71E-03	9.36E-03
R_10	545421.4	5395954	Residence	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.09E-06	1.65E-07	8.67E-08	8.19E-01	2.63E-01	2.78E-01	0.00E+00	0.00E+00	0.00E+00	1.35E-04	3.50E-05	2.64E-05	0.00E+00	0.00E+00	0.00E+00	5.76E-03	2.22E-03	3.01E-03	1.13E-01	2.97E-02	2.26E-02	1.83E-02	6.57E-03	8.54E-03
R_11	545619.4	5395878	Residence	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.06E-06	1.60E-07	8.56E-08	8.31E-01	2.61E-01	2.77E-01	0.00E+00	0.00E+00	0.00E+00	1.39E-04	3.44E-05	2.63E-05	0.00E+00	0.00E+00	0.00E+00	5.76E-03	2.22E-03	3.01E-03	1.16E-01	2.93E-02	2.25E-02	1.85E-02	6.55E-03	8.54E-03
R_12	545831.4	5396001	Residence	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.20E-06	1.60E-07	8.81E-08	8.49E-01	2.65E-01	2.81E-01	0.00E+00	0.00E+00	0.00E+00	1.45E-04	3.54E-05	2.74E-05	0.00E+00	0.00E+00	0.00E+00	5.76E-03	2.22E-03	3.01E-03	1.21E-01	3.02E-02	2.34E-02	1.86E-02	6.59E-03	8.57E-03
R_13	545806.9	5396173	Residence	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.14E-06	1.70E-07	9.13E-08	8.60E-01	2.70E-01	2.84E-01	0.00E+00	0.00E+00	0.00E+00	1.48E-04	3.71E-05	2.84E-05	0.00E+00	0.00E+00	0.00E+00	5.76E-03	2.22E-03	3.01E-03	1.23E-01	3.16E-02	2.43E-02	1.87E-02	6.64E-03	8.60E-03
R_14	545827.1	5396229	Residence	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.14E-06	1.72E-07	9.25E-08	8.66E-01	2.72E-01	2.86E-01	0.00E+00	0.00E+00	0.00E+00	1.50E-04	3.77E-05	2.88E-05	0.00E+00	0.00E+00	0.00E+00	5.76E-03	2.22E-03	3.01E-03	1.25E-01	3.21E-02	2.47E-02	1.88E-02	6.66E-03	8.62E-03
R_15	545662.4	5396176	Residence	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.09E-06	1.73E-07	9.12E-08	8.50E-01	2.70E-01	2.84E-01	0.00E+00	0.00E+00	0.00E+00	1.44E-04	3.73E-05	2.82E-05	0.00E+00	0.00E+00	0.00E+00	5.76E-03	2.22E-03	3.01E-03	1.21E-01	3.17E-02	2.41E-02	1.86E-02	6.64E-03	8.60E-03
R_16	546254.4	5396485	Residence	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.42E-06	1.70E-07	9.77E-08	8.91E-01	2.80E-01	2.93E-01	0.00E+00	0.00E+00	0.00E+00	1.58E-04	4.00E-05	3.11E-05	0.00E+00	0.00E+00	0.00E+00	5.77E-03	2.22E-03	3.02E-03	1.32E-01	3.42E-02	2.66E-02	1.90E-02	6.74E-03	8.69E-03
R_17	546471.4	5396507	Residence	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.50E-06	1.61E-07	9.86E-08	8.83E-01	2.81E-01	2.95E-01	0.00E+00	0.00E+00	0.00E+00	1.55E-04	4.03E-05	3.16E-05	0.00E+00	0.00E+00	0.00E+00	5.77E-03	2.22E-03	3.02E-03	1.29E-01	3.45E-02	2.70E-02	1.90E-02	6.75E-03	8.70E-03
R_18	546601.4	5396388	Residence	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.47E-06	1.60E-07	9.65E-08	8.56E-01	2.78E-01	2.93E-01	0.00E+00	0.00E+00	0.00E+00	1.46E-04	3.92E-05	3.09E-05	0.00E+00	0.00E+00	0.00E+00	5.76E-03	2.22E-03	3.02E-03	1.22E-01	3.36E-02	2.64E-02	1.87E-02	6.71E-03	8.68E-03
R_19	546856.4	5395581	Residence	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.05E-06	1.51E-07	8.47E-08	8.08E-01	2.59E-01	2.78E-01	0.00E+00	0.00E+00	0.00E+00	1.31E-04	3.35E-05	2.65E-05	0.00E+00	0.00E+00	0.00E+00	5.76E-03	2.22E-03	3.01E-03	1.10E-01	2.87E-02	2.26E-02	1.82E-02	6.53E-03	8.54E-03
R_2	547273.4	5398045	Residence	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.18E-06	2.68E-07	1.61E-07	1.24E+00	3.79E-01	3.61E-01	0.00E+00	0.00E+00	0.00E+00	2.61E-04	6.98E-05	5.16E-05	0.00E+00	0.00E+00	0.00E+00	5.78E-03	2.23E-03	3.02E-03	2.21E-01	5.99E-02	4.42E-02	2.23E-02	7.68E-03	9.33E-03
R_20	546950.4	5395534	Residence	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.02E-06	1.54E-07	8.47E-08	8.06E-01	2.59E-01	2.77E-01	0.00E+00	0.00E+00	0.00E+00	1.31E-04	3.35E-05	2.63E-05	0.00E+00	0.00E+00	0.00E+00	5.76E-03	2.22E-03	3.01E-03	1.09E-01	2.87E-02	2.25E-02	1.82E-02	6.53E-03	8.54E-03
R_21	547201.4	5395416	Residence	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.39E-07	1.58E-07	8.45E-08	7.91E-01	2.60E-01	2.76E-01	0.00E+00	0.00E+00	0.00E+00	1.26E-04	3.38E-05	2.60E-05	0.00E+00	0.00E+00	0.00E+00	5.76E-03	2.22E-03	3.01E-03	1.06E-01	2.89E-02	2.22E-02	1.81E-02	6.54E-03	8.53E-03
R_22	548317.4	5399655	Residence	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.50E-06	4.85E-07	2.63E-07	2.01E+00	6.45E-01

Table E-3 Special Receptor Predictions (ug/m3) - Construc

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	MERCURY (HG)			MOLYBDENUM (MO)			N2O			NAPHTHALENE				NICKEL (NI)		NITRIC ACID (HNO3)			NON-METHANE HYDROCARBONS			NO2 (See Note 3)			PALLADIUM (PD)			PHENANTHRENE		
				24	month	annual	24	month	annual	24	month	annual	10-min	24	month	annual	24	annual	24	month	annual	24	month	annual	1	24	annual	24	month	annual	24	month	annual
				2	-	-	120	-	-	9000	-	-	50	22.5	-	-	0.2	0.04	35	-	-	-	-	-	400	200	-	10	-	-	-	-	-
													2.37E+00	2.39E-01	9.22E-02	9.64E-02	2.60E-03	1.00E-03							6.34E+01	3.17E+01	1.74E+01				7.86E-03	3.03E-03	4.59E-03
H_1	545937.4	5396170	Wilson Memorial General Hospital	9.04E-06	2.28E-06	1.76E-06	1.11E-05	2.79E-06	2.16E-06	1.07E-01	2.42E-02	1.80E-02	2.37E+00	2.39E-01	9.23E-02	9.64E-02	3.31E-03	1.14E-03	0.00E+00	0.00E+00	0.00E+00	4.41E-01	1.16E-01	8.45E-02	1.64E+02	4.35E+01	1.89E+01	2.67E-07	6.49E-08	5.02E-08	8.41E-03	3.16E-03	4.68E-03
M_1	545694	5403864	PM-10 @ Hare Lake	2.51E-05	7.24E-06	4.34E-06	3.27E-05	8.88E-06	5.31E-06	2.39E-01	6.99E-02	3.96E-02	2.38E+00	2.40E-01	9.24E-02	9.65E-02	4.65E-03	1.34E-03	0.00E+00	0.00E+00	0.00E+00	7.79E-01	2.29E-01	1.29E-01	1.93E+02	5.50E+01	2.08E+01	9.40E-07	2.09E-07	1.24E-07	8.94E-03	3.35E-03	4.77E-03
M_2	545694	5403873	Dustfall @ Hare Lake	2.49E-05	7.22E-06	4.33E-06	3.25E-05	8.86E-06	5.30E-06	2.39E-01	6.98E-02	3.95E-02	2.38E+00	2.40E-01	9.24E-02	9.65E-02	4.63E-03	1.34E-03	0.00E+00	0.00E+00	0.00E+00	7.79E-01	2.28E-01	1.29E-01	1.92E+02	5.50E+01	2.08E+01	9.33E-07	2.08E-07	1.24E-07	8.94E-03	3.35E-03	4.77E-03
M_3	547152	5401222	PM-10 @ Mays Gifts	6.88E-05	2.21E-05	1.71E-05	8.41E-05	2.70E-05	2.08E-05	6.46E-01	2.02E-01	1.54E-01	2.38E+00	2.40E-01	9.25E-02	9.65E-02	8.00E-03	2.34E-03	0.00E+00	0.00E+00	0.00E+00	2.09E+00	6.65E-01	5.09E-01	2.62E+02	8.55E+01	2.64E+01	1.95E-06	6.26E-07	4.82E-07	1.08E-02	3.91E-03	5.24E-03
M_4	547147	5401216	Dustfall @ Mays Gifts	6.82E-05	2.19E-05	1.69E-05	8.34E-05	2.68E-05	2.07E-05	6.41E-01	2.01E-01	1.53E-01	2.38E+00	2.40E-01	9.25E-02	9.65E-02	7.95E-03	2.33E-03	0.00E+00	0.00E+00	0.00E+00	2.07E+00	6.61E-01	5.05E-01	2.63E+02	8.53E+01	2.63E+01	1.93E-06	6.21E-07	4.78E-07	1.08E-02	3.90E-03	5.23E-03
M_5	551637	5402371	PM-10 @ Pic River	2.38E-05	1.01E-05	6.69E-06	2.92E-05	1.24E-05	8.18E-06	2.77E-01	1.13E-01	6.93E-02	2.38E+00	2.40E-01	9.25E-02	9.65E-02	4.47E-03	1.52E-03	0.00E+00	0.00E+00	0.00E+00	9.09E-01	3.67E-01	2.27E-01	2.42E+02	6.73E+01	2.27E+01	6.91E-07	2.89E-07	1.91E-07	9.25E-03	3.55E-03	4.90E-03
M_6	551643	5402374	Dustfall @ Pic River	2.37E-05	1.01E-05	6.68E-06	2.91E-05	1.24E-05	8.17E-06	2.76E-01	1.12E-01	6.92E-02	2.38E+00	2.40E-01	9.25E-02	9.65E-02	4.46E-03	1.52E-03	0.00E+00	0.00E+00	0.00E+00	9.05E-01	3.66E-01	2.27E-01	2.42E+02	6.71E+01	2.27E+01	6.86E-07	2.88E-07	1.91E-07	9.26E-03	3.55E-03	4.90E-03
M_7	549180	5399815	Dustfall @ Airport	5.41E-05	2.42E-05	1.84E-05	6.59E-05	2.95E-05	2.24E-05	1.15E+00	5.17E-01	4.02E-01	2.38E+00	2.40E-01	9.24E-02	9.65E-02	6.84E-03	2.44E-03	0.00E+00	0.00E+00	0.00E+00	3.90E+00	1.75E+00	1.36E+00	3.16E+02	9.78E+01	4.05E+01	1.52E-06	6.83E-07	5.19E-07	1.26E-02	5.17E-03	6.24E-03
M_8	545863	5397092	Dustfall @ Field Office	9.85E-06	2.89E-06	2.18E-06	1.21E-05	3.54E-06	2.67E-06	1.10E-01	3.09E-02	2.19E-02	2.37E+00	2.39E-01	9.23E-02	9.64E-02	3.38E-03	1.17E-03	0.00E+00	0.00E+00	0.00E+00	6.30E-01	2.68E-01	2.15E-01	1.73E+02	4.52E+01	2.00E+01	2.88E-07	8.31E-08	6.20E-08	8.49E-03	3.25E-03	4.76E-03
O_1	547181.4	5398015	Pic Motel	1.54E-05	4.25E-06	3.13E-06	1.89E-05	5.19E-06	3.83E-06	1.86E-01	4.68E-02	3.41E-02	2.38E+00	2.40E-01	9.23E-02	9.64E-02	3.81E-03	1.25E-03	0.00E+00	0.00E+00	0.00E+00	8.22E-01	2.26E-01	1.84E-01	2.14E+02	5.19E+01	2.04E+01	4.43E-07	1.20E-07	8.90E-08	8.81E-03	3.28E-03	4.78E-03
O_2	545734.4	5396873	Marathon Harbour Inn	1.06E-05	3.44E-06	2.65E-06	1.31E-05	4.21E-06	3.24E-06	1.02E-01	2.90E-02	2.05E-02	2.37E+00	2.39E-01	9.23E-02	9.64E-02	3.44E-03	1.21E-03	0.00E+00	0.00E+00	0.00E+00	1.17E+00	4.79E-01	3.54E-01	1.89E+02	4.81E+01	2.10E+01	3.09E-07	9.79E-08	7.53E-08	8.78E-03	3.36E-03	4.83E-03
O_3	545885.4	5396449	Zero-100 Motor Inn	9.35E-06	2.45E-06	1.87E-06	1.15E-05	3.00E-06	2.29E-06	1.07E-01	2.62E-02	1.90E-02	2.37E+00	2.39E-01	9.23E-02	9.64E-02	3.34E-03	1.15E-03	0.00E+00	0.00E+00	0.00E+00	1.22E+00	4.43E-01	3.38E-01	1.88E+02	4.58E+01	2.08E+01	2.76E-07	7.01E-08	5.33E-08	8.72E-03	3.32E-03	4.82E-03
O_4	545987.4	5397641	OPP Station	1.10E-05	3.33E-06	2.47E-06	1.35E-05	4.08E-06	3.02E-06	1.29E-01	3.54E-02	2.51E-02	2.38E+00	2.39E-01	9.23E-02	9.64E-02	3.47E-03	1.19E-03	0.00E+00	0.00E+00	0.00E+00	6.72E-01	2.34E-01	1.81E-01	1.75E+02	4.67E+01	1.99E+01	3.21E-07	9.61E-08	7.02E-08	8.59E-03	3.25E-03	4.75E-03
O_5	545876.4	5396073	Library	8.86E-06	2.22E-06	1.72E-06	1.09E-05	2.72E-06	2.10E-06	1.05E-01	2.35E-02	1.75E-02	2.37E+00	2.39E-01	9.23E-02	9.64E-02	3.30E-03	1.13E-03	0.00E+00	0.00E+00	0.00E+00	3.69E-01	1.07E-01	7.71E-02	1.63E+02	4.33E+01	1.89E+01	2.62E-07	6.33E-08	4.89E-08	8.40E-03	3.16E-03	4.68E-03
P_1	546958.4	5396139	Penn Lake Park and Campground	8.73E-06	2.34E-06	1.84E-06	1.07E-05	2.86E-06	2.25E-06	1.08E-01	2.45E-02	1.92E-02	2.37E+00	2.39E-01	9.23E-02	9.64E-02	3.29E-03	1.14E-03	0.00E+00	0.00E+00	0.00E+00	3.62E-01	8.65E-02	6.89E-02	1.73E+02	4.23E+01	1.89E+01	2.55E-07	6.63E-08	5.23E-08	8.39E-03	3.15E-03	4.68E-03
P_2	548538.4	5392863	Craig's Pit Provincial Nature Reserve	7.36E-06	1.60E-06	9.86E-07	9.39E-06	1.97E-06	1.21E-06	7.38E-02	1.67E-02	1.00E-02	2.37E+00	2.39E-01	9.23E-02	9.64E-02	3.19E-03	1.08E-03	0.00E+00	0.00E+00	0.00E+00	2.45E-01	5.58E-02	3.35E-02	1.41E+02	3.99E+01	1.82E+01	2.52E-07	4.73E-08	2.82E-08	8.23E-03	3.11E-03	4.64E-03
P_3	540005	5402014	Red Sucker Point Provincial Park	7.84E-06	1.89E-06	1.02E-06	1.06E-05	2.32E-06	1.26E-06	8.22E-02	1.88E-02	9.64E-03	2.37E+00	2.39E-01	9.23E-02	9.64E-02	3.25E-03	1.08E-03	0.00E+00	0.00E+00	0.00E+00	2.71E-01	6.24E-02	3.21E-02	1.43E+02	3.91E+01	1.83E+01	3.32E-07	5.50E-08	2.94E-08	8.25E-03	3.12E-03	4.64E-03
P_4	552770	5383776	Pukaskwa National Park	2.51E-06	5.25E-07	3.26E-07	3.10E-06	6.43E-07	3.99E-07	3.25E-02	5.40E-03	3.23E-03	2.37E+00	2.39E-01	9.22E-02	9.64E-02	2.80E-03	1.03E-03	0.00E+00	0.00E+00	0.00E+00	1.08E-01	1.80E-02	1.07E-02	9.93E+01	3.47E+01	1.77E+01	7.50E-08	1.51E-08	9.35E-09	8.02E-03	3.06E-03	4.61E-03
PR_1	553679.4	5385896	Children & Family Learning Centre	2.31E-06	5.52E-07	3.57E-07	2.85E-06	6.78E-07	4.37E-07	2.71E-02	6.14E-03	3.55E-03	2.37E+00	2.39E-01	9.22E-02	9.64E-02	2.78E-03	1.03E-03	0.00E+00	0.00E+00	0.00E+00	9.08E-02	2.05E-02	1.18E-02	8.98E+01	3.40E+01	1.77E+01	6.79E-08	1.61E-08	1.03E-08	7.98E-03	3.06E-03	4.61E-03
PR_2	554004.4	5385858	Pic River Elementary	2.10E-06	5.21E-07	3.48E-07	2.58E-06	6.39E-07	4.26E-07	2.41E-02	5.59E-03	3.42E-03	2.37E+00	2.39E-01	9.22E-02	9.64E-02	2.77E-03	1.03E-03	0.00E+00	0.00E+00	0.00E+00	8.04E-02	1.87E-02	1.14E-02	9.48E+01	3.38E+01	1.77E+01	6.10E-08	1.51E-08	9.97E-09	7.97E-03	3.06E-03	4.61E-03
PR_3	553836.4	5385604	Pic River Private High School	2.20E-06	5.30E-07	3.46E-07	2.70E-06	6.52E-07	4.24E-07	2.55E-02	5.85E-03	3.42E-03	2.37E+00	2.39E-01	9.22E-02	9.64E-02	2.77E-03	1.03E-03	0.00E+00	0.00E+00	0.00E+00	8.57E-02	1.95E-02	1.14E-02	8.77E+01	3.39E+01	1.77E+01	6.42E-08	1.55E-08	9.93E-09	7.98E-03	3.06E-03	4.61E-03
PR_4	553930.4	5386049	Pic River Health Centre	2.16E-06	5.32E-07	3.54E-07	2.65E-06	6.54E-07	4.34E-07	2.46E-02	5.75E-03	3.50E-03	2.37E+00	2.39E-01	9.22E-02	9.64E-02	2.77E-03	1.03E-03	0.00E+00	0.00E+00	0.00E+00	8.23E-02	1.92E-02	1.17E-02	9.31E+01	3.39E+01	1.77E+01	6.27E-08	1.55E-08	1.02E-08	7.98E-03	3.06E-03	4.61E-03
PR_5	552493.4	5384783	BIIDAABAN Healing Lodge	2.69E-06	5.66E-07	3.55E-07	3.32E-06	6.93E-07	4.35E-07	3.51E-02	5.85E-03	3.51E-03	2.37E+00	2.39E-01	9.22E-02	9.64E-02	2.81E-03	1.03E-03	0.00E+00	0.00E+00	0.00E+00	1.17E-01	1.95E-02	1.17E-02	1.03E+02	3.51E+01	1.77E+01	8.03E-08	1.62E-08	1.02E-08	8.03E-03	3.06E-03	4.61E-03
PR_6	552843.4	5390100	Residence	3.57E-06	8.37E-07	5.52E-07	4.41E-06	1.03E-06	6.76E-07	4.33E-02	9.33E-03	5.56E-03	2.37E+00	2.39E-01	9.22E-02	9.64E-02	2.88E-03	1.04E-03	0.00E+00	0.00E+00	0.00E+00	1.44E-01	3.12E-02	1.85E-02	9.79E+01	3.51E+01	1.79E+01	1.06E-07	2.44E-08	1.58E-08	8.05E-03	3.07E-03	4.62E-03
PR_7	553761.4	5387706	Residence	2.36E-06	5.95E-07	4.06E-07	2.89E-06	7.30E-07	4.97E-07	2.67E-02	6.30E-03	4.01E-03	2.37E+00	2.39E-01	9.22E-02	9.64E-02	2.79E-03	1.03E-03	0.00E+00	0.00E+00	0.00E+00	8.92E-02	2.11E-02	1.34E-02	1.04E+02	3.41E+01	1.77E+01	7.76E-08	1.72E-08	1.16E-08	7.99E-03	3.06E-03	4.61E-03
PS_1	545001.3	5404050	North Hare Lake Cottage	1.78E-05	5.76E-06	3.38E-06	2.19E-05	7.06E-06	4.13E-06	1.92E-01	5.61E-02	3.10E-02	2.38E+00	2.40E-01	9.23E-02	9.65E-02	4.00E-03	1.27E-03	0.00E+00	0.00E+00	0.00E+00	6.28E-01	1.84E-01	1.01E-01	1.77E+02	5.02E+01	2.01E+01	5.23E-07	1.67E-07	9.65E-08	8.74E-03	3.29E-03	4.73E-03
PS_2	544331.3	5403100	South Hare Lake Cottage	2.29E-05	5.22E-06	2.92E-06	3.03E-05	6.40E-06	3.58E-06	1.90E-01	5.00E-02	2.67E-02	2.38E+00	2.40E-01	9.23E-02	9.65E-02	4.48E-03	1.23E-03	0.00E+00	0.00E+00	0.00E+00	6.23E-01	1.64E-01	8.78E-02	1.77E+02	4.99E+01	1.96E+01	9.03E-07	1.50E-07	8.35E-08	8.74E-03	3.26E-03	4.71E-03
PS_3	547056.1	5401004	May's Gifts	5.92E-05	1.79E-05	1.32E-05	7.23E-05	2.18E-05	1.62E-05	5.41E-01	1.64E-01	1.21E-01	2.38E+00	2.40E-01	9.25E-02	9.65E-02	7.24E-03	2.04E-03	0.00E+00	0.00E+00	0.00E+00	1.77E+00	5.38E-01	4.00E-01	2.44E+02	7.81E+01	2.49E+01	1.67E-06	5.06E-07	3.74E-07	1.03E-02	3.75E-03	5.11E-03
PS_4	546811.4	5400953	Wayfare Inn	5.68E-05	1.73E-05	1.24E-05	6.93E-05	2.11E-05	1.51E-05	5.06E-01	1.58E-01	1.14E-01	2.38E+00	2.40E-01	9.25E-02	9.65E-02	7.05E-03	1.97E-03	0.00E+00	0.00E+00	0.00E+00	1.65E+00	5.20E-01	3.77E-01	2.40E+02	7.60E+01	2.43E+01	1.60E-06	4.90E-07	3.50E-07	1.02E-02	3.72E-03	5.08E-03
PS_5	546996.4	5401028	Peninsula Inn	6.30E-05	1.85E-05	1.36E-05	7.69E-05	2.26E-05	1.66E-05	5.79E-01	1.69E-01	1.25E-01	2.38E+00	2.40E-01	9.25E-02	9.65E-02	7.54E-03	2.07E-03	0.00E+00	0.00E+00	0.00E+00	1.89E+00	5.57E-01	4.12E-01	2.48E+02	7.89E+01	2.50E+01	1.78E-06	5.24E-07	3.85E-07	1.03E-02	3.77E-03	5.12E-03
PS_6	548471.4	5399489	Travelodge Hotel	3.17E-05	1.06E-05	7.14E-06	3.87E-05	1.30E-05	8.72E-06	5.12E-01	1.77E-01	1.12E-01	2.38E+00	2.40E-01	9.24E-02	9.65E-02	5.09E-03	1.56E-03	0.00E+00	0.00E+00	0.00E+00	1.79E+00	6.28E-01	4.05E-01	2.91E+02	6.60E+01	2.47E+01	8.99E-07	3.01E-07	2.02E-07	1.01E-02	3.80E-03	5.08E-03
PS_7	546903.4	5401056	The Laughing Mooz Eatery Restauran	6.66E-05	1.93E-05	1.41E-05	8.13E-05	2.36E-05	1.72E-05	6.10E-01	1.77E-01	1.30E-01	2.38E+00	2.40E-01	9.25E-02	9.65E-02	7.82E-03	2.10E-03	0.00E+00	0.00E+00	0.00E+00	2.00E+00	5.83E-01	4.29E-01	2.49E+02	7.93E+01	2.50E+01	1.88E-06	5.48E-07	3.98E-07	1.04E-02	3.80E-03	5.14E-03
PW_1	545777.4	5397151	Kingdom Hall of Jehovah's Witnesses	9.60E-06	2.92E-06	2.19E-06	1.18E-05	3.58E-06	2.68E-06	1.12E-01	3.11E-02	2.20E-02	2.37E+00	2.39E-01	9.23E-02	9.64E-02	3.36E-03	1.17E-03	0.00E+00	0.00E+00	0.00E+00	7.07E-01	2.47E-01	1.89E-01	1.74E+02	4.60E+01	1.98E+01	2.80E-07	8.42E-08	6.23E-08	8.56E-03	3.24E-03	4.75E-03
PW_2	546331.4	5395942	Parkland Pentecostal Church	8.29E-06	2.15E-06	1.71E-06	1.02E-05	2.63E-06	2.09E-06	9.80E-02	2.23E-02	1.75E-02	2.37E+00	2.39E-01	9.23E-02	9.64E-02	3.25E-03	1.13E-03	0.00E+00	0.00E+00	0.00E+00	3.38E-01	8.23E-02	6.57E-02	1.63E+02	4.39E+01	1.88E+01	2.44E-07	6.11E-08	4.85E-08	8.39E-03	3.14E-03	4.67E-03
PW_3	545857.4	5395715	St. John's United Church	8.28E-06	2.02E-06	1.59E-06	1.02E-05	2.48E-06	1.94E-06	9.90E-02	2.12E-02	1.61E-02	2.37E+00	2.39E-01	9.23E-02	9.64E-02	3.25E-03	1.12E-03	0.00E+00	0.00E+00	0.00E+00	3.37E-01	8.29E-02	6.24E-02	1.57E+02	4.32E+01	1.87E+01	2.45E-07	5.76E-08	4.52E-08	8.38E-03	3.14E-03	4.67E-03
PW_4	545425	5396043	Holy Saviour Roman Catholic Church	8.19E-06	2.19E-06	1.66E-06	1.01E-05	2.68E-06	2.03E-06	8.94E-02	2.34E-02	1.68E-02	2.37E+00	2.39E-01	9.23E-02	9.64E-02	3.24E-03	1.13E-03	0.00E+00	0.00E+00	0.00E+00	3.37E-01	9.68E-02	7.00E-02	1.62E+02	4.20E+01	1.88E+01	2.40E-07	6.30E-08	4.72E-08	8.32E-03	3.15E-03	4.67E-03
PW_5	545390.4	5395989	Anglican Church-Trinity	8.15E-06	2.16E-06	1.64E-06	1.00E-05	2.65E-06	2.00E-06	8.87E-02	2.32E-02	1.66E-02	2.37E+00	2.39E-01	9.23E-02	9.64E-02	3.24E-03	1.13E-03	0.00E+00	0.00E+00	0.00E+00	3.31E-01	9.38E-02	6.77E-02	1.61E+02	4.19E+01	1.88E+01	2.39E-07	6.23E-08	4.67E-08	8.31E-03	3.15E-03	4.67E-03
R_1	547226.4	5398096	Residence	1.60E-05	4.37E-06	3.23E-06	1.96E-05	5.34E-06	3.94E-06	1.92E-01	4.84E-02	3.52E-02	2.38E+00	2.40E-01	9.23E-02	9.65E-02	3.85E-03	1.25E-03	0.00E+00	0.00E+00	0.00E+00	9.73E-01	3.09E-01	2.49E-01	2.21E+02	5.31E+01	2.09E+01	4.59E-07	1.24E-07	9.16E-08	8.89E-03	3.31E-03	4.81E-03
R_10	545421.4	5395954	Residence	8.15E-06	2.14E-06	1.63E-06	1.00E-05	2.63E-06	1.99E-06	8.99E-02	2.30E-02	1.65E-02	2.37E+00	2.39E-01	9.23E-02	9.64E-02	3.24E-03	1.13E-03	0.00E+00	0.00E+00	0.00E+00	3.37E-01	9.24E-02	6.70E-02	1.61E+02	4.17E+01	1.88E+01	2.39E-07	6.16E-08	4.64E-08	8.32E-03	3.15E-03	4.67E-03
R_11	545619.4	5395878	Residence	8.37E-06	2.11E-06	1.62E-06	1.03E-05	2.58E-06	1.98E-06	9.70E-02	2.24E-02	1.64E-02	2.37E+00	2.39E-01	9.23E-02	9.64E-02	3.26E-03	1.13E-03	0.00E+00	0.00E+00	0.00E+00	3.58E-01	9.03E-02	6.67E-02	1.60E+02	4.22E+01	1.87E+01	2.47E-07	6.03E-08	4.61E-08	8.36E-03	3.14E-03	4.67E-03
R_12	545831.4	5396001	Residence	8.71E-06	2.18E-06	1.69E-06	1.07E-05	2.66E-06	2.06E-06	1.03E-01	2.31E-02	1.72E-02	2.37E+00	2.39E-01	9.23E-02	9.64E-02	3.29E-03	1.13E-03	0.00E+00	0.00E+00	0.00E+00	3.66E-01	9.94E-02	7.34E-02	1.62E+02	4.31E+01	1.88E+01	2.58E-07	6.21E-08	4.80E-08	8.39E-03	3.15E-03	4.68E-03
R_13	545806.9	5396173	Residence	8.91E-06	2.28E-06	1.75E-06	1.10E-05	2.79E-06	2.14E-06	1.04E-01	2.43E-02	1.78E-02	2.37E+00	2.39E-01	9.23E-02	9.64E-02	3.30E-03	1.14E-03	0.00E+00	0.00E+00	0.00E+00	4.11E-01	1.20E-01	8.81E-02	1.66E+02	4.31E+01	1.90E+01	2.63E-07	6.51E-08	4.98E-08	8.41E-03	3.17E-03	4.68E-03
R_14	545827.1	5396229	Residence	9.02E-06	2.31E-06	1.78E-06	1.11E-05	2.83E-06	2.17E-06	1.05E-01	2.47E-02	1.81E-02	2.37E+00	2.39E-01	9.23E-02	9.64E-02	3.31E-03	1.14E-03	0.00E+00	0.00E+00	0.00E+00	4.47E-01	1.35E-01	9.59E-02	1.70E+02	4.34E+01	1.90E+01	2.66E-07	6.61E-08	5.06E-08	8.43E-03	3.17E-03	4.69E-03
R_15	545662.4	5396176	Residence	8.72E-06	2.29E-06	1.74E-06	1.07E-05	2.80E-06	2.12E-06	9.90E-02	2.43E-02	1.76E-02	2.37E+00	2.39E-01	9.23E-02	9.64E-02	3.29E-03	1.14E-03	0.00E+00	0.00E+00	0.00E+00	3.94E-01	1.15E-01	8.43E-02	1.67E+02	4.21E+01	1.89E+01	2.57E-07	6.55E-08	4.95E-08	8.38E-03	3.16E-03	4.68E-03
R_16	546254.4	5396485	Residence	9.50E-06	2.46E-06	1.91E-06	1.17E-05	3.01E-06	2.34E-06	1.13E-01	2.61E-02	1.96E-02	2.37E+00	2.39E-01	9.23E-02	9.64E-02	3.35E-03	1.15E-03	0.00E+00	0.00E+00	0.00E+00	4.34E-01	1.21E-01	9.49E-02	1.69E+02	4.51E+01	1.91E+01	2.81E-07	7.01E-08	5.44E-08	8.47E-03	3.17E-03	4.69E-03
R_17	546471.4	5396507	Residence	9.35E-06	2.49E-06	1.94E-06	1.15E-05	3.04E-06	2.38E-06	1.11E-01	2.62E-02	2.01E-02	2.37E+00	2.39E-01	9.23E-02	9.64E-02	3.34E-03	1.15E-03	0.00E+00	0.00E+00	0.00E+00	4.03E-01	1.06E-01	8.36E-02	1.73E+02	4.53E+01	1.90E+01	2.75E-07	7.06E-08	5.53E-08	8.46E-03	3.16E-03	4.69E-03
R_18	546601.4	5396388	Residence	8.83E-06	2.42E-06	1.91E-06	1.09E-05	2.96E-06	2.33E-06	1.04E-01	2.53E-02	1.97E-02	2.37E+00	2.39E-01	9.23E-02	9.64E-02	3.30E-03	1.15E-03	0.00E+00	0.00E+00	0.00E+00	3.78E-01	9.45E-02	7.67E-02	1.67E+02	4.47E+01	1.90E+01	2.59E-07	6.87E-08	5.42E-08	8.42E-03	3.15E-03	4.68E-03
R_19	546856.4	5395581	Residence	7.94E-06	2.07E-06	1.63E-06	9.77E-06	2.52E-06	1.99E-06	9.99E-02	2.16E-02	1.69E-02	2.37E+00	2.39E-01	9.23E-02	9.64E-02	3.23E-03	1.13E-03	0.00E+00	0.00E+00	0.00E+00	3.33E-01	7.61E-02	5.90E-02	1.67E+02	4.15E+01	1.87E+01	2.33E-07	5.86E-08	4.64E-08	8.35E-03	3.13E-03	4.67E-03
R_2	547273.4	5398045	Residence	1.60E-05	4.31E-06	3.18E-06	1.96E-05	5.27E-06	3.89E-06	1.96E-01	4.82E-02	3.49E-02	2.38E+00	2.40E-01	9.23E-02	9.65E-02	3.85E-03	1.25E-03	0.00E+00	0.00E+00	0.00E+00	7.88E-01	2.05E-01	1.63E-01	2.19E+02	5.23E+01	2.03E+01	4.60E-07	1.22E-07	9.04E-08	8.81E-03	3.27E-03	4.77E-03
R_20	546950.4	5395534	Residence	7.89E-06	2.07E-06	1.62E-06	9.72E-06	2.53E-06	1.98E-06	1.01E-01	2.17E-02	1.68E-02	2.37E+00	2.39E-01	9.23E-02	9.64E-02	3.22E-03	1.13E-03	0.00E+00	0.00E+00	0.00E+00	3.37E-01	7.61E-02	5.85E-02	1.67E+02	4.16E+01	1.87E+01	2.32E-07	5.86E-08	4.62E-08	8.35E-03	3.13E-03	4.67E-03
R_21	547201.4	5395416	Residence	7.62E-06	2.08E-06	1.60E-06	9.39E-06	2.55E-06	1.96E-06	9.93E-02	2.21E-02	1.66E-02	2.37E+00	2.39E-01	9.23E-02	9.64E-02	3.20E-03	1.13E-03	0.00E+00	0.00E+00	0.00E+00	3.31E-01	7.58E-02	5.74E-02	1.65E+02	4.15E+01	1.87E+01	2.51E-07	5.92E-08	4.56E-08	8.35E-03	3.14E-03	4.67E-03
R_22	548317.4	5399655	Residence	3.05E-05	9.32E-06	6.47E-06	3.73E-05	1.14E-05	7.90E-06	4.07E-01	1.37E-01	8.87E-02	2.38E+00	2.40E-01	9.24E-02

Table E-3 Special Receptor Predictions (ug/m3) - Construc

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	PHOSPHOROUS (P)			PLATINUM (PT)			PM10 (see Note 1)			PM10 (see Note 2)	PM2.5 (See Note 1)			PM2.5 (See Note 2)		POTASSIUM (K)			PROPYLENE			PYRENE			SCANDIUM (SC)			CRYSTALLINE SILICA		
				24	month	annual	24	month	annual	24	month	annual	24	24	month	annual	24	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual
				-	-	-	0.2	-	-	-	-	-	50	-	-	-	27	8.8	1	-	-	4000	-	-	-	-	-	-	-	-	5	-	-
										2.28E+01	8.80E+00	1.27E+01	2.28E+01	1.23E+01	4.75E+00	6.80E+00	1.23E+01	6.80E+00	2.79E-01	1.08E-01	1.49E-01				1.34E-03	5.17E-04	8.01E-04						
H_1	545937.4	5396170	Wilson Memorial General Hospital	1.22E-02	3.08E-03	2.39E-03	1.71E-07	4.24E-08	3.28E-08	2.59E+01	9.61E+00	1.33E+01	2.38E+01	1.29E+01	4.90E+00	6.91E+00	1.26E+01	6.84E+00	2.86E-01	1.09E-01	1.50E-01	8.41E-03	1.12E-03	6.16E-04	1.43E-03	5.36E-04	8.14E-04	1.59E-05	3.99E-06	3.09E-06	1.37E+00	3.33E-01	2.58E-01
M_1	545694	5403864	PM-10 @ Hare Lake	3.24E-02	9.77E-03	5.87E-03	5.41E-07	1.36E-07	8.09E-08	3.26E+01	1.11E+01	1.41E+01	2.85E+01	1.35E+01	5.11E+00	7.02E+00	1.30E+01	6.89E+00	2.96E-01	1.13E-01	1.52E-01	1.96E-02	3.45E-03	2.01E-03	1.40E-03	5.35E-04	8.11E-04	4.45E-05	1.27E-05	7.61E-06	4.55E+00	1.06E+00	6.31E-01
M_2	545694	5403873	Dustfall @ Hare Lake	3.22E-02	9.75E-03	5.86E-03	5.37E-07	1.35E-07	8.07E-08	3.25E+01	1.11E+01	1.41E+01	2.85E+01	1.35E+01	5.11E+00	7.02E+00	1.30E+01	6.89E+00	2.96E-01	1.13E-01	1.52E-01	1.95E-02	3.46E-03	2.02E-03	1.40E-03	5.35E-04	8.11E-04	4.42E-05	1.27E-05	7.60E-06	4.52E+00	1.06E+00	6.30E-01
M_3	547152	5401222	PM-10 @ Mays Gifts	9.31E-02	2.99E-02	2.31E-02	1.28E-06	4.10E-07	3.16E-07	4.41E+01	1.54E+01	1.77E+01	2.71E+01	1.58E+01	5.87E+00	7.67E+00	1.39E+01	7.19E+00	3.32E-01	1.25E-01	1.62E-01	3.19E-02	6.18E-03	3.02E-03	1.51E-03	5.64E-04	8.35E-04	1.21E-04	3.87E-05	2.99E-05	9.83E+00	3.07E+00	2.34E+00
M_4	547147	5401216	Dustfall @ Mays Gifts	9.23E-02	2.97E-02	2.29E-02	1.27E-06	4.07E-07	3.14E-07	4.39E+01	1.54E+01	1.77E+01	2.71E+01	1.58E+01	5.86E+00	7.66E+00	1.39E+01	7.19E+00	3.31E-01	1.24E-01	1.62E-01	3.20E-02	6.18E-03	3.01E-03	1.51E-03	5.64E-04	8.35E-04	1.20E-04	3.85E-05	2.97E-05	9.75E+00	3.04E+00	2.32E+00
M_5	551637	5402371	PM-10 @ Pic River	3.22E-02	1.37E-02	9.04E-03	4.47E-07	1.89E-07	1.25E-07	3.05E+01	1.21E+01	1.49E+01	2.63E+01	1.37E+01	5.30E+00	7.15E+00	1.31E+01	6.96E+00	2.97E-01	1.15E-01	1.54E-01	3.14E-02	5.29E-03	2.66E-03	1.43E-03	5.46E-04	8.18E-04	4.18E-05	1.77E-05	1.17E-05	3.52E+00	1.51E+00	9.95E-01
M_6	551643	5402374	Dustfall @ Pic River	3.20E-02	1.37E-02	9.03E-03	4.45E-07	1.88E-07	1.24E-07	3.04E+01	1.21E+01	1.49E+01	2.63E+01	1.37E+01	5.29E+00	7.15E+00	1.31E+01	6.96E+00	2.97E-01	1.15E-01	1.54E-01	3.13E-02	5.27E-03	2.66E-03	1.42E-03	5.46E-04	8.18E-04	4.15E-05	1.77E-05	1.17E-05	3.50E+00	1.51E+00	9.94E-01
M_7	549180	5399815	Dustfall @ Airport	7.32E-02	3.28E-02	2.49E-02	1.00E-06	4.49E-07	3.41E-07	4.04E+01	1.66E+01	1.86E+01	2.72E+01	1.50E+01	5.95E+00	7.71E+00	1.33E+01	6.90E+00	3.21E-01	1.26E-01	1.63E-01	1.94E-02	4.06E-03	1.76E-03	1.59E-03	6.32E-04	8.90E-04	9.47E-05	4.24E-05	3.22E-05	7.97E+00	3.52E+00	2.67E+00
M_8	545863	5397092	Dustfall @ Field Office	1.33E-02	3.90E-03	2.95E-03	1.86E-07	5.40E-08	4.06E-08	2.71E+01	1.04E+01	1.40E+01	2.37E+01	1.32E+01	5.10E+00	7.09E+00	1.26E+01	6.88E+00	2.87E-01	1.10E-01	1.51E-01	9.34E-03	1.42E-03	7.54E-04	1.48E-03	5.92E-04	8.57E-04	1.73E-05	5.06E-06	3.82E-06	1.49E+00	4.27E-01	3.25E-01
O_1	547181.4	5398015	Pic Motel	2.08E-02	5.75E-03	4.24E-03	2.88E-07	7.88E-08	5.82E-08	2.88E+01	1.05E+01	1.41E+01	2.42E+01	1.34E+01	5.07E+00	7.06E+00	1.28E+01	6.86E+00	2.91E-01	1.11E-01	1.51E-01	1.40E-02	1.79E-03	1.06E-03	1.46E-03	5.60E-04	8.34E-04	2.70E-05	7.44E-06	5.49E-06	2.27E+00	6.13E-01	4.55E-01
O_2	545734.4	5396873	Marathon Harbour Inn	1.44E-02	4.66E-03	3.59E-03	2.00E-07	6.40E-08	4.92E-08	2.80E+01	1.09E+01	1.44E+01	2.45E+01	1.35E+01	5.22E+00	7.17E+00	1.38E+01	7.26E+00	2.87E-01	1.10E-01	1.51E-01	8.98E-03	1.35E-03	7.13E-04	1.67E-03	6.65E-04	9.09E-04	1.87E-05	6.03E-06	4.65E-06	1.82E+00	6.50E-01	4.90E-01
O_3	545885.4	5396449	Zero-100 Motor Inn	1.26E-02	3.32E-03	2.53E-03	1.77E-07	4.57E-08	3.48E-08	2.74E+01	1.03E+01	1.39E+01	2.38E+01	1.34E+01	5.14E+00	7.10E+00	1.26E+01	6.85E+00	2.86E-01	1.10E-01	1.50E-01	7.56E-03	1.22E-03	6.53E-04	1.71E-03	6.57E-04	9.05E-04	1.64E-05	4.30E-06	3.28E-06	1.42E+00	3.61E-01	2.76E-01
O_4	545987.4	5397641	OPP Station	1.48E-02	4.50E-03	3.34E-03	2.07E-07	6.24E-08	4.59E-08	2.74E+01	1.04E+01	1.40E+01	2.38E+01	1.32E+01	5.08E+00	7.06E+00	1.26E+01	6.86E+00	2.87E-01	1.10E-01	1.51E-01	9.96E-03	1.61E-03	8.66E-04	1.46E-03	5.71E-04	8.42E-04	1.93E-05	5.84E-06	4.32E-06	1.65E+00	4.89E-01	3.59E-01
O_5	545876.4	5396073	Library	1.19E-02	3.00E-03	2.33E-03	1.68E-07	4.13E-08	3.20E-08	2.58E+01	9.58E+00	1.33E+01	2.38E+01	1.28E+01	4.89E+00	6.90E+00	1.26E+01	6.84E+00	2.86E-01	1.09E-01	1.50E-01	8.23E-03	1.10E-03	6.04E-04	1.40E-03	5.34E-04	8.12E-04	1.55E-05	3.89E-06	3.02E-06	1.34E+00	3.25E-01	2.52E-01
P_1	546958.4	5396139	Penn Lake Park and Campground	1.18E-02	3.17E-03	2.49E-03	1.64E-07	4.34E-08	3.42E-08	2.57E+01	9.55E+00	1.33E+01	2.39E+01	1.28E+01	4.87E+00	6.90E+00	1.25E+01	6.84E+00	2.86E-01	1.09E-01	1.50E-01	7.68E-03	1.11E-03	6.32E-04	1.37E-03	5.26E-04	8.08E-04	1.53E-05	4.10E-06	3.22E-06	1.31E+00	3.39E-01	2.68E-01
P_2	548538.4	5392863	Craig's Pit Provincial Nature Reserve	9.68E-03	2.16E-03	1.33E-03	1.51E-07	3.04E-08	1.84E-08	2.55E+01	9.32E+00	1.30E+01	2.41E+01	1.27E+01	4.83E+00	6.85E+00	1.25E+01	6.82E+00	2.84E-01	1.09E-01	1.50E-01	6.35E-03	8.44E-04	3.48E-04	1.36E-03	5.22E-04	8.03E-04	1.30E-05	2.81E-06	1.73E-06	1.24E+00	2.41E-01	1.45E-01
P_3	540005	5402014	Red Sucker Point Provincial Park	1.01E-02	2.55E-03	1.39E-03	1.82E-07	3.56E-08	1.91E-08	2.61E+01	9.41E+00	1.30E+01	2.52E+01	1.27E+01	4.85E+00	6.85E+00	1.25E+01	6.82E+00	2.85E-01	1.09E-01	1.50E-01	5.72E-03	9.37E-04	4.66E-04	1.36E-03	5.22E-04	8.04E-04	1.40E-05	3.32E-06	1.80E-06	1.58E+00	2.80E-01	1.50E-01
P_4	552770	5383776	Pukaskwa National Park	3.37E-03	7.10E-04	4.41E-04	4.79E-08	9.81E-09	6.09E-09	2.36E+01	8.97E+00	1.28E+01	2.31E+01	1.24E+01	4.77E+00	6.82E+00	1.24E+01	6.81E+00	2.81E-01	1.08E-01	1.49E-01	2.10E-03	2.98E-04	1.42E-04	1.35E-03	5.19E-04	8.02E-04	4.41E-06	9.21E-07	5.72E-07	3.79E-01	7.80E-02	4.81E-02
PR_1	553679.4	5385896	Children & Family Learning Centre	3.11E-03	7.44E-04	4.82E-04	4.37E-08	1.04E-08	6.67E-09	2.35E+01	8.98E+00	1.28E+01	2.32E+01	1.24E+01	4.77E+00	6.82E+00	1.24E+01	6.81E+00	2.81E-01	1.08E-01	1.49E-01	1.67E-03	2.82E-04	1.43E-04	1.35E-03	5.19E-04	8.02E-04	4.06E-06	9.68E-07	6.26E-07	3.45E-01	8.17E-02	5.26E-02
PR_2	554004.4	5385858	Pic River Elementary	2.84E-03	7.03E-04	4.70E-04	3.95E-08	9.79E-09	6.49E-09	2.35E+01	8.96E+00	1.28E+01	2.32E+01	1.24E+01	4.77E+00	6.82E+00	1.24E+01	6.81E+00	2.81E-01	1.08E-01	1.49E-01	1.73E-03	2.76E-04	1.39E-04	1.35E-03	5.18E-04	8.02E-04	3.69E-06	9.13E-07	6.09E-07	3.12E-01	7.69E-02	5.11E-02
PR_3	553836.4	5385604	Pic River Private High School	2.96E-03	7.15E-04	4.67E-04	4.14E-08	9.98E-09	6.46E-09	2.35E+01	8.97E+00	1.28E+01	2.31E+01	1.24E+01	4.77E+00	6.82E+00	1.24E+01	6.81E+00	2.81E-01	1.08E-01	1.49E-01	1.65E-03	2.75E-04	1.38E-04	1.35E-03	5.19E-04	8.02E-04	3.85E-06	9.30E-07	6.06E-07	3.27E-01	7.85E-02	5.09E-02
PR_4	553930.4	5386049	Pic River Health Centre	2.91E-03	7.18E-04	4.79E-04	4.06E-08	1.00E-08	6.61E-09	2.35E+01	8.97E+00	1.28E+01	2.32E+01	1.24E+01	4.77E+00	6.82E+00	1.24E+01	6.81E+00	2.81E-01	1.08E-01	1.49E-01	1.75E-03	2.81E-04	1.42E-04	1.35E-03	5.18E-04	8.02E-04	3.79E-06	9.34E-07	6.21E-07	3.20E-01	7.86E-02	5.21E-02
PR_5	552493.4	5384783	BIIDAABAN Healing Lodge	3.62E-03	7.66E-04	4.80E-04	5.13E-08	1.06E-08	6.63E-09	2.37E+01	8.98E+00	1.28E+01	2.31E+01	1.25E+01	4.78E+00	6.82E+00	1.24E+01	6.81E+00	2.81E-01	1.08E-01	1.49E-01	2.25E-03	3.27E-04	1.55E-04	1.35E-03	5.19E-04	8.02E-04	4.73E-06	9.93E-07	6.23E-07	4.09E-01	8.41E-02	5.24E-02
PR_6	552843.4	5390100	Residence	4.81E-03	1.13E-03	7.46E-04	6.78E-08	1.58E-08	1.03E-08	2.40E+01	9.07E+00	1.29E+01	2.33E+01	1.25E+01	4.79E+00	6.83E+00	1.24E+01	6.81E+00	2.82E-01	1.08E-01	1.49E-01	2.59E-03	4.31E-04	2.19E-04	1.35E-03	5.19E-04	8.02E-04	6.27E-06	1.47E-06	9.67E-07	5.34E-01	1.24E-01	8.12E-02
PR_7	553761.4	5387706	Residence	3.18E-03	8.03E-04	5.49E-04	4.42E-08	1.12E-08	7.58E-09	2.36E+01	8.99E+00	1.28E+01	2.33E+01	1.24E+01	4.78E+00	6.82E+00	1.24E+01	6.81E+00	2.81E-01	1.08E-01	1.49E-01	1.99E-03	3.17E-04	1.62E-04	1.35E-03	5.19E-04	8.02E-04	4.13E-06	1.04E-06	7.12E-07	3.75E-01	8.77E-02	5.97E-02
PS_1	545001.3	5404050	North Hare Lake Cottage	2.40E-02	7.77E-03	4.57E-03	3.37E-07	1.08E-07	6.30E-08	2.86E+01	1.06E+01	1.38E+01	2.47E+01	1.32E+01	5.04E+00	6.97E+00	1.27E+01	6.87E+00	2.93E-01	1.12E-01	1.52E-01	1.68E-02	2.78E-03	1.61E-03	1.39E-03	5.31E-04	8.09E-04	3.13E-05	1.01E-05	5.92E-06	2.66E+00	8.45E-01	4.91E-01
PS_2	544331.3	5403100	South Hare Lake Cottage	2.93E-02	7.05E-03	3.95E-03	5.08E-07	9.76E-08	5.45E-08	3.20E+01	1.04E+01	1.36E+01	2.87E+01	1.33E+01	5.01E+00	6.95E+00	1.29E+01	6.86E+00	2.93E-01	1.12E-01	1.51E-01	1.69E-02	2.09E-03	1.16E-03	1.39E-03	5.30E-04	8.08E-04	4.07E-05	9.16E-06	5.13E-06	4.31E+00	7.60E-01	4.23E-01
PS_3	547056.1	5401004	May's Gifts	8.02E-02	2.42E-02	1.79E-02	1.10E-06	3.32E-07	2.46E-07	4.03E+01	1.42E+01	1.66E+01	2.65E+01	1.53E+01	5.65E+00	7.47E+00	1.36E+01	7.10E+00	3.25E-01	1.21E-01	1.59E-01	2.95E-02	5.86E-03	2.82E-03	1.48E-03	5.56E-04	8.29E-04	1.04E-04	3.13E-05	2.32E-05	8.12E+00	2.49E+00	1.83E+00
PS_4	546811.4	5400953	Wayfare Inn	7.69E-02	2.34E-02	1.68E-02	1.05E-06	3.21E-07	2.29E-07	3.95E+01	1.39E+01	1.64E+01	2.62E+01	1.51E+01	5.65E+00	7.44E+00	1.36E+01	7.10E+00	3.23E-01	1.21E-01	1.59E-01	2.79E-02	5.16E-03	2.50E-03	1.47E-03	5.55E-04	8.27E-04	9.95E-05	3.03E-05	2.17E-05	7.77E+00	2.38E+00	1.70E+00
PS_5	546996.4	5401028	Peninsula Inn	8.54E-02	2.50E-02	1.84E-02	1.17E-06	3.43E-07	2.53E-07	4.12E+01	1.43E+01	1.67E+01	2.65E+01	1.55E+01	5.69E+00	7.50E+00	1.38E+01	7.12E+00	3.27E-01	1.22E-01	1.59E-01	2.98E-02	5.71E-03	2.76E-03	1.48E-03	5.57E-04	8.29E-04	1.11E-04	3.24E-05	2.39E-05	8.55E+00	2.56E+00	1.88E+00
PS_6	548471.4	5399489	Travelodge Hotel	4.29E-02	1.44E-02	9.67E-03	5.89E-07	1.97E-07	1.33E-07	3.34E+01	1.24E+01	1.51E+01	2.57E+01	1.41E+01	5.34E+00	7.20E+00	1.31E+01	6.90E+00	3.03E-01	1.16E-01	1.54E-01	1.75E-02	3.31E-03	1.67E-03	1.48E-03	5.69E-04	8.36E-04	5.55E-05	1.86E-05	1.25E-05	4.68E+00	1.55E+00	1.04E+00
PS_7	546903.4	5401056	The Laughing Mooz Eatery Restauran	9.02E-02	2.62E-02	1.91E-02	1.23E-06	3.59E-07	2.61E-07	4.20E+01	1.45E+01	1.68E+01	2.65E+01	1.57E+01	5.75E+00	7.53E+00	1.39E+01	7.15E+00	3.30E-01	1.22E-01	1.60E-01	2.95E-02	5.44E-03	2.64E-03	1.48E-03	5.59E-04	8.30E-04	1.17E-04	3.39E-05	2.47E-05	8.95E+00	2.65E+00	1.92E+00
PW_1	545777.4	5397151	Kingdom Hall of Jehovah's Witnesses	1.29E-02	3.94E-03	2.96E-03	1.81E-07	5.47E-08	4.07E-08	2.73E+01	1.03E+01	1.39E+01	2.37E+01	1.32E+01	5.08E+00	7.06E+00	1.26E+01	6.87E+00	2.86E-01	1.10E-01	1.51E-01	9.35E-03	1.43E-03	7.64E-04	1.49E-03	5.78E-04	8.47E-04	1.68E-05	5.12E-06	3.84E-06	1.45E+00	4.33E-01	3.25E-01
PW_2	546331.4	5395942	Parkland Pentecostal Church	1.12E-02	2.92E-03	2.31E-03	1.57E-07	4.00E-08	3.17E-08	2.57E+01	9.51E+00	1.33E+01	2.36E+01	1.28E+01	4.86E+00	6.89E+00	1.26E+01	6.84E+00	2.85E-01	1.09E-01	1.50E-01	9.29E-03	9.70E-04	5.90E-04	1.38E-03	5.26E-04	8.08E-04	1.45E-05	3.78E-06	2.99E-06	1.26E+00	3.13E-01	2.49E-01
PW_3	545857.4	5395715	St. John's United Church	1.11E-02	2.74E-03	2.15E-03	1.57E-07	3.77E-08	2.95E-08	2.56E+01	9.48E+00	1.32E+01	2.37E+01	1.28E+01	4.86E+00	6.89E+00	1.26E+01	6.84E+00	2.85E-01	1.09E-01	1.50E-01	8.46E-03	9.75E-04	5.59E-04	1.38E-03	5.27E-04	8.08E-04	1.45E-05	3.55E-06	2.78E-06	1.25E+00	2.96E-01	2.32E-01
PW_4	545425	5396043	Holy Saviour Roman Catholic Church	1.10E-02	2.96E-03	2.24E-03	1.55E-07	4.09E-08	3.08E-08	2.56E+01	9.56E+00	1.33E+01	2.35E+01	1.28E+01	4.88E+00	6.90E+00	1.26E+01	6.84E+00	2.85E-01	1.09E-01	1.50E-01	7.58E-03	1.14E-03	5.95E-04	1.39E-03	5.30E-04	8.10E-04	1.44E-05	3.84E-06	2.91E-06	1.23E+00	3.24E-01	2.44E-01
PW_5	545390.4	5395989	Anglican Church-Trinity	1.10E-02	2.93E-03	2.22E-03	1.54E-07	4.05E-08	3.05E-08	2.56E+01	9.54E+00	1.33E+01	2.35E+01	1.28E+01	4.88E+00	6.89E+00	1.26E+01	6.84E+00	2.85E-01	1.09E-01	1.50E-01	7.52E-03	1.13E-03	5.89E-04	1.38E-03	5.29E-04	8.10E-04	1.43E-05	3.80E-06	2.87E-06	1.23E+00	3.21E-01	2.40E-01
R_1	547226.4	5398096	Residence	2.16E-02	5.92E-03	4.37E-03	2.98E-07	8.11E-08	6.00E-08	2.96E+01	1.09E+01	1.44E+01	2.42E+01	1.36E+01	5.19E+00	7.16E+00	1.28E+01	6.86E+00	2.91E-01	1.11E-01	1.51E-01	1.44E-02	1.85E-03	1.09E-03	1.50E-03	5.91E-04	8.55E-04	2.80E-05	7.66E-06	5.66E-06	2.33E+00	6.31E-01	4.69E-01
R_10	545421.4	5395954	Residence	1.10E-02	2.90E-03	2.20E-03	1.54E-07	4.01E-08	3.03E-08	2.56E+01	9.53E+00	1.33E+01	2.35E+01	1.28E+01	4.87E+00	6.89E+00	1.25E+01	6.84E+00	2.85E-01	1.09E-01	1.50E-01	7.36E-03	1.12E-03	5.84E-04	1.38E-03	5.29E-04	8.09E-04	1.43E-05	3.76E-06	2.85E-06	1.23E+00	3.17E-01	2.39E-01
R_11	545619.4	5395878	Residence	1.13E-02	2.85E-03	2.19E-03	1.59E-07	3.93E-08	3.02E-08	2.57E+01	9.52E+00	1.32E+01	2.37E+01	1.28E+01	4.87E+00	6.89E+00	1.26E+01	6.84E+00	2.85E-01	1.09E-01	1.50E-01	7.16E-03	1.08E-03	5.77E-04	1.38E-03	5.29E-04	8.09E-04	1.47E-05	3.70E-06	2.84E-06	1.26E+00	3.11E-01	2.37E-01
R_12	545831.4	5396001	Residence	1.17E-02	2.95E-03	2.28E-03	1.65E-07	4.06E-08	3.14E-08	2.58E+01	9.55E+00	1.33E+01	2.38E+01	1.28E+01	4.88E+00	6.90E+00	1.26E+01	6.84E+00	2.86E-01	1.09E-01	1.50E-01	8.11E-03	1.08E-03	5.94E-04	1.39E-03	5.31E-04	8.11E-04	1.53E-05	3.82E-06	2.96E-06	1.32E+00	3.19E-01	2.47E-01
R_13	545806.9	5396173	Residence	1.20E-02	3.08E-03	2.37E-03	1.69E-07	4.25E-08	3.26E-08	2.59E+01	9.63E+00	1.33E+01	2.38E+01	1.29E+01	4.90E+00	6.91E+00	1.26E+01	6.84E+00	2.86E-01	1.09E-01	1.50E-01	7.68E-03	1.14E-03	6.15E-04	1.40E-03	5.38E-04	8.16E-04	1.56E-05	3.99E-06	3.07E-06	1.35E+00	3.35E-01	2.57E-01
R_14	545827.1	5396229	Residence	1.21E-02	3.13E-03	2.40E-03	1.71E-07	4.31E-08	3.30E-08	2.61E+01	9.67E+00	1.34E+01	2.38E+01	1.29E+01	4.91E+00	6.92E+00	1.26E+01	6.84E+00	2.86E-01	1.09E-01	1.50E-01	7.68E-03	1.16E-03	6.24E-04	1.43E-03	5.43E-04	8.18E-04	1.58E-05	4.06E-06	3.11E-06	1.36E+00	3.40E-01	2.61E-01
R_15	545662.4	5396176	Residence	1.17E-02	3.09E-03	2.35E-03	1.65E-07	4.27E-08	3.23E-08	2.59E+01	9.62E+00	1.33E+01	2.37E+01	1.29E+01	4.90E+00	6.91E+00	1.26E+01	6.85E+00	2.86E-01	1.09E-01	1.50E-01	7.33E-03	1.16E-03	6.15E-04	1.40E-03	5.36E-04	8.15E-04	1.53E-05	4.01E-06	3.05E-06	1.31E+00	3.39E-01	2.55E-01
R_16	546254.4	5396485	Residence	1.28E-02	3.34E-03	2.59E-03	1.80E-07	4.58E-08	3.56E-08	2.62E+01	9.65E+00	1.34E+01	2.37E+01	1.29E+01	4.90E+00	6.92E+00	1.26E+01	6.85E+00	2.86E-01	1.10E-01	1.50E-01	9.57E-03	1.15E-03	6.59E-04	1.40E-03	5.38E-04	8.16E-04	1.67E-05	4.32E-06	3.35E-06	1.44E+00	3.59E-01	2.80E-01
R_17	546471.4	5396507	Residence	1.26E-02	3.37E-03	2.63E-03	1.77E-07	4.62E-08	3.62E-08	2.61E+01	9.63E+00	1.34E+01	2.37E+01	1.29E+01	4.89E+00	6.91E+00	1.26E+01	6.84E+00	2.86E-01	1.10E-01	1.50E-01	1.01E-02	1.09E-03	6.64E-04	1.39E-03	5.32E-04	8.12E-04	1.64E-05	4.36E-06	3.41E-06	1.42E+00	3.61E-01	2.84E-01
R_18	546601.4	5396388	Residence	1.19E-02	3.28E-03	2.58E-03	1.67E-07	4.50E-08	3.54E-08	2.59E+01	9.60E+00	1.33E+01	2.37E+01	1.29E+01	4.88E+00	6.91E+00	1.26E+01	6.84E+00	2.86E-01	1.10E-01	1.50E-01	9.89E-03	1.08E-03	6.51E-04	1.38E-03	5.29E-04	8.10E-04	1.55E-05	4.24E-06	3.34E-06	1.34E+00	3.52E-01	2.78E-01
R_19	546856.4	5395581	Residence	1.07E-02	2.80E-03	2.20E-03	1.50E-07	3.84E-08	3.03E-08	2.55E+01	9.46E+00	1.32E+01	2.39E+01	1.28E+01	4.86E+00	6.89E+00	1.25E+01	6.83E+00	2.85E-01	1.09E-01	1.50E-01	7.06E-03	1.02E-03	5.71E-04	1.37E-03	5.24E-04	8.06E-04	1.39E-05	3.62E-06	2.86E-06	1.19E+00	3.00E-01	2.38E-01
R_2	547273.4	5398045	Residence	2.16E-02	5.84E-03	4.31E-03	2.99E-07	8.01E-08	5.92E-08	2.86E+01	1.04E+01	1.40E+01	2.42E+01	1.34E+01	5.04E+00	7.03E+00	1.28E+01	6.86E+00	2.91E-01	1.11E-01	1.51E-01	1.47E-02	1.80E-03	1.09E-03	1.44E-03	5.49E-04	8.25E-04	2.80E-05	7.56E-06	5.58E-06	2.33E+00	6.23E-01	4.63E-01
R_20	546950.4	5395534	Residence	1.06E-02	2.80E-03	2.19E-03	1.49E-07	3.84E-08	3.02E-08	2.54E+01	9.46E+00	1.32E+01	2.40E+01	1.28E+01	4.86E+00	6.88E+00	1.25E+01	6.83E+00	2.85E-01	1.09E-01	1.50E-01	6.88E-03	1.04E-03	5.71E-04	1.37E-03	5.24E-04	8.06E-04	1.39E-05	3.62E-06	2.84E-06	1.19E+00	3.00E-01	2.37E-01
R_21	547201.4	5395416	Residence	1.03E-02	2.82E-03	2.16E-03	1.44E-07	3.87E-08	2.98E-08	2.54E+01	9.47E+00	1.32E+01	2.45E+01	1.28E+01	4.86E+00	6.88E+00	1.25E+01	6.83E+00	2.85E-01	1.09E-01	1.50E-01	6.33E-03	1.07E-03	5.70E-04	1.37E-03	5.24E-04	8.06E-04	1.34E-05	3.65E-06	2.80E-06	1.21E+00	3.03E-01	2.34E-01
R_22	548317.4	5399655	Residence	4.12E-02	1.26E-02	8.76E-03	5.68E-07	1.73E-07	1.20E-07	3.27E+01	1.18E+01	1.48E+01	2.

Table E-3 Special Receptor Predictions (ug/m3) - Construc

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	SILICON (SI)			SILVER (AG)			SO2				SODIUM (NA)			SODIUM CARBOXYMETHYL CELLULOSE			STRONTIUM (SR)			THALLIUM (TL)			TITANIUM (TI)			TOC		
				24	month	annual	24	month	annual	1	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual
				27	-	-	1	-	-	100	-	-	10	-	-	-	120	-	-	120	-	-	0.5	-	-	120	-	-	-	-	-
										2.76E+00	5.79E+00	2.23E+00	2.48E+00							4.36E-03	1.68E-03	1.89E-03				1.89E-02	7.29E-03	8.99E-03			
H_1	545937.4	5396170	Wilson Memorial General Hospital	6.43E-06	2.09E-07	7.52E-09	2.12E-06	5.23E-07	4.05E-07	4.31E+00	5.86E+00	2.24E+00	2.48E+00	1.27E-02	3.16E-03	2.45E-03	0.00E+00	0.00E+00	0.00E+00	5.14E-03	1.88E-03	2.04E-03	9.10E-05	2.29E-05	1.77E-05	2.70E-02	9.36E-03	1.06E-02	4.49E-03	7.73E-04	5.70E-04
M_1	545694	5403864	PM-10 @ Hare Lake	1.81E-06	6.48E-08	1.43E-09	6.73E-06	1.67E-06	9.98E-07	1.32E+01	6.25E+00	2.26E+00	2.49E+00	3.76E-02	1.01E-02	6.03E-03	0.00E+00	0.00E+00	0.00E+00	6.57E-03	2.30E-03	2.26E-03	2.60E-04	7.28E-05	4.36E-05	3.90E-02	1.38E-02	1.29E-02	1.05E-02	3.03E-03	1.67E-03
M_2	545694	5403873	Dustfall @ Hare Lake	1.83E-06	6.54E-08	1.44E-09	6.68E-06	1.67E-06	9.96E-07	1.31E+01	6.24E+00	2.26E+00	2.49E+00	3.73E-02	1.01E-02	6.02E-03	0.00E+00	0.00E+00	0.00E+00	6.55E-03	2.30E-03	2.26E-03	2.58E-04	7.26E-05	4.35E-05	3.89E-02	1.38E-02	1.29E-02	1.05E-02	3.04E-03	1.67E-03
M_3	547152	5401222	PM-10 @ Mays Gifts	2.64E-04	8.58E-06	4.64E-07	1.58E-05	5.06E-06	3.90E-06	7.85E+00	6.08E+00	2.26E+00	2.50E+00	9.54E-02	3.06E-02	2.36E-02	0.00E+00	0.00E+00	0.00E+00	1.02E-02	3.57E-03	3.35E-03	6.91E-04	2.22E-04	1.71E-04	8.16E-02	2.74E-02	2.46E-02	3.15E-02	6.90E-03	4.18E-03
M_4	547147	5401216	Dustfall @ Mays Gifts	2.69E-04	8.75E-06	4.61E-07	1.56E-05	5.02E-06	3.87E-06	7.85E+00	6.08E+00	2.26E+00	2.50E+00	9.46E-02	3.04E-02	2.35E-02	0.00E+00	0.00E+00	0.00E+00	1.02E-02	3.56E-03	3.33E-03	6.85E-04	2.20E-04	1.70E-04	8.11E-02	2.73E-02	2.44E-02	3.13E-02	6.86E-03	4.16E-03
M_5	551637	5402371	PM-10 @ Pic River	2.25E-06	7.32E-08	1.26E-09	5.52E-06	2.33E-06	1.54E-06	8.67E+00	6.05E+00	2.25E+00	2.49E+00	3.32E-02	1.41E-02	9.29E-03	0.00E+00	0.00E+00	0.00E+00	6.40E-03	2.55E-03	2.46E-03	2.40E-04	1.02E-04	6.72E-05	4.05E-02	1.65E-02	1.51E-02	1.82E-02	4.71E-03	2.47E-03
M_6	551643	5402374	Dustfall @ Pic River	2.24E-06	7.32E-08	1.26E-09	5.49E-06	2.32E-06	1.53E-06	8.68E+00	6.05E+00	2.25E+00	2.49E+00	3.30E-02	1.40E-02	9.28E-03	0.00E+00	0.00E+00	0.00E+00	6.39E-03	2.55E-03	2.46E-03	2.38E-04	1.02E-04	6.71E-05	4.03E-02	1.65E-02	1.51E-02	1.81E-02	4.69E-03	2.47E-03
M_7	549180	5399815	Dustfall @ Airport	4.78E-06	1.56E-07	3.96E-09	1.23E-05	5.52E-06	4.20E-06	6.10E+00	6.00E+00	2.29E+00	2.52E+00	7.49E-02	3.35E-02	2.55E-02	0.00E+00	0.00E+00	0.00E+00	8.97E-03	3.75E-03	3.46E-03	5.42E-04	2.42E-04	1.84E-04	6.83E-02	2.94E-02	2.58E-02	2.19E-02	3.48E-03	2.24E-03
M_8	545863	5397092	Dustfall @ Field Office	1.81E-05	5.89E-07	1.57E-08	2.29E-06	6.66E-07	5.00E-07	3.63E+00	5.83E+00	2.24E+00	2.49E+00	1.38E-02	4.02E-03	3.03E-03	0.00E+00	0.00E+00	0.00E+00	5.20E-03	1.93E-03	2.08E-03	9.90E-05	2.90E-05	2.19E-05	2.78E-02	9.91E-03	1.10E-02	4.69E-03	9.75E-04	6.96E-04
O_1	547181.4	5398015	Pic Motel	7.15E-06	2.44E-07	1.34E-08	3.56E-06	9.72E-07	7.18E-07	3.90E+00	5.85E+00	2.24E+00	2.49E+00	2.15E-02	5.89E-03	4.35E-03	0.00E+00	0.00E+00	0.00E+00	5.68E-03	2.04E-03	2.16E-03	1.55E-04	4.26E-05	3.15E-05	3.29E-02	1.12E-02	1.18E-02	6.97E-03	1.42E-03	1.07E-03
O_2	545734.4	5396873	Marathon Harbour Inn	1.84E-05	6.00E-07	1.53E-08	2.47E-06	7.90E-07	6.07E-07	3.62E+00	5.84E+00	2.25E+00	2.49E+00	1.49E-02	4.78E-03	3.68E-03	0.00E+00	0.00E+00	0.00E+00	5.27E-03	1.98E-03	2.12E-03	1.07E-04	3.46E-05	2.66E-05	2.85E-02	1.04E-02	1.14E-02	4.36E-03	9.13E-04	6.51E-04
O_3	545885.4	5396449	Zero-100 Motor Inn	9.56E-06	3.11E-07	9.74E-09	2.19E-06	5.64E-07	4.30E-07	4.25E+00	5.87E+00	2.25E+00	2.49E+00	1.31E-02	3.41E-03	2.60E-03	0.00E+00	0.00E+00	0.00E+00	5.16E-03	1.89E-03	2.05E-03	9.40E-05	2.46E-05	1.88E-05	2.73E-02	9.52E-03	1.07E-02	4.67E-03	8.02E-04	6.02E-04
O_4	545987.4	5397641	OPP Station	2.40E-05	7.81E-07	2.03E-08	2.56E-06	7.70E-07	5.66E-07	3.61E+00	5.83E+00	2.24E+00	2.49E+00	1.54E-02	4.64E-03	3.42E-03	0.00E+00	0.00E+00	0.00E+00	5.30E-03	1.97E-03	2.10E-03	1.11E-04	3.35E-05	2.48E-05	2.88E-02	1.03E-02	1.12E-02	5.44E-03	1.16E-03	8.11E-04
O_5	545876.4	5396073	Library	6.81E-06	2.22E-07	7.63E-09	2.07E-06	5.10E-07	3.95E-07	4.30E+00	5.86E+00	2.24E+00	2.48E+00	1.24E-02	3.08E-03	2.39E-03	0.00E+00	0.00E+00	0.00E+00	5.12E-03	1.87E-03	2.04E-03	8.90E-05	2.23E-05	1.73E-05	2.68E-02	9.31E-03	1.06E-02	4.38E-03	7.54E-04	5.56E-04
P_1	546958.4	5396139	Penn Lake Park and Campground	3.11E-06	1.06E-07	6.32E-09	2.03E-06	5.36E-07	4.22E-07	4.11E+00	5.85E+00	2.24E+00	2.48E+00	1.22E-02	3.25E-03	2.55E-03	0.00E+00	0.00E+00	0.00E+00	5.11E-03	1.88E-03	2.05E-03	8.80E-05	2.35E-05	1.85E-05	2.68E-02	9.43E-03	1.07E-02	3.64E-03	8.15E-04	6.05E-04
P_2	548538.4	5392863	Craig's Pit Provincial Nature Reserve	8.52E-07	3.01E-08	1.84E-09	1.87E-06	3.75E-07	2.27E-07	4.60E+00	5.87E+00	2.24E+00	2.48E+00	1.07E-02	2.25E-03	1.37E-03	0.00E+00	0.00E+00	0.00E+00	5.00E-03	1.82E-03	1.97E-03	7.50E-05	1.61E-05	9.90E-06	2.51E-02	8.73E-03	9.89E-03	2.59E-03	5.22E-04	3.18E-04
P_3	540005	5402014	Red Sucker Point Provincial Park	3.64E-07	1.31E-08	4.72E-10	2.27E-06	4.39E-07	2.36E-07	7.81E+00	6.00E+00	2.24E+00	2.48E+00	1.22E-02	2.64E-03	1.43E-03	0.00E+00	0.00E+00	0.00E+00	5.06E-03	1.84E-03	1.98E-03	8.30E-05	1.90E-05	1.03E-05	2.56E-02	9.00E-03	9.92E-03	2.53E-03	6.10E-04	3.43E-04
P_4	552770	5383776	Pukaskwa National Park	2.32E-07	7.49E-09	3.50E-10	5.91E-07	1.21E-07	7.52E-08	3.23E+00	5.81E+00	2.23E+00	2.48E+00	3.53E-03	7.31E-04	4.54E-04	0.00E+00	0.00E+00	0.00E+00	4.58E-03	1.73E-03	1.92E-03	2.50E-05	5.28E-06	3.28E-06	2.11E-02	7.77E-03	9.29E-03	7.51E-04	1.71E-04	1.01E-04
PR_1	553679.4	5385896	Children & Family Learning Centre	2.86E-07	1.15E-08	4.03E-10	5.40E-07	1.28E-07	8.23E-08	3.46E+00	5.82E+00	2.23E+00	2.48E+00	3.24E-03	7.71E-04	4.97E-04	0.00E+00	0.00E+00	0.00E+00	4.56E-03	1.73E-03	1.92E-03	2.30E-05	5.55E-06	3.59E-06	2.10E-02	7.79E-03	9.31E-03	6.25E-04	1.65E-04	1.06E-04
PR_2	554004.4	5385858	Pic River Elementary	2.85E-07	1.14E-08	3.88E-10	4.88E-07	1.21E-07	8.01E-08	3.49E+00	5.82E+00	2.23E+00	2.48E+00	2.94E-03	7.27E-04	4.83E-04	0.00E+00	0.00E+00	0.00E+00	4.54E-03	1.73E-03	1.92E-03	2.10E-05	5.24E-06	3.49E-06	2.08E-02	7.76E-03	9.31E-03	6.08E-04	1.62E-04	1.04E-04
PR_3	553836.4	5385604	Pic River Private High School	2.78E-07	1.12E-08	3.88E-10	5.11E-07	1.23E-07	7.97E-08	3.40E+00	5.82E+00	2.23E+00	2.48E+00	3.07E-03	7.41E-04	4.81E-04	0.00E+00	0.00E+00	0.00E+00	4.55E-03	1.73E-03	1.92E-03	2.20E-05	5.34E-06	3.48E-06	2.09E-02	7.77E-03	9.30E-03	6.07E-04	1.61E-04	1.03E-04
PR_4	553930.4	5386049	Pic River Health Centre	2.90E-07	1.16E-08	3.95E-10	5.01E-07	1.24E-07	8.16E-08	3.44E+00	5.82E+00	2.23E+00	2.48E+00	3.01E-03	7.43E-04	4.93E-04	0.00E+00	0.00E+00	0.00E+00	4.55E-03	1.73E-03	1.92E-03	2.20E-05	5.36E-06	3.56E-06	2.08E-02	7.77E-03	9.31E-03	6.20E-04	1.65E-04	1.05E-04
PR_5	552493.4	5384783	BIIDAABAN Healing Lodge	2.53E-07	8.15E-09	3.85E-10	6.34E-07	1.30E-07	8.19E-08	3.23E+00	5.81E+00	2.23E+00	2.48E+00	3.78E-03	7.88E-04	4.94E-04	0.00E+00	0.00E+00	0.00E+00	4.59E-03	1.73E-03	1.92E-03	2.70E-05	5.69E-06	3.57E-06	2.13E-02	7.81E-03	9.31E-03	8.40E-04	1.89E-04	1.10E-04
PR_6	552843.4	5390100	Residence	4.23E-07	1.65E-08	5.61E-10	8.38E-07	1.95E-07	1.27E-07	3.64E+00	5.83E+00	2.24E+00	2.48E+00	5.01E-03	1.17E-03	7.68E-04	0.00E+00	0.00E+00	0.00E+00	4.67E-03	1.75E-03	1.94E-03	3.60E-05	8.43E-06	5.55E-06	2.21E-02	8.05E-03	9.49E-03	9.54E-04	2.58E-04	1.64E-04
PR_7	553761.4	5387706	Residence	3.24E-07	1.30E-08	4.31E-10	5.46E-07	1.38E-07	9.36E-08	3.81E+00	5.83E+00	2.24E+00	2.48E+00	3.29E-03	8.30E-04	5.65E-04	0.00E+00	0.00E+00	0.00E+00	4.56E-03	1.73E-03	1.93E-03	2.40E-05	5.99E-06	4.08E-06	2.10E-02	7.83E-03	9.36E-03	6.88E-04	1.90E-04	1.21E-04
PS_1	545001.3	5404050	North Hare Lake Cottage	2.33E-07	8.33E-09	1.60E-10	4.16E-06	1.33E-06	7.77E-07	5.14E+00	5.91E+00	2.24E+00	2.49E+00	2.49E-02	8.03E-03	4.69E-03	0.00E+00	0.00E+00	0.00E+00	5.89E-03	2.17E-03	2.18E-03	1.79E-04	5.79E-05	3.39E-05	3.49E-02	1.25E-02	1.21E-02	8.18E-03	2.21E-03	1.23E-03
PS_2	544331.3	5403100	South Hare Lake Cottage	3.75E-08	1.35E-09	3.60E-11	6.34E-06	1.20E-06	6.72E-07	1.43E+01	6.29E+00	2.26E+00	2.48E+00	3.48E-02	7.27E-03	4.06E-03	0.00E+00	0.00E+00	0.00E+00	6.39E-03	2.13E-03	2.14E-03	2.39E-04	5.25E-05	2.94E-05	3.68E-02	1.20E-02	1.16E-02	8.94E-03	1.64E-03	9.63E-04
PS_3	547056.1	5401004	May's Gifts	2.38E-04	7.74E-06	3.06E-07	1.35E-05	4.09E-06	3.03E-06	7.88E+00	6.08E+00	2.26E+00	2.50E+00	8.20E-02	2.48E-02	1.84E-02	0.00E+00	0.00E+00	0.00E+00	9.41E-03	3.21E-03	3.02E-03	5.94E-04	1.79E-04	1.33E-04	7.30E-02	2.36E-02	2.11E-02	2.44E-02	5.90E-03	3.61E-03
PS_4	546811.4	5400953	Wayfare Inn	3.56E-04	1.16E-05	2.96E-07	1.30E-05	3.96E-06	2.83E-06	7.33E+00	6.05E+00	2.25E+00	2.49E+00	7.86E-02	2.40E-02	1.72E-02	0.00E+00	0.00E+00	0.00E+00	9.20E-03	3.16E-03	2.95E-03	5.69E-04	1.73E-04	1.24E-04	7.08E-02	2.31E-02	2.03E-02	2.40E-02	5.19E-03	3.13E-03
PS_5	546996.4	5401028	Peninsula Inn	3.43E-04	1.12E-05	3.53E-07	1.44E-05	4.23E-06	3.11E-06	7.76E+00	6.07E+00	2.26E+00	2.50E+00	8.73E-02	2.56E-02	1.89E-02	0.00E+00	0.00E+00	0.00E+00	9.74E-03	3.26E-03	3.05E-03	6.32E-04	1.86E-04	1.37E-04	7.65E-02	2.41E-02	2.14E-02	2.55E-02	5.83E-03	3.55E-03
PS_6	548471.4	5399489	Travelodge Hotel	6.90E-06	2.25E-07	8.48E-09	7.26E-06	2.43E-06	1.63E-06	7.51E+00	6.01E+00	2.26E+00	2.49E+00	4.40E-02	1.47E-02	9.90E-03	0.00E+00	0.00E+00	0.00E+00	7.07E-03	2.59E-03	2.50E-03	3.18E-04	1.07E-04	7.16E-05	4.78E-02	1.70E-02	1.55E-02	1.31E-02	3.14E-03	2.00E-03
PS_7	546903.4	5401056	The Laughing Mooz Eatery Restauran	4.41E-04	1.43E-05	3.83E-07	1.52E-05	4.43E-06	3.22E-06	7.44E+00	6.06E+00	2.26E+00	2.50E+00	9.22E-02	2.68E-02	1.95E-02	0.00E+00	0.00E+00	0.00E+00	1.00E-02	3.33E-03	3.09E-03	6.68E-04	1.94E-04	1.41E-04	7.98E-02	2.49E-02	2.18E-02	2.66E-02	5.64E-03	3.41E-03
PW_1	545777.4	5397151	Kingdom Hall of Jehovah's Witnesses	2.16E-05	7.04E-07	1.76E-08	2.23E-06	6.75E-07	5.03E-07	3.53E+00	5.82E+00	2.24E+00	2.49E+00	1.34E-02	4.07E-03	3.04E-03	0.00E+00	0.00E+00	0.00E+00	5.18E-03	1.93E-03	2.08E-03	9.70E-05	2.94E-05	2.20E-05	2.76E-02	9.94E-03	1.10E-02	4.59E-03	9.98E-04	7.03E-04
PW_2	546331.4	5395942	Parkland Pentecostal Church	2.66E-06	7.51E-08	5.16E-09	1.94E-06	4.93E-07	3.91E-07	3.73E+00	5.84E+00	2.24E+00	2.48E+00	1.16E-02	2.99E-03	2.37E-03	0.00E+00	0.00E+00	0.00E+00	5.07E-03	1.87E-03	2.04E-03	8.40E-05	2.16E-05	1.71E-05	2.64E-02	9.26E-03	1.05E-02	3.77E-03	7.44E-04	5.56E-04
PW_3	545857.4	5395715	St. John's United Church	5.09E-06	1.66E-07	6.21E-09	1.94E-06	4.65E-07	3.64E-07	4.14E+00	5.85E+00	2.24E+00	2.48E+00	1.16E-02	2.81E-03	2.21E-03	0.00E+00	0.00E+00	0.00E+00	5.07E-03	1.86E-03	2.03E-03	8.30E-05	2.03E-05	1.59E-05	2.63E-02	9.14E-03	1.04E-02	4.00E-03	7.00E-04	5.14E-04
PW_4	545425	5396043	Holy Saviour Roman Catholic Church	1.51E-05	4.90E-07	1.21E-08	1.91E-06	5.05E-07	3.81E-07	3.70E+00	5.83E+00	2.24E+00	2.48E+00	1.15E-02	3.05E-03	2.30E-03	0.00E+00	0.00E+00	0.00E+00	5.06E-03	1.87E-03	2.03E-03	8.20E-05	2.20E-05	1.66E-05	2.63E-02	9.28E-03	1.05E-02	3.84E-03	7.35E-04	5.34E-04
PW_5	545390.4	5395989	Anglican Church-Trinity	1.51E-05	4.91E-07	1.21E-08	1.90E-06	5.00E-07	3.76E-07	3.69E+00	5.83E+00	2.24E+00	2.48E+00	1.14E-02	3.01E-03	2.28E-03	0.00E+00	0.00E+00	0.00E+00	5.06E-03	1.87E-03	2.03E-03	8.20E-05	2.18E-05	1.65E-05	2.62E-02	9.26E-03	1.05E-02	3.80E-03	7.29E-04	5.29E-04
R_1	547226.4	5398096	Residence	7.46E-06	2.55E-07	1.38E-08	3.68E-06	1.00E-06	7.40E-07	3.93E+00	5.85E+00	2.24E+00	2.49E+00	2.22E-02	6.06E-03	4.48E-03	0.00E+00	0.00E+00	0.00E+00	5.72E-03	2.06E-03	2.17E-03	1.60E-04	4.39E-05	3.24E-05	3.34E-02	1.13E-02	1.19E-02	7.11E-03	1.46E-03	1.10E-03
R_10	545421.4	5395954	Residence	1.43E-05	4.63E-07	1.16E-08	1.90E-06	4.94E-07	3.74E-07	3.79E+00	5.84E+00	2.24E+00	2.48E+00	1.14E-02	2.98E-03	2.26E-03	0.00E+00	0.00E+00	0.00E+00	5.06E-03	1.87E-03	2.03E-03	8.20E-05	2.15E-05	1.64E-05	2.62E-02	9.24E-03	1.05E-02	3.85E-03	7.19E-04	5.25E-04
R_11	545619.4	5395878	Residence	9.94E-06	3.23E-07	9.22E-09	1.96E-06	4.86E-07	3.72E-07	4.19E+00	5.85E+00	2.24E+00	2.48E+00	1.17E-02	2.93E-03	2.25E-03	0.00E+00	0.00E+00	0.00E+00	5.08E-03	1.86E-03	2.03E-03	8.40E-05	2.12E-05	1.63E-05	2.64E-02	9.21E-03	1.05E-02	4.08E-03	6.99E-04	5.23E-04
R_12	545831.4	5396001	Residence	7.10E-06	2.31E-07	7.71E-09	2.04E-06	5.01E-07	3.87E-07	4.29E+00	5.86E+00	2.24E+00	2.48E+00	1.22E-02	3.03E-03	2.34E-03	0.00E+00	0.00E+00	0.00E+00	5.11E-03	1.87E-03	2.03E-03	8.80E-05	2.19E-05	1.69E-05	2.67E-02	9.27E-03	1.05E-02	4.30E-03	7.38E-04	5.45E-04
R_13	545806.9	5396173	Residence	8.80E-06	2.86E-07	8.92E-09	2.09E-06	5.24E-07	4.02E-07	4.27E+00	5.86E+00	2.24E+00	2.48E+00	1.25E-02	3.17E-03	2.43E-03	0.00E+00	0.00E+00	0.00E+00	5.12E-03	1.88E-03	2.04E-03	9.00E-05	2.29E-05	1.76E-05	2.69E-02	9.36E-03	1.06E-02	4.42E-03	7.57E-04	5.65E-04
R_14	545827.1	5396229	Residence	8.87E-06	2.88E-07	9.03E-09	2.11E-06	5.32E-07	4.08E-07	4.27E+00	5.86E+00	2.24E+00	2.48E+00	1.26E-02	3.22E-03	2.47E-03	0.00E+00	0.00E+00	0.00E+00	5.13E-03	1.88E-03	2.04E-03	9.10E-05	2.32E-05	1.78E-05	2.70E-02	9.40E-03	1.06E-02	4.49E-03	7.68E-04	5.73E-04
R_15	545662.4	5396176	Residence	1.18E-05	3.83E-07	1.06E-08	2.04E-06	5.27E-07	3.99E-07	4.07E+00	5.85E+00	2.24E+00	2.48E+00	1.22E-02	3.18E-03	2.41E-03	0.00E+00	0.00E+00	0.00E+00	5.11E-03	1.88E-03	2.04E-03	8.80E-05	2.30E-05	1.74E-05	2.67E-02	9.37E-03	1.06E-02	4.27E-03	7.53E-04	5.60E-04
R_16	546254.4	5396485	Residence	3.61E-06	1.17E-07	6.61E-09	2.22E-06	5.65E-07	4.39E-07	4.17E+00	5.85E+00	2.24E+00	2.48E+00	1.33E-02	3.42E-03	2.66E-03	0.00E+00	0.00E+00	0.00E+00	5.17E-03	1.89E-03	2.05E-03	9.60E-05	2.48E-05	1.92E-05	2.74E-02	9.54E-03	1.07E-02	4.73E-03	8.42E-04	6.20E-04
R_17	546471.4	5396507	Residence	3.46E-06	8.95E-08	6.45E-09	2.18E-06	5.70E-07	4.46E-07	3.73E+00	5.83E+00	2.24E+00	2.48E+00	1.31E-02	3.45E-03	2.70E-03	0.00E+00	0.00E+00	0.00E+00	5.16E-03	1.89E-03	2.06E-03	9.40E-05	2.50E-05	1.95E-05	2.73E-02	9.56E-03	1.08E-02	4.46E-03	8.52E-04	6.33E-04
R_18	546601.4	5396388	Residence	3.66E-06	9.48E-08	6.45E-09	2.06E-06	5.55E-07	4.37E-07	3.83E+00	5.84E+00	2.24E+00	2.48E+00	1.24E-02	3.36E-03	2.65E-03	0.00E+00	0.00E+00	0.00E+00	5.12E-03	1.89E-03	2.05E-03	8.90E-05	2.43E-05	1.91E-05	2.68E-02	9.50E-03	1.07E-02	3.97E-03	8.23E-04	6.23E-04
R_19	546856.4	5395581	Residence	2.57E-06	8.39E-08	5.34E-09	1.85E-06	4.73E-07	3.74E-07	4.30E+00	5.86E+00	2.24E+00	2.48E+00	1.11E-02	2.87E-03	2.26E-03	0.00E+00	0.00E+00	0.00E+00	5.04E-03	1.86E-03	2.03E-03	8.00E-05	2.07E-05	1.64E-05	2.61E-02	9.18E-03	1.05E-02	3.26E-03	7.30E-04	5.38E-04
R_2	547273.4	5398045	Residence	7.18E-06	2.45E-07	1.34E-08	3.69E-06	9.87E-07	7.30E-07	4.01E+00	5.85E+00	2.24E+00	2.49E+00	2.22E-02	5.98E-03	4.42E-03	0.00E+00	0.00E+00	0.00E+00	5.73E-03	2.05E-03	2.16E-03	1.61E-04	4.33E-05	3.20E-05	3.34E-02	1.12E-02	1.19E-02	6.90E-03	1.44E-03	1.09E-03
R_20	546950.4	5395534	Residence	2.61E-06	8.90E-08	5.23E-09	1.84E-06	4.74E-07	3.72E-07	4.49E+00	5.87E+00	2.24E+00	2.48E+00	1.11E-02	2.87E-03	2.25E-03	0.00E+00	0.00E+00	0.00E+00	5.04E-03	1.86E-03	2.03E-03	8.00E-05	2.08E-05	1.63E-05	2.60E-02	9.18E-03	1.05E-02	3.38E-03	7.31E-04	5.37E-04
R_21	547201.4	5395416	Residence	2.69E-06	9.18E-08	4.81E-09	1.78E-06	4.78E-07	3.68E-07	6.05E+00	5.93E+00	2.24E+00	2.48E+00	1.07E-02	2.89E-03	2.22E-03	0.00E+00	0.00E+00	0.00E+00	5.01E-03	1.86E-03	2.03E-03	7.70E-05	2.09E-05	1.61E-05	2.58E-02	9.19E-03	1.04E-02	3.54E-03	7.62E-04	5.31E-04
R_22	548317.4	5399655	Residence	7.90E-06	2.58E-07	1.03E-08	7.01E-06	2.13E-06	1.48E-06	5.38E+00	5.91E+00	2.25E+00	2.49E+00	4.24E-02	1.29E-02	8.97E-03	0.00E+00	0.00E+00	0.00E+00	6.96E-03	2.48E-03	2.44E-03	3.06E-04	9.35E-05	6.49E-05	4.66E-02	1.58E-02	1.49E-02	1.43E-02	3.33E-03	2.21E-03
R_3	545809.4	5397233	Bergagnini Apartment Rental	2.21E-05	7.19E-07	1.81E-08	2.28E-06	6.88E-07	5.10E-07	3.53E+00	5.83E+00	2.24E+00	2.49E+00	1.37E-02	4.15E-03	3.08E-03	0.00E+00	0.00E+00	0.00E+00	5.20E-03	1.94E-03	2.08E-03	9.90E-05	2.99E-05	2.23E-05	2.77E-02	9.99E-03	1.10E-02	4.72E-03	1.02E-03	7.19E-04
R_4	546092.4	5396797	Residence	8.03E-06	2.61E-07	9.45E-09	2.35E-06	6.19E-07	4.72E-07	4.30E+00	5.86E+00	2.24E+00	2.49E+00	1.41E-02	3.74E-03	2.86E-03	0.00E+00	0.00E+00	0.00E+00	5.22E-03	1.91E-03	2.07E-03	1.01E-04	2.70E-05	2.07E-05	2.79E-02	9.74E-03	1.09E-02	5.10E-03	8.79E-04	6.58E-04
R_5	545971.4	5396490	Condominium	8.08E-06	2.63E-07	8.95E-09	2.21E-06	5.68E-07	4.34E-07	4.30E+00	5.86E+00	2.25E+00	2.49E+00	1.32E-02	3.43E-03	2.63E-03	0.00E+00	0.00E+00	0.00E+00	5.17E-03	1.89E-03	2.05E-03	9.50E-05	2.48E-05	1.90E-05	2.74E-02	9.54E-03	1.07E-02	4.74E-03	8.15E-04	6.08E-04

Table E-3 Special Receptor Predictions (ug/m3) - Construc

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	TOC (METHANE)			TOLUENE			TSP (See Note 1)			TSP (See Note 2)		TUNGSTEN (W)			URANIUM (U)			VANADIUM (V)			XYLENES				ZINC (ZN)			DUSTFALL (g/m2)		
				24	month	annual	24	month	annual	24	month	annual	24	annual	24	month	annual	24	month	annual	24	month	annual	10-Min	24	month	annual	24	month	annual	24	month	annual
				37330	-	-	2000	-	-	-	-	-	120	60	5	-	-	0.15	-	0.03	2	-	-	3000	730	-	-	120	-	-		7	
							2.81E+00	1.08E+00	1.53E+00	4.41E+01	1.70E+01	2.44E+01	4.41E+01	2.44E+01							3.14E-03	1.21E-03	8.86E-04	8.28E+00	2.06E+00	7.94E-01	1.08E+00	3.35E-02	1.29E-02	1.55E-02		1.44E+00	
H_1	545937.4	5396170	Wilson Memorial General Hospital	2.84E-01	3.77E-02	2.08E-02	2.81E+00	1.08E+00	1.53E+00	5.36E+01	1.96E+01	2.64E+01	4.63E+01	2.47E+01	5.17E-04	1.31E-04	1.02E-04	9.20E-05	2.32E-05	1.79E-05	4.61E-03	1.58E-03	1.18E-03	8.29E+00	2.06E+00	7.95E-01	1.08E+00	3.40E-02	1.30E-02	1.56E-02	1.25E-02	1.56E+00	8.45E-01
M_1	545694	5403864	PM-10 @ Hare Lake	6.61E-01	1.16E-01	6.79E-02	2.81E+00	1.08E+00	1.53E+00	6.93E+01	2.43E+01	2.87E+01	5.60E+01	2.52E+01	1.37E-03	4.16E-04	2.50E-04	2.54E-04	7.36E-05	4.42E-05	7.03E-03	2.39E-03	1.60E-03	8.29E+00	2.06E+00	7.95E-01	1.08E+00	3.49E-02	1.33E-02	1.57E-02	1.79E-02	1.67E+00	1.78E+00
M_2	545694	5403873	Dustfall @ Hare Lake	6.58E-01	1.17E-01	6.80E-02	2.81E+00	1.08E+00	1.53E+00	6.92E+01	2.43E+01	2.87E+01	5.59E+01	2.52E+01	1.36E-03	4.15E-04	2.50E-04	2.53E-04	7.35E-05	4.41E-05	7.00E-03	2.39E-03	1.60E-03	8.29E+00	2.06E+00	7.95E-01	1.08E+00	3.49E-02	1.33E-02	1.57E-02	1.79E-02	1.67E+00	1.78E+00
M_3	547152	5401222	PM-10 @ Mays Gifts	1.07E+00	2.09E-01	1.02E-01	2.81E+00	1.08E+00	1.53E+00	1.13E+02	3.92E+01	4.15E+01	5.78E+01	2.80E+01	3.97E-03	1.28E-03	9.84E-04	7.00E-04	2.25E-04	1.74E-04	1.44E-02	4.83E-03	3.68E-03	8.30E+00	2.06E+00	7.95E-01	1.08E+00	3.72E-02	1.41E-02	1.64E-02	7.94E-02	2.59E+00	9.86E+00
M_4	547147	5401216	Dustfall @ Mays Gifts	1.08E+00	2.08E-01	1.02E-01	2.81E+00	1.08E+00	1.53E+00	1.13E+02	3.90E+01	4.13E+01	5.77E+01	2.79E+01	3.93E-03	1.27E-03	9.77E-04	6.94E-04	2.23E-04	1.72E-04	1.43E-02	4.81E-03	3.66E-03	8.30E+00	2.06E+00	7.95E-01	1.08E+00	3.72E-02	1.41E-02	1.64E-02	7.89E-02	2.59E+00	9.79E+00
M_5	551637	5402371	PM-10 @ Pic River	1.06E+00	1.79E-01	8.98E-02	2.81E+00	1.08E+00	1.53E+00	6.81E+01	2.72E+01	3.11E+01	5.15E+01	2.60E+01	1.37E-03	5.83E-04	3.85E-04	2.42E-04	1.03E-04	6.80E-05	7.03E-03	2.87E-03	1.98E-03	8.30E+00	2.06E+00	7.95E-01	1.08E+00	3.48E-02	1.35E-02	1.59E-02	2.61E-02	1.79E+00	3.21E+00
M_6	551643	5402374	Dustfall @ Pic River	1.06E+00	1.78E-01	8.97E-02	2.81E+00	1.08E+00	1.53E+00	6.79E+01	2.72E+01	3.11E+01	5.15E+01	2.60E+01	1.36E-03	5.82E-04	3.85E-04	2.41E-04	1.03E-04	6.79E-05	7.01E-03	2.87E-03	1.98E-03	8.30E+00	2.06E+00	7.95E-01	1.08E+00	3.48E-02	1.35E-02	1.59E-02	2.61E-02	1.79E+00	3.20E+00
M_7	549180	5399815	Dustfall @ Airport	6.56E-01	1.37E-01	5.92E-02	2.81E+00	1.08E+00	1.53E+00	9.88E+01	4.15E+01	4.31E+01	5.53E+01	2.54E+01	3.12E-03	1.40E-03	1.06E-03	5.51E-04	2.47E-04	1.87E-04	1.20E-02	5.18E-03	3.90E-03	8.29E+00	2.06E+00	7.95E-01	1.08E+00	3.64E-02	1.42E-02	1.65E-02	5.93E-02	2.65E+00	1.25E+01
M_8	545863	5397092	Dustfall @ Field Office	3.15E-01	4.80E-02	2.55E-02	2.81E+00	1.08E+00	1.53E+00	5.91E+01	2.30E+01	2.92E+01	4.63E+01	2.48E+01	5.65E-04	1.66E-04	1.26E-04	1.00E-04	2.94E-05	2.22E-05	4.75E-03	1.68E-03	1.24E-03	8.29E+00	2.06E+00	7.95E-01	1.08E+00	3.40E-02	1.31E-02	1.56E-02	1.97E-02	1.74E+00	2.95E+00
O_1	547181.4	5398015	Pic Motel	4.72E-01	6.05E-02	3.56E-02	2.81E+00	1.08E+00	1.53E+00	6.45E+01	2.30E+01	2.92E+01	4.76E+01	2.50E+01	8.87E-04	2.45E-04	1.81E-04	1.57E-04	4.32E-05	3.19E-05	5.66E-03	1.91E-03	1.40E-03	8.29E+00	2.06E+00	7.95E-01	1.08E+00	3.43E-02	1.32E-02	1.57E-02	2.53E-02	1.75E+00	2.62E+00
O_2	545734.4	5396873	Marathon Harbour Inn	3.03E-01	4.55E-02	2.41E-02	2.81E+00	1.08E+00	1.53E+00	6.00E+01	2.31E+01	2.93E+01	4.74E+01	2.54E+01	6.11E-04	1.98E-04	1.53E-04	1.08E-04	3.50E-05	2.70E-05	4.88E-03	1.78E-03	1.32E-03	8.29E+00	2.06E+00	7.95E-01	1.08E+00	3.41E-02	1.31E-02	1.56E-02	2.41E-02	1.83E+00	3.51E+00
O_3	545885.4	5396449	Zero-100 Motor Inn	2.55E-01	4.13E-02	2.20E-02	2.81E+00	1.08E+00	1.53E+00	5.88E+01	2.18E+01	2.83E+01	4.62E+01	2.47E+01	5.36E-04	1.41E-04	1.08E-04	9.50E-05	2.49E-05	1.91E-05	4.66E-03	1.61E-03	1.19E-03	8.29E+00	2.06E+00	7.95E-01	1.08E+00	3.40E-02	1.31E-02	1.56E-02	2.31E-02	1.76E+00	2.64E+00
O_4	545987.4	5397641	OPP Station	3.36E-01	5.43E-02	2.92E-02	2.81E+00	1.08E+00	1.53E+00	6.01E+01	2.29E+01	2.90E+01	4.66E+01	2.49E+01	6.32E-04	1.91E-04	1.42E-04	1.12E-04	3.39E-05	2.51E-05	4.94E-03	1.76E-03	1.29E-03	8.29E+00	2.06E+00	7.95E-01	1.08E+00	3.41E-02	1.31E-02	1.56E-02	1.85E-02	1.75E+00	2.78E+00
O_5	545876.4	5396073	Library	2.78E-01	3.70E-02	2.04E-02	2.81E+00	1.08E+00	1.53E+00	5.34E+01	1.95E+01	2.63E+01	4.63E+01	2.47E+01	5.07E-04	1.28E-04	9.90E-05	9.00E-05	2.26E-05	1.75E-05	4.58E-03	1.58E-03	1.17E-03	8.29E+00	2.06E+00	7.95E-01	1.08E+00	3.40E-02	1.30E-02	1.56E-02	1.23E-02	1.55E+00	7.94E-01
P_1	546958.4	5396139	Penn Lake Park and Campground	2.59E-01	3.74E-02	2.13E-02	2.81E+00	1.08E+00	1.53E+00	5.31E+01	1.95E+01	2.63E+01	4.64E+01	2.47E+01	5.01E-04	1.35E-04	1.06E-04	8.90E-05	2.38E-05	1.87E-05	4.56E-03	1.60E-03	1.19E-03	8.29E+00	2.06E+00	7.95E-01	1.08E+00	3.40E-02	1.31E-02	1.56E-02	1.11E-02	1.54E+00	7.25E-01
P_2	548538.4	5392863	Craig's Pit Provincial Nature Reserve	2.14E-01	2.85E-02	1.17E-02	2.81E+00	1.08E+00	1.53E+00	5.15E+01	1.86E+01	2.54E+01	4.69E+01	2.46E+01	4.10E-04	9.20E-05	5.70E-05	7.50E-05	1.63E-05	1.00E-05	4.31E-03	1.47E-03	1.05E-03	8.29E+00	2.06E+00	7.95E-01	1.08E+00	3.39E-02	1.30E-02	1.56E-02	7.07E-03	1.49E+00	3.00E-01
P_3	540005	5402014	Red Sucker Point Provincial Park	1.93E-01	3.16E-02	1.57E-02	2.81E+00	1.08E+00	1.53E+00	5.20E+01	1.89E+01	2.54E+01	4.89E+01	2.46E+01	4.28E-04	1.09E-04	5.90E-05	7.90E-05	1.92E-05	1.04E-05	4.36E-03	1.52E-03	1.05E-03	8.29E+00	2.06E+00	7.95E-01	1.08E+00	3.39E-02	1.30E-02	1.56E-02	5.83E-03	1.49E+00	3.32E-01
P_4	552770	5383776	Pukaskwa National Park	7.09E-02	1.00E-02	4.78E-03	2.81E+00	1.08E+00	1.53E+00	4.66E+01	1.75E+01	2.47E+01	4.47E+01	2.44E+01	1.43E-04	3.00E-05	1.90E-05	2.60E-05	5.34E-06	3.32E-06	3.55E-03	1.30E-03	9.39E-04	8.28E+00	2.06E+00	7.94E-01	1.08E+00	3.36E-02	1.30E-02	1.55E-02	2.27E-03	1.45E+00	8.88E-02
PR_1	553679.4	5385896	Children & Family Learning Centre	5.62E-02	9.53E-03	4.82E-03	2.81E+00	1.08E+00	1.53E+00	4.64E+01	1.76E+01	2.47E+01	4.48E+01	2.44E+01	1.32E-04	3.20E-05	2.10E-05	2.40E-05	5.61E-06	3.63E-06	3.52E-03	1.30E-03	9.44E-04	8.28E+00	2.06E+00	7.94E-01	1.08E+00	3.36E-02	1.30E-02	1.55E-02	2.29E-03	1.45E+00	9.95E-02
PR_2	554004.4	5385858	Pic River Elementary	5.82E-02	9.31E-03	4.69E-03	2.81E+00	1.08E+00	1.53E+00	4.62E+01	1.75E+01	2.47E+01	4.49E+01	2.44E+01	1.21E-04	3.00E-05	2.00E-05	2.10E-05	5.30E-06	3.54E-06	3.48E-03	1.30E-03	9.43E-04	8.28E+00	2.06E+00	7.94E-01	1.08E+00	3.36E-02	1.30E-02	1.55E-02	2.27E-03	1.45E+00	9.61E-02
PR_3	553836.4	5385604	Pic River Private High School	5.58E-02	9.27E-03	4.67E-03	2.81E+00	1.08E+00	1.53E+00	4.63E+01	1.76E+01	2.47E+01	4.48E+01	2.44E+01	1.26E-04	3.00E-05	2.00E-05	2.20E-05	5.40E-06	3.52E-06	3.50E-03	1.30E-03	9.43E-04	8.28E+00	2.06E+00	7.94E-01	1.08E+00	3.36E-02	1.30E-02	1.55E-02	2.24E-03	1.45E+00	9.57E-02
PR_4	553930.4	5386049	Pic River Health Centre	5.90E-02	9.47E-03	4.78E-03	2.81E+00	1.08E+00	1.53E+00	4.63E+01	1.76E+01	2.47E+01	4.48E+01	2.44E+01	1.24E-04	3.10E-05	2.00E-05	2.20E-05	5.42E-06	3.60E-06	3.49E-03	1.30E-03	9.44E-04	8.28E+00	2.06E+00	7.94E-01	1.08E+00	3.36E-02	1.30E-02	1.55E-02	2.31E-03	1.45E+00	9.83E-02
PR_5	552493.4	5384783	BIIDAABAN Healing Lodge	7.58E-02	1.10E-02	5.23E-03	2.81E+00	1.08E+00	1.53E+00	4.68E+01	1.76E+01	2.47E+01	4.48E+01	2.44E+01	1.54E-04	3.30E-05	2.00E-05	2.70E-05	5.76E-06	3.62E-06	3.58E-03	1.30E-03	9.44E-04	8.28E+00	2.06E+00	7.94E-01	1.08E+00	3.36E-02	1.30E-02	1.55E-02	2.58E-03	1.45E+00	9.82E-02
PR_6	552843.4	5390100	Residence	8.74E-02	1.45E-02	7.41E-03	2.81E+00	1.08E+00	1.53E+00	4.77E+01	1.79E+01	2.49E+01	4.51E+01	2.45E+01	2.05E-04	4.80E-05	3.20E-05	3.60E-05	8.52E-06	5.61E-06	3.72E-03	1.35E-03	9.76E-04	8.28E+00	2.06E+00	7.94E-01	1.08E+00	3.37E-02	1.30E-02	1.55E-02	3.25E-03	1.46E+00	1.59E-01
PR_7	553761.4	5387706	Residence	6.71E-02	1.07E-02	5.45E-03	2.81E+00	1.08E+00	1.53E+00	4.65E+01	1.76E+01	2.48E+01	4.52E+01	2.45E+01	1.35E-04	3.40E-05	2.30E-05	2.40E-05	6.05E-06	4.13E-06	3.53E-03	1.31E-03	9.52E-04	8.28E+00	2.06E+00	7.94E-01	1.08E+00	3.36E-02	1.30E-02	1.55E-02	2.58E-03	1.45E+00	1.15E-01
PS_1	545001.3	5404050	North Hare Lake Cottage	5.68E-01	9.38E-02	5.44E-02	2.81E+00	1.08E+00	1.53E+00	6.20E+01	2.28E+01	2.78E+01	4.86E+01	2.50E+01	1.02E-03	3.31E-04	1.94E-04	1.81E-04	5.86E-05	3.44E-05	6.04E-03	2.15E-03	1.44E-03	8.29E+00	2.06E+00	7.95E-01	1.08E+00	3.45E-02	1.32E-02	1.57E-02	1.51E-02	1.60E+00	1.27E+00
PS_2	544331.3	5403100	South Hare Lake Cottage	5.71E-01	7.04E-02	3.90E-02	2.81E+00	1.08E+00	1.53E+00	6.71E+01	2.23E+01	2.73E+01	5.61E+01	2.49E+01	1.23E-03	3.00E-04	1.68E-04	2.32E-04	5.31E-05	2.97E-05	6.64E-03	2.07E-03	1.36E-03	8.29E+00	2.06E+00	7.95E-01	1.08E+00	3.48E-02	1.32E-02	1.57E-02	1.38E-02	1.60E+00	1.15E+00
PS_3	547056.1	5401004	May's Gifts	9.96E-01	1.98E-01	9.53E-02	2.81E+00	1.08E+00	1.53E+00	1.03E+02	3.49E+01	3.77E+01	5.59E+01	2.71E+01	3.42E-03	1.03E-03	7.64E-04	6.02E-04	1.82E-04	1.35E-04	1.29E-02	4.14E-03	3.06E-03	8.30E+00	2.06E+00	7.95E-01	1.08E+00	3.67E-02	1.39E-02	1.62E-02	6.49E-02	2.35E+00	7.45E+00
PS_4	546811.4	5400953	Wayfare Inn	9.42E-01	1.74E-01	8.43E-02	2.81E+00	1.08E+00	1.53E+00	1.01E+02	3.44E+01	3.68E+01	5.48E+01	2.71E+01	3.28E-03	9.97E-04	7.14E-04	5.78E-04	1.76E-04	1.26E-04	1.25E-02	4.04E-03	2.92E-03	8.30E+00	2.06E+00	7.95E-01	1.08E+00	3.66E-02	1.39E-02	1.62E-02	6.28E-02	2.32E+00	7.04E+00
PS_5	546996.4	5401028	Peninsula Inn	1.00E+00	1.93E-01	9.31E-02	2.81E+00	1.08E+00	1.53E+00	1.07E+02	3.56E+01	3.80E+01	5.72E+01	2.73E+01	3.64E-03	1.07E-03	7.86E-04	6.41E-04	1.88E-04	1.39E-04	1.35E-02	4.24E-03	3.12E-03	8.30E+00	2.06E+00	7.95E-01	1.08E+00	3.69E-02	1.39E-02	1.62E-02	6.62E-02	2.38E+00	7.72E+00
PS_6	548471.4	5399489	Travelodge Hotel	5.89E-01	1.12E-01	5.64E-02	2.81E+00	1.08E+00	1.53E+00	7.76E+01	2.86E+01	3.24E+01	5.15E+01	2.53E+01	1.83E-03	6.13E-04	4.12E-04	3.23E-04	1.08E-04	7.27E-05	8.34E-03	2.95E-03	2.06E-03	8.29E+00	2.06E+00	7.95E-01	1.08E+00	3.52E-02	1.35E-02	1.59E-02	3.20E-02	1.92E+00	4.11E+00
PS_7	546903.4	5401056	The Laughing Mooz Eatery Restauran	9.96E-01	1.83E-01	8.91E-02	2.81E+00	1.08E+00	1.53E+00	1.11E+02	3.64E+01	3.85E+01	5.83E+01	2.75E+01	3.84E-03	1.12E-03	8.12E-04	6.77E-04	1.97E-04	1.43E-04	1.41E-02	4.38E-03	3.20E-03	8.30E+00	2.06E+00	7.95E-01	1.08E+00	3.71E-02	1.40E-02	1.63E-02	6.80E-02	2.42E+00	8.11E+00
PW_1	545777.4	5397151	Kingdom Hall of Jehovah's Witnesses	3.15E-01	4.83E-02	2.58E-02	2.81E+00	1.08E+00	1.53E+00	6.02E+01	2.27E+01	2.88E+01	4.64E+01	2.48E+01	5.51E-04	1.68E-04	1.26E-04	9.80E-05	2.97E-05	2.23E-05	4.71E-03	1.69E-03	1.25E-03	8.29E+00	2.06E+00	7.95E-01	1.08E+00	3.40E-02	1.31E-02	1.56E-02	2.08E-02	1.76E+00	2.71E+00
PW_2	546331.4	5395942	Parkland Pentecostal Church	3.14E-01	3.27E-02	1.99E-02	2.81E+00	1.08E+00	1.53E+00	5.28E+01	1.93E+01	2.62E+01	4.61E+01	2.47E+01	4.75E-04	1.24E-04	9.80E-05	8.40E-05	2.19E-05	1.74E-05	4.49E-03	1.56E-03	1.17E-03	8.29E+00	2.06E+00	7.95E-01	1.08E+00	3.40E-02	1.30E-02	1.56E-02	1.13E-02	1.54E+00	7.09E-01
PW_3	545857.4	5395715	St. John's United Church	2.86E-01	3.29E-02	1.89E-02	2.81E+00	1.08E+00	1.53E+00	5.27E+01	1.92E+01	2.61E+01	4.61E+01	2.47E+01	4.74E-04	1.17E-04	9.20E-05	8.40E-05	2.06E-05	1.62E-05	4.49E-03	1.54E-03	1.15E-03	8.29E+00	2.06E+00	7.95E-01	1.08E+00	3.40E-02	1.30E-02	1.56E-02	1.11E-02	1.54E+00	6.75E-01
PW_4	545425	5396043	Holy Saviour Roman Catholic Church	2.56E-01	3.83E-02	2.01E-02	2.81E+00	1.08E+00	1.53E+00	5.29E+01	1.94E+01	2.62E+01	4.58E+01	2.47E+01	4.69E-04	1.26E-04	9.60E-05	8.30E-05	2.23E-05	1.69E-05	4.47E-03	1.57E-03	1.16E-03	8.29E+00	2.06E+00	7.95E-01	1.08E+00	3.39E-02	1.30E-02	1.56E-02	1.22E-02	1.55E+00	7.70E-01
PW_5	545390.4	5395989	Anglican Church-Trinity	2.54E-01	3.80E-02	1.99E-02	2.81E+00	1.08E+00	1.53E+00	5.28E+01	1.94E+01	2.62E+01	4.58E+01	2.47E+01	4.67E-04	1.25E-04	9.40E-05	8.30E-05	2.20E-05	1.67E-05	4.47E-03	1.57E-03	1.15E-03	8.29E+00	2.06E+00	7.95E-01	1.08E+00	3.39E-02	1.30E-02	1.56E-02	1.19E-02	1.55E+00	7.46E-01
R_1	547226.4	5398096	Residence	4.87E-01	6.25E-02	3.68E-02	2.81E+00	1.08E+00	1.53E+00	6.82E+01	2.49E+01	3.07E+01	4.77E+01	2.50E+01	9.18E-04	2.52E-04	1.86E-04	1.62E-04	4.45E-05	3.28E-05	5.75E-03	1.93E-03	1.42E-03	8.29E+00	2.06E+00	7.95E-01	1.08E+00	3.44E-02	1.32E-02	1.57E-02	3.15E-02	1.88E+00	4.03E+00
R_10	545421.4	5395954	Residence	2.48E-01	3.77E-02	1.97E-02	2.81E+00	1.08E+00	1.53E+00	5.28E+01	1.93E+01	2.62E+01	4.58E+01	2.47E+01	4.67E-04	1.23E-04	9.40E-05	8.30E-05	2.18E-05	1.66E-05	4.47E-03	1.56E-03	1.15E-03	8.29E+00	2.06E+00	7.95E-01	1.08E+00	3.39E-02	1.30E-02	1.56E-02	1.19E-02	1.55E+00	7.39E-01
R_11	545619.4	5395878	Residence	2.42E-01	3.64E-02	1.95E-02	2.81E+00	1.08E+00	1.53E+00	5.30E+01	1.93E+01	2.61E+01	4.61E+01	2.47E+01	4.79E-04	1.21E-04	9.30E-05	8.50E-05	2.15E-05	1.65E-05	4.50E-03	1.56E-03	1.15E-03	8.29E+00	2.06E+00	7.95E-01	1.08E+00	3.40E-02	1.30E-02	1.56E-02	1.19E-02	1.55E+00	7.23E-01
R_12	545831.4	5396001	Residence	2.74E-01	3.65E-02	2.00E-02	2.81E+00	1.08E+00	1.53E+00	5.33E+01	1.94E+01	2.62E+01	4.62E+01	2.47E+01	4.99E-04	1.25E-04	9.70E-05	8.90E-05	2.22E-05	1.72E-05	4.56E-03	1.57E-03	1.16E-03	8.29E+00	2.06E+00	7.95E-01	1.08E+00	3.40E-02	1.30E-02	1.56E-02	1.21E-02	1.55E+00	7.65E-01
R_13	545806.9	5396173	Residence	2.59E-01	3.86E-02	2.08E-02	2.81E+00	1.08E+00	1.53E+00	5.38E+01	1.97E+01	2.64E+01	4.62E+01	2.47E+01	5.10E-04	1.31E-04	1.01E-04	9.10E-05	2.32E-05	1.78E-05	4.59E-03	1.58E-03	1.17E-03	8.29E+00	2.06E+00	7.95E-01	1.08E+00	3.40E-02	1.30E-02	1.56E-02	1.32E-02	1.56E+00	8.69E-01
R_14	545827.1	5396229	Residence	2.59E-01	3.92E-02	2.10E-02	2.81E+00	1.08E+00	1.53E+00	5.41E+01	1.98E+01	2.65E+01	4.63E+01	2.47E+01	5.17E-04	1.33E-04	1.02E-04	9.20E-05	2.35E-05	1.81E-05	4.61E-03	1.59E-03	1.18E-03	8.29E+00	2.06E+00	7.95E-01	1.08E+00	3.40E-02	1.31E-02	1.56E-02	1.40E-02	1.57E+00	9.30E-01
R_15	545662.4	5396176	Residence	2.47E-01	3.92E-02	2.07E-02	2.81E+00	1.08E+00	1.53E+00	5.36E+01	1.96E+01	2.64E+01	4.60E+01	2.47E+01	5.00E-04	1.32E-04	1.00E-04	8.90E-05	2.33E-05	1.77E-05	4.56E-03	1.59E-03	1.17E-03	8.29E+00	2.06E+00	7.95E-01	1.08E+00	3.40E-02	1.30E-02	1.56E-02	1.32E-02	1.56E+00	8.58E-01
R_16	546254.4	5396485	Residence	3.23E-01	3.87E-02	2.22E-02	2.81E+00	1.08E+00	1.53E+00	5.44E+01	1.98E+01	2.66E+01	4.63E+01	2.47E+01	5.44E-04	1.42E-04	1.10E-04	9.70E-05	2.51E-05	1.95E-05	4.69E-03	1.62E-03	1.20E-03	8.29E+00	2.06E+00	7.95E-01	1.08E+00	3.40E-02	1.31E-02	1.56E-02	1.32E-02	1.57E+00	9.36E-01
R_17	546471.4	5396507	Residence	3.42E-01	3.66E-02	2.24E-02	2.81E+00	1.08E+00	1.53E+00	5.40E+01	1.97E+01	2.65E+01	4.64E+01	2.47E+01	5.35E-04	1.43E-04	1.12E-04	9.50E-05	2.53E-05	1.98E-05	4.66E-03	1.62E-03	1.21E-03	8.29E+00	2.06E+00	7.95E-01	1.08E+00	3.40E-02	1.31E-02	1.56E-02	1.31E-02	1.56E+00	8.80E-01
R_18	546601.4	5396388	Residence	3.34E-01	3.63E-02	2.20E-02	2.81E+00	1.08E+00	1.53E+00	5.34E+01	1.96E+01	2.64E+01	4.63E+01	2.47E+01	5.06E-04	1.40E-04	1.10E-04	9.00E-05	2.46E-05	1.94E-05	4.58E-03	1.61E-03	1.20E-03	8.29E+00	2.06E+00	7.95E-01	1.08E+00	3.40E-02	1.31E-02	1.56E-02	1.25E-02	1.55E+00	8.20E-01
R_19	546856.4	5395581	Residence	2.38E-01	3.44E-02	1.93E-02	2.81E+00	1.08E+00	1.53E+00	5.22E+01	1.92E+01	2.61E+01	4.65E+01	2.47E+01	4.55E-04	1.19E-04	9.40E-05	8.10E-05	2.10E-05	1.66E-05	4.44E-03	1.55E-03	1.15E-03	8.29E+00	2.06E+00	7.95E-01	1.08E+00	3.39E-02	1.30E-02	1.56E-02	9.72E-03	1.52E+00	6.08E-01
R_2	547273.4	5398045	Residence	4.95E-01	6.09E-02	3.66E-02	2.81E+00	1.08E+00	1.53E+00	6.36E+01	2.25E+01	2.87E+01	4.77E+01	2.50E+01	9.19E-04	2.49E-04	1.84E-04	1.63E-04	4.39E-05	3.24E-05	5.75E-03	1.92E-03	1.41E-03	8.29E+00	2.06E+00	7.95E-01	1.08E+00	3.44E-02	1.32E-02	1.57E-02	2.28E-02	1.70E+00	2.15E+00
R_20	546950.4	5395534	Residence	2.32E-01	3.50E-02	1.93E-02	2.81E+00	1.08E+00	1.53E+00	5.22E+01	1.92E+01	2.61E+01	4.66E+01	2.47E+01	4.52E-04	1.19E-04	9.30E-05	8.00E-05	2.10E-05	1.65E-05	4.43E-03	1.55E-03	1.15E-03	8.29E+00	2.06E+00	7.95E-01	1.08E+00	3.39E-02	1.30E-02	1.56E-02	9.57E-03	1.52E+00	5.96E-01
R_21	547201.4	5395416	Residence	2.14E-01	3.60E-02	1.92E-02	2.81E+00	1.08E+00	1.53E+00	5.19E+01	1.92E+01	2.60E+01	4.75E+01	2.47E+01	4.37E-04	1.20E-04	9.20E-05	7.80E-05	2.12E-05	1.63E-05	4.38E-03	1.55E-03	1.15E-03	8.29E+00	2.06E+00	7.95E-01	1.08E+00	3.39E-02	1.30E-02	1.56E-02	9.09E-03	1.52E+00	5.68E-01
R_22	548317.4	5399655	Residence	5.70E-01	1.10E-01	5.99E-02	2.81E+00	1.08E+00	1.53E+00	7.52E+01	2.67

Table E-3 Special Receptor Predictions (ug/m3) - Construc

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description
H_1	545937.4	5396170	Wilson Memorial General Hospital
M_1	545694	5403864	PM-10 @ Hare Lake
M_2	545694	5403873	Dustfall @ Hare Lake
M_3	547152	5401222	PM-10 @ Mays Gifts
M_4	547147	5401216	Dustfall @ Mays Gifts
M_5	551637	5402371	PM-10 @ Pic River
M_6	551643	5402374	Dustfall @ Pic River
M_7	549180	5399815	Dustfall @ Airport
M_8	545863	5397092	Dustfall @ Field Office
O_1	547181.4	5398015	Pic Motel
O_2	545734.4	5396873	Marathon Harbour Inn
O_3	545885.4	5396449	Zero-100 Motor Inn
O_4	545987.4	5397641	OPP Station
O_5	545876.4	5396073	Library
P_1	546958.4	5396139	Penn Lake Park and Campground
P_2	548538.4	5392863	Craig's Pit Provincial Nature Reserve
P_3	540005	5402014	Red Sucker Point Provincial Park
P_4	552770	5383776	Pukaskwa National Park
PR_1	553679.4	5385896	Children & Family Learning Centre
PR_2	554004.4	5385858	Pic River Elementary
PR_3	553836.4	5385604	Pic River Private High School
PR_4	553930.4	5386049	Pic River Health Centre
PR_5	552493.4	5384783	BIIDAABAN Healing Lodge
PR_6	552843.4	5390100	Residence
PR_7	553761.4	5387706	Residence
PS_1	545001.3	5404050	North Hare Lake Cottage
PS_2	544331.3	5403100	South Hare Lake Cottage
PS_3	547056.1	5401004	May's Gifts
PS_4	546811.4	5400953	Wayfare Inn
PS_5	546996.4	5401028	Peninsula Inn
PS_6	548471.4	5399489	Travelodge Hotel
PS_7	546903.4	5401056	The Laughing Mooz Eatery Restaurant
PW_1	545777.4	5397151	Kingdom Hall of Jehovah's Witnesses
PW_2	546331.4	5395942	Parkland Pentecostal Church
PW_3	545857.4	5395715	St. John's United Church
PW_4	545425	5396043	Holy Saviour Roman Catholic Church
PW_5	545390.4	5395989	Anglican Church-Trinity
R_1	547226.4	5398096	Residence
R_10	545421.4	5395954	Residence
R_11	545619.4	5395878	Residence
R_12	545831.4	5396001	Residence
R_13	545806.9	5396173	Residence
R_14	545827.1	5396229	Residence
R_15	545662.4	5396176	Residence
R_16	546254.4	5396485	Residence
R_17	546471.4	5396507	Residence
R_18	546601.4	5396388	Residence
R_19	546856.4	5395581	Residence
R_2	547273.4	5398045	Residence
R_20	546950.4	5395534	Residence
R_21	547201.4	5395416	Residence
R_22	548317.4	5399655	Residence
R_3	545809.4	5397233	Bergagnini Apartment Rental
R_4	546092.4	5396797	Residence
R_5	545971.4	5396490	Condominium
R_6	545655.4	5396521	Residence
R_7	545438.4	5396409	I Sew Studio and Residence
R_8	545380.4	5396244	Bayview Apartments
R_9	545290.4	5396115	Residence
RH_1	546049.4	5395895	Peninsula Manor
RH_2	545320.9	5396197	Senior's Centre
S_1	546339.4	5396625	Holy Saviour School
S_2	545633.4	5396103	Confederation College Northshore Ca
S_3	546200.4	5396037	Marathon High School
S_4	546261.4	5395968	Ecole secondaire Cite-Superieure
S_5	547019.4	5395083	Marathon Children and Family Centre
S_6	547000.4	5395036	Margaret Twomey Public School
W_1	547291.4	5399861	Shack Lake (northeast)

Table E-3 Special Receptor Predictions (ug/m3) - Construction, Cumulative (Project + Background)

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	1,3-BUTADIENE			ACENAPHTHENE			ACENAPHTHYLENE			ACETALDEHYDE					ACROLEIN				ALDEHYDES			ALUMINUM (AL)			ANTHRACENE		
				Averaging Period	24	month	annual	24	month	annual	24	month	annual	0.5	1	24	month	annual	1	24	month	annual	24	month	annual	24	month	annual	24	month	annual
				Criteria	10	-	2	-	-	-	-	-	-	500	-	500	-	-	4.5	0.4	-	-	-	-	-	12	-	-	-	-	-
				Background Concentration (ug/m3)	1.09E-01	4.21E-02	7.32E-02	1.81E-03	6.98E-04	9.10E-04	1.79E-03	6.91E-04	1.06E-03	1.18E+01	9.74E+00	4.00E+00	1.54E+00	1.60E+00	1.22E-01	5.00E-02	1.93E-02	2.30E-02				5.88E-01	2.27E-01	2.84E-01	4.49E-04	1.73E-04	2.51E-04
W_10	546975.3	5406486	Bamoos Lake (south)		1.10E-01	4.23E-02	7.33E-02	1.87E-03	7.16E-04	9.22E-04	1.90E-03	7.21E-04	1.08E-03	1.22E+01	1.00E+01	4.06E+00	1.56E+00	1.61E+00	1.66E-01	5.91E-02	2.20E-02	2.47E-02	3.30E-01	6.66E-02	3.30E-02	9.77E-01	3.23E-01	3.39E-01	4.82E-04	1.84E-04	2.58E-04
W_11	545484.3	5405866	Bamoos Lake (west)		1.10E-01	4.22E-02	7.33E-02	1.88E-03	7.16E-04	9.20E-04	1.91E-03	7.21E-04	1.08E-03	1.22E+01	1.00E+01	4.06E+00	1.56E+00	1.61E+00	1.65E-01	5.85E-02	2.14E-02	2.43E-02	3.61E-01	8.41E-02	4.15E-02	8.68E-01	2.94E-01	3.22E-01	4.82E-04	1.82E-04	2.57E-04
W_12	546576.3	5407157	Bamoos Lake (north)		1.10E-01	4.23E-02	7.33E-02	1.87E-03	7.15E-04	9.20E-04	1.89E-03	7.18E-04	1.08E-03	1.23E+01	1.01E+01	4.07E+00	1.56E+00	1.61E+00	1.78E-01	5.99E-02	2.19E-02	2.45E-02	2.88E-01	5.82E-02	2.74E-02	9.29E-01	3.00E-01	3.25E-01	4.85E-04	1.83E-04	2.57E-04
W_13	546777.3	5406831	Bamoos Lake (center)		1.10E-01	4.23E-02	7.33E-02	1.87E-03	7.17E-04	9.21E-04	1.90E-03	7.21E-04	1.08E-03	1.23E+01	1.01E+01	4.07E+00	1.56E+00	1.61E+00	1.80E-01	6.02E-02	2.22E-02	2.46E-02	3.06E-01	6.33E-02	3.04E-02	9.48E-01	3.10E-01	3.30E-01	4.86E-04	1.84E-04	2.58E-04
W_14	554944.3	5408229	Page Lake (south)		1.10E-01	4.22E-02	7.33E-02	1.86E-03	7.10E-04	9.16E-04	1.87E-03	7.10E-04	1.07E-03	1.22E+01	1.00E+01	4.05E+00	1.56E+00	1.61E+00	1.66E-01	5.76E-02	2.12E-02	2.39E-02	1.18E-01	2.18E-02	1.13E-02	8.14E-01	2.75E-01	3.10E-01	4.77E-04	1.80E-04	2.55E-04
W_15	555054.3	5408904	Page Lake (center)		1.09E-01	4.22E-02	7.33E-02	1.84E-03	7.07E-04	9.15E-04	1.85E-03	7.05E-04	1.07E-03	1.22E+01	1.00E+01	4.04E+00	1.55E+00	1.60E+00	1.65E-01	5.59E-02	2.07E-02	2.37E-02	1.05E-01	1.61E-02	9.47E-03	7.09E-01	2.64E-01	3.05E-01	4.70E-04	1.79E-04	2.54E-04
W_16	555065.3	5409498	Page Lake (north)		1.09E-01	4.21E-02	7.32E-02	1.83E-03	7.05E-04	9.14E-04	1.83E-03	7.02E-04	1.07E-03	1.21E+01	1.00E+01	4.02E+00	1.55E+00	1.60E+00	1.59E-01	5.36E-02	2.04E-02	2.36E-02	9.69E-02	1.43E-02	8.48E-03	7.01E-01	2.56E-01	3.01E-01	4.63E-04	1.77E-04	2.54E-04
W_17	556593.4	5402127	Peacock Lake (east)		1.09E-01	4.22E-02	7.33E-02	1.85E-03	7.09E-04	9.16E-04	1.87E-03	7.10E-04	1.07E-03	1.22E+01	1.00E+01	4.03E+00	1.55E+00	1.61E+00	1.61E-01	5.40E-02	2.09E-02	2.37E-02	3.12E-01	3.58E-02	1.66E-02	7.11E-01	2.66E-01	3.03E-01	4.68E-04	1.79E-04	2.54E-04
W_18	556043.4	5401267	Peacock Lake (south)		1.09E-01	4.22E-02	7.33E-02	1.86E-03	7.10E-04	9.16E-04	1.88E-03	7.11E-04	1.07E-03	1.22E+01	1.00E+01	4.04E+00	1.55E+00	1.61E+00	1.65E-01	5.52E-02	2.08E-02	2.37E-02	3.25E-01	4.77E-02	1.67E-02	7.55E-01	2.64E-01	3.03E-01	4.70E-04	1.79E-04	2.54E-04
W_19	556277.4	5402069	Peacock Lake (west)		1.09E-01	4.22E-02	7.33E-02	1.85E-03	7.10E-04	9.16E-04	1.87E-03	7.10E-04	1.07E-03	1.22E+01	1.00E+01	4.03E+00	1.55E+00	1.61E+00	1.63E-01	5.45E-02	2.09E-02	2.38E-02	3.08E-01	3.66E-02	1.74E-02	7.07E-01	2.67E-01	3.04E-01	4.69E-04	1.80E-04	2.54E-04
W_2	547105.4	5399507	Shack Lake (center)		1.10E-01	4.23E-02	7.34E-02	1.89E-03	7.20E-04	9.26E-04	1.93E-03	7.28E-04	1.09E-03	1.24E+01	1.02E+01	4.07E+00	1.56E+00	1.62E+00	1.93E-01	6.02E-02	2.23E-02	2.53E-02	3.19E-01	6.94E-02	3.71E-02	8.50E-01	3.08E-01	3.44E-01	4.91E-04	1.86E-04	2.61E-04
W_20	556444.4	5402420	Peacock Lake (north)		1.09E-01	4.22E-02	7.33E-02	1.85E-03	7.10E-04	9.16E-04	1.87E-03	7.11E-04	1.07E-03	1.22E+01	1.00E+01	4.03E+00	1.55E+00	1.61E+00	1.61E-01	5.47E-02	2.10E-02	2.38E-02	3.23E-01	4.06E-02	1.77E-02	7.34E-01	2.69E-01	3.05E-01	4.69E-04	1.80E-04	2.54E-04
W_21	556424.4	5402100	Peacock Lake (center)		1.09E-01	4.22E-02	7.33E-02	1.85E-03	7.10E-04	9.16E-04	1.87E-03	7.10E-04	1.07E-03	1.22E+01	1.00E+01	4.03E+00	1.55E+00	1.61E+00	1.63E-01	5.41E-02	2.09E-02	2.38E-02	3.12E-01	3.64E-02	1.70E-02	7.08E-01	2.66E-01	3.04E-01	4.68E-04	1.80E-04	2.54E-04
W_22	550202.4	5397449	Three Finger Lake (north)		1.10E-01	4.22E-02	7.33E-02	1.89E-03	7.10E-04	9.18E-04	1.93E-03	7.11E-04	1.07E-03	1.24E+01	1.02E+01	4.07E+00	1.56E+00	1.61E+00	1.91E-01	6.03E-02	2.10E-02	2.41E-02	3.15E-01	3.61E-02	2.00E-02	8.81E-01	2.66E-01	3.10E-01	4.91E-04	1.80E-04	2.56E-04
W_23	550175.4	5396992	Three Finger Lake (center)		1.10E-01	4.22E-02	7.33E-02	1.88E-03	7.09E-04	9.17E-04	1.92E-03	7.08E-04	1.07E-03	1.24E+01	1.02E+01	4.06E+00	1.55E+00	1.61E+00	1.86E-01	5.92E-02	2.08E-02	2.39E-02	3.11E-01	3.28E-02	1.80E-02	8.56E-01	2.61E-01	3.07E-01	4.87E-04	1.79E-04	2.55E-04
W_24	549830.4	5396526	Three Finger Lake (south)		1.10E-01	4.22E-02	7.33E-02	1.87E-03	7.08E-04	9.16E-04	1.90E-03	7.07E-04	1.07E-03	1.23E+01	1.02E+01	4.05E+00	1.55E+00	1.61E+00	1.84E-01	5.71E-02	2.07E-02	2.38E-02	3.21E-01	3.06E-02	1.53E-02	7.71E-01	2.60E-01	3.05E-01	4.80E-04	1.79E-04	2.55E-04
W_25	546947.4	5396628	Penn Lake (north)		1.09E-01	4.22E-02	7.33E-02	1.85E-03	7.08E-04	9.18E-04	1.87E-03	7.07E-04	1.08E-03	1.22E+01	1.00E+01	4.03E+00	1.55E+00	1.61E+00	1.65E-01	5.49E-02	2.05E-02	2.40E-02	2.10E-01	2.62E-02	1.54E-02	6.98E-01	2.58E-01	3.08E-01	4.73E-04	1.80E-04	2.56E-04
W_26	547059.4	5396126	Penn Lake (center)		1.09E-01	4.22E-02	7.33E-02	1.85E-03	7.07E-04	9.17E-04	1.86E-03	7.05E-04	1.07E-03	1.22E+01	1.01E+01	4.03E+00	1.55E+00	1.61E+00	1.71E-01	5.48E-02	2.04E-02	2.38E-02	1.69E-01	2.52E-02	1.40E-02	6.90E-01	2.54E-01	3.05E-01	4.69E-04	1.78E-04	2.55E-04
W_27	546991.4	5395773	Penn Lake (south)		1.09E-01	4.21E-02	7.33E-02	1.85E-03	7.06E-04	9.16E-04	1.85E-03	7.04E-04	1.07E-03	1.22E+01	1.01E+01	4.03E+00	1.55E+00	1.61E+00	1.69E-01	5.45E-02	2.03E-02	2.38E-02	1.59E-01	2.37E-02	1.31E-02	6.84E-01	2.52E-01	3.04E-01	4.68E-04	1.78E-04	2.55E-04
W_28	544637	5401700	Angler Creek at Model Property Boundary		1.10E-01	4.22E-02	7.33E-02	1.88E-03	7.16E-04	9.20E-04	1.91E-03	7.20E-04	1.08E-03	1.22E+01	1.00E+01	4.06E+00	1.56E+00	1.61E+00	1.61E-01	5.87E-02	2.16E-02	2.44E-02	3.29E-01	6.15E-02	2.35E-02	8.25E-01	2.95E-01	3.25E-01	4.84E-04	1.83E-04	2.57E-04
W_29	551284	5407805	Pic River In-Flow to Model Property Boundary		1.10E-01	4.23E-02	7.33E-02	1.88E-03	7.14E-04	9.19E-04	1.91E-03	7.16E-04	1.08E-03	1.25E+01	1.03E+01	4.07E+00	1.56E+00	1.61E+00	1.99E-01	6.06E-02	2.17E-02	2.44E-02	1.93E-01	3.21E-02	1.65E-02	8.05E-01	2.89E-01	3.24E-01	4.89E-04	1.82E-04	2.57E-04
W_3	546725.4	5399334	Shack Lake (southwest)		1.10E-01	4.23E-02	7.34E-02	1.88E-03	7.18E-04	9.24E-04	1.91E-03	7.25E-04	1.09E-03	1.24E+01	1.02E+01	4.07E+00	1.56E+00	1.61E+00	1.88E-01	5.95E-02	2.20E-02	2.50E-02	2.83E-01	6.63E-02	3.42E-02	8.35E-01	3.01E-01	3.38E-01	4.88E-04	1.84E-04	2.60E-04
W_30	551654	5401167	Pic River Out-Flow from Model Property Boundary		1.10E-01	4.24E-02	7.34E-02	1.88E-03	7.23E-04	9.26E-04	1.91E-03	7.32E-04	1.09E-03	1.22E+01	1.01E+01	4.05E+00	1.57E+00	1.62E+00	1.73E-01	5.79E-02	2.30E-02	2.54E-02	3.75E-01	7.34E-02	3.63E-02	7.84E-01	3.09E-01	3.39E-01	4.82E-04	1.88E-04	2.61E-04
W_4	545636.3	5403829	Hare Lake (east)		1.10E-01	4.23E-02	7.33E-02	1.88E-03	7.19E-04	9.23E-04	1.91E-03	7.25E-04	1.08E-03	1.21E+01	1.00E+01	4.07E+00	1.56E+00	1.61E+00	1.60E-01	6.00E-02	2.22E-02	2.47E-02	4.35E-01	7.29E-02	4.34E-02	8.93E-01	3.11E-01	3.34E-01	4.88E-04	1.85E-04	2.58E-04
W_5	545048.3	5403557	Hare Lake (south)		1.10E-01	4.23E-02	7.33E-02	1.87E-03	7.16E-04	9.21E-04	1.90E-03	7.20E-04	1.08E-03	1.21E+01	9.98E+00	4.06E+00	1.56E+00	1.61E+00	1.57E-01	5.90E-02	2.19E-02	2.44E-02	3.97E-01	5.32E-02	3.34E-02	8.82E-01	3.01E-01	3.27E-01	4.83E-04	1.83E-04	2.57E-04
W_6	543955.3	5403079	Hare Lake (west)		1.10E-01	4.22E-02	7.33E-02	1.87E-03	7.12E-04	9.18E-04	1.89E-03	7.14E-04	1.07E-03	1.21E+01	9.94E+00	4.05E+00	1.56E+00	1.61E+00	1.51E-01	5.75E-02	2.12E-02	2.40E-02	3.33E-01	4.27E-02	2.32E-02	8.40E-01	2.81E-01	3.14E-01	4.79E-04	1.81E-04	2.55E-04
W_7	544603.3	5403943	Hare Lake (north)		1.10E-01	4.22E-02	7.33E-02	1.86E-03	7.13E-04	9.19E-04	1.88E-03	7.16E-04	1.08E-03	1.21E+01	9.96E+00	4.05E+00	1.56E+00	1.61E+00	1.54E-01	5.76E-02	2.15E-02	2.42E-02	3.38E-01	4.98E-02	3.08E-02	7.82E-01	2.88E-01	3.19E-01	4.78E-04	1.82E-04	2.56E-04
W_8	544830.3	5403751	Hare Lake (center)		1.10E-01	4.22E-02	7.33E-02	1.87E-03	7.14E-04	9.20E-04	1.89E-03	7.18E-04	1.08E-03	1.21E+01	9.97E+00	4.06E+00	1.56E+00	1.61E+00	1.55E-01	5.84E-02	2.17E-02	2.43E-02	3.24E-01	4.92E-02	3.20E-02	8.11E-01	2.94E-01	3.23E-01	4.81E-04	1.82E-04	2.57E-04
W_9	549326.3	5406972	Bamoos Lake (east)		1.11E-01	4.25E-02	7.34E-02	1.94E-03	7.29E-04	9.28E-04	2.00E-03	7.41E-04	1.09E-03	1.30E+01	1.07E+01	4.16E+00	1.58E+00	1.62E+00	2.61E-01	7.27E-02	2.48E-02	2.60E-02	2.60E-01	4.21E-02	2.28E-02	1.24E+00	3.40E-01	3.59E-01	5.29E-04	1.93E-04	2.62E-04
Maximum of Special Receptors					**1.13E-01**	**4.39E-02**	**7.46E-02**	**2.09E-03**	**8.27E-04**	**1.01E-03**	**2.25E-03**	**9.00E-04**	**1.22E-03**	**1.31E+01**	**1.08E+01**	**4.35E+00**	**1.70E+00**	**1.72E+00**	**2.80E-01**	**1.01E-01**	**4.20E-02**	**4.07E-02**	**7.08E-01**	**1.37E-01**	**6.69E-02**	**1.39E+00**	**5.08E-01**	**4.98E-01**	**6.34E-04**	**2.57E-04**	**3.16E-04**
Max % of Criteria					**1.1%**	-	**3.7%**	-	-	-	-	-	-	**2.6%**	-	**0.9%**	-	-	**6.2%**	**25.2%**	-	-	-	-	-	**11.6%**	-	-	-	-	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by MECP Guideline A-10, Section 7.4.1 for facilities with a fugitive dust BMP. These model predictions were used for comparison to the applicable critiera.

Table E-3 Special Receptor Predictions (ug/m3) - Construc

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	ANTIMONY (SB)			ARSENIC (AS)			BARIUM (BA)			BENZENE			BENZO(A)ANTHRACENE			BENZO(A)PYRENE			BENZO(B)FLUORANTHENE			BENZO(G,H,I)PERYLENE			BENZO(K)FLUORANTHENE			BERYLLIUM (BE)		
				24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual
				25	-	-	0.3	-	-	10	-	-	2.3	-	0.45	-	-	-	0.00005	-	0.00001	-	-	-	-	-	-	-	-	-	0.01	-	-
				2.71E-02	1.05E-02	9.39E-03				3.99E-02	1.54E-02	1.92E-02	1.44E+00	5.56E-01	9.02E-01	2.14E-04	8.26E-05	1.07E-04	2.06E-04	7.95E-05	1.03E-04	3.19E-04	1.23E-04	2.07E-04	2.80E-04	1.08E-04	1.32E-04	1.04E-04	4.03E-05	6.07E-05			
W_10	546975.3	5406486	Bamoos Lake (south)	2.72E-02	1.05E-02	9.40E-03	8.13E-05	2.02E-05	1.14E-05	4.14E-02	1.58E-02	1.94E-02	1.45E+00	5.60E-01	9.05E-01	2.18E-04	8.34E-05	1.07E-04	2.08E-04	7.99E-05	1.03E-04	3.25E-04	1.24E-04	2.08E-04	2.83E-04	1.09E-04	1.32E-04	1.06E-04	4.06E-05	6.09E-05	1.84E-05	4.51E-06	2.56E-06
W_11	545484.3	5405866	Bamoos Lake (west)	2.72E-02	1.05E-02	9.40E-03	5.86E-05	1.41E-05	7.88E-06	4.10E-02	1.57E-02	1.93E-02	1.45E+00	5.59E-01	9.04E-01	2.18E-04	8.36E-05	1.07E-04	2.08E-04	8.00E-05	1.03E-04	3.25E-04	1.25E-04	2.08E-04	2.83E-04	1.09E-04	1.32E-04	1.06E-04	4.06E-05	6.09E-05	1.33E-05	3.16E-06	1.76E-06
W_12	546576.3	5407157	Bamoos Lake (north)	2.72E-02	1.05E-02	9.40E-03	7.12E-05	1.53E-05	8.48E-06	4.12E-02	1.57E-02	1.94E-02	1.45E+00	5.59E-01	9.04E-01	2.17E-04	8.33E-05	1.07E-04	2.08E-04	7.98E-05	1.03E-04	3.24E-04	1.24E-04	2.08E-04	2.83E-04	1.09E-04	1.32E-04	1.06E-04	4.05E-05	6.08E-05	1.62E-05	3.42E-06	1.90E-06
W_13	546777.3	5406831	Bamoos Lake (center)	2.72E-02	1.05E-02	9.40E-03	7.52E-05	1.74E-05	9.58E-06	4.13E-02	1.57E-02	1.94E-02	1.45E+00	5.60E-01	9.04E-01	2.17E-04	8.33E-05	1.07E-04	2.08E-04	7.99E-05	1.03E-04	3.24E-04	1.24E-04	2.08E-04	2.83E-04	1.09E-04	1.32E-04	1.06E-04	4.06E-05	6.08E-05	1.71E-05	3.89E-06	2.14E-06
W_14	554944.3	5408229	Page Lake (south)	2.71E-02	1.05E-02	9.39E-03	4.72E-05	1.01E-05	5.40E-06	4.08E-02	1.56E-02	1.93E-02	1.45E+00	5.58E-01	9.03E-01	2.16E-04	8.29E-05	1.07E-04	2.07E-04	7.97E-05	1.03E-04	3.21E-04	1.23E-04	2.08E-04	2.81E-04	1.08E-04	1.32E-04	1.05E-04	4.04E-05	6.08E-05	1.08E-05	2.28E-06	1.21E-06
W_15	555054.3	5408904	Page Lake (center)	2.71E-02	1.05E-02	9.39E-03	2.54E-05	7.70E-06	4.31E-06	4.04E-02	1.55E-02	1.93E-02	1.45E+00	5.58E-01	9.03E-01	2.15E-04	8.28E-05	1.07E-04	2.07E-04	7.96E-05	1.03E-04	3.21E-04	1.23E-04	2.08E-04	2.81E-04	1.08E-04	1.32E-04	1.05E-04	4.04E-05	6.08E-05	5.69E-06	1.73E-06	9.66E-07
W_16	555065.3	5409498	Page Lake (north)	2.71E-02	1.05E-02	9.39E-03	2.37E-05	6.18E-06	3.59E-06	4.03E-02	1.55E-02	1.93E-02	1.45E+00	5.57E-01	9.03E-01	2.15E-04	8.28E-05	1.07E-04	2.07E-04	7.96E-05	1.03E-04	3.20E-04	1.23E-04	2.08E-04	2.81E-04	1.08E-04	1.32E-04	1.05E-04	4.04E-05	6.07E-05	5.37E-06	1.38E-06	8.04E-07
W_17	556593.4	5402127	Peacock Lake (east)	2.71E-02	1.05E-02	9.39E-03	2.57E-05	8.09E-06	4.02E-06	4.04E-02	1.55E-02	1.93E-02	1.45E+00	5.58E-01	9.03E-01	2.17E-04	8.31E-05	1.07E-04	2.07E-04	7.98E-05	1.03E-04	3.24E-04	1.24E-04	2.08E-04	2.83E-04	1.08E-04	1.32E-04	1.06E-04	4.05E-05	6.08E-05	5.75E-06	1.81E-06	8.98E-07
W_18	556043.4	5401267	Peacock Lake (south)	2.71E-02	1.05E-02	9.39E-03	3.48E-05	7.77E-06	3.99E-06	4.05E-02	1.55E-02	1.93E-02	1.45E+00	5.58E-01	9.03E-01	2.18E-04	8.32E-05	1.07E-04	2.08E-04	7.98E-05	1.03E-04	3.25E-04	1.24E-04	2.08E-04	2.83E-04	1.09E-04	1.32E-04	1.06E-04	4.05E-05	6.08E-05	7.95E-06	1.74E-06	8.92E-07
W_19	556277.4	5402069	Peacock Lake (west)	2.71E-02	1.05E-02	9.39E-03	2.49E-05	8.40E-06	4.20E-06	4.04E-02	1.55E-02	1.93E-02	1.45E+00	5.58E-01	9.03E-01	2.17E-04	8.31E-05	1.07E-04	2.07E-04	7.98E-05	1.03E-04	3.24E-04	1.24E-04	2.08E-04	2.83E-04	1.08E-04	1.32E-04	1.06E-04	4.05E-05	6.08E-05	5.57E-06	1.88E-06	9.38E-07
W_2	547105.4	5399507	Shack Lake (center)	2.72E-02	1.05E-02	9.40E-03	5.48E-05	1.69E-05	1.26E-05	4.09E-02	1.57E-02	1.94E-02	1.46E+00	5.60E-01	9.05E-01	2.18E-04	8.39E-05	1.08E-04	2.08E-04	8.02E-05	1.04E-04	3.25E-04	1.24E-04	2.08E-04	2.84E-04	1.09E-04	1.33E-04	1.06E-04	4.07E-05	6.10E-05	1.23E-05	3.77E-06	2.81E-06
W_20	556444.4	5402420	Peacock Lake (north)	2.71E-02	1.05E-02	9.39E-03	3.05E-05	8.75E-06	4.32E-06	4.05E-02	1.56E-02	1.93E-02	1.45E+00	5.58E-01	9.03E-01	2.17E-04	8.31E-05	1.07E-04	2.08E-04	7.98E-05	1.03E-04	3.25E-04	1.24E-04	2.08E-04	2.83E-04	1.09E-04	1.32E-04	1.06E-04	4.05E-05	6.08E-05	6.83E-06	1.96E-06	9.66E-07
W_21	556424.4	5402100	Peacock Lake (center)	2.71E-02	1.05E-02	9.39E-03	2.51E-05	8.24E-06	4.13E-06	4.04E-02	1.55E-02	1.93E-02	1.45E+00	5.58E-01	9.03E-01	2.17E-04	8.31E-05	1.07E-04	2.07E-04	7.98E-05	1.03E-04	3.24E-04	1.24E-04	2.08E-04	2.83E-04	1.08E-04	1.32E-04	1.06E-04	4.05E-05	6.08E-05	5.62E-06	1.84E-06	9.23E-07
W_22	550202.4	5397449	Three Finger Lake (north)	2.72E-02	1.05E-02	9.39E-03	6.12E-05	8.08E-06	5.34E-06	4.10E-02	1.55E-02	1.93E-02	1.46E+00	5.58E-01	9.04E-01	2.18E-04	8.33E-05	1.07E-04	2.08E-04	7.99E-05	1.03E-04	3.25E-04	1.24E-04	2.08E-04	2.83E-04	1.09E-04	1.32E-04	1.06E-04	4.05E-05	6.08E-05	1.39E-05	1.81E-06	1.19E-06
W_23	550175.4	5396992	Three Finger Lake (center)	2.71E-02	1.05E-02	9.39E-03	5.60E-05	7.16E-06	4.71E-06	4.09E-02	1.55E-02	1.93E-02	1.46E+00	5.58E-01	9.03E-01	2.18E-04	8.32E-05	1.07E-04	2.08E-04	7.98E-05	1.03E-04	3.24E-04	1.24E-04	2.08E-04	2.83E-04	1.09E-04	1.32E-04	1.06E-04	4.05E-05	6.08E-05	1.27E-05	1.60E-06	1.05E-06
W_24	549830.4	5396526	Three Finger Lake (south)	2.71E-02	1.05E-02	9.39E-03	3.83E-05	6.84E-06	4.30E-06	4.06E-02	1.55E-02	1.93E-02	1.45E+00	5.58E-01	9.03E-01	2.18E-04	8.31E-05	1.07E-04	2.08E-04	7.98E-05	1.03E-04	3.25E-04	1.24E-04	2.08E-04	2.83E-04	1.08E-04	1.32E-04	1.06E-04	4.04E-05	6.08E-05	8.61E-06	1.53E-06	9.61E-07
W_25	546947.4	5396628	Penn Lake (north)	2.71E-02	1.05E-02	9.39E-03	2.30E-05	6.40E-06	5.01E-06	4.03E-02	1.55E-02	1.93E-02	1.45E+00	5.58E-01	9.04E-01	2.19E-04	8.43E-05	1.08E-04	2.09E-04	8.06E-05	1.04E-04	3.23E-04	1.24E-04	2.08E-04	2.85E-04	1.10E-04	1.33E-04	1.06E-04	4.07E-05	6.10E-05	5.15E-06	1.43E-06	1.12E-06
W_26	547059.4	5396126	Penn Lake (center)	2.71E-02	1.05E-02	9.39E-03	2.13E-05	5.72E-06	4.48E-06	4.03E-02	1.55E-02	1.93E-02	1.45E+00	5.57E-01	9.03E-01	2.18E-04	8.35E-05	1.07E-04	2.08E-04	8.01E-05	1.03E-04	3.22E-04	1.24E-04	2.08E-04	2.84E-04	1.09E-04	1.32E-04	1.05E-04	4.05E-05	6.09E-05	4.77E-06	1.28E-06	1.00E-06
W_27	546991.4	5395773	Penn Lake (south)	2.71E-02	1.05E-02	9.39E-03	2.00E-05	5.27E-06	4.13E-06	4.03E-02	1.55E-02	1.93E-02	1.45E+00	5.57E-01	9.03E-01	2.17E-04	8.34E-05	1.07E-04	2.08E-04	8.00E-05	1.03E-04	3.22E-04	1.24E-04	2.08E-04	2.83E-04	1.09E-04	1.32E-04	1.05E-04	4.05E-05	6.08E-05	4.47E-06	1.18E-06	9.24E-07
W_28	544637	5401700	Angler Creek at Model Property Boun	2.71E-02	1.05E-02	9.40E-03	4.96E-05	1.42E-05	8.46E-06	4.08E-02	1.57E-02	1.94E-02	1.45E+00	5.59E-01	9.04E-01	2.18E-04	8.34E-05	1.07E-04	2.08E-04	7.99E-05	1.03E-04	3.25E-04	1.24E-04	2.08E-04	2.83E-04	1.09E-04	1.32E-04	1.06E-04	4.06E-05	6.08E-05	1.11E-05	3.18E-06	1.89E-06
W_29	551284	5407805	Pic River In-Flow to Model Property B	2.71E-02	1.05E-02	9.40E-03	4.54E-05	1.30E-05	8.36E-06	4.07E-02	1.56E-02	1.94E-02	1.46E+00	5.59E-01	9.04E-01	2.16E-04	8.30E-05	1.07E-04	2.07E-04	7.98E-05	1.03E-04	3.22E-04	1.24E-04	2.08E-04	2.82E-04	1.08E-04	1.32E-04	1.05E-04	4.05E-05	6.08E-05	1.02E-05	2.91E-06	1.87E-06
W_3	546725.4	5399334	Shack Lake (southwest)	2.71E-02	1.05E-02	9.40E-03	5.16E-05	1.55E-05	1.13E-05	4.09E-02	1.57E-02	1.94E-02	1.46E+00	5.60E-01	9.05E-01	2.18E-04	8.38E-05	1.08E-04	2.08E-04	8.02E-05	1.03E-04	3.24E-04	1.24E-04	2.08E-04	2.83E-04	1.09E-04	1.32E-04	1.06E-04	4.07E-05	6.10E-05	1.15E-05	3.47E-06	2.52E-06
W_30	551654	5401167	Pic River Out-Flow from Model Prope	2.71E-02	1.05E-02	9.40E-03	4.09E-05	1.71E-05	1.16E-05	4.07E-02	1.57E-02	1.94E-02	1.45E+00	5.61E-01	9.06E-01	2.18E-04	8.37E-05	1.07E-04	2.08E-04	8.01E-05	1.03E-04	3.25E-04	1.24E-04	2.08E-04	2.84E-04	1.09E-04	1.32E-04	1.06E-04	4.06E-05	6.09E-05	9.15E-06	3.82E-06	2.59E-06
W_4	545636.3	5403829	Hare Lake (east)	2.72E-02	1.05E-02	9.40E-03	6.37E-05	1.75E-05	1.04E-05	4.11E-02	1.57E-02	1.94E-02	1.46E+00	5.60E-01	9.05E-01	2.19E-04	8.35E-05	1.07E-04	2.08E-04	8.00E-05	1.03E-04	3.27E-04	1.24E-04	2.08E-04	2.84E-04	1.09E-04	1.32E-04	1.06E-04	4.06E-05	6.09E-05	1.44E-05	3.91E-06	2.33E-06
W_5	545048.3	5403557	Hare Lake (south)	2.72E-02	1.05E-02	9.40E-03	6.13E-05	1.56E-05	8.93E-06	4.10E-02	1.57E-02	1.94E-02	1.45E+00	5.60E-01	9.04E-01	2.18E-04	8.32E-05	1.07E-04	2.08E-04	7.98E-05	1.03E-04	3.26E-04	1.24E-04	2.08E-04	2.84E-04	1.09E-04	1.32E-04	1.06E-04	4.05E-05	6.09E-05	1.39E-05	3.48E-06	2.00E-06
W_6	543955.3	5403079	Hare Lake (west)	2.71E-02	1.05E-02	9.40E-03	5.26E-05	1.12E-05	6.26E-06	4.09E-02	1.56E-02	1.93E-02	1.45E+00	5.59E-01	9.04E-01	2.18E-04	8.32E-05	1.07E-04	2.08E-04	7.98E-05	1.03E-04	3.25E-04	1.24E-04	2.08E-04	2.83E-04	1.09E-04	1.32E-04	1.06E-04	4.05E-05	6.08E-05	1.20E-05	2.51E-06	1.40E-06
W_7	544603.3	5403943	Hare Lake (north)	2.71E-02	1.05E-02	9.40E-03	4.05E-05	1.27E-05	7.34E-06	4.06E-02	1.56E-02	1.93E-02	1.45E+00	5.59E-01	9.04E-01	2.18E-04	8.32E-05	1.07E-04	2.08E-04	7.98E-05	1.03E-04	3.25E-04	1.24E-04	2.08E-04	2.83E-04	1.09E-04	1.32E-04	1.06E-04	4.05E-05	6.08E-05	9.08E-06	2.85E-06	1.64E-06
W_8	544830.3	5403751	Hare Lake (center)	2.71E-02	1.05E-02	9.40E-03	4.66E-05	1.40E-05	8.06E-06	4.08E-02	1.57E-02	1.93E-02	1.45E+00	5.59E-01	9.04E-01	2.18E-04	8.32E-05	1.07E-04	2.08E-04	7.98E-05	1.03E-04	3.25E-04	1.24E-04	2.08E-04	2.83E-04	1.09E-04	1.32E-04	1.06E-04	4.05E-05	6.09E-05	1.05E-05	3.14E-06	1.80E-06
W_9	549326.3	5406972	Bamoos Lake (east)	2.72E-02	1.05E-02	9.40E-03	1.36E-04	2.35E-05	1.56E-05	4.24E-02	1.58E-02	1.95E-02	1.47E+00	5.63E-01	9.06E-01	2.17E-04	8.32E-05	1.07E-04	2.08E-04	7.99E-05	1.03E-04	3.23E-04	1.24E-04	2.08E-04	2.83E-04	1.09E-04	1.32E-04	1.06E-04	4.05E-05	6.08E-05	3.11E-05	5.28E-06	3.49E-06
Maximum of Special Receptors				**2.73E-02**	**1.05E-02**	**9.43E-03**	**1.67E-04**	**5.87E-05**	**4.47E-05**	**4.30E-02**	**1.65E-02**	**2.00E-02**	**1.51E+00**	**5.86E-01**	**9.25E-01**	**2.97E-04**	**1.20E-04**	**1.33E-04**	**2.58E-04**	**1.03E-04**	**1.20E-04**	**3.43E-04**	**1.33E-04**	**2.15E-04**	**3.74E-04**	**1.51E-04**	**1.61E-04**	**1.23E-04**	**4.86E-05**	**6.65E-05**	**3.74E-05**	**1.31E-05**	**9.99E-06**
Max % of Criteria				**0.1%**	-	-	**0.1%**	-	-	**0.4%**	-	-	**65.5%**	-	**205.6%**	-	-	-	**516.6%**	-	**1195.8%**	-	-	-	-	-	-	-	-	-	**0.4%**	-	-

Notes:

1 Model predictions for particulates including all emissions sou

2 Model predictions for particulates excluding roads and stock

Table E-3 Special Receptor Predictions (ug/m3) - Construc

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	BISMUTH (BI)			BORON (B)			BROMINE (BR)			CADMIUM (CD)			CALCIUM (CA)			CAO			CH4			CHROMIUM (CR)			CHRYSENE		
				24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual
				2.5	-	-	120	-	-	20	-	-	0.025	-	0.005	-	-	-	10	-	-	37330	-	-	0.5	-	-	-	-	-
													1.20E-02	4.63E-03	3.62E-03	1.74E+00	6.71E-01	7.62E-01							1.46E-03	5.63E-04	6.76E-04	2.65E-04	1.02E-04	1.57E-04
W_10	546975.3	5406486	Bamoos Lake (south)	6.66E-05	1.70E-05	9.65E-06	3.23E-04	8.26E-05	4.68E-05	0.00E+00	0.00E+00	0.00E+00	1.20E-02	4.64E-03	3.62E-03	2.14E+00	7.72E-01	8.19E-01	0.00E+00	0.00E+00	0.00E+00	6.66E-02	2.04E-02	1.25E-02	4.33E-03	1.29E-03	1.09E-03	2.74E-04	1.04E-04	1.58E-04
W_11	545484.3	5405866	Bamoos Lake (west)	4.69E-05	1.19E-05	6.66E-06	2.28E-04	5.75E-05	3.23E-05	0.00E+00	0.00E+00	0.00E+00	1.20E-02	4.63E-03	3.62E-03	2.03E+00	7.42E-01	8.01E-01	0.00E+00	0.00E+00	0.00E+00	6.21E-02	1.60E-02	9.61E-03	3.50E-03	1.07E-03	9.60E-04	2.75E-04	1.05E-04	1.58E-04
W_12	546576.3	5407157	Bamoos Lake (north)	5.74E-05	1.29E-05	7.15E-06	2.79E-04	6.25E-05	3.47E-05	0.00E+00	0.00E+00	0.00E+00	1.20E-02	4.63E-03	3.62E-03	2.09E+00	7.47E-01	8.04E-01	0.00E+00	0.00E+00	0.00E+00	7.28E-02	1.90E-02	1.08E-02	3.95E-03	1.11E-03	9.82E-04	2.73E-04	1.04E-04	1.58E-04
W_13	546777.3	5406831	Bamoos Lake (center)	6.08E-05	1.46E-05	8.08E-06	2.95E-04	7.10E-05	3.92E-05	0.00E+00	0.00E+00	0.00E+00	1.20E-02	4.63E-03	3.62E-03	2.11E+00	7.58E-01	8.10E-01	0.00E+00	0.00E+00	0.00E+00	7.50E-02	2.12E-02	1.20E-02	4.10E-03	1.19E-03	1.02E-03	2.73E-04	1.04E-04	1.58E-04
W_14	554944.3	5408229	Page Lake (south)	3.69E-05	8.53E-06	4.55E-06	1.79E-04	4.14E-05	2.21E-05	0.00E+00	0.00E+00	0.00E+00	1.20E-02	4.63E-03	3.62E-03	1.97E+00	7.22E-01	7.89E-01	0.00E+00	0.00E+00	0.00E+00	5.60E-02	1.39E-02	6.68E-03	3.08E-03	9.28E-04	8.71E-04	2.68E-04	1.03E-04	1.57E-04
W_15	555054.3	5408904	Page Lake (center)	2.12E-05	6.47E-06	3.63E-06	1.03E-04	3.14E-05	1.76E-05	0.00E+00	0.00E+00	0.00E+00	1.20E-02	4.63E-03	3.62E-03	1.87E+00	7.10E-01	7.83E-01	0.00E+00	0.00E+00	0.00E+00	4.34E-02	1.07E-02	5.30E-03	2.37E-03	8.40E-04	8.31E-04	2.68E-04	1.03E-04	1.57E-04
W_16	555065.3	5409498	Page Lake (north)	1.91E-05	5.21E-06	3.02E-06	9.30E-05	2.52E-05	1.47E-05	0.00E+00	0.00E+00	0.00E+00	1.20E-02	4.63E-03	3.62E-03	1.86E+00	7.02E-01	7.80E-01	0.00E+00	0.00E+00	0.00E+00	2.63E-02	7.89E-03	4.25E-03	2.29E-03	7.86E-04	8.05E-04	2.68E-04	1.03E-04	1.57E-04
W_17	556593.4	5402127	Peacock Lake (east)	2.18E-05	6.84E-06	3.40E-06	1.06E-04	3.32E-05	1.65E-05	0.00E+00	0.00E+00	0.00E+00	1.20E-02	4.63E-03	3.62E-03	1.87E+00	7.12E-01	7.82E-01	0.00E+00	0.00E+00	0.00E+00	2.99E-02	1.16E-02	5.41E-03	2.39E-03	8.55E-04	8.21E-04	2.73E-04	1.03E-04	1.57E-04
W_18	556043.4	5401267	Peacock Lake (south)	2.76E-05	6.58E-06	3.37E-06	1.34E-04	3.19E-05	1.63E-05	0.00E+00	0.00E+00	0.00E+00	1.20E-02	4.63E-03	3.62E-03	1.91E+00	7.10E-01	7.82E-01	0.00E+00	0.00E+00	0.00E+00	3.81E-02	1.09E-02	5.54E-03	2.67E-03	8.44E-04	8.20E-04	2.73E-04	1.04E-04	1.57E-04
W_19	556277.4	5402069	Peacock Lake (west)	2.11E-05	7.11E-06	3.55E-06	1.02E-04	3.45E-05	1.72E-05	0.00E+00	0.00E+00	0.00E+00	1.20E-02	4.63E-03	3.62E-03	1.86E+00	7.13E-01	7.83E-01	0.00E+00	0.00E+00	0.00E+00	3.36E-02	1.19E-02	5.71E-03	2.36E-03	8.66E-04	8.27E-04	2.73E-04	1.03E-04	1.57E-04
W_2	547105.4	5399507	Shack Lake (center)	4.64E-05	1.43E-05	1.06E-05	2.25E-04	6.91E-05	5.16E-05	0.00E+00	0.00E+00	0.00E+00	1.20E-02	4.63E-03	3.62E-03	2.01E+00	7.55E-01	8.25E-01	0.00E+00	0.00E+00	0.00E+00	7.60E-02	2.24E-02	1.68E-02	3.44E-03	1.17E-03	1.13E-03	2.74E-04	1.04E-04	1.58E-04
W_20	556444.4	5402420	Peacock Lake (north)	2.58E-05	7.40E-06	3.65E-06	1.25E-04	3.59E-05	1.77E-05	0.00E+00	0.00E+00	0.00E+00	1.20E-02	4.63E-03	3.62E-03	1.89E+00	7.15E-01	7.84E-01	0.00E+00	0.00E+00	0.00E+00	3.48E-02	1.24E-02	5.73E-03	2.56E-03	8.79E-04	8.32E-04	2.73E-04	1.03E-04	1.57E-04
W_21	556424.4	5402100	Peacock Lake (center)	2.13E-05	6.97E-06	3.49E-06	1.03E-04	3.38E-05	1.69E-05	0.00E+00	0.00E+00	0.00E+00	1.20E-02	4.63E-03	3.62E-03	1.87E+00	7.12E-01	7.83E-01	0.00E+00	0.00E+00	0.00E+00	3.09E-02	1.17E-02	5.58E-03	2.37E-03	8.61E-04	8.25E-04	2.73E-04	1.03E-04	1.57E-04
W_22	550202.4	5397449	Three Finger Lake (north)	4.97E-05	6.84E-06	4.52E-06	2.42E-04	3.32E-05	2.19E-05	0.00E+00	0.00E+00	0.00E+00	1.20E-02	4.63E-03	3.62E-03	2.04E+00	7.12E-01	7.89E-01	0.00E+00	0.00E+00	0.00E+00	7.59E-02	1.24E-02	7.96E-03	3.61E-03	8.55E-04	8.69E-04	2.74E-04	1.03E-04	1.58E-04
W_23	550175.4	5396992	Three Finger Lake (center)	4.54E-05	6.06E-06	3.99E-06	2.21E-04	2.94E-05	1.93E-05	0.00E+00	0.00E+00	0.00E+00	1.20E-02	4.63E-03	3.62E-03	2.01E+00	7.07E-01	7.85E-01	0.00E+00	0.00E+00	0.00E+00	6.76E-02	1.09E-02	6.85E-03	3.43E-03	8.22E-04	8.46E-04	2.74E-04	1.03E-04	1.58E-04
W_24	549830.4	5396526	Three Finger Lake (south)	3.18E-05	5.78E-06	3.64E-06	1.54E-04	2.80E-05	1.76E-05	0.00E+00	0.00E+00	0.00E+00	1.20E-02	4.63E-03	3.62E-03	1.93E+00	7.05E-01	7.83E-01	0.00E+00	0.00E+00	0.00E+00	5.27E-02	1.02E-02	6.22E-03	2.83E-03	8.10E-04	8.31E-04	2.74E-04	1.03E-04	1.57E-04
W_25	546947.4	5396628	Penn Lake (north)	1.95E-05	5.42E-06	4.24E-06	9.40E-05	2.63E-05	2.06E-05	0.00E+00	0.00E+00	0.00E+00	1.20E-02	4.63E-03	3.62E-03	1.85E+00	7.03E-01	7.87E-01	0.00E+00	0.00E+00	0.00E+00	3.56E-02	8.82E-03	6.90E-03	2.29E-03	7.94E-04	8.57E-04	2.72E-04	1.04E-04	1.58E-04
W_26	547059.4	5396126	Penn Lake (center)	1.80E-05	4.85E-06	3.79E-06	8.70E-05	2.35E-05	1.84E-05	0.00E+00	0.00E+00	0.00E+00	1.20E-02	4.63E-03	3.62E-03	1.85E+00	7.00E-01	7.84E-01	0.00E+00	0.00E+00	0.00E+00	3.54E-02	7.84E-03	6.14E-03	2.23E-03	7.70E-04	8.38E-04	2.70E-04	1.03E-04	1.58E-04
W_27	546991.4	5395773	Penn Lake (south)	1.68E-05	4.46E-06	3.50E-06	8.20E-05	2.16E-05	1.70E-05	0.00E+00	0.00E+00	0.00E+00	1.20E-02	4.63E-03	3.62E-03	1.84E+00	6.98E-01	7.83E-01	0.00E+00	0.00E+00	0.00E+00	3.33E-02	7.24E-03	5.63E-03	2.18E-03	7.53E-04	8.25E-04	2.70E-04	1.03E-04	1.58E-04
W_28	544637	5401700	Angler Creek at Model Property Boun	4.20E-05	1.21E-05	7.16E-06	2.04E-04	5.85E-05	3.47E-05	0.00E+00	0.00E+00	0.00E+00	1.20E-02	4.63E-03	3.62E-03	1.99E+00	7.42E-01	8.04E-01	0.00E+00	0.00E+00	0.00E+00	6.46E-02	1.74E-02	1.02E-02	3.25E-03	1.08E-03	9.82E-04	2.74E-04	1.04E-04	1.58E-04
W_29	551284	5407805	Pic River In-Flow to Model Property B	3.76E-05	1.09E-05	7.04E-06	1.82E-04	5.29E-05	3.41E-05	0.00E+00	0.00E+00	0.00E+00	1.20E-02	4.63E-03	3.62E-03	1.96E+00	7.36E-01	8.04E-01	0.00E+00	0.00E+00	0.00E+00	7.75E-02	1.78E-02	1.04E-02	3.08E-03	1.03E-03	9.77E-04	2.71E-04	1.03E-04	1.58E-04
W_3	546725.4	5399334	Shack Lake (southwest)	4.36E-05	1.31E-05	9.55E-06	2.12E-04	6.36E-05	4.63E-05	0.00E+00	0.00E+00	0.00E+00	1.20E-02	4.63E-03	3.62E-03	2.00E+00	7.49E-01	8.18E-01	0.00E+00	0.00E+00	0.00E+00	7.12E-02	2.02E-02	1.48E-02	3.32E-03	1.12E-03	1.08E-03	2.73E-04	1.04E-04	1.58E-04
W_30	551654	5401167	Pic River Out-Flow from Model Prope	3.46E-05	1.45E-05	9.79E-06	1.68E-04	7.01E-05	4.75E-05	0.00E+00	0.00E+00	0.00E+00	1.20E-02	4.63E-03	3.62E-03	1.94E+00	7.57E-01	8.20E-01	0.00E+00	0.00E+00	0.00E+00	5.82E-02	2.76E-02	1.79E-02	2.94E-03	1.18E-03	1.09E-03	2.75E-04	1.04E-04	1.58E-04
W_4	545636.3	5403829	Hare Lake (east)	5.18E-05	1.48E-05	8.83E-06	2.52E-04	7.16E-05	4.28E-05	0.00E+00	0.00E+00	0.00E+00	1.20E-02	4.63E-03	3.62E-03	2.05E+00	7.58E-01	8.14E-01	0.00E+00	0.00E+00	0.00E+00	7.49E-02	2.20E-02	1.24E-02	3.70E-03	1.19E-03	1.05E-03	2.76E-04	1.04E-04	1.58E-04
W_5	545048.3	5403557	Hare Lake (south)	4.97E-05	1.31E-05	7.56E-06	2.42E-04	6.37E-05	3.66E-05	0.00E+00	0.00E+00	0.00E+00	1.20E-02	4.63E-03	3.62E-03	2.04E+00	7.49E-01	8.07E-01	0.00E+00	0.00E+00	0.00E+00	6.69E-02	1.93E-02	1.06E-02	3.62E-03	1.12E-03	9.99E-04	2.75E-04	1.04E-04	1.58E-04
W_6	543955.3	5403079	Hare Lake (west)	4.24E-05	9.49E-06	5.29E-06	2.06E-04	4.60E-05	2.57E-05	0.00E+00	0.00E+00	0.00E+00	1.20E-02	4.63E-03	3.62E-03	2.00E+00	7.27E-01	7.93E-01	0.00E+00	0.00E+00	0.00E+00	5.57E-02	1.42E-02	7.52E-03	3.30E-03	9.68E-04	9.02E-04	2.74E-04	1.04E-04	1.58E-04
W_7	544603.3	5403943	Hare Lake (north)	3.42E-05	1.08E-05	6.21E-06	1.66E-04	5.22E-05	3.01E-05	0.00E+00	0.00E+00	0.00E+00	1.20E-02	4.63E-03	3.62E-03	1.94E+00	7.35E-01	7.99E-01	0.00E+00	0.00E+00	0.00E+00	5.62E-02	1.62E-02	8.82E-03	2.92E-03	1.02E-03	9.41E-04	2.74E-04	1.04E-04	1.58E-04
W_8	544830.3	5403751	Hare Lake (center)	3.81E-05	1.19E-05	6.82E-06	1.85E-04	5.75E-05	3.30E-05	0.00E+00	0.00E+00	0.00E+00	1.20E-02	4.63E-03	3.62E-03	1.97E+00	7.41E-01	8.02E-01	0.00E+00	0.00E+00	0.00E+00	6.21E-02	1.77E-02	9.62E-03	3.11E-03	1.07E-03	9.67E-04	2.73E-04	1.04E-04	1.58E-04
W_9	549326.3	5406972	Bamoos Lake (east)	1.07E-04	1.97E-05	1.31E-05	5.20E-04	9.57E-05	6.36E-05	0.00E+00	0.00E+00	0.00E+00	1.20E-02	4.64E-03	3.62E-03	2.40E+00	7.88E-01	8.39E-01	0.00E+00	0.00E+00	0.00E+00	1.67E-01	4.05E-02	2.24E-02	6.14E-03	1.41E-03	1.24E-03	2.72E-04	1.04E-04	1.58E-04
Maximum of Special Receptors				**1.42E-04**	**4.98E-05**	**3.79E-05**	**6.87E-04**	**2.42E-04**	**1.84E-04**	**0.00E+00**	**0.00E+00**	**0.00E+00**	**1.20E-02**	**4.64E-03**	**3.63E-03**	**2.57E+00**	**9.65E-01**	**9.85E-01**	**0.00E+00**	**0.00E+00**	**0.00E+00**	**3.70E-01**	**1.66E-01**	**1.29E-01**	**7.51E-03**	**2.69E-03**	**2.29E-03**	**3.18E-04**	**1.26E-04**	**1.73E-04**
Max % of Criteria				**0.0%**	-	-	**0.0%**	-	-	**0.0%**	-	-	**48.2%**	-	**72.6%**	-	-	-	**0.0%**	-	-	**0.0%**	-	-	**1.5%**	-	-	-	-	-

Notes:

1 Model predictions for particulates including all emissions sou

2 Model predictions for particulates excluding roads and stock

Table E-3 Special Receptor Predictions (ug/m3) - Construc

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	CO						COBALT (CO)			COPPER (CU)			DIBENZ(A,H)PERYLENE			FLUORANTHENE			FLUORENE			FORMALDEHYDE			GALLIUM (GA)			GOLD (AU)		
				0.5	1	8	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual
				-	36200	15700	-	-	-	0.1	-	-	50	-	-	-	-	-	-	-	-	-	-	-	-	65	-	-	-	-	-	1.25	-	-
				1.17E+03	9.65E+02	9.65E+02	9.65E+02	3.72E+02	5.91E+02										1.91E-03	7.37E-04	1.06E-03	2.91E-03	1.12E-03	1.62E-03	5.40E+00	2.08E+00	1.90E+00						
W_10	546975.3	5406486	Bamoos Lake (south)	2.10E+03	1.73E+03	1.06E+03	1.07E+03	3.78E+02	5.94E+02	9.89E-04	2.51E-04	1.42E-04	8.89E-03	1.96E-03	1.11E-03	1.85E-06	3.73E-07	1.85E-07	1.97E-03	7.54E-04	1.07E-03	3.13E-03	1.19E-03	1.66E-03	5.60E+00	2.14E+00	1.94E+00	3.23E-04	8.24E-05	4.67E-05	3.67E-07	8.47E-08	4.80E-08
W_11	545484.3	5405866	Bamoos Lake (west)	2.07E+03	1.71E+03	1.06E+03	1.08E+03	3.80E+02	5.93E+02	7.01E-04	1.75E-04	9.82E-05	6.91E-03	1.41E-03	7.65E-04	2.02E-06	4.71E-07	2.32E-07	1.97E-03	7.54E-04	1.07E-03	3.14E-03	1.18E-03	1.66E-03	5.58E+00	2.13E+00	1.93E+00	2.28E-04	5.74E-05	3.22E-05	2.77E-07	6.02E-08	3.31E-08
W_12	546576.3	5407157	Bamoos Lake (north)	1.75E+03	1.45E+03	1.03E+03	1.09E+03	3.79E+02	5.93E+02	8.57E-04	1.90E-04	1.06E-04	8.23E-03	1.50E-03	8.31E-04	1.61E-06	3.25E-07	1.53E-07	1.97E-03	7.53E-04	1.07E-03	3.13E-03	1.18E-03	1.66E-03	5.62E+00	2.14E+00	1.93E+00	2.79E-04	6.24E-05	3.46E-05	3.33E-07	6.46E-08	3.58E-08
W_13	546777.3	5406831	Bamoos Lake (center)	1.62E+03	1.33E+03	1.01E+03	1.09E+03	3.80E+02	5.94E+02	9.07E-04	2.16E-04	1.19E-04	8.61E-03	1.70E-03	9.37E-04	1.71E-06	3.54E-07	1.70E-07	1.97E-03	7.55E-04	1.07E-03	3.14E-03	1.19E-03	1.66E-03	5.62E+00	2.15E+00	1.94E+00	2.95E-04	7.08E-05	3.91E-05	3.49E-07	7.33E-08	4.04E-08
W_14	554944.3	5408229	Page Lake (south)	2.13E+03	1.75E+03	1.07E+03	1.10E+03	3.78E+02	5.93E+02	5.55E-04	1.26E-04	6.71E-05	6.00E-03	1.01E-03	5.33E-04	6.58E-07	1.22E-07	6.30E-08	1.96E-03	7.48E-04	1.07E-03	3.08E-03	1.17E-03	1.64E-03	5.57E+00	2.12E+00	1.92E+00	1.79E-04	4.13E-05	2.20E-05	2.34E-07	4.32E-08	2.29E-08
W_15	555054.3	5408904	Page Lake (center)	2.47E+03	2.03E+03	1.10E+03	1.03E+03	3.76E+02	5.92E+02	3.14E-04	9.60E-05	5.36E-05	3.06E-03	7.67E-04	4.25E-04	5.90E-07	8.98E-08	5.30E-08	1.94E-03	7.46E-04	1.07E-03	3.04E-03	1.16E-03	1.64E-03	5.53E+00	2.11E+00	1.92E+00	1.03E-04	3.13E-05	1.76E-05	1.20E-07	3.28E-08	1.83E-08
W_16	555065.3	5409498	Page Lake (north)	2.30E+03	1.89E+03	1.09E+03	1.01E+03	3.75E+02	5.92E+02	2.85E-04	7.70E-05	4.46E-05	2.71E-03	6.07E-04	3.53E-04	5.42E-07	7.99E-08	4.74E-08	1.93E-03	7.43E-04	1.07E-03	3.00E-03	1.15E-03	1.63E-03	5.48E+00	2.11E+00	1.91E+00	9.30E-05	2.52E-05	1.46E-05	1.10E-07	2.61E-08	1.52E-08
W_17	556593.4	5402127	Peacock Lake (east)	1.36E+03	1.12E+03	9.85E+02	9.75E+02	3.75E+02	5.92E+02	3.21E-04	1.01E-04	5.01E-05	2.48E-03	7.82E-04	3.88E-04	1.74E-06	2.00E-07	9.29E-08	1.95E-03	7.48E-04	1.07E-03	3.05E-03	1.16E-03	1.64E-03	5.49E+00	2.12E+00	1.92E+00	1.05E-04	3.31E-05	1.64E-05	1.07E-07	3.39E-08	1.68E-08
W_18	556043.4	5401267	Peacock Lake (south)	1.89E+03	1.56E+03	1.04E+03	1.05E+03	3.76E+02	5.92E+02	4.14E-04	9.70E-05	4.97E-05	4.23E-03	7.48E-04	3.86E-04	1.82E-06	2.67E-07	9.35E-08	1.95E-03	7.48E-04	1.07E-03	3.06E-03	1.16E-03	1.64E-03	5.51E+00	2.12E+00	1.92E+00	1.34E-04	3.18E-05	1.63E-05	1.68E-07	3.25E-08	1.67E-08
W_19	556277.4	5402069	Peacock Lake (west)	1.41E+03	1.17E+03	9.91E+02	9.85E+02	3.75E+02	5.92E+02	3.11E-04	1.05E-04	5.23E-05	2.40E-03	8.12E-04	4.05E-04	1.72E-06	2.05E-07	9.70E-08	1.95E-03	7.48E-04	1.07E-03	3.05E-03	1.16E-03	1.64E-03	5.50E+00	2.12E+00	1.92E+00	1.02E-04	3.44E-05	1.72E-05	1.04E-07	3.52E-08	1.76E-08
W_2	547105.4	5399507	Shack Lake (center)	1.42E+03	1.17E+03	9.96E+02	9.82E+02	3.77E+02	5.95E+02	6.84E-04	2.10E-04	1.57E-04	5.26E-03	1.63E-03	1.21E-03	1.78E-06	3.88E-07	2.08E-07	1.99E-03	7.59E-04	1.08E-03	3.18E-03	1.20E-03	1.68E-03	5.62E+00	2.15E+00	1.95E+00	2.25E-04	6.90E-05	5.15E-05	2.29E-07	7.05E-08	5.24E-08
W_20	556444.4	5402420	Peacock Lake (north)	1.44E+03	1.18E+03	9.93E+02	9.80E+02	3.75E+02	5.92E+02	3.81E-04	1.09E-04	5.39E-05	2.95E-03	8.47E-04	4.18E-04	1.81E-06	2.27E-07	9.90E-08	1.95E-03	7.49E-04	1.07E-03	3.04E-03	1.17E-03	1.64E-03	5.50E+00	2.12E+00	1.92E+00	1.25E-04	3.58E-05	1.77E-05	1.28E-07	3.67E-08	1.81E-08
W_21	556424.4	5402100	Peacock Lake (center)	1.38E+03	1.14E+03	9.88E+02	9.78E+02	3.75E+02	5.92E+02	3.14E-04	1.03E-04	5.14E-05	2.42E-03	7.97E-04	3.99E-04	1.75E-06	2.04E-07	9.53E-08	1.95E-03	7.48E-04	1.07E-03	3.05E-03	1.16E-03	1.64E-03	5.49E+00	2.12E+00	1.92E+00	1.03E-04	3.37E-05	1.69E-05	1.05E-07	3.45E-08	1.73E-08
W_22	550202.4	5397449	Three Finger Lake (north)	1.42E+03	1.17E+03	9.94E+02	1.07E+03	3.77E+02	5.93E+02	7.41E-04	1.01E-04	6.66E-05	6.88E-03	7.79E-04	5.14E-04	1.76E-06	2.02E-07	1.12E-07	1.99E-03	7.49E-04	1.07E-03	3.19E-03	1.16E-03	1.65E-03	5.62E+00	2.12E+00	1.92E+00	2.41E-04	3.31E-05	2.19E-05	2.81E-07	3.38E-08	2.23E-08
W_23	550175.4	5396992	Three Finger Lake (center)	1.42E+03	1.17E+03	9.91E+02	1.06E+03	3.76E+02	5.92E+02	6.77E-04	8.90E-05	5.87E-05	6.31E-03	6.94E-04	4.54E-04	1.74E-06	1.84E-07	1.00E-07	1.98E-03	7.47E-04	1.07E-03	3.16E-03	1.16E-03	1.64E-03	5.60E+00	2.12E+00	1.92E+00	2.20E-04	2.93E-05	1.93E-05	2.57E-07	3.00E-08	1.97E-08
W_24	549830.4	5396526	Three Finger Lake (south)	1.57E+03	1.29E+03	1.01E+03	1.00E+03	3.75E+02	5.92E+02	4.71E-04	8.50E-05	5.36E-05	3.98E-03	6.63E-04	4.14E-04	1.80E-06	1.71E-07	8.54E-08	1.97E-03	7.47E-04	1.07E-03	3.12E-03	1.16E-03	1.64E-03	5.55E+00	2.11E+00	1.92E+00	1.54E-04	2.80E-05	1.76E-05	1.67E-07	2.87E-08	1.79E-08
W_25	546947.4	5396628	Penn Lake (north)	1.38E+03	1.14E+03	9.88E+02	9.79E+02	3.74E+02	5.93E+02	2.87E-04	8.00E-05	6.25E-05	2.24E-03	6.15E-04	4.82E-04	1.17E-06	1.46E-07	8.62E-08	1.95E-03	7.48E-04	1.07E-03	3.05E-03	1.15E-03	1.65E-03	5.51E+00	2.11E+00	1.92E+00	9.40E-05	2.62E-05	2.05E-05	9.67E-08	2.67E-08	2.09E-08
W_26	547059.4	5396126	Penn Lake (center)	1.51E+03	1.25E+03	1.00E+03	9.84E+02	3.74E+02	5.92E+02	2.65E-04	7.10E-05	5.58E-05	2.09E-03	5.50E-04	4.31E-04	9.48E-07	1.41E-07	7.85E-08	1.95E-03	7.46E-04	1.07E-03	3.04E-03	1.15E-03	1.64E-03	5.50E+00	2.11E+00	1.92E+00	8.70E-05	2.35E-05	1.83E-05	8.98E-08	2.39E-08	1.87E-08
W_27	546991.4	5395773	Penn Lake (south)	1.56E+03	1.29E+03	1.01E+03	9.83E+02	3.74E+02	5.92E+02	2.48E-04	6.60E-05	5.15E-05	1.95E-03	5.07E-04	3.98E-04	8.90E-07	1.32E-07	7.34E-08	1.94E-03	7.45E-04	1.07E-03	3.03E-03	1.15E-03	1.64E-03	5.50E+00	2.10E+00	1.92E+00	8.10E-05	2.16E-05	1.69E-05	8.42E-08	2.20E-08	1.73E-08
W_28	544637	5401700	Angler Creek at Model Property Boun	1.85E+03	1.52E+03	1.04E+03	1.03E+03	3.76E+02	5.93E+02	6.19E-04	1.78E-04	1.05E-04	4.84E-03	1.37E-03	8.17E-04	1.84E-06	3.44E-07	1.31E-07	1.98E-03	7.54E-04	1.07E-03	3.14E-03	1.18E-03	1.65E-03	5.59E+00	2.13E+00	1.93E+00	2.03E-04	5.84E-05	3.46E-05	2.09E-07	5.95E-08	3.54E-08
W_29	551284	5407805	Pic River In-Flow to Model Property B	1.98E+03	1.63E+03	1.05E+03	1.01E+03	3.77E+02	5.94E+02	5.57E-04	1.61E-04	1.04E-04	4.79E-03	1.29E-03	8.24E-04	1.08E-06	1.80E-07	9.22E-08	1.98E-03	7.52E-04	1.07E-03	3.16E-03	1.18E-03	1.65E-03	5.63E+00	2.14E+00	1.93E+00	1.82E-04	5.28E-05	3.41E-05	2.00E-07	5.53E-08	3.54E-08
W_3	546725.4	5399334	Shack Lake (southwest)	1.50E+03	1.24E+03	1.00E+03	9.85E+02	3.77E+02	5.94E+02	6.43E-04	1.93E-04	1.41E-04	4.97E-03	1.50E-03	1.09E-03	1.58E-06	3.71E-07	1.91E-07	1.98E-03	7.57E-04	1.08E-03	3.16E-03	1.19E-03	1.67E-03	5.61E+00	2.14E+00	1.94E+00	2.11E-04	6.35E-05	4.62E-05	2.16E-07	6.50E-08	4.71E-08
W_30	551654	5401167	Pic River Out-Flow from Model Prope	1.98E+03	1.63E+03	1.06E+03	1.00E+03	3.78E+02	5.95E+02	5.10E-04	2.13E-04	1.44E-04	3.96E-03	1.64E-03	1.12E-03	2.10E-06	4.11E-07	2.03E-07	1.97E-03	7.62E-04	1.08E-03	3.13E-03	1.21E-03	1.68E-03	5.57E+00	2.16E+00	1.95E+00	1.67E-04	7.00E-05	4.74E-05	1.71E-07	7.13E-08	4.83E-08
W_4	545636.3	5403829	Hare Lake (east)	1.79E+03	1.48E+03	1.03E+03	1.07E+03	3.79E+02	5.94E+02	7.72E-04	2.18E-04	1.30E-04	7.13E-03	1.70E-03	1.01E-03	2.43E-06	4.08E-07	2.42E-07	1.98E-03	7.57E-04	1.07E-03	3.16E-03	1.20E-03	1.66E-03	5.62E+00	2.15E+00	1.94E+00	2.51E-04	7.15E-05	4.27E-05	2.92E-07	7.34E-08	4.36E-08
W_5	545048.3	5403557	Hare Lake (south)	1.77E+03	1.46E+03	1.03E+03	1.07E+03	3.79E+02	5.93E+02	7.41E-04	1.94E-04	1.11E-04	6.93E-03	1.51E-03	8.62E-04	2.22E-06	2.98E-07	1.87E-07	1.97E-03	7.54E-04	1.07E-03	3.13E-03	1.19E-03	1.66E-03	5.60E+00	2.14E+00	1.93E+00	2.41E-04	6.36E-05	3.66E-05	2.82E-07	6.52E-08	3.74E-08
W_6	543955.3	5403079	Hare Lake (west)	1.71E+03	1.41E+03	1.02E+03	1.06E+03	3.78E+02	5.93E+02	6.33E-04	1.40E-04	7.80E-05	6.10E-03	1.09E-03	6.04E-04	1.86E-06	2.39E-07	1.30E-07	1.96E-03	7.50E-04	1.07E-03	3.11E-03	1.17E-03	1.65E-03	5.56E+00	2.13E+00	1.92E+00	2.05E-04	4.59E-05	2.56E-05	2.46E-07	4.71E-08	2.62E-08
W_7	544603.3	5403943	Hare Lake (north)	1.59E+03	1.31E+03	1.01E+03	9.89E+02	3.76E+02	5.93E+02	5.04E-04	1.59E-04	9.15E-05	3.97E-03	1.24E-03	7.08E-04	1.89E-06	2.78E-07	1.72E-07	1.96E-03	7.52E-04	1.07E-03	3.10E-03	1.18E-03	1.65E-03	5.56E+00	2.13E+00	1.93E+00	1.65E-04	5.21E-05	3.00E-05	1.71E-07	5.35E-08	3.07E-08
W_8	544830.3	5403751	Hare Lake (center)	1.73E+03	1.42E+03	1.02E+03	1.03E+03	3.77E+02	5.93E+02	5.67E-04	1.75E-04	1.00E-04	5.10E-03	1.36E-03	7.77E-04	1.81E-06	2.75E-07	1.79E-07	1.96E-03	7.53E-04	1.07E-03	3.11E-03	1.18E-03	1.65E-03	5.58E+00	2.14E+00	1.93E+00	1.85E-04	5.74E-05	3.30E-05	2.10E-07	5.89E-08	3.37E-08
W_9	549326.3	5406972	Bamoos Lake (east)	3.15E+03	2.60E+03	1.19E+03	1.31E+03	3.86E+02	5.96E+02	1.61E-03	2.91E-04	1.93E-04	1.69E-02	2.36E-03	1.55E-03	1.46E-06	2.35E-07	1.27E-07	2.04E-03	7.68E-04	1.08E-03	3.40E-03	1.24E-03	1.69E-03	5.89E+00	2.20E+00	1.97E+00	5.19E-04	9.55E-05	6.34E-05	6.65E-07	1.01E-07	6.63E-08
Maximum of Special Receptors				**3.15E+03**	**2.60E+03**	**1.19E+03**	**1.31E+03**	**4.05E+02**	**6.16E+02**	**2.09E-03**	**7.33E-04**	**5.58E-04**	**1.69E-02**	**5.64E-03**	**4.28E-03**	**3.96E-06**	**7.66E-07**	**3.74E-07**	**2.21E-03**	**8.69E-04**	**1.16E-03**	**3.98E-03**	**1.61E-03**	**2.00E-03**	**6.50E+00**	**2.58E+00**	**2.28E+00**	**6.86E-04**	**2.42E-04**	**1.84E-04**	**6.98E-07**	**2.45E-07**	**1.86E-07**
Max % of Criteria				-	**7.2%**	**7.6%**	-	-	-	**2.1%**	-	-	**0.0%**	-	-	-	-	-	-	-	-	-	-	-	**10.0%**	-	-	-	-	-	**0.0%**	-	-

Notes:

1 Model predictions for particulates including all emissions so

2 Model predictions for particulates excluding roads and stock

Table E-3 Special Receptor Predictions (ug/m3) - Construc

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	HYDROCHLORIC ACID (HCL)			HYDROFLUORIC ACID (HF)			INDENO(1,2,3-CD)PYRENE			IRON (FE)			IRON SULFIDE			LANTHANUM (LA)			LANTHANUM CHLORIDE (LACL3)			LEAD (PB)			MAGNESIUM (MG)			MANGANESE (MN)		
				24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual
				20	-	-	0.86	0.34	-	-	-	-	-	-	-	-	-	-	-	-	-	2.5	-	-	0.5	0.2	-	72	-	-	0.4	-	-
													3.85E-01	1.49E-01	1.91E-01										5.74E-03	2.21E-03	3.01E-03				1.42E-02	5.48E-03	7.71E-03
W_10	546975.3	5406486	Bamoos Lake (south)	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.21E-06	4.46E-07	2.21E-07	2.10E+00	5.89E-01	4.41E-01	0.00E+00	0.00E+00	0.00E+00	6.06E-04	1.36E-04	7.69E-05	0.00E+00	0.00E+00	0.00E+00	5.83E-03	2.24E-03	3.02E-03	4.41E-01	1.15E-01	6.50E-02	3.06E-02	9.69E-03	1.01E-02
W_11	545484.3	5405866	Bamoos Lake (west)	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.42E-06	5.63E-07	2.78E-07	1.59E+00	4.55E-01	3.63E-01	0.00E+00	0.00E+00	0.00E+00	4.67E-04	9.70E-05	5.30E-05	0.00E+00	0.00E+00	0.00E+00	5.81E-03	2.23E-03	3.02E-03	3.07E-01	7.95E-02	4.48E-02	2.57E-02	8.41E-03	9.36E-03
W_12	546576.3	5407157	Bamoos Lake (north)	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.93E-06	3.89E-07	1.83E-07	1.86E+00	4.82E-01	3.76E-01	0.00E+00	0.00E+00	0.00E+00	5.57E-04	1.04E-04	5.74E-05	0.00E+00	0.00E+00	0.00E+00	5.82E-03	2.23E-03	3.02E-03	3.77E-01	8.67E-02	4.81E-02	2.83E-02	8.67E-03	9.48E-03
W_13	546777.3	5406831	Bamoos Lake (center)	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.05E-06	4.24E-07	2.03E-07	1.95E+00	5.27E-01	4.00E-01	0.00E+00	0.00E+00	0.00E+00	5.84E-04	1.18E-04	6.48E-05	0.00E+00	0.00E+00	0.00E+00	5.83E-03	2.23E-03	3.02E-03	4.00E-01	9.85E-02	5.44E-02	2.91E-02	9.10E-03	9.71E-03
W_14	554944.3	5408229	Page Lake (south)	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.88E-07	1.46E-07	7.55E-08	1.33E+00	3.69E-01	3.09E-01	0.00E+00	0.00E+00	0.00E+00	4.02E-04	6.95E-05	3.68E-05	0.00E+00	0.00E+00	0.00E+00	5.80E-03	2.23E-03	3.02E-03	2.38E-01	5.73E-02	3.06E-02	2.32E-02	7.59E-03	8.84E-03
W_15	555054.3	5408904	Page Lake (center)	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.06E-07	1.08E-07	6.34E-08	9.35E-01	3.16E-01	2.85E-01	0.00E+00	0.00E+00	0.00E+00	2.05E-04	5.29E-05	2.94E-05	0.00E+00	0.00E+00	0.00E+00	5.77E-03	2.22E-03	3.01E-03	1.42E-01	4.34E-02	2.44E-02	1.95E-02	7.08E-03	8.61E-03
W_16	555065.3	5409498	Page Lake (north)	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.49E-07	9.57E-08	5.67E-08	8.78E-01	2.83E-01	2.69E-01	0.00E+00	0.00E+00	0.00E+00	1.84E-04	4.19E-05	2.44E-05	0.00E+00	0.00E+00	0.00E+00	5.77E-03	2.22E-03	3.01E-03	1.26E-01	3.50E-02	2.03E-02	1.89E-02	6.77E-03	8.46E-03
W_17	556593.4	5402127	Peacock Lake (east)	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.09E-06	2.40E-07	1.11E-07	9.49E-01	3.26E-01	2.79E-01	0.00E+00	0.00E+00	0.00E+00	1.72E-04	5.42E-05	2.69E-05	0.00E+00	0.00E+00	0.00E+00	5.77E-03	2.22E-03	3.01E-03	1.47E-01	4.61E-02	2.29E-02	1.96E-02	7.17E-03	8.55E-03
W_18	556043.4	5401267	Peacock Lake (south)	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.17E-06	3.19E-07	1.12E-07	1.10E+00	3.19E-01	2.78E-01	0.00E+00	0.00E+00	0.00E+00	2.85E-04	5.19E-05	2.67E-05	0.00E+00	0.00E+00	0.00E+00	5.78E-03	2.22E-03	3.01E-03	1.80E-01	4.43E-02	2.27E-02	2.10E-02	7.11E-03	8.54E-03
W_19	556277.4	5402069	Peacock Lake (west)	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.06E-06	2.45E-07	1.16E-07	9.32E-01	3.32E-01	2.83E-01	0.00E+00	0.00E+00	0.00E+00	1.66E-04	5.62E-05	2.81E-05	0.00E+00	0.00E+00	0.00E+00	5.77E-03	2.22E-03	3.01E-03	1.42E-01	4.79E-02	2.39E-02	1.94E-02	7.24E-03	8.59E-03
W_2	547105.4	5399507	Shack Lake (center)	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.14E-06	4.65E-07	2.48E-07	1.59E+00	5.18E-01	4.67E-01	0.00E+00	0.00E+00	0.00E+00	3.65E-04	1.13E-04	8.37E-05	0.00E+00	0.00E+00	0.00E+00	5.80E-03	2.23E-03	3.02E-03	3.13E-01	9.60E-02	7.17E-02	2.57E-02	9.01E-03	1.03E-02
W_20	556444.4	5402420	Peacock Lake (north)	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.16E-06	2.72E-07	1.18E-07	1.05E+00	3.40E-01	2.86E-01	0.00E+00	0.00E+00	0.00E+00	2.04E-04	5.87E-05	2.89E-05	0.00E+00	0.00E+00	0.00E+00	5.77E-03	2.22E-03	3.01E-03	1.74E-01	4.98E-02	2.46E-02	2.06E-02	7.31E-03	8.61E-03
W_21	556424.4	5402100	Peacock Lake (center)	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.09E-06	2.44E-07	1.14E-07	9.36E-01	3.29E-01	2.81E-01	0.00E+00	0.00E+00	0.00E+00	1.68E-04	5.52E-05	2.76E-05	0.00E+00	0.00E+00	0.00E+00	5.77E-03	2.22E-03	3.01E-03	1.43E-01	4.69E-02	2.35E-02	1.95E-02	7.20E-03	8.57E-03
W_22	550202.4	5397449	Three Finger Lake (north)	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.11E-06	2.42E-07	1.34E-07	1.67E+00	3.26E-01	3.08E-01	0.00E+00	0.00E+00	0.00E+00	4.68E-04	5.40E-05	3.56E-05	0.00E+00	0.00E+00	0.00E+00	5.81E-03	2.22E-03	3.02E-03	3.28E-01	4.61E-02	3.05E-02	2.64E-02	7.17E-03	8.83E-03
W_23	550175.4	5396992	Three Finger Lake (center)	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.08E-06	2.20E-07	1.20E-07	1.56E+00	3.05E-01	2.94E-01	0.00E+00	0.00E+00	0.00E+00	4.29E-04	4.80E-05	3.14E-05	0.00E+00	0.00E+00	0.00E+00	5.80E-03	2.22E-03	3.02E-03	2.99E-01	4.08E-02	2.69E-02	2.54E-02	6.98E-03	8.70E-03
W_24	549830.4	5396526	Three Finger Lake (south)	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.15E-06	2.05E-07	1.02E-07	1.21E+00	2.98E-01	2.85E-01	0.00E+00	0.00E+00	0.00E+00	2.73E-04	4.59E-05	2.87E-05	0.00E+00	0.00E+00	0.00E+00	5.78E-03	2.22E-03	3.01E-03	2.12E-01	3.89E-02	2.45E-02	2.20E-02	6.91E-03	8.61E-03
W_25	546947.4	5396628	Penn Lake (north)	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.40E-06	1.75E-07	1.03E-07	8.89E-01	2.89E-01	3.01E-01	0.00E+00	0.00E+00	0.00E+00	1.55E-04	4.26E-05	3.34E-05	0.00E+00	0.00E+00	0.00E+00	5.77E-03	2.22E-03	3.02E-03	1.31E-01	3.65E-02	2.86E-02	1.90E-02	6.82E-03	8.76E-03
W_26	547059.4	5396126	Penn Lake (center)	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.13E-06	1.68E-07	9.40E-08	8.50E-01	2.74E-01	2.89E-01	0.00E+00	0.00E+00	0.00E+00	1.44E-04	3.81E-05	2.99E-05	0.00E+00	0.00E+00	0.00E+00	5.76E-03	2.22E-03	3.01E-03	1.21E-01	3.27E-02	2.55E-02	1.86E-02	6.68E-03	8.65E-03
W_27	546991.4	5395773	Penn Lake (south)	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.07E-06	1.59E-07	8.78E-08	8.20E-01	2.64E-01	2.82E-01	0.00E+00	0.00E+00	0.00E+00	1.35E-04	3.51E-05	2.76E-05	0.00E+00	0.00E+00	0.00E+00	5.76E-03	2.22E-03	3.01E-03	1.13E-01	3.01E-02	2.36E-02	1.84E-02	6.58E-03	8.58E-03
W_28	544637	5401700	Angler Creek at Model Property Boun	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.20E-06	4.12E-07	1.57E-07	1.47E+00	4.61E-01	3.76E-01	0.00E+00	0.00E+00	0.00E+00	3.35E-04	9.50E-05	5.66E-05	0.00E+00	0.00E+00	0.00E+00	5.79E-03	2.23E-03	3.02E-03	2.83E-01	8.13E-02	4.82E-02	2.46E-02	8.46E-03	9.48E-03
W_29	551284	5407805	Pic River In-Flow to Model Property B	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.29E-06	2.15E-07	1.10E-07	1.36E+00	4.31E-01	3.73E-01	0.00E+00	0.00E+00	0.00E+00	3.28E-04	8.93E-05	5.69E-05	0.00E+00	0.00E+00	0.00E+00	5.79E-03	2.23E-03	3.02E-03	2.50E-01	7.32E-02	4.73E-02	2.35E-02	8.17E-03	9.45E-03
W_3	546725.4	5399334	Shack Lake (southwest)	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.89E-06	4.44E-07	2.29E-07	1.51E+00	4.88E-01	4.38E-01	0.00E+00	0.00E+00	0.00E+00	3.44E-04	1.04E-04	7.52E-05	0.00E+00	0.00E+00	0.00E+00	5.80E-03	2.23E-03	3.02E-03	2.94E-01	8.83E-02	6.44E-02	2.50E-02	8.72E-03	1.01E-02
W_30	551654	5401167	Pic River Out-Flow from Model Prope	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.51E-06	4.91E-07	2.43E-07	1.28E+00	5.23E-01	4.44E-01	0.00E+00	0.00E+00	0.00E+00	2.74E-04	1.14E-04	7.73E-05	0.00E+00	0.00E+00	0.00E+00	5.78E-03	2.23E-03	3.02E-03	2.33E-01	9.75E-02	6.60E-02	2.28E-02	9.06E-03	1.01E-02
W_4	545636.3	5403829	Hare Lake (east)	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.91E-06	4.88E-07	2.90E-07	1.72E+00	5.31E-01	4.20E-01	0.00E+00	0.00E+00	0.00E+00	4.85E-04	1.17E-04	6.98E-05	0.00E+00	0.00E+00	0.00E+00	5.81E-03	2.23E-03	3.02E-03	3.42E-01	9.95E-02	5.95E-02	2.69E-02	9.13E-03	9.90E-03
W_5	545048.3	5403557	Hare Lake (south)	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.66E-06	3.56E-07	2.23E-07	1.67E+00	4.89E-01	3.87E-01	0.00E+00	0.00E+00	0.00E+00	4.71E-04	1.04E-04	5.97E-05	0.00E+00	0.00E+00	0.00E+00	5.81E-03	2.23E-03	3.02E-03	3.28E-01	8.85E-02	5.09E-02	2.64E-02	8.73E-03	9.58E-03
W_6	543955.3	5403079	Hare Lake (west)	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.23E-06	2.86E-07	1.55E-07	1.48E+00	3.94E-01	3.28E-01	0.00E+00	0.00E+00	0.00E+00	4.13E-04	7.54E-05	4.18E-05	0.00E+00	0.00E+00	0.00E+00	5.80E-03	2.23E-03	3.02E-03	2.78E-01	6.39E-02	3.56E-02	2.46E-02	7.83E-03	9.02E-03
W_7	544603.3	5403943	Hare Lake (north)	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.26E-06	3.33E-07	2.06E-07	1.27E+00	4.27E-01	3.52E-01	0.00E+00	0.00E+00	0.00E+00	2.74E-04	8.56E-05	4.91E-05	0.00E+00	0.00E+00	0.00E+00	5.78E-03	2.23E-03	3.02E-03	2.30E-01	7.24E-02	4.18E-02	2.27E-02	8.14E-03	9.25E-03
W_8	544830.3	5403751	Hare Lake (center)	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.17E-06	3.29E-07	2.14E-07	1.37E+00	4.55E-01	3.67E-01	0.00E+00	0.00E+00	0.00E+00	3.48E-04	9.43E-05	5.38E-05	0.00E+00	0.00E+00	0.00E+00	5.79E-03	2.23E-03	3.02E-03	2.55E-01	7.98E-02	4.59E-02	2.36E-02	8.41E-03	9.40E-03
W_9	549326.3	5406972	Bamoos Lake (east)	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.74E-06	2.82E-07	1.52E-07	3.13E+00	6.59E-01	5.30E-01	0.00E+00	0.00E+00	0.00E+00	1.14E-03	1.63E-04	1.07E-04	0.00E+00	0.00E+00	0.00E+00	5.90E-03	2.24E-03	3.03E-03	6.92E-01	1.32E-01	8.80E-02	4.04E-02	1.04E-02	1.10E-02
Maximum of Special Receptors				**0.00E+00**	**0.00E+00**	**0.00E+00**	**0.00E+00**	**0.00E+00**	**0.00E+00**	**4.74E-06**	**9.17E-07**	**4.48E-07**	**4.05E+00**	**1.44E+00**	**1.17E+00**	**0.00E+00**	**0.00E+00**	**0.00E+00**	**1.14E-03**	**3.91E-04**	**2.97E-04**	**0.00E+00**	**0.00E+00**	**0.00E+00**	**5.92E-03**	**2.28E-03**	**3.06E-03**	**9.55E-01**	**3.36E-01**	**2.55E-01**	**4.93E-02**	**1.78E-02**	**1.71E-02**
Max % of Criteria				**0.0%**	-	-	**0.0%**	**0.0%**	-	-	-	-	-	-	-	-	-	-	-	-	-	**0.0%**	-	-	**1.2%**	**1.1%**	-	**1.3%**	-	-	**12.3%**	-	-

Notes:

1 Model predictions for particulates including all emissions sou

2 Model predictions for particulates excluding roads and stock

Table E-3 Special Receptor Predictions (ug/m3) - Construc

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	MERCURY (HG)			MOLYBDENUM (MO)			N2O			NAPHTHALENE				NICKEL (NI)		NITRIC ACID (HNO3)			NON-METHANE HYDROCARBONS			NO2 (See Note 3)			PALLADIUM (PD)			PHENANTHRENE		
				24	month	annual	24	month	annual	24	month	annual	10-min	24	month	annual	24	annual	24	month	annual	24	month	annual	1	24	annual	24	month	annual	24	month	annual
				2	-	-	120	-	-	9000	-	-	50	22.5	-	-	0.2	0.04	35	-	-	-	-	-	400	200	-	10	-	-	-	-	-
													2.37E+00	2.39E-01	9.22E-02	9.64E-02	2.60E-03	1.00E-03							6.34E+01	3.17E+01	1.74E+01				7.86E-03	3.03E-03	4.59E-03
W_10	546975.3	5406486	Bamoos Lake (south)	3.24E-05	8.27E-06	4.69E-06	4.18E-05	1.01E-05	5.75E-06	2.08E-01	6.38E-02	3.93E-02	2.38E+00	2.40E-01	9.24E-02	9.65E-02	5.22E-03	1.37E-03	0.00E+00	0.00E+00	0.00E+00	6.96E-01	2.11E-01	1.30E-01	1.96E+02	5.15E+01	2.04E+01	1.16E-06	2.39E-07	1.36E-07	8.76E-03	3.31E-03	4.77E-03
W_11	545484.3	5405866	Bamoos Lake (west)	2.28E-05	5.76E-06	3.23E-06	3.06E-05	7.14E-06	3.97E-06	1.94E-01	5.03E-02	3.02E-02	2.38E+00	2.40E-01	9.24E-02	9.65E-02	4.49E-03	1.25E-03	0.00E+00	0.00E+00	0.00E+00	6.50E-01	1.64E-01	9.87E-02	1.83E+02	5.17E+01	2.03E+01	9.42E-07	1.75E-07	9.34E-08	8.79E-03	3.28E-03	4.74E-03
W_12	546576.3	5407157	Bamoos Lake (north)	2.79E-05	6.26E-06	3.48E-06	3.70E-05	7.71E-06	4.28E-06	2.27E-01	5.94E-02	3.39E-02	2.38E+00	2.40E-01	9.23E-02	9.65E-02	4.90E-03	1.27E-03	0.00E+00	0.00E+00	0.00E+00	7.59E-01	1.97E-01	1.12E-01	1.85E+02	4.87E+01	2.00E+01	1.11E-06	1.84E-07	1.02E-07	8.83E-03	3.29E-03	4.74E-03
W_13	546777.3	5406831	Bamoos Lake (center)	2.96E-05	7.11E-06	3.93E-06	3.90E-05	8.75E-06	4.83E-06	2.34E-01	6.62E-02	3.77E-02	2.38E+00	2.40E-01	9.23E-02	9.65E-02	5.03E-03	1.31E-03	0.00E+00	0.00E+00	0.00E+00	7.82E-01	2.20E-01	1.25E-01	1.89E+02	4.93E+01	2.02E+01	1.15E-06	2.09E-07	1.15E-07	8.87E-03	3.32E-03	4.76E-03
W_14	554944.3	5408229	Page Lake (south)	1.80E-05	4.14E-06	2.21E-06	2.50E-05	5.13E-06	2.73E-06	1.75E-01	4.36E-02	2.09E-02	2.37E+00	2.39E-01	9.23E-02	9.64E-02	4.13E-03	1.17E-03	0.00E+00	0.00E+00	0.00E+00	5.82E-01	1.45E-01	6.94E-02	2.07E+02	4.21E+01	1.88E+01	8.46E-07	1.25E-07	6.58E-08	8.60E-03	3.22E-03	4.68E-03
W_15	555054.3	5408904	Page Lake (center)	1.03E-05	3.14E-06	1.76E-06	1.28E-05	3.89E-06	2.18E-06	1.35E-01	3.33E-02	1.66E-02	2.37E+00	2.39E-01	9.22E-02	9.64E-02	3.42E-03	1.14E-03	0.00E+00	0.00E+00	0.00E+00	4.53E-01	1.11E-01	5.51E-02	1.58E+02	3.98E+01	1.86E+01	4.30E-07	9.51E-08	5.25E-08	8.43E-03	3.17E-03	4.66E-03
W_16	555065.3	5409498	Page Lake (north)	9.30E-06	2.53E-06	1.47E-06	1.23E-05	3.11E-06	1.81E-06	8.23E-02	2.47E-02	1.33E-02	2.37E+00	2.39E-01	9.22E-02	9.64E-02	3.36E-03	1.12E-03	0.00E+00	0.00E+00	0.00E+00	2.75E-01	8.19E-02	4.41E-02	1.47E+02	3.82E+01	1.84E+01	3.64E-07	7.49E-08	4.34E-08	8.23E-03	3.14E-03	4.65E-03
W_17	556593.4	5402127	Peacock Lake (east)	1.06E-05	3.32E-06	1.65E-06	1.29E-05	4.07E-06	2.02E-06	9.37E-02	3.63E-02	1.70E-02	2.38E+00	2.40E-01	9.23E-02	9.64E-02	3.43E-03	1.13E-03	0.00E+00	0.00E+00	0.00E+00	3.10E-01	1.20E-01	5.60E-02	1.62E+02	4.69E+01	1.88E+01	3.01E-07	9.53E-08	4.72E-08	8.40E-03	3.20E-03	4.67E-03
W_18	556043.4	5401267	Peacock Lake (south)	1.34E-05	3.19E-06	1.64E-06	1.83E-05	3.90E-06	2.01E-06	1.19E-01	3.43E-02	1.74E-02	2.38E+00	2.40E-01	9.23E-02	9.64E-02	3.72E-03	1.13E-03	0.00E+00	0.00E+00	0.00E+00	3.96E-01	1.13E-01	5.75E-02	1.82E+02	4.80E+01	1.89E+01	5.84E-07	9.09E-08	4.71E-08	8.45E-03	3.20E-03	4.67E-03
W_19	556277.4	5402069	Peacock Lake (west)	1.03E-05	3.45E-06	1.72E-06	1.25E-05	4.22E-06	2.11E-06	1.06E-01	3.73E-02	1.79E-02	2.38E+00	2.40E-01	9.23E-02	9.64E-02	3.40E-03	1.14E-03	0.00E+00	0.00E+00	0.00E+00	3.44E-01	1.24E-01	5.91E-02	1.66E+02	4.70E+01	1.89E+01	2.91E-07	9.88E-08	4.94E-08	8.42E-03	3.20E-03	4.67E-03
W_2	547105.4	5399507	Shack Lake (center)	2.25E-05	6.92E-06	5.17E-06	2.75E-05	8.48E-06	6.32E-06	2.40E-01	7.04E-02	5.27E-02	2.38E+00	2.40E-01	9.24E-02	9.65E-02	4.37E-03	1.41E-03	0.00E+00	0.00E+00	0.00E+00	7.83E-01	2.34E-01	1.77E-01	2.11E+02	5.37E+01	2.12E+01	6.38E-07	1.98E-07	1.47E-07	8.99E-03	3.35E-03	4.82E-03
W_20	556444.4	5402420	Peacock Lake (north)	1.26E-05	3.59E-06	1.77E-06	1.54E-05	4.40E-06	2.17E-06	1.09E-01	3.88E-02	1.80E-02	2.38E+00	2.40E-01	9.23E-02	9.64E-02	3.59E-03	1.14E-03	0.00E+00	0.00E+00	0.00E+00	3.59E-01	1.28E-01	5.93E-02	1.60E+02	4.70E+01	1.89E+01	3.58E-07	1.03E-07	5.08E-08	8.40E-03	3.21E-03	4.67E-03
W_21	556424.4	5402100	Peacock Lake (center)	1.03E-05	3.38E-06	1.69E-06	1.26E-05	4.14E-06	2.07E-06	9.74E-02	3.68E-02	1.75E-02	2.38E+00	2.40E-01	9.23E-02	9.64E-02	3.41E-03	1.13E-03	0.00E+00	0.00E+00	0.00E+00	3.17E-01	1.22E-01	5.78E-02	1.65E+02	4.70E+01	1.89E+01	2.94E-07	9.70E-08	4.85E-08	8.41E-03	3.20E-03	4.67E-03
W_22	550202.4	5397449	Three Finger Lake (north)	2.42E-05	3.32E-06	2.19E-06	3.16E-05	4.06E-06	2.68E-06	2.37E-01	3.88E-02	2.50E-02	2.38E+00	2.40E-01	9.23E-02	9.64E-02	4.58E-03	1.17E-03	0.00E+00	0.00E+00	0.00E+00	7.90E-01	1.30E-01	8.37E-02	2.03E+02	5.46E+01	1.94E+01	9.15E-07	9.46E-08	6.24E-08	9.01E-03	3.21E-03	4.70E-03
W_23	550175.4	5396992	Three Finger Lake (center)	2.21E-05	2.94E-06	1.94E-06	2.89E-05	3.60E-06	2.37E-06	2.11E-01	3.42E-02	2.15E-02	2.38E+00	2.40E-01	9.23E-02	9.64E-02	4.41E-03	1.15E-03	0.00E+00	0.00E+00	0.00E+00	7.02E-01	1.14E-01	7.19E-02	1.96E+02	5.32E+01	1.91E+01	8.40E-07	8.47E-08	5.51E-08	8.90E-03	3.19E-03	4.69E-03
W_24	549830.4	5396526	Three Finger Lake (south)	1.54E-05	2.81E-06	1.77E-06	1.95E-05	3.44E-06	2.16E-06	1.66E-01	3.20E-02	1.95E-02	2.38E+00	2.40E-01	9.23E-02	9.64E-02	3.84E-03	1.14E-03	0.00E+00	0.00E+00	0.00E+00	5.43E-01	1.07E-01	6.52E-02	1.81E+02	5.13E+01	1.89E+01	5.07E-07	8.08E-08	5.02E-08	8.72E-03	3.18E-03	4.68E-03
W_25	546947.4	5396628	Penn Lake (north)	9.45E-06	2.63E-06	2.06E-06	1.16E-05	3.21E-06	2.52E-06	1.12E-01	2.77E-02	2.16E-02	2.37E+00	2.39E-01	9.23E-02	9.64E-02	3.34E-03	1.16E-03	0.00E+00	0.00E+00	0.00E+00	4.03E-01	9.93E-02	8.07E-02	1.78E+02	4.43E+01	1.91E+01	2.73E-07	7.45E-08	5.86E-08	8.41E-03	3.16E-03	4.69E-03
W_26	547059.4	5396126	Penn Lake (center)	8.73E-06	2.35E-06	1.84E-06	1.07E-05	2.87E-06	2.25E-06	1.11E-01	2.46E-02	1.93E-02	2.37E+00	2.39E-01	9.23E-02	9.64E-02	3.29E-03	1.14E-03	0.00E+00	0.00E+00	0.00E+00	3.71E-01	8.71E-02	6.87E-02	1.74E+02	4.25E+01	1.89E+01	2.56E-07	6.67E-08	5.24E-08	8.40E-03	3.15E-03	4.68E-03
W_27	546991.4	5395773	Penn Lake (south)	8.17E-06	2.17E-06	1.70E-06	1.01E-05	2.65E-06	2.08E-06	1.05E-01	2.27E-02	1.77E-02	2.37E+00	2.39E-01	9.23E-02	9.64E-02	3.24E-03	1.13E-03	0.00E+00	0.00E+00	0.00E+00	3.48E-01	8.01E-02	6.22E-02	1.69E+02	4.19E+01	1.88E+01	2.40E-07	6.15E-08	4.84E-08	8.37E-03	3.14E-03	4.67E-03
W_28	544637	5401700	Angler Creek at Model Property Boun	2.04E-05	5.86E-06	3.48E-06	2.50E-05	7.16E-06	4.25E-06	2.03E-01	5.48E-02	3.19E-02	2.38E+00	2.40E-01	9.23E-02	9.64E-02	4.20E-03	1.27E-03	0.00E+00	0.00E+00	0.00E+00	6.68E-01	1.80E-01	1.06E-01	1.81E+02	5.24E+01	1.97E+01	5.93E-07	1.66E-07	9.94E-08	8.82E-03	3.29E-03	4.73E-03
W_29	551284	5407805	Pic River In-Flow to Model Property B	1.83E-05	5.30E-06	3.42E-06	2.32E-05	6.56E-06	4.22E-06	2.42E-01	5.55E-02	3.25E-02	2.37E+00	2.39E-01	9.23E-02	9.64E-02	4.07E-03	1.27E-03	0.00E+00	0.00E+00	0.00E+00	8.09E-01	1.85E-01	1.08E-01	2.02E+02	4.96E+01	1.96E+01	6.14E-07	1.61E-07	1.02E-07	8.94E-03	3.27E-03	4.73E-03
W_3	546725.4	5399334	Shack Lake (southwest)	2.12E-05	6.37E-06	4.64E-06	2.59E-05	7.80E-06	5.67E-06	2.25E-01	6.35E-02	4.63E-02	2.38E+00	2.40E-01	9.24E-02	9.65E-02	4.26E-03	1.36E-03	0.00E+00	0.00E+00	0.00E+00	7.32E-01	2.11E-01	1.56E-01	2.05E+02	5.07E+01	2.08E+01	6.04E-07	1.83E-07	1.32E-07	8.89E-03	3.32E-03	4.80E-03
W_30	551654	5401167	Pic River Out-Flow from Model Prope	1.68E-05	7.02E-06	4.75E-06	2.06E-05	8.58E-06	5.81E-06	1.82E-01	8.64E-02	5.62E-02	2.38E+00	2.40E-01	9.24E-02	9.65E-02	3.92E-03	1.37E-03	0.00E+00	0.00E+00	0.00E+00	6.06E-01	2.88E-01	1.87E-01	2.03E+02	5.31E+01	2.14E+01	4.83E-07	1.99E-07	1.35E-07	8.76E-03	3.41E-03	4.84E-03
W_4	545636.3	5403829	Hare Lake (east)	2.52E-05	7.17E-06	4.29E-06	3.29E-05	8.80E-06	5.25E-06	2.36E-01	6.91E-02	3.90E-02	2.38E+00	2.40E-01	9.24E-02	9.65E-02	4.66E-03	1.34E-03	0.00E+00	0.00E+00	0.00E+00	7.69E-01	2.26E-01	1.27E-01	1.94E+02	5.48E+01	2.08E+01	9.46E-07	2.07E-07	1.22E-07	8.93E-03	3.34E-03	4.77E-03
W_5	545048.3	5403557	Hare Lake (south)	2.42E-05	6.38E-06	3.67E-06	3.17E-05	7.83E-06	4.49E-06	2.10E-01	6.05E-02	3.33E-02	2.38E+00	2.40E-01	9.23E-02	9.65E-02	4.58E-03	1.29E-03	0.00E+00	0.00E+00	0.00E+00	6.90E-01	1.99E-01	1.09E-01	1.82E+02	5.13E+01	2.02E+01	9.24E-07	1.84E-07	1.05E-07	8.79E-03	3.30E-03	4.74E-03
W_6	543955.3	5403079	Hare Lake (west)	2.06E-05	4.61E-06	2.57E-06	2.74E-05	5.65E-06	3.15E-06	1.75E-01	4.46E-02	2.36E-02	2.38E+00	2.40E-01	9.23E-02	9.64E-02	4.30E-03	1.20E-03	0.00E+00	0.00E+00	0.00E+00	5.74E-01	1.47E-01	7.77E-02	1.72E+02	4.81E+01	1.94E+01	8.23E-07	1.33E-07	7.34E-08	8.68E-03	3.24E-03	4.70E-03
W_7	544603.3	5403943	Hare Lake (north)	1.66E-05	5.22E-06	3.01E-06	2.04E-05	6.41E-06	3.69E-06	1.76E-01	5.07E-02	2.77E-02	2.38E+00	2.40E-01	9.23E-02	9.65E-02	3.91E-03	1.24E-03	0.00E+00	0.00E+00	0.00E+00	5.79E-01	1.67E-01	9.09E-02	1.71E+02	4.85E+01	1.98E+01	4.87E-07	1.51E-07	8.62E-08	8.65E-03	3.26E-03	4.72E-03
W_8	544830.3	5403751	Hare Lake (center)	1.85E-05	5.76E-06	3.31E-06	2.40E-05	7.06E-06	4.05E-06	1.95E-01	5.54E-02	3.02E-02	2.38E+00	2.40E-01	9.23E-02	9.65E-02	4.10E-03	1.26E-03	0.00E+00	0.00E+00	0.00E+00	6.40E-01	1.82E-01	9.91E-02	1.77E+02	4.94E+01	2.00E+01	6.69E-07	1.66E-07	9.45E-08	8.72E-03	3.28E-03	4.73E-03
W_9	549326.3	5406972	Bamoos Lake (east)	5.21E-05	9.58E-06	6.37E-06	7.16E-05	1.19E-05	7.87E-06	5.20E-01	1.26E-01	7.01E-02	2.38E+00	2.40E-01	9.23E-02	9.64E-02	6.99E-03	1.50E-03	0.00E+00	0.00E+00	0.00E+00	1.74E+00	4.23E-01	2.34E-01	2.73E+02	5.35E+01	2.12E+01	2.36E-06	2.94E-07	1.91E-07	1.00E-02	3.55E-03	4.88E-03
Maximum of Special Receptors				**6.88E-05**	**2.42E-05**	**1.84E-05**	**8.41E-05**	**2.95E-05**	**2.24E-05**	**1.15E+00**	**5.17E-01**	**4.02E-01**	**2.38E+00**	**2.40E-01**	**9.25E-02**	**9.65E-02**	**8.00E-03**	**2.44E-03**	**0.00E+00**	**0.00E+00**	**0.00E+00**	**3.90E+00**	**1.75E+00**	**1.36E+00**	**3.16E+02**	**9.78E+01**	**4.05E+01**	**2.36E-06**	**6.83E-07**	**5.19E-07**	**1.26E-02**	**5.17E-03**	**6.24E-03**
Max % of Criteria				**0.0%**	-	-	**0.0%**	-	-	**0.0%**	-	-	**4.8%**	**1.1%**	-	-	**4.0%**	**6.1%**	**0.0%**	-	-	-	-	-	**79.0%**	**48.9%**	-	**0.0%**	-	-	-	-	-

Notes:

1 Model predictions for particulates including all emissions sou

2 Model predictions for particulates excluding roads and stock

Table E-3 Special Receptor Predictions (ug/m3) - Construc

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	PHOSPHOROUS (P)			PLATINUM (PT)			PM10 (see Note 1)			PM10 (see Note 2)	PM2.5 (See Note 1)			PM2.5 (See Note 2)		POTASSIUM (K)			PROPYLENE			PYRENE			SCANDIUM (SC)			CRYSTALLINE SILICA		
				24	month	annual	24	month	annual	24	month	annual	24	24	month	annual	24	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual
				-	-	-	0.2	-	-	-	-	-	50	-	-	-	27	8.8	1	-	-	4000	-	-	-	-	-	-	-	-	5	-	-
										2.28E+01	8.80E+00	1.27E+01	2.28E+01	1.23E+01	4.75E+00	6.80E+00	1.23E+01	6.80E+00	2.79E-01	1.08E-01	1.49E-01				1.34E-03	5.17E-04	8.01E-04						
W_10	546975.3	5406486	Bamoos Lake (south)	4.22E-02	1.12E-02	6.33E-03	6.81E-07	1.55E-07	8.79E-08	3.50E+01	1.15E+01	1.42E+01	2.87E+01	1.35E+01	5.12E+00	7.02E+00	1.29E+01	6.89E+00	2.99E-01	1.14E-01	1.53E-01	1.49E-02	3.01E-03	1.49E-03	1.39E-03	5.32E-04	8.10E-04	5.73E-05	1.45E-05	8.22E-06	5.75E+00	1.25E+00	7.05E-01
W_11	545484.3	5405866	Bamoos Lake (west)	2.89E-02	7.72E-03	4.37E-03	5.20E-07	1.11E-07	6.06E-08	3.24E+01	1.07E+01	1.37E+01	2.96E+01	1.33E+01	5.04E+00	6.97E+00	1.29E+01	6.88E+00	2.93E-01	1.12E-01	1.51E-01	1.63E-02	3.80E-03	1.87E-03	1.39E-03	5.32E-04	8.09E-04	4.06E-05	1.01E-05	5.67E-06	4.54E+00	8.97E-01	4.80E-01
W_12	546576.3	5407157	Bamoos Lake (north)	3.57E-02	8.43E-03	4.68E-03	6.23E-07	1.18E-07	6.56E-08	3.41E+01	1.08E+01	1.38E+01	2.99E+01	1.34E+01	5.05E+00	6.98E+00	1.30E+01	6.88E+00	2.94E-01	1.12E-01	1.52E-01	1.30E-02	2.63E-03	1.24E-03	1.39E-03	5.31E-04	8.09E-04	4.97E-05	1.10E-05	6.10E-06	5.33E+00	9.40E-01	5.21E-01
W_13	546777.3	5406831	Bamoos Lake (center)	3.79E-02	9.58E-03	5.29E-03	6.53E-07	1.34E-07	7.41E-08	3.46E+01	1.11E+01	1.40E+01	3.00E+01	1.35E+01	5.09E+00	7.00E+00	1.30E+01	6.89E+00	2.96E-01	1.13E-01	1.52E-01	1.38E-02	2.86E-03	1.37E-03	1.39E-03	5.32E-04	8.10E-04	5.25E-05	1.25E-05	6.89E-06	5.57E+00	1.07E+00	5.88E-01
W_14	554944.3	5408229	Page Lake (south)	2.21E-02	5.56E-03	2.97E-03	4.44E-07	7.93E-08	4.20E-08	3.11E+01	1.01E+01	1.34E+01	2.98E+01	1.31E+01	4.95E+00	6.91E+00	1.28E+01	6.84E+00	2.91E-01	1.11E-01	1.51E-01	5.31E-03	9.83E-04	5.09E-04	1.38E-03	5.27E-04	8.06E-04	3.22E-05	7.28E-06	3.88E-06	3.97E+00	6.27E-01	3.33E-01
W_15	555054.3	5408904	Page Lake (center)	1.38E-02	4.21E-03	2.37E-03	2.26E-07	6.03E-08	3.35E-08	2.71E+01	9.83E+00	1.33E+01	2.64E+01	1.29E+01	4.90E+00	6.88E+00	1.26E+01	6.83E+00	2.87E-01	1.10E-01	1.50E-01	4.76E-03	7.25E-04	4.27E-04	1.37E-03	5.25E-04	8.05E-04	1.81E-05	5.52E-06	3.10E-06	2.02E+00	4.79E-01	2.66E-01
W_16	555065.3	5409498	Page Lake (north)	1.19E-02	3.40E-03	1.98E-03	2.06E-07	4.79E-08	2.78E-08	2.65E+01	9.61E+00	1.32E+01	2.51E+01	1.27E+01	4.87E+00	6.87E+00	1.25E+01	6.83E+00	2.84E-01	1.10E-01	1.50E-01	4.37E-03	6.45E-04	3.82E-04	1.36E-03	5.23E-04	8.04E-04	1.65E-05	4.44E-06	2.58E-06	1.75E+00	3.79E-01	2.21E-01
W_17	556593.4	5402127	Peacock Lake (east)	1.43E-02	4.49E-03	2.23E-03	1.97E-07	6.20E-08	3.08E-08	2.63E+01	9.87E+00	1.32E+01	2.44E+01	1.29E+01	4.92E+00	6.88E+00	1.27E+01	6.84E+00	2.87E-01	1.10E-01	1.50E-01	1.41E-02	1.62E-03	7.49E-04	1.38E-03	5.27E-04	8.05E-04	1.85E-05	5.82E-06	2.89E-06	1.62E+00	4.92E-01	2.44E-01
W_18	556043.4	5401267	Peacock Lake (south)	1.68E-02	4.32E-03	2.21E-03	3.16E-07	5.94E-08	3.06E-08	2.86E+01	9.84E+00	1.32E+01	2.71E+01	1.29E+01	4.92E+00	6.88E+00	1.27E+01	6.84E+00	2.87E-01	1.10E-01	1.50E-01	1.47E-02	2.15E-03	7.54E-04	1.38E-03	5.27E-04	8.05E-04	2.40E-05	5.60E-06	2.87E-06	2.76E+00	4.76E-01	2.42E-01
W_19	556277.4	5402069	Peacock Lake (west)	1.39E-02	4.66E-03	2.33E-03	1.90E-07	6.44E-08	3.22E-08	2.62E+01	9.91E+00	1.33E+01	2.44E+01	1.29E+01	4.93E+00	6.89E+00	1.27E+01	6.84E+00	2.87E-01	1.10E-01	1.50E-01	1.39E-02	1.65E-03	7.83E-04	1.38E-03	5.27E-04	8.05E-04	1.80E-05	6.05E-06	3.02E-06	1.57E+00	5.11E-01	2.55E-01
W_2	547105.4	5399507	Shack Lake (center)	3.05E-02	9.36E-03	7.00E-03	4.18E-07	1.29E-07	9.60E-08	2.98E+01	1.10E+01	1.43E+01	2.45E+01	1.35E+01	5.11E+00	7.07E+00	1.29E+01	6.91E+00	2.96E-01	1.13E-01	1.53E-01	1.44E-02	3.13E-03	1.67E-03	1.41E-03	5.36E-04	8.15E-04	3.95E-05	1.21E-05	9.06E-06	3.23E+00	1.00E+00	7.43E-01
W_20	556444.4	5402420	Peacock Lake (north)	1.70E-02	4.86E-03	2.40E-03	2.34E-07	6.71E-08	3.31E-08	2.69E+01	9.96E+00	1.33E+01	2.44E+01	1.30E+01	4.94E+00	6.89E+00	1.27E+01	6.84E+00	2.89E-01	1.10E-01	1.50E-01	1.46E-02	1.83E-03	7.99E-04	1.37E-03	5.27E-04	8.06E-04	2.20E-05	6.30E-06	3.11E-06	1.91E+00	5.33E-01	2.63E-01
W_21	556424.4	5402100	Peacock Lake (center)	1.40E-02	4.57E-03	2.29E-03	1.92E-07	6.32E-08	3.16E-08	2.62E+01	9.89E+00	1.32E+01	2.44E+01	1.29E+01	4.92E+00	6.89E+00	1.27E+01	6.84E+00	2.87E-01	1.10E-01	1.50E-01	1.41E-02	1.64E-03	7.69E-04	1.38E-03	5.27E-04	8.05E-04	1.81E-05	5.93E-06	2.97E-06	1.58E+00	5.01E-01	2.51E-01
W_22	550202.4	5397449	Three Finger Lake (north)	3.12E-02	4.49E-03	2.97E-03	5.24E-07	6.18E-08	4.08E-08	3.25E+01	9.87E+00	1.34E+01	2.90E+01	1.34E+01	4.92E+00	6.91E+00	1.30E+01	6.84E+00	2.94E-01	1.10E-01	1.51E-01	1.42E-02	1.63E-03	9.01E-04	1.41E-03	5.27E-04	8.07E-04	4.29E-05	5.82E-06	3.85E-06	4.54E+00	4.91E-01	3.23E-01
W_23	550175.4	5396992	Three Finger Lake (center)	2.85E-02	3.98E-03	2.62E-03	4.80E-07	5.50E-08	3.60E-08	3.17E+01	9.76E+00	1.33E+01	2.86E+01	1.33E+01	4.90E+00	6.90E+00	1.29E+01	6.84E+00	2.92E-01	1.10E-01	1.50E-01	1.40E-02	1.48E-03	8.10E-04	1.40E-03	5.26E-04	8.07E-04	3.92E-05	5.16E-06	3.39E-06	4.16E+00	4.39E-01	2.85E-01
W_24	549830.4	5396526	Three Finger Lake (south)	2.05E-02	3.79E-03	2.39E-03	3.09E-07	5.25E-08	3.28E-08	2.84E+01	9.71E+00	1.33E+01	2.53E+01	1.32E+01	4.89E+00	6.89E+00	1.28E+01	6.83E+00	2.90E-01	1.10E-01	1.50E-01	1.45E-02	1.38E-03	6.89E-04	1.39E-03	5.26E-04	8.06E-04	2.72E-05	4.92E-06	3.10E-06	2.58E+00	4.18E-01	2.59E-01
W_25	546947.4	5396628	Penn Lake (north)	1.28E-02	3.56E-03	2.79E-03	1.77E-07	4.88E-08	3.83E-08	2.59E+01	9.66E+00	1.34E+01	2.38E+01	1.29E+01	4.89E+00	6.91E+00	1.26E+01	6.84E+00	2.86E-01	1.10E-01	1.51E-01	9.47E-03	1.18E-03	6.95E-04	1.38E-03	5.29E-04	8.09E-04	1.66E-05	4.61E-06	3.61E-06	1.41E+00	3.82E-01	3.01E-01
W_26	547059.4	5396126	Penn Lake (center)	1.18E-02	3.19E-03	2.49E-03	1.65E-07	4.37E-08	3.42E-08	2.57E+01	9.56E+00	1.33E+01	2.40E+01	1.28E+01	4.87E+00	6.90E+00	1.25E+01	6.84E+00	2.86E-01	1.09E-01	1.50E-01	7.65E-03	1.14E-03	6.33E-04	1.37E-03	5.26E-04	8.07E-04	1.53E-05	4.12E-06	3.22E-06	1.31E+00	3.41E-01	2.69E-01
W_27	546991.4	5395773	Penn Lake (south)	1.10E-02	2.93E-03	2.30E-03	1.54E-07	4.02E-08	3.16E-08	2.55E+01	9.50E+00	1.33E+01	2.40E+01	1.28E+01	4.86E+00	6.89E+00	1.25E+01	6.84E+00	2.85E-01	1.09E-01	1.50E-01	7.18E-03	1.07E-03	5.92E-04	1.37E-03	5.25E-04	8.07E-04	1.43E-05	3.80E-06	2.98E-06	1.23E+00	3.15E-01	2.48E-01
W_28	544637	5401700	Angler Creek at Model Property Boun	2.76E-02	7.93E-03	4.70E-03	3.83E-07	1.09E-07	6.48E-08	2.93E+01	1.06E+01	1.38E+01	2.61E+01	1.34E+01	5.05E+00	6.97E+00	1.28E+01	6.87E+00	2.95E-01	1.12E-01	1.52E-01	1.49E-02	2.77E-03	1.06E-03	1.40E-03	5.32E-04	8.09E-04	3.57E-05	1.03E-05	6.09E-06	2.99E+00	8.38E-01	5.00E-01
W_29	551284	5407805	Pic River In-Flow to Model Property B	2.41E-02	7.10E-03	4.60E-03	3.71E-07	1.02E-07	6.50E-08	2.92E+01	1.05E+01	1.38E+01	2.54E+01	1.33E+01	5.01E+00	6.96E+00	1.28E+01	6.87E+00	2.91E-01	1.12E-01	1.52E-01	8.73E-03	1.45E-03	7.44E-04	1.40E-03	5.30E-04	8.08E-04	3.22E-05	9.30E-06	6.00E-06	2.98E+00	8.02E-01	5.11E-01
W_3	546725.4	5399334	Shack Lake (southwest)	2.87E-02	8.60E-03	6.28E-03	3.94E-07	1.19E-07	8.62E-08	2.95E+01	1.08E+01	1.42E+01	2.43E+01	1.34E+01	5.08E+00	7.04E+00	1.28E+01	6.90E+00	2.95E-01	1.12E-01	1.53E-01	1.28E-02	2.99E-03	1.54E-03	1.40E-03	5.35E-04	8.13E-04	3.72E-05	1.12E-05	8.13E-06	3.06E+00	9.25E-01	6.67E-01
W_30	551654	5401167	Pic River Out-Flow from Model Prope	2.27E-02	9.50E-03	6.43E-03	3.14E-07	1.31E-07	8.85E-08	2.80E+01	1.10E+01	1.42E+01	2.52E+01	1.32E+01	5.11E+00	7.04E+00	1.27E+01	6.89E+00	2.92E-01	1.13E-01	1.53E-01	1.69E-02	3.31E-03	1.64E-03	1.40E-03	5.39E-04	8.15E-04	2.94E-05	1.23E-05	8.33E-06	2.42E+00	1.03E+00	7.01E-01
W_4	545636.3	5403829	Hare Lake (east)	3.26E-02	9.69E-03	5.80E-03	5.44E-07	1.34E-07	7.99E-08	3.26E+01	1.11E+01	1.40E+01	2.86E+01	1.35E+01	5.11E+00	7.02E+00	1.30E+01	6.89E+00	2.96E-01	1.13E-01	1.52E-01	1.96E-02	3.29E-03	1.96E-03	1.40E-03	5.34E-04	8.11E-04	4.47E-05	1.26E-05	7.52E-06	4.58E+00	1.05E+00	6.23E-01
W_5	545048.3	5403557	Hare Lake (south)	3.12E-02	8.62E-03	4.96E-03	5.27E-07	1.19E-07	6.84E-08	3.23E+01	1.08E+01	1.38E+01	2.85E+01	1.34E+01	5.06E+00	6.98E+00	1.30E+01	6.88E+00	2.95E-01	1.13E-01	1.52E-01	1.79E-02	2.40E-03	1.51E-03	1.39E-03	5.32E-04	8.09E-04	4.29E-05	1.12E-05	6.44E-06	4.44E+00	9.31E-01	5.31E-01
W_6	543955.3	5403079	Hare Lake (west)	2.63E-02	6.22E-03	3.47E-03	4.61E-07	8.62E-08	4.79E-08	3.12E+01	1.03E+01	1.35E+01	2.83E+01	1.32E+01	4.98E+00	6.93E+00	1.29E+01	6.85E+00	2.92E-01	1.11E-01	1.51E-01	1.50E-02	1.93E-03	1.05E-03	1.39E-03	5.28E-04	8.07E-04	3.67E-05	8.08E-06	4.51E-06	3.92E+00	6.73E-01	3.72E-01
W_7	544603.3	5403943	Hare Lake (north)	2.24E-02	7.05E-03	4.08E-03	3.14E-07	9.79E-08	5.62E-08	2.82E+01	1.05E+01	1.37E+01	2.44E+01	1.32E+01	5.01E+00	6.95E+00	1.27E+01	6.87E+00	2.92E-01	1.12E-01	1.51E-01	1.52E-02	2.25E-03	1.39E-03	1.38E-03	5.30E-04	8.08E-04	2.91E-05	9.16E-06	5.29E-06	2.47E+00	7.65E-01	4.38E-01
W_8	544830.3	5403751	Hare Lake (center)	2.48E-02	7.77E-03	4.48E-03	3.91E-07	1.08E-07	6.17E-08	2.98E+01	1.06E+01	1.37E+01	2.65E+01	1.32E+01	5.03E+00	6.97E+00	1.28E+01	6.87E+00	2.93E-01	1.12E-01	1.52E-01	1.46E-02	2.22E-03	1.45E-03	1.39E-03	5.31E-04	8.09E-04	3.28E-05	1.01E-05	5.80E-06	3.25E+00	8.42E-01	4.80E-01
W_9	549326.3	5406972	Bamoos Lake (east)	6.46E-02	1.28E-02	8.54E-03	1.26E-06	1.85E-07	1.22E-07	4.60E+01	1.19E+01	1.47E+01	4.13E+01	1.42E+01	5.24E+00	7.11E+00	1.37E+01	6.94E+00	3.07E-01	1.15E-01	1.54E-01	1.17E-02	1.90E-03	1.03E-03	1.45E-03	5.43E-04	8.16E-04	9.32E-05	1.68E-05	1.12E-05	1.10E+01	1.42E+00	9.50E-01
Maximum of Special Receptors				**9.31E-02**	**3.28E-02**	**2.49E-02**	**1.28E-06**	**4.49E-07**	**3.41E-07**	**4.60E+01**	**1.66E+01**	**1.86E+01**	**4.13E+01**	**1.58E+01**	**5.95E+00**	**7.71E+00**	**1.39E+01**	**7.26E+00**	**3.32E-01**	**1.26E-01**	**1.63E-01**	**3.20E-02**	**6.18E-03**	**3.02E-03**	**1.71E-03**	**6.81E-04**	**9.16E-04**	**1.21E-04**	**4.24E-05**	**3.22E-05**	**1.10E+01**	**3.52E+00**	**2.67E+00**
Max % of Criteria				-	-	-	**0.0%**	-	-	-	-	-	**82.6%**	-	-	-	**51.5%**	**82.5%**	**33.2%**	-	-	**0.0%**	-	-	-	-	-	-	-	-	**220.7%**	-	-

Notes:

1 Model predictions for particulates including all emissions sou

2 Model predictions for particulates excluding roads and stock

Table E-3 Special Receptor Predictions (ug/m3) - Construc

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	SILICON (SI)			SILVER (AG)			SO2				SODIUM (NA)			SODIUM CARBOXYMETHYL CELLULOSE			STRONTIUM (SR)			THALLIUM (TL)			TITANIUM (TI)			TOC		
				24	month	annual	24	month	annual	1	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual
				27	-	-	1	-	-	100	-	-	10	-	-	-	120	-	-	120	-	-	0.5	-	-	120	-	-	-	-	-
										2.76E+00	5.79E+00	2.23E+00	2.48E+00							4.36E-03	1.68E-03	1.89E-03				1.89E-02	7.29E-03	8.99E-03			
W_10	546975.3	5406486	Bamoos Lake (south)	3.53E-06	1.97E-07	4.34E-09	8.47E-06	1.91E-06	1.09E-06	1.38E+01	6.26E+00	2.26E+00	2.49E+00	4.79E-02	1.15E-02	6.54E-03	0.00E+00	0.00E+00	0.00E+00	7.19E-03	2.39E-03	2.29E-03	3.34E-04	8.32E-05	4.72E-05	4.55E-02	1.48E-02	1.32E-02	8.66E-03	1.88E-03	1.07E-03
W_11	545484.3	5405866	Bamoos Lake (west)	2.16E-06	7.72E-08	1.86E-09	6.50E-06	1.37E-06	7.48E-07	1.62E+01	6.36E+00	2.26E+00	2.49E+00	3.52E-02	8.12E-03	4.51E-03	0.00E+00	0.00E+00	0.00E+00	6.39E-03	2.18E-03	2.17E-03	2.40E-04	5.82E-05	3.25E-05	3.62E-02	1.24E-02	1.19E-02	1.06E-02	2.39E-03	1.17E-03
W_12	546576.3	5407157	Bamoos Lake (north)	1.18E-06	6.91E-08	1.97E-09	7.76E-06	1.46E-06	8.11E-07	1.65E+01	6.38E+00	2.26E+00	2.49E+00	4.26E-02	8.77E-03	4.86E-03	0.00E+00	0.00E+00	0.00E+00	6.84E-03	2.22E-03	2.19E-03	2.92E-04	6.31E-05	3.50E-05	4.06E-02	1.29E-02	1.21E-02	5.72E-03	1.33E-03	7.69E-04
W_13	546777.3	5406831	Bamoos Lake (center)	1.65E-06	9.28E-08	2.42E-09	8.13E-06	1.66E-06	9.15E-07	1.66E+01	6.38E+00	2.26E+00	2.49E+00	4.49E-02	9.95E-03	5.49E-03	0.00E+00	0.00E+00	0.00E+00	6.98E-03	2.29E-03	2.23E-03	3.08E-04	7.17E-05	3.95E-05	4.21E-02	1.37E-02	1.25E-02	6.29E-03	1.47E-03	8.63E-04
W_14	554944.3	5408229	Page Lake (south)	0.00E+00	0.00E+00	0.00E+00	5.56E-06	9.80E-07	5.19E-07	1.83E+01	6.44E+00	2.26E+00	2.49E+00	2.90E-02	5.84E-03	3.10E-03	0.00E+00	0.00E+00	0.00E+00	5.99E-03	2.04E-03	2.08E-03	1.92E-04	4.19E-05	2.23E-05	3.25E-02	1.10E-02	1.10E-02	2.54E-03	7.84E-04	4.17E-04
W_15	555054.3	5408904	Page Lake (center)	0.00E+00	0.00E+00	0.00E+00	2.84E-06	7.46E-07	4.15E-07	1.05E+01	6.11E+00	2.25E+00	2.48E+00	1.48E-02	4.43E-03	2.48E-03	0.00E+00	0.00E+00	0.00E+00	5.25E-03	1.95E-03	2.04E-03	1.05E-04	3.18E-05	1.78E-05	2.80E-02	1.01E-02	1.06E-02	1.78E-03	6.39E-04	3.47E-04
W_16	555065.3	5409498	Page Lake (north)	0.00E+00	0.00E+00	0.00E+00	2.56E-06	5.91E-07	3.44E-07	7.66E+00	5.99E+00	2.24E+00	2.48E+00	1.41E-02	3.54E-03	2.06E-03	0.00E+00	0.00E+00	0.00E+00	5.18E-03	1.90E-03	2.02E-03	9.70E-05	2.55E-05	1.48E-05	2.62E-02	9.56E-03	1.03E-02	1.74E-03	5.32E-04	3.04E-04
W_17	556593.4	5402127	Peacock Lake (east)	4.07E-07	1.33E-08	2.29E-10	2.43E-06	7.66E-07	3.80E-07	3.80E+00	5.83E+00	2.24E+00	2.48E+00	1.47E-02	4.62E-03	2.29E-03	0.00E+00	0.00E+00	0.00E+00	5.26E-03	1.97E-03	2.03E-03	1.06E-04	3.34E-05	1.66E-05	2.85E-02	1.03E-02	1.05E-02	5.20E-03	1.15E-03	5.81E-04
W_18	556043.4	5401267	Peacock Lake (south)	1.50E-07	4.88E-09	8.69E-11	3.95E-06	7.33E-07	3.78E-07	1.20E+01	6.18E+00	2.25E+00	2.48E+00	2.11E-02	4.43E-03	2.28E-03	0.00E+00	0.00E+00	0.00E+00	5.57E-03	1.96E-03	2.03E-03	1.42E-04	3.21E-05	1.65E-05	2.87E-02	1.02E-02	1.05E-02	6.19E-03	1.24E-03	5.91E-04
W_19	556277.4	5402069	Peacock Lake (west)	4.10E-07	1.34E-08	2.31E-10	2.35E-06	7.95E-07	3.97E-07	4.54E+00	5.87E+00	2.24E+00	2.48E+00	1.42E-02	4.80E-03	2.40E-03	0.00E+00	0.00E+00	0.00E+00	5.24E-03	1.98E-03	2.04E-03	1.03E-04	3.47E-05	1.73E-05	2.82E-02	1.04E-02	1.06E-02	5.40E-03	1.23E-03	6.17E-04
W_2	547105.4	5399507	Shack Lake (center)	1.58E-05	5.38E-07	3.49E-08	5.16E-06	1.59E-06	1.18E-06	3.76E+00	5.84E+00	2.24E+00	2.49E+00	3.13E-02	9.63E-03	7.17E-03	0.00E+00	0.00E+00	0.00E+00	6.28E-03	2.27E-03	2.33E-03	2.26E-04	6.96E-05	5.19E-05	3.95E-02	1.36E-02	1.37E-02	1.11E-02	2.54E-03	1.79E-03
W_20	556444.4	5402420	Peacock Lake (north)	5.34E-07	1.74E-08	3.00E-10	2.88E-06	8.29E-07	4.09E-07	4.50E+00	5.86E+00	2.24E+00	2.48E+00	1.74E-02	5.00E-03	2.47E-03	0.00E+00	0.00E+00	0.00E+00	5.43E-03	1.99E-03	2.04E-03	1.26E-04	3.61E-05	1.78E-05	3.03E-02	1.06E-02	1.06E-02	5.22E-03	1.23E-03	6.15E-04
W_21	556424.4	5402100	Peacock Lake (center)	4.10E-07	1.34E-08	2.31E-10	2.37E-06	7.80E-07	3.90E-07	3.78E+00	5.84E+00	2.24E+00	2.48E+00	1.43E-02	4.71E-03	2.36E-03	0.00E+00	0.00E+00	0.00E+00	5.24E-03	1.97E-03	2.04E-03	1.04E-04	3.40E-05	1.70E-05	2.83E-02	1.04E-02	1.05E-02	5.30E-03	1.19E-03	5.99E-04
W_22	550202.4	5397449	Three Finger Lake (north)	2.02E-06	6.59E-08	1.77E-09	6.52E-06	7.63E-07	5.03E-07	1.35E+01	6.25E+00	2.25E+00	2.48E+00	3.63E-02	4.61E-03	3.05E-03	0.00E+00	0.00E+00	0.00E+00	6.49E-03	1.97E-03	2.08E-03	2.51E-04	3.33E-05	2.20E-05	3.82E-02	1.03E-02	1.10E-02	5.68E-03	1.16E-03	7.49E-04
W_23	550175.4	5396992	Three Finger Lake (center)	1.85E-06	6.04E-08	1.83E-09	5.98E-06	6.79E-07	4.44E-07	1.27E+01	6.22E+00	2.25E+00	2.48E+00	3.32E-02	4.09E-03	2.69E-03	0.00E+00	0.00E+00	0.00E+00	6.31E-03	1.93E-03	2.06E-03	2.29E-04	2.95E-05	1.94E-05	3.65E-02	9.97E-03	1.08E-02	5.58E-03	1.09E-03	6.80E-04
W_24	549830.4	5396526	Three Finger Lake (south)	1.71E-06	5.59E-08	2.18E-09	3.83E-06	6.48E-07	4.05E-07	6.06E+00	5.94E+00	2.24E+00	2.48E+00	2.23E-02	3.91E-03	2.45E-03	0.00E+00	0.00E+00	0.00E+00	5.70E-03	1.92E-03	2.04E-03	1.58E-04	2.82E-05	1.77E-05	3.22E-02	9.84E-03	1.06E-02	6.27E-03	1.10E-03	6.58E-04
W_25	546947.4	5396628	Penn Lake (north)	3.58E-06	1.22E-07	7.49E-09	2.19E-06	6.02E-07	4.73E-07	3.90E+00	5.84E+00	2.24E+00	2.48E+00	1.32E-02	3.65E-03	2.86E-03	0.00E+00	0.00E+00	0.00E+00	5.17E-03	1.91E-03	2.07E-03	9.50E-05	2.64E-05	2.07E-05	2.74E-02	9.69E-03	1.09E-02	4.13E-03	8.95E-04	6.76E-04
W_26	547059.4	5396126	Penn Lake (center)	3.28E-06	1.12E-07	6.21E-09	2.03E-06	5.39E-07	4.22E-07	4.35E+00	5.86E+00	2.24E+00	2.48E+00	1.22E-02	3.26E-03	2.55E-03	0.00E+00	0.00E+00	0.00E+00	5.11E-03	1.88E-03	2.05E-03	8.80E-05	2.36E-05	1.85E-05	2.68E-02	9.44E-03	1.07E-02	3.71E-03	8.20E-04	6.05E-04
W_27	546991.4	5395773	Penn Lake (south)	2.85E-06	9.74E-08	5.59E-09	1.91E-06	4.96E-07	3.90E-07	4.41E+00	5.86E+00	2.24E+00	2.48E+00	1.14E-02	3.01E-03	2.36E-03	0.00E+00	0.00E+00	0.00E+00	5.06E-03	1.87E-03	2.04E-03	8.20E-05	2.18E-05	1.71E-05	2.62E-02	9.27E-03	1.05E-02	3.47E-03	7.60E-04	5.59E-04
W_28	544637	5401700	Angler Creek at Model Property Boun	1.20E-05	4.33E-07	1.37E-08	4.73E-06	1.34E-06	8.00E-07	9.61E+00	6.08E+00	2.25E+00	2.49E+00	2.84E-02	8.13E-03	4.83E-03	0.00E+00	0.00E+00	0.00E+00	6.10E-03	2.18E-03	2.19E-03	2.05E-04	5.88E-05	3.49E-05	3.75E-02	1.26E-02	1.21E-02	9.01E-03	2.02E-03	1.00E-03
W_29	551284	5407805	Pic River In-Flow to Model Property B	2.90E-09	9.44E-11	2.57E-12	4.60E-06	1.26E-06	8.03E-07	7.53E+00	5.99E+00	2.25E+00	2.49E+00	2.65E-02	7.47E-03	4.80E-03	0.00E+00	0.00E+00	0.00E+00	5.95E-03	2.14E-03	2.18E-03	1.87E-04	5.35E-05	3.45E-05	3.44E-02	1.20E-02	1.21E-02	3.07E-03	8.25E-04	5.31E-04
W_3	546725.4	5399334	Shack Lake (southwest)	2.80E-05	9.09E-07	3.71E-08	4.87E-06	1.47E-06	1.06E-06	4.47E+00	5.89E+00	2.24E+00	2.49E+00	2.94E-02	8.86E-03	6.44E-03	0.00E+00	0.00E+00	0.00E+00	6.17E-03	2.23E-03	2.29E-03	2.13E-04	6.40E-05	4.66E-05	3.82E-02	1.31E-02	1.32E-02	1.09E-02	2.33E-03	1.59E-03
W_30	551654	5401167	Pic River Out-Flow from Model Prope	3.00E-07	1.06E-08	3.13E-10	3.88E-06	1.61E-06	1.09E-06	6.59E+00	5.96E+00	2.25E+00	2.49E+00	2.34E-02	9.75E-03	6.60E-03	0.00E+00	0.00E+00	0.00E+00	5.80E-03	2.28E-03	2.30E-03	1.69E-04	7.05E-05	4.78E-05	3.41E-02	1.37E-02	1.33E-02	7.83E-03	2.26E-03	1.42E-03
W_4	545636.3	5403829	Hare Lake (east)	1.46E-06	5.20E-08	1.12E-09	6.77E-06	1.66E-06	9.86E-07	1.33E+01	6.25E+00	2.26E+00	2.49E+00	3.78E-02	1.00E-02	5.96E-03	0.00E+00	0.00E+00	0.00E+00	6.58E-03	2.30E-03	2.26E-03	2.61E-04	7.22E-05	4.31E-05	3.91E-02	1.38E-02	1.29E-02	1.06E-02	2.92E-03	1.62E-03
W_5	545048.3	5403557	Hare Lake (south)	5.50E-08	1.97E-09	3.85E-11	6.56E-06	1.47E-06	8.44E-07	1.36E+01	6.26E+00	2.26E+00	2.49E+00	3.65E-02	8.89E-03	5.10E-03	0.00E+00	0.00E+00	0.00E+00	6.49E-03	2.23E-03	2.20E-03	2.51E-04	6.42E-05	3.69E-05	3.81E-02	1.31E-02	1.23E-02	9.03E-03	1.96E-03	1.26E-03
W_6	543955.3	5403079	Hare Lake (west)	6.12E-08	2.20E-09	5.40E-11	5.75E-06	1.06E-06	5.91E-07	1.36E+01	6.26E+00	2.26E+00	2.48E+00	3.15E-02	6.42E-03	3.57E-03	0.00E+00	0.00E+00	0.00E+00	6.19E-03	2.08E-03	2.11E-03	2.15E-04	4.63E-05	2.58E-05	3.49E-02	1.15E-02	1.13E-02	7.78E-03	1.46E-03	8.51E-04
W_7	544603.3	5403943	Hare Lake (north)	3.10E-08	1.11E-09	2.32E-11	3.87E-06	1.21E-06	6.93E-07	4.67E+00	5.88E+00	2.24E+00	2.48E+00	2.32E-02	7.28E-03	4.19E-03	0.00E+00	0.00E+00	0.00E+00	5.78E-03	2.13E-03	2.15E-03	1.67E-04	5.26E-05	3.03E-05	3.38E-02	1.20E-02	1.17E-02	7.84E-03	1.80E-03	1.06E-03
W_8	544830.3	5403751	Hare Lake (center)	4.05E-08	1.45E-09	2.82E-11	4.86E-06	1.33E-06	7.61E-07	9.37E+00	6.08E+00	2.25E+00	2.49E+00	2.75E-02	8.03E-03	4.60E-03	0.00E+00	0.00E+00	0.00E+00	5.98E-03	2.17E-03	2.17E-03	1.91E-04	5.79E-05	3.33E-05	3.54E-02	1.25E-02	1.20E-02	8.42E-03	1.88E-03	1.16E-03
W_9	549326.3	5406972	Bamoos Lake (east)	1.77E-07	6.78E-09	2.78E-10	1.57E-05	2.29E-06	1.50E-06	3.25E+01	7.46E+00	2.29E+00	2.49E+00	8.29E-02	1.36E-02	8.96E-03	0.00E+00	0.00E+00	0.00E+00	9.06E-03	2.51E-03	2.44E-03	5.54E-04	9.71E-05	6.43E-05	5.59E-02	1.58E-02	1.47E-02	7.17E-03	1.28E-03	8.88E-04
Maximum of Special Receptors				**4.41E-04**	**1.43E-05**	**4.64E-07**	**1.58E-05**	**5.52E-06**	**4.20E-06**	**3.25E+01**	**7.46E+00**	**2.29E+00**	**2.52E+00**	**9.54E-02**	**3.35E-02**	**2.55E-02**	**0.00E+00**	**0.00E+00**	**0.00E+00**	**1.02E-02**	**3.75E-03**	**3.46E-03**	**6.91E-04**	**2.42E-04**	**1.84E-04**	**8.16E-02**	**2.94E-02**	**2.58E-02**	**3.15E-02**	**6.90E-03**	**4.18E-03**
Max % of Criteria				**0.0%**	-	-	**0.0%**	-	-	**32.5%**	-	-	**25.2%**	-	-	-	**0.0%**	-	-	**0.0%**	-	-	**0.1%**	-	-	**0.1%**	-	-	-	-	-

Notes:

1 Model predictions for particulates including all emissions sou

2 Model predictions for particulates excluding roads and stock

Table E-3 Special Receptor Predictions (ug/m3) - Construc

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	TOC (METHANE)			TOLUENE			TSP (See Note 1)			TSP (See Note 2)		TUNGSTEN (W)			URANIUM (U)			VANADIUM (V)			XYLENES				ZINC (ZN)			DUSTFALL (g/m2)		
				24	month	annual	24	month	annual	24	month	annual	24	annual	24	month	annual	24	month	annual	24	month	annual	10-Min	24	month	annual	24	month	annual	24	month	annual
				37330	-	-	2000	-	-	-	-	-	120	60	5	-	-	0.15	-	0.03	2	-	-	3000	730	-	-	120	-	-		7	
							2.81E+00	1.08E+00	1.53E+00	4.41E+01	1.70E+01	2.44E+01	4.41E+01	2.44E+01							3.14E-03	1.21E-03	8.86E-04	8.28E+00	2.06E+00	7.94E-01	1.08E+00	3.35E-02	1.29E-02	1.55E-02		1.44E+00	
W_10	546975.3	5406486	Bamoos Lake (south)	5.03E-01	1.01E-01	5.03E-02	2.81E+00	1.08E+00	1.53E+00	7.64E+01	2.53E+01	2.91E+01	5.60E+01	2.52E+01	1.78E-03	4.75E-04	2.69E-04	3.29E-04	8.41E-05	4.77E-05	8.21E-03	2.56E-03	1.65E-03	8.29E+00	2.06E+00	7.95E-01	1.08E+00	3.53E-02	1.34E-02	1.58E-02	3.07E-02	1.63E+00	1.67E+00
W_11	545484.3	5405866	Bamoos Lake (west)	5.50E-01	1.28E-01	6.32E-02	2.81E+00	1.08E+00	1.53E+00	6.69E+01	2.28E+01	2.76E+01	5.75E+01	2.50E+01	1.22E-03	3.28E-04	1.86E-04	2.31E-04	5.85E-05	3.29E-05	6.59E-03	2.14E-03	1.41E-03	8.29E+00	2.06E+00	7.95E-01	1.08E+00	3.48E-02	1.32E-02	1.57E-02	1.27E-02	1.55E+00	9.81E-01
W_12	546576.3	5407157	Bamoos Lake (north)	4.39E-01	8.86E-02	4.17E-02	2.81E+00	1.08E+00	1.53E+00	7.20E+01	2.33E+01	2.79E+01	5.82E+01	2.51E+01	1.50E-03	3.59E-04	1.99E-04	2.83E-04	6.37E-05	3.53E-05	7.41E-03	2.23E-03	1.45E-03	8.29E+00	2.06E+00	7.95E-01	1.08E+00	3.51E-02	1.33E-02	1.57E-02	1.51E-02	1.57E+00	1.02E+00
W_13	546777.3	5406831	Bamoos Lake (center)	4.65E-01	9.64E-02	4.62E-02	2.81E+00	1.08E+00	1.53E+00	7.36E+01	2.41E+01	2.83E+01	5.85E+01	2.52E+01	1.60E-03	4.08E-04	2.25E-04	3.00E-04	7.23E-05	3.99E-05	7.68E-03	2.37E-03	1.53E-03	8.29E+00	2.06E+00	7.95E-01	1.08E+00	3.52E-02	1.33E-02	1.57E-02	1.72E-02	1.59E+00	1.19E+00
W_14	554944.3	5408229	Page Lake (south)	1.79E-01	3.32E-02	1.72E-02	2.81E+00	1.08E+00	1.53E+00	6.20E+01	2.12E+01	2.66E+01	5.76E+01	2.48E+01	9.21E-04	2.36E-04	1.26E-04	1.82E-04	4.21E-05	2.25E-05	5.76E-03	1.88E-03	1.25E-03	8.28E+00	2.06E+00	7.95E-01	1.08E+00	3.45E-02	1.32E-02	1.56E-02	1.09E-02	1.57E+00	9.27E-01
W_15	555054.3	5408904	Page Lake (center)	1.61E-01	2.45E-02	1.44E-02	2.81E+00	1.08E+00	1.53E+00	5.45E+01	2.02E+01	2.62E+01	5.09E+01	2.47E+01	5.87E-04	1.79E-04	1.01E-04	1.05E-04	3.20E-05	1.79E-05	4.81E-03	1.72E-03	1.17E-03	8.28E+00	2.06E+00	7.94E-01	1.08E+00	3.41E-02	1.31E-02	1.56E-02	1.06E-02	1.55E+00	7.44E-01
W_16	555065.3	5409498	Page Lake (north)	1.48E-01	2.18E-02	1.29E-02	2.81E+00	1.08E+00	1.53E+00	5.34E+01	1.96E+01	2.59E+01	4.87E+01	2.47E+01	5.02E-04	1.45E-04	8.40E-05	9.40E-05	2.57E-05	1.49E-05	4.57E-03	1.62E-03	1.13E-03	8.28E+00	2.06E+00	7.94E-01	1.08E+00	3.40E-02	1.31E-02	1.56E-02	9.70E-03	1.53E+00	6.24E-01
W_17	556593.4	5402127	Peacock Lake (east)	4.75E-01	5.46E-02	2.53E-02	2.81E+00	1.08E+00	1.53E+00	5.47E+01	2.04E+01	2.60E+01	4.82E+01	2.47E+01	6.09E-04	1.91E-04	9.50E-05	1.08E-04	3.38E-05	1.68E-05	4.87E-03	1.75E-03	1.16E-03	8.29E+00	2.06E+00	7.95E-01	1.08E+00	3.41E-02	1.31E-02	1.56E-02	1.36E-02	1.52E+00	5.16E-01
W_18	556043.4	5401267	Peacock Lake (south)	4.95E-01	7.26E-02	2.55E-02	2.81E+00	1.08E+00	1.53E+00	5.76E+01	2.03E+01	2.60E+01	5.25E+01	2.47E+01	7.06E-04	1.84E-04	9.40E-05	1.36E-04	3.25E-05	1.67E-05	5.15E-03	1.73E-03	1.15E-03	8.29E+00	2.06E+00	7.95E-01	1.08E+00	3.43E-02	1.31E-02	1.56E-02	9.75E-03	1.51E+00	5.08E-01
W_19	556277.4	5402069	Peacock Lake (west)	4.69E-01	5.57E-02	2.64E-02	2.81E+00	1.08E+00	1.53E+00	5.44E+01	2.05E+01	2.61E+01	4.82E+01	2.47E+01	5.91E-04	1.99E-04	9.90E-05	1.04E-04	3.51E-05	1.75E-05	4.82E-03	1.78E-03	1.17E-03	8.29E+00	2.06E+00	7.95E-01	1.08E+00	3.41E-02	1.31E-02	1.56E-02	1.42E-02	1.52E+00	5.47E-01
W_2	547105.4	5399507	Shack Lake (center)	4.86E-01	1.06E-01	5.65E-02	2.81E+00	1.08E+00	1.53E+00	6.69E+01	2.41E+01	2.97E+01	4.86E+01	2.54E+01	1.30E-03	3.99E-04	2.98E-04	2.29E-04	7.04E-05	5.26E-05	6.84E-03	2.34E-03	1.73E-03	8.29E+00	2.06E+00	7.95E-01	1.08E+00	3.47E-02	1.33E-02	1.58E-02	2.92E-02	1.77E+00	2.38E+00
W_20	556444.4	5402420	Peacock Lake (north)	4.92E-01	6.19E-02	2.70E-02	2.81E+00	1.08E+00	1.53E+00	5.67E+01	2.06E+01	2.62E+01	4.82E+01	2.47E+01	7.23E-04	2.07E-04	1.02E-04	1.28E-04	3.66E-05	1.81E-05	5.20E-03	1.80E-03	1.18E-03	8.29E+00	2.06E+00	7.95E-01	1.08E+00	3.42E-02	1.31E-02	1.56E-02	1.45E-02	1.52E+00	5.62E-01
W_21	556424.4	5402100	Peacock Lake (center)	4.75E-01	5.54E-02	2.59E-02	2.81E+00	1.08E+00	1.53E+00	5.45E+01	2.04E+01	2.61E+01	4.82E+01	2.47E+01	5.96E-04	1.95E-04	9.80E-05	1.05E-04	3.44E-05	1.72E-05	4.83E-03	1.77E-03	1.16E-03	8.29E+00	2.06E+00	7.95E-01	1.08E+00	3.41E-02	1.31E-02	1.56E-02	1.39E-02	1.52E+00	5.33E-01
W_22	550202.4	5397449	Three Finger Lake (north)	4.79E-01	5.50E-02	3.04E-02	2.81E+00	1.08E+00	1.53E+00	6.84E+01	2.04E+01	2.66E+01	5.69E+01	2.48E+01	1.32E-03	1.91E-04	1.26E-04	2.45E-04	3.38E-05	2.23E-05	6.88E-03	1.76E-03	1.25E-03	8.29E+00	2.06E+00	7.95E-01	1.08E+00	3.48E-02	1.31E-02	1.56E-02	1.48E-02	1.57E+00	8.02E-01
W_23	550175.4	5396992	Three Finger Lake (center)	4.74E-01	5.00E-02	2.73E-02	2.81E+00	1.08E+00	1.53E+00	6.63E+01	2.00E+01	2.64E+01	5.59E+01	2.47E+01	1.20E-03	1.69E-04	1.12E-04	2.24E-04	2.99E-05	1.97E-05	6.55E-03	1.69E-03	1.20E-03	8.29E+00	2.06E+00	7.95E-01	1.08E+00	3.47E-02	1.31E-02	1.56E-02	1.31E-02	1.55E+00	6.92E-01
W_24	549830.4	5396526	Three Finger Lake (south)	4.89E-01	4.66E-02	2.33E-02	2.81E+00	1.08E+00	1.53E+00	5.97E+01	1.99E+01	2.62E+01	4.96E+01	2.47E+01	8.67E-04	1.61E-04	1.02E-04	1.57E-04	2.86E-05	1.80E-05	5.61E-03	1.67E-03	1.18E-03	8.29E+00	2.06E+00	7.95E-01	1.08E+00	3.43E-02	1.31E-02	1.56E-02	1.30E-02	1.54E+00	6.24E-01
W_25	546947.4	5396628	Penn Lake (north)	3.20E-01	3.98E-02	2.35E-02	2.81E+00	1.08E+00	1.53E+00	5.40E+01	1.98E+01	2.66E+01	4.63E+01	2.48E+01	5.43E-04	1.52E-04	1.19E-04	9.60E-05	2.68E-05	2.10E-05	4.68E-03	1.64E-03	1.22E-03	8.29E+00	2.06E+00	7.95E-01	1.08E+00	3.40E-02	1.31E-02	1.56E-02	1.27E-02	1.56E+00	8.65E-01
W_26	547059.4	5396126	Penn Lake (center)	2.58E-01	3.83E-02	2.14E-02	2.81E+00	1.08E+00	1.53E+00	5.31E+01	1.95E+01	2.63E+01	4.66E+01	2.47E+01	5.01E-04	1.36E-04	1.06E-04	8.90E-05	2.39E-05	1.87E-05	4.56E-03	1.60E-03	1.19E-03	8.29E+00	2.06E+00	7.95E-01	1.08E+00	3.40E-02	1.31E-02	1.56E-02	1.10E-02	1.54E+00	7.18E-01
W_27	546991.4	5395773	Penn Lake (south)	2.42E-01	3.61E-02	2.00E-02	2.81E+00	1.08E+00	1.53E+00	5.25E+01	1.93E+01	2.61E+01	4.66E+01	2.47E+01	4.68E-04	1.25E-04	9.80E-05	8.30E-05	2.21E-05	1.73E-05	4.47E-03	1.57E-03	1.16E-03	8.29E+00	2.06E+00	7.95E-01	1.08E+00	3.39E-02	1.30E-02	1.56E-02	1.02E-02	1.53E+00	6.44E-01
W_28	544637	5401700	Angler Creek at Model Property Boun	5.02E-01	9.36E-02	3.57E-02	2.81E+00	1.08E+00	1.53E+00	6.47E+01	2.29E+01	2.79E+01	5.08E+01	2.50E+01	1.18E-03	3.38E-04	2.00E-04	2.07E-04	5.96E-05	3.54E-05	6.48E-03	2.17E-03	1.46E-03	8.29E+00	2.06E+00	7.95E-01	1.08E+00	3.46E-02	1.32E-02	1.57E-02	2.11E-02	1.69E+00	1.58E+00
W_29	551284	5407805	Pic River In-Flow to Model Property B	2.95E-01	4.89E-02	2.51E-02	2.81E+00	1.08E+00	1.53E+00	6.25E+01	2.23E+01	2.78E+01	5.00E+01	2.50E+01	1.02E-03	3.02E-04	1.96E-04	1.86E-04	5.38E-05	3.48E-05	6.04E-03	2.07E-03	1.44E-03	8.29E+00	2.06E+00	7.95E-01	1.08E+00	3.45E-02	1.32E-02	1.57E-02	3.03E-02	1.69E+00	1.92E+00
W_3	546725.4	5399334	Shack Lake (southwest)	4.31E-01	1.01E-01	5.21E-02	2.81E+00	1.08E+00	1.53E+00	6.55E+01	2.35E+01	2.91E+01	4.84E+01	2.53E+01	1.22E-03	3.66E-04	2.67E-04	2.16E-04	6.48E-05	4.72E-05	6.61E-03	2.25E-03	1.65E-03	8.29E+00	2.06E+00	7.95E-01	1.08E+00	3.47E-02	1.33E-02	1.58E-02	2.58E-02	1.74E+00	2.12E+00
W_30	551654	5401167	Pic River Out-Flow from Model Prope	5.71E-01	1.12E-01	5.53E-02	2.81E+00	1.08E+00	1.53E+00	6.09E+01	2.41E+01	2.92E+01	4.91E+01	2.53E+01	9.66E-04	4.05E-04	2.74E-04	1.71E-04	7.15E-05	4.84E-05	5.89E-03	2.36E-03	1.67E-03	8.30E+00	2.06E+00	7.95E-01	1.08E+00	3.44E-02	1.33E-02	1.58E-02	2.05E-02	1.70E+00	2.22E+00
W_4	545636.3	5403829	Hare Lake (east)	6.63E-01	1.11E-01	6.60E-02	2.81E+00	1.08E+00	1.53E+00	6.94E+01	2.42E+01	2.87E+01	5.61E+01	2.52E+01	1.37E-03	4.12E-04	2.47E-04	2.56E-04	7.30E-05	4.36E-05	7.05E-03	2.38E-03	1.59E-03	8.29E+00	2.06E+00	7.95E-01	1.08E+00	3.49E-02	1.33E-02	1.57E-02	1.76E-02	1.67E+00	1.76E+00
W_5	545048.3	5403557	Hare Lake (south)	6.05E-01	8.10E-02	5.08E-02	2.81E+00	1.08E+00	1.53E+00	6.84E+01	2.34E+01	2.81E+01	5.60E+01	2.51E+01	1.31E-03	3.67E-04	2.11E-04	2.45E-04	6.50E-05	3.73E-05	6.87E-03	2.26E-03	1.49E-03	8.29E+00	2.06E+00	7.95E-01	1.08E+00	3.48E-02	1.33E-02	1.57E-02	1.56E-02	1.63E+00	1.45E+00
W_6	543955.3	5403079	Hare Lake (west)	5.07E-01	6.50E-02	3.53E-02	2.81E+00	1.08E+00	1.53E+00	6.48E+01	2.17E+01	2.70E+01	5.52E+01	2.49E+01	1.11E-03	2.65E-04	1.48E-04	2.09E-04	4.69E-05	2.61E-05	6.29E-03	1.96E-03	1.31E-03	8.29E+00	2.06E+00	7.95E-01	1.08E+00	3.47E-02	1.32E-02	1.56E-02	1.24E-02	1.58E+00	9.82E-01
W_7	544603.3	5403943	Hare Lake (north)	5.15E-01	7.58E-02	4.68E-02	2.81E+00	1.08E+00	1.53E+00	6.08E+01	2.23E+01	2.74E+01	4.79E+01	2.49E+01	9.52E-04	3.00E-04	1.74E-04	1.69E-04	5.31E-05	3.07E-05	5.85E-03	2.06E-03	1.38E-03	8.29E+00	2.06E+00	7.95E-01	1.08E+00	3.44E-02	1.32E-02	1.57E-02	1.37E-02	1.59E+00	1.11E+00
W_8	544830.3	5403751	Hare Lake (center)	4.93E-01	7.49E-02	4.88E-02	2.81E+00	1.08E+00	1.53E+00	6.27E+01	2.28E+01	2.77E+01	5.21E+01	2.50E+01	1.05E-03	3.31E-04	1.91E-04	1.88E-04	5.86E-05	3.37E-05	6.14E-03	2.15E-03	1.43E-03	8.29E+00	2.06E+00	7.95E-01	1.08E+00	3.45E-02	1.32E-02	1.57E-02	1.46E-02	1.61E+00	1.27E+00
W_9	549326.3	5406972	Bamoos Lake (east)	3.96E-01	6.41E-02	3.47E-02	2.81E+00	1.08E+00	1.53E+00	9.60E+01	2.66E+01	3.08E+01	8.01E+01	2.56E+01	2.70E-03	5.45E-04	3.63E-04	5.27E-04	9.75E-05	6.47E-05	1.08E-02	2.76E-03	1.92E-03	8.29E+00	2.06E+00	7.95E-01	1.08E+00	3.65E-02	1.34E-02	1.58E-02	3.79E-02	1.74E+00	2.47E+00
Maximum of Special Receptors				**1.08E+00**	**2.09E-01**	**1.02E-01**	**2.81E+00**	**1.08E+00**	**1.53E+00**	**1.13E+02**	**4.15E+01**	**4.31E+01**	**8.01E+01**	**2.80E+01**	**3.97E-03**	**1.40E-03**	**1.06E-03**	**7.00E-04**	**2.47E-04**	**1.87E-04**	**1.44E-02**	**5.18E-03**	**3.90E-03**	**8.30E+00**	**2.06E+00**	**7.95E-01**	**1.08E+00**	**3.72E-02**	**1.42E-02**	**1.65E-02**	**7.94E-02**	**2.65E+00**	**1.25E+01**
Max % of Criteria				**0.0%**	-	-	**0.1%**	-	-	-	-	-	**66.7%**	**46.6%**	**0.1%**	-	-	**0.5%**	-	**0.6%**	**0.7%**	-	-	**0.3%**	**0.3%**	-	-	**0.0%**	-	-	-	**37.9%**	-

Notes:

1 Model predictions for particulates including all emissions sou

2 Model predictions for particulates excluding roads and stock

Table E-3 Special Receptor Predictions (ug/m3) - Construc

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description
W_10	546975.3	5406486	Bamoos Lake (south)
W_11	545484.3	5405866	Bamoos Lake (west)
W_12	546576.3	5407157	Bamoos Lake (north)
W_13	546777.3	5406831	Bamoos Lake (center)
W_14	554944.3	5408229	Page Lake (south)
W_15	555054.3	5408904	Page Lake (center)
W_16	555065.3	5409498	Page Lake (north)
W_17	556593.4	5402127	Peacock Lake (east)
W_18	556043.4	5401267	Peacock Lake (south)
W_19	556277.4	5402069	Peacock Lake (west)
W_2	547105.4	5399507	Shack Lake (center)
W_20	556444.4	5402420	Peacock Lake (north)
W_21	556424.4	5402100	Peacock Lake (center)
W_22	550202.4	5397449	Three Finger Lake (north)
W_23	550175.4	5396992	Three Finger Lake (center)
W_24	549830.4	5396526	Three Finger Lake (south)
W_25	546947.4	5396628	Penn Lake (north)
W_26	547059.4	5396126	Penn Lake (center)
W_27	546991.4	5395773	Penn Lake (south)
W_28	544637	5401700	Angler Creek at Model Property Boun
W_29	551284	5407805	Pic River In-Flow to Model Property B
W_3	546725.4	5399334	Shack Lake (southwest)
W_30	551654	5401167	Pic River Out-Flow from Model Prope
W_4	545636.3	5403829	Hare Lake (east)
W_5	545048.3	5403557	Hare Lake (south)
W_6	543955.3	5403079	Hare Lake (west)
W_7	544603.3	5403943	Hare Lake (north)
W_8	544830.3	5403751	Hare Lake (center)
W_9	549326.3	5406972	Bamoos Lake (east)
Maximum of Special Receptors			
Max % of Criteria			

Notes:

1 Model predictions for particulates including all emissions so

2 Model predictions for particulates excluding roads and stock

Table E-4 Fence Line Receptor Predictions (ug/m3) - Operations, Cumulative (Project + Background)

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	1,3-BUTADIENE			ACENAPHTHENE			ACENAPHTHYLENE			ACETALDEHYDE					ACROLEIN				ALDEHYDES			ALUMINUM (AL)			ANTHRACENE		
				Averaging Period	24	month	annual	24	month	annual	24	month	annual	0.5	1	24	month	annual	1	24	month	annual	24	month	annual	24	month	annual	24	month	annual
				Criteria	10	-	2	-	-	-	-	-	-	500	-	500	-	-	4.5	0.4	-	-	-	-	-	12	-	-	-	-	-
				Background Concentration (ug/m3)	1.09E-01	4.21E-02	7.32E-02	1.81E-03	6.98E-04	9.10E-04	1.79E-03	6.91E-04	1.06E-03	1.18E+01	9.74E+00	4.00E+00	1.54E+00	1.60E+00	1.22E-01	5.00E-02	1.93E-02	2.30E-02	0.00E+00	0.00E+00	0.00E+00	5.88E-01	2.27E-01	2.84E-01	4.49E-04	1.73E-04	2.51E-04
Maximum of Fence Line Receptors					1.17E-01	4.51E-02	7.56E-02	2.38E-03	9.07E-04	1.08E-03	2.72E-03	1.03E-03	1.34E-03	1.45E+01	1.20E+01	4.73E+00	1.81E+00	1.81E+00	4.40E-01	1.55E-01	5.76E-02	5.35E-02	1.00E+00	2.26E-01	1.10E-01	3.43E+00	1.35E+00	1.18E+00	8.10E-04	3.05E-04	3.57E-04
Max % of Criteria					1.2%	-	3.8%	-	-	-	-	-	-	2.9%	-	0.9%	-	-	9.8%	38.7%	-	-	-	-	-	28.6%	-	-	-	-	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by MECP Guideline A-10, Section 7.4.1 for facilities with a fugitive dust BMP. These model predictions were used for comparison to the applicable critiera.

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier 3 assumption).

Table E-4 Fence Line Receptor Predictions (ug/m3) - Opera

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	ANTIMONY (SB)			ARSENIC (AS)			BARIUM (BA)			BENZENE			BENZO(A)ANTHRACENE			BENZO(A)PYRENE			BENZO(B)FLUORANTHENE			BENZO(G,H,I)PERYLENE			BENZO(K)FLUORANTHENE			BERYLLIUM (BE)		
				24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual
				25	-	-	0.3	-	-	10	-	-	2.3	-	0.45	-	-	-	0.00005	-	0.00001	-	-	-	-	-	-	-	-	-	0.01	-	-
				2.71E-02	1.05E-02	9.39E-03	0.00E+00	0.00E+00	0.00E+00	3.99E-02	1.54E-02	1.92E-02	1.44E+00	5.56E-01	9.02E-01	2.14E-04	8.26E-05	1.07E-04	2.06E-04	7.95E-05	1.03E-04	3.19E-04	1.23E-04	2.07E-04	2.80E-04	1.08E-04	1.32E-04	1.04E-04	4.03E-05	6.07E-05	0.00E+00	0.00E+00	0.00E+00
Maximum of Fence Line Receptors				2.77E-02	1.07E-02	9.56E-03	5.93E-04	2.34E-04	1.87E-04	5.09E-02	1.97E-02	2.27E-02	1.58E+00	6.06E-01	9.42E-01	2.26E-04	8.67E-05	1.10E-04	2.13E-04	8.20E-05	1.05E-04	3.37E-04	1.27E-04	2.10E-04	2.90E-04	1.11E-04	1.33E-04	1.09E-04	4.16E-05	6.16E-05	1.33E-04	5.23E-05	4.18E-05
Max % of Criteria				0.1%	-	-	0.2%	-	-	0.5%	-	-	68.6%	-	209.4%	-	-	-	426.4%	-	1048.3%	-	-	-	-	-	-	-	-	-	1.3%	-	-

Notes:

1 Model predictions for particulates including all emissions sou

2 Model predictions for particulates excluding roads and stock

3 Nitrogen Dioxide predictions including the OLM for estimatir

Table E-4 Fence Line Receptor Predictions (ug/m3) - Opera

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	BISMUTH (BI)			BORON (B)			BROMINE (BR)			CADMIUM (CD)			CALCIUM (CA)			CAO			CH4			CHROMIUM (CR)			CHRYSENE		
				24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual
				2.5	-	-	120	-	-	20	-	-	0.025	-	0.005	-	-	-	10	-	-	37330	-	-	0.5	-	-	-	-	-
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.20E-02	4.63E-03	3.62E-03	1.74E+00	6.71E-01	7.62E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.46E-03	5.63E-04	6.76E-04	2.65E-04	1.02E-04	1.57E-04
Maximum of Fence Line Receptors				5.03E-04	1.98E-04	1.58E-04	2.44E-03	9.62E-04	7.68E-04	0.00E+00	0.00E+00	0.00E+00	1.21E-02	4.69E-03	3.67E-03	4.70E+00	1.84E+00	1.69E+00	0.00E+00	0.00E+00	0.00E+00	7.71E-01	2.82E-01	2.24E-01	2.29E-02	9.03E-03	7.44E-03	2.94E-04	1.10E-04	1.62E-04
Max % of Criteria				0.0%	-	-	0.0%	-	-	0.0%	-	-	48.6%	-	73.3%	-	-	-	0.0%	-	-	0.0%	-	-	4.6%	-	-	-	-	-

Notes:

1 Model predictions for particulates including all emissions sou

2 Model predictions for particulates excluding roads and stock

3 Nitrogen Dioxide predictions including the OLM for estimatir

Table E-4 Fence Line Receptor Predictions (ug/m3) - Opera

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	CO						COBALT (CO)			COPPER (CU)			DIBENZ(A,H)PERYLENE			FLUORANTHENE			FLUORENE			FORMALDEHYDE			GALLIUM (GA)			GOLD (AU)		
				0.5	1	8	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual
				-	36200	15700	-	-	-	0.1	-	-	50	-	-	-	-	-	-	-	-	-	-	-	-	-	65	-	-	-	-	-	1.25	-	-
				1.17E+03	9.65E+02	9.65E+02	9.65E+02	3.72E+02	5.91E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.91E-03	7.37E-04	1.06E-03	2.91E-03	1.12E-03	1.62E-03	5.40E+00	2.08E+00	1.90E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Maximum of Fence Line Receptors				3.51E+03	2.89E+03	1.23E+03	1.35E+03	4.28E+02	6.35E+02	7.41E-03	2.92E-03	2.34E-03	5.68E-02	2.24E-02	1.79E-02	5.61E-06	1.26E-06	6.13E-07	2.47E-03	9.43E-04	1.23E-03	5.09E-03	1.91E-03	2.26E-03	7.68E+00	2.92E+00	2.56E+00	2.43E-03	9.60E-04	7.67E-04	2.47E-06	9.75E-07	7.79E-07
Max % of Criteria				-	8.0%	7.8%	-	-	-	7.4%	-	-	0.1%	-	-	-	-	-	-	-	-	-	-	-	-	11.8%	-	-	-	-	-	0.0%	-	-

Notes:

1 Model predictions for particulates including all emissions sou

2 Model predictions for particulates excluding roads and stock

3 Nitrogen Dioxide predictions including the OLM for estimatir

Table E-4 Fence Line Receptor Predictions (ug/m3) - Opera

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	HYDROCHLORIC ACID (HCL)			HYDROFLUORIC ACID (HF)			INDENO(1,2,3-CD)PYRENE			IRON (FE)			IRON SULFIDE			LANTHANUM (LA)			LANTHANUM CHLORIDE (LACL3)			LEAD (PB)			MAGNESIUM (MG)			MANGANESE (MN)		
				24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual
				20	-	-	0.86	0.34	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.5	-	-	0.5	0.2	-	72	-	-	0.4	-	-
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.85E-01	1.49E-01	1.91E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.74E-03	2.21E-03	3.01E-03	0.00E+00	0.00E+00	0.00E+00	1.42E-02	5.48E-03	7.71E-03
Maximum of Fence Line Receptors				0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.72E-06	1.51E-06	7.34E-07	1.34E+01	5.29E+00	4.30E+00	0.00E+00	0.00E+00	0.00E+00	3.93E-03	1.55E-03	1.24E-03	0.00E+00	0.00E+00	0.00E+00	6.39E-03	2.47E-03	3.21E-03	3.39E+00	1.34E+00	1.07E+00	1.39E-01	5.46E-02	4.70E-02
Max % of Criteria				0.0%	-	-	0.0%	0.0%	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0%	-	-	1.3%	1.2%	-	4.7%	-	-	34.7%	-	-

Notes:

1 Model predictions for particulates including all emissions sou

2 Model predictions for particulates excluding roads and stock

3 Nitrogen Dioxide predictions including the OLM for estimatir

Table E-4 Fence Line Receptor Predictions (ug/m3) - Opera

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	MERCURY (HG)			MOLYBDENUM (MO)			N2O			NAPHTHALENE				NICKEL (NI)		NITRIC ACID (HNO3)			NON-METHANE HYDROCARBONS			NO2 (See Note 3)			PALLADIUM (PD)			PHENANTHRENE		
				24	month	annual	24	month	annual	24	month	annual	10-min	24	month	annual	24	annual	24	month	annual	24	month	annual	1	24	annual	24	month	annual	24	month	annual
				2	-	-	120	-	-	9000	-	-	50	22.5	-	-	0.2	0.04	35	-	-	-	-	-	400	200	-	10	-	-	-	-	-
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.37E+00	2.39E-01	9.22E-02	9.64E-02	2.60E-03	1.00E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.34E+01	3.17E+01	1.74E+01	0.00E+00	0.00E+00	0.00E+00	7.86E-03	3.03E-03	4.59E-03
Maximum of Fence Line Receptors				2.44E-04	9.64E-05	7.70E-05	2.98E-04	1.18E-04	9.40E-05	2.41E+00	8.78E-01	6.99E-01	2.38E+00	2.41E-01	9.27E-02	9.66E-02	2.17E-02	7.03E-03	0.00E+00	0.00E+00	0.00E+00	8.02E+00	2.94E+00	2.34E+00	4.60E+02	1.45E+02	5.05E+01	6.87E-06	2.71E-06	2.17E-06	1.75E-02	6.54E-03	7.42E-03
Max % of Criteria				0.0%	-	-	0.0%	-	-	0.0%	-	-	4.8%	1.1%	-	-	10.9%	17.6%	0.0%	-	-	-	-	-	115.0%	72.4%	-	0.0%	-	-	-	-	-

Notes:

1 Model predictions for particulates including all emissions sou

2 Model predictions for particulates excluding roads and stock

3 Nitrogen Dioxide predictions including the OLM for estimatir

Table E-4 Fence Line Receptor Predictions (ug/m3) - Opera

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	PHOSPHOROUS (P)			PLATINUM (PT)			PM10 (see Note 1)			PM10 (see Note 2)	PM2.5 (See Note 1)			PM2.5 (See Note 2)		POTASSIUM (K)			PROPYLENE			PYRENE			SCANDIUM (SC)			SILICA		
				24	month	annual	24	month	annual	24	month	annual	24	24	month	annual	24	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual
				-	-	-	0.2	-	-	-	-	-	50	-	-	-	27	8.8	1	-	-	4000	-	-	-	-	-	-	-	-	5	-	-
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.28E+01	8.80E+00	1.27E+01	2.28E+01	1.23E+01	4.75E+00	6.80E+00	1.23E+01	6.80E+00	2.79E-01	1.08E-01	1.49E-01	0.00E+00	0.00E+00	0.00E+00	1.34E-03	5.17E-04	8.01E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Maximum of Fence Line Receptors				3.31E-01	1.31E-01	1.04E-01	4.51E-06	1.78E-06	1.42E-06	9.78E+01	3.51E+01	3.40E+01	4.37E+01	2.65E+01	1.00E+01	8.80E+00	2.39E+01	8.52E+00	4.67E-01	1.82E-01	2.08E-01	4.53E-02	1.02E-02	4.95E-03	1.82E-03	6.92E-04	9.41E-04	4.28E-04	1.69E-04	1.35E-04	3.51E+01	1.23E+01	9.96E+00
Max % of Criteria				-	-	-	0.0%	-	-	-	-	-	87.4%	-	-	-	88.5%	96.9%	46.7%	-	-	0.0%	-	-	-	-	-	-	-	-	702.5%	-	-

Notes:

1 Model predictions for particulates including all emissions sou

2 Model predictions for particulates excluding roads and stock

3 Nitrogen Dioxide predictions including the OLM for estimatir

Table E-4 Fence Line Receptor Predictions (ug/m3) - Opera

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	SILICON (SI)			SILVER (AG)			SO2				SODIUM (NA)			SODIUM CARBOXYMETHYL CELLULOSE			STRONTIUM (SR)			THALLIUM (TL)			TITANIUM (TI)			TOC		
				24	month	annual	24	month	annual	1	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual
				27	-	-	1	-	-	100	-	-	10	-	-	-	120	-	-	120	-	-	0.5	-	-	120	-	-	-	-	-
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.76E+00	5.79E+00	2.23E+00	2.48E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.36E-03	1.68E-03	1.89E-03	0.00E+00	0.00E+00	0.00E+00	1.89E-02	7.29E-03	8.99E-03	0.00E+00	0.00E+00	0.00E+00
Maximum of Fence Line Receptors				7.75E-04	2.53E-05	1.86E-06	5.57E-05	2.20E-05	1.76E-05	3.63E+01	7.67E+00	2.34E+00	2.55E+00	3.38E-01	1.33E-01	1.07E-01	0.00E+00	0.00E+00	0.00E+00	2.52E-02	9.90E-03	8.46E-03	2.45E-03	9.67E-04	7.72E-04	2.42E-01	9.54E-02	7.94E-02	7.85E-02	1.58E-02	9.55E-03
Max % of Criteria				0.0%	-	-	0.0%	-	-	36.3%	-	-	25.5%	-	-	-	0.0%	-	-	0.0%	-	-	0.5%	-	-	0.2%	-	-	-	-	-

Notes:

1 Model predictions for particulates including all emissions sou

2 Model predictions for particulates excluding roads and stock

3 Nitrogen Dioxide predictions including the OLM for estimatir

Table E-4 Fence Line Receptor Predictions (ug/m3) - Opera

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	TOC (METHANE)			TOLUENE			TSP (See Note 1)			TSP (See Note 2)		TUNGSTEN (W)			URANIUM (U)			VANADIUM (V)			XYLENES				ZINC (ZN)			DUSTFALL (g/m2)		
				24	month	annual	24	month	annual	24	month	annual	24	annual	24	month	annual	24	month	annual	24	month	annual	10-Min	24	month	annual	24	month	annual	24	month	annual
				37330	-	-	2000	-	-	-	-	-	120	60	5	-	-	0.15	-	0.03	2	-	-	3000	730	-	-	120	-	-	0	7	0
				0.00E+00	0.00E+00	0.00E+00	2.81E+00	1.08E+00	1.53E+00	4.41E+01	1.70E+01	2.44E+01	4.41E+01	2.44E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.14E-03	1.21E-03	8.86E-04	8.28E+00	2.06E+00	7.94E-01	1.08E+00	3.35E-02	1.29E-02	1.55E-02	0.00E+00	1.44E+00	0.00E+00
Maximum of Fence Line Receptors				1.53E+00	3.43E-01	1.67E-01	2.81E+00	1.09E+00	1.53E+00	2.88E+02	1.13E+02	1.01E+02	1.20E+02	4.66E+01	1.41E-02	5.57E-03	4.45E-03	2.48E-03	9.81E-04	7.83E-04	4.32E-02	1.70E-02	1.35E-02	8.30E+00	2.06E+00	7.95E-01	1.08E+00	4.68E-02	1.82E-02	1.97E-02	1.70E-01	7.68E+00	5.91E+01
Max % of Criteria				0.0%	-	-	0.1%	-	-	-	-	-	100.3%	77.6%	0.3%	-	-	1.7%	-	2.6%	2.2%	-	-	0.3%	0.3%	-	-	0.0%	-	-	-	109.7%	-

Notes:

1 Model predictions for particulates including all emissions sou

2 Model predictions for particulates excluding roads and stock

3 Nitrogen Dioxide predictions including the OLM for estimatir

APPENDIX F
Model Predictions - Operations

Table F-1 Special Receptor Predictions (ug/m3) - Operations, Project Alone

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	1,3-BUTADIENE			ACENAPHTHENE			ACENAPHTHYLENE			ACETALDEHYDE					ACROLEIN				ALDEHYDES		
				Averaging Period	24	month	annual	24	month	annual	24	month	annual	0.5	1	24	month	annual	1	24	month	annual	24	month	annual
				Criteria	10	-	2	-	-	-	-	-	-	500	-	500	-	-	4.5	0.4	-	-	-	-	-
H_1	545937.38	5396169.55	Wilson Memorial General Hospital		5.91E-03	2.82E-03	1.72E-03	3.95E-04	1.89E-04	1.15E-04	6.68E-04	3.19E-04	1.96E-04	1.60E+00	1.34E+00	3.85E-01	1.82E-01	1.11E-01	1.95E-01	5.59E-02	2.64E-02	1.61E-02	2.99E-02	4.80E-03	2.49E-03
M_1	545694	5403864	PM-10 @ Hare Lake		8.18E-04	2.39E-04	1.38E-04	5.68E-05	1.66E-05	9.61E-06	9.30E-05	2.72E-05	1.58E-05	3.76E-01	3.14E-01	7.06E-02	2.06E-02	1.18E-02	4.52E-02	1.02E-02	2.97E-03	1.70E-03	7.40E-02	1.24E-02	7.23E-03
M_2	545694	5403873	Dustfall @ Hare Lake		8.17E-04	2.38E-04	1.37E-04	5.67E-05	1.65E-05	9.57E-06	9.30E-05	2.71E-05	1.57E-05	3.77E-01	3.14E-01	7.05E-02	2.05E-02	1.17E-02	4.52E-02	1.02E-02	2.95E-03	1.69E-03	7.37E-02	1.24E-02	7.24E-03
M_3	547152	5401222	PM-10 @ Mays Gifts		1.29E-03	3.94E-04	2.97E-04	9.53E-05	2.76E-05	2.04E-05	1.58E-04	4.54E-05	3.35E-05	8.35E-01	6.96E-01	1.11E-01	3.37E-02	2.54E-02	1.00E-01	1.61E-02	4.86E-03	3.66E-03	1.33E-01	2.30E-02	1.13E-02
M_4	547147	5401216	Dustfall @ Mays Gifts		1.28E-03	3.91E-04	2.95E-04	9.48E-05	2.75E-05	2.03E-05	1.57E-04	4.52E-05	3.33E-05	8.23E-01	6.85E-01	1.10E-01	3.35E-02	2.52E-02	9.87E-02	1.59E-02	4.84E-03	3.64E-03	1.34E-01	2.31E-02	1.14E-02
M_5	551637	5402371	PM-10 @ Pic River		7.40E-04	2.48E-04	1.59E-04	5.20E-05	1.81E-05	1.14E-05	8.54E-05	2.99E-05	1.88E-05	6.23E-01	5.19E-01	6.35E-02	2.11E-02	1.35E-02	7.48E-02	9.16E-03	3.04E-03	1.95E-03	1.25E-01	2.18E-02	1.15E-02
M_6	551643	5402374	Dustfall @ Pic River		7.37E-04	2.48E-04	1.59E-04	5.18E-05	1.81E-05	1.14E-05	8.50E-05	2.99E-05	1.88E-05	6.24E-01	5.20E-01	6.33E-02	2.11E-02	1.35E-02	7.50E-02	9.13E-03	3.04E-03	1.95E-03	1.24E-01	2.17E-02	1.15E-02
M_7	549180	5399815	Dustfall @ Airport		1.18E-03	5.00E-04	3.87E-04	8.38E-05	3.51E-05	2.74E-05	1.37E-04	5.76E-05	4.48E-05	8.90E-01	7.42E-01	9.58E-02	3.92E-02	3.05E-02	1.08E-01	1.38E-02	5.68E-03	4.42E-03	1.00E-01	1.78E-02	7.41E-03
M_8	545863	5397092	Dustfall @ Field Office		2.49E-03	1.31E-03	9.69E-04	1.69E-04	8.87E-05	6.57E-05	2.83E-04	1.49E-04	1.10E-04	5.46E-01	4.55E-01	1.71E-01	8.97E-02	6.66E-02	6.59E-02	2.48E-02	1.30E-02	9.64E-03	3.73E-02	5.61E-03	3.03E-03
O_1	547181.37	5398014.56	Pic Motel		1.79E-03	7.31E-04	5.38E-04	1.23E-04	4.98E-05	3.68E-05	2.06E-04	8.38E-05	6.20E-05	6.49E-01	5.41E-01	1.25E-01	4.89E-02	3.64E-02	7.85E-02	1.80E-02	7.09E-03	5.28E-03	5.96E-02	8.45E-03	4.54E-03
O_2	545734.38	5396872.55	Marathon Harbour Inn		4.83E-03	2.22E-03	1.69E-03	3.23E-04	1.48E-04	1.13E-04	5.36E-04	2.46E-04	1.87E-04	1.16E+00	9.68E-01	3.68E-01	1.69E-01	1.29E-01	1.40E-01	5.32E-02	2.45E-02	1.87E-02	3.59E-02	5.31E-03	2.86E-03
O_3	545885.38	5396448.55	Zero-100 Motor Inn		6.38E-03	2.67E-03	2.07E-03	4.26E-04	1.78E-04	1.38E-04	7.11E-04	2.98E-04	2.31E-04	1.16E+00	9.67E-01	4.70E-01	1.94E-01	1.50E-01	1.40E-01	6.80E-02	2.81E-02	2.18E-02	3.42E-02	5.10E-03	2.64E-03
O_4	545987.37	5397640.55	OPP Station		1.93E-03	9.37E-04	7.04E-04	1.31E-04	6.38E-05	4.80E-05	2.21E-04	1.08E-04	8.08E-05	5.47E-01	4.56E-01	1.27E-01	6.25E-02	4.71E-02	6.64E-02	1.84E-02	9.06E-03	6.82E-03	3.70E-02	6.29E-03	3.48E-03
O_5	545876.38	5396072.55	Library		4.92E-03	2.40E-03	1.53E-03	3.28E-04	1.61E-04	1.03E-04	5.53E-04	2.71E-04	1.73E-04	1.57E+00	1.31E+00	3.32E-01	1.58E-01	9.98E-02	1.90E-01	4.81E-02	2.30E-02	1.45E-02	2.95E-02	4.70E-03	2.44E-03
P_1	546958.38	5396138.56	Penn Lake Park and Campground		7.27E-04	2.50E-04	1.36E-04	4.94E-05	1.68E-05	9.24E-06	8.25E-05	2.80E-05	1.54E-05	3.90E-01	3.25E-01	5.32E-02	1.83E-02	1.01E-02	4.69E-02	7.69E-03	2.65E-03	1.46E-03	3.63E-02	4.33E-03	2.51E-03
P_2	548538.41	5392862.58	Craig's Pit Provincial Nature Reserve		2.16E-04	4.80E-05	2.90E-05	1.64E-05	3.47E-06	2.04E-06	2.73E-05	5.76E-06	3.38E-06	3.21E-01	2.67E-01	1.85E-02	4.01E-03	2.38E-03	3.87E-02	2.67E-03	5.78E-04	3.43E-04	2.80E-02	3.65E-03	1.54E-03
P_3	540005	5402014	Red Sucker Point Provincial Park		2.59E-04	6.30E-05	3.25E-05	1.84E-05	4.41E-06	2.29E-06	3.04E-05	7.28E-06	3.78E-06	1.84E-01	1.53E-01	2.21E-02	5.24E-03	2.68E-03	2.21E-02	3.19E-03	7.56E-04	3.87E-04	2.30E-02	3.63E-03	1.82E-03
P_4	552770	5383776	Pukaskwa National Park		1.05E-04	1.70E-05	9.79E-06	7.34E-06	1.18E-06	6.93E-07	1.21E-05	1.94E-06	1.14E-06	2.40E-01	2.00E-01	9.00E-03	1.42E-03	8.15E-04	2.88E-02	1.30E-03	2.05E-04	1.18E-04	8.55E-03	1.25E-03	5.80E-04
PR_1	553679.44	5385895.59	Children & Family Learning Centre		9.60E-05	2.00E-05	1.10E-05	6.53E-06	1.39E-06	7.72E-07	1.07E-05	2.29E-06	1.27E-06	1.73E-01	1.44E-01	8.22E-03	1.68E-03	9.14E-04	2.08E-02	1.19E-03	2.43E-04	1.32E-04	7.04E-03	1.15E-03	5.83E-04
PR_2	554004.44	5385857.59	Pic River Elementary		8.50E-05	1.80E-05	1.06E-05	5.98E-06	1.27E-06	7.45E-07	9.83E-06	2.09E-06	1.23E-06	1.35E-01	1.12E-01	7.25E-03	1.54E-03	8.81E-04	1.62E-02	1.05E-03	2.21E-04	1.27E-04	6.90E-03	1.13E-03	5.65E-04
PR_3	553836.44	5385603.59	Pic River Private High School		9.20E-05	1.90E-05	1.06E-05	6.25E-06	1.33E-06	7.46E-07	1.02E-05	2.19E-06	1.23E-06	1.62E-01	1.35E-01	7.87E-03	1.61E-03	8.82E-04	1.95E-02	1.13E-03	2.32E-04	1.27E-04	6.72E-03	1.12E-03	5.65E-04
PR_4	553930.44	5386048.59	Pic River Health Centre		8.60E-05	1.90E-05	1.08E-05	6.10E-06	1.31E-06	7.61E-07	1.00E-05	2.15E-06	1.26E-06	1.42E-01	1.18E-01	7.40E-03	1.58E-03	8.99E-04	1.70E-02	1.07E-03	2.28E-04	1.30E-04	6.97E-03	1.14E-03	5.75E-04
PR_5	552493.44	5384782.58	BIIDAABAN Healing Lodge		1.08E-04	1.80E-05	1.06E-05	7.89E-06	1.26E-06	7.51E-07	1.31E-05	2.07E-06	1.24E-06	2.47E-01	2.06E-01	9.29E-03	1.52E-03	8.81E-04	2.97E-02	1.34E-03	2.19E-04	1.27E-04	9.85E-03	1.36E-03	6.33E-04
PR_6	552843.43	5390099.59	Residence		1.36E-04	3.00E-05	1.69E-05	9.41E-06	2.11E-06	1.19E-06	1.54E-05	3.46E-06	1.96E-06	2.24E-01	1.86E-01	1.16E-02	2.54E-03	1.40E-03	2.69E-02	1.68E-03	3.66E-04	2.02E-04	1.07E-02	1.80E-03	9.15E-04
PR_7	553761.44	5387705.59	Residence		9.50E-05	2.10E-05	1.24E-05	6.68E-06	1.43E-06	8.73E-07	1.10E-05	2.35E-06	1.44E-06	1.36E-01	1.14E-01	8.14E-03	1.73E-03	1.03E-03	1.64E-02	1.17E-03	2.49E-04	1.49E-04	8.22E-03	1.30E-03	6.55E-04
PS_1	545001.33	5404050.49	North Hare Lake Cottage		6.54E-04	1.81E-04	9.78E-05	4.54E-05	1.26E-05	6.89E-06	7.45E-05	2.06E-05	1.14E-05	3.26E-01	2.72E-01	5.63E-02	1.55E-02	8.35E-03	3.92E-02	8.12E-03	2.24E-03	1.20E-03	6.33E-02	1.01E-02	5.87E-03
PS_2	544331.34	5403100.49	South Hare Lake Cottage		6.15E-04	1.52E-04	8.02E-05	4.31E-05	1.06E-05	5.62E-06	7.09E-05	1.74E-05	9.24E-06	2.99E-01	2.49E-01	5.29E-02	1.30E-02	6.81E-03	3.59E-02	7.63E-03	1.88E-03	9.82E-04	6.42E-02	7.65E-03	4.28E-03
PS_3	547056.12	5401003.77	May's Gifts		1.07E-03	3.36E-04	2.45E-04	7.90E-05	2.36E-05	1.70E-05	1.32E-04	3.87E-05	2.79E-05	8.01E-01	6.67E-01	9.17E-02	2.87E-02	2.08E-02	9.61E-02	1.32E-02	4.15E-03	3.01E-03	1.32E-01	2.25E-02	1.10E-02
PS_4	546811.35	5400952.54	Wayfare Inn		1.04E-03	3.31E-04	2.34E-04	7.69E-05	2.30E-05	1.62E-05	1.28E-04	3.77E-05	2.66E-05	8.02E-01	6.68E-01	8.90E-02	2.84E-02	1.99E-02	9.62E-02	1.28E-02	4.09E-03	2.88E-03	1.17E-01	1.94E-02	9.48E-03
PS_5	546996.35	5401027.54	Peninsula Inn		1.13E-03	3.46E-04	2.51E-04	8.11E-05	2.41E-05	1.74E-05	1.35E-04	3.96E-05	2.85E-05	8.31E-01	6.92E-01	9.73E-02	2.96E-02	2.14E-02	9.97E-02	1.40E-02	4.28E-03	3.08E-03	1.30E-01	2.18E-02	1.06E-02
PS_6	548471.36	5399488.57	Travelodge Hotel		1.36E-03	4.67E-04	3.63E-04	9.65E-05	3.25E-05	2.51E-05	1.61E-04	5.41E-05	4.19E-05	8.00E-01	6.66E-01	1.04E-01	3.45E-02	2.65E-02	9.64E-02	1.51E-02	5.01E-03	3.84E-03	8.69E-02	1.41E-02	7.13E-03
PS_7	546903.35	5401055.54	The Laughing Mooz Eatery Restaurant and Residence		1.19E-03	3.61E-04	2.58E-04	8.31E-05	2.50E-05	1.78E-05	1.38E-04	4.10E-05	2.92E-05	8.20E-01	6.83E-01	1.02E-01	3.10E-02	2.20E-02	9.84E-02	1.48E-02	4.47E-03	3.18E-03	1.24E-01	2.05E-02	1.00E-02
PW_1	545777.38	5397150.54	Kingdom Hall of Jehovah's Witnesses		2.38E-03	1.05E-03	8.11E-04	1.63E-04	7.13E-05	5.50E-05	2.74E-04	1.20E-04	9.24E-05	7.06E-01	5.88E-01	1.61E-01	7.11E-02	5.56E-02	8.54E-02	2.33E-02	1.03E-02	8.05E-03	3.55E-02	5.59E-03	3.07E-03
PW_2	546331.39	5395941.55	Parkland Pentecostal Church		1.02E-03	3.56E-04	2.33E-04	6.80E-05	2.38E-05	1.57E-05	1.13E-04	3.98E-05	2.63E-05	4.95E-01	4.12E-01	7.29E-02	2.55E-02	1.68E-02	5.98E-02	1.06E-02	3.69E-03	2.43E-03	3.77E-02	4.01E-03	2.36E-03
PW_3	545857.39	5395714.55	St. John's United Church		1.26E-03	4.78E-04	3.54E-04	8.51E-05	3.19E-05	2.37E-05	1.43E-04	5.34E-05	3.97E-05	4.23E-01	3.53E-01	8.88E-02	3.41E-02	2.52E-02	5.13E-02	1.29E-02	4.93E-03	3.64E-03	3.00E-02	4.23E-03	2.25E-03
PW_4	545425.03	5396043.49	Holy Saviour Roman Catholic Church		8.82E-03	3.92E-03	3.12E-03	5.84E-04	2.59E-04	2.07E-04	9.62E-04	4.27E-04	3.41E-04	1.88E+00	1.56E+00	6.86E-01	3.08E-01	2.44E-01	2.26E-01	9.89E-02	4.45E-02	3.53E-02	3.22E-02	4.56E-03	2.39E-03
PW_5	545390.38	5395988.55	Anglican Church-Trinity		1.23E-02	5.02E-03	3.39E-03	8.16E-04	3.32E-04	2.25E-04	1.35E-03	5.48E-04	3.70E-04	2.72E+00	2.27E+00	9.44E-01	3.91E-01	2.65E-01	3.28E-01	1.36E-01	5.64E-02	3.82E-02	3.20E-02	4.53E-03	2.37E-03
R_1	547226.37	5398095.56	Residence		2.68E-03	1.32E-03	9.48E-04	1.83E-04	8.99E-05	6.47E-05	3.08E-04	1.52E-04	1.09E-04	7.84E-01	6.53E-01	1.83E-01	8.73E-02	6.32E-02	9.50E-02	2.66E-02	1.27E-02	9.16E-03	6.29E-02	8.80E-03	4.73E-03
R_10	545421.38	5395953.55	Residence		1.80E-02	6.67E-03	4.92E-03	1.19E-03	4.42E-04	3.26E-04	1.97E-03	7.31E-04	5.39E-04	3.41E+00	2.84E+00	1.36E+00	5.10E-01	3.77E-01	4.11E-01	1.97E-01	7.36E-02	5.44E-02	3.18E-02	4.52E-03	2.35E-03
R_11	545619.39	5395877.55	Residence		5.42E-03	2.04E-03	1.65E-03	3.62E-04	1.36E-04	1.10E-04	6.05E-04	2.26E-04	1.83E-04	1.23E+00	1.03E+00	3.85E-01	1.48E-01	1.18E-01	1.49E-01	5.57E-02	2.14E-02	1.70E-02	3.02E-02	4.52E-03	2.32E-03
R_12	545831.38	5396000.55	Residence		3.95E-03	1.94E-03	1.30E-03	2.65E-04	1.29E-04	8.68E-05	4.48E-04	2.18E-04	1.46E-04	1.36E+00	1.13E+00	2.61E-01	1.31E-01	8.66E-02	1.64E-01	3.79E-02	1.90E-02	1.26E-02	2.91E-02	4.62E-03	2.39E-03
R_13	545806.92	5396173.19	Residence		9.38E-03	4.46E-03	3.63E-03	6.29E-04	2.98E-04	2.43E-04	1.07E-03	5.07E-04	4.13E-04	1.45E+00	1.21E+00	5.84E-01	2.84E-01	2.28E-01	1.76E-01	8.50E-02	4.13E-02	3.32E-02	3.17E-02	4.82E-03	2.48E-03
R_14	545827.05	5396228.86	Residence		6.42E-03	2.96E-03	2.38E-03	4.30E-04	1.99E-04	1.60E-04	7.31E-04	3.38E-04	2.70E-04	1.08E+00	9.02E-01	4.04E-01	1.87E-01	1.52E-01	1.31E-01	5.88E-02	2.72E-02	2.21E-02	3.22E-02	4.89E-03	2.52E-03
R_15	545662.38	5396175.55	Residence		3.38E-03	1.54E-03	1.21E-03	2.26E-04	1.03E-04	8.12E-05	3.81E-04	1.72E-04	1.36E-04	6.43E-01	5.36E-01	2.28E-01	1.08E-01	8.37E-02	7.77E-02	3.31E-02	1.57E-02	1.21E-02	3.29E-02	4.80E-03	2.48E-03
R_16	546254.38	5396484.55	Residence		1.58E-03	7.08E-04	4.26E-04	1.06E-04	4.73E-05	2.86E-05	1.77E-04	7.92E-05	4.79E-05	4.90E-01	4.09E-01	1.10E-01	5.02E-02	3.04E-02	5.94E-02	1.59E-02	7.28E-03	4.40E-03	3.38E-02	4.99E-03	2.65E-03
R_17	546471.38	5396506.55	Residence		1.16E-03	4.65E-04	2.76E-04	7.74E-05	3.12E-05	1.86E-05	1.30E-04	5.21E-05	3.11E-05	3.94E-01	3.28E-01	8.18E-02	3.35E-02	2.00E-02	4.77E-02	1.18E-02	4.85E-03	2.89E-03	3.93E-02	4.76E-03	2.67E-03
R_18	546601.38	5396387.56	Residence		1.01E-03	3.81E-04	2.25E-04	6.74E-05	2.55E-05	1.52E-05	1.13E-04	4.26E-05	2.54E-05	4.00E-01	3.33E-01	7.20E-02	2.74E-02	1.63E-02	4.84E-02	1.04E-02	3.97E-03	2.36E-03	4.12E-02	4.34E-03	2.60E-03
R_19	546856.39	5395580.56	Residence		5.83E-04	1.60E-04	9.70E-05	3.95E-05	1.08E-05	6.63E-06	6.58E-05	1.80E-05	1.10E-05	3.80E-01	3.16E-01	4.36E-02	1.20E-02	7.36E-03	4.57E-02	6.30E-03	1.73E-03	1.06E-03	3.08E-02	3.96E-03	2.28E-03
R_2	547273.37	5398044.56	Residence		1.36E-03	5.40E-04	3.87E-04	9.41E-05	3.68E-05	2.66E-05	1.58E-04	6.19E-05	4.46E-05	5.93E-01	4.94E-01	9.79E-02	3.67E-02	2.67E-02	7.16E-02	1.42E-02	5.32E-03	3.87E-03	6.78E-02	8.59E-03	4.73E-03
R_20	546950.39	5395533.56	Residence		5.29E-04	1.43E-04	8.96E-05	3.59E-05	9.66E-06	6.14E-06	5.97E-05	1.61E-05	1.02E-05	3.57E-01	2.97E-01	3.95E-02	1.07E-02	6.84E-03	4.29E-02	5.70E-03	1.55E-03	9.89E-04	2.92E-02	4.06E-03	2.28E-03
R_21	547201.39	5395415.56	Residence		3.89E-04	1.13E-04	7.47E-05	2.65E-05	7.72E-06	5.15E-06	4.42E-05	1.28E-05	8.55E-06	2.99E-01	2.49E-01	2.92E-02	8.59E-03	5.79E-03	3.61E-02	4.22E-03	1.24E-03	8.37E-04	2.81E-02	4.35E-03	2.31E-03
R_22	548317.36	5399654.57	Residence		9.84E-04	2.73E-04	2.01E-04	6.93E-05	1.92E-05	1.41E-05	1.14E-04	3.17E-05	2.33E-05	8.09E-01	6.74E-01	7.98E-02	2.15E-02	1.56E-02	9.73E-02	1.15E-02	3.11E-03	2.26E-03	8.81E-02	1.38E-02	7.36E-03
R_3	545809.38	5397232.54	Bergagnini Apartment Rental		2.56E-03	1.11E-03	8.54E-04	1.75E-04	7.54E-05	5.80E-05	2.95E-04	1.27E-04	9.76E-05	7.25E-01	6.04E-01	1.72E-01	7.42E-02	5.77E-02	8.79E-02	2.49E-02	1.07E-02	8.35E-03	3.56E-02	5.69E-03	3.13E-03
R_4	546092.38	5396796.55	Residence		1.44E-03	7.01E-04	4.58E-04	9.61E-05	4.69E-05	3.08E-05	1.59E-04	7.79E-05	5.12E-05	4.16E-01	3.46E-01	1.10E-01	5.29E-02	3.42E-02	5.01E-02	1.59E-02	7.65E-03	4.94E-03	3.66E-02	5.50E-03	2.85E-03
R_5	545971.38	5396489.55	Condominium		5.25E-03	2.84E-03	2.00E-03	3.50E-04	1.90E-04	1.33E-04	5.82E-04	3.16E-04	2.22E-04	1.01E+00	8.40E-01	3.91E-01	2.11E-01	1.47E-01	1.22E-01	5.66E-02	3.05E-02	2.14E-02	3.39E-02	5.13E-03	2.65E-03
R_6	545655.38	5396520.55	Residence		2.16E-03	8.92E-04	7.02E-04	1.44E-04	5.97E-05	4.70E-05	2.41E-04	9.95E-05	7.81E-05	7.73E-01	6.44E-01	1.58E-01	6.58E-02	5.22E-02	9.33E-02	2.29E-02	9.52E-03	7.55E-03	3.51E-02	5.08E-03	2.68E-03
R_7	545438.38	5396408.54	I Sew Studio and Residence		5.01E-03	2.52E-03	1.90E-03	3.33E-04	1.66E-04	1.26E-04	5.45E-04	2.72E-04	2.06E-04	1.07E+00	8.91E-01	4.04E-01	2.04E-01	1.53E-01	1.29E-01	5.83E-02	2.95E-02	2.21E-02	3.29E-02	4.75E-03	2.56E-03
R_8	545380.38	5396243.54	Bayview Apartments		4.82E-03	2.40E-03	1.85E-03	3.20E-04	1.59E-04	1.23E-04	5.24E-04	2.60E-04	2.01E-04	9.53E-01	7.94E-01	3.86E-01	1.95E-01	1.49E-01	1.15E-01	5.57E-02	2.81E-02	2.15E-02	3.24E-02	4.62E-03	2.47E-03
R_9	545290.38	5396114.54	Residence		3.74E-03	1.60E-03	1.05E-03	2.48E-04	1.06E-04	6.99E-05	4.08E-04	1.75E-04	1.15E-04	1.02E+00	8.50E-01	2.92E-01	1.25E-01	8.27E-02	1.23E-01	4.21E-02	1.81E-02	1.19E-02	3.17E-02	4.49E-03	2.41E-03
RH_1	546049.39	5395894.55	Peninsula Manor		1.95E-03	5.95E-04	3.67E-04	1.30E-04	3.97E-05	2.47E-05	2.16E-04	6.65E-05	4.13E-05	8.02E-01	6.69E-01	1.41E-01	4.21E-02	2.59E-02	9.69E-02	2.04E-02	6.10E-03	3.75E-03	3.32E-02	4.32E-03	2.35E-03
RH_2	545320.89	5396196.57	Senior's Centre		5.82E-03	2.62E-03	1.89E-03	3.86E-04	1.74E-04	1.25E-04	6.32E-04	2.85E-04	2.05E-04	1.59E+00	1.32E+00	4.67E-01	2.11E-01	1.52E-01	1.91E-01	6.74E-02	3.04E-02	2.20E-02	3.19E-02	4.55E-03	2.44E-03
S_1	546339.38	5396624.55	Holy Saviour School		1.16E-03	5.32E-04	3.23E-04	7.76E-05	3.56E-05	2.18E-05	1.30E-04	5.94E-05	3.64E-05	4.15E-01	3.46E-01	8.33E-02	3.89E-02	2.37E-02	5.03E-02	1.21E-02	5.62E-03	3.43E-03	3.49E-02	5.14E-03	2.74E-03
S_2	545633.38	5396102.55	Confederation College Northshore Campus		4.57E-03	2.28E-03	1.74E-03	3.05E-04	1.52E-04	1.16E-04	5.14E-04	2.54E-04	1.95E-04	9.49E-01	7.91E-01	3.08E-01	1.61E-01	1.20E-01	1.15E-01	4.47E-02	2.33E-02	1.74E-02	3.23E-02	4.72E-03	2.44E-03
S_3	546200.38	5396036.55	Marathon High School		1.30E-03	5.71E-04	3.50E-04	8.68E-05	3.82E-05	2.35E-05	1.45E-04	6.40E-05	3.94E-05	6.42E-01	5.35E-01	9.25E-02	4.04E-02	2.46E-02	7.76E-02	1.34E-02	5.85E-03	3.56E-03	3.56E-02	4.35E-03	2.41E-03
S_4	546261.39	5395967.55	Ecole secondaire Cite-Superieure		1.17E-03	4.21E-04	2.74E-04	7.76E-05	2.82E-05	1.84E-05	1.30E-04	4.71E-05	3.08E-05	5.44E-01	4.53E-01	8.28E-02	3.02E-02	1.95E-02	6.58E-02	1.20E-02	4.37E-03	2.82E-03	3.69E-02	4.16E-03	2.38E-03
S_5	547019.39	5395082.56	Marathon Children and Family Centre		2.79E-04	8.80E-05	5.99E-05	2.05E-05	6.18E-06	4.16E-06	3.40E-05	1.03E-05	6.90E-06	2.97E-01	2.47E-01	2.34E-02	6.93E-03	4.70E-03	3.57E-02	3.38E-03	1.00E-03	6.79E-04	2.82E-02	4.21E-03	2.25E-03
S_6	547000.39	5395035.56	Margaret Twomey Public School		2.75E-04	8.60E-05	5.90E-05	2.03E-05	6.05E-06	4.10E-06	3.38E-05	1.01E-05	6.80E-06	2.95E-01	2.46E-01	2.32E-02	6.79E-03	4.63E-03	3.55E-02	3.35E-03	9.81E-04	6.69E-04	2.80E-02	4.18E-03	2.23E-03
W_1	547291.36	5399860.55	Shack Lake (northeast)		7.13E-04	1.92E-04	1.50E-04	5.08E-05	1.39E-05	1.06E-05	8.38E-05	2.30E-05	1.75E-05	6.18E-01	5.15E-01	6.06E-02	1.60E-02	1.23E-02	7.43E-02	8.74E-03	2.32E-03	1.78E-03	7.10E-02	1.64E-02	8.15E-03
W_10	546975.32	5406486.49	Bamoos Lake (south)		8.89E-04	2.14E-04	1.28E-04	5.85E-05	1.47E-05	8.88E-06	9.48E-05	2.40E-05	1.45E-05	4.96E-01	4.13E-01	7.69E-02	1.85E-02	1.10E-02	5.95E-02	1.11E-02	2.67E-03	1.59E-03	7.04E-02	1.22E-02	5.76E-03
W_11	545484.32	5405866.49	Bamoos Lake (west)		7.25E-04	1.45E-04	9.06E-05	4.78E-05	1.06E-05	6.55E-06	7.74E-05	1.76E-05	1.08E-05	3.79E-01	3.16E-01	6.27E-02	1.25E-02	7.77E-03	4.55E-02	9.03E-03	1.80E-03	1.12E-03	7.03E-02	1.59E-02	7.59E-03
W_12	546576.32	5407157.48	Bamoos Lake (north)		8.44E-04	2.06E-04	1.13E-04	5.73E-05	1.41E-05	7.87E-06	9.33E-05	2.31E-05	1.29E-05	5.19E-01	4.32E-01	7.30E-02	1.77

Table F-1 Special Receptor Predictions (ug/m3) - Operations, Project Alone

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	ALUMINUM (AL)			ANTHRACENE			ANTIMONY (SB)			ARSENIC (AS)		
				Averaging Period	24	month	annual	24	month	annual	24	month	annual	24	month	annual
				Criteria	12	-	-	-	-	-	25	-	-	0.3	-	-
H_1	545937.38	5396169.55	Wilson Memorial General Hospital		9.26E-02	2.85E-02	2.13E-02	2.88E-04	1.38E-04	8.45E-05	2.70E-05	7.77E-06	5.67E-06	6.84E-05	1.42E-05	9.79E-06
M_1	545694	5403864	PM-10 @ Hare Lake		2.34E-01	6.66E-02	3.96E-02	3.60E-05	1.05E-05	6.06E-06	4.30E-05	1.22E-05	7.30E-06	5.03E-05	1.38E-05	8.42E-06
M_2	545694	5403873	Dustfall @ Hare Lake		2.33E-01	6.64E-02	3.95E-02	3.59E-05	1.05E-05	6.04E-06	4.28E-05	1.22E-05	7.29E-06	5.00E-05	1.38E-05	8.41E-06
M_3	547152	5401222	PM-10 @ Mays Gifts		5.55E-01	1.51E-01	1.03E-01	5.85E-05	1.75E-05	1.31E-05	1.05E-04	2.82E-05	1.92E-05	1.17E-04	3.13E-05	2.15E-05
M_4	547147	5401216	Dustfall @ Mays Gifts		5.52E-01	1.50E-01	1.02E-01	5.82E-05	1.74E-05	1.30E-05	1.04E-04	2.81E-05	1.91E-05	1.16E-04	3.11E-05	2.14E-05
M_5	551637	5402371	PM-10 @ Pic River		3.65E-01	1.45E-01	9.03E-02	3.27E-05	1.12E-05	7.14E-06	7.05E-05	2.81E-05	1.74E-05	8.02E-05	3.19E-05	1.94E-05
M_6	551643	5402374	Dustfall @ Pic River		3.63E-01	1.45E-01	9.01E-02	3.26E-05	1.12E-05	7.13E-06	7.02E-05	2.81E-05	1.73E-05	7.99E-05	3.19E-05	1.94E-05
M_7	549180	5399815	Dustfall @ Airport		1.81E+00	8.05E-01	6.13E-01	5.50E-05	2.37E-05	1.83E-05	3.49E-04	1.56E-04	1.19E-04	3.77E-04	1.68E-04	1.28E-04
M_8	545863	5397092	Dustfall @ Field Office		1.30E-01	3.87E-02	2.95E-02	1.19E-04	6.27E-05	4.63E-05	5.70E-05	2.13E-05	1.28E-05	1.65E-04	5.58E-05	2.98E-05
O_1	547181.37	5398014.56	Pic Motel		2.01E-01	5.51E-02	3.98E-02	8.58E-05	3.55E-05	2.61E-05	3.86E-05	1.08E-05	8.14E-06	4.23E-05	1.27E-05	1.02E-05
O_2	545734.38	5396872.55	Marathon Harbour Inn		1.28E-01	5.10E-02	3.64E-02	2.18E-04	9.96E-05	7.59E-05	8.13E-05	4.79E-05	2.54E-05	2.37E-04	1.36E-04	6.82E-05
O_3	545885.38	5396448.55	Zero-100 Motor Inn		9.96E-02	3.13E-02	2.32E-02	2.92E-04	1.23E-04	9.56E-05	3.75E-05	9.50E-06	7.03E-06	1.10E-04	2.13E-05	1.35E-05
O_4	545987.37	5397640.55	OPP Station		1.54E-01	3.92E-02	2.92E-02	9.45E-05	4.56E-05	3.42E-05	3.49E-05	1.19E-05	7.80E-06	9.56E-05	2.53E-05	1.35E-05
O_5	545876.38	5396072.55	Library		8.97E-02	2.81E-02	2.07E-02	2.35E-04	1.16E-04	7.45E-05	2.29E-05	8.15E-06	5.48E-06	6.38E-05	1.51E-05	9.40E-06
P_1	546958.38	5396138.56	Penn Lake Park and Campground		1.13E-01	2.89E-02	2.25E-02	3.38E-05	1.16E-05	6.29E-06	2.15E-05	6.82E-06	5.13E-06	3.78E-05	1.13E-05	7.52E-06
P_2	548538.41	5392862.58	Craig's Pit Provincial Nature Reserve		7.97E-02	1.84E-02	1.16E-02	9.88E-06	2.19E-06	1.32E-06	1.52E-05	3.67E-06	2.32E-06	1.77E-05	4.48E-06	2.83E-06
P_3	540005	5402014	Red Sucker Point Provincial Park		6.91E-02	1.79E-02	9.95E-03	1.15E-05	2.81E-06	1.46E-06	1.29E-05	3.60E-06	2.13E-06	1.76E-05	4.59E-06	2.94E-06
P_4	552770	5383776	Pukaskwa National Park		3.12E-02	6.13E-03	3.61E-03	4.56E-06	7.49E-07	4.41E-07	5.97E-06	1.28E-06	7.29E-07	6.81E-06	1.67E-06	9.09E-07
PR_1	553679.44	5385895.59	Children & Family Learning Centre		2.60E-02	6.16E-03	3.89E-03	4.19E-06	8.90E-07	4.94E-07	4.93E-06	1.29E-06	7.84E-07	5.55E-06	1.73E-06	9.73E-07
PR_2	554004.44	5385857.59	Pic River Elementary		2.24E-02	5.69E-03	3.77E-03	3.75E-06	8.13E-07	4.76E-07	4.26E-06	1.20E-06	7.60E-07	4.81E-06	1.61E-06	9.44E-07
PR_3	553836.44	5385603.59	Pic River Private High School		2.43E-02	5.88E-03	3.76E-03	4.01E-06	8.50E-07	4.77E-07	4.61E-06	1.24E-06	7.57E-07	5.20E-06	1.66E-06	9.41E-07
PR_4	553930.44	5386048.59	Pic River Health Centre		2.31E-02	5.83E-03	3.84E-03	3.83E-06	8.36E-07	4.86E-07	4.40E-06	1.23E-06	7.75E-07	4.96E-06	1.65E-06	9.63E-07
PR_5	552493.44	5384782.58	BIIDAABAN Healing Lodge		3.40E-02	6.64E-03	3.95E-03	4.88E-06	8.02E-07	4.78E-07	6.55E-06	1.39E-06	7.99E-07	7.54E-06	1.83E-06	9.95E-07
PR_6	552843.43	5390099.59	Residence		4.03E-02	9.40E-03	6.15E-03	5.99E-06	1.35E-06	7.60E-07	7.60E-06	1.91E-06	1.24E-06	8.53E-06	2.41E-06	1.54E-06
PR_7	553761.44	5387705.59	Residence		2.44E-02	6.58E-03	4.43E-03	4.20E-06	9.16E-07	5.59E-07	4.67E-06	1.35E-06	8.97E-07	5.27E-06	1.78E-06	1.12E-06
PS_1	545001.33	5404050.49	North Hare Lake Cottage		1.64E-01	5.20E-02	3.03E-02	2.87E-05	7.95E-06	4.34E-06	3.03E-05	9.57E-06	5.69E-06	3.41E-05	1.07E-05	6.61E-06
PS_2	544331.34	5403100.49	South Hare Lake Cottage		1.86E-01	4.64E-02	2.57E-02	2.71E-05	6.72E-06	3.56E-06	3.39E-05	8.60E-06	4.88E-06	3.92E-05	9.70E-06	5.70E-06
PS_3	547056.12	5401003.77	May's Gifts		4.91E-01	1.32E-01	8.91E-02	4.79E-05	1.49E-05	1.09E-05	9.29E-05	2.48E-05	1.68E-05	1.03E-04	2.76E-05	1.89E-05
PS_4	546811.35	5400952.54	Wayfare Inn		4.48E-01	1.19E-01	8.00E-02	4.70E-05	1.46E-05	1.04E-05	8.47E-05	2.23E-05	1.51E-05	9.46E-05	2.49E-05	1.71E-05
PS_5	546996.35	5401027.54	Peninsula Inn		4.88E-01	1.31E-01	8.83E-02	4.97E-05	1.53E-05	1.11E-05	9.23E-05	2.46E-05	1.66E-05	1.03E-04	2.73E-05	1.87E-05
PS_6	548471.36	5399488.57	Travelodge Hotel		7.33E-01	2.46E-01	1.52E-01	6.39E-05	2.21E-05	1.72E-05	1.41E-04	4.73E-05	2.94E-05	1.53E-04	5.15E-05	3.23E-05
PS_7	546903.35	5401055.54	The Laughing Mooz Eatery Restaurant and Residence		4.79E-01	1.29E-01	8.68E-02	5.22E-05	1.59E-05	1.14E-05	9.04E-05	2.41E-05	1.63E-05	1.01E-04	2.68E-05	1.84E-05
PW_1	545777.38	5397150.54	Kingdom Hall of Jehovah's Witnesses		1.33E-01	3.88E-02	2.97E-02	1.15E-04	5.05E-05	3.89E-05	7.24E-05	2.46E-05	1.31E-05	2.09E-04	6.45E-05	3.07E-05
PW_2	546331.39	5395941.55	Parkland Pentecostal Church		9.76E-02	2.61E-02	2.05E-02	4.73E-05	1.66E-05	1.09E-05	2.07E-05	6.07E-06	4.84E-06	4.68E-05	1.06E-05	7.41E-06
PW_3	545857.39	5395714.55	St. John's United Church		8.72E-02	2.52E-02	1.89E-02	5.96E-05	2.22E-05	1.66E-05	1.79E-05	7.19E-06	4.69E-06	4.81E-05	1.31E-05	7.59E-06
PW_4	545425.03	5396043.49	Holy Saviour Roman Catholic Church		9.11E-02	2.86E-02	2.03E-02	3.87E-04	1.72E-04	1.37E-04	3.72E-05	9.61E-06	6.13E-06	9.80E-05	1.97E-05	1.17E-05
PW_5	545390.38	5395988.55	Anglican Church-Trinity		8.99E-02	2.81E-02	1.99E-02	5.46E-04	2.20E-04	1.48E-04	3.48E-05	9.21E-06	5.78E-06	9.07E-05	1.86E-05	1.07E-05
R_1	547226.37	5398095.56	Residence		2.14E-01	5.73E-02	4.11E-02	1.29E-04	6.45E-05	4.62E-05	4.11E-05	1.12E-05	8.32E-06	4.50E-05	1.29E-05	1.02E-05
R_10	545421.38	5395953.55	Residence		8.80E-02	2.76E-02	1.97E-02	8.02E-04	2.96E-04	2.18E-04	3.39E-05	8.76E-06	5.67E-06	8.80E-05	1.74E-05	1.05E-05
R_11	545619.39	5395877.55	Residence		8.38E-02	2.74E-02	1.94E-02	2.52E-04	9.38E-05	7.63E-05	3.23E-05	9.08E-06	5.19E-06	9.39E-05	1.85E-05	8.99E-06
R_12	545831.38	5396000.55	Residence		8.77E-02	2.78E-02	2.03E-02	1.92E-04	9.24E-05	6.24E-05	2.17E-05	8.46E-06	5.34E-06	6.31E-05	1.62E-05	9.13E-06
R_13	545806.92	5396173.19	Residence		9.03E-02	2.97E-02	2.13E-02	4.67E-04	2.21E-04	1.80E-04	2.71E-05	9.65E-06	5.95E-06	7.90E-05	1.94E-05	1.07E-05
R_14	545827.05	5396228.86	Residence		9.22E-02	3.00E-02	2.17E-02	3.18E-04	1.47E-04	1.17E-04	2.81E-05	9.50E-06	6.11E-06	8.19E-05	1.88E-05	1.11E-05
R_15	545662.38	5396175.55	Residence		9.21E-02	3.10E-02	2.13E-02	1.62E-04	7.19E-05	5.75E-05	4.12E-05	1.18E-05	6.30E-06	1.20E-04	2.58E-05	1.19E-05
R_16	546254.38	5396484.55	Residence		1.03E-01	3.09E-02	2.35E-02	7.46E-05	3.31E-05	1.99E-05	3.01E-05	8.78E-06	6.30E-06	8.70E-05	1.80E-05	1.09E-05
R_17	546471.38	5396506.55	Residence		1.08E-01	3.14E-02	2.39E-02	5.43E-05	2.16E-05	1.28E-05	2.67E-05	8.15E-06	6.11E-06	7.19E-05	1.57E-05	1.01E-05
R_18	546601.38	5396387.56	Residence		1.07E-01	3.04E-02	2.34E-02	4.70E-05	1.77E-05	1.05E-05	2.24E-05	7.62E-06	5.70E-06	5.85E-05	1.40E-05	9.02E-06
R_19	546856.39	5395580.56	Residence		1.02E-01	2.49E-02	1.96E-02	2.68E-05	7.37E-06	4.47E-06	1.93E-05	5.55E-06	4.32E-06	2.89E-05	8.49E-06	6.07E-06
R_2	547273.37	5398044.56	Residence		2.11E-01	5.71E-02	4.09E-02	6.48E-05	2.61E-05	1.86E-05	3.99E-05	1.12E-05	8.26E-06	4.42E-05	1.29E-05	1.01E-05
R_20	546950.39	5395533.56	Residence		1.03E-01	2.48E-02	1.95E-02	2.43E-05	6.57E-06	4.12E-06	1.95E-05	5.52E-06	4.27E-06	2.76E-05	8.36E-06	5.96E-06
R_21	547201.39	5395415.56	Residence		1.03E-01	2.44E-02	1.93E-02	1.79E-05	5.18E-06	3.43E-06	1.95E-05	5.47E-06	4.18E-06	2.52E-05	7.97E-06	5.71E-06
R_22	548317.36	5399654.57	Residence		5.08E-01	1.75E-01	1.13E-01	4.50E-05	1.27E-05	9.34E-06	9.73E-05	3.36E-05	2.17E-05	1.07E-04	3.68E-05	2.41E-05
R_3	545809.38	5397232.54	Bergagnini Apartment Rental		1.37E-01	3.66E-02	2.89E-02	1.25E-04	5.37E-05	4.12E-05	6.44E-05	2.05E-05	1.12E-05	1.85E-04	5.21E-05	2.47E-05
R_4	546092.38	5396796.55	Residence		1.12E-01	3.51E-02	2.67E-02	6.48E-05	3.17E-05	2.09E-05	4.70E-05	1.47E-05	9.53E-06	1.39E-04	3.45E-05	2.02E-05
R_5	545971.38	5396489.55	Condominium		9.95E-02	3.11E-02	2.34E-02	2.39E-04	1.29E-04	9.12E-05	3.67E-05	9.72E-06	7.00E-06	1.08E-04	2.35E-05	1.33E-05
R_6	545655.38	5396520.55	Residence		1.07E-01	3.77E-02	2.48E-02	9.92E-05	4.09E-05	3.20E-05	6.74E-05	1.87E-05	9.61E-06	2.01E-04	4.58E-05	2.13E-05
R_7	545438.38	5396408.54	I Sew Studio and Residence		1.06E-01	3.48E-02	2.36E-02	2.15E-04	1.07E-04	8.12E-05	6.03E-05	1.63E-05	9.53E-06	1.71E-04	3.91E-05	2.15E-05
R_8	545380.38	5396243.54	Bayview Apartments		9.98E-02	3.16E-02	2.17E-02	2.08E-04	1.03E-04	7.96E-05	4.31E-05	1.29E-05	7.53E-06	1.19E-04	2.92E-05	1.57E-05
R_9	545290.38	5396114.54	Residence		9.63E-02	2.99E-02	2.06E-02	1.64E-04	7.01E-05	4.60E-05	3.37E-05	1.14E-05	6.65E-06	9.13E-05	2.49E-05	1.33E-05
RH_1	546049.39	5395894.55	Peninsula Manor		9.36E-02	2.58E-02	2.00E-02	8.97E-05	2.78E-05	1.73E-05	2.15E-05	6.49E-06	4.91E-06	5.10E-05	1.11E-05	7.87E-06
RH_2	545320.89	5396196.57	Senior's Centre		9.87E-02	3.09E-02	2.12E-02	2.51E-04	1.13E-04	8.08E-05	3.79E-05	1.23E-05	7.15E-06	1.04E-04	2.75E-05	1.47E-05
S_1	546339.38	5396624.55	Holy Saviour School		1.07E-01	3.26E-02	2.46E-02	5.42E-05	2.45E-05	1.50E-05	3.31E-05	9.39E-06	6.76E-06	8.76E-05	1.82E-05	1.20E-05
S_2	545633.38	5396102.55	Confederation College Northshore Campus		8.98E-02	3.00E-02	2.08E-02	2.19E-04	1.06E-04	8.22E-05	4.11E-05	1.10E-05	5.99E-06	1.20E-04	2.37E-05	1.11E-05
S_3	546200.38	5396036.55	Marathon High School		9.78E-02	2.66E-02	2.08E-02	6.05E-05	2.67E-05	1.65E-05	2.35E-05	6.39E-06	5.07E-06	5.61E-05	1.14E-05	8.02E-06
S_4	546261.39	5395967.55	Ecole secondaire Cite-Superieure		9.76E-02	2.62E-02	2.05E-02	5.41E-05	1.96E-05	1.28E-05	2.21E-05	6.14E-06	4.91E-06	5.15E-05	1.08E-05	7.62E-06
S_5	547019.39	5395082.56	Marathon Children and Family Centre		9.76E-02	2.25E-02	1.78E-02	1.28E-05	4.04E-06	2.75E-06	1.85E-05	4.98E-06	3.78E-06	2.92E-05	7.27E-06	5.03E-06
S_6	547000.39	5395035.56	Margaret Twomey Public School		9.66E-02	2.23E-02	1.76E-02	1.26E-05	3.96E-06	2.70E-06	1.83E-05	4.89E-06	3.73E-06	2.82E-05	7.27E-06	4.97E-06
W_1	547291.36	5399860.55	Shack Lake (northeast)		2.89E-01	9.04E-02	6.50E-02	3.20E-05	8.71E-06	6.82E-06	5.52E-05	1.74E-05	1.26E-05	6.12E-05	1.96E-05	1.44E-05
W_10	546975.32	5406486.49	Bamoos Lake (south)		2.73E-01	6.66E-02	4.02E-02	3.80E-05	9.38E-06	5.63E-06	5.21E-05	1.26E-05	7.56E-06	5.79E-05	1.40E-05	8.52E-06
W_11	545484.32	5405866.49	Bamoos Lake (west)		2.25E-01	5.50E-02	2.95E-02	3.11E-05	6.54E-06	4.07E-06	4.29E-05	1.04E-05	5.58E-06	4.78E-05	1.18E-05	6.41E-06
W_12	546576.32	5407157.48	Bamoos Lake (north)		2.05E-01	5.11E-02	3.05E-02	3.66E-05	8.99E-06	4.98E-06	3.71E-05	9.56E-06	5.74E-06	4.27E-05	1.08E-05	6.57E-06

Table F-1 Special Receptor Predictions (ug/m3) - Operations, Project Alone

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	BARIUM (BA)			BENZENE		
				Averaging Period	24	month	annual	24	month	annual
				Criteria	10	-	-	2.3	-	0.45
H_1	545937.38	5396169.55	Wilson Memorial General Hospital		3.53E-04	1.10E-04	8.20E-05	7.86E-02	3.73E-02	2.27E-02
M_1	545694	5403864	PM-10 @ Hare Lake		9.01E-04	2.57E-04	1.53E-04	1.36E-02	3.97E-03	2.29E-03
M_2	545694	5403873	Dustfall @ Hare Lake		8.95E-04	2.56E-04	1.53E-04	1.36E-02	3.95E-03	2.28E-03
M_3	547152	5401222	PM-10 @ Mays Gifts		2.13E-03	5.80E-04	3.96E-04	2.24E-02	6.56E-03	4.88E-03
M_4	547147	5401216	Dustfall @ Mays Gifts		2.12E-03	5.76E-04	3.94E-04	2.23E-02	6.52E-03	4.85E-03
M_5	551637	5402371	PM-10 @ Pic River		1.40E-03	5.58E-04	3.46E-04	1.24E-02	4.21E-03	2.67E-03
M_6	551643	5402374	Dustfall @ Pic River		1.39E-03	5.57E-04	3.45E-04	1.23E-02	4.21E-03	2.67E-03
M_7	549180	5399815	Dustfall @ Airport		6.95E-03	3.10E-03	2.36E-03	1.84E-02	7.49E-03	5.83E-03
M_8	545863	5397092	Dustfall @ Field Office		4.99E-04	1.53E-04	1.16E-04	3.41E-02	1.79E-02	1.33E-02
O_1	547181.37	5398014.56	Pic Motel		7.72E-04	2.11E-04	1.53E-04	2.51E-02	9.88E-03	7.36E-03
O_2	545734.38	5396872.55	Marathon Harbour Inn		4.93E-04	2.09E-04	1.46E-04	7.12E-02	3.27E-02	2.50E-02
O_3	545885.38	5396448.55	Zero-100 Motor Inn		3.82E-04	1.22E-04	9.00E-05	9.20E-02	3.81E-02	2.96E-02
O_4	545987.37	5397640.55	OPP Station		5.92E-04	1.51E-04	1.13E-04	2.58E-02	1.26E-02	9.52E-03
O_5	545876.38	5396072.55	Library		3.42E-04	1.09E-04	8.00E-05	6.69E-02	3.22E-02	2.04E-02
P_1	546958.38	5396138.56	Penn Lake Park and Campground		4.33E-04	1.11E-04	8.70E-05	1.06E-02	3.62E-03	2.00E-03
P_2	548538.41	5392862.58	Craig's Pit Provincial Nature Reserve		3.05E-04	7.10E-05	4.40E-05	3.80E-03	8.00E-04	4.68E-04
P_3	540005	5402014	Red Sucker Point Provincial Park		2.64E-04	6.90E-05	3.80E-05	4.36E-03	1.03E-03	5.29E-04
P_4	552770	5383776	Pukaskwa National Park		1.20E-04	2.40E-05	1.40E-05	1.72E-03	2.77E-04	1.61E-04
PR_1	553679.44	5385895.59	Children & Family Learning Centre		9.90E-05	2.40E-05	1.50E-05	1.57E-03	3.27E-04	1.79E-04
PR_2	554004.44	5385857.59	Pic River Elementary		8.60E-05	2.20E-05	1.40E-05	1.42E-03	2.98E-04	1.73E-04
PR_3	553836.44	5385603.59	Pic River Private High School		9.30E-05	2.30E-05	1.40E-05	1.50E-03	3.13E-04	1.73E-04
PR_4	553930.44	5386048.59	Pic River Health Centre		8.80E-05	2.20E-05	1.50E-05	1.45E-03	3.07E-04	1.77E-04
PR_5	552493.44	5384782.58	BIIDAABAN Healing Lodge		1.30E-04	2.50E-05	1.50E-05	1.85E-03	2.96E-04	1.74E-04
PR_6	552843.43	5390099.59	Residence		1.54E-04	3.60E-05	2.40E-05	2.25E-03	4.94E-04	2.76E-04
PR_7	553761.44	5387705.59	Residence		9.40E-05	2.50E-05	1.70E-05	1.59E-03	3.36E-04	2.02E-04
PS_1	545001.33	5404050.49	North Hare Lake Cottage		6.30E-04	2.00E-04	1.17E-04	1.09E-02	3.00E-03	1.63E-03
PS_2	544331.34	5403100.49	South Hare Lake Cottage		7.14E-04	1.78E-04	9.90E-05	1.03E-02	2.53E-03	1.33E-03
PS_3	547056.12	5401003.77	May's Gifts		1.88E-03	5.07E-04	3.43E-04	1.84E-02	5.60E-03	4.03E-03
PS_4	546811.35	5400952.54	Wayfare Inn		1.72E-03	4.59E-04	3.08E-04	1.80E-02	5.48E-03	3.85E-03
PS_5	546996.35	5401027.54	Peninsula Inn		1.87E-03	5.04E-04	3.40E-04	1.89E-02	5.75E-03	4.12E-03
PS_6	548471.36	5399488.57	Travelodge Hotel		2.82E-03	9.45E-04	5.84E-04	2.09E-02	6.85E-03	5.26E-03
PS_7	546903.35	5401055.54	The Laughing Mooz Eatery Restaurant and Residence		1.83E-03	4.96E-04	3.35E-04	1.95E-02	5.98E-03	4.24E-03
PW_1	545777.38	5397150.54	Kingdom Hall of Jehovah's Witnesses		5.10E-04	1.55E-04	1.17E-04	3.25E-02	1.43E-02	1.11E-02
PW_2	546331.39	5395941.55	Parkland Pentecostal Church		3.73E-04	1.00E-04	7.90E-05	1.44E-02	5.05E-03	3.34E-03
PW_3	545857.39	5395714.55	St. John's United Church		3.33E-04	9.80E-05	7.30E-05	1.78E-02	6.75E-03	5.01E-03
PW_4	545425.03	5396043.49	Holy Saviour Roman Catholic Church		3.50E-04	1.11E-04	7.90E-05	1.32E-01	5.92E-02	4.70E-02
PW_5	545390.38	5395988.55	Anglican Church-Trinity		3.45E-04	1.09E-04	7.70E-05	1.82E-01	7.52E-02	5.09E-02
R_1	547226.37	5398095.56	Residence		8.23E-04	2.20E-04	1.58E-04	3.70E-02	1.77E-02	1.28E-02
R_10	545421.38	5395953.55	Residence		3.38E-04	1.07E-04	7.60E-05	2.64E-01	9.86E-02	7.28E-02
R_11	545619.39	5395877.55	Residence		3.22E-04	1.07E-04	7.50E-05	7.63E-02	2.91E-02	2.33E-02
R_12	545831.38	5396000.55	Residence		3.34E-04	1.08E-04	7.80E-05	5.32E-02	2.65E-02	1.76E-02
R_13	545806.92	5396173.19	Residence		3.46E-04	1.15E-04	8.20E-05	1.21E-01	5.84E-02	4.72E-02
R_14	545827.05	5396228.86	Residence		3.53E-04	1.16E-04	8.40E-05	8.36E-02	3.86E-02	3.13E-02
R_15	545662.38	5396175.55	Residence		3.53E-04	1.21E-04	8.20E-05	4.60E-02	2.16E-02	1.68E-02
R_16	546254.38	5396484.55	Residence		3.96E-04	1.19E-04	9.10E-05	2.19E-02	9.97E-03	6.04E-03
R_17	546471.38	5396506.55	Residence		4.11E-04	1.21E-04	9.20E-05	1.63E-02	6.62E-03	3.96E-03
R_18	546601.38	5396387.56	Residence		4.08E-04	1.17E-04	9.00E-05	1.42E-02	5.42E-03	3.23E-03
R_19	546856.39	5395580.56	Residence		3.89E-04	9.60E-05	7.50E-05	8.65E-03	2.35E-03	1.45E-03
R_2	547273.37	5398044.56	Residence		8.08E-04	2.19E-04	1.57E-04	1.96E-02	7.40E-03	5.39E-03
R_20	546950.39	5395533.56	Residence		3.93E-04	9.50E-05	7.50E-05	7.80E-03	2.11E-03	1.35E-03
R_21	547201.39	5395415.56	Residence		3.94E-04	9.40E-05	7.40E-05	5.82E-03	1.70E-03	1.14E-03
R_22	548317.36	5399654.57	Residence		1.95E-03	6.73E-04	4.33E-04	1.57E-02	4.22E-03	3.08E-03
R_3	545809.38	5397232.54	Bergagnini Apartment Rental		5.24E-04	1.45E-04	1.13E-04	3.48E-02	1.50E-02	1.16E-02
R_4	546092.38	5396796.55	Residence		4.29E-04	1.36E-04	1.04E-04	2.12E-02	1.03E-02	6.69E-03
R_5	545971.38	5396489.55	Condominium		3.82E-04	1.20E-04	9.10E-05	7.61E-02	4.12E-02	2.88E-02
R_6	545655.38	5396520.55	Residence		4.08E-04	1.49E-04	9.70E-05	3.11E-02	1.29E-02	1.02E-02
R_7	545438.38	5396408.54	I Sew Studio and Residence		4.10E-04	1.37E-04	9.20E-05	7.71E-02	3.89E-02	2.92E-02
R_8	545380.38	5396243.54	Bayview Apartments		3.84E-04	1.24E-04	8.40E-05	7.38E-02	3.70E-02	2.85E-02
R_9	545290.38	5396114.54	Residence		3.71E-04	1.17E-04	8.00E-05	5.61E-02	2.41E-02	1.59E-02
RH_1	546049.39	5395894.55	Peninsula Manor		3.58E-04	1.00E-04	7.70E-05	2.77E-02	8.37E-03	5.16E-03
RH_2	545320.89	5396196.57	Senior's Centre		3.80E-04	1.21E-04	8.20E-05	8.91E-02	4.02E-02	2.90E-02
S_1	546339.38	5396624.55	Holy Saviour School		4.09E-04	1.26E-04	9.50E-05	1.64E-02	7.64E-03	4.67E-03
S_2	545633.38	5396102.55	Confederation College Northshore Campus		3.44E-04	1.17E-04	8.00E-05	6.21E-02	3.19E-02	2.41E-02
S_3	546200.38	5396036.55	Marathon High School		3.74E-04	1.02E-04	8.00E-05	1.84E-02	8.04E-03	4.91E-03
S_4	546261.39	5395967.55	Ecole secondaire Cite-Superieure		3.73E-04	1.01E-04	7.90E-05	1.64E-02	5.98E-03	3.88E-03
S_5	547019.39	5395082.56	Marathon Children and Family Centre		3.73E-04	8.70E-05	6.80E-05	4.73E-03	1.38E-03	9.28E-04
S_6	547000.39	5395035.56	Margaret Twomey Public School		3.70E-04	8.60E-05	6.80E-05	4.70E-03	1.35E-03	9.14E-04
W_1	547291.36	5399860.55	Shack Lake (northeast)		1.11E-03	3.47E-04	2.50E-04	1.19E-02	3.21E-03	2.42E-03
W_10	546975.32	5406486.49	Bamoos Lake (south)		1.05E-03	2.55E-04	1.54E-04	1.43E-02	3.55E-03	2.13E-03
W_11	545484.32	5405866.49	Bamoos Lake (west)		8.60E-04	2.10E-04	1.13E-04	1.17E-02	2.50E-03	1.55E-03
W_12	546576.32	5407157.48	Bamoos Lake (north)		7.84E-04	1.95E-04	1.17E-04	1.39E-02	3.40E-03	1.88E-03

Table F-1 Special Receptor Predictions (ug/m3) - Operations, Project Alone

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	BENZO(A)ANTHRACENE			BENZO(A)PYRENE			BENZO(B)FLUORANTHENE			BENZO(G,H,I)PERYLENE			BENZO(K)FLUORANTHENE		
				Averaging Period	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual
				Criteria	-	-	-	0.00005	-	0.00001	-	-	-	-	-	-	-	-	-
H_1	545937.38	5396169.55	Wilson Memorial General Hospital		7.36E-05	3.60E-05	2.23E-05	4.79E-05	2.34E-05	1.45E-05	2.09E-05	1.02E-05	6.37E-06	6.03E-06	6.74E-07	3.78E-07	1.67E-05	8.19E-06	5.07E-06
M_1	545694	5403864	PM-10 @ Hare Lake		1.19E-06	3.29E-07	2.17E-07	7.46E-07	2.28E-07	1.49E-07	1.43E-06	2.91E-07	1.81E-07	1.29E-05	2.24E-06	1.30E-06	3.90E-07	1.10E-07	7.18E-08
M_2	545694	5403873	Dustfall @ Hare Lake		1.19E-06	3.29E-07	2.16E-07	7.43E-07	2.27E-07	1.49E-07	1.43E-06	2.91E-07	1.81E-07	1.28E-05	2.25E-06	1.30E-06	3.89E-07	1.10E-07	7.16E-08
M_3	547152	5401222	PM-10 @ Mays Gifts		2.37E-06	6.29E-07	4.49E-07	1.48E-06	4.28E-07	3.24E-07	2.78E-06	5.50E-07	3.22E-07	1.98E-05	3.82E-06	1.88E-06	8.36E-07	2.07E-07	1.47E-07
M_4	547147	5401216	Dustfall @ Mays Gifts		2.38E-06	6.28E-07	4.49E-07	1.48E-06	4.27E-07	3.23E-07	2.81E-06	5.51E-07	3.22E-07	1.98E-05	3.81E-06	1.87E-06	8.39E-07	2.07E-07	1.47E-07
M_5	551637	5402371	PM-10 @ Pic River		1.79E-06	5.52E-07	3.24E-07	8.95E-07	3.25E-07	1.96E-07	2.41E-06	4.91E-07	2.69E-07	1.96E-05	3.18E-06	1.57E-06	5.77E-07	1.62E-07	9.47E-08
M_6	551643	5402374	Dustfall @ Pic River		1.79E-06	5.50E-07	3.23E-07	8.90E-07	3.25E-07	1.95E-07	2.39E-06	4.89E-07	2.68E-07	1.95E-05	3.17E-06	1.57E-06	5.74E-07	1.62E-07	9.46E-08
M_7	549180	5399815	Dustfall @ Airport		5.98E-06	2.53E-06	1.89E-06	2.96E-06	1.08E-06	7.37E-07	2.17E-06	5.46E-07	3.99E-07	1.41E-05	2.50E-06	1.00E-06	9.16E-07	3.05E-07	1.95E-07
M_8	545863	5397092	Dustfall @ Field Office		2.57E-05	1.36E-05	9.91E-06	1.70E-05	8.99E-06	6.57E-06	7.54E-06	3.98E-06	2.93E-06	6.22E-06	9.10E-07	4.66E-07	6.09E-06	3.22E-06	2.35E-06
O_1	547181.37	5398014.56	Pic Motel		1.72E-05	8.08E-06	5.76E-06	1.16E-05	5.44E-06	3.89E-06	5.54E-06	2.44E-06	1.79E-06	9.06E-06	1.03E-06	6.15E-07	4.28E-06	1.97E-06	1.42E-06
O_2	545734.38	5396872.55	Marathon Harbour Inn		3.03E-05	1.37E-05	1.03E-05	1.98E-05	8.91E-06	6.74E-06	8.71E-06	3.95E-06	2.98E-06	5.94E-06	8.64E-07	4.41E-07	7.05E-06	3.17E-06	2.40E-06
O_3	545885.38	5396448.55	Zero-100 Motor Inn		4.89E-05	2.26E-05	1.71E-05	3.18E-05	1.47E-05	1.11E-05	1.40E-05	6.47E-06	4.88E-06	5.57E-06	7.59E-07	4.02E-07	1.12E-05	5.18E-06	3.91E-06
O_4	545987.37	5397640.55	OPP Station		2.32E-05	1.06E-05	7.88E-06	1.54E-05	7.03E-06	5.24E-06	6.80E-06	3.16E-06	2.36E-06	6.99E-06	1.02E-06	5.36E-07	5.53E-06	2.53E-06	1.88E-06
O_5	545876.38	5396072.55	Library		5.51E-05	2.89E-05	1.90E-05	3.59E-05	1.88E-05	1.24E-05	1.57E-05	8.23E-06	5.43E-06	5.90E-06	6.63E-07	3.70E-07	1.26E-05	6.58E-06	4.32E-06
P_1	546958.38	5396138.56	Penn Lake Park and Campground		5.94E-06	1.97E-06	9.97E-07	3.89E-06	1.29E-06	6.53E-07	1.91E-06	5.99E-07	3.25E-07	5.09E-06	7.13E-07	3.92E-07	1.40E-06	4.61E-07	2.36E-07
P_2	548538.41	5392862.58	Craig's Pit Provincial Nature Reserve		8.37E-07	1.93E-07	1.04E-07	5.51E-07	1.26E-07	6.68E-08	5.75E-07	1.01E-07	5.38E-08	3.81E-06	4.92E-07	1.98E-07	1.97E-07	4.96E-08	2.73E-08
P_3	540005	5402014	Red Sucker Point Provincial Park		6.92E-07	1.80E-07	1.05E-07	4.51E-07	1.18E-07	6.90E-08	4.74E-07	1.07E-07	5.93E-08	3.56E-06	5.83E-07	2.89E-07	1.70E-07	4.92E-08	2.89E-08
P_4	552770	5383776	Pukaskwa National Park		2.07E-07	4.48E-08	2.89E-08	1.32E-07	2.81E-08	1.87E-08	1.95E-07	3.23E-08	1.74E-08	1.35E-06	1.81E-07	8.66E-08	6.72E-08	1.28E-08	7.99E-09
PR_1	553679.44	5385895.59	Children & Family Learning Centre		2.23E-07	4.62E-08	3.21E-08	1.47E-07	3.11E-08	2.10E-08	1.54E-07	3.11E-08	1.85E-08	1.08E-06	1.74E-07	8.68E-08	5.51E-08	1.34E-08	8.85E-09
PR_2	554004.44	5385857.59	Pic River Elementary		2.02E-07	4.54E-08	3.12E-08	1.33E-07	2.92E-08	2.04E-08	1.45E-07	3.07E-08	1.79E-08	1.09E-06	1.69E-07	8.47E-08	5.03E-08	1.29E-08	8.59E-09
PR_3	553836.44	5385603.59	Pic River Private High School		2.23E-07	4.46E-08	3.10E-08	1.46E-07	2.98E-08	2.02E-08	1.47E-07	3.02E-08	1.79E-08	1.06E-06	1.69E-07	8.42E-08	5.49E-08	1.28E-08	8.54E-09
PR_4	553930.44	5386048.59	Pic River Health Centre		1.99E-07	4.63E-08	3.19E-08	1.31E-07	2.99E-08	2.08E-08	1.47E-07	3.12E-08	1.83E-08	1.11E-06	1.72E-07	8.62E-08	4.97E-08	1.31E-08	8.77E-09
PR_5	552493.44	5384782.58	BIIDAABAN Healing Lodge		2.30E-07	4.92E-08	3.19E-08	1.45E-07	3.07E-08	2.06E-08	2.21E-07	3.52E-08	1.91E-08	1.46E-06	2.01E-07	9.48E-08	7.46E-08	1.39E-08	8.79E-09
PR_6	552843.43	5390099.59	Residence		3.26E-07	8.63E-08	5.04E-08	2.12E-07	5.46E-08	3.27E-08	2.47E-07	5.26E-08	2.89E-08	1.63E-06	2.59E-07	1.31E-07	9.84E-08	2.34E-08	1.38E-08
PR_7	553761.44	5387705.59	Residence		1.88E-07	5.66E-08	3.75E-08	1.23E-07	3.62E-08	2.44E-08	1.72E-07	3.66E-08	2.11E-08	1.29E-06	1.96E-07	9.88E-08	5.23E-08	1.59E-08	1.02E-08
PS_1	545001.33	5404050.49	North Hare Lake Cottage		9.06E-07	2.68E-07	1.74E-07	5.89E-07	1.80E-07	1.17E-07	1.23E-06	2.35E-07	1.45E-07	1.10E-05	1.80E-06	1.04E-06	3.03E-07	8.70E-08	5.65E-08
PS_2	544331.34	5403100.49	South Hare Lake Cottage		9.34E-07	2.45E-07	1.57E-07	5.86E-07	1.70E-07	1.06E-07	1.26E-06	1.96E-07	1.15E-07	1.08E-05	1.33E-06	7.37E-07	3.18E-07	8.05E-08	4.87E-08
PS_3	547056.12	5401003.77	May's Gifts		2.25E-06	6.06E-07	4.34E-07	1.33E-06	4.01E-07	3.02E-07	2.70E-06	5.29E-07	3.06E-07	1.72E-05	3.61E-06	1.74E-06	7.70E-07	1.94E-07	1.37E-07
PS_4	546811.35	5400952.54	Wayfare Inn		2.06E-06	5.77E-07	4.08E-07	1.26E-06	3.93E-07	2.89E-07	2.42E-06	4.68E-07	2.77E-07	1.75E-05	3.19E-06	1.55E-06	7.15E-07	1.86E-07	1.29E-07
PS_5	546996.35	5401027.54	Peninsula Inn		2.23E-06	6.01E-07	4.29E-07	1.34E-06	4.03E-07	3.02E-07	2.67E-06	5.16E-07	3.01E-07	1.79E-05	3.51E-06	1.70E-06	7.73E-07	1.94E-07	1.36E-07
PS_6	548471.36	5399488.57	Travelodge Hotel		8.22E-06	3.42E-06	2.77E-06	5.46E-06	2.37E-06	1.88E-06	3.39E-06	1.19E-06	9.50E-07	1.15E-05	2.04E-06	1.02E-06	2.13E-06	8.94E-07	7.14E-07
PS_7	546903.35	5401055.54	The Laughing Mooz Eatery Restaurant and Residence		2.17E-06	5.92E-07	4.20E-07	1.34E-06	4.06E-07	3.02E-07	2.57E-06	4.94E-07	2.91E-07	1.83E-05	3.34E-06	1.63E-06	7.61E-07	1.94E-07	1.36E-07
PW_1	545777.38	5397150.54	Kingdom Hall of Jehovah's Witnesses		2.58E-05	1.12E-05	8.37E-06	1.71E-05	7.44E-06	5.55E-06	7.88E-06	3.34E-06	2.49E-06	6.37E-06	9.15E-07	4.73E-07	6.17E-06	2.67E-06	1.99E-06
PW_2	546331.39	5395941.55	Parkland Pentecostal Church		9.09E-06	3.16E-06	2.05E-06	5.94E-06	2.07E-06	1.34E-06	2.60E-06	9.26E-07	6.23E-07	6.03E-06	6.32E-07	3.63E-07	2.09E-06	7.30E-07	4.77E-07
PW_3	545857.39	5395714.55	St. John's United Church		1.27E-05	4.30E-06	3.24E-06	8.26E-06	2.81E-06	2.11E-06	3.63E-06	1.26E-06	9.58E-07	5.88E-06	5.79E-07	3.44E-07	2.89E-06	9.91E-07	7.47E-07
PW_4	545425.03	5396043.49	Holy Saviour Roman Catholic Church		4.93E-05	2.14E-05	1.59E-05	3.25E-05	1.42E-05	1.06E-05	1.42E-05	6.24E-06	4.66E-06	4.79E-06	7.19E-07	3.67E-07	1.15E-05	5.04E-06	3.78E-06
PW_5	545390.38	5395988.55	Anglican Church-Trinity		7.45E-05	2.68E-05	1.74E-05	4.90E-05	1.77E-05	1.15E-05	2.14E-05	7.77E-06	5.07E-06	4.74E-06	7.12E-07	3.64E-07	1.73E-05	6.31E-06	4.12E-06
R_1	547226.37	5398095.56	Residence		2.78E-05	1.51E-05	1.06E-05	1.87E-05	1.02E-05	7.19E-06	8.69E-06	4.57E-06	3.26E-06	9.19E-06	1.06E-06	6.31E-07	6.90E-06	3.72E-06	2.64E-06
R_10	545421.38	5395953.55	Residence		1.16E-04	4.07E-05	2.96E-05	7.60E-05	2.67E-05	1.94E-05	3.34E-05	1.17E-05	8.51E-06	4.60E-06	7.04E-07	3.61E-07	2.68E-05	9.45E-06	6.88E-06
R_11	545619.39	5395877.55	Residence		5.00E-05	1.77E-05	1.47E-05	3.26E-05	1.15E-05	9.60E-06	1.44E-05	5.07E-06	4.22E-06	5.19E-06	6.65E-07	3.55E-07	1.14E-05	4.05E-06	3.37E-06
R_12	545831.38	5396000.55	Residence		4.73E-05	2.13E-05	1.50E-05	3.08E-05	1.39E-05	9.75E-06	1.36E-05	6.07E-06	4.29E-06	5.80E-06	6.54E-07	3.65E-07	1.08E-05	4.85E-06	3.41E-06
R_13	545806.92	5396173.19	Residence		1.32E-04	6.26E-05	4.97E-05	8.57E-05	4.07E-05	3.23E-05	3.75E-05	1.78E-05	1.42E-05	5.59E-06	7.03E-07	3.78E-07	2.99E-05	1.42E-05	1.13E-05
R_14	545827.05	5396228.86	Residence		8.77E-05	4.05E-05	3.15E-05	5.70E-05	2.64E-05	2.05E-05	2.50E-05	1.16E-05	8.97E-06	5.61E-06	7.13E-07	3.83E-07	1.99E-05	9.20E-06	7.15E-06
R_15	545662.38	5396175.55	Residence		3.77E-05	1.66E-05	1.26E-05	2.45E-05	1.08E-05	8.21E-06	1.08E-05	4.76E-06	3.62E-06	4.96E-06	7.26E-07	3.79E-07	8.60E-06	3.78E-06	2.88E-06
R_16	546254.38	5396484.55	Residence		1.58E-05	6.47E-06	3.81E-06	1.03E-05	4.23E-06	2.49E-06	4.52E-06	1.87E-06	1.13E-06	6.74E-06	6.80E-07	4.05E-07	3.62E-06	1.49E-06	8.82E-07
R_17	546471.38	5396506.55	Residence		1.09E-05	4.01E-06	2.32E-06	7.13E-06	2.62E-06	1.52E-06	3.14E-06	1.17E-06	7.05E-07	6.83E-06	6.89E-07	4.08E-07	2.51E-06	9.28E-07	5.41E-07
R_18	546601.38	5396387.56	Residence		9.12E-06	3.28E-06	1.87E-06	5.96E-06	2.15E-06	1.23E-06	2.61E-06	9.65E-07	5.77E-07	6.35E-06	7.01E-07	4.01E-07	2.10E-06	7.60E-07	4.38E-07
R_19	546856.39	5395580.56	Residence		4.35E-06	1.16E-06	6.39E-07	2.84E-06	7.59E-07	4.18E-07	1.40E-06	3.56E-07	2.19E-07	4.52E-06	6.51E-07	3.53E-07	1.02E-06	2.72E-07	1.53E-07
R_2	547273.37	5398044.56	Residence		1.15E-05	5.62E-06	3.82E-06	7.92E-06	3.84E-06	2.62E-06	4.08E-06	1.75E-06	1.24E-06	8.88E-06	1.06E-06	6.25E-07	3.00E-06	1.41E-06	9.76E-07
R_20	546950.39	5395533.56	Residence		3.89E-06	1.01E-06	5.69E-07	2.55E-06	6.63E-07	3.72E-07	1.25E-06	3.15E-07	1.99E-07	4.30E-06	6.58E-07	3.53E-07	9.07E-07	2.38E-07	1.37E-07
R_21	547201.39	5395415.56	Residence		3.08E-06	7.34E-07	4.33E-07	2.02E-06	4.83E-07	2.83E-07	9.17E-07	2.53E-07	1.61E-07	4.04E-06	6.62E-07	3.51E-07	7.13E-07	1.75E-07	1.06E-07
R_22	548317.36	5399654.57	Residence		3.77E-06	1.39E-06	1.08E-06	2.39E-06	8.80E-07	6.94E-07	2.15E-06	5.54E-07	4.23E-07	1.21E-05	2.17E-06	1.09E-06	9.60E-07	3.40E-07	2.67E-07
R_3	545809.38	5397232.54	Bergagnini Apartment Rental		2.84E-05	1.23E-05	9.27E-06	1.89E-05	8.19E-06	6.15E-06	8.67E-06	3.68E-06	2.75E-06	6.47E-06	9.31E-07	4.82E-07	6.81E-06	2.94E-06	2.21E-06
R_4	546092.38	5396796.55	Residence		9.11E-06	4.66E-06	3.26E-06	5.99E-06	3.06E-06	2.13E-06	2.63E-06	1.36E-06	9.77E-07	6.04E-06	8.16E-07	4.34E-07	2.13E-06	1.09E-06	7.63E-07
R_5	545971.38	5396489.55	Condominium		3.77E-05	2.08E-05	1.50E-05	2.46E-05	1.35E-05	9.77E-06	1.07E-05	5.92E-06	4.30E-06	5.90E-06	7.53E-07	4.05E-07	8.66E-06	4.78E-06	3.45E-06
R_6	545655.38	5396520.55	Residence		1.68E-05	7.23E-06	5.11E-06	1.10E-05	4.72E-06	3.35E-06	4.85E-06	2.12E-06	1.50E-06	5.34E-06	8.00E-07	4.09E-07	3.88E-06	1.67E-06	1.19E-06
R_7	545438.38	5396408.54	I Sew Studio and Residence		1.88E-05	8.46E-06	6.86E-06	1.28E-05	5.79E-06	4.68E-06	5.76E-06	2.57E-06	2.09E-06	5.45E-06	7.77E-07	3.96E-07	4.68E-06	2.12E-06	1.71E-06
R_8	545380.38	5396243.54	Bayview Apartments		2.01E-05	8.97E-06	7.14E-06	1.35E-05	6.04E-06	4.85E-06	6.02E-06	2.70E-06	2.16E-06	5.24E-06	7.51E-07	3.82E-07	4.86E-06	2.19E-06	1.76E-06
R_9	545290.38	5396114.54	Residence		2.08E-05	8.17E-06	5.18E-06	1.38E-05	5.43E-06	3.46E-06	6.20E-06	2.43E-06	1.55E-06	5.13E-06	7.31E-07	3.72E-07	4.92E-06	1.95E-06	1.24E-06
RH_1	546049.39	5395894.55	Peninsula Manor		1.65E-05	5.50E-06	3.50E-06	1.08E-05	3.59E-06	2.28E-06	4.73E-06	1.59E-06	1.03E-06	6.16E-06	5.85E-07	3.57E-07	3.80E-06	1.26E-06	8.07E-07
RH_2	545320.89	5396196.57	Senior's Centre		2.34E-05	1.03E-05	7.01E-06	1.59E-05	6.96E-06	4.77E-06	7.01E-06	3.11E-06	2.13E-06	5.23E-06	7.43E-07	3.78E-07	5.75E-06	2.53E-06	1.74E-06
S_1	546339.38	5396624.55	Holy Saviour School		1.06E-05	4.25E-06	2.58E-06	6.94E-06	2.79E-06	1.69E-06	3.05E-06	1.24E-06	7.81E-07	6.94E-06	6.97E-07	4.18E-07	2.44E-06	9.87E-07	6.03E-07
S_2	545633.38	5396102.55	Confederation College Northshore Campus		5.10E-05	2.28E-05	1.78E-05	3.33E-05	1.48E-05	1.16E-05	1.46E-05	6.52E-06	5.11E-06	4.95E-06	7.14E-07	3.73E-07	1.16E-05	5.19E-06	4.08E-06
S_3	546200.38	5396036.55	Marathon High School		1.20E-05	5.33E-06	3.37E-06	7.81E-06	3.48E-06	2.20E-06	3.43E-06	1.55E-06	9.98E-07	6.32E-06	6.17E-07	3.69E-07	2.74E-06	1.23E-06	7.77E-07
S_4	546261.39	5395967.55	Ecole secondaire Cite-Superieure		1.06E-05	3.80E-06	2.50E-06	6.91E-06	2.48E-06	1.63E-06	3.02E-06	1.11E-06	7.49E-07	6.18E-06	6.24E-07	3.64E-07	2.43E-06	8.76E-07	5.78E-07
S_5	547019.39	5395082.56	Marathon Children and Family Centre		2.00E-06	5.15E-07	3.19E-07	1.33E-06	3.39E-07	2.08E-07	7.22E-07	2.01E-07	1.27E-07	3.76E-06	6.26E-07	3.31E-07	4.73E-07	1.24E-07	7.92E-08
S_6	547000.39	5395035.56	Margaret Twomey Public School		1.90E-06	5.05E-07	3.12E-07	1.26E-06	3.32E-07	2.03E-07	7.04E-07	1.96E-07	1.25E-07	3.73E-06	6.21E-07	3.29E-07	4.49E-07	1.22E-07	7.74E-08
W_1	547291.36	5399860.55	Shack Lake (northeast)		1.90E-06	7.17E-07	5.23E-07	1.29E-06	4.61E-07	3.43E-07	1.40E-06	4.35E-07	2.81E-07	1.13E-05	2.16E-06	1.16E-06	4.91E-07	1.99E-07	1.43E-07
W_10	546975.32	5406486.49	Bamoos Lake (south)		9.97E-07	2.53E-07	1.63E-07	5.37E-07	1.77E-07	1.20E-07	1.35E-06	2.66E-07	1.44E-07	1.01E-05	1.97E-06	9.53E-07	3.23E-07	8.74E-08	5.86E-08
W_11	545484.32	5405866.49	Bamoos Lake (west)		1.10E-06	2.86E-07	1.68E-07	6.21E-07	1.69E-07	1.09E-07	1.40E-06	3.29E-07	1.70E-07	1.03E-05	2.31E-06	1.13E-06	3.76E-07	9.55E-08	5.71E-08
W_12	546576.32	5407157.48	Bamoos Lake (north)		8.84E-07	2.41E-07	1.52E-07	6.27E-07	1.75E-07	1.11E-07	1.11E-06	2.61E-07	1.36E-07	8.49E-06	1.54E-06	7.02E-07	3.10E-07	8.81E-08	5.45E-08

Table F-1 Special Receptor Predictions (ug/m3) - Operations, Project Alone

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	BERYLLIUM (BE)			BISMUTH (BI)			BORON (B)			BROMINE (BR)			CADMIUM (CD)		
				Averaging Period	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual
				Criteria	0.01	-	-	2.5	-	-	120	-	-	20	-	-	0.025	-	0.005
H_1	545937.38	5396169.55	Wilson Memorial General Hospital		4.11E-06	1.23E-06	9.27E-07	2.21E-04	3.69E-05	2.24E-05	7.40E-05	2.23E-05	1.66E-05	2.19E-03	2.71E-04	1.62E-04	4.44E-05	7.68E-06	4.80E-06
M_1	545694	5403864	PM-10 @ Hare Lake		1.05E-05	2.88E-06	1.69E-06	4.97E-05	1.33E-05	8.94E-06	1.81E-04	5.08E-05	2.96E-05	5.81E-03	9.14E-04	5.59E-04	1.34E-05	3.62E-06	2.35E-06
M_2	545694	5403873	Dustfall @ Hare Lake		1.04E-05	2.88E-06	1.69E-06	4.95E-05	1.33E-05	8.93E-06	1.80E-04	5.07E-05	2.96E-05	5.83E-03	9.20E-04	5.60E-04	1.33E-05	3.62E-06	2.34E-06
M_3	547152	5401222	PM-10 @ Mays Gifts		2.48E-05	6.68E-06	4.51E-06	1.11E-04	2.90E-05	2.08E-05	4.51E-04	1.20E-04	8.10E-05	1.13E-02	1.83E-03	9.07E-04	3.05E-05	8.03E-06	5.67E-06
M_4	547147	5401216	Dustfall @ Mays Gifts		2.46E-05	6.65E-06	4.49E-06	1.10E-04	2.88E-05	2.07E-05	4.48E-04	1.20E-04	8.05E-05	1.12E-02	1.82E-03	9.03E-04	3.03E-05	8.00E-06	5.64E-06
M_5	551637	5402371	PM-10 @ Pic River		1.64E-05	6.59E-06	4.10E-06	8.40E-05	3.27E-05	1.89E-05	3.01E-04	1.21E-04	7.51E-05	1.52E-02	2.51E-03	1.00E-03	2.23E-05	8.76E-06	5.16E-06
M_6	551643	5402374	Dustfall @ Pic River		1.63E-05	6.58E-06	4.09E-06	8.37E-05	3.26E-05	1.88E-05	3.00E-04	1.20E-04	7.49E-05	1.52E-02	2.50E-03	1.00E-03	2.22E-05	8.75E-06	5.15E-06
M_7	549180	5399815	Dustfall @ Airport		8.40E-05	3.74E-05	2.85E-05	3.20E-04	1.44E-04	1.11E-04	1.55E-03	6.88E-04	5.24E-04	7.47E-03	1.16E-03	5.73E-04	9.25E-05	4.16E-05	3.19E-05
M_8	545863	5397092	Dustfall @ Field Office		5.93E-06	1.55E-06	1.17E-06	5.40E-04	1.75E-04	8.69E-05	1.08E-04	2.77E-05	1.99E-05	2.52E-03	3.59E-04	1.99E-04	1.09E-04	3.54E-05	1.78E-05
O_1	547181.37	5398014.56	Pic Motel		9.24E-06	2.50E-06	1.79E-06	6.08E-05	2.16E-05	1.40E-05	1.69E-04	4.56E-05	3.26E-05	4.02E-03	4.53E-04	2.84E-04	1.28E-05	4.92E-06	3.40E-06
O_2	545734.38	5396872.55	Marathon Harbour Inn		5.57E-06	1.57E-06	1.23E-06	7.77E-04	4.41E-04	2.16E-04	9.90E-05	2.59E-05	1.86E-05	2.39E-03	3.38E-04	1.87E-04	1.56E-04	8.87E-05	4.36E-05
O_3	545885.38	5396448.55	Zero-100 Motor Inn		4.54E-06	1.34E-06	9.88E-07	3.61E-04	6.22E-05	3.41E-05	8.30E-05	2.39E-05	1.75E-05	2.04E-03	3.01E-04	1.72E-04	7.25E-05	1.27E-05	7.15E-06
O_4	545987.37	5397640.55	OPP Station		7.04E-06	1.74E-06	1.26E-06	3.05E-04	6.95E-05	3.12E-05	1.29E-04	3.15E-05	2.26E-05	2.85E-03	4.10E-04	2.29E-04	6.16E-05	1.44E-05	6.67E-06
O_5	545876.38	5396072.55	Library		4.00E-06	1.21E-06	9.01E-07	2.09E-04	3.71E-05	2.14E-05	7.20E-05	2.17E-05	1.61E-05	2.13E-03	2.66E-04	1.58E-04	4.20E-05	7.84E-06	4.58E-06
P_1	546958.38	5396138.56	Penn Lake Park and Campground		5.13E-06	1.29E-06	9.99E-07	1.19E-04	2.46E-05	1.40E-05	9.30E-05	2.33E-05	1.80E-05	2.06E-03	2.75E-04	1.70E-04	2.40E-05	5.32E-06	3.13E-06
P_2	548538.41	5392862.58	Craig's Pit Provincial Nature Reserve		3.65E-06	8.29E-07	5.20E-07	3.22E-05	6.92E-06	3.61E-06	6.50E-05	1.50E-05	9.45E-06	1.45E-03	1.93E-04	9.10E-05	6.65E-06	1.62E-06	8.97E-07
P_3	540005	5402014	Red Sucker Point Provincial Park		3.08E-06	7.92E-07	4.38E-07	3.64E-05	8.17E-06	4.90E-06	5.50E-05	1.42E-05	7.87E-06	1.18E-03	2.29E-04	1.15E-04	7.58E-06	1.79E-06	1.13E-06
P_4	552770	5383776	Pukaskwa National Park		1.43E-06	2.74E-07	1.62E-07	9.74E-06	2.51E-06	1.22E-06	2.60E-05	4.98E-06	2.94E-06	4.21E-04	7.10E-05	3.50E-05	2.06E-06	5.95E-07	2.99E-07
PR_1	553679.44	5385895.59	Children & Family Learning Centre		1.18E-06	2.77E-07	1.75E-07	1.12E-05	2.68E-06	1.29E-06	2.10E-05	4.97E-06	3.17E-06	3.66E-04	6.60E-05	3.60E-05	2.38E-06	6.29E-07	3.17E-07
PR_2	554004.44	5385857.59	Pic River Elementary		1.02E-06	2.55E-07	1.69E-07	1.12E-05	2.53E-06	1.26E-06	1.80E-05	4.60E-06	3.07E-06	3.79E-04	6.40E-05	3.50E-05	2.36E-06	5.92E-07	3.08E-07
PR_3	553836.44	5385603.59	Pic River Private High School		1.11E-06	2.64E-07	1.68E-07	1.07E-05	2.58E-06	1.25E-06	2.00E-05	4.75E-06	3.06E-06	3.62E-04	6.40E-05	3.50E-05	2.27E-06	6.05E-07	3.07E-07
PR_4	553930.44	5386048.59	Pic River Health Centre		1.05E-06	2.62E-07	1.72E-07	1.15E-05	2.57E-06	1.28E-06	1.90E-05	4.71E-06	3.13E-06	3.85E-04	6.60E-05	3.50E-05	2.42E-06	6.03E-07	3.14E-07
PR_5	552493.44	5384782.58	BIIDAABAN Healing Lodge		1.55E-06	2.97E-07	1.77E-07	1.04E-05	2.78E-06	1.34E-06	2.80E-05	5.39E-06	3.22E-06	4.84E-04	7.80E-05	3.80E-05	2.24E-06	6.57E-07	3.27E-07
PR_6	552843.43	5390099.59	Residence		1.84E-06	4.24E-07	2.76E-07	1.56E-05	3.66E-06	2.05E-06	3.30E-05	7.65E-06	5.02E-06	5.83E-04	1.01E-04	5.50E-05	3.21E-06	8.52E-07	5.04E-07
PR_7	553761.44	5387705.59	Residence		1.11E-06	2.95E-07	1.99E-07	1.15E-05	2.69E-06	1.50E-06	2.00E-05	5.36E-06	3.61E-06	4.44E-04	7.50E-05	4.00E-05	2.45E-06	6.36E-07	3.68E-07
PS_1	545001.33	5404050.49	North Hare Lake Cottage		7.31E-06	2.28E-06	1.32E-06	3.21E-05	1.05E-05	7.16E-06	1.30E-04	4.04E-05	2.34E-05	4.69E-03	7.07E-04	4.30E-04	8.72E-06	2.84E-06	1.87E-06
PS_2	544331.34	5403100.49	South Hare Lake Cottage		8.54E-06	2.03E-06	1.12E-06	3.51E-05	9.41E-06	6.36E-06	1.46E-04	3.62E-05	2.00E-05	3.96E-03	5.84E-04	3.11E-04	9.78E-06	2.56E-06	1.65E-06
PS_3	547056.12	5401003.77	May's Gifts		2.20E-05	5.87E-06	3.93E-06	9.78E-05	2.62E-05	1.88E-05	4.01E-04	1.06E-04	7.08E-05	9.18E-03	1.67E-03	8.23E-04	2.70E-05	7.16E-06	5.09E-06
PS_4	546811.35	5400952.54	Wayfare Inn		2.00E-05	5.28E-06	3.52E-06	9.03E-05	2.38E-05	1.74E-05	3.65E-04	9.50E-05	6.31E-05	9.10E-03	1.47E-03	7.25E-04	2.48E-05	6.47E-06	4.66E-06
PS_5	546996.35	5401027.54	Peninsula Inn		2.18E-05	5.82E-06	3.89E-06	9.76E-05	2.59E-05	1.87E-05	3.98E-04	1.05E-04	6.99E-05	9.54E-03	1.63E-03	8.05E-04	2.69E-05	7.07E-06	5.04E-06
PS_6	548471.36	5399488.57	Travelodge Hotel		3.39E-05	1.13E-05	6.99E-06	1.33E-04	4.53E-05	2.98E-05	6.22E-04	2.08E-04	1.28E-04	4.89E-03	8.90E-04	5.35E-04	3.81E-05	1.29E-05	8.34E-06
PS_7	546903.35	5401055.54	The Laughing Mooz Eatery Restaurant and Residence		2.14E-05	5.71E-06	3.81E-06	9.62E-05	2.52E-05	1.83E-05	3.89E-04	1.03E-04	6.83E-05	9.84E-03	1.56E-03	7.71E-04	2.64E-05	6.92E-06	4.94E-06
PW_1	545777.38	5397150.54	Kingdom Hall of Jehovah's Witnesses		6.06E-06	1.56E-06	1.18E-06	6.86E-04	2.01E-04	8.98E-05	1.11E-04	2.77E-05	1.99E-05	2.56E-03	3.61E-04	2.01E-04	1.38E-04	4.08E-05	1.84E-05
PW_2	546331.39	5395941.55	Parkland Pentecostal Church		4.36E-06	1.16E-06	9.02E-07	1.34E-04	2.52E-05	1.47E-05	7.90E-05	2.11E-05	1.63E-05	2.30E-03	2.50E-04	1.56E-04	2.75E-05	5.35E-06	3.24E-06
PW_3	545857.39	5395714.55	St. John's United Church		3.91E-06	1.09E-06	8.27E-07	1.58E-04	3.19E-05	1.61E-05	7.00E-05	1.96E-05	1.49E-05	2.11E-03	2.34E-04	1.46E-04	3.17E-05	6.75E-06	3.51E-06
PW_4	545425.03	5396043.49	Holy Saviour Roman Catholic Church		4.10E-06	1.20E-06	8.63E-07	3.07E-04	5.25E-05	2.97E-05	7.40E-05	2.10E-05	1.53E-05	1.89E-03	2.79E-04	1.54E-04	6.21E-05	1.09E-05	6.23E-06
PW_5	545390.38	5395988.55	Anglican Church-Trinity		4.05E-06	1.19E-06	8.51E-07	2.83E-04	4.91E-05	2.65E-05	7.30E-05	2.08E-05	1.51E-05	1.87E-03	2.76E-04	1.53E-04	5.72E-05	1.02E-05	5.59E-06
R_1	547226.37	5398095.56	Residence		9.84E-06	2.60E-06	1.85E-06	5.81E-05	2.01E-05	1.34E-05	1.81E-04	4.75E-05	3.37E-05	4.13E-03	4.68E-04	2.93E-04	1.23E-05	4.62E-06	3.31E-06
R_10	545421.38	5395953.55	Residence		3.97E-06	1.17E-06	8.45E-07	2.73E-04	4.53E-05	2.56E-05	7.20E-05	2.06E-05	1.50E-05	1.83E-03	2.73E-04	1.52E-04	5.54E-05	9.45E-06	5.41E-06
R_11	545619.39	5395877.55	Residence		3.78E-06	1.15E-06	8.43E-07	3.08E-04	4.90E-05	2.07E-05	6.90E-05	2.04E-05	1.51E-05	1.85E-03	2.62E-04	1.50E-04	6.18E-05	1.02E-05	4.42E-06
R_12	545831.38	5396000.55	Residence		3.92E-06	1.19E-06	8.82E-07	2.08E-04	4.12E-05	2.07E-05	7.10E-05	2.12E-05	1.58E-05	2.09E-03	2.62E-04	1.55E-04	4.17E-05	8.64E-06	4.44E-06
R_13	545806.92	5396173.19	Residence		4.11E-06	1.25E-06	9.18E-07	2.60E-04	5.11E-05	2.56E-05	7.50E-05	2.22E-05	1.63E-05	2.02E-03	2.79E-04	1.61E-04	5.21E-05	1.06E-05	5.44E-06
R_14	545827.05	5396228.86	Residence		4.20E-06	1.27E-06	9.33E-07	2.69E-04	4.88E-05	2.68E-05	7.70E-05	2.26E-05	1.66E-05	2.03E-03	2.84E-04	1.63E-04	5.40E-05	1.02E-05	5.67E-06
R_15	545662.38	5396175.55	Residence		4.19E-06	1.27E-06	9.10E-07	3.96E-04	7.25E-05	2.96E-05	7.60E-05	2.21E-05	1.61E-05	1.82E-03	2.85E-04	1.60E-04	7.95E-05	1.49E-05	6.24E-06
R_16	546254.38	5396484.55	Residence		4.58E-06	1.36E-06	1.02E-06	2.85E-04	4.83E-05	2.52E-05	8.20E-05	2.44E-05	1.82E-05	2.52E-03	2.79E-04	1.74E-04	5.73E-05	1.00E-05	5.38E-06
R_17	546471.38	5396506.55	Residence		4.79E-06	1.38E-06	1.05E-06	2.34E-04	3.99E-05	2.22E-05	8.60E-05	2.48E-05	1.88E-05	2.63E-03	2.81E-04	1.77E-04	4.71E-05	8.37E-06	4.80E-06
R_18	546601.38	5396387.56	Residence		4.77E-06	1.34E-06	1.03E-06	1.90E-04	3.43E-05	1.87E-05	8.60E-05	2.42E-05	1.85E-05	2.51E-03	2.78E-04	1.74E-04	3.82E-05	7.25E-06	4.09E-06
R_19	546856.39	5395580.56	Residence		4.61E-06	1.12E-06	8.71E-07	8.63E-05	1.71E-05	1.05E-05	8.40E-05	2.02E-05	1.58E-05	1.82E-03	2.47E-04	1.52E-04	1.76E-05	3.73E-06	2.40E-06
R_2	547273.37	5398044.56	Residence		9.54E-06	2.59E-06	1.84E-06	5.33E-05	1.91E-05	1.31E-05	1.75E-04	4.74E-05	3.36E-05	4.08E-03	4.70E-04	2.91E-04	1.22E-05	4.43E-06	3.25E-06
R_20	546950.39	5395533.56	Residence		4.67E-06	1.11E-06	8.69E-07	7.82E-05	1.67E-05	1.02E-05	8.50E-05	2.01E-05	1.57E-05	1.76E-03	2.51E-04	1.52E-04	1.58E-05	3.67E-06	2.33E-06
R_21	547201.39	5395415.56	Residence		4.68E-06	1.09E-06	8.62E-07	7.05E-05	1.55E-05	9.42E-06	8.50E-05	1.98E-05	1.56E-05	1.51E-03	2.57E-04	1.52E-04	1.42E-05	3.44E-06	2.18E-06
R_22	548317.36	5399654.57	Residence		2.33E-05	8.04E-06	5.15E-06	9.99E-05	3.28E-05	2.27E-05	4.26E-04	1.47E-04	9.44E-05	5.79E-03	9.31E-04	5.74E-04	2.76E-05	9.29E-06	6.29E-06
R_3	545809.38	5397232.54	Bergagnini Apartment Rental		6.23E-06	1.59E-06	1.18E-06	6.05E-04	1.60E-04	6.99E-05	1.14E-04	2.83E-05	2.03E-05	2.60E-03	3.68E-04	2.05E-04	1.22E-04	3.25E-05	1.44E-05
R_4	546092.38	5396796.55	Residence		5.10E-06	1.50E-06	1.11E-06	4.60E-04	1.03E-04	5.54E-05	9.30E-05	2.64E-05	1.93E-05	2.25E-03	3.26E-04	1.87E-04	9.24E-05	2.11E-05	1.15E-05
R_5	545971.38	5396489.55	Condominium		4.53E-06	1.34E-06	1.00E-06	3.58E-04	7.03E-05	3.33E-05	8.30E-05	2.42E-05	1.77E-05	2.16E-03	3.00E-04	1.73E-04	7.18E-05	1.43E-05	6.99E-06
R_6	545655.38	5396520.55	Residence		4.85E-06	1.44E-06	1.01E-06	6.67E-04	1.38E-04	6.01E-05	8.80E-05	2.41E-05	1.74E-05	2.15E-03	3.13E-04	1.74E-04	1.34E-04	2.80E-05	1.24E-05
R_7	545438.38	5396408.54	I Sew Studio and Residence		4.71E-06	1.36E-06	9.54E-07	5.54E-04	1.16E-04	6.14E-05	8.50E-05	2.27E-05	1.63E-05	2.14E-03	3.01E-04	1.66E-04	1.11E-04	2.37E-05	1.26E-05
R_8	545380.38	5396243.54	Bayview Apartments		4.44E-06	1.28E-06	9.02E-07	3.83E-04	8.37E-05	4.27E-05	8.00E-05	2.19E-05	1.57E-05	2.05E-03	2.90E-04	1.60E-04	7.72E-05	1.72E-05	8.86E-06
R_9	545290.38	5396114.54	Residence		4.27E-06	1.23E-06	8.67E-07	2.90E-04	7.00E-05	3.49E-05	7.70E-05	2.12E-05	1.52E-05	1.99E-03	2.82E-04	1.56E-04	5.85E-05	1.44E-05	7.28E-06
RH_1	546049.39	5395894.55	Peninsula Manor		4.18E-06	1.14E-06	8.76E-07	1.50E-04	2.67E-05	1.65E-05	7.50E-05	2.07E-05	1.57E-05	2.25E-03	2.39E-04	1.53E-04	3.07E-05	5.66E-06	3.60E-06
RH_2	545320.89	5396196.57	Senior's Centre		4.38E-06	1.25E-06	8.85E-07	3.32E-04	7.84E-05	3.94E-05	7.90E-05	2.15E-05	1.55E-05	2.03E-03	2.86E-04	1.58E-04	6.70E-05	1.61E-05	8.18E-06
S_1	546339.38	5396624.55	Holy Saviour School		4.73E-06	1.42E-06	1.07E-06	2.84E-04	4.87E-05	2.82E-05	8.50E-05	2.55E-05	1.90E-05	2.61E-03	2.87E-04	1.81E-04	5.71E-05	1.01E-05	5.99E-06
S_2	545633.38	5396102.55	Confederation College Northshore Campus		4.09E-06	1.24E-06	8.91E-07	3.95E-04	6.58E-05	2.72E-05	7.50E-05	2.16E-05	1.58E-05	1.78E-03	2.80E-04	1.58E-04	7.94E-05	1.36E-05	5.74E-06
S_3	546200.38	5396036.55	Marathon High School		4.35E-06	1.19E-06	9.14E-07	1.66E-04	2.85E-05	1.66E-05	7.80E-05	2.16E-05	1.64E-05	2.35E-03	2.50E-04	1.58E-04	3.39E-05	5.99E-06	3.63E-06
S_4	546261.39	5395967.55	Ecole secondaire Cite-Superieure		4.35E-06	1.17E-06	9.03E-07	1.50E-04	2.61E-05	1.54E-05	7.80E-05	2.12E-05	1.63E-05	2.33E-03	2.50E-04	1.56E-04	3.07E-05	5.53E-06	3.39E-06
S_5	547019.39	5395082.56	Marathon Children and Family Centre		4.44E-06	1.01E-06	7.95E-07	8.83E-05	1.50E-05	7.90E-06	8.00E-05	1.84E-05	1.44E-05	1.49E-03	2.43E-04	1.44E-04	1.80E-05	3.28E-06	1.85E-06
S_6	547000.39	5395035.56	Margaret Twomey Public School		4.39E-06	1.00E-06	7.86E-07	8.50E-05	1.51E-05	7.80E-06	8.00E-05	1.82E-05	1.43E-05	1.48E-03	2.41E-04	1.42E-04	1.73E-05	3.30E-06	1.83E-06
W_1	547291.36	5399860.55	Shack Lake (northeast)		1.32E-05	4.08E-06	2.92E-06	5.66E-05	1.97E-05	1.53E-05	2.41E-04	7.46E-05	5.32E-05	5.63E-03	9.78E-04	5.47E-04	1.58E-05	5.32E-06	4.05E-06
W_10	546975.32	5406486.49	Bamoos Lake (south)		1.23E-05	3.00E-06	1.80E-06	5.50E-05	1.31E-05	8.18E-06	2.26E-04	5.48E-05	3.25E-05	5.44E-03	1.15E-03	5.18E-04	1.51E-05	3.62E-06	2.24E-06
W_11	545484.32	5405866.49	Bamoos Lake (west)		1.01E-05	2.46E-06	1.31E-06	4.60E-05	1.18E-05	6.67E-06	1.86E-04	4.45E-05	2.36E-05	4.55E-03	1.08E-03	4.93E-04	1.26E-05	3.17E-06	1.77E-06
W_12	546576.32	5407157.48	Bamoos Lake (north)		9.63E-06	2.32E-06	1.37E-06	3.48E-05	9.84E-06	6.52E-06	1.64E-04	4.16E-05	2.46E-05	3.75E-03	7.64E-04	3.46E-04	1.01E-05	2.74E-06	1.76E-06

Table F-1 Special Receptor Predictions (ug/m3) - Operations, Project Alone

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	CALCIUM (CA)			CAO			CH4			CHROMIUM (CR)			CHRYSENE			CO					
				Averaging Period	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	0.5	1	8	24	month	annual
				Criteria	-	-	-	10	-	-	37330	-	-	0.5	-	-	-	-	-	6000	36200	15700	-	-	-
H_1	545937.38	5396169.55	Wilson Memorial General Hospital		9.38E-02	2.92E-02	2.19E-02	4.43E-02	4.89E-03	2.89E-03	3.91E-01	1.85E-01	1.13E-01	7.23E-04	2.37E-04	1.76E-04	4.83E-05	2.36E-05	1.46E-05	4.02E+02	3.35E+02	1.80E+02	9.20E+01	4.37E+01	2.67E+01
M_1	545694	5403864	PM-10 @ Hare Lake		2.41E-01	6.92E-02	4.14E-02	1.04E-01	1.80E-02	1.06E-02	9.43E-02	2.82E-02	1.65E-02	2.26E-03	7.59E-04	4.63E-04	2.25E-06	5.79E-07	3.67E-07	3.00E+02	2.50E+02	3.67E+01	2.03E+01	4.62E+00	2.68E+00
M_2	545694	5403873	Dustfall @ Hare Lake		2.40E-01	6.90E-02	4.13E-02	1.04E-01	1.81E-02	1.06E-02	9.42E-02	2.81E-02	1.65E-02	2.24E-03	7.54E-04	4.60E-04	2.24E-06	5.80E-07	3.67E-07	2.96E+02	2.47E+02	3.62E+01	2.01E+01	4.61E+00	2.67E+00
M_3	547152	5401222	PM-10 @ Mays Gifts		5.71E-01	1.56E-01	1.07E-01	2.00E-01	3.36E-02	1.68E-02	1.96E-01	5.19E-02	3.74E-02	4.75E-03	1.42E-03	1.03E-03	4.90E-06	1.09E-06	7.05E-07	1.76E+02	1.46E+02	5.03E+01	2.73E+01	7.85E+00	5.79E+00
M_4	547147	5401216	Dustfall @ Mays Gifts		5.68E-01	1.55E-01	1.06E-01	1.99E-01	3.35E-02	1.67E-02	1.94E-01	5.16E-02	3.72E-02	4.73E-03	1.41E-03	1.02E-03	4.92E-06	1.09E-06	7.05E-07	1.73E+02	1.44E+02	4.98E+01	2.71E+01	7.81E+00	5.76E+00
M_5	551637	5402371	PM-10 @ Pic River		3.74E-01	1.50E-01	9.29E-02	2.46E-01	4.18E-02	1.66E-02	1.05E-01	3.72E-02	2.31E-02	2.87E-03	1.15E-03	7.09E-04	3.73E-06	9.20E-07	5.25E-07	1.55E+02	1.30E+02	2.94E+01	1.49E+01	5.12E+00	3.25E+00
M_6	551643	5402374	Dustfall @ Pic River		3.72E-01	1.49E-01	9.27E-02	2.45E-01	4.16E-02	1.66E-02	1.04E-01	3.72E-02	2.31E-02	2.86E-03	1.14E-03	7.08E-04	3.71E-06	9.17E-07	5.25E-07	1.56E+02	1.30E+02	2.97E+01	1.48E+01	5.12E+00	3.25E+00
M_7	549180	5399815	Dustfall @ Airport		1.88E+00	8.38E-01	6.38E-01	1.31E-01	2.06E-02	9.58E-03	1.38E-01	5.05E-02	3.88E-02	1.37E-02	6.12E-03	4.66E-03	4.76E-06	1.89E-06	1.44E-06	1.95E+02	1.62E+02	5.19E+01	2.16E+01	8.62E+00	6.67E+00
M_8	545863	5397092	Dustfall @ Field Office		1.34E-01	3.89E-02	2.99E-02	4.74E-02	6.65E-03	3.58E-03	1.76E-01	9.29E-02	6.96E-02	1.01E-03	3.10E-04	2.41E-04	1.70E-05	9.00E-06	6.62E-06	1.33E+02	1.11E+02	7.20E+01	3.97E+01	2.09E+01	1.55E+01
O_1	547181.37	5398014.56	Pic Motel		2.08E-01	5.68E-02	4.11E-02	7.56E-02	8.08E-03	5.01E-03	1.42E-01	5.27E-02	4.00E-02	1.67E-03	4.45E-04	3.28E-04	1.20E-05	5.37E-06	3.89E-06	1.64E+02	1.37E+02	5.44E+01	2.94E+01	1.16E+01	8.66E+00
O_2	545734.38	5396872.55	Marathon Harbour Inn		1.30E-01	4.95E-02	3.61E-02	4.49E-02	6.27E-03	3.37E-03	3.84E-01	1.77E-01	1.35E-01	9.89E-04	3.93E-04	2.87E-04	2.13E-05	9.64E-06	7.29E-06	2.76E+02	2.30E+02	1.42E+02	8.06E+01	3.70E+01	2.83E+01
O_3	545885.38	5396448.55	Zero-100 Motor Inn		1.02E-01	3.21E-02	2.37E-02	4.18E-02	5.49E-03	3.08E-03	4.89E-01	2.00E-01	1.56E-01	7.75E-04	2.59E-04	1.91E-04	3.36E-05	1.54E-05	1.16E-05	2.74E+02	2.28E+02	1.59E+02	1.05E+02	4.36E+01	3.38E+01
O_4	545987.37	5397640.55	OPP Station		1.59E-01	4.04E-02	2.99E-02	5.48E-02	7.61E-03	4.15E-03	1.40E-01	6.56E-02	4.99E-02	1.20E-03	3.24E-04	2.43E-04	1.52E-05	7.03E-06	5.25E-06	1.38E+02	1.15E+02	6.45E+01	3.03E+01	1.48E+01	1.12E+01
O_5	545876.38	5396072.55	Library		9.10E-02	2.88E-02	2.13E-02	4.31E-02	4.80E-03	2.83E-03	3.38E-01	1.62E-01	1.02E-01	7.02E-04	2.33E-04	1.72E-04	3.65E-05	1.90E-05	1.25E-05	3.81E+02	3.18E+02	1.52E+02	7.76E+01	3.76E+01	2.39E+01
P_1	546958.38	5396138.56	Penn Lake Park and Campground		1.16E-01	2.97E-02	2.32E-02	3.86E-02	5.15E-03	3.03E-03	5.96E-02	2.11E-02	1.23E-02	8.84E-04	2.33E-04	1.85E-04	4.32E-06	1.39E-06	7.38E-07	8.96E+01	7.47E+01	2.54E+01	1.22E+01	4.19E+00	2.34E+00
P_2	548538.41	5392862.58	Craig's Pit Provincial Nature Reserve		8.15E-02	1.89E-02	1.19E-02	2.66E-02	3.52E-03	1.53E-03	2.42E-02	5.72E-03	3.52E-03	6.13E-04	1.49E-04	9.50E-05	9.79E-07	1.95E-07	1.12E-07	7.05E+01	5.87E+01	1.27E+01	5.09E+00	9.75E-01	5.58E-01
P_3	540005	5402014	Red Sucker Point Provincial Park		7.07E-02	1.84E-02	1.02E-02	2.38E-02	4.21E-03	2.11E-03	2.93E-02	7.15E-03	3.79E-03	6.01E-04	1.57E-04	8.70E-05	8.01E-07	2.15E-07	1.21E-07	1.40E+02	1.17E+02	1.57E+01	6.73E+00	1.21E+00	6.23E-01
P_4	552770	5383776	Pukaskwa National Park		3.20E-02	6.29E-03	3.71E-03	7.77E-03	1.25E-03	6.15E-04	1.14E-02	1.94E-03	1.18E-03	2.38E-04	4.90E-05	2.90E-05	3.60E-07	6.17E-08	3.53E-08	5.04E+01	4.20E+01	5.33E+00	1.93E+00	3.18E-01	1.89E-01
PR_1	553679.44	5385895.59	Children & Family Learning Centre		2.66E-02	6.31E-03	4.00E-03	7.05E-03	1.19E-03	6.25E-04	9.92E-03	2.26E-03	1.31E-03	2.04E-04	4.90E-05	3.20E-05	2.78E-07	5.99E-08	3.81E-08	3.65E+01	3.04E+01	4.96E+00	1.76E+00	3.75E-01	2.10E-01
PR_2	554004.44	5385857.59	Pic River Elementary		2.30E-02	5.83E-03	3.87E-03	7.16E-03	1.16E-03	6.09E-04	8.73E-03	2.08E-03	1.26E-03	1.77E-04	4.60E-05	3.10E-05	2.52E-07	5.95E-08	3.70E-08	2.83E+01	2.36E+01	4.18E+00	1.57E+00	3.43E-01	2.03E-01
PR_3	553836.44	5385603.59	Pic River Private High School		2.49E-02	6.02E-03	3.86E-03	6.95E-03	1.16E-03	6.06E-04	9.43E-03	2.16E-03	1.26E-03	1.91E-04	4.70E-05	3.10E-05	2.63E-07	5.84E-08	3.68E-08	3.41E+01	2.84E+01	4.72E+00	1.68E+00	3.59E-01	2.03E-01
PR_4	553930.44	5386048.59	Pic River Health Centre		2.37E-02	5.98E-03	3.95E-03	7.28E-03	1.18E-03	6.20E-04	8.91E-03	2.13E-03	1.29E-03	1.83E-04	4.70E-05	3.10E-05	2.58E-07	6.06E-08	3.77E-08	2.98E+01	2.48E+01	4.33E+00	1.60E+00	3.53E-01	2.07E-01
PR_5	552493.44	5384782.58	BIIDAABAN Healing Lodge		3.49E-02	6.81E-03	4.06E-03	8.63E-03	1.38E-03	6.73E-04	1.22E-02	2.09E-03	1.28E-03	2.60E-04	5.30E-05	3.20E-05	4.03E-07	6.70E-08	3.87E-08	5.21E+01	4.35E+01	5.52E+00	2.07E+00	3.41E-01	2.04E-01
PR_6	552843.43	5390099.59	Residence		4.13E-02	9.64E-03	6.33E-03	1.09E-02	1.81E-03	9.60E-04	1.50E-02	3.41E-03	2.01E-03	3.14E-04	7.50E-05	5.00E-05	4.71E-07	1.03E-07	5.96E-08	4.69E+01	3.91E+01	6.28E+00	2.54E+00	5.66E-01	3.23E-01
PR_7	553761.44	5387705.59	Residence		2.51E-02	6.76E-03	4.56E-03	8.35E-03	1.34E-03	7.11E-04	9.73E-03	2.34E-03	1.48E-03	1.93E-04	5.30E-05	3.60E-05	2.82E-07	7.18E-08	4.37E-08	3.12E+01	2.60E+01	4.18E+00	1.76E+00	3.86E-01	2.38E-01
PS_1	545001.33	5404050.49	North Hare Lake Cottage		1.69E-01	5.39E-02	3.15E-02	8.53E-02	1.39E-02	8.15E-03	7.44E-02	2.13E-02	1.19E-02	1.62E-03	5.63E-04	3.16E-04	1.92E-06	4.57E-07	2.87E-07	6.71E+01	5.59E+01	2.40E+01	1.24E+01	3.49E+00	1.91E+00
PS_2	544331.34	5403100.49	South Hare Lake Cottage		1.91E-01	4.80E-02	2.67E-02	8.02E-02	1.05E-02	5.78E-03	7.14E-02	1.82E-02	9.76E-03	1.64E-03	4.63E-04	2.60E-04	1.97E-06	4.03E-07	2.34E-07	3.46E+02	2.88E+02	3.77E+01	1.83E+01	2.94E+00	1.56E+00
PS_3	547056.12	5401003.77	May's Gifts		5.05E-01	1.37E-01	9.24E-02	1.64E-01	3.09E-02	1.52E-02	1.59E-01	4.41E-02	3.15E-02	4.10E-03	1.21E-03	8.57E-04	4.60E-06	1.02E-06	6.49E-07	1.64E+02	1.37E+02	4.45E+01	2.22E+01	6.69E+00	4.81E+00
PS_4	546811.35	5400952.54	Wayfare Inn		4.61E-01	1.24E-01	8.31E-02	1.64E-01	2.71E-02	1.34E-02	1.54E-01	4.16E-02	2.93E-02	3.80E-03	1.13E-03	7.92E-04	4.20E-06	9.31E-07	5.98E-07	1.64E+02	1.37E+02	4.23E+01	2.17E+01	6.49E+00	4.56E+00
PS_5	546996.35	5401027.54	Peninsula Inn		5.02E-01	1.36E-01	9.17E-02	1.71E-01	3.01E-02	1.49E-02	1.63E-01	4.45E-02	3.18E-02	4.12E-03	1.22E-03	8.64E-04	4.59E-06	1.00E-06	6.44E-07	1.70E+02	1.42E+02	4.46E+01	2.29E+01	6.85E+00	4.90E+00
PS_6	548471.36	5399488.57	Travelodge Hotel		7.61E-01	2.55E-01	1.58E-01	9.69E-02	1.59E-02	9.23E-03	1.31E-01	4.37E-02	3.35E-02	5.61E-03	1.90E-03	1.18E-03	6.98E-06	2.52E-06	2.03E-06	1.86E+02	1.55E+02	4.55E+01	2.39E+01	8.02E+00	6.20E+00
PS_7	546903.35	5401055.54	The Laughing Mooz Eatery Restaurant and Residence		4.92E-01	1.34E-01	9.03E-02	1.77E-01	2.88E-02	1.43E-02	1.68E-01	4.52E-02	3.21E-02	4.08E-03	1.23E-03	8.72E-04	4.47E-06	9.83E-07	6.35E-07	1.68E+02	1.40E+02	4.47E+01	2.36E+01	7.06E+00	5.02E+00
PW_1	545777.38	5397150.54	Kingdom Hall of Jehovah's Witnesses		1.37E-01	3.86E-02	3.01E-02	4.86E-02	6.70E-03	3.63E-03	1.72E-01	7.45E-02	5.84E-02	1.04E-03	3.10E-04	2.43E-04	1.74E-05	7.49E-06	5.60E-06	1.77E+02	1.48E+02	7.02E+01	3.80E+01	1.67E+01	1.30E+01
PW_2	546331.39	5395941.55	Parkland Pentecostal Church		9.94E-02	2.68E-02	2.10E-02	4.42E-02	4.73E-03	2.79E-03	7.57E-02	2.82E-02	1.89E-02	7.55E-04	2.15E-04	1.69E-04	6.15E-06	2.16E-06	1.43E-06	1.16E+02	9.71E+01	4.34E+01	1.65E+01	5.84E+00	3.87E+00
PW_3	545857.39	5395714.55	St. John's United Church		8.86E-02	2.59E-02	1.94E-02	4.22E-02	4.19E-03	2.61E-03	9.77E-02	3.64E-02	2.73E-02	6.80E-04	2.10E-04	1.56E-04	8.42E-06	2.94E-06	2.23E-06	1.07E+02	8.89E+01	4.28E+01	2.07E+01	7.79E+00	5.79E+00
PW_4	545425.03	5396043.49	Holy Saviour Roman Catholic Church		9.35E-02	2.92E-02	2.07E-02	3.51E-02	5.15E-03	2.78E-03	7.13E-01	3.22E-01	2.55E-01	7.11E-04	2.33E-04	1.68E-04	3.51E-05	1.54E-05	1.16E-05	4.19E+02	3.49E+02	2.90E+02	1.48E+02	6.62E+01	5.26E+01
PW_5	545390.38	5395988.55	Anglican Church-Trinity		9.23E-02	2.87E-02	2.03E-02	3.47E-02	5.09E-03	2.75E-03	9.77E-01	4.07E-01	2.77E-01	7.02E-04	2.28E-04	1.64E-04	5.28E-05	1.94E-05	1.27E-05	6.12E+02	5.10E+02	3.51E+02	2.05E+02	8.43E+01	5.71E+01
R_1	547226.37	5398095.56	Residence		2.22E-01	5.91E-02	4.25E-02	7.73E-02	8.32E-03	5.16E-03	2.02E-01	9.13E-02	6.70E-02	1.72E-03	4.61E-04	3.39E-04	1.85E-05	9.97E-06	7.04E-06	2.00E+02	1.67E+02	7.94E+01	4.33E+01	2.08E+01	1.50E+01
R_10	545421.38	5395953.55	Residence		9.04E-02	2.81E-02	2.02E-02	3.37E-02	5.03E-03	2.73E-03	1.41E+00	5.29E-01	3.91E-01	6.87E-04	2.27E-04	1.63E-04	8.18E-05	2.89E-05	2.10E-05	7.78E+02	6.49E+02	4.08E+02	2.98E+02	1.11E+02	8.19E+01
R_11	545619.39	5395877.55	Residence		8.59E-02	2.80E-02	1.99E-02	3.79E-02	4.77E-03	2.69E-03	4.00E-01	1.53E-01	1.22E-01	6.51E-04	2.26E-04	1.61E-04	3.38E-05	1.20E-05	9.98E-06	3.11E+02	2.59E+02	1.51E+02	8.76E+01	3.32E+01	2.67E+01
R_12	545831.38	5396000.55	Residence		8.90E-02	2.85E-02	2.08E-02	4.23E-02	4.72E-03	2.78E-03	1.71E-01	1.35E-01	8.94E-02	6.87E-04	2.30E-04	1.68E-04	3.14E-05	1.41E-05	9.92E-06	3.20E+02	2.67E+02	1.24E+02	6.22E+01	3.07E+01	2.05E+01
R_13	545806.92	5396173.19	Residence		9.29E-02	3.03E-02	2.18E-02	4.12E-02	5.07E-03	2.89E-03	5.90E-01	2.87E-01	2.30E-01	7.03E-04	2.44E-04	1.76E-04	8.58E-05	4.08E-05	3.25E-05	3.82E+02	3.18E+02	2.49E+02	1.43E+02	6.87E+01	5.56E+01
R_14	545827.05	5396228.86	Residence		9.48E-02	3.06E-02	2.22E-02	4.15E-02	5.15E-03	2.93E-03	4.11E-01	1.89E-01	1.54E-01	7.18E-04	2.47E-04	1.79E-04	5.72E-05	2.65E-05	2.06E-05	2.64E+02	2.20E+02	1.70E+02	9.87E+01	4.56E+01	3.68E+01
R_15	545662.38	5396175.55	Residence		9.47E-02	3.15E-02	2.18E-02	3.70E-02	5.22E-03	2.88E-03	2.36E-01	1.12E-01	8.68E-02	7.18E-04	2.53E-04	1.76E-04	2.50E-05	1.10E-05	8.42E-06	1.54E+02	1.28E+02	8.93E+01	5.35E+01	2.48E+01	1.94E+01
R_16	546254.38	5396484.55	Residence		1.05E-01	3.18E-02	2.41E-02	5.02E-02	4.98E-03	3.12E-03	1.16E-01	5.33E-02	3.30E-02	8.03E-04	2.53E-04	1.94E-04	1.06E-05	4.39E-06	2.62E-06	1.22E+02	1.01E+02	5.92E+01	2.54E+01	1.15E+01	6.98E+00
R_17	546471.38	5396506.55	Residence		1.09E-01	3.22E-02	2.46E-02	5.12E-02	5.25E-03	3.16E-03	8.83E-02	3.64E-02	2.24E-02	8.36E-04	2.54E-04	1.97E-04	7.37E-06	2.75E-06	1.63E-06	9.57E+01	7.98E+01	3.81E+01	1.88E+01	7.65E+00	4.59E+00
R_18	546601.38	5396387.56	Residence		1.09E-01	3.12E-02	2.40E-02	4.77E-02	5.31E-03	3.11E-03	7.56E-02	3.01E-02	1.87E-02	8.36E-04	2.46E-04	1.93E-04	6.17E-06	2.26E-06	1.33E-06	9.68E+01	8.07E+01	3.26E+01	1.64E+01	6.27E+00	3.76E+00
R_19	546856.39	5395580.56	Residence		1.04E-01	2.56E-02	2.01E-02	3.37E-02	4.64E-03	2.71E-03	5.23E-02	1.42E-02	9.29E-03	7.96E-04	2.01E-04	1.61E-04	3.19E-06	8.31E-07	4.93E-07	8.65E+01	7.21E+01	2.21E+01	9.86E+00	2.73E+00	1.70E+00
R_2	547273.37	5398044.56	Residence		2.17E-01	5.90E-02	4.22E-02	7.48E-02	8.37E-03	5.11E-03	1.16E-01	4.10E-02	3.04E-02	1.75E-03	4.60E-04	3.37E-04	8.35E-06	3.78E-06	2.64E-06	1.47E+02	1.23E+02	4.59E+01	2.29E+01	8.70E+00	6.34E+00
R_20	546950.39	5395533.56	Residence		1.05E-01	2.55E-02	2.01E-02	3.21E-02	4.70E-03	2.71E-03	4.63E-02	1.29E-02	8.76E-03	8.02E-04	2.00E-04	1.61E-04	2.85E-06	7.32E-07	4.46E-07	8.09E+01	6.75E+01	2.11E+01	8.92E+00	2.45E+00	1.58E+00
R_21	547201.39	5395415.56	Residence		1.05E-01	2.51E-02	1.99E-02	2.91E-02	4.75E-03	2.69E-03	3.76E-02	1.09E-02	7.67E-03	7.99E-04	2.00E-04	1.59E-04	2.12E-06	5.66E-07	3.55E-07	1.04E+02	8.66E+01	1.76E+01	6.76E+00	2.08E+00	1.34E+00
R_22	548317.36	5399654.57	Residence		5.25E-01	1.81E-01	1.17E-01	9.75E-02	1.70E-02	9.96E-03	1.13E-01	3.10E-02	2.31E-02	3.95E-03	1.38E-03	8.92E-04	3.85E-06	1.19E-06	9.16E-07	1.88E+02	1.57E+02	4.23E+01	1.83E+01	5.01E+00	3.70E+00
R_3	545809.38	5397232.54	Bergagnini Apartment Rental		1.41E-01	3.75E-02	2.94E-02	4.96E-02	6.84E-03	3.70E-03	1.83E-01	7.75E-02	6.04E-02	1.07E-03	3.03E-04	2.38E-04	1.91E-05	8.20E-06	6.17E-06	1.84E+02	1.53E+02	7.26E+01	4.08E+01	1.75E+01	1.36E+01
R_4	546092.38	5396796.55	Residence		1.15E-01	3.59E-02	2.72E-02	4.62E-02	5.94E-03	3.35E-03	1.17E-01	5.66E-02	3.72E-02	8.68E-04	2.83E-04	2.19E-04	6.39E-06	3.28E-06	2.30E-06	9.96E+01	8.30E+01	4.38E+01	2.41E+01	1.17E+01	7.66E+00
R_5	545971.38	5396489.55	Condominium		1.02E-01	3.18E-02	2.40E-02	4.42E-02	5.45E-03	3.10E-03	4.05E-01	2.19E-01	1.53E-01	7.74E-04	2.57E-04	1.93E-04	2.60E-05	1.43E-05	1.03E-05	2.33E+02	1.95E+02	1.48E+02	8.66E+01	4.68E+01	3.29E+01
R_6	545655.38	5396520.55	Residence		1.10E-01	3.79E-02	2.52E-02	3.98E-02	5.78E-03	3.12E-03	1.68E-01	6.96E-02	5.56E-02	8.31E-04	3.04E-04	2.03E-04	1.15E-05	4.98E-06	3.57E-06	1.81E+02	1.51E+02	6.63E+01	3.56E+01	1.47E+01	1.17E+01
R_7	545438.38	5396408.54	I Sew Studio and Residence		1.09E-01	3.51E-02	2.40E-02	4.03E-02	5.59E-03	3.00E-03	4.27E-01	2.15E-01	1.62E-01	8.29E-04	2.78E-04	1.93E-04	1.47E-05	6.69E-06	5.38E-06	2.27E+02	1.90E+02	1.31E+02	8.61E+01	4.33E+01	3.26E+01
R_8	545380.38	5396243.54	Bayview Apartments		1.02E-01	3.21E-02	2.21E-02	3.86E-02	5.39E-03	2.89E-03	4.08E-01	2.05E-01	1.57E-01	7.78E-04	2.54E-04	1.79E-04	1.49E-05	6.80E-06	5.52E-06	2.03E+02	1.69E+02	1.19E+02	8.24E+01	4.13E+01	3.17E+01
R_9	545290.38	5396114.54	Residence		9.86E-02	3.04E-02	2.10E-02	3.76E-02	5.23E-03	2.81E-03	3.07E-01	1.32E-01	8.75E-02	7.52E-04	2.41E-04	1.70E-04	1.51E-05	6.01E-06	3.84E-06	2.27E+02	1.89E+02	1.12E+02	6.31E+01	2.70E+01	1.79E+01
RH_1	546049.39	5395894.55	Peninsula Manor		9.51E-02	2.65E-02	2.05E-02	4.46E-02	4.40E-03	2.73E-03	1.46E-01	4.48E-02	2.81E-02	7.27E-04	2.15E-04	1.65E-04	1.12E-05	3.73E-06	2.39E-06	1.86E+02	1.55E+02	6.67E+01	3.17E+01	9.66E+00	5.99E+00
RH_2	545320.89	5396196.57	Senior's Centre		1.01E-01	3.13E-02	2.16E-02	3.84E-02	5.32E-03	2.85E-03	4.90E-01	2.22E-01	1.60E-01	7.70E-04	2.49E-04	1.75E-04	1.79E-05	7.91E-06	5.46E-06	3.47E+02	2.90E+02	1.61E+02	9.95E+01	4.49E+01	3.23E+01
S_1	546339.38	5396624.55	Holy Saviour School		1.09E-01	3.34E-02	2.53E-02	5.21E-02	5.12E-03	3.23E-03	8.88E-02	4.19E-02	2.63E-02	8.40E-04	2.64E-04	2.03E-04	7.17E-06	2.94E-06	1.81E-06	1.02E+02	8.52E+01	4.68E+01	1.89E+01	8.78E+00	5.39E+00
S_2	545633.38	5396102.55	Confederation College Northshore Campus		9.24E-02	3.05E-02	2.12E-02	3.67E-02	5.12E-03	2.83E-03	3.17E-01	1.66E-01	1.24E-01	7.01E-04	2.46E-04	1.72E-04	3.39E-05	1.51E-05	1.19E-05	2.20E+02	1.83E+02	1.31E+02	7.22E+01	3.67E+01	2.78E+01
S_3	546200.38	5396036.55	Marathon High School		9.94E-02	2.74E-02	2.14E-02	4.62E-02	4.64E-03	2.83E-03	9.88E-02	4.33E-02	2.68E-02	7.58E-04	2.22E-04	1.72E-04	8.05E-06	3.62E-06	2.31E-06	1.52E+02	1.27E+02	5.17E+01	2.12E+01	9.29E+00	5.70E+00
S_4	546261.39	5395967.55	Ecole secondaire Cite-Superieure		9.93E-02	2.69E-02	2.11E-02	4.52E-02	4.68E-03	2.80E-03	8.58E-02	3.29E-02	2.17E-02	7.55E-04	2.17E-04	1.69E-04	7.14E-06	2.59E-06	1.73E-06	1.28E+02	1.07E+02	4.82E+01	1.88E+01	6.91E+00	4.51E+00
S_5	547019.39	5395082.56	Marathon Children and Family Centre		9.99E-02	2.31E-02	1.83E-02	2.65E-02	4.48E-03	2.54E-03	3.25E-02	9.24E-03	6.46E-03	7.60E-04	1.86E-04	1.47E-04	1.45E-06	4.21E-07	2.75E-07	9.35E+01	7.79E+01	1.32E+01	5.36E+00	1.60E+00	1.10E+00
S_6	547000.39	5395035.56	Margaret Twomey Public School		9.89E-02	2.29E-02	1.81E-02	2.63E-02	4.44E-03	2.52E-03	3.23E-02	9.07E-03	6.37E-03	7.53E-04	1.84E-04	1.45E-04	1.38E-06	4.11E-07	2.70E-07	9.26E+01	7.72E+01	1.31E+01	5.32E+00	1.57E+00	1.08E+00
W_1	547291.36	5399860.55	Shack Lake (northeast)		2.98E-01	9.33E-02	6.72E-02	1.09E-01	1.78E-02	9.87E-03	9.84E-02	2.53E-02	1.92E-02	2.27E-03	7.45E-04	5.52E-04	2.44E-06	8.32E-07	5.73E-07	1.42E+02	1.18E+02	3.04E+01	1.43E+01	3.84E+00	2.92E+00
W_10	546975.32	5406486.49	Bamoos Lake (south)		2.81E-01	6.82E-02	4.11E-02	9.09E-02	1.74E-02	8.18E-03	8.65E-02	2.45E-02	1.51E-02	2.22E-03	5.30E-04	3.31E-04	2.11E-06	4.97E-07	3.03E-07	3.37E+02	2.81E+02	4.71E+01	2.11E+01	4.10E+00	2.46E+00
W_11	545484.32	5405866.49	Bamoos Lake (west)		2.30E-01	5.62E-02	3.02E-02	8.21E-02	1.89E-02	8.84E-03	6.92E-02	1.86E-02	1.12E-02	1.78E-03	4.58E-04	2.58E-04	2.28E-06	5.60E-07	3.11E-07	3.72E+02	3.10E+02	4.34E+01	1.79E+01	3.18E+00	1.80E+00
W_12	546576.32	5407157.48	Bamoos Lake (north)		2.08E-01	5.22E-02	3.12E-02	6.90E-02	1.27E-02	5.67E-03	8.46E-02	2.22E-02	1.27E-02	1.54E-03	4.07E-04	2.52E-04	1.86E-06	4.91E-07	2.80E-

Table F-1 Special Receptor Predictions (ug/m3) - Operations, Project Alone

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	COBALT (CO)			COPPER (CU)		
				Averaging Period	24	month	annual	24	month	annual
				Criteria	0.1	-	-	50	-	-
H_1	545937.38	5396169.55	Wilson Memorial General Hospital		9.73E-04	1.99E-04	1.35E-04	5.17E-01	7.99E-02	4.53E-02
M_1	545694	5403864	PM-10 @ Hare Lake		6.74E-04	1.95E-04	1.22E-04	6.28E-02	1.25E-02	7.60E-03
M_2	545694	5403873	Dustfall @ Hare Lake		6.70E-04	1.94E-04	1.22E-04	6.27E-02	1.25E-02	7.60E-03
M_3	547152	5401222	PM-10 @ Mays Gifts		1.56E-03	4.24E-04	2.96E-04	7.25E-02	1.93E-02	1.20E-02
M_4	547147	5401216	Dustfall @ Mays Gifts		1.55E-03	4.22E-04	2.95E-04	7.30E-02	1.94E-02	1.21E-02
M_5	551637	5402371	PM-10 @ Pic River		1.06E-03	4.18E-04	2.53E-04	6.88E-02	2.22E-02	1.03E-02
M_6	551643	5402374	Dustfall @ Pic River		1.06E-03	4.17E-04	2.52E-04	6.86E-02	2.22E-02	1.02E-02
M_7	549180	5399815	Dustfall @ Airport		4.70E-03	2.11E-03	1.61E-03	7.16E-02	2.91E-02	1.97E-02
M_8	545863	5397092	Dustfall @ Field Office		2.36E-03	7.94E-04	4.21E-04	1.26E+00	4.04E-01	1.96E-01
O_1	547181.37	5398014.56	Pic Motel		5.49E-04	1.69E-04	1.36E-04	1.37E-01	3.66E-02	1.80E-02
O_2	545734.38	5396872.55	Marathon Harbour Inn		3.39E-03	1.94E-03	9.72E-04	1.82E+00	1.03E+00	4.99E-01
O_3	545885.38	5396448.55	Zero-100 Motor Inn		1.57E-03	3.00E-04	1.88E-04	8.47E-01	1.41E-01	7.23E-02
O_4	545987.37	5397640.55	OPP Station		1.36E-03	3.56E-04	1.87E-04	7.09E-01	1.53E-01	6.33E-02
O_5	545876.38	5396072.55	Library		9.14E-04	2.10E-04	1.30E-04	4.89E-01	7.77E-02	4.30E-02
P_1	546958.38	5396138.56	Penn Lake Park and Campground		5.32E-04	1.55E-04	1.02E-04	2.76E-01	4.88E-02	2.47E-02
P_2	548538.41	5392862.58	Craig's Pit Provincial Nature Reserve		2.29E-04	5.90E-05	3.80E-05	7.07E-02	1.07E-02	4.20E-03
P_3	540005	5402014	Red Sucker Point Provincial Park		2.28E-04	6.20E-05	4.00E-05	7.88E-02	1.55E-02	7.97E-03
P_4	552770	5383776	Pukaskwa National Park		8.70E-05	2.20E-05	1.20E-05	2.02E-02	3.67E-03	1.54E-03
PR_1	553679.44	5385895.59	Children & Family Learning Centre		7.20E-05	2.30E-05	1.30E-05	2.32E-02	4.05E-03	1.61E-03
PR_2	554004.44	5385857.59	Pic River Elementary		6.30E-05	2.20E-05	1.30E-05	2.36E-02	3.87E-03	1.57E-03
PR_3	553836.44	5385603.59	Pic River Private High School		6.80E-05	2.20E-05	1.30E-05	2.23E-02	3.93E-03	1.56E-03
PR_4	553930.44	5386048.59	Pic River Health Centre		6.40E-05	2.20E-05	1.30E-05	2.42E-02	3.93E-03	1.60E-03
PR_5	552493.44	5384782.58	BIIDAABAN Healing Lodge		9.70E-05	2.50E-05	1.30E-05	2.16E-02	4.11E-03	1.69E-03
PR_6	552843.43	5390099.59	Residence		1.12E-04	3.20E-05	2.10E-05	3.46E-02	5.69E-03	2.56E-03
PR_7	553761.44	5387705.59	Residence		6.90E-05	2.40E-05	1.50E-05	2.39E-02	3.97E-03	1.90E-03
PS_1	545001.33	5404050.49	North Hare Lake Cottage		4.59E-04	1.51E-04	9.30E-05	5.84E-02	1.01E-02	6.26E-03
PS_2	544331.34	5403100.49	South Hare Lake Cottage		5.03E-04	1.34E-04	7.90E-05	5.12E-02	9.27E-03	5.89E-03
PS_3	547056.12	5401003.77	May's Gifts		1.37E-03	3.72E-04	2.59E-04	8.25E-02	2.01E-02	1.22E-02
PS_4	546811.35	5400952.54	Wayfare Inn		1.26E-03	3.38E-04	2.36E-04	9.43E-02	2.05E-02	1.22E-02
PS_5	546996.35	5401027.54	Peninsula Inn		1.37E-03	3.70E-04	2.57E-04	8.42E-02	2.01E-02	1.21E-02
PS_6	548471.36	5399488.57	Travelodge Hotel		1.94E-03	6.53E-04	4.12E-04	6.47E-02	1.72E-02	1.13E-02
PS_7	546903.35	5401055.54	The Laughing Mooz Eatery Restaurant and Residence		1.35E-03	3.65E-04	2.54E-04	8.63E-02	1.99E-02	1.20E-02
PW_1	545777.38	5397150.54	Kingdom Hall of Jehovah's Witnesses		3.00E-03	9.18E-04	4.33E-04	1.61E+00	4.65E-01	2.02E-01
PW_2	546331.39	5395941.55	Parkland Pentecostal Church		6.61E-04	1.47E-04	1.01E-04	2.99E-01	5.23E-02	2.72E-02
PW_3	545857.39	5395714.55	St. John's United Church		6.90E-04	1.82E-04	1.04E-04	3.69E-01	6.63E-02	3.13E-02
PW_4	545425.03	5396043.49	Holy Saviour Roman Catholic Church		1.40E-03	2.75E-04	1.64E-04	7.08E-01	1.14E-01	6.30E-02
PW_5	545390.38	5395988.55	Anglican Church-Trinity		1.29E-03	2.60E-04	1.50E-04	6.52E-01	1.06E-01	5.56E-02
R_1	547226.37	5398095.56	Residence		5.73E-04	1.70E-04	1.36E-04	1.23E-01	3.24E-02	1.62E-02
R_10	545421.38	5395953.55	Residence		1.25E-03	2.43E-04	1.45E-04	6.29E-01	9.73E-02	5.35E-02
R_11	545619.39	5395877.55	Residence		1.35E-03	2.58E-04	1.24E-04	7.22E-01	1.06E-01	4.19E-02
R_12	545831.38	5396000.55	Residence		9.05E-04	2.26E-04	1.26E-04	4.87E-01	8.75E-02	4.16E-02
R_13	545806.92	5396173.19	Residence		1.13E-03	2.71E-04	1.49E-04	6.09E-01	1.10E-01	5.30E-02
R_14	545827.05	5396228.86	Residence		1.17E-03	2.62E-04	1.54E-04	6.31E-01	1.05E-01	5.55E-02
R_15	545662.38	5396175.55	Residence		1.73E-03	3.63E-04	1.65E-04	9.29E-01	1.61E-01	6.25E-02
R_16	546254.38	5396484.55	Residence		1.24E-03	2.53E-04	1.51E-04	6.68E-01	1.05E-01	5.10E-02
R_17	546471.38	5396506.55	Residence		1.03E-03	2.19E-04	1.40E-04	5.48E-01	8.53E-02	4.38E-02
R_18	546601.38	5396387.56	Residence		8.36E-04	1.95E-04	1.24E-04	4.44E-01	7.16E-02	3.56E-02
R_19	546856.39	5395580.56	Residence		4.10E-04	1.16E-04	8.20E-05	1.96E-01	3.29E-02	1.76E-02
R_2	547273.37	5398044.56	Residence		5.78E-04	1.69E-04	1.34E-04	1.19E-01	3.03E-02	1.56E-02
R_20	546950.39	5395533.56	Residence		3.72E-04	1.14E-04	8.10E-05	1.81E-01	3.10E-02	1.68E-02
R_21	547201.39	5395415.56	Residence		3.39E-04	1.09E-04	7.70E-05	1.63E-01	2.84E-02	1.51E-02
R_22	548317.36	5399654.57	Residence		1.37E-03	4.70E-04	3.10E-04	4.66E-02	1.47E-02	1.02E-02
R_3	545809.38	5397232.54	Bergagnini Apartment Rental		2.65E-03	7.40E-04	3.49E-04	1.42E+00	3.67E-01	1.55E-01
R_4	546092.38	5396796.55	Residence		1.99E-03	4.89E-04	2.84E-04	1.08E+00	2.35E-01	1.22E-01
R_5	545971.38	5396489.55	Condominium		1.55E-03	3.33E-04	1.85E-04	8.40E-01	1.60E-01	7.02E-02
R_6	545655.38	5396520.55	Residence		2.88E-03	6.49E-04	3.00E-04	1.57E+00	3.13E-01	1.34E-01
R_7	545438.38	5396408.54	I Sew Studio and Residence		2.44E-03	5.53E-04	3.03E-04	1.29E+00	2.63E-01	1.37E-01
R_8	545380.38	5396243.54	Bayview Apartments		1.70E-03	4.11E-04	2.21E-04	8.91E-01	1.87E-01	9.35E-02
R_9	545290.38	5396114.54	Residence		1.30E-03	3.51E-04	1.86E-04	6.73E-01	1.55E-01	7.53E-02
RH_1	546049.39	5395894.55	Peninsula Manor		7.22E-04	1.55E-04	1.08E-04	3.40E-01	5.51E-02	3.18E-02
RH_2	545320.89	5396196.57	Senior's Centre		1.48E-03	3.88E-04	2.06E-04	7.72E-01	1.75E-01	8.57E-02
S_1	546339.38	5396624.55	Holy Saviour School		1.25E-03	2.54E-04	1.66E-04	6.62E-01	1.06E-01	5.76E-02
S_2	545633.38	5396102.55	Confederation College Northshore Campus		1.72E-03	3.34E-04	1.54E-04	9.28E-01	1.45E-01	5.68E-02
S_3	546200.38	5396036.55	Marathon High School		7.96E-04	1.58E-04	1.10E-04	3.76E-01	6.01E-02	3.17E-02
S_4	546261.39	5395967.55	Ecole secondaire Cite-Superieure		7.28E-04	1.50E-04	1.04E-04	3.38E-01	5.44E-02	2.89E-02
S_5	547019.39	5395082.56	Marathon Children and Family Centre		4.15E-04	1.00E-04	6.80E-05	2.01E-01	2.85E-02	1.21E-02
S_6	547000.39	5395035.56	Margaret Twomey Public School		4.01E-04	1.00E-04	6.70E-05	1.94E-01	2.88E-02	1.19E-02
W_1	547291.36	5399860.55	Shack Lake (northeast)		7.94E-04	2.58E-04	1.91E-04	9.65E-02	1.89E-02	1.19E-02
W_10	546975.32	5406486.49	Bamoos Lake (south)		7.65E-04	1.85E-04	1.13E-04	2.72E-02	7.22E-03	4.61E-03
W_11	545484.32	5405866.49	Bamoos Lake (west)		6.32E-04	1.57E-04	8.70E-05	4.51E-02	7.76E-03	5.09E-03
W_12	546576.32	5407157.48	Bamoos Lake (north)		5.24E-04	1.40E-04	8.70E-05	3.49E-02	7.23E-03	4.31E-03

Table F-1 Special Receptor Predictions (ug/m3) - Operations, Project Alone

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	DIBENZ(A,H)PERYLENE			FLUORANTHENE			FLUORENE			FORMALDEHYDE			GALLIUM (GA)		
				Averaging Period	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual
				Criteria	-	-	-	-	-	-	-	-	-	65	-	-	-	-	-
H_1	545937.38	5396169.55	Wilson Memorial General Hospital		1.68E-07	2.68E-08	1.39E-08	4.91E-04	2.36E-04	1.45E-04	1.30E-03	6.16E-04	3.76E-04	1.19E+00	5.64E-01	3.43E-01	5.45E-01	8.37E-02	4.72E-02
M_1	545694	5403864	PM-10 @ Hare Lake		4.14E-07	6.92E-08	4.05E-08	5.69E-05	1.66E-05	9.63E-06	2.16E-04	6.29E-05	3.63E-05	2.21E-01	6.45E-02	3.69E-02	6.44E-02	1.20E-02	6.88E-03
M_2	545694	5403873	Dustfall @ Hare Lake		4.13E-07	6.96E-08	4.05E-08	5.68E-05	1.65E-05	9.59E-06	2.16E-04	6.26E-05	3.61E-05	2.21E-01	6.43E-02	3.68E-02	6.43E-02	1.20E-02	6.88E-03
M_3	547152	5401222	PM-10 @ Mays Gifts		7.44E-07	1.29E-07	6.34E-08	9.51E-05	2.79E-05	2.07E-05	3.56E-04	1.04E-04	7.75E-05	3.49E-01	1.06E-01	7.95E-02	7.38E-02	1.75E-02	9.89E-03
M_4	547147	5401216	Dustfall @ Mays Gifts		7.52E-07	1.29E-07	6.36E-08	9.46E-05	2.77E-05	2.06E-05	3.54E-04	1.04E-04	7.70E-05	3.46E-01	1.05E-01	7.90E-02	7.44E-02	1.75E-02	9.92E-03
M_5	551637	5402371	PM-10 @ Pic River		7.01E-07	1.22E-07	6.45E-08	5.20E-05	1.82E-05	1.15E-05	1.96E-04	6.72E-05	4.26E-05	1.99E-01	6.61E-02	4.24E-02	6.54E-02	1.93E-02	8.34E-03
M_6	551643	5402374	Dustfall @ Pic River		6.97E-07	1.22E-07	6.44E-08	5.18E-05	1.82E-05	1.15E-05	1.95E-04	6.71E-05	4.25E-05	1.98E-01	6.61E-02	4.24E-02	6.52E-02	1.93E-02	8.34E-03
M_7	549180	5399815	Dustfall @ Airport		5.60E-07	9.94E-08	4.15E-08	8.84E-05	3.81E-05	2.95E-05	3.02E-04	1.24E-04	9.66E-05	2.99E-01	1.22E-01	9.53E-02	5.61E-02	1.51E-02	7.87E-03
M_8	545863	5397092	Dustfall @ Field Office		2.09E-07	3.14E-08	1.70E-08	2.00E-04	1.05E-04	7.76E-05	5.61E-04	2.95E-04	2.19E-04	5.29E-01	2.78E-01	2.06E-01	1.33E+00	4.26E-01	2.06E-01
O_1	547181.37	5398014.56	Pic Motel		3.33E-07	4.73E-08	2.54E-08	1.43E-04	5.98E-05	4.39E-05	4.12E-04	1.63E-04	1.22E-04	3.86E-01	1.51E-01	1.13E-01	1.44E-01	3.76E-02	1.80E-02
O_2	545734.38	5396872.55	Marathon Harbour Inn		2.01E-07	2.97E-08	1.60E-08	3.52E-04	1.61E-04	1.23E-04	1.14E-03	5.24E-04	4.00E-04	1.15E+00	5.27E-01	4.03E-01	1.92E+00	1.08E+00	5.26E-01
O_3	545885.38	5396448.55	Zero-100 Motor Inn		1.91E-07	2.86E-08	1.47E-08	4.80E-04	2.04E-04	1.58E-04	1.48E-03	6.16E-04	4.78E-04	1.46E+00	6.03E-01	4.68E-01	8.92E-01	1.48E-01	7.56E-02
O_4	545987.37	5397640.55	OPP Station		2.07E-07	3.52E-08	1.95E-08	1.60E-04	7.70E-05	5.78E-05	4.27E-04	2.09E-04	1.58E-04	3.93E-01	1.93E-01	1.46E-01	7.46E-01	1.60E-01	6.59E-02
O_5	545876.38	5396072.55	Library		1.65E-07	2.63E-08	1.36E-08	3.98E-04	1.98E-04	1.27E-04	1.10E-03	5.30E-04	3.37E-04	1.03E+00	4.91E-01	3.09E-01	5.16E-01	8.12E-02	4.48E-02
P_1	546958.38	5396138.56	Penn Lake Park and Campground		2.03E-07	2.42E-08	1.41E-08	5.62E-05	1.91E-05	1.04E-05	1.71E-04	5.85E-05	3.23E-05	1.66E-01	5.71E-02	3.15E-02	2.91E-01	5.07E-02	2.54E-02
P_2	548538.41	5392862.58	Craig's Pit Provincial Nature Reserve		1.57E-07	2.04E-08	8.60E-09	1.63E-05	3.56E-06	2.13E-06	6.00E-05	1.28E-05	7.49E-06	5.80E-02	1.25E-02	7.44E-03	7.42E-02	1.08E-02	4.12E-03
P_3	540005	5402014	Red Sucker Point Provincial Park		1.29E-07	2.03E-08	1.02E-08	1.85E-05	4.51E-06	2.36E-06	6.90E-05	1.64E-05	8.44E-06	6.94E-02	1.64E-02	8.40E-03	8.25E-02	1.61E-02	8.12E-03
P_4	552770	5383776	Pukaskwa National Park		4.78E-08	6.98E-09	3.25E-09	7.36E-06	1.20E-06	7.11E-07	2.70E-05	4.41E-06	2.56E-06	2.82E-02	4.46E-03	2.55E-03	2.11E-02	3.69E-03	1.53E-03
PR_1	553679.44	5385895.59	Children & Family Learning Centre		3.94E-08	6.40E-09	3.26E-09	6.59E-06	1.42E-06	7.94E-07	2.50E-05	5.21E-06	2.86E-06	2.58E-02	5.27E-03	2.86E-03	2.42E-02	4.10E-03	1.59E-03
PR_2	554004.44	5385857.59	Pic River Elementary		3.86E-08	6.29E-09	3.16E-09	5.99E-06	1.30E-06	7.67E-07	2.30E-05	4.75E-06	2.76E-06	2.27E-02	4.81E-03	2.76E-03	2.47E-02	3.92E-03	1.55E-03
PR_3	553836.44	5385603.59	Pic River Private High School		3.76E-08	6.24E-09	3.16E-09	6.30E-06	1.36E-06	7.67E-07	2.40E-05	4.97E-06	2.76E-06	2.47E-02	5.04E-03	2.76E-03	2.32E-02	3.98E-03	1.54E-03
PR_4	553930.44	5386048.59	Pic River Health Centre		3.90E-08	6.40E-09	3.22E-09	6.12E-06	1.33E-06	7.83E-07	2.30E-05	4.88E-06	2.82E-06	2.32E-02	4.95E-03	2.82E-03	2.53E-02	3.98E-03	1.58E-03
PR_5	552493.44	5384782.58	BIIDAABAN Healing Lodge		5.51E-08	7.62E-09	3.54E-09	7.91E-06	1.28E-06	7.72E-07	2.90E-05	4.71E-06	2.77E-06	2.91E-02	4.76E-03	2.76E-03	2.26E-02	4.14E-03	1.67E-03
PR_6	552843.43	5390099.59	Residence		5.98E-08	1.00E-08	5.12E-09	9.48E-06	2.15E-06	1.22E-06	3.60E-05	7.86E-06	4.40E-06	3.65E-02	7.95E-03	4.39E-03	3.63E-02	5.77E-03	2.52E-03
PR_7	553761.44	5387705.59	Residence		4.60E-08	7.26E-09	3.66E-09	6.70E-06	1.46E-06	9.00E-07	2.50E-05	5.34E-06	3.23E-06	2.55E-02	5.40E-03	3.23E-03	2.49E-02	4.02E-03	1.88E-03
PS_1	545001.33	5404050.49	North Hare Lake Cottage		3.54E-07	5.65E-08	3.28E-08	4.55E-05	1.26E-05	6.93E-06	1.73E-04	4.76E-05	2.59E-05	1.77E-01	4.86E-02	2.62E-02	6.03E-02	9.75E-03	5.72E-03
PS_2	544331.34	5403100.49	South Hare Lake Cottage		3.59E-07	4.28E-08	2.39E-08	4.31E-05	1.07E-05	5.68E-06	1.63E-04	4.01E-05	2.11E-05	1.66E-01	4.08E-02	2.13E-02	5.26E-02	9.08E-03	5.47E-03
PS_3	547056.12	5401003.77	May's Gifts		7.36E-07	1.26E-07	6.13E-08	7.86E-05	2.38E-05	1.72E-05	2.93E-04	8.90E-05	6.41E-05	2.87E-01	9.00E-02	6.53E-02	8.47E-02	1.86E-02	1.04E-02
PS_4	546811.35	5400952.54	Wayfare Inn		6.52E-07	1.08E-07	5.30E-08	7.67E-05	2.32E-05	1.64E-05	2.86E-04	8.71E-05	6.12E-05	2.79E-01	8.89E-02	6.24E-02	9.74E-02	1.93E-02	1.07E-02
PS_5	546996.35	5401027.54	Peninsula Inn		7.27E-07	1.22E-07	5.94E-08	8.08E-05	2.44E-05	1.76E-05	3.01E-04	9.14E-05	6.56E-05	3.05E-01	9.29E-02	6.69E-02	8.66E-02	1.87E-02	1.03E-02
PS_6	548471.36	5399488.57	Travelodge Hotel		4.86E-07	7.90E-08	3.99E-08	1.05E-04	3.62E-05	2.82E-05	3.39E-04	1.12E-04	8.61E-05	3.26E-01	1.08E-01	8.25E-02	6.44E-02	1.48E-02	8.37E-03
PS_7	546903.35	5401055.54	The Laughing Mooz Eatery Restaurant and Residence		6.92E-07	1.15E-07	5.61E-08	8.29E-05	2.52E-05	1.81E-05	3.10E-04	9.49E-05	6.74E-05	3.21E-01	9.71E-02	6.90E-02	8.89E-02	1.85E-02	1.03E-02
PW_1	545777.38	5397150.54	Kingdom Hall of Jehovah's Witnesses		1.99E-07	3.13E-08	1.72E-08	1.94E-04	8.50E-05	6.52E-05	5.37E-04	2.36E-04	1.83E-04	4.98E-01	2.20E-01	1.72E-01	1.69E+00	4.89E-01	2.13E-01
PW_2	546331.39	5395941.55	Parkland Pentecostal Church		2.11E-07	2.24E-08	1.32E-08	7.85E-05	2.75E-05	1.82E-05	2.33E-04	8.18E-05	5.41E-05	2.27E-01	7.94E-02	5.21E-02	3.14E-01	5.47E-02	2.81E-02
PW_3	545857.39	5395714.55	St. John's United Church		1.68E-07	2.37E-08	1.26E-08	9.99E-05	3.70E-05	2.76E-05	2.90E-04	1.09E-04	8.13E-05	2.76E-01	1.06E-01	7.82E-02	3.89E-01	6.92E-02	3.25E-02
PW_4	545425.03	5396043.49	Holy Saviour Roman Catholic Church		1.80E-07	2.55E-08	1.34E-08	6.21E-04	2.76E-04	2.19E-04	2.09E-03	9.36E-04	7.44E-04	2.14E+00	9.64E-01	7.63E-01	7.45E-01	1.20E-01	6.59E-02
PW_5	545390.38	5395988.55	Anglican Church-Trinity		1.79E-07	2.53E-08	1.33E-08	8.83E-04	3.54E-04	2.38E-04	2.91E-03	1.19E-03	8.07E-04	2.94E+00	1.22E+00	8.28E-01	6.86E-01	1.11E-01	5.81E-02
R_1	547226.37	5398095.56	Residence		3.52E-07	4.92E-08	2.65E-08	2.16E-04	1.09E-04	7.78E-05	6.09E-04	2.93E-04	2.12E-04	5.68E-01	2.70E-01	1.96E-01	1.29E-01	3.31E-02	1.60E-02
R_10	545421.38	5395953.55	Residence		1.78E-07	2.53E-08	1.31E-08	1.30E-03	4.79E-04	3.52E-04	4.22E-03	1.57E-03	1.16E-03	4.25E+00	1.59E+00	1.18E+00	6.62E-01	1.02E-01	5.59E-02
R_11	545619.39	5395877.55	Residence		1.69E-07	2.53E-08	1.30E-08	4.20E-04	1.55E-04	1.27E-04	1.24E-03	4.70E-04	3.77E-04	1.20E+00	4.60E-01	3.66E-01	7.60E-01	1.11E-01	4.36E-02
R_12	545831.38	5396000.55	Residence		1.63E-07	2.58E-08	1.34E-08	3.26E-04	1.56E-04	1.06E-04	8.75E-04	4.33E-04	2.88E-04	8.11E-01	4.08E-01	2.69E-01	5.13E-01	9.15E-02	4.33E-02
R_13	545806.92	5396173.19	Residence		1.77E-07	2.69E-08	1.39E-08	8.06E-04	3.83E-04	3.09E-04	2.02E-03	9.69E-04	7.84E-04	1.81E+00	8.79E-01	7.05E-01	6.41E-01	1.15E-01	5.53E-02
R_14	545827.05	5396228.86	Residence		1.80E-07	2.73E-08	1.41E-08	5.48E-04	2.53E-04	2.01E-04	1.39E-03	6.42E-04	5.18E-04	1.25E+00	5.78E-01	4.70E-01	6.65E-01	1.10E-01	5.80E-02
R_15	545662.38	5396175.55	Residence		1.84E-07	2.68E-08	1.39E-08	2.74E-04	1.20E-04	9.67E-05	7.54E-04	3.50E-04	2.74E-04	7.08E-01	3.37E-01	2.60E-01	9.79E-01	1.69E-01	6.53E-02
R_16	546254.38	5396484.55	Residence		1.89E-07	2.79E-08	1.48E-08	1.25E-04	5.50E-05	3.31E-05	3.57E-04	1.62E-04	9.80E-05	3.41E-01	1.56E-01	9.45E-02	7.03E-01	1.10E-01	5.31E-02
R_17	546471.38	5396506.55	Residence		2.20E-07	2.67E-08	1.49E-08	9.06E-05	3.58E-05	2.13E-05	2.64E-04	1.07E-04	6.42E-05	2.54E-01	1.04E-01	6.21E-02	5.78E-01	8.94E-02	4.56E-02
R_18	546601.38	5396387.56	Residence		2.31E-07	2.43E-08	1.45E-08	7.80E-05	2.93E-05	1.74E-05	2.31E-04	8.78E-05	5.24E-05	2.24E-01	8.52E-02	5.07E-02	4.68E-01	7.48E-02	3.69E-02
R_19	546856.39	5395580.56	Residence		1.72E-07	2.21E-08	1.28E-08	4.42E-05	1.21E-05	7.33E-06	1.39E-04	3.79E-05	2.34E-05	1.36E-01	3.73E-02	2.30E-02	2.06E-01	3.42E-02	1.81E-02
R_2	547273.37	5398044.56	Residence		3.79E-07	4.81E-08	2.65E-08	1.07E-04	4.37E-05	3.11E-05	3.21E-04	1.22E-04	8.86E-05	3.04E-01	1.14E-01	8.29E-02	1.25E-01	3.09E-02	1.54E-02
R_20	546950.39	5395533.56	Residence		1.63E-07	2.27E-08	1.28E-08	4.00E-05	1.08E-05	6.75E-06	1.26E-04	3.39E-05	2.17E-05	1.23E-01	3.34E-02	2.13E-02	1.91E-01	3.20E-02	1.72E-02
R_21	547201.39	5395415.56	Residence		1.57E-07	2.43E-08	1.29E-08	2.94E-05	8.50E-06	5.60E-06	9.30E-05	2.73E-05	1.84E-05	9.11E-02	2.68E-02	1.81E-02	1.72E-01	2.93E-02	1.54E-02
R_22	548317.36	5399654.57	Residence		4.93E-07	7.73E-08	4.12E-08	7.26E-05	2.06E-05	1.52E-05	2.52E-04	6.85E-05	5.00E-05	2.50E-01	6.72E-02	4.88E-02	4.73E-02	1.31E-02	8.03E-03
R_3	545809.38	5397232.54	Bergagnini Apartment Rental		1.99E-07	3.19E-08	1.75E-08	2.11E-04	9.07E-05	6.95E-05	5.76E-04	2.48E-04	1.92E-04	5.32E-01	2.29E-01	1.78E-01	1.49E+00	3.86E-01	1.63E-01
R_4	546092.38	5396796.55	Residence		2.05E-07	3.08E-08	1.59E-08	1.05E-04	5.16E-05	3.42E-05	3.40E-04	1.65E-04	1.08E-04	3.42E-01	1.65E-01	1.06E-01	1.14E+00	2.47E-01	1.28E-01
R_5	545971.38	5396489.55	Condominium		1.89E-07	2.87E-08	1.48E-08	3.90E-04	2.12E-04	1.50E-04	1.22E-03	6.62E-04	4.65E-04	1.22E+00	6.57E-01	4.59E-01	8.85E-01	1.68E-01	7.34E-02
R_6	545655.38	5396520.55	Residence		1.96E-07	2.84E-08	1.50E-08	1.63E-04	6.71E-05	5.24E-05	5.01E-04	2.08E-04	1.64E-04	4.93E-01	2.05E-01	1.63E-01	1.65E+00	3.30E-01	1.40E-01
R_7	545438.38	5396408.54	I Sew Studio and Residence		1.84E-07	2.66E-08	1.43E-08	3.41E-04	1.69E-04	1.28E-04	1.21E-03	6.11E-04	4.60E-04	1.26E+00	6.40E-01	4.80E-01	1.36E+00	2.77E-01	1.44E-01
R_8	545380.38	5396243.54	Bayview Apartments		1.82E-07	2.58E-08	1.38E-08	3.29E-04	1.62E-04	1.26E-04	1.16E-03	5.82E-04	4.48E-04	1.21E+00	6.09E-01	4.66E-01	9.38E-01	1.97E-01	9.80E-02
R_9	545290.38	5396114.54	Residence		1.77E-07	2.51E-08	1.35E-08	2.63E-04	1.12E-04	7.37E-05	8.90E-04	3.82E-04	2.52E-04	9.11E-01	3.91E-01	2.58E-01	7.08E-01	1.63E-01	7.89E-02
RH_1	546049.39	5395894.55	Peninsula Manor		1.86E-07	2.42E-08	1.31E-08	1.48E-04	4.63E-05	2.89E-05	4.48E-04	1.36E-04	8.40E-05	4.38E-01	1.31E-01	8.04E-02	3.57E-01	5.75E-02	3.30E-02
RH_2	545320.89	5396196.57	Senior's Centre		1.78E-07	2.54E-08	1.37E-08	3.97E-04	1.79E-04	1.28E-04	1.40E-03	6.33E-04	4.56E-04	1.46E+00	6.59E-01	4.76E-01	8.12E-01	1.84E-01	8.98E-02
S_1	546339.38	5396624.55	Holy Saviour School		1.95E-07	2.88E-08	1.53E-08	9.02E-05	4.04E-05	2.47E-05	2.65E-04	1.23E-04	7.55E-05	2.59E-01	1.21E-01	7.37E-02	6.98E-01	1.11E-01	6.01E-02
S_2	545633.38	5396102.55	Confederation College Northshore Campus		1.81E-07	2.64E-08	1.36E-08	3.70E-04	1.77E-04	1.38E-04	1.02E-03	5.17E-04	3.92E-04	9.56E-01	5.00E-01	3.74E-01	9.78E-01	1.52E-01	5.94E-02
S_3	546200.38	5396036.55	Marathon High School		1.99E-07	2.43E-08	1.35E-08	1.01E-04	4.46E-05	2.76E-05	2.98E-04	1.31E-04	7.99E-05	2.88E-01	1.26E-01	7.63E-02	3.95E-01	6.29E-02	3.28E-02
S_4	546261.39	5395967.55	Ecole secondaire Cite-Superieure		2.06E-07	2.33E-08	1.33E-08	8.99E-05	3.25E-05	2.14E-05	2.66E-04	9.69E-05	6.31E-05	2.58E-01	9.39E-02	6.06E-02	3.54E-01	5.69E-02	2.99E-02
S_5	547019.39	5395082.56	Marathon Children and Family Centre		1.58E-07	2.36E-08	1.26E-08	2.12E-05	6.62E-06	4.48E-06	7.50E-05	2.22E-05	1.49E-05	7.33E-02	2.17E-02	1.47E-02	2.12E-01	2.95E-02	1.22E-02
S_6	547000.39	5395035.56	Margaret Twomey Public School		1.57E-07	2.34E-08	1.25E-08	2.05E-05	6.48E-06	4.41E-06	7.50E-05	2.17E-05	1.47E-05	7.28E-02	2.12E-02	1.45E-02	2.04E-01	2.98E-02	1.21E-02
W_1	547291.36	5399860.55	Shack Lake (northeast)		3.97E-07	9.18E-08	4.56E-08	5.15E-05	1.42E-05	1.10E-05	1.90E-04	5.12E-05	3.88E-05	1.90E-01	5.02E-02	3.85E-02	1.00E-01	1.84E-02	1.08E-02
W_10	546975.32	5406486.49	Bamoos Lake (south)		3.94E-07	6.80E-08	3.22E-08	5.86E-05	1.47E-05	8.90E-06	2.26E-04	5.61E-05	3.37E-05	2.41E-01	5.80E-02	3.46E-02	2.08E-02	6.21E-03	3.61E-03
W_11	545484.32	5405866.49	Bamoos Lake (west)		3.93E-07	8.88E-08	4.25E-08	4.80E-05	1.06E-05	6.56E-06	1.85E-04	3.98E-05	2.45E-05	1.97E-01	3.92E-02	2.44E-02	4.63E-02	7.01E-03	4.45E-03
W_12	546576.32	5407157.48	Bamoos Lake (north)		3.07E-07	6.61E-08	3.07E-08	5.73E-05	1.41E-05	7.89E-06	2.19E-04	5.38E-05	2.98E-05	2.29E-01	5.56E-02	3.05E-02	3.54E-02	6.58E-03	3.59E-03

Table F-1 Special Receptor Predictions (ug/m3) - Operations, Project Alone

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	GOLD (AU)			HYDROCHLORIC ACID (HCL)			HYDROFLUORIC ACID (HF)			INDENO(1,2,3-CD)PYRENE			IRON (FE)			IRON SULFIDE		
				Averaging Period	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual
				Criteria	1.25	-	-	20	-	-	0.86	0.34	-	-	-	-	-	-	-	-	-	-	-	-
H_1	545937.38	5396169.55	Wilson Memorial General Hospital		1.16E-05	1.80E-06	1.02E-06	8.94E-04	1.08E-04	6.40E-05	1.05E-03	1.30E-04	7.80E-05	2.01E-07	3.21E-08	1.67E-08	7.34E-01	2.00E-01	1.45E-01	1.78E+00	3.99E-01	3.18E-01
M_1	545694	5403864	PM-10 @ Hare Lake		1.43E-06	2.94E-07	1.85E-07	2.29E-03	3.59E-04	2.20E-04	2.79E-03	4.39E-04	2.69E-04	4.95E-07	8.29E-08	4.84E-08	1.10E+00	3.23E-01	1.98E-01	4.04E+00	1.21E+00	7.19E-01
M_2	545694	5403873	Dustfall @ Hare Lake		1.43E-06	2.94E-07	1.85E-07	2.30E-03	3.62E-04	2.21E-04	2.80E-03	4.42E-04	2.69E-04	4.94E-07	8.33E-08	4.85E-08	1.09E+00	3.22E-01	1.97E-01	4.03E+00	1.21E+00	7.18E-01
M_3	547152	5401222	PM-10 @ Mays Gifts		1.66E-06	4.75E-07	3.11E-07	4.32E-03	7.15E-04	3.53E-04	5.40E-03	8.78E-04	4.36E-04	8.90E-07	1.54E-07	7.59E-08	2.58E+00	7.12E-01	4.93E-01	1.35E+01	2.83E+00	1.84E+00
M_4	547147	5401216	Dustfall @ Mays Gifts		1.67E-06	4.76E-07	3.11E-07	4.30E-03	7.12E-04	3.51E-04	5.38E-03	8.74E-04	4.34E-04	9.00E-07	1.55E-07	7.61E-08	2.57E+00	7.08E-01	4.91E-01	1.35E+01	2.81E+00	1.83E+00
M_5	551637	5402371	PM-10 @ Pic River		1.65E-06	5.62E-07	2.69E-07	5.76E-03	9.55E-04	3.83E-04	7.29E-03	1.20E-03	4.82E-04	8.39E-07	1.46E-07	7.72E-08	1.71E+00	6.80E-01	4.18E-01	9.81E+00	2.72E+00	1.61E+00
M_6	551643	5402374	Dustfall @ Pic River		1.65E-06	5.61E-07	2.69E-07	5.76E-03	9.53E-04	3.82E-04	7.29E-03	1.20E-03	4.81E-04	8.34E-07	1.46E-07	7.71E-08	1.70E+00	6.78E-01	4.17E-01	9.78E+00	2.71E+00	1.61E+00
M_7	549180	5399815	Dustfall @ Airport		2.00E-06	9.65E-07	6.99E-07	2.89E-03	4.54E-04	2.18E-04	3.59E-03	5.56E-04	2.75E-04	6.70E-07	1.19E-07	4.97E-08	8.28E+00	3.69E+00	2.82E+00	8.17E+00	1.83E+00	1.30E+00
M_8	545863	5397092	Dustfall @ Field Office		2.83E-05	9.07E-06	4.39E-06	1.01E-03	1.43E-04	7.80E-05	1.21E-03	1.72E-04	9.50E-05	2.50E-07	3.76E-08	2.03E-08	1.59E+00	5.83E-01	3.43E-01	2.16E+00	4.96E-01	3.84E-01
O_1	547181.37	5398014.56	Pic Motel		3.08E-06	8.36E-07	4.21E-07	1.61E-03	1.74E-04	1.11E-04	1.93E-03	2.18E-04	1.36E-04	3.99E-07	5.66E-08	3.04E-08	9.25E-01	2.63E-01	2.01E-01	3.33E+00	7.29E-01	5.81E-01
O_2	545734.38	5396872.55	Marathon Harbour Inn		4.09E-05	2.31E-05	1.12E-05	9.58E-04	1.35E-04	7.40E-05	1.15E-03	1.62E-04	9.00E-05	2.41E-07	3.55E-08	1.92E-08	2.27E+00	1.33E+00	6.98E-01	2.02E+00	4.65E-01	3.60E-01
O_3	545885.38	5396448.55	Zero-100 Motor Inn		1.90E-05	3.16E-06	1.63E-06	8.29E-04	1.20E-04	6.70E-05	9.77E-04	1.45E-04	8.20E-05	2.29E-07	3.42E-08	1.77E-08	1.05E+00	2.52E-01	1.83E-01	1.75E+00	4.26E-01	3.35E-01
O_4	545987.37	5397640.55	OPP Station		1.59E-05	3.43E-06	1.43E-06	1.14E-03	1.63E-04	9.00E-05	1.37E-03	1.97E-04	1.10E-04	2.48E-07	4.21E-08	2.33E-08	9.62E-01	3.15E-01	2.00E-01	2.57E+00	5.79E-01	4.44E-01
O_5	545876.38	5396072.55	Library		1.10E-05	1.75E-06	9.72E-07	8.70E-04	1.06E-04	6.20E-05	1.02E-03	1.28E-04	7.60E-05	1.98E-07	3.15E-08	1.63E-08	6.16E-01	2.11E-01	1.40E-01	1.73E+00	3.90E-01	3.10E-01
P_1	546958.38	5396138.56	Penn Lake Park and Campground		6.19E-06	1.10E-06	5.62E-07	8.28E-04	1.10E-04	6.70E-05	9.92E-04	1.32E-04	8.10E-05	2.43E-07	2.90E-08	1.68E-08	5.19E-01	1.74E-01	1.29E-01	1.72E+00	4.19E-01	3.38E-01
P_2	548538.41	5392862.58	Craig's Pit Provincial Nature Reserve		1.59E-06	2.45E-07	9.91E-08	5.83E-04	7.70E-05	3.50E-05	6.95E-04	9.30E-05	4.30E-05	1.88E-07	2.45E-08	1.03E-08	3.66E-01	8.99E-02	5.69E-02	1.06E+00	2.71E-01	1.86E-01
P_3	540005	5402014	Red Sucker Point Provincial Park		1.77E-06	3.52E-07	1.83E-07	4.71E-04	9.20E-05	4.60E-05	5.65E-04	1.10E-04	5.50E-05	1.54E-07	2.43E-08	1.22E-08	3.19E-01	9.04E-02	5.39E-02	1.05E+00	2.92E-01	1.74E-01
P_4	552770	5383776	Pukaskwa National Park		4.56E-07	8.48E-08	3.61E-08	1.71E-04	2.80E-05	1.40E-05	2.02E-04	3.40E-05	1.70E-05	5.73E-08	8.35E-09	3.89E-09	1.43E-01	3.15E-02	1.79E-02	5.01E-01	9.85E-02	5.92E-02
PR_1	553679.44	5385895.59	Children & Family Learning Centre		5.24E-07	9.35E-08	3.77E-08	1.48E-04	2.60E-05	1.40E-05	1.76E-04	3.20E-05	1.70E-05	4.72E-08	7.67E-09	3.91E-09	1.19E-01	3.19E-02	1.93E-02	3.57E-01	8.99E-02	6.31E-02
PR_2	554004.44	5385857.59	Pic River Elementary		5.32E-07	8.92E-08	3.68E-08	1.54E-04	2.60E-05	1.40E-05	1.82E-04	3.10E-05	1.70E-05	4.62E-08	7.54E-09	3.79E-09	1.03E-01	2.97E-02	1.87E-02	3.11E-01	8.89E-02	6.14E-02
PR_3	553836.44	5385603.59	Pic River Private High School		5.02E-07	9.06E-08	3.65E-08	1.47E-04	2.60E-05	1.40E-05	1.74E-04	3.10E-05	1.70E-05	4.50E-08	7.47E-09	3.78E-09	1.11E-01	3.05E-02	1.86E-02	3.37E-01	8.75E-02	6.11E-02
PR_4	553930.44	5386048.59	Pic River Health Centre		5.45E-07	9.05E-08	3.75E-08	1.56E-04	2.60E-05	1.40E-05	1.85E-04	3.10E-05	1.70E-05	4.67E-08	7.66E-09	3.85E-09	1.06E-01	3.04E-02	1.91E-02	3.20E-01	9.04E-02	6.26E-02
PR_5	552493.44	5384782.58	BIIDAABAN Healing Lodge		4.88E-07	9.49E-08	3.95E-08	1.97E-04	3.10E-05	1.50E-05	2.33E-04	3.70E-05	1.80E-05	6.60E-08	9.13E-09	4.24E-09	1.57E-01	3.43E-02	1.96E-02	5.44E-01	1.08E-01	6.49E-02
PR_6	552843.43	5390099.59	Residence		7.78E-07	1.31E-07	5.99E-08	2.35E-04	4.00E-05	2.20E-05	2.80E-04	4.90E-05	2.70E-05	7.16E-08	1.20E-08	6.13E-09	1.83E-01	4.67E-02	3.05E-02	5.03E-01	1.41E-01	9.79E-02
PR_7	553761.44	5387705.59	Residence		5.39E-07	9.15E-08	4.45E-08	1.80E-04	3.00E-05	1.60E-05	2.13E-04	3.60E-05	1.90E-05	5.51E-08	8.70E-09	4.39E-09	1.13E-01	3.33E-02	2.21E-02	3.31E-01	1.04E-01	7.19E-02
PS_1	545001.33	5404050.49	North Hare Lake Cottage		1.33E-06	2.38E-07	1.52E-07	1.86E-03	2.79E-04	1.70E-04	2.25E-03	3.40E-04	2.06E-04	4.24E-07	6.76E-08	3.93E-08	7.60E-01	2.49E-01	1.49E-01	3.14E+00	9.14E-01	5.48E-01
PS_2	544331.34	5403100.49	South Hare Lake Cottage		1.17E-06	2.17E-07	1.42E-07	1.56E-03	2.32E-04	1.23E-04	1.90E-03	2.80E-04	1.49E-04	4.30E-07	5.12E-08	2.87E-08	8.39E-01	2.22E-01	1.26E-01	2.88E+00	7.84E-01	4.57E-01
PS_3	547056.12	5401003.77	May's Gifts		1.88E-06	4.87E-07	3.09E-07	3.53E-03	6.56E-04	3.20E-04	4.41E-03	8.04E-04	3.95E-04	8.81E-07	1.51E-07	7.34E-08	2.28E+00	6.22E-01	4.27E-01	1.12E+01	2.54E+00	1.65E+00
PS_4	546811.35	5400952.54	Wayfare Inn		2.14E-06	4.92E-07	3.06E-07	3.52E-03	5.77E-04	2.83E-04	4.37E-03	7.05E-04	3.48E-04	7.81E-07	1.30E-07	6.35E-08	2.08E+00	5.65E-01	3.87E-01	1.05E+01	2.20E+00	1.43E+00
PS_5	546996.35	5401027.54	Peninsula Inn		1.92E-06	4.87E-07	3.07E-07	3.68E-03	6.40E-04	3.14E-04	4.58E-03	7.84E-04	3.87E-04	8.70E-07	1.46E-07	7.11E-08	2.27E+00	6.19E-01	4.25E-01	1.14E+01	2.48E+00	1.61E+00
PS_6	548471.36	5399488.57	Travelodge Hotel		1.52E-06	4.48E-07	3.17E-07	1.93E-03	3.50E-04	2.06E-04	2.35E-03	4.27E-04	2.57E-04	5.82E-07	9.46E-08	4.77E-08	3.36E+00	1.13E+00	7.04E-01	5.93E+00	1.48E+00	1.13E+00
PS_7	546903.35	5401055.54	The Laughing Mooz Eatery Restaurant and Residence		1.97E-06	4.82E-07	3.04E-07	3.80E-03	6.11E-04	3.01E-04	4.73E-03	7.48E-04	3.70E-04	8.29E-07	1.37E-07	6.72E-08	2.23E+00	6.12E-01	4.20E-01	1.14E+01	2.36E+00	1.54E+00
PW_1	545777.38	5397150.54	Kingdom Hall of Jehovah's Witnesses		3.60E-05	1.04E-05	4.55E-06	1.03E-03	1.44E-04	7.90E-05	1.23E-03	1.73E-04	9.60E-05	2.38E-07	3.75E-08	2.06E-08	2.02E+00	6.72E-01	3.51E-01	2.23E+00	5.03E-01	3.87E-01
PW_2	546331.39	5395941.55	Parkland Pentecostal Church		6.72E-06	1.18E-06	6.18E-07	9.36E-04	9.90E-05	6.10E-05	1.10E-03	1.20E-04	7.50E-05	2.53E-07	2.69E-08	1.58E-08	5.52E-01	1.56E-01	1.22E-01	1.76E+00	3.91E-01	3.11E-01
PW_3	545857.39	5395714.55	St. John's United Church		8.27E-06	1.49E-06	7.08E-07	8.64E-04	9.30E-05	5.70E-05	1.01E-03	1.12E-04	7.00E-05	2.01E-07	2.84E-08	1.51E-08	4.78E-01	1.86E-01	1.19E-01	1.65E+00	3.57E-01	2.87E-01
PW_4	545425.03	5396043.49	Holy Saviour Roman Catholic Church		1.59E-05	2.57E-06	1.42E-06	7.61E-04	1.11E-04	6.10E-05	9.09E-04	1.34E-04	7.40E-05	2.16E-07	3.06E-08	1.60E-08	1.02E+00	2.51E-01	1.59E-01	1.58E+00	3.81E-01	2.97E-01
PW_5	545390.38	5395988.55	Anglican Church-Trinity		1.46E-05	2.39E-06	1.25E-06	7.53E-04	1.10E-04	6.00E-05	8.99E-04	1.33E-04	7.30E-05	2.14E-07	3.03E-08	1.59E-08	9.53E-01	2.41E-01	1.50E-01	1.57E+00	3.78E-01	2.94E-01
R_1	547226.37	5398095.56	Residence		2.76E-06	7.43E-07	3.81E-07	1.65E-03	1.80E-04	1.14E-04	1.98E-03	2.25E-04	1.41E-04	4.21E-07	5.90E-08	3.17E-08	9.83E-01	2.72E-01	2.05E-01	3.42E+00	7.52E-01	5.99E-01
R_10	545421.38	5395953.55	Residence		1.41E-05	2.19E-06	1.21E-06	7.34E-04	1.09E-04	6.00E-05	8.77E-04	1.31E-04	7.30E-05	2.13E-07	3.03E-08	1.57E-08	9.28E-01	2.29E-01	1.47E-01	1.53E+00	3.75E-01	2.92E-01
R_11	545619.39	5395877.55	Residence		1.62E-05	2.39E-06	9.46E-07	7.55E-04	1.05E-04	5.90E-05	8.88E-04	1.26E-04	7.20E-05	2.02E-07	3.02E-08	1.56E-08	9.08E-01	2.38E-01	1.33E-01	1.55E+00	3.71E-01	2.92E-01
R_12	545831.38	5396000.55	Residence		1.09E-05	1.97E-06	9.40E-07	8.53E-04	1.04E-04	6.10E-05	1.00E-03	1.26E-04	7.50E-05	1.95E-07	3.09E-08	1.60E-08	6.06E-01	2.20E-01	1.37E-01	1.70E+00	3.83E-01	3.04E-01
R_13	545806.92	5396173.19	Residence		1.36E-05	2.48E-06	1.20E-06	8.23E-04	1.11E-04	6.30E-05	9.68E-04	1.34E-04	7.70E-05	2.12E-07	3.23E-08	1.66E-08	7.58E-01	2.52E-01	1.53E-01	1.69E+00	3.99E-01	3.15E-01
R_14	545827.05	5396228.86	Residence		1.41E-05	2.36E-06	1.25E-06	8.27E-04	1.13E-04	6.40E-05	9.74E-04	1.36E-04	7.80E-05	2.16E-07	3.27E-08	1.69E-08	7.85E-01	2.48E-01	1.58E-01	1.71E+00	4.05E-01	3.19E-01
R_15	545662.38	5396175.55	Residence		2.08E-05	3.61E-06	1.41E-06	7.31E-04	1.14E-04	6.30E-05	8.76E-04	1.37E-04	7.70E-05	2.20E-07	3.21E-08	1.66E-08	1.16E+00	3.12E-01	1.63E-01	1.58E+00	3.98E-01	3.11E-01
R_16	546254.38	5396484.55	Residence		1.50E-05	2.37E-06	1.15E-06	1.03E-03	1.11E-04	6.80E-05	1.21E-03	1.34E-04	8.40E-05	2.26E-07	3.35E-08	1.78E-08	8.37E-01	2.31E-01	1.61E-01	1.98E+00	4.29E-01	3.45E-01
R_17	546471.38	5396506.55	Residence		1.23E-05	1.92E-06	9.92E-07	1.07E-03	1.10E-04	6.90E-05	1.26E-03	1.35E-04	8.50E-05	2.63E-07	3.19E-08	1.79E-08	7.07E-01	2.12E-01	1.56E-01	2.02E+00	4.43E-01	3.53E-01
R_18	546601.38	5396387.56	Residence		9.95E-06	1.61E-06	8.07E-07	1.02E-03	1.11E-04	6.80E-05	1.21E-03	1.34E-04	8.30E-05	2.76E-07	2.91E-08	1.74E-08	5.73E-01	1.97E-01	1.44E-01	1.92E+00	4.37E-01	3.47E-01
R_19	546856.39	5395580.56	Residence		4.39E-06	7.46E-07	4.03E-07	7.30E-04	9.90E-05	6.00E-05	8.73E-04	1.19E-04	7.30E-05	2.06E-07	2.65E-08	1.53E-08	4.80E-01	1.40E-01	1.08E-01	1.56E+00	3.76E-01	3.02E-01
R_2	547273.37	5398044.56	Residence		2.68E-06	6.96E-07	3.67E-07	1.62E-03	1.80E-04	1.13E-04	1.96E-03	2.26E-04	1.40E-04	4.54E-07	5.76E-08	3.17E-08	9.73E-01	2.72E-01	2.03E-01	3.34E+00	7.47E-01	5.95E-01
R_20	546950.39	5395533.56	Residence		4.07E-06	7.03E-07	3.86E-07	7.05E-04	1.00E-04	6.00E-05	8.44E-04	1.21E-04	7.30E-05	1.96E-07	2.72E-08	1.53E-08	4.73E-01	1.39E-01	1.07E-01	1.55E+00	3.78E-01	3.01E-01
R_21	547201.39	5395415.56	Residence		3.66E-06	6.45E-07	3.46E-07	6.05E-04	1.03E-04	5.90E-05	7.27E-04	1.24E-04	7.30E-05	1.88E-07	2.91E-08	1.54E-08	4.70E-01	1.37E-01	1.04E-01	1.67E+00	3.85E-01	2.99E-01
R_22	548317.36	5399654.57	Residence		1.23E-06	3.71E-07	2.77E-07	2.24E-03	3.66E-04	2.21E-04	2.78E-03	4.47E-04	2.76E-04	5.90E-07	9.25E-08	4.93E-08	2.33E+00	8.07E-01	5.23E-01	5.81E+00	1.53E+00	1.22E+00
R_3	545809.38	5397232.54	Bergagnini Apartment Rental		3.17E-05	8.22E-06	3.49E-06	1.05E-03	1.47E-04	8.10E-05	1.25E-03	1.77E-04	9.90E-05	2.38E-07	3.81E-08	2.10E-08	1.79E+00	5.57E-01	2.97E-01	2.28E+00	5.14E-01	3.96E-01
R_4	546092.38	5396796.55	Residence		2.42E-05	5.28E-06	2.74E-06	9.14E-04	1.30E-04	7.30E-05	1.08E-03	1.57E-04	9.00E-05	2.45E-07	3.68E-08	1.91E-08	1.31E+00	3.93E-01	2.51E-01	1.93E+00	4.64E-01	3.66E-01
R_5	545971.38	5396489.55	Condominium		1.88E-05	3.58E-06	1.58E-06	8.80E-04	1.20E-04	6.80E-05	1.04E-03	1.44E-04	8.30E-05	2.27E-07	3.44E-08	1.77E-08	1.03E+00	2.62E-01	1.81E-01	1.82E+00	4.29E-01	3.38E-01
R_6	545655.38	5396520.55	Residence		3.52E-05	7.04E-06	3.00E-06	8.62E-04	1.25E-04	6.80E-05	1.03E-03	1.51E-04	8.30E-05	2.35E-07	3.40E-08	1.80E-08	1.89E+00	5.05E-01	2.55E-01	1.83E+00	4.32E-01	3.36E-01
R_7	545438.38	5396408.54	I Sew Studio and Residence		2.90E-05	5.91E-06	3.08E-06	8.60E-04	1.20E-04	6.50E-05	1.03E-03	1.44E-04	8.00E-05	2.21E-07	3.18E-08	1.71E-08	1.67E+00	4.38E-01	2.54E-01	1.80E+00	4.11E-01	3.18E-01
R_8	545380.38	5396243.54	Bayview Apartments		2.00E-05	4.20E-06	2.10E-06	8.26E-04	1.16E-04	6.30E-05	9.85E-04	1.39E-04	7.70E-05	2.17E-07	3.09E-08	1.66E-08	1.19E+00	3.43E-01	1.98E-01	1.72E+00	3.95E-01	3.07E-01
R_9	545290.38	5396114.54	Residence		1.51E-05	3.49E-06	1.69E-06	8.04E-04	1.13E-04	6.10E-05	9.58E-04	1.35E-04	7.50E-05	2.12E-07	3.01E-08	1.61E-08	9.26E-01	3.01E-01	1.74E-01	1.67E+00	3.83E-01	2.98E-01
RH_1	546049.39	5395894.55	Peninsula Manor		7.63E-06	1.24E-06	7.20E-07	9.21E-04	9.40E-05	6.00E-05	1.08E-03	1.15E-04	7.30E-05	2.22E-07	2.90E-08	1.57E-08	5.78E-01	1.66E-01	1.25E-01	1.76E+00	3.79E-01	3.03E-01
RH_2	545320.89	5396196.57	Senior's Centre		1.73E-05	3.93E-06	1.93E-06	8.20E-04	1.15E-04	6.20E-05	9.77E-04	1.38E-04	7.60E-05	2.14E-07	3.05E-08	1.64E-08	1.05E+00	3.27E-01	1.88E-01	1.71E+00	3.90E-01	3.02E-01
S_1	546339.38	5396624.55	Holy Saviour School		1.48E-05	2.38E-06	1.30E-06	1.07E-03	1.14E-04	7.10E-05	1.26E-03	1.38E-04	8.70E-05	2.34E-07	3.44E-08	1.83E-08	8.86E-01	2.44E-01	1.74E-01	2.05E+00	4.46E-01	3.58E-01
S_2	545633.38	5396102.55	Confederation College Northshore Campus		2.08E-05	3.27E-06	1.28E-06	7.26E-04	1.12E-04	6.20E-05	8.56E-04	1.34E-04	7.60E-05	2.17E-07	3.16E-08	1.63E-08	1.15E+00	2.91E-01	1.55E-01	1.56E+00	3.91E-01	3.06E-01
S_3	546200.38	5396036.55	Marathon High School		8.44E-06	1.35E-06	7.18E-07	9.60E-04	9.80E-05	6.20E-05	1.13E-03	1.20E-04	7.60E-05	2.39E-07	2.91E-08	1.62E-08	6.33E-01	1.63E-01	1.28E-01	1.82E+00	3.94E-01	3.14E-01
S_4	546261.39	5395967.55	Ecole secondaire Cite-Superieure		7.58E-06	1.22E-06	6.55E-07	9.48E-04	9.80E-05	6.10E-05	1.12E-03	1.20E-04	7.50E-05	2.47E-07	2.78E-08	1.59E-08	5.93E-01	1.57E-01	1.24E-01	1.78E+00	3.91E-01	3.11E-01
S_5	547019.39	5395082.56	Marathon Children and Family Centre		4.52E-06	6.46E-07	2.77E-07	5.95E-04	9.70E-05	5.60E-05	7.14E-04	1.17E-04	6.90E-05	1.89E-07	2.82E-08	1.51E-08	4.46E-01	1.24E-01	9.37E-02	1.56E+00	3.62E-01	2.82E-01
S_6	547000.39	5395035.56	Margaret Twomey Public School		4.34E-06	6.52E-07	2.74E-07	5.91E-04	9.60E-05	5.60E-05	7.09E-04	1.16E-04	6.80E-05	1.88E-07	2.80E-08	1.50E-08	4.41E-01	1.22E-01	9.26E-02	1.55E+00	3.58E-01	2.79E-01
W_1	547291.36	5399860.55	Shack Lake (northeast)		2.18E-06	4.48E-07	2.94E-07	2.21E-03	3.83E-04	2.13E-04	2.70E-03	4.70E-04	2.63E-04	4.75E-07	1.10E-07	5.46E-08	1.33E+00	4.24E-01	3.10E-01	6.12E+00	1.48E+00	1.11E+00
W_10	546975.32	5406486.49	Bamoos Lake (south)		7.32E-07	1.82E-07	1.21E-07	2.12E-03	4.51E-04	2.05E-04	2.61E-03	5.52E-04	2.49E-04	4.72E-07	8.15E-08	3.86E-08	1.27E+00	3.05E-01	1.85E-01	4.83E+00	1.10E+00	6.21E-01
W_11	545484.32	5405866.49	Bamoos Lake (west)		1.03E-06	1.98E-07	1.27E-07	1.81E-03	4.25E-04	1.95E-04	2.19E-03	5.16E-04	2.37E-04	4.71E-07	1.06E-07	5.09E-08	1.04E+00	2.55E-01	1.39E-01	6.81E+00	1.25E+00	5.37E-01
W_12	546576.32	5407157.48	Bamoos Lake (north)		8.05E-07	1.76E-07	1.10E-07	1.49E-03	3.03E-04	1.37E-04	1.80E-03	3.67E-04	1.66E-04	3.68E-07	7.91E-08	3.68E-08	8.84E-01	2.32E-01	1.41E-01	3.62E+00	7.84E-01	4.51E-01

Table F-1 Special Receptor Predictions (ug/m3) - Operations, Project Alone

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	LANTHANUM (LA)			LANTHANUM CHLORIDE (LACL3)			LEAD (PB)			MAGNESIUM (MG)			MANGANESE (MN)		
				Averaging Period	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual
				Criteria	-	-	-	2.5	-	-	0.5	0.2	-	72	-	-	0.4	-	-
H_1	545937.38	5396169.55	Wilson Memorial General Hospital		1.27E-04	3.64E-05	2.72E-05	1.60E-02	1.83E-03	1.04E-03	4.67E-04	8.55E-05	5.43E-05	1.12E-01	3.96E-02	2.93E-02	3.86E-03	1.23E-03	9.22E-04
M_1	545694	5403864	PM-10 @ Hare Lake		3.35E-04	8.43E-05	4.82E-05	3.77E-02	5.86E-03	3.62E-03	3.67E-04	7.14E-05	4.70E-05	2.78E-01	8.31E-02	5.05E-02	1.01E-02	3.00E-03	1.81E-03
M_2	545694	5403873	Dustfall @ Hare Lake		3.33E-04	8.43E-05	4.82E-05	3.79E-02	5.90E-03	3.63E-03	3.68E-04	7.17E-05	4.71E-05	2.77E-01	8.29E-02	5.03E-02	1.01E-02	2.99E-03	1.80E-03
M_3	547152	5401222	PM-10 @ Mays Gifts		7.27E-04	1.95E-04	1.30E-04	6.63E-02	1.15E-02	5.57E-03	6.66E-04	1.40E-04	7.99E-05	6.64E-01	1.84E-01	1.27E-01	2.40E-02	6.65E-03	4.59E-03
M_4	547147	5401216	Dustfall @ Mays Gifts		7.23E-04	1.94E-04	1.30E-04	6.60E-02	1.14E-02	5.55E-03	6.63E-04	1.39E-04	7.96E-05	6.60E-01	1.83E-01	1.26E-01	2.39E-02	6.62E-03	4.56E-03
M_5	551637	5402371	PM-10 @ Pic River		4.77E-04	1.95E-04	1.21E-04	8.55E-02	1.44E-02	5.78E-03	7.27E-04	1.60E-04	7.39E-05	4.35E-01	1.73E-01	1.07E-01	1.56E-02	6.25E-03	3.89E-03
M_6	551643	5402374	Dustfall @ Pic River		4.75E-04	1.94E-04	1.21E-04	8.56E-02	1.44E-02	5.77E-03	7.27E-04	1.59E-04	7.37E-05	4.33E-01	1.73E-01	1.07E-01	1.55E-02	6.24E-03	3.88E-03
M_7	549180	5399815	Dustfall @ Airport		2.50E-03	1.11E-03	8.45E-04	4.55E-02	7.39E-03	3.26E-03	6.01E-04	2.37E-04	1.73E-04	2.16E+00	9.61E-01	7.32E-01	7.92E-02	3.53E-02	2.68E-02
M_8	545863	5397092	Dustfall @ Field Office		1.78E-04	4.58E-05	3.42E-05	1.75E-02	2.43E-03	1.28E-03	1.14E-03	3.73E-04	1.92E-04	1.72E-01	7.60E-02	5.21E-02	5.60E-03	1.65E-03	1.27E-03
O_1	547181.37	5398014.56	Pic Motel		2.75E-04	7.38E-05	5.27E-05	2.74E-02	2.80E-03	1.76E-03	3.26E-04	5.50E-05	4.02E-05	2.39E-01	6.64E-02	4.90E-02	8.72E-03	2.39E-03	1.73E-03
O_2	545734.38	5396872.55	Marathon Harbour Inn		1.66E-04	4.49E-05	3.54E-05	1.66E-02	2.30E-03	1.21E-03	1.64E-03	9.34E-04	4.62E-04	2.52E-01	1.50E-01	8.64E-02	5.46E-03	2.12E-03	1.53E-03
O_3	545885.38	5396448.55	Zero-100 Motor Inn		1.36E-04	3.94E-05	2.90E-05	1.47E-02	2.04E-03	1.10E-03	7.60E-04	1.37E-04	7.93E-05	1.34E-01	4.55E-02	3.38E-02	4.28E-03	1.35E-03	1.00E-03
O_4	545987.37	5397640.55	OPP Station		2.10E-04	5.14E-05	3.71E-05	1.96E-02	2.75E-03	1.48E-03	6.41E-04	1.54E-04	7.59E-05	1.83E-01	5.29E-02	4.02E-02	6.64E-03	1.70E-03	1.26E-03
O_5	545876.38	5396072.55	Library		1.23E-04	3.55E-05	2.65E-05	1.56E-02	1.80E-03	1.02E-03	4.40E-04	9.19E-05	5.20E-05	1.06E-01	4.02E-02	2.84E-02	3.74E-03	1.21E-03	8.96E-04
P_1	546958.38	5396138.56	Penn Lake Park and Campground		1.55E-04	3.82E-05	2.94E-05	1.43E-02	1.87E-03	1.08E-03	2.50E-04	6.59E-05	3.66E-05	1.33E-01	3.66E-02	2.89E-02	4.81E-03	1.25E-03	9.75E-04
P_2	548538.41	5392862.58	Craig's Pit Provincial Nature Reserve		1.15E-04	2.49E-05	1.54E-05	1.01E-02	1.31E-03	5.64E-04	1.23E-04	2.22E-05	1.14E-05	9.26E-02	2.22E-02	1.41E-02	3.36E-03	7.90E-04	5.00E-04
P_3	540005	5402014	Red Sucker Point Provincial Park		9.80E-05	2.37E-05	1.29E-05	8.07E-03	1.56E-03	7.62E-04	1.16E-04	2.63E-05	1.64E-05	8.15E-02	2.19E-02	1.25E-02	2.95E-03	7.71E-04	4.31E-04
P_4	552770	5383776	Pukaskwa National Park		4.40E-05	8.18E-06	4.81E-06	3.20E-03	4.90E-04	2.32E-04	4.90E-05	9.37E-06	4.37E-06	3.64E-02	7.52E-03	4.39E-03	1.32E-03	2.62E-04	1.55E-04
PR_1	553679.44	5385895.59	Children & Family Learning Centre		3.60E-05	8.40E-06	5.19E-06	2.61E-03	4.52E-04	2.34E-04	3.50E-05	8.32E-06	4.48E-06	3.04E-02	7.54E-03	4.73E-03	1.11E-03	2.63E-04	1.67E-04
PR_2	554004.44	5385857.59	Pic River Elementary		3.10E-05	7.72E-06	5.02E-06	2.70E-03	4.42E-04	2.27E-04	3.60E-05	7.71E-06	4.36E-06	2.63E-02	6.99E-03	4.58E-03	9.56E-04	2.43E-04	1.62E-04
PR_3	553836.44	5385603.59	Pic River Private High School		3.40E-05	8.01E-06	5.01E-06	2.58E-03	4.39E-04	2.26E-04	3.40E-05	7.96E-06	4.34E-06	2.85E-02	7.20E-03	4.56E-03	1.03E-03	2.51E-04	1.62E-04
PR_4	553930.44	5386048.59	Pic River Health Centre		3.20E-05	7.92E-06	5.13E-06	2.74E-03	4.50E-04	2.31E-04	3.60E-05	7.86E-06	4.44E-06	2.72E-02	7.16E-03	4.67E-03	9.86E-04	2.49E-04	1.65E-04
PR_5	552493.44	5384782.58	BIIDAABAN Healing Lodge		4.80E-05	8.82E-06	5.26E-06	3.54E-03	5.40E-04	2.54E-04	5.20E-05	1.04E-05	4.78E-06	3.99E-02	8.16E-03	4.81E-03	1.44E-03	2.84E-04	1.70E-04
PR_6	552843.43	5390099.59	Residence		5.70E-05	1.29E-05	8.23E-06	4.11E-03	6.89E-04	3.58E-04	6.00E-05	1.28E-05	6.95E-06	4.69E-02	1.14E-02	7.48E-03	1.71E-03	4.02E-04	2.65E-04
PR_7	553761.44	5387705.59	Residence		3.40E-05	8.82E-06	5.91E-06	3.16E-03	5.11E-04	2.64E-04	4.10E-05	9.24E-06	5.15E-06	2.88E-02	7.97E-03	5.40E-03	1.05E-03	2.82E-04	1.91E-04
PS_1	545001.33	5404050.49	North Hare Lake Cottage		2.23E-04	6.72E-05	3.82E-05	3.10E-02	4.62E-03	2.83E-03	3.12E-04	5.68E-05	3.74E-05	1.95E-01	6.40E-02	3.78E-02	7.07E-03	2.31E-03	1.35E-03
PS_2	544331.34	5403100.49	South Hare Lake Cottage		2.87E-04	5.98E-05	3.26E-05	2.58E-02	3.88E-03	2.03E-03	2.69E-04	4.98E-05	2.91E-05	2.13E-01	5.68E-02	3.20E-02	7.85E-03	2.05E-03	1.14E-03
PS_3	547056.12	5401003.77	May's Gifts		6.47E-04	1.72E-04	1.14E-04	5.49E-02	1.06E-02	5.09E-03	5.76E-04	1.30E-04	7.34E-05	5.85E-01	1.60E-01	1.10E-01	2.12E-02	5.80E-03	3.95E-03
PS_4	546811.35	5400952.54	Wayfare Inn		5.89E-04	1.54E-04	1.02E-04	5.53E-02	9.36E-03	4.52E-03	5.71E-04	1.16E-04	6.70E-05	5.35E-01	1.46E-01	9.90E-02	1.93E-02	5.27E-03	3.57E-03
PS_5	546996.35	5401027.54	Peninsula Inn		6.42E-04	1.70E-04	1.13E-04	5.72E-02	1.03E-02	4.98E-03	5.92E-04	1.27E-04	7.24E-05	5.83E-01	1.60E-01	1.09E-01	2.11E-02	5.77E-03	3.93E-03
PS_6	548471.36	5399488.57	Travelodge Hotel		1.01E-03	3.36E-04	2.07E-04	3.18E-02	5.76E-03	3.17E-03	3.99E-04	1.01E-04	6.88E-05	8.72E-01	2.93E-01	1.82E-01	3.19E-02	1.07E-02	6.63E-03
PS_7	546903.35	5401055.54	The Laughing Mooz Eatery Restaurant and Residence		6.28E-04	1.66E-04	1.10E-04	5.93E-02	9.89E-03	4.79E-03	6.05E-04	1.22E-04	7.04E-05	5.72E-01	1.58E-01	1.08E-01	2.07E-02	5.71E-03	3.88E-03
PW_1	545777.38	5397150.54	Kingdom Hall of Jehovah's Witnesses		1.81E-04	4.60E-05	3.43E-05	1.77E-02	2.44E-03	1.30E-03	1.44E-03	4.31E-04	1.98E-04	2.18E-01	8.63E-02	5.29E-02	5.72E-03	1.64E-03	1.27E-03
PW_2	546331.39	5395941.55	Parkland Pentecostal Church		1.33E-04	3.44E-05	2.66E-05	1.67E-02	1.69E-03	9.99E-04	3.20E-04	6.15E-05	3.77E-05	1.19E-01	3.32E-02	2.67E-02	4.11E-03	1.13E-03	8.86E-04
PW_3	545857.39	5395714.55	St. John's United Church		1.20E-04	3.21E-05	2.43E-05	1.56E-02	1.58E-03	9.40E-04	3.32E-04	7.91E-05	4.05E-05	1.02E-01	3.58E-02	2.51E-02	3.64E-03	1.09E-03	8.17E-04
PW_4	545425.03	5396043.49	Holy Saviour Roman Catholic Church		1.23E-04	3.53E-05	2.53E-05	1.32E-02	1.90E-03	9.99E-04	6.78E-04	1.22E-04	6.95E-05	1.31E-01	4.38E-02	2.95E-02	3.90E-03	1.23E-03	8.74E-04
PW_5	545390.38	5395988.55	Anglican Church-Trinity		1.21E-04	3.49E-05	2.50E-05	1.31E-02	1.88E-03	9.89E-04	6.27E-04	1.15E-04	6.27E-05	1.24E-01	4.25E-02	2.84E-02	3.85E-03	1.21E-03	8.57E-04
R_1	547226.37	5398095.56	Residence		2.93E-04	7.67E-05	5.45E-05	2.80E-02	2.88E-03	1.81E-03	3.27E-04	5.39E-05	3.93E-05	2.55E-01	6.89E-02	5.04E-02	9.29E-03	2.48E-03	1.79E-03
R_10	545421.38	5395953.55	Residence		1.19E-04	3.44E-05	2.48E-05	1.27E-02	1.86E-03	9.81E-04	6.08E-04	1.10E-04	6.08E-05	1.22E-01	4.11E-02	2.80E-02	3.77E-03	1.19E-03	8.50E-04
R_11	545619.39	5395877.55	Residence		1.13E-04	3.39E-05	2.48E-05	1.35E-02	1.78E-03	9.69E-04	6.52E-04	1.17E-04	5.03E-05	1.12E-01	4.18E-02	2.67E-02	3.58E-03	1.18E-03	8.39E-04
R_12	545831.38	5396000.55	Residence		1.21E-04	3.49E-05	2.59E-05	1.53E-02	1.77E-03	9.99E-04	4.37E-04	1.00E-04	5.05E-05	1.05E-01	4.06E-02	2.77E-02	3.66E-03	1.20E-03	8.77E-04
R_13	545806.92	5396173.19	Residence		1.23E-04	3.68E-05	2.70E-05	1.47E-02	1.89E-03	1.04E-03	5.47E-04	1.22E-04	6.11E-05	1.11E-01	4.48E-02	2.99E-02	3.87E-03	1.28E-03	9.19E-04
R_14	545827.05	5396228.86	Residence		1.26E-04	3.73E-05	2.74E-05	1.47E-02	1.92E-03	1.05E-03	5.67E-04	1.17E-04	6.36E-05	1.12E-01	4.47E-02	3.06E-02	3.96E-03	1.29E-03	9.35E-04
R_15	545662.38	5396175.55	Residence		1.26E-04	3.73E-05	2.67E-05	1.29E-02	1.94E-03	1.04E-03	8.37E-04	1.68E-04	6.96E-05	1.29E-01	5.07E-02	3.07E-02	3.95E-03	1.33E-03	9.18E-04
R_16	546254.38	5396484.55	Residence		1.40E-04	4.01E-05	3.00E-05	1.83E-02	1.87E-03	1.12E-03	6.00E-04	1.13E-04	6.05E-05	1.28E-01	4.13E-02	3.24E-02	4.32E-03	1.34E-03	1.02E-03
R_17	546471.38	5396506.55	Residence		1.46E-04	4.07E-05	3.08E-05	1.90E-02	1.85E-03	1.13E-03	4.94E-04	9.60E-05	5.43E-05	1.31E-01	4.16E-02	3.23E-02	4.51E-03	1.35E-03	1.04E-03
R_18	546601.38	5396387.56	Residence		1.45E-04	3.96E-05	3.02E-05	1.81E-02	1.89E-03	1.11E-03	4.00E-04	8.48E-05	4.67E-05	1.29E-01	3.96E-02	3.09E-02	4.49E-03	1.31E-03	1.01E-03
R_19	546856.39	5395580.56	Residence		1.40E-04	3.32E-05	2.57E-05	1.26E-02	1.68E-03	9.72E-04	1.81E-04	4.83E-05	2.87E-05	1.19E-01	3.07E-02	2.48E-02	4.32E-03	1.07E-03	8.47E-04
R_2	547273.37	5398044.56	Residence		2.85E-04	7.66E-05	5.43E-05	2.74E-02	2.92E-03	1.80E-03	3.17E-04	5.15E-05	3.85E-05	2.51E-01	6.88E-02	5.01E-02	9.12E-03	2.48E-03	1.78E-03
R_20	546950.39	5395533.56	Residence		1.42E-04	3.31E-05	2.56E-05	1.22E-02	1.71E-03	9.71E-04	1.70E-04	4.69E-05	2.80E-05	1.20E-01	3.07E-02	2.46E-02	4.36E-03	1.07E-03	8.44E-04
R_21	547201.39	5395415.56	Residence		1.43E-04	3.24E-05	2.54E-05	1.04E-02	1.75E-03	9.68E-04	1.52E-04	4.37E-05	2.64E-05	1.20E-01	3.09E-02	2.42E-02	4.37E-03	1.05E-03	8.36E-04
R_22	548317.36	5399654.57	Residence		7.01E-04	2.38E-04	1.52E-04	3.51E-02	5.99E-03	3.39E-03	4.06E-04	9.10E-05	6.13E-05	6.01E-01	2.09E-01	1.35E-01	2.19E-02	7.63E-03	4.90E-03
R_3	545809.38	5397232.54	Bergagnini Apartment Rental		1.86E-04	4.68E-05	3.45E-05	1.80E-02	2.49E-03	1.32E-03	1.27E-03	3.44E-04	1.56E-04	1.96E-01	7.52E-02	4.79E-02	5.88E-03	1.58E-03	1.24E-03
R_4	546092.38	5396796.55	Residence		1.53E-04	4.40E-05	3.24E-05	1.61E-02	2.21E-03	1.20E-03	9.69E-04	2.23E-04	1.25E-04	1.45E-01	6.00E-02	4.23E-02	4.81E-03	1.51E-03	1.15E-03
R_5	545971.38	5396489.55	Condominium		1.36E-04	3.96E-05	2.94E-05	1.56E-02	2.03E-03	1.11E-03	7.53E-04	1.53E-04	7.76E-05	1.19E-01	4.34E-02	3.39E-02	4.27E-03	1.34E-03	1.01E-03
R_6	545655.38	5396520.55	Residence		1.45E-04	4.23E-05	2.95E-05	1.49E-02	2.13E-03	1.12E-03	1.41E-03	3.06E-04	1.34E-04	1.92E-01	7.18E-02	4.10E-02	4.57E-03	1.60E-03	1.06E-03
R_7	545438.38	5396408.54	I Sew Studio and Residence		1.41E-04	3.97E-05	2.79E-05	1.50E-02	2.05E-03	1.08E-03	1.19E-03	2.57E-04	1.37E-04	1.88E-01	6.40E-02	4.00E-02	4.55E-03	1.48E-03	1.01E-03
R_8	545380.38	5396243.54	Bayview Apartments		1.33E-04	3.74E-05	2.64E-05	1.44E-02	1.98E-03	1.04E-03	8.31E-04	1.88E-04	9.73E-05	1.40E-01	5.37E-02	3.39E-02	4.27E-03	1.35E-03	9.33E-04
R_9	545290.38	5396114.54	Residence		1.28E-04	3.60E-05	2.54E-05	1.40E-02	1.93E-03	1.01E-03	6.35E-04	1.59E-04	8.06E-05	1.25E-01	4.89E-02	3.10E-02	4.12E-03	1.28E-03	8.87E-04
RH_1	546049.39	5395894.55	Peninsula Manor		1.28E-04	3.38E-05	2.58E-05	1.66E-02	1.58E-03	9.82E-04	3.48E-04	6.44E-05	4.15E-05	1.12E-01	3.44E-02	2.65E-02	3.92E-03	1.12E-03	8.64E-04
RH_2	545320.89	5396196.57	Senior's Centre		1.31E-04	3.68E-05	2.60E-05	1.43E-02	1.96E-03	1.03E-03	7.24E-04	1.77E-04	9.01E-05	1.29E-01	5.17E-02	3.26E-02	4.23E-03	1.32E-03	9.12E-04
S_1	546339.38	5396624.55	Holy Saviour School		1.45E-04	4.20E-05	3.13E-05	1.90E-02	1.92E-03	1.16E-03	5.97E-04	1.11E-04	6.70E-05	1.33E-01	4.47E-02	3.43E-02	4.47E-03	1.41E-03	1.07E-03
S_2	545633.38	5396102.55	Confederation College Northshore Campus		1.23E-04	3.64E-05	2.62E-05	1.29E-02	1.91E-03	1.02E-03	8.36E-04	1.53E-04	6.43E-05	1.26E-01	4.82E-02	2.96E-02	3.85E-03	1.29E-03	8.96E-04
S_3	546200.38	5396036.55	Marathon High School		1.33E-04	3.51E-05	2.69E-05	1.72E-02	1.65E-03	1.01E-03	3.84E-04	6.69E-05	4.19E-05	1.19E-01	3.47E-02	2.75E-02	4.10E-03	1.15E-03	9.00E-04
S_4	546261.39	5395967.55	Ecole secondaire Cite-Superieure		1.33E-04	3.45E-05	2.66E-05	1.70E-02	1.66E-03	1.00E-03	3.52E-04	6.26E-05	3.92E-05	1.19E-01	3.37E-02	2.69E-02	4.10E-03	1.13E-03	8.88E-04
S_5	547019.39	5395082.56	Marathon Children and Family Centre		1.35E-04	3.02E-05	2.35E-05	1.02E-02	1.65E-03	9.14E-04	1.86E-04	3.91E-05	2.29E-05	1.14E-01	2.84E-02	2.22E-02	4.14E-03	9.69E-04	7.70E-04
S_6	547000.39	5395035.56	Margaret Twomey Public School		1.34E-04	2.99E-05	2.32E-05	1.01E-02	1.63E-03	9.06E-04	1.79E-04	3.81E-05	2.26E-05	1.13E-01	2.80E-02	2.19E-02	4.10E-03	9.59E-04	7.62E-04
W_1	547291.36	5399860.55	Shack Lake (northeast)		3.92E-04	1.20E-04	8.58E-05	3.59E-02	6.21E-03	3.38E-03	3.74E-04	8.36E-05	5.37E-05	3.42E-01	1.09E-01	7.87E-02	1.24E-02	3.92E-03	2.83E-03
W_10	546975.32	5406486.49	Bamoos Lake (south)		3.58E-04	8.90E-05	5.41E-05	3.40E-02	7.29E-03	3.38E-03	3.56E-04	8.00E-05	4.24E-05	3.26E-01	7.85E-02	4.73E-02	1.18E-02	2.84E-03	1.71E-03
W_11	545484.32	5405866.49	Bamoos Lake (west)		2.95E-04	7.39E-05	3.89E-05	3.02E-02	7.01E-03	3.24E-03	3.27E-04	7.92E-05	4.00E-05	2.67E-01	6.51E-02	3.53E-02	9.61E-03	2.34E-03	1.27E-03
W_12	546576.32	5407157.48	Bamoos Lake (north)		3.37E-04	7.19E-05	4.19E-05	2.51E-02	5.05E-03	2.26E-03	2.70E-04	5.91E-05	3.08E-05	2.25E-01	5.93E-02	3.58E-02	8.36E-03	2.16E-03	1.29E-03

Table F-1 Special Receptor Predictions (ug/m3) - Operations, Project Alone

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	MERCURY (HG)			MOLYBDENUM (MO)			N2O			NAPHTHALENE				NICKEL (NI)		NITRIC ACID (HNO3)			NON-METHANE HYDROCARBONS		
				Averaging Period	24	month	annual	24	month	annual	24	month	annual	10-min	24	month	annual	24	annual	24	month	annual	24	month	annual
				Criteria	2	-	-	120	-	-	9000	-	-	50	22.5	-	-	0.2	0.04	35	-	-	-	-	-
H_1	545937.38	5396169.55	Wilson Memorial General Hospital		7.67E-06	2.49E-06	1.86E-06	4.33E-05	8.87E-06	6.02E-06	1.22E+00	5.78E-01	3.55E-01	2.54E-03	6.30E-05	1.01E-05	5.23E-06	1.19E-02	1.18E-03	1.03E-03	1.27E-04	7.60E-05	4.88E+00	2.32E+00	1.41E+00
M_1	545694	5403864	PM-10 @ Hare Lake		1.85E-05	5.21E-06	3.06E-06	3.83E-05	1.31E-05	8.15E-06	3.21E-01	9.70E-02	5.72E-02	4.11E-03	1.55E-04	2.60E-05	1.52E-05	2.61E-03	5.28E-04	2.72E-03	4.27E-04	2.61E-04	7.81E-01	2.28E-01	1.31E-01
M_2	545694	5403873	Dustfall @ Hare Lake		1.84E-05	5.20E-06	3.06E-06	3.79E-05	1.30E-05	8.09E-06	3.21E-01	9.67E-02	5.70E-02	4.10E-03	1.55E-04	2.61E-05	1.52E-05	2.60E-03	5.26E-04	2.72E-03	4.30E-04	2.62E-04	7.80E-01	2.27E-01	1.30E-01
M_3	547152	5401222	PM-10 @ Mays Gifts		4.56E-05	1.22E-05	8.25E-06	7.20E-05	2.23E-05	1.67E-05	7.19E-01	1.85E-01	1.32E-01	5.37E-03	2.79E-04	4.83E-05	2.38E-05	5.27E-03	1.09E-03	5.25E-03	8.54E-04	4.24E-04	1.23E+00	3.74E-01	2.81E-01
M_4	547147	5401216	Dustfall @ Mays Gifts		4.53E-05	1.22E-05	8.21E-06	7.16E-05	2.21E-05	1.66E-05	7.14E-01	1.84E-01	1.31E-01	5.41E-03	2.82E-04	4.85E-05	2.39E-05	5.24E-03	1.08E-03	5.22E-03	8.50E-04	4.22E-04	1.22E+00	3.72E-01	2.80E-01
M_5	551637	5402371	PM-10 @ Pic River		3.05E-05	1.22E-05	7.57E-06	4.34E-05	1.74E-05	1.05E-05	3.80E-01	1.37E-01	8.43E-02	5.52E-03	2.63E-04	4.59E-05	2.42E-05	3.88E-03	8.35E-04	7.08E-03	1.17E-03	4.68E-04	7.04E-01	2.34E-01	1.50E-01
M_6	551643	5402374	Dustfall @ Pic River		3.03E-05	1.22E-05	7.55E-06	4.32E-05	1.74E-05	1.05E-05	3.82E-01	1.37E-01	8.41E-02	5.52E-03	2.62E-04	4.57E-05	2.42E-05	3.86E-03	8.33E-04	7.08E-03	1.17E-03	4.67E-04	7.01E-01	2.34E-01	1.50E-01
M_7	549180	5399815	Dustfall @ Airport		1.55E-04	6.89E-05	5.24E-05	1.90E-04	8.55E-05	6.53E-05	4.83E-01	1.71E-01	1.31E-01	4.49E-03	2.10E-04	3.73E-05	1.56E-05	1.22E-02	4.32E-03	3.49E-03	5.41E-04	2.67E-04	1.07E+00	4.46E-01	3.46E-01
M_8	545863	5397092	Dustfall @ Field Office		1.09E-05	3.88E-06	2.83E-06	1.04E-04	3.53E-05	1.87E-05	5.52E-01	2.92E-01	2.20E-01	2.77E-03	7.80E-05	1.18E-05	6.37E-06	2.92E-02	4.66E-03	1.18E-03	1.68E-04	9.30E-05	2.11E+00	1.11E+00	8.22E-01
O_1	547181.37	5398014.56	Pic Motel		1.70E-05	4.62E-06	3.35E-06	2.48E-05	7.65E-06	6.03E-06	4.64E-01	1.69E-01	1.29E-01	3.64E-03	1.25E-04	1.78E-05	9.54E-06	3.26E-03	6.84E-04	1.88E-03	2.12E-04	1.33E-04	1.53E+00	6.13E-01	4.54E-01
O_2	545734.38	5396872.55	Marathon Harbour Inn		1.13E-05	6.23E-06	3.99E-06	1.50E-04	8.59E-05	4.30E-05	1.20E+00	5.54E-01	4.24E-01	2.69E-03	7.50E-05	1.11E-05	6.01E-06	4.20E-02	1.16E-02	1.12E-03	1.58E-04	8.70E-05	4.31E+00	1.98E+00	1.51E+00
O_3	545885.38	5396448.55	Zero-100 Motor Inn		8.35E-06	2.78E-06	2.06E-06	6.94E-05	1.33E-05	8.34E-06	1.53E+00	6.27E-01	4.88E-01	2.65E-03	7.20E-05	1.07E-05	5.54E-06	1.95E-02	1.81E-03	9.53E-04	1.41E-04	8.00E-05	5.60E+00	2.32E+00	1.80E+00
O_4	545987.37	5397640.55	OPP Station		1.30E-05	3.34E-06	2.54E-06	6.04E-05	1.59E-05	8.39E-06	4.50E-01	2.08E-01	1.59E-01	2.95E-03	7.80E-05	1.32E-05	7.31E-06	1.65E-02	1.65E-03	1.33E-03	1.92E-04	1.07E-04	1.61E+00	7.84E-01	5.90E-01
O_5	545876.38	5396072.55	Library		7.37E-06	2.48E-06	1.80E-06	4.06E-05	9.36E-06	5.78E-06	1.05E+00	5.05E-01	3.21E-01	2.51E-03	6.20E-05	9.87E-06	5.12E-06	1.13E-02	1.12E-03	9.97E-04	1.24E-04	7.40E-05	4.13E+00	1.99E+00	1.27E+00
P_1	546958.38	5396138.56	Penn Lake Park and Campground		9.39E-06	2.46E-06	1.92E-06	2.35E-05	6.89E-06	4.53E-06	1.92E-01	6.88E-02	4.10E-02	2.64E-03	7.60E-05	9.10E-06	5.28E-06	6.41E-03	7.17E-04	9.66E-04	1.29E-04	7.90E-05	6.36E-01	2.19E-01	1.20E-01
P_2	548538.41	5392862.58	Craig's Pit Provincial Nature Reserve		6.60E-06	1.53E-06	9.67E-07	9.54E-06	2.63E-06	1.66E-06	8.19E-02	1.99E-02	1.24E-02	2.09E-03	5.90E-05	7.68E-06	3.23E-06	1.72E-03	1.75E-04	6.77E-04	9.00E-05	4.20E-05	2.05E-01	4.51E-02	2.69E-02
P_3	540005	5402014	Red Sucker Point Provincial Park		5.58E-06	1.47E-06	8.26E-07	1.05E-05	2.96E-06	1.89E-06	9.97E-02	2.46E-02	1.32E-02	1.76E-03	4.80E-05	7.63E-06	3.82E-06	1.95E-03	2.54E-04	5.50E-04	1.07E-04	5.40E-05	2.46E-01	5.88E-02	3.03E-02
P_4	552770	5383776	Pukaskwa National Park		2.60E-06	5.15E-07	3.01E-07	3.63E-06	9.62E-07	5.30E-07	3.86E-02	6.78E-03	4.14E-03	8.55E-04	1.80E-05	2.62E-06	1.22E-06	5.17E-04	6.00E-05	1.97E-04	3.30E-05	1.60E-05	9.98E-02	1.59E-02	9.16E-03
PR_1	553679.44	5385895.59	Children & Family Learning Centre		2.15E-06	5.16E-07	3.25E-07	3.10E-06	1.00E-06	5.70E-07	3.27E-02	7.74E-03	4.56E-03	7.08E-04	1.50E-05	2.41E-06	1.23E-06	5.93E-04	6.30E-05	1.71E-04	3.10E-05	1.70E-05	9.13E-02	1.88E-02	1.03E-02
PR_2	554004.44	5385857.59	Pic River Elementary		1.86E-06	4.77E-07	3.14E-07	2.73E-06	9.42E-07	5.54E-07	2.87E-02	7.12E-03	4.41E-03	7.24E-04	1.40E-05	2.36E-06	1.19E-06	5.93E-04	6.20E-05	1.78E-04	3.00E-05	1.60E-05	8.05E-02	1.72E-02	9.91E-03
PR_3	553836.44	5385603.59	Pic River Private High School		2.01E-06	4.93E-07	3.13E-07	2.91E-06	9.65E-07	5.51E-07	3.10E-02	7.40E-03	4.41E-03	7.01E-04	1.40E-05	2.34E-06	1.19E-06	5.66E-04	6.10E-05	1.70E-04	3.00E-05	1.60E-05	8.74E-02	1.80E-02	9.92E-03
PR_4	553930.44	5386048.59	Pic River Health Centre		1.92E-06	4.89E-07	3.21E-07	2.81E-06	9.61E-07	5.65E-07	2.93E-02	7.31E-03	4.50E-03	7.36E-04	1.50E-05	2.40E-06	1.21E-06	6.08E-04	6.30E-05	1.80E-04	3.10E-05	1.70E-05	8.21E-02	1.77E-02	1.01E-02
PR_5	552493.44	5384782.58	BIIDAABAN Healing Lodge		2.84E-06	5.58E-07	3.30E-07	3.99E-06	1.05E-06	5.80E-07	4.17E-02	7.22E-03	4.50E-03	9.12E-04	2.10E-05	2.86E-06	1.33E-06	5.53E-04	6.60E-05	2.27E-04	3.60E-05	1.80E-05	1.03E-01	1.70E-02	9.92E-03
PR_6	552843.43	5390099.59	Residence		3.33E-06	7.85E-07	5.15E-07	4.71E-06	1.38E-06	9.00E-07	5.07E-02	1.17E-02	7.02E-03	1.08E-03	2.20E-05	3.77E-06	1.92E-06	8.36E-04	1.00E-04	2.73E-04	4.70E-05	2.60E-05	1.29E-01	2.84E-02	1.58E-02
PR_7	553761.44	5387705.59	Residence		2.03E-06	5.49E-07	3.70E-07	3.23E-06	1.04E-06	6.56E-07	3.19E-02	8.04E-03	5.16E-03	8.38E-04	1.70E-05	2.73E-06	1.38E-06	6.13E-04	7.40E-05	2.08E-04	3.50E-05	1.90E-05	9.03E-02	1.93E-02	1.16E-02
PS_1	545001.33	5404050.49	North Hare Lake Cottage		1.32E-05	4.12E-06	2.40E-06	2.78E-05	9.61E-06	5.43E-06	2.53E-01	7.31E-02	4.15E-02	3.63E-03	1.33E-04	2.12E-05	1.23E-05	1.77E-03	3.92E-04	2.19E-03	3.31E-04	2.01E-04	6.24E-01	1.72E-01	9.28E-02
PS_2	544331.34	5403100.49	South Hare Lake Cottage		1.48E-05	3.69E-06	2.05E-06	2.66E-05	7.59E-06	4.48E-06	2.44E-01	6.27E-02	3.40E-02	3.34E-03	1.35E-04	1.61E-05	8.99E-06	1.87E-03	3.41E-04	1.85E-03	2.73E-04	1.45E-04	5.86E-01	1.45E-01	7.58E-02
PS_3	547056.12	5401003.77	May's Gifts		4.05E-05	1.08E-05	7.21E-06	6.15E-05	1.89E-05	1.39E-05	5.84E-01	1.58E-01	1.11E-01	5.16E-03	2.76E-04	4.73E-05	2.30E-05	4.56E-03	9.64E-04	4.28E-03	7.82E-04	3.84E-04	1.02E+00	3.19E-01	2.32E-01
PS_4	546811.35	5400952.54	Wayfare Inn		3.69E-05	9.65E-06	6.44E-06	5.74E-05	1.79E-05	1.31E-05	5.65E-01	1.47E-01	1.03E-01	4.98E-03	2.45E-04	4.07E-05	1.99E-05	4.27E-03	9.08E-04	4.25E-03	6.86E-04	3.38E-04	9.86E-01	3.15E-01	2.22E-01
PS_5	546996.35	5401027.54	Peninsula Inn		4.02E-05	1.07E-05	7.13E-06	6.20E-05	1.92E-05	1.41E-05	6.00E-01	1.58E-01	1.12E-01	5.15E-03	2.73E-04	4.58E-05	2.23E-05	4.59E-03	9.65E-04	4.45E-03	7.63E-04	3.76E-04	1.08E+00	3.29E-01	2.37E-01
PS_6	548471.36	5399488.57	Travelodge Hotel		6.24E-05	2.09E-05	1.29E-05	7.90E-05	2.70E-05	1.72E-05	4.42E-01	1.48E-01	1.13E-01	4.49E-03	1.82E-04	2.97E-05	1.50E-05	5.31E-03	1.24E-03	2.29E-03	4.16E-04	2.50E-04	1.22E+00	4.11E-01	3.18E-01
PS_7	546903.35	5401055.54	The Laughing Mooz Eatery Restaurant and Residence		3.93E-05	1.04E-05	6.97E-06	6.19E-05	1.96E-05	1.44E-05	6.14E-01	1.59E-01	1.12E-01	5.22E-03	2.60E-04	4.31E-05	2.11E-05	4.58E-03	9.64E-04	4.59E-03	7.28E-04	3.60E-04	1.13E+00	3.44E-01	2.45E-01
PW_1	545777.38	5397150.54	Kingdom Hall of Jehovah's Witnesses		1.12E-05	4.12E-06	2.86E-06	1.32E-04	4.06E-05	1.92E-05	5.49E-01	2.36E-01	1.85E-01	2.76E-03	7.50E-05	1.18E-05	6.45E-06	3.71E-02	4.82E-03	1.20E-03	1.69E-04	9.40E-05	2.00E+00	8.84E-01	6.88E-01
PW_2	546331.39	5395941.55	Parkland Pentecostal Church		8.17E-06	2.20E-06	1.75E-06	2.93E-05	6.58E-06	4.51E-06	2.37E-01	9.06E-02	6.13E-02	2.56E-03	7.90E-05	8.43E-06	4.96E-06	7.18E-03	7.61E-04	1.08E-03	1.17E-04	7.30E-05	8.82E-01	3.08E-01	2.02E-01
PW_3	545857.39	5395714.55	St. John's United Church		7.16E-06	2.22E-06	1.62E-06	3.09E-05	8.15E-06	4.65E-06	3.14E-01	1.15E-01	8.73E-02	2.39E-03	6.30E-05	8.89E-06	4.72E-06	8.53E-03	8.43E-04	9.89E-04	1.09E-04	6.80E-05	1.08E+00	4.13E-01	3.05E-01
PW_4	545425.03	5396043.49	Holy Saviour Roman Catholic Church		7.73E-06	2.60E-06	1.80E-06	6.22E-05	1.22E-05	7.28E-06	2.22E+00	1.01E+00	7.97E-01	2.39E-03	6.80E-05	9.59E-06	5.02E-06	1.66E-02	1.58E-03	8.86E-04	1.30E-04	7.20E-05	7.96E+00	3.56E+00	2.83E+00
PW_5	545390.38	5395988.55	Anglican Church-Trinity		7.62E-06	2.54E-06	1.75E-06	5.76E-05	1.15E-05	6.66E-06	3.05E+00	1.27E+00	8.63E-01	2.37E-03	6.70E-05	9.52E-06	4.98E-06	1.53E-02	1.40E-03	8.76E-04	1.29E-04	7.10E-05	1.10E+01	4.54E+00	3.07E+00
R_1	547226.37	5398095.56	Residence		1.81E-05	4.81E-06	3.45E-06	2.56E-05	7.47E-06	6.04E-06	6.50E-01	2.89E-01	2.13E-01	3.77E-03	1.32E-04	1.85E-05	9.94E-06	3.08E-03	6.52E-04	1.93E-03	2.19E-04	1.37E-04	2.28E+00	1.10E+00	7.95E-01
R_10	545421.38	5395953.55	Residence		7.44E-06	2.47E-06	1.73E-06	5.59E-05	1.08E-05	6.48E-06	4.41E+00	1.65E+00	1.22E+00	2.39E-03	6.70E-05	9.49E-06	4.94E-06	1.47E-02	1.36E-03	8.54E-04	1.28E-04	7.10E-05	1.60E+01	5.97E+00	4.41E+00
R_11	545619.39	5395877.55	Residence		7.09E-06	2.48E-06	1.69E-06	6.04E-05	1.15E-05	5.54E-06	1.25E+00	4.79E-01	3.83E-01	2.44E-03	6.30E-05	9.49E-06	4.88E-06	1.67E-02	1.09E-03	8.66E-04	1.23E-04	7.00E-05	4.67E+00	1.78E+00	1.43E+00
R_12	545831.38	5396000.55	Residence		7.19E-06	2.47E-06	1.76E-06	4.04E-05	1.01E-05	5.62E-06	8.53E-01	4.23E-01	2.81E-01	2.49E-03	6.10E-05	9.71E-06	5.03E-06	1.12E-02	1.09E-03	9.77E-04	1.22E-04	7.30E-05	3.29E+00	1.63E+00	1.08E+00
R_13	545806.92	5396173.19	Residence		7.57E-06	2.67E-06	1.87E-06	5.02E-05	1.21E-05	6.62E-06	1.84E+00	8.95E-01	7.19E-01	2.55E-03	6.70E-05	1.01E-05	5.21E-06	1.40E-02	1.35E-03	9.44E-04	1.31E-04	7.50E-05	7.59E+00	3.64E+00	2.95E+00
R_14	545827.05	5396228.86	Residence		7.72E-06	2.69E-06	1.90E-06	5.20E-05	1.17E-05	6.86E-06	1.29E+00	5.92E-01	4.83E-01	2.57E-03	6.80E-05	1.03E-05	5.29E-06	1.46E-02	1.42E-03	9.50E-04	1.33E-04	7.60E-05	5.22E+00	2.41E+00	1.95E+00
R_15	545662.38	5396175.55	Residence		7.85E-06	2.88E-06	1.88E-06	7.73E-05	1.61E-05	7.36E-06	7.42E-01	3.53E-01	2.73E-01	2.54E-03	6.90E-05	1.01E-05	5.21E-06	2.15E-02	1.57E-03	8.53E-04	1.33E-04	7.50E-05	2.84E+00	1.32E+00	1.03E+00
R_16	546254.38	5396484.55	Residence		8.66E-06	2.68E-06	2.05E-06	5.50E-05	1.13E-05	6.71E-06	3.66E-01	1.69E-01	1.05E-01	2.66E-03	7.10E-05	1.05E-05	5.57E-06	1.54E-02	1.32E-03	1.18E-03	1.30E-04	8.10E-05	1.35E+00	6.10E-01	3.68E-01
R_17	546471.38	5396506.55	Residence		9.00E-06	2.71E-06	2.07E-06	4.54E-05	9.78E-06	6.20E-06	2.82E-01	1.16E-01	7.26E-02	2.71E-03	8.30E-05	1.00E-05	5.60E-06	1.27E-02	1.16E-03	1.23E-03	1.31E-04	8.30E-05	9.96E-01	4.04E-01	2.40E-01
R_18	546601.38	5396387.56	Residence		8.93E-06	2.61E-06	2.01E-06	3.70E-05	8.71E-06	5.49E-06	2.38E-01	9.71E-02	6.08E-02	2.70E-03	8.70E-05	9.11E-06	5.46E-06	1.03E-02	9.72E-04	1.18E-03	1.30E-04	8.10E-05	8.72E-01	3.30E-01	1.96E-01
R_19	546856.39	5395580.56	Residence		8.43E-06	2.10E-06	1.66E-06	1.84E-05	5.15E-06	3.65E-06	1.73E-01	4.67E-02	3.13E-02	2.52E-03	6.50E-05	8.31E-06	4.79E-06	4.64E-03	5.37E-04	8.50E-04	1.16E-04	7.10E-05	5.14E-01	1.42E-01	8.65E-02
R_2	547273.37	5398044.56	Residence		1.76E-05	4.80E-06	3.44E-06	2.60E-05	7.30E-06	5.95E-06	3.83E-01	1.33E-01	9.95E-02	3.91E-03	1.42E-04	1.81E-05	9.94E-06	2.85E-03	6.36E-04	1.91E-03	2.19E-04	1.36E-04	1.19E+00	4.57E-01	3.30E-01
R_20	546950.39	5395533.56	Residence		8.52E-06	2.09E-06	1.65E-06	1.63E-05	5.08E-06	3.57E-06	1.54E-01	4.28E-02	2.96E-02	2.51E-03	6.10E-05	8.53E-06	4.80E-06	4.22E-03	5.18E-04	8.22E-04	1.17E-04	7.10E-05	4.67E-01	1.27E-01	8.01E-02
R_21	547201.39	5395415.56	Residence		8.55E-06	2.06E-06	1.63E-06	1.49E-05	4.83E-06	3.41E-06	1.28E-01	3.66E-02	2.62E-02	2.44E-03	5.90E-05	9.13E-06	4.84E-06	3.80E-03	4.77E-04	7.08E-04	1.20E-04	7.10E-05	3.45E-01	1.01E-01	6.73E-02
R_22	548317.36	5399654.57	Residence		4.28E-05	1.48E-05	9.50E-06	5.70E-05	1.98E-05	1.31E-05	3.93E-01	1.09E-01	8.14E-02	4.37E-03	1.85E-04	2.90E-05	1.55E-05	4.22E-03	9.77E-04	2.70E-03	4.35E-04	2.68E-04	9.07E-01	2.48E-01	1.81E-01
R_3	545809.38	5397232.54	Bergagnini Apartment Rental		1.15E-05	3.74E-06	2.70E-06	1.17E-04	3.28E-05	1.55E-05	5.84E-01	2.45E-01	1.91E-01	2.80E-03	7.50E-05	1.20E-05	6.58E-06	3.27E-02	3.74E-03	1.22E-03	1.72E-04	9.60E-05	2.15E+00	9.28E-01	7.19E-01
R_4	546092.38	5396796.55	Residence		9.39E-06	3.28E-06	2.45E-06	8.80E-05	2.17E-05	1.26E-05	3.68E-01	1.79E-01	1.19E-01	2.78E-03	7.70E-05	1.16E-05	5.98E-06	2.49E-02	2.96E-03	1.05E-03	1.53E-04	8.70E-05	1.29E+00	6.23E-01	4.05E-01
R_5	545971.38	5396489.55	Condominium		8.35E-06	2.72E-06	2.08E-06	6.85E-05	1.48E-05	8.21E-06	1.27E+00	6.84E-01	4.80E-01	2.66E-03	7.10E-05	1.08E-05	5.57E-06	1.93E-02	1.76E-03	1.01E-03	1.40E-04	8.10E-05	4.63E+00	2.50E+00	1.75E+00
R_6	545655.38	5396520.55	Residence		9.56E-06	3.73E-06	2.31E-06	1.28E-04	2.87E-05	1.33E-05	5.35E-01	2.20E-01	1.76E-01	2.59E-03	7.40E-05	1.07E-05	5.64E-06	3.61E-02	3.22E-03	1.00E-03	1.47E-04	8.10E-05	1.89E+00	7.84E-01	6.19E-01
R_7	545438.38	5396408.54	I Sew Studio and Residence		9.23E-06	3.40E-06	2.22E-06	1.08E-04	2.44E-05	1.34E-05	1.34E+00	6.73E-01	5.06E-01	2.51E-03	6.90E-05	9.98E-06	5.38E-06	2.99E-02	3.29E-03	1.00E-03	1.41E-04	7.80E-05	4.62E+00	2.33E+00	1.75E+00
R_8	545380.38	5396243.54	Bayview Apartments		8.60E-06	2.99E-06	1.98E-06	7.53E-05	1.82E-05	9.82E-06	1.28E+00	6.40E-01	4.92E-01	2.48E-03	6.80E-05	9.71E-06	5.19E-06	2.07E-02	2.28E-03	9.59E-04	1.36E-04	7.50E-05	4.43E+00	2.22E+00	1.71E+00
R_9	545290.38	5396114.54	Residence		8.30E-06	2.78E-06	1.85E-06	5.76E-05	1.55E-05	8.28E-06	9.61E-01	4.13E-01	2.75E-01	2.43E-03	6.70E-05	9.44E-06	5.06E-06	1.57E-02	1.86E-03	9.33E-04	1.32E-04	7.30E-05	3.38E+00	1.45E+00	9.56E-01
RH_1	546049.39	5395894.55	Peninsula Manor		7.77E-06	2.22E-06	1.72E-06	3.21E-05	6.92E-06	4.81E-06	4.59E-01	1.42E-01	8.98E-02	2.46E-03	7.00E-05	9.08E-06	4.93E-06	8.08E-03	8.62E-04	1.06E-03	1.12E-04	7.10E-05	1.70E+00	5.12E-01	3.15E-01
RH_2	545320.89	5396196.57	Senior's Centre		8.52E-06	2.90E-06	1.92E-06	6.56E-05	1.71E-05	9.16E-06	1.53E+00	6.93E-01	5.02E-01	2.45E-03	6.70E-05	9.55E-06	5.13E-06	1.79E-02	2.10E-03	9.52E-04	1.34E-04	7.40E-05	5.35E+00	2.41E+00	1.74E+00
S_1	546339.38	5396624.55	Holy Saviour School		8.97E-06	2.84E-06	2.16E-06	5.53E-05	1.13E-05	7.36E-06	2.84E-01	1.33E-01	8.47E-02	2.72E-03	7.30E-05	1.08E-05	5.75E-06	1.53E-02	1.48E-03	1.22E-03	1.34E-04	8.40E-05	1.00E+00	4.65E-01	2.83E-01
S_2	545633.38	5396102.55	Confederation College Northshore Campus		7.67E-06	2.77E-06	1.83E-06	7.71E-05	1.48E-05	6.86E-06	9.94E-01	5.19E-01	3.89E-01	2.51E-03	6.80E-05	9.92E-06	5.12E-06	2.14E-02	1.44E-03	8.34E-04	1.31E-04	7.40E-05	3.84E+00	1.96E+00	1.48E+00
S_3	546200.38	5396036.55	Marathon High School		8.17E-06	2.27E-06	1.79E-06	3.53E-05	7.01E-06	4.90E-06	3.13E-01	1.38E-01	8.59E-02	2.49E-03	7.50E-05	9.14E-06	5.07E-06	8.93E-03	8.65E-04	1.10E-03	1.17E-04	7.40E-05	1.12E+00	4.92E-01	3.00E-01
S_4	546261.39	5395967.55	Ecole secondaire Cite-Superieure		8.16E-06	2.21E-06	1.76E-06	3.23E-05	6.75E-06	4.64E-06	2.69E-01	1.05E-01	6.99E-02	2.55E-03	7.70E-05	8.73E-06	4.99E-06	8.05E-03	7.99E-04	1.09E-03	1.17E-04	7.30E-05	1.00E+00	3.64E-01	2.36E-01
S_5	547019.39	5395082.56	Marathon Children and Family Centre		8.09E-06	1.90E-06	1.50E-06	1.86E-05	4.51E-06	3.00E-06	1.12E-01	3.16E-02	2.23E-02	2.43E-03	5.90E-05	8.85E-06	4.73E-06	4.76E-03	3.97E-04	6.95E-04	1.14E-04	6.70E-05	2.61E-01	8.00E-02	5.43E-02
S_6	547000.39	5395035.56	Margaret Twomey Public School		8.01E-06	1.88E-06	1.48E-06	1.80E-05	4.51E-06	2.97E-06	1.12E-01	3.10E-02	2.20E-02	2.42E-03	5.90E-05	8.77E-06	4.69E-06	4.58E-03	3.92E-04	6.91E-04	1.13E-04	6.70E-05	2.60E-01	7.83E-02	5.35E-02
W_1	547291.36	5399860.55	Shack Lake (northeast)		2.42E-05	7.54E-06	5.40E-06	3.28E-05	1.15E-05	8.81E-06	3.55E-01	9.04E-02	6.85E-02	4.24E-03	1.49E-04	3.45E-05	1.71E-05	2.66E-03	7.28E-04	2.63E-03	4.57E-04	2.56E-04	6.75E-01	1.80E-01	1.39E-01
W_10	546975.32	5406486.49	Bamoos Lake (south)		2.28E-05	5.52E-06	3.29E-06	3.27E-05	7.69E-06	5.01E-06	2.77E-01	8.33E-02	5.17E-02	4.04E-03	1.48E-04	2.56E-05	1.21E-05	2.50E-03	3.86E-04	2.54E-03	5.37E-04	2.42E-04	8.51E-01	2.05E-01	1.22E-01
W_11	545484.32	5405866.49	Bamoos Lake (west)		1.87E-05	4.50E-06	2.39E-06	2.60E-05	7.01E-06	4.12E-06	2.50E-01	6.65E-02	3.92E-02	3.56E-03	1.48E-04	3.33E-05	1.60E-05	2.09E-03	3.31E-04	2.13E-03	5.02E-04	2.31E-04	6.94E-01	1.39E-01	8.62E-02
W_12	546576.32	5407157.48	Bamoos Lake (north)		1.65E-05	4.19E-06	2.49E-06	2.31E-05	6.05E-06	3.90E-06	2.75E-01	7.41E-02	4.32E-02	3.29E-03	1.

Table F-1 Special Receptor Predictions (ug/m3) - Operations, Project Alone

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	NO2 (See Note 3)			PALLADIUM (PD)			PHENANTHRENE			PHOSPHOROUS (P)			PLATINUM (PT)			PM10 (see Note 1)			PM10 (see Note 2)	PM2.5 (See Note	
				Averaging Period	1	24	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	24	month
				Criteria	400	200	-	10	-	-	-	-	-	-	-	-	0.2	-	-	-	-	-	50	-	-
H_1	545937.38	5396169.55	Wilson Memorial General Hospital		6.56E+01	1.37E+01	4.72E+00	1.16E-04	1.79E-05	1.01E-05	5.12E-03	2.42E-03	1.48E-03	1.01E-02	3.14E-03	2.36E-03	2.42E-05	3.75E-06	2.13E-06	5.53E+00	2.61E+00	1.84E+00	1.76E+00	1.65E+00	8.28E-01
M_1	545694	5403864	PM-10 @ Hare Lake		5.94E+01	1.27E+01	2.04E+00	1.39E-05	2.70E-06	1.61E-06	9.56E-04	2.78E-04	1.60E-04	2.64E-02	8.06E-03	4.87E-03	2.97E-06	6.04E-07	3.76E-07	7.23E+00	1.81E+00	1.07E+00	5.53E+00	1.20E+00	4.00E-01
M_2	545694	5403873	Dustfall @ Hare Lake		5.93E+01	1.27E+01	2.03E+00	1.39E-05	2.70E-06	1.61E-06	9.55E-04	2.77E-04	1.59E-04	2.62E-02	8.04E-03	4.85E-03	2.97E-06	6.03E-07	3.76E-07	7.18E+00	1.80E+00	1.06E+00	5.48E+00	1.20E+00	3.98E-01
M_3	547152	5401222	PM-10 @ Mays Gifts		7.73E+01	2.19E+01	4.51E+00	1.60E-05	4.08E-06	2.46E-06	1.56E-03	4.59E-04	3.42E-04	6.37E-02	1.78E-02	1.23E-02	3.44E-06	9.65E-07	6.23E-07	1.50E+01	3.94E+00	2.68E+00	8.35E+00	2.91E+00	7.48E-01
M_4	547147	5401216	Dustfall @ Mays Gifts		7.73E+01	2.18E+01	4.49E+00	1.61E-05	4.09E-06	2.47E-06	1.55E-03	4.56E-04	3.40E-04	6.34E-02	1.77E-02	1.22E-02	3.47E-06	9.67E-07	6.23E-07	1.50E+01	3.92E+00	2.66E+00	8.33E+00	2.89E+00	7.44E-01
M_5	551637	5402371	PM-10 @ Pic River		7.63E+01	1.32E+01	2.87E+00	1.49E-05	4.65E-06	2.10E-06	8.65E-04	2.93E-04	1.86E-04	4.14E-02	1.66E-02	1.03E-02	3.38E-06	1.13E-06	5.39E-07	1.03E+01	3.92E+00	2.41E+00	7.00E+00	1.95E+00	7.02E-01
M_6	551643	5402374	Dustfall @ Pic River		7.62E+01	1.32E+01	2.86E+00	1.48E-05	4.64E-06	2.10E-06	8.61E-04	2.92E-04	1.86E-04	4.12E-02	1.65E-02	1.03E-02	3.37E-06	1.13E-06	5.38E-07	1.02E+01	3.92E+00	2.40E+00	6.96E+00	1.94E+00	7.01E-01
M_7	549180	5399815	Dustfall @ Airport		8.32E+01	1.28E+01	3.57E+00	1.41E-05	4.98E-06	3.13E-06	1.29E-03	5.25E-04	4.07E-04	2.10E-01	9.36E-02	7.12E-02	3.95E-06	1.84E-06	1.32E-06	4.08E+01	1.85E+01	1.40E+01	9.65E+00	4.54E+00	2.06E+00
M_8	545863	5397092	Dustfall @ Field Office		6.85E+01	7.62E+00	2.88E+00	2.83E-04	9.05E-05	4.38E-05	2.25E-03	1.18E-03	8.79E-04	1.48E-02	3.93E-03	2.96E-03	5.91E-05	1.89E-05	9.16E-06	4.32E+00	2.27E+00	1.65E+00	2.71E+00	1.02E+00	5.82E-01
O_1	547181.37	5398014.56	Pic Motel		8.09E+01	8.84E+00	2.18E+00	3.07E-05	8.11E-06	3.95E-06	1.67E-03	6.50E-04	4.85E-04	2.31E-02	6.32E-03	4.57E-03	6.42E-06	1.73E-06	8.68E-07	6.25E+00	1.77E+00	1.41E+00	2.71E+00	1.25E+00	3.77E-01
O_2	545734.38	5396872.55	Marathon Harbour Inn		7.44E+01	1.26E+01	4.06E+00	4.08E-04	2.30E-04	1.12E-04	4.78E-03	2.20E-03	1.68E-03	1.38E-02	3.84E-03	3.04E-03	8.52E-05	4.81E-05	2.33E-05	5.85E+00	3.39E+00	2.26E+00	3.93E+00	1.42E+00	7.89E-01
O_3	545885.38	5396448.55	Zero-100 Motor Inn		7.57E+01	1.54E+01	4.95E+00	1.90E-04	3.15E-05	1.61E-05	6.14E-03	2.54E-03	1.97E-03	1.13E-02	3.40E-03	2.51E-03	3.96E-05	6.58E-06	3.39E-06	5.31E+00	2.16E+00	1.71E+00	2.14E+00	1.62E+00	6.82E-01
O_4	545987.37	5397640.55	OPP Station		6.84E+01	8.61E+00	2.36E+00	1.59E-04	3.41E-05	1.41E-05	1.70E-03	8.30E-04	6.26E-04	1.76E-02	4.45E-03	3.23E-03	3.31E-05	7.15E-06	2.97E-06	5.23E+00	1.71E+00	1.33E+00	2.07E+00	1.09E+00	4.10E-01
O_5	545876.38	5396072.55	Library		6.81E+01	1.17E+01	4.17E+00	1.10E-04	1.73E-05	9.59E-06	4.38E-03	2.10E-03	1.33E-03	9.80E-03	3.07E-03	2.30E-03	2.29E-05	3.65E-06	2.02E-06	5.20E+00	2.19E+00	1.64E+00	1.66E+00	1.45E+00	6.92E-01
P_1	546958.38	5396138.56	Penn Lake Park and Campground		6.24E+01	5.30E+00	8.94E-01	6.18E-05	1.09E-05	5.48E-06	7.08E-04	2.42E-04	1.35E-04	1.27E-02	3.25E-03	2.54E-03	1.29E-05	2.29E-06	1.17E-06	3.07E+00	8.47E-01	6.63E-01	1.56E+00	5.72E-01	1.74E-01
P_2	548538.41	5392862.58	Craig's Pit Provincial Nature Reserve		5.28E+01	3.78E+00	4.20E-01	1.58E-05	2.35E-06	9.16E-07	2.62E-04	5.50E-05	3.20E-05	8.74E-03	2.08E-03	1.32E-03	3.31E-06	5.08E-07	2.04E-07	2.26E+00	4.99E-01	3.07E-01	1.18E+00	3.65E-01	8.74E-02
P_3	540005	5402014	Red Sucker Point Provincial Park		2.68E+01	4.14E+00	4.52E-01	1.76E-05	3.46E-06	1.76E-06	3.04E-04	7.10E-05	3.70E-05	7.76E-03	2.03E-03	1.13E-03	3.69E-06	7.33E-07	3.79E-07	2.07E+00	4.98E-01	2.77E-01	1.73E+00	3.90E-01	9.74E-02
P_4	552770	5383776	Pukaskwa National Park		3.43E+01	1.67E+00	1.55E-01	4.51E-06	8.07E-07	3.38E-07	1.20E-04	1.90E-05	1.10E-05	3.46E-03	6.87E-04	4.08E-04	9.50E-07	1.75E-07	7.45E-08	8.61E-01	1.67E-01	9.71E-02	4.96E-01	1.59E-01	3.02E-02
PR_1	553679.44	5385895.59	Children & Family Learning Centre		2.54E+01	1.37E+00	1.68E-01	5.19E-06	8.94E-07	3.51E-07	1.10E-04	2.30E-05	1.20E-05	2.90E-03	6.84E-04	4.40E-04	1.09E-06	1.93E-07	7.76E-08	7.09E-01	1.71E-01	1.05E-01	3.97E-01	1.31E-01	3.20E-02
PR_2	554004.44	5385857.59	Pic River Elementary		1.96E+01	1.32E+00	1.61E-01	5.27E-06	8.55E-07	3.43E-07	9.90E-05	2.10E-05	1.20E-05	2.52E-03	6.34E-04	4.27E-04	1.11E-06	1.85E-07	7.57E-08	6.01E-01	1.57E-01	1.01E-01	3.64E-01	1.10E-01	2.94E-02
PR_3	553836.44	5385603.59	Pic River Private High School		2.37E+01	1.34E+00	1.62E-01	4.97E-06	8.67E-07	3.41E-07	1.05E-04	2.20E-05	1.20E-05	2.72E-03	6.53E-04	4.25E-04	1.05E-06	1.88E-07	7.53E-08	6.59E-01	1.63E-01	1.01E-01	3.76E-01	1.22E-01	3.05E-02
PR_4	553930.44	5386048.59	Pic River Health Centre		2.06E+01	1.35E+00	1.64E-01	5.40E-06	8.67E-07	3.49E-07	1.01E-04	2.10E-05	1.20E-05	2.59E-03	6.50E-04	4.35E-04	1.13E-06	1.87E-07	7.72E-08	6.21E-01	1.61E-01	1.03E-01	3.73E-01	1.14E-01	3.01E-02
PR_5	552493.44	5384782.58	BIIDAABAN Healing Lodge		3.44E+01	1.81E+00	1.68E-01	4.82E-06	9.06E-07	3.69E-07	1.28E-04	2.10E-05	1.20E-05	3.78E-03	7.45E-04	4.47E-04	1.02E-06	1.96E-07	8.13E-08	9.27E-01	1.81E-01	1.06E-01	5.27E-01	1.73E-01	3.24E-02
PR_6	552843.43	5390099.59	Residence		2.65E+01	2.04E+00	2.59E-01	7.74E-06	1.26E-06	5.59E-07	1.57E-04	3.40E-05	1.90E-05	4.47E-03	1.05E-03	6.97E-04	1.62E-06	2.71E-07	1.23E-07	1.10E+00	2.58E-01	1.65E-01	6.06E-01	2.05E-01	4.77E-02
PR_7	553761.44	5387705.59	Residence		2.06E+01	1.46E+00	1.86E-01	5.33E-06	8.76E-07	4.16E-07	1.11E-04	2.30E-05	1.40E-05	2.75E-03	7.42E-04	5.03E-04	1.12E-06	1.89E-07	9.17E-08	6.54E-01	1.78E-01	1.19E-01	4.01E-01	1.22E-01	3.31E-02
PS_1	545001.33	5404050.49	North Hare Lake Cottage		5.40E+01	1.00E+01	1.51E+00	1.30E-05	2.19E-06	1.33E-06	7.64E-04	2.10E-04	1.14E-04	1.86E-02	6.19E-03	3.62E-03	2.76E-06	4.89E-07	3.10E-07	4.59E+00	1.41E+00	8.16E-01	2.77E+00	9.57E-01	2.99E-01
PS_2	544331.34	5403100.49	South Hare Lake Cottage		5.15E+01	9.51E+00	1.23E+00	1.13E-05	2.02E-06	1.26E-06	7.20E-04	1.76E-04	9.20E-05	2.01E-02	5.47E-03	3.05E-03	2.42E-06	4.47E-07	2.90E-07	5.95E+00	1.25E+00	6.89E-01	4.81E+00	9.83E-01	2.60E-01
PS_3	547056.12	5401003.77	May's Gifts		7.60E+01	1.96E+01	3.80E+00	1.83E-05	4.28E-06	2.52E-06	1.27E-03	3.92E-04	2.82E-04	5.62E-02	1.55E-02	1.06E-02	3.90E-06	9.93E-07	6.22E-07	1.33E+01	3.47E+00	2.34E+00	7.62E+00	2.54E+00	6.51E-01
PS_4	546811.35	5400952.54	Wayfare Inn		7.54E+01	1.88E+01	3.60E+00	2.09E-05	4.39E-06	2.55E-06	1.25E-03	3.84E-04	2.69E-04	5.13E-02	1.41E-02	9.54E-03	4.45E-06	1.01E-06	6.17E-07	1.22E+01	3.14E+00	2.10E+00	6.99E+00	2.34E+00	6.04E-01
PS_5	546996.35	5401027.54	Peninsula Inn		7.56E+01	1.97E+01	3.87E+00	1.87E-05	4.29E-06	2.51E-06	1.31E-03	4.03E-04	2.89E-04	5.59E-02	1.54E-02	1.05E-02	3.99E-06	9.92E-07	6.18E-07	1.33E+01	3.44E+00	2.32E+00	7.58E+00	2.54E+00	6.53E-01
PS_6	548471.36	5399488.57	Travelodge Hotel		7.90E+01	1.13E+01	2.44E+00	1.41E-05	3.54E-06	2.20E-06	1.42E-03	4.64E-04	3.55E-04	8.46E-02	2.85E-02	1.76E-02	3.13E-06	9.00E-07	6.26E-07	1.83E+01	6.02E+00	3.80E+00	6.47E+00	2.64E+00	8.11E-01
PS_7	546903.35	5401055.54	The Laughing Mooz Eatery Restaurant and Residence		7.58E+01	1.98E+01	3.95E+00	1.91E-05	4.25E-06	2.49E-06	1.37E-03	4.19E-04	2.97E-04	5.49E-02	1.53E-02	1.04E-02	4.08E-06	9.82E-07	6.13E-07	1.30E+01	3.39E+00	2.28E+00	7.36E+00	2.51E+00	6.54E-01
PW_1	545777.38	5397150.54	Kingdom Hall of Jehovah's Witnesses		7.14E+01	8.98E+00	2.50E+00	3.60E-04	1.04E-04	4.53E-05	2.14E-03	9.42E-04	7.35E-04	1.51E-02	3.95E-03	2.97E-03	7.51E-05	2.17E-05	9.47E-06	5.06E+00	2.20E+00	1.56E+00	3.50E+00	1.13E+00	5.23E-01
PW_2	546331.39	5395941.55	Parkland Pentecostal Church		5.96E+01	6.20E+00	1.07E+00	6.69E-05	1.17E-05	6.04E-06	9.56E-04	3.36E-04	2.22E-04	1.07E-02	2.95E-03	2.30E-03	1.40E-05	2.45E-06	1.28E-06	3.08E+00	8.32E-01	6.75E-01	1.75E+00	6.44E-01	1.80E-01
PW_3	545857.39	5395714.55	St. John's United Church		5.57E+01	6.15E+00	1.28E+00	8.27E-05	1.48E-05	6.96E-06	1.18E-03	4.48E-04	3.32E-04	9.50E-03	2.77E-03	2.11E-03	1.73E-05	3.11E-06	1.47E-06	2.79E+00	9.54E-01	7.09E-01	1.59E+00	6.20E-01	2.14E-01
PW_4	545425.03	5396043.49	Holy Saviour Roman Catholic Church		6.87E+01	1.81E+01	6.98E+00	1.58E-04	2.55E-05	1.41E-05	8.88E-03	3.99E-03	3.16E-03	1.02E-02	3.03E-03	2.19E-03	3.31E-05	5.35E-06	2.95E-06	4.69E+00	2.20E+00	1.66E+00	2.02E+00	1.61E+00	7.84E-01
PW_5	545390.38	5395988.55	Anglican Church-Trinity		6.96E+01	2.43E+01	7.20E+00	1.46E-04	2.37E-05	1.24E-05	1.22E-02	5.06E-03	3.43E-03	1.00E-02	2.99E-03	2.16E-03	3.05E-05	4.97E-06	2.61E-06	5.87E+00	2.40E+00	1.73E+00	1.89E+00	2.20E+00	9.37E-01
R_1	547226.37	5398095.56	Residence		8.16E+01	1.08E+01	3.15E+00	2.74E-05	7.17E-06	3.55E-06	2.45E-03	1.16E-03	8.41E-04	2.46E-02	6.57E-03	4.72E-03	5.74E-06	1.54E-06	7.85E-07	7.12E+00	2.14E+00	1.76E+00	2.74E+00	1.53E+00	5.29E-01
R_10	545421.38	5395953.55	Residence		8.18E+01	3.35E+01	1.01E+01	1.41E-04	2.17E-05	1.19E-05	1.77E-02	6.62E-03	4.89E-03	9.86E-03	2.95E-03	2.15E-03	2.94E-05	4.56E-06	2.51E-06	9.46E+00	3.26E+00	2.42E+00	1.86E+00	3.55E+00	1.26E+00
R_11	545619.39	5395877.55	Residence		7.81E+01	1.34E+01	4.00E+00	1.62E-04	2.38E-05	9.33E-06	5.06E-03	1.93E-03	1.55E-03	9.37E-03	2.92E-03	2.15E-03	3.37E-05	4.98E-06	1.97E-06	4.84E+00	1.85E+00	1.40E+00	1.59E+00	1.46E+00	5.45E-01
R_12	545831.38	5396000.55	Residence		6.88E+01	1.10E+01	3.48E+00	1.09E-04	1.95E-05	9.27E-06	3.47E-03	1.74E-03	1.15E-03	9.58E-03	3.01E-03	2.25E-03	2.27E-05	4.10E-06	1.96E-06	4.83E+00	1.78E+00	1.41E+00	1.61E+00	1.33E+00	5.48E-01
R_13	545806.92	5396173.19	Residence		8.02E+01	2.32E+01	8.82E+00	1.36E-04	2.46E-05	1.18E-05	7.83E-03	3.79E-03	3.05E-03	1.02E-02	3.17E-03	2.34E-03	2.84E-05	5.17E-06	2.49E-06	9.43E+00	4.21E+00	3.35E+00	1.63E+00	2.87E+00	1.34E+00
R_14	545827.05	5396228.86	Residence		7.63E+01	1.64E+01	5.97E+00	1.41E-04	2.34E-05	1.24E-05	5.41E-03	2.50E-03	2.03E-03	1.04E-02	3.22E-03	2.37E-03	2.95E-05	4.91E-06	2.61E-06	6.99E+00	3.01E+00	2.37E+00	1.74E+00	2.02E+00	9.25E-01
R_15	545662.38	5396175.55	Residence		6.58E+01	8.86E+00	3.22E+00	2.08E-04	3.59E-05	1.39E-05	3.02E-03	1.43E-03	1.11E-03	1.04E-02	3.20E-03	2.31E-03	4.34E-05	7.52E-06	2.93E-06	4.13E+00	1.75E+00	1.34E+00	2.02E+00	1.05E+00	4.88E-01
R_16	546254.38	5396484.55	Residence		6.18E+01	7.16E+00	1.56E+00	1.49E-04	2.35E-05	1.14E-05	1.45E-03	6.61E-04	4.01E-04	1.11E-02	3.44E-03	2.60E-03	3.12E-05	4.93E-06	2.39E-06	3.49E+00	1.12E+00	8.89E-01	2.00E+00	7.69E-01	2.71E-01
R_17	546471.38	5396506.55	Residence		6.02E+01	6.53E+00	1.23E+00	1.23E-04	1.91E-05	9.76E-06	1.08E-03	4.41E-04	2.64E-04	1.17E-02	3.49E-03	2.66E-03	2.56E-05	4.00E-06	2.06E-06	3.37E+00	1.03E+00	8.03E-01	2.00E+00	7.01E-01	2.21E-01
R_18	546601.38	5396387.56	Residence		5.99E+01	6.19E+00	1.11E+00	9.94E-05	1.60E-05	7.92E-06	9.45E-04	3.61E-04	2.16E-04	1.17E-02	3.39E-03	2.62E-03	2.07E-05	3.36E-06	1.68E-06	3.25E+00	9.42E-01	7.50E-01	1.89E+00	6.56E-01	2.04E-01
R_19	546856.39	5395580.56	Residence		6.06E+01	4.65E+00	7.39E-01	4.38E-05	7.33E-06	3.91E-06	5.86E-04	1.58E-04	9.80E-05	1.13E-02	2.81E-03	2.22E-03	9.16E-06	1.55E-06	8.36E-07	2.78E+00	7.04E-01	5.59E-01	1.41E+00	5.02E-01	1.36E-01
R_2	547273.37	5398044.56	Residence		8.06E+01	8.37E+00	1.86E+00	2.67E-05	6.71E-06	3.41E-06	1.32E-03	4.88E-04	3.57E-04	2.42E-02	6.56E-03	4.70E-03	5.58E-06	1.44E-06	7.56E-07	6.18E+00	1.69E+00	1.31E+00	2.57E+00	1.18E+00	3.27E-01
R_20	546950.39	5395533.56	Residence		6.17E+01	4.76E+00	7.22E-01	4.06E-05	6.88E-06	3.73E-06	5.23E-04	1.42E-04	9.10E-05	1.15E-02	2.80E-03	2.21E-03	8.48E-06	1.46E-06	7.99E-07	2.81E+00	7.03E-01	5.52E-01	1.45E+00	5.08E-01	1.34E-01
R_21	547201.39	5395415.56	Residence		5.76E+01	4.72E+00	6.92E-01	3.66E-05	6.31E-06	3.33E-06	3.97E-04	1.15E-04	7.80E-05	1.15E-02	2.76E-03	2.19E-03	7.63E-06	1.34E-06	7.17E-07	2.80E+00	7.01E-01	5.37E-01	1.47E+00	5.02E-01	1.32E-01
R_22	548317.36	5399654.57	Residence		7.83E+01	1.08E+01	2.09E+00	1.02E-05	3.08E-06	2.05E-06	1.08E-03	2.91E-04	2.11E-04	5.80E-02	2.02E-02	1.30E-02	2.45E-06	7.48E-07	5.51E-07	1.36E+01	4.27E+00	2.80E+00	8.76E+00	2.44E+00	5.95E-01
R_3	545809.38	5397232.54	Bergagnini Apartment Rental		7.32E+01	9.46E+00	2.62E+00	3.17E-04	8.20E-05	3.47E-05	2.29E-03	9.84E-04	7.64E-04	1.55E-02	4.02E-03	2.98E-03	6.62E-05	1.71E-05	7.27E-06	5.31E+00	2.07E+00	1.54E+00	3.12E+00	1.20E+00	5.04E-01
R_4	546092.38	5396796.55	Residence		6.35E+01	6.90E+00	1.62E+00	2.42E-04	5.26E-05	2.72E-05	1.43E-03	6.90E-04	4.48E-04	1.27E-02	3.77E-03	2.80E-03	5.06E-05	1.10E-05	5.70E-06	3.64E+00	1.45E+00	1.05E+00	2.27E+00	8.01E-01	3.28E-01
R_5	545971.38	5396489.55	Condominium		6.70E+01	1.17E+01	5.02E+00	1.88E-04	3.57E-05	1.57E-05	5.09E-03	2.75E-03	1.93E-03	1.13E-02	3.41E-03	2.54E-03	3.93E-05	7.47E-06	3.30E-06	4.41E+00	1.98E+00	1.61E+00	1.87E+00	1.22E+00	6.66E-01
R_6	545655.38	5396520.55	Residence		6.86E+01	7.39E+00	2.07E+00	3.51E-04	7.01E-05	2.99E-05	2.08E-03	8.61E-04	6.83E-04	1.21E-02	3.61E-03	2.55E-03	7.33E-05	1.47E-05	6.26E-06	4.07E+00	1.70E+00	1.13E+00	3.26E+00	8.99E-01	3.89E-01
R_7	545438.38	5396408.54	I Sew Studio and Residence		6.84E+01	1.17E+01	4.38E+00	2.90E-04	5.89E-05	3.07E-05	5.22E-03	2.64E-03	1.98E-03	1.17E-02	3.39E-03	2.41E-03	6.05E-05	1.23E-05	6.42E-06	3.89E+00	1.75E+00	1.31E+00	3.13E+00	1.08E+00	4.88E-01
R_8	545380.38	5396243.54	Bayview Apartments		6.83E+01	1.14E+01	4.29E+00	1.99E-04	4.18E-05	2.09E-05	4.99E-03	2.51E-03	1.93E-03	1.10E-02	3.20E-03	2.29E-03	4.16E-05	8.76E-06	4.38E-06	3.71E+00	1.59E+00	1.21E+00	2.30E+00	1.05E+00	4.73E-01
R_9	545290.38	5396114.54	Residence		6.83E+01	9.30E+00	2.66E+00	1.51E-04	3.47E-05	1.68E-05	3.78E-03	1.62E-03	1.07E-03	1.06E-02	3.08E-03	2.20E-03	3.14E-05	7.27E-06	3.53E-06	3.73E+00	1.42E+00	9.76E-01	1.84E+00	9.59E-01	4.08E-01
RH_1	546049.39	5395894.55	Peninsula Manor		5.92E+01	6.52E+00	1.34E+00	7.60E-05	1.23E-05	7.07E-06	1.84E-03	5.55E-04	3.42E-04	1.02E-02	2.90E-03	2.23E-03	1.59E-05	2.59E-06	1.50E-06	3.13E+00	9.38E-01	7.51E-01	1.74E+00	7.46E-01	2.24E-01
RH_2	545320.89	5396196.57	Senior's Centre		7.19E+01	1.34E+01	4.26E+00	1.73E-04	3.91E-05	1.91E-05	6.03E-03	2.72E-03	1.97E-03	1.09E-02	3.15E-03	2.25E-03	3.61E-05	8.19E-06	4.02E-06	4.23E+00	1.66E+00	1.18E+00	2.04E+00	1.24E+00	5.45E-01
S_1	546339.38	5396624.55	Holy Saviour School		6.25E+01	6.92E+00	1.33E+00	1.48E-04	2.37E-05	1.29E-05	1.09E-03	5.10E-04	3.12E-04	1.15E-02	3.60E-03	2.71E-03	3.09E-05	4.97E-06	2.71E-06	3.50E+00	1.12E+00	8.57E-01	2.07E+00	7.51E-01	2.47E-01
S_2	545633.38	5396102.55	Confederation College Northshore Campus		6.76E+01	1.14E+01	4.39E+00	2.08E-04	3.25E-05	1.27E-05	4.08E-03	2.11E-03	1.59E-03	1.02E-02	3.12E-03	2.27E-03	4.34E-05	6.80E-06	2.67E-06	4.73E+00	2.07E+00	1.62E+00	2.01E+00	1.32E+00	6.13E-01
S_3	546200.38	5396036.55	Marathon High School		5.96E+01	6.94E+00	1.34E+00	8.41E-05	1.34E-05	7.05E-06	1.22E-03	5.33E-04	3.25E-04	1.06E-02	3.02E-03	2.33E-03	1.76E-05	2.82E-06	1.49E-06	3.31E+00	9.54E-01	7.64E-01	1.83E+00	7.30E-01	2.27E-01
S_4	546261.39	5395967.55	Ecole secondaire Cite-Superieure		5.96E+01	6.51E+00	1.16E+00	7.55E-05	1.21E-05	6.42E-06	1.09E-03	3.98E-04	2.58E-04	1.06E-02	2.96E-03	2.30E-03	1.58E-05	2.55E-06	1.36E-06	3.17E+00	8.73E-01	7.04E-01	1.79E+00	6.79E-01	1.95E-01
S_5	547019.39	5395082.56	Marathon Children and Family Centre		5.85E+01	4.71E+00	6.28E-01	4.50E-05	6.34E-06	2.66E-06	3.27E-04	9.40E-05	6.30E-05	1.09E-02	2.55E-03	2.02E-03	9.42E-06	1.34E-06	5.74E-07	2.67E+00	6.41E-01	4.89E-01	1.56E+00	4.83E-01	1.20E-01
S_6	547000.39	5395035.56	Margaret Twomey Public School		5.83E+01	4.68E+00	6.22E-01	4.33E-05	6.40E-06	2.62E-06	3.25E-04	9.20E-05	6.20E-05	1.08E-02	2.52E-03	2.00E-03	9.06E-06	1.36E-06	5.66E-07	2.64E+00	6.32E-01	4.83E-01	1.55E+00	4.79E-01	1.18E-01
W_1	547291.36	5399860.55	Shack Lake (northeast)		7.73E+01	1.00E+01	2.13E+00	2.15E-05	4.10E-06	2.52E-06	8.33E-04	2.22E-04	1.68E-04	3.29E-02	1.04E-02	7.53E-03	4.54E-06	9.20E-07	5.97E-07	7.63E+00	2.37E+00	1.71E+00	3.99E+00	1.33E+00	4.11E-01
W_10	546975.32	5406486.49	Bamoos Lake (south)		5.91E+01	1.01E+01	2.06E+00	5.49E-06	1.51E-06	9.40E-07	1.01E-03	2.49E-04	1.49E-04	3.14E-02	7.51E-03	4.51E-03	1.45E-06	3.67E-07	2.42E-07	7.56E+00	1.80E+00	1.09E+00	5.27E+00	1.36E+00	3.31E-01
W_11	545484.32	5405866.49	Bamoos Lake (west)		5.25E+01	9.73E+00	1.62E+00	1.00E-05	1.63E-06	1.07E-06	8.27E-04	1.74E-04	1.07E-04	2.55E-02	6.21E-03	3.35E-03	2.13E-06	3.98E-07	2.57E-07	6.27E+00	1.52E+00	8.01E-01	4.34E+00	1.19E+00	2.82E-01
W_12	546576.32	5407157.48	Bamoos Lake (north)		5.92E+01	1.14E+01	1.90E+00	7.70E-06	1.55E-06	8.95E-07	9.77E-04	2.39E-04	1.32E-04	2.10E-02

Table F-1 Special Receptor Predictions (ug/m3) - Operations, Project Alone

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	1)	PM2.5 (See Note 2)		POTASSIUM (K)			PROPYLENE			PYRENE			SCANDIUM (SC)			SILICA			SILICON (SI)		
				Averaging Period	annual	24	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual
				Criteria	-	27	8.8	1	-	-	4000	-	-	-	-	-	-	-	-	5	-	-	27	-	-
H_1	545937.38	5396169.55	Wilson Memorial General Hospital		5.48E-01	4.19E-01	7.33E-02	5.80E-03	1.84E-03	1.38E-03	1.35E-03	2.16E-04	1.12E-04	5.12E-04	2.47E-04	1.52E-04	1.31E-05	3.93E-06	2.92E-06	1.17E+00	3.19E-01	2.39E-01	1.12E-01	1.74E-02	9.90E-03
M_1	545694	5403864	PM-10 @ Hare Lake		2.45E-01	9.61E-01	1.93E-01	1.49E-02	4.47E-03	2.70E-03	3.34E-03	5.59E-04	3.26E-04	4.86E-05	1.42E-05	8.30E-06	3.22E-05	8.98E-06	5.23E-06	3.19E+00	7.70E-01	4.43E-01	1.70E-02	5.17E-03	3.71E-03
M_2	545694	5403873	Dustfall @ Hare Lake		2.44E-01	9.52E-01	1.92E-01	1.48E-02	4.46E-03	2.70E-03	3.33E-03	5.61E-04	3.27E-04	4.86E-05	1.42E-05	8.26E-06	3.20E-05	8.98E-06	5.23E-06	3.17E+00	7.69E-01	4.43E-01	1.69E-02	5.12E-03	3.68E-03
M_3	547152	5401222	PM-10 @ Mays Gifts		5.28E-01	2.11E+00	3.60E-01	3.63E-02	1.00E-02	6.90E-03	6.00E-03	1.04E-03	5.12E-04	8.19E-05	2.40E-05	1.78E-05	7.96E-05	2.13E-05	1.43E-05	6.69E+00	1.73E+00	1.16E+00	1.92E-02	7.52E-03	5.52E-03
M_4	547147	5401216	Dustfall @ Mays Gifts		5.25E-01	2.10E+00	3.58E-01	3.62E-02	9.97E-03	6.86E-03	6.07E-03	1.04E-03	5.13E-04	8.14E-05	2.39E-05	1.77E-05	7.92E-05	2.11E-05	1.42E-05	6.65E+00	1.72E+00	1.15E+00	1.93E-02	7.50E-03	5.49E-03
M_5	551637	5402371	PM-10 @ Pic River		4.25E-01	1.57E+00	3.25E-01	2.38E-02	9.48E-03	5.89E-03	5.66E-03	9.86E-04	5.20E-04	4.47E-05	1.58E-05	9.98E-06	5.32E-05	2.13E-05	1.32E-05	4.62E+00	1.78E+00	1.10E+00	1.47E-02	4.59E-03	2.07E-03
M_6	551643	5402374	Dustfall @ Pic River		4.24E-01	1.57E+00	3.24E-01	2.37E-02	9.46E-03	5.87E-03	5.62E-03	9.82E-04	5.19E-04	4.45E-05	1.58E-05	9.97E-06	5.30E-05	2.12E-05	1.32E-05	4.60E+00	1.78E+00	1.10E+00	1.47E-02	4.58E-03	2.06E-03
M_7	549180	5399815	Dustfall @ Airport		1.56E+00	2.01E+00	1.99E-01	1.20E-01	5.32E-02	4.05E-02	4.52E-03	8.02E-04	3.35E-04	8.09E-05	3.59E-05	2.78E-05	2.72E-04	1.21E-04	9.19E-05	1.94E+01	8.75E+00	6.65E+00	1.21E-02	3.54E-03	1.97E-03
M_8	545863	5397092	Dustfall @ Field Office		4.17E-01	5.62E-01	1.56E-01	8.45E-03	2.35E-03	1.84E-03	1.69E-03	2.53E-04	1.37E-04	2.03E-04	1.07E-04	7.88E-05	1.91E-05	4.88E-06	3.51E-06	1.54E+00	4.01E-01	3.03E-01	2.74E-01	8.76E-02	4.25E-02
O_1	547181.37	5398014.56	Pic Motel		3.02E-01	6.80E-01	1.06E-01	1.32E-02	3.61E-03	2.61E-03	2.69E-03	3.81E-04	2.05E-04	1.44E-04	6.14E-05	4.48E-05	2.98E-05	8.03E-06	5.74E-06	2.34E+00	6.33E-01	4.57E-01	2.98E-02	8.24E-03	4.06E-03
O_2	545734.38	5396872.55	Marathon Harbour Inn		5.64E-01	7.04E-01	2.43E-01	8.13E-03	2.80E-03	2.12E-03	1.62E-03	2.40E-04	1.29E-04	3.36E-04	1.53E-04	1.17E-04	1.75E-05	4.57E-06	3.28E-06	1.45E+00	4.10E-01	3.18E-01	3.95E-01	2.23E-01	1.08E-01
O_3	545885.38	5396448.55	Zero-100 Motor Inn		5.39E-01	4.68E-01	8.82E-02	6.45E-03	2.01E-03	1.49E-03	1.55E-03	2.30E-04	1.19E-04	4.68E-04	2.01E-04	1.55E-04	1.46E-05	4.21E-06	3.08E-06	1.19E+00	3.47E-01	2.55E-01	1.83E-01	3.05E-02	1.58E-02
O_4	545987.37	5397640.55	OPP Station		3.25E-01	4.92E-01	1.09E-01	1.00E-02	2.56E-03	1.88E-03	1.67E-03	2.84E-04	1.57E-04	1.67E-04	7.93E-05	5.94E-05	2.27E-05	5.56E-06	3.98E-06	1.82E+00	4.52E-01	3.27E-01	1.54E-01	3.32E-02	1.39E-02
O_5	545876.38	5396072.55	Library		4.85E-01	3.99E-01	7.14E-02	5.63E-03	1.81E-03	1.34E-03	1.33E-03	2.12E-04	1.10E-04	4.08E-04	2.05E-04	1.33E-04	1.28E-05	3.82E-06	2.84E-06	1.14E+00	3.12E-01	2.33E-01	1.06E-01	1.70E-02	9.41E-03
P_1	546958.38	5396138.56	Penn Lake Park and Campground		1.26E-01	3.67E-01	7.00E-02	7.26E-03	1.87E-03	1.47E-03	1.64E-03	1.95E-04	1.13E-04	5.50E-05	1.87E-05	1.00E-05	1.65E-05	4.11E-06	3.18E-06	1.38E+00	3.35E-01	2.57E-01	5.98E-02	1.07E-02	5.43E-03
P_2	548538.41	5392862.58	Craig's Pit Provincial Nature Reserve		5.40E-02	2.53E-01	3.56E-02	5.01E-03	1.19E-03	7.55E-04	1.26E-03	1.65E-04	6.90E-05	1.41E-05	3.17E-06	1.91E-06	1.16E-05	2.65E-06	1.67E-06	1.03E+00	2.20E-01	1.35E-01	1.55E-02	2.38E-03	9.47E-04
P_3	540005	5402014	Red Sucker Point Provincial Park		5.34E-02	2.90E-01	3.79E-02	4.43E-03	1.16E-03	6.49E-04	1.04E-03	1.64E-04	8.20E-05	1.59E-05	3.98E-06	2.11E-06	9.76E-06	2.51E-06	1.39E-06	9.21E-01	2.13E-01	1.16E-01	1.73E-02	3.48E-03	1.84E-03
P_4	552770	5383776	Pukaskwa National Park		1.76E-02	1.17E-01	1.26E-02	1.98E-03	3.96E-04	2.34E-04	3.86E-04	5.60E-05	2.60E-05	6.38E-06	1.04E-06	6.31E-07	4.56E-06	8.79E-07	5.19E-07	3.92E-01	7.29E-02	4.26E-02	4.44E-03	7.94E-04	3.42E-04
PR_1	553679.44	5385895.59	Children & Family Learning Centre		1.90E-02	9.22E-02	1.35E-02	1.66E-03	3.94E-04	2.52E-04	3.18E-04	5.20E-05	2.60E-05	5.67E-06	1.25E-06	7.05E-07	3.78E-06	8.79E-07	5.59E-07	3.21E-01	7.42E-02	4.59E-02	5.02E-03	8.82E-04	3.59E-04
PR_2	554004.44	5385857.59	Pic River Elementary		1.84E-02	8.71E-02	1.30E-02	1.44E-03	3.65E-04	2.45E-04	3.11E-04	5.10E-05	2.60E-05	5.16E-06	1.14E-06	6.81E-07	3.26E-06	8.12E-07	5.41E-07	2.72E-01	6.81E-02	4.44E-02	5.11E-03	8.45E-04	3.51E-04
PR_3	553836.44	5385603.59	Pic River Private High School		1.84E-02	8.96E-02	1.31E-02	1.56E-03	3.76E-04	2.44E-04	3.03E-04	5.00E-05	2.50E-05	5.42E-06	1.19E-06	6.80E-07	3.53E-06	8.39E-07	5.40E-07	2.98E-01	7.07E-02	4.43E-02	4.81E-03	8.56E-04	3.48E-04
PR_4	553930.44	5386048.59	Pic River Health Centre		1.88E-02	8.91E-02	1.33E-02	1.48E-03	3.74E-04	2.49E-04	3.15E-04	5.20E-05	2.60E-05	5.27E-06	1.17E-06	6.95E-07	3.36E-06	8.33E-07	5.52E-07	2.81E-01	6.98E-02	4.53E-02	5.23E-03	8.57E-04	3.57E-04
PR_5	552493.44	5384782.58	BIIDAABAN Healing Lodge		1.92E-02	1.26E-01	1.37E-02	2.17E-03	4.29E-04	2.57E-04	4.44E-04	6.10E-05	2.90E-05	6.87E-06	1.12E-06	6.85E-07	4.97E-06	9.52E-07	5.68E-07	4.22E-01	7.86E-02	4.66E-02	4.74E-03	8.90E-04	3.74E-04
PR_6	552843.43	5390099.59	Residence		2.98E-02	1.45E-01	2.11E-02	2.56E-03	6.03E-04	4.00E-04	4.83E-04	8.10E-05	4.10E-05	8.20E-06	1.89E-06	1.09E-06	5.86E-06	1.35E-06	8.86E-07	5.01E-01	1.13E-01	7.25E-02	7.50E-03	1.24E-03	5.68E-04
PR_7	553761.44	5387705.59	Residence		2.16E-02	9.59E-02	1.52E-02	1.57E-03	4.26E-04	2.88E-04	3.71E-04	5.90E-05	3.00E-05	5.77E-06	1.29E-06	8.00E-07	3.56E-06	9.46E-07	6.37E-07	2.95E-01	7.83E-02	5.22E-02	5.25E-03	8.70E-04	4.24E-04
PS_1	545001.33	5404050.49	North Hare Lake Cottage		1.74E-01	7.28E-01	1.32E-01	1.06E-02	3.45E-03	2.03E-03	2.86E-03	4.56E-04	2.65E-04	3.89E-05	1.08E-05	5.99E-06	2.31E-05	7.14E-06	4.13E-06	2.02E+00	6.08E-01	3.47E-01	1.39E-02	3.77E-03	2.39E-03
PS_2	544331.34	5403100.49	South Hare Lake Cottage		1.43E-01	7.44E-01	1.06E-01	1.14E-02	3.08E-03	1.72E-03	2.90E-03	3.45E-04	1.93E-04	3.69E-05	9.21E-06	4.93E-06	2.60E-05	6.40E-06	3.54E-06	2.71E+00	5.41E-01	2.95E-01	1.29E-02	2.78E-03	2.05E-03
PS_3	547056.12	5401003.77	May's Gifts		4.53E-01	1.86E+00	3.13E-01	3.21E-02	8.75E-03	5.95E-03	5.94E-03	1.02E-03	4.94E-04	6.79E-05	2.05E-05	1.50E-05	7.08E-05	1.87E-05	1.25E-05	5.98E+00	1.53E+00	1.02E+00	2.03E-02	6.75E-03	4.71E-03
PS_4	546811.35	5400952.54	Wayfare Inn		4.15E-01	1.71E+00	2.87E-01	2.93E-02	7.93E-03	5.36E-03	5.26E-03	8.75E-04	4.28E-04	6.61E-05	2.00E-05	1.42E-05	6.44E-05	1.68E-05	1.11E-05	5.42E+00	1.37E+00	9.06E-01	2.27E-02	6.79E-03	4.81E-03
PS_5	546996.35	5401027.54	Peninsula Inn		4.53E-01	1.86E+00	3.13E-01	3.19E-02	8.70E-03	5.92E-03	5.86E-03	9.83E-04	4.79E-04	6.97E-05	2.10E-05	1.52E-05	7.02E-05	1.85E-05	1.23E-05	5.92E+00	1.51E+00	1.00E+00	2.08E-02	6.91E-03	4.88E-03
PS_6	548471.36	5399488.57	Travelodge Hotel		5.36E-01	1.41E+00	1.68E-01	4.82E-02	1.62E-02	1.00E-02	3.92E-03	6.38E-04	3.22E-04	9.89E-05	3.51E-05	2.76E-05	1.09E-04	3.66E-05	2.26E-05	8.39E+00	2.73E+00	1.69E+00	1.40E-02	3.61E-03	2.19E-03
PS_7	546903.35	5401055.54	The Laughing Mooz Eatery Restaurant and Residence		4.52E-01	1.82E+00	3.11E-01	3.13E-02	8.60E-03	5.84E-03	5.59E-03	9.26E-04	4.53E-04	7.14E-05	2.17E-05	1.56E-05	6.87E-05	1.81E-05	1.20E-05	5.77E+00	1.48E+00	9.79E-01	2.14E-02	7.09E-03	5.13E-03
PW_1	545777.38	5397150.54	Kingdom Hall of Jehovah's Witnesses		3.83E-01	7.21E-01	1.59E-01	8.64E-03	2.34E-03	1.85E-03	1.60E-03	2.52E-04	1.39E-04	1.99E-04	8.68E-05	6.63E-05	1.95E-05	4.89E-06	3.51E-06	1.57E+00	4.07E-01	3.04E-01	3.48E-01	1.01E-01	4.39E-02
PW_2	546331.39	5395941.55	Parkland Pentecostal Church		1.42E-01	4.11E-01	6.56E-02	6.18E-03	1.70E-03	1.33E-03	1.70E-03	1.81E-04	1.07E-04	7.80E-05	2.74E-05	1.80E-05	1.39E-05	3.73E-06	2.87E-06	1.22E+00	3.01E-01	2.33E-01	6.49E-02	1.14E-02	5.98E-03
PW_3	545857.39	5395714.55	St. John's United Church		1.63E-01	3.80E-01	6.36E-02	5.49E-03	1.62E-03	1.22E-03	1.35E-03	1.91E-04	1.01E-04	1.00E-04	3.68E-05	2.75E-05	1.25E-05	3.46E-06	2.62E-06	1.11E+00	2.80E-01	2.14E-01	8.02E-02	1.45E-02	6.86E-03
PW_4	545425.03	5396043.49	Holy Saviour Roman Catholic Church		6.09E-01	4.44E-01	8.20E-02	5.86E-03	1.81E-03	1.30E-03	1.46E-03	2.06E-04	1.08E-04	5.83E-04	2.59E-04	2.04E-04	1.31E-05	3.71E-06	2.69E-06	1.11E+00	3.11E-01	2.24E-01	1.54E-01	2.48E-02	1.37E-02
PW_5	545390.38	5395988.55	Anglican Church-Trinity		6.48E-01	4.17E-01	7.85E-02	5.79E-03	1.79E-03	1.28E-03	1.44E-03	2.04E-04	1.07E-04	8.38E-04	3.31E-04	2.22E-04	1.29E-05	3.67E-06	2.66E-06	1.10E+00	3.06E-01	2.20E-01	1.41E-01	2.30E-02	1.21E-02
R_1	547226.37	5398095.56	Residence		4.21E-01	6.98E-01	1.08E-01	1.40E-02	3.75E-03	2.70E-03	2.84E-03	3.97E-04	2.14E-04	2.19E-04	1.12E-04	7.99E-05	3.18E-05	8.36E-06	5.94E-06	2.45E+00	6.58E-01	4.73E-01	2.67E-02	7.35E-03	3.68E-03
R_10	545421.38	5395953.55	Residence		9.41E-01	4.10E-01	7.66E-02	5.67E-03	1.76E-03	1.27E-03	1.44E-03	2.04E-04	1.06E-04	1.25E-03	4.55E-04	3.34E-04	1.27E-05	3.64E-06	2.65E-06	1.08E+00	3.04E-01	2.19E-01	1.37E-01	2.12E-02	1.17E-02
R_11	545619.39	5395877.55	Residence		4.36E-01	3.53E-01	7.03E-02	5.40E-03	1.74E-03	1.25E-03	1.36E-03	2.04E-04	1.05E-04	4.20E-04	1.53E-04	1.26E-04	1.21E-05	3.59E-06	2.65E-06	1.02E+00	2.99E-01	2.18E-01	1.57E-01	2.31E-02	9.16E-03
R_12	545831.38	5396000.55	Residence		4.10E-01	3.88E-01	7.03E-02	5.51E-03	1.78E-03	1.31E-03	1.32E-03	2.09E-04	1.08E-04	3.38E-04	1.60E-04	1.09E-04	1.25E-05	3.74E-06	2.78E-06	1.12E+00	3.06E-01	2.28E-01	1.06E-01	1.91E-02	9.10E-03
R_13	545806.92	5396173.19	Residence		1.08E+00	3.86E-01	7.67E-02	5.85E-03	1.89E-03	1.37E-03	1.43E-03	2.17E-04	1.12E-04	8.56E-04	4.06E-04	3.27E-04	1.32E-05	3.91E-06	2.88E-06	1.10E+00	3.24E-01	2.37E-01	1.32E-01	2.40E-02	1.16E-02
R_14	545827.05	5396228.86	Residence		7.31E-01	3.93E-01	7.81E-02	5.97E-03	1.91E-03	1.39E-03	1.45E-03	2.21E-04	1.14E-04	5.79E-04	2.67E-04	2.12E-04	1.35E-05	3.98E-06	2.92E-06	1.11E+00	3.28E-01	2.41E-01	1.37E-01	2.28E-02	1.21E-02
R_15	545662.38	5396175.55	Residence		3.83E-01	4.32E-01	8.17E-02	5.96E-03	1.95E-03	1.36E-03	1.48E-03	2.16E-04	1.12E-04	2.81E-04	1.22E-04	9.81E-05	1.35E-05	3.89E-06	2.84E-06	1.11E+00	3.29E-01	2.35E-01	2.02E-01	3.49E-02	1.36E-02
R_16	546254.38	5396484.55	Residence		2.02E-01	4.71E-01	8.19E-02	6.48E-03	2.00E-03	1.52E-03	1.52E-03	2.25E-04	1.20E-04	1.26E-04	5.49E-05	3.29E-05	1.45E-05	4.31E-06	3.22E-06	1.30E+00	3.49E-01	2.63E-01	1.44E-01	2.29E-02	1.11E-02
R_17	546471.38	5396506.55	Residence		1.68E-01	4.69E-01	8.06E-02	6.78E-03	2.03E-03	1.55E-03	1.77E-03	2.15E-04	1.20E-04	9.07E-05	3.55E-05	2.10E-05	1.53E-05	4.38E-06	3.31E-06	1.35E+00	3.55E-01	2.69E-01	1.19E-01	1.85E-02	9.59E-03
R_18	546601.38	5396387.56	Residence		1.53E-01	4.43E-01	7.63E-02	6.77E-03	1.97E-03	1.52E-03	1.86E-03	1.96E-04	1.17E-04	7.77E-05	2.90E-05	1.71E-05	1.53E-05	4.27E-06	3.26E-06	1.33E+00	3.46E-01	2.65E-01	9.61E-02	1.56E-02	7.80E-03
R_19	546856.39	5395580.56	Residence		1.04E-01	3.38E-01	6.01E-02	6.51E-03	1.62E-03	1.28E-03	1.39E-03	1.79E-04	1.03E-04	4.28E-05	1.17E-05	7.00E-06	1.48E-05	3.57E-06	2.78E-06	1.25E+00	2.91E-01	2.25E-01	4.26E-02	7.27E-03	3.90E-03
R_2	547273.37	5398044.56	Residence		2.63E-01	6.92E-01	1.07E-01	1.38E-02	3.74E-03	2.69E-03	3.06E-03	3.88E-04	2.13E-04	1.06E-04	4.44E-05	3.14E-05	3.08E-05	8.34E-06	5.92E-06	2.47E+00	6.57E-01	4.71E-01	2.59E-02	6.88E-03	3.54E-03
R_20	546950.39	5395533.56	Residence		1.02E-01	3.47E-01	5.96E-02	6.58E-03	1.61E-03	1.27E-03	1.32E-03	1.83E-04	1.03E-04	3.86E-05	1.04E-05	6.42E-06	1.50E-05	3.55E-06	2.77E-06	1.27E+00	2.90E-01	2.24E-01	3.93E-02	6.80E-03	3.72E-03
R_21	547201.39	5395415.56	Residence		9.74E-02	3.44E-01	5.85E-02	6.59E-03	1.59E-03	1.26E-03	1.27E-03	1.96E-04	1.04E-04	2.85E-05	8.09E-06	5.27E-06	1.50E-05	3.49E-06	2.75E-06	1.27E+00	2.85E-01	2.23E-01	3.54E-02	6.24E-03	3.33E-03
R_22	548317.36	5399654.57	Residence		4.10E-01	1.89E+00	1.78E-01	3.31E-02	1.15E-02	7.41E-03	3.98E-03	6.23E-04	3.32E-04	6.59E-05	1.91E-05	1.42E-05	7.50E-05	2.59E-05	1.66E-05	6.30E+00	1.96E+00	1.27E+00	1.03E-02	3.30E-03	2.20E-03
R_3	545809.38	5397232.54	Bergagnini Apartment Rental		3.84E-01	6.47E-01	1.41E-01	8.87E-03	2.35E-03	1.82E-03	1.61E-03	2.57E-04	1.41E-04	2.16E-04	9.32E-05	7.11E-05	2.00E-05	4.99E-06	3.58E-06	1.61E+00	4.11E-01	3.05E-01	3.06E-01	7.95E-02	3.37E-02
R_4	546092.38	5396796.55	Residence		2.34E-01	5.20E-01	1.17E-01	7.25E-03	2.24E-03	1.69E-03	1.65E-03	2.48E-04	1.29E-04	1.00E-04	4.95E-05	3.31E-05	1.64E-05	4.66E-06	3.39E-06	1.33E+00	3.85E-01	2.85E-01	2.34E-01	5.11E-02	2.65E-02
R_5	545971.38	5396489.55	Condominium		5.06E-01	4.42E-01	8.82E-02	6.45E-03	2.00E-03	1.50E-03	1.53E-03	2.32E-04	1.20E-04	3.77E-04	2.06E-04	1.46E-04	1.46E-05	4.26E-06	3.12E-06	1.18E+00	3.47E-01	2.58E-01	1.82E-01	3.46E-02	1.53E-02
R_6	545655.38	5396520.55	Residence		2.77E-01	6.73E-01	1.14E-01	6.90E-03	2.30E-03	1.56E-03	1.58E-03	2.29E-04	1.21E-04	1.59E-04	6.60E-05	5.07E-05	1.56E-05	4.25E-06	3.06E-06	1.27E+00	3.76E-01	2.61E-01	3.40E-01	6.80E-02	2.90E-02
R_7	545438.38	5396408.54	I Sew Studio and Residence		4.16E-01	6.64E-01	1.21E-01	6.81E-03	2.14E-03	1.48E-03	1.49E-03	2.14E-04	1.16E-04	3.09E-04	1.52E-04	1.16E-04	1.49E-05	4.01E-06	2.88E-06	1.23E+00	3.51E-01	2.47E-01	2.80E-01	5.70E-02	2.98E-02
R_8	545380.38	5396243.54	Bayview Apartments		3.94E-01	4.92E-01	9.96E-02	6.40E-03	1.97E-03	1.38E-03	1.47E-03	2.09E-04	1.12E-04	3.00E-04	1.46E-04	1.14E-04	1.41E-05	3.85E-06	2.77E-06	1.16E+00	3.31E-01	2.34E-01	1.93E-01	4.06E-02	2.03E-02
R_9	545290.38	5396114.54	Residence		2.79E-01	3.97E-01	9.03E-02	6.17E-03	1.88E-03	1.31E-03	1.43E-03	2.03E-04	1.09E-04	2.47E-04	1.05E-04	6.84E-05	1.36E-05	3.73E-06	2.68E-06	1.14E+00	3.17E-01	2.25E-01	1.46E-01	3.37E-02	1.64E-02
RH_1	546049.39	5395894.55	Peninsula Manor		1.72E-01	4.12E-01	6.56E-02	5.89E-03	1.68E-03	1.29E-03	1.50E-03	1.95E-04	1.06E-04	1.47E-04	4.62E-05	2.89E-05	1.33E-05	3.65E-06	2.78E-06	1.18E+00	2.95E-01	2.26E-01	7.38E-02	1.20E-02	6.97E-03
RH_2	545320.89	5396196.57	Senior's Centre		3.91E-01	4.39E-01	9.60E-02	6.33E-03	1.93E-03	1.35E-03	1.44E-03	2.05E-04	1.10E-04	3.62E-04	1.62E-04	1.16E-04	1.39E-05	3.80E-06	2.73E-06	1.15E+00	3.25E-01	2.29E-01	1.67E-01	3.79E-02	1.87E-02
S_1	546339.38	5396624.55	Holy Saviour School		1.83E-01	4.88E-01	8.74E-02	6.70E-03	2.10E-03	1.59E-03	1.58E-03	2.32E-04	1.24E-04	9.00E-05	3.96E-05	2.42E-05	1.50E-05	4.50E-06	3.35E-06	1.34E+00	3.66E-01	2.75E-01	1.43E-01	2.31E-02	1.26E-02
S_2	545633.38	5396102.55	Confederation College Northshore Campus		4.96E-01	4.31E-01	7.87E-02	5.81E-03	1.89E-03	1.33E-03	1.46E-03	2.13E-04	1.10E-04	3.79E-04	1.77E-04	1.40E-04	1.31E-05	3.81E-06	2.79E-06	1.09E+00	3.21E-01	2.30E-01	2.01E-01	3.16E-02	1.24E-02
S_3	546200.38	5396036.55	Marathon High School		1.72E-01	4.31E-01	6.79E-02	6.16E-03	1.73E-03	1.35E-03	1.61E-03	1.96E-04	1.09E-04	1.00E-04	4.46E-05	2.77E-05	1.39E-05	3.80E-06	2.90E-06	1.23E+00	3.07E-01	2.36E-01	8.16E-02	1.31E-02	6.95E-03
S_4	546261.39	5395967.55	Ecole secondaire Cite-Superieure		1.52E-01	4.21E-01	6.62E-02	6.16E-03	1.70E-03	1.33E-03	1.66E-03	1.88E-04	1.07E-04	8.97E-05	3.23E-05	2.13E-05	1.39E-05	3.74E-06	2.87E-06	1.22E+00	3.02E-01	2.33E-01	7.32E-02	1.18E-02	6.34E-03
S_5	547019.39	5395082.56	Marathon Children and Family Centre		8.79E-02	3.32E-01	5.46E-02	6.24E-03	1.46E-03	1.16E-03	1.27E-03	1.90E-04	1.02E-04	2.00E-05	6.15E-06	4.18E-06	1.42E-05	3.25E-06	2.54E-06	1.20E+00	2.65E-01	2.06E-01	4.38E-02	6.29E-03	2.68E-03
S_6	547000.39	5395035.56	Margaret Twomey Public School		8.69E-02	3.30E-01	5.41E-02	6.18E-03	1.45E-03	1.15E-03	1.27E-03	1.89E-04	1.01E-04	1.92E-05	6.02E-06	4.10E-06	1.41E-05	3.21E-06	2.52E-06	1.19E+00	2.62E-01	2.04E-01	4.22E-02	6.35E-03	2.64E-03
W_1	547291.36	5399860.55	Shack Lake (northeast)		3.03E-01	9.31E-01	1.97E-01	1.88E-02	5.93E-03	4.28E-03	3.20E-03	7.41E-04	3.68E-04	4.48E-05	1.28E-05	9.90E-06	4.24E-05	1.31E-05	9.38E-06	3.48E+00	1.06E+00	7.57E-01	2.24E-02	4.70E-03	3.05E-03
W_10	546975.32	5406486.49	Bamoos Lake (south)		2.09E-01	1.10E+00	1.63E-01	1.79E-02	4.31E-03	2.58E-03	3.18E-03	5.49E-04	2.60E-04	4.97E-05	1.26E-05	7.63E-06	3.98E-05	9.68E-06	5.76E-06	3.46E+00	8.19E-01	4.91E-01	8.80E-03	1.94E-03	1.14E-03
W_11	545484.32	5405866.49	Bamoos Lake (west)		1.58E-01	9.47E-01	1.18E-01	1.46E-02	3.55E-03	1.91E-03	3.17E-03	7.16E-04	3.43E-04	4.07E-05	9.11E-06	5.66E-06	3.28E-05	7.87E-06	4.17E-06	2.84E+00	6.82E-01	3.53E-01	1.04E-02	2.03E-03	1.41E-03
W_12	546576.32	5407157.48	Bamoos Lake (north)		1.64E-01	6.69E-01	1.27E-01	1.21E-02	3.24E-03	1.94E-03	2.48E-03	5.33E-04	2.48E-04	4.88E-05	1.21E-05	6.77E-06	2.94E-05

Table F-1 Special Receptor Predictions (ug/m3) - Operations, Project Alone

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	SILVER (AG)			SO2				SODIUM (NA)			SODIUM CARBOXYMETHYL CELLULOSE			STRONTIUM (SR)			THALLIUM (TL)			TITANIUM (TI	
				Averaging Period	24	month	annual	1	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month
				Criteria	1	-	-	100	-	-	10	-	-	-	120	-	-	120	-	-	0.5	-	-	120	-
H_1	545937.38	5396169.55	Wilson Memorial General Hospital		1.40E-04	2.19E-05	1.25E-05	8.38E-01	1.45E-01	6.92E-02	4.27E-02	1.14E-02	3.49E-03	2.60E-03	4.30E-04	5.90E-05	3.84E-05	6.73E-04	2.06E-04	1.54E-04	9.50E-05	3.09E-05	2.27E-05	6.78E-03	2.19E-03
M_1	545694	5403864	PM-10 @ Hare Lake		1.79E-05	3.89E-06	2.58E-06	5.74E+00	2.65E-01	1.76E-02	6.55E-03	2.83E-02	7.77E-03	4.56E-03	1.20E-03	2.21E-04	1.28E-04	1.69E-03	4.80E-04	2.85E-04	2.01E-04	5.68E-05	3.41E-05	1.65E-02	5.19E-03
M_2	545694	5403873	Dustfall @ Hare Lake		1.78E-05	3.89E-06	2.58E-06	5.67E+00	2.62E-01	1.75E-02	6.53E-03	2.81E-02	7.76E-03	4.55E-03	1.19E-03	2.21E-04	1.28E-04	1.68E-03	4.79E-04	2.84E-04	2.00E-04	5.67E-05	3.40E-05	1.64E-02	5.18E-03
M_3	547152	5401222	PM-10 @ Mays Gifts		2.36E-05	6.69E-06	4.67E-06	2.82E+00	1.63E-01	2.10E-02	1.44E-02	6.64E-02	1.78E-02	1.20E-02	2.64E-03	4.54E-04	2.37E-04	4.04E-03	1.09E-03	7.43E-04	4.71E-04	1.28E-04	8.79E-05	4.29E-02	1.18E-02
M_4	547147	5401216	Dustfall @ Mays Gifts		2.35E-05	6.69E-06	4.67E-06	2.82E+00	1.63E-01	2.09E-02	1.43E-02	6.60E-02	1.77E-02	1.19E-02	2.63E-03	4.52E-04	2.36E-04	4.02E-03	1.09E-03	7.39E-04	4.69E-04	1.28E-04	8.74E-05	4.27E-02	1.17E-02
M_5	551637	5402371	PM-10 @ Pic River		2.23E-05	8.15E-06	4.10E-06	2.93E+00	1.37E-01	1.50E-02	9.79E-03	4.39E-02	1.75E-02	1.08E-02	2.96E-03	5.07E-04	2.26E-04	2.67E-03	1.06E-03	6.60E-04	3.12E-04	1.25E-04	7.73E-05	2.84E-02	1.12E-02
M_6	551643	5402374	Dustfall @ Pic River		2.22E-05	8.13E-06	4.10E-06	2.95E+00	1.38E-01	1.50E-02	9.77E-03	4.38E-02	1.75E-02	1.08E-02	2.94E-03	5.05E-04	2.25E-04	2.66E-03	1.06E-03	6.59E-04	3.11E-04	1.25E-04	7.71E-05	2.83E-02	1.12E-02
M_7	549180	5399815	Dustfall @ Airport		3.66E-05	1.84E-05	1.40E-05	1.52E+00	8.72E-02	1.95E-02	1.44E-02	2.15E-01	9.58E-02	7.29E-02	1.66E-03	2.76E-04	1.48E-04	1.32E-02	5.90E-03	4.49E-03	1.55E-03	6.92E-04	5.27E-04	1.42E-01	6.31E-02
M_8	545863	5397092	Dustfall @ Field Office		3.42E-04	1.10E-04	5.33E-05	4.98E-01	6.39E-02	3.39E-02	2.55E-02	1.57E-02	5.10E-03	3.79E-03	4.71E-04	7.80E-05	4.71E-05	9.51E-04	2.73E-04	2.10E-04	1.76E-04	7.05E-05	4.54E-05	9.95E-03	2.91E-03
O_1	547181.37	5398014.56	Pic Motel		3.73E-05	1.04E-05	5.45E-06	6.57E-01	5.80E-02	1.99E-02	1.53E-02	2.40E-02	6.59E-03	4.77E-03	7.94E-04	1.03E-04	6.98E-05	1.47E-03	4.02E-04	2.90E-04	1.72E-04	4.79E-05	3.56E-05	1.56E-02	4.27E-03
O_2	545734.38	5396872.55	Marathon Harbour Inn		4.94E-04	2.79E-04	1.36E-04	5.09E-01	1.30E-01	5.97E-02	4.58E-02	1.57E-02	7.49E-03	5.03E-03	4.43E-04	7.30E-05	4.42E-05	9.24E-04	3.44E-04	2.52E-04	2.50E-04	1.50E-04	8.28E-05	9.69E-03	3.72E-03
O_3	545885.38	5396448.55	Zero-100 Motor Inn		2.29E-04	3.83E-05	1.99E-05	8.76E-01	1.69E-01	6.96E-02	5.42E-02	1.20E-02	3.87E-03	2.86E-03	4.13E-04	6.40E-05	4.07E-05	7.28E-04	2.26E-04	1.67E-04	1.19E-04	3.64E-05	2.71E-05	7.60E-03	2.40E-03
O_4	545987.37	5397640.55	OPP Station		1.92E-04	4.17E-05	1.75E-05	4.37E-01	5.30E-02	2.46E-02	1.89E-02	1.86E-02	4.74E-03	3.56E-03	5.54E-04	9.10E-05	5.46E-05	1.13E-03	2.85E-04	2.11E-04	1.32E-04	4.41E-05	3.12E-05	1.18E-02	3.04E-03
O_5	545876.38	5396072.55	Library		1.32E-04	2.14E-05	1.19E-05	8.44E-01	1.23E-01	5.96E-02	3.83E-02	1.10E-02	3.46E-03	2.53E-03	4.18E-04	5.70E-05	3.75E-05	6.53E-04	2.03E-04	1.50E-04	8.50E-05	3.18E-05	2.20E-05	6.60E-03	2.16E-03
P_1	546958.38	5396138.56	Penn Lake Park and Campground		7.48E-05	1.35E-05	6.99E-06	7.81E-01	4.50E-02	7.65E-03	4.68E-03	1.37E-02	3.50E-03	2.72E-03	3.80E-04	6.10E-05	4.05E-05	8.26E-04	2.10E-04	1.64E-04	9.60E-05	2.77E-05	2.16E-05	8.48E-03	2.22E-03
P_2	548538.41	5392862.58	Craig's Pit Provincial Nature Reserve		1.93E-05	3.10E-06	1.30E-06	9.68E-01	4.77E-02	3.76E-03	1.49E-03	9.76E-03	2.22E-03	1.39E-03	2.72E-04	4.30E-05	2.19E-05	5.81E-04	1.34E-04	8.40E-05	6.90E-05	1.62E-05	1.02E-05	5.73E-03	1.40E-03
P_3	540005	5402014	Red Sucker Point Provincial Park		2.16E-05	4.35E-06	2.30E-06	2.63E+00	1.14E-01	6.92E-03	1.62E-03	8.35E-03	2.16E-03	1.20E-03	2.30E-04	5.00E-05	2.63E-05	5.02E-04	1.30E-04	7.20E-05	5.90E-05	1.59E-05	9.19E-06	5.10E-03	1.35E-03
P_4	552770	5383776	Pukaskwa National Park		5.58E-06	1.08E-06	4.70E-07	2.44E-01	1.10E-02	9.69E-04	4.78E-04	3.81E-03	7.43E-04	4.35E-04	7.70E-05	1.50E-05	7.86E-06	2.28E-04	4.50E-05	2.60E-05	2.70E-05	5.54E-06	3.20E-06	2.29E-03	4.67E-04
PR_1	553679.44	5385895.59	Children & Family Learning Centre		6.42E-06	1.19E-06	4.91E-07	3.72E-01	1.63E-02	1.03E-03	5.25E-04	3.16E-03	7.49E-04	4.69E-04	6.70E-05	1.40E-05	8.17E-06	1.90E-04	4.50E-05	2.80E-05	2.20E-05	5.61E-06	3.44E-06	1.92E-03	4.60E-04
PR_2	554004.44	5385857.59	Pic River Elementary		6.50E-06	1.13E-06	4.79E-07	3.65E-01	1.58E-02	1.03E-03	5.09E-04	2.71E-03	6.91E-04	4.54E-04	6.80E-05	1.40E-05	7.96E-06	1.63E-04	4.10E-05	2.70E-05	1.90E-05	5.20E-06	3.34E-06	1.68E-03	4.27E-04
PR_3	553836.44	5385603.59	Pic River Private High School		6.14E-06	1.15E-06	4.76E-07	3.41E-01	1.50E-02	9.74E-04	5.08E-04	2.95E-03	7.15E-04	4.53E-04	6.60E-05	1.30E-05	7.92E-06	1.77E-04	4.30E-05	2.70E-05	2.10E-05	5.36E-06	3.33E-06	1.81E-03	4.39E-04
PR_4	553930.44	5386048.59	Pic River Health Centre		6.65E-06	1.15E-06	4.88E-07	3.36E-01	1.46E-02	1.00E-03	5.19E-04	2.79E-03	7.09E-04	4.63E-04	6.90E-05	1.40E-05	8.10E-06	1.68E-04	4.20E-05	2.80E-05	2.00E-05	5.32E-06	3.40E-06	1.73E-03	4.38E-04
PR_5	552493.44	5384782.58	BIIDAABAN Healing Lodge		5.96E-06	1.21E-06	5.14E-07	2.42E-01	1.10E-02	1.08E-03	5.21E-04	4.13E-03	8.04E-04	4.76E-04	8.80E-05	1.60E-05	8.59E-06	2.48E-04	4.80E-05	2.90E-05	2.90E-05	6.01E-06	3.50E-06	2.52E-03	5.08E-04
PR_6	552843.43	5390099.59	Residence		9.45E-06	1.65E-06	7.81E-07	4.58E-01	2.04E-02	1.50E-03	8.05E-04	4.90E-03	1.14E-03	7.42E-04	1.07E-04	2.20E-05	1.27E-05	2.94E-04	6.80E-05	4.50E-05	3.40E-05	8.37E-06	5.45E-06	2.96E-03	7.04E-04
PR_7	553761.44	5387705.59	Residence		6.59E-06	1.17E-06	5.79E-07	5.21E-01	2.25E-02	1.33E-03	5.96E-04	2.96E-03	7.95E-04	5.34E-04	7.90E-05	1.60E-05	9.28E-06	1.78E-04	4.80E-05	3.20E-05	2.10E-05	5.87E-06	3.93E-06	1.84E-03	5.01E-04
PS_1	545001.33	5404050.49	North Hare Lake Cottage		1.64E-05	3.15E-06	2.11E-06	1.09E+00	6.38E-02	8.49E-03	4.74E-03	1.98E-02	6.12E-03	3.55E-03	9.27E-04	1.65E-04	9.70E-05	1.19E-03	3.76E-04	2.19E-04	1.39E-04	4.42E-05	2.61E-05	1.22E-02	4.02E-03
PS_2	544331.34	5403100.49	South Hare Lake Cottage		1.45E-05	2.84E-06	1.95E-06	6.52E+00	2.87E-01	1.50E-02	4.01E-03	2.29E-02	5.46E-03	3.02E-03	8.49E-04	1.28E-04	7.14E-05	1.34E-03	3.35E-04	1.86E-04	1.59E-04	3.95E-05	2.22E-05	1.26E-02	3.58E-03
PS_3	547056.12	5401003.77	May's Gifts		2.35E-05	6.71E-06	4.53E-06	2.78E+00	1.60E-01	1.82E-02	1.23E-02	5.88E-02	1.56E-02	1.05E-02	2.11E-03	4.08E-04	2.12E-04	3.58E-03	9.59E-04	6.46E-04	4.17E-04	1.13E-04	7.64E-05	3.79E-02	1.03E-02
PS_4	546811.35	5400952.54	Wayfare Inn		2.65E-05	6.68E-06	4.40E-06	2.57E+00	1.48E-01	1.71E-02	1.13E-02	5.37E-02	1.40E-02	9.37E-03	2.06E-03	3.54E-04	1.85E-04	3.27E-03	8.65E-04	5.79E-04	3.81E-04	1.02E-04	6.87E-05	3.46E-02	9.32E-03
PS_5	546996.35	5401027.54	Peninsula Inn		2.39E-05	6.70E-06	4.50E-06	2.76E+00	1.59E-01	1.82E-02	1.23E-02	5.84E-02	1.55E-02	1.04E-02	2.19E-03	3.98E-04	2.08E-04	3.56E-03	9.51E-04	6.40E-04	4.15E-04	1.12E-04	7.57E-05	3.77E-02	1.02E-02
PS_6	548471.36	5399488.57	Travelodge Hotel		1.98E-05	6.77E-06	5.23E-06	2.71E+00	1.32E-01	1.93E-02	1.31E-02	8.76E-02	2.93E-02	1.81E-02	1.19E-03	2.10E-04	1.33E-04	5.37E-03	1.80E-03	1.11E-03	6.29E-04	2.11E-04	1.31E-04	5.69E-02	1.92E-02
PS_7	546903.35	5401055.54	The Laughing Mooz Eatery Restaurant and Residence		2.45E-05	6.62E-06	4.44E-06	2.63E+00	1.52E-01	1.84E-02	1.24E-02	5.73E-02	1.52E-02	1.01E-02	2.25E-03	3.79E-04	1.99E-04	3.49E-03	9.35E-04	6.29E-04	4.07E-04	1.10E-04	7.45E-05	3.70E-02	1.01E-02
PW_1	545777.38	5397150.54	Kingdom Hall of Jehovah's Witnesses		4.35E-04	1.26E-04	5.51E-05	4.63E-01	6.45E-02	2.76E-02	2.16E-02	1.60E-02	5.27E-03	3.82E-03	4.85E-04	7.90E-05	4.76E-05	9.72E-04	2.70E-04	2.11E-04	2.24E-04	8.12E-05	4.62E-05	1.02E-02	2.90E-03
PW_2	546331.39	5395941.55	Parkland Pentecostal Church		8.15E-05	1.44E-05	7.64E-06	5.36E-01	3.49E-02	1.01E-02	7.01E-03	1.20E-02	3.14E-03	2.48E-03	4.27E-04	5.60E-05	3.72E-05	7.11E-04	1.90E-04	1.49E-04	8.90E-05	2.48E-05	2.01E-05	7.23E-03	2.01E-03
PW_3	545857.39	5395714.55	St. John's United Church		9.99E-05	1.83E-05	8.72E-06	7.05E-01	4.34E-02	1.30E-02	9.95E-03	1.07E-02	3.10E-03	2.29E-03	4.04E-04	5.10E-05	3.47E-05	6.35E-04	1.82E-04	1.37E-04	7.50E-05	2.82E-05	1.92E-05	6.35E-03	1.94E-03
PW_4	545425.03	5396043.49	Holy Saviour Roman Catholic Church		1.92E-04	3.12E-05	1.73E-05	5.88E-01	2.35E-01	1.06E-01	8.42E-02	1.11E-02	3.57E-03	2.50E-03	3.44E-04	5.90E-05	3.64E-05	6.64E-04	2.06E-04	1.46E-04	1.23E-04	3.61E-05	2.37E-05	6.92E-03	2.19E-03
PW_5	545390.38	5395988.55	Anglican Church-Trinity		1.77E-04	2.90E-05	1.53E-05	8.06E-01	3.26E-01	1.34E-01	9.13E-02	1.09E-02	3.50E-03	2.44E-03	3.40E-04	5.90E-05	3.61E-05	6.55E-04	2.02E-04	1.43E-04	1.16E-04	3.48E-05	2.26E-05	6.83E-03	2.15E-03
R_1	547226.37	5398095.56	Residence		3.36E-05	9.33E-06	4.98E-06	6.78E-01	7.60E-02	3.45E-02	2.55E-02	2.56E-02	6.85E-03	4.92E-03	8.17E-04	1.06E-04	7.21E-05	1.57E-03	4.18E-04	3.00E-04	1.83E-04	4.96E-05	3.65E-05	1.66E-02	4.44E-03
R_10	545421.38	5395953.55	Residence		1.71E-04	2.67E-05	1.47E-05	1.02E+00	4.75E-01	1.77E-01	1.31E-01	1.07E-02	3.42E-03	2.42E-03	3.30E-04	5.80E-05	3.58E-05	6.42E-04	1.99E-04	1.42E-04	1.13E-04	3.34E-05	2.22E-05	6.68E-03	2.11E-03
R_11	545619.39	5395877.55	Residence		1.95E-04	2.91E-05	1.16E-05	8.50E-01	1.41E-01	5.32E-02	4.29E-02	1.02E-02	3.42E-03	2.37E-03	3.69E-04	5.60E-05	3.55E-05	6.12E-04	1.97E-04	1.41E-04	1.00E-04	3.42E-05	2.08E-05	6.37E-03	2.10E-03
R_12	545831.38	5396000.55	Residence		1.32E-04	2.40E-05	1.15E-05	8.44E-01	1.01E-01	4.89E-02	3.29E-02	1.08E-02	3.44E-03	2.48E-03	4.09E-04	5.60E-05	3.68E-05	6.39E-04	2.01E-04	1.47E-04	7.90E-05	3.26E-05	2.15E-05	6.45E-03	2.14E-03
R_13	545806.92	5396173.19	Residence		1.65E-04	3.02E-05	1.46E-05	8.92E-01	2.26E-01	1.08E-01	8.77E-02	1.09E-02	3.69E-03	2.61E-03	4.03E-04	6.00E-05	3.82E-05	6.60E-04	2.13E-04	1.54E-04	8.80E-05	3.66E-05	2.35E-05	6.88E-03	2.27E-03
R_14	545827.05	5396228.86	Residence		1.71E-04	2.87E-05	1.53E-05	8.76E-01	1.57E-01	7.20E-02	5.84E-02	1.11E-02	3.72E-03	2.66E-03	4.07E-04	6.10E-05	3.87E-05	6.73E-04	2.16E-04	1.56E-04	9.50E-05	3.62E-05	2.41E-05	7.03E-03	2.30E-03
R_15	545662.38	5396175.55	Residence		2.51E-04	4.38E-05	1.72E-05	7.63E-01	8.62E-02	3.98E-02	3.14E-02	1.11E-02	3.92E-03	2.62E-03	3.67E-04	6.10E-05	3.79E-05	6.73E-04	2.22E-04	1.54E-04	1.27E-04	4.29E-05	2.45E-05	7.01E-03	2.36E-03
R_16	546254.38	5396484.55	Residence		1.81E-04	2.88E-05	1.41E-05	7.07E-01	4.17E-02	1.90E-02	1.20E-02	1.28E-02	3.77E-03	2.87E-03	4.84E-04	6.10E-05	4.15E-05	7.52E-04	2.25E-04	1.70E-04	9.70E-05	3.30E-05	2.52E-05	7.55E-03	2.39E-03
R_17	546471.38	5396506.55	Residence		1.48E-04	2.34E-05	1.22E-05	5.27E-01	3.73E-02	1.30E-02	8.25E-03	1.32E-02	3.82E-03	2.91E-03	4.93E-04	6.20E-05	4.22E-05	7.83E-04	2.28E-04	1.73E-04	9.90E-05	3.22E-05	2.48E-05	7.92E-03	2.42E-03
R_18	546601.38	5396387.56	Residence		1.20E-04	1.97E-05	9.95E-06	5.87E-01	3.59E-02	1.08E-02	6.93E-03	1.31E-02	3.69E-03	2.83E-03	4.64E-04	6.30E-05	4.15E-05	7.77E-04	2.21E-04	1.70E-04	9.70E-05	3.00E-05	2.34E-05	7.92E-03	2.34E-03
R_19	546856.39	5395580.56	Residence		5.32E-05	9.18E-06	5.05E-06	8.62E-01	4.97E-02	5.71E-03	3.59E-03	1.23E-02	3.01E-03	2.36E-03	3.33E-04	5.60E-05	3.63E-05	7.42E-04	1.81E-04	1.42E-04	8.70E-05	2.31E-05	1.84E-05	7.59E-03	1.91E-03
R_2	547273.37	5398044.56	Residence		3.25E-05	8.76E-06	4.81E-06	7.02E-01	5.25E-02	1.55E-02	1.17E-02	2.52E-02	6.84E-03	4.90E-03	7.98E-04	1.07E-04	7.16E-05	1.54E-03	4.17E-04	2.98E-04	1.80E-04	4.96E-05	3.63E-05	1.61E-02	4.43E-03
R_20	546950.39	5395533.56	Residence		4.91E-05	8.69E-06	4.83E-06	1.02E+00	5.11E-02	5.91E-03	3.41E-03	1.25E-02	2.99E-03	2.35E-03	3.21E-04	5.60E-05	3.62E-05	7.50E-04	1.80E-04	1.42E-04	8.80E-05	2.31E-05	1.82E-05	7.66E-03	1.90E-03
R_21	547201.39	5395415.56	Residence		4.42E-05	7.98E-06	4.35E-06	1.84E+00	8.03E-02	6.70E-03	3.05E-03	1.25E-02	2.96E-03	2.33E-03	3.13E-04	5.70E-05	3.62E-05	7.51E-04	1.78E-04	1.41E-04	8.80E-05	2.31E-05	1.79E-05	7.67E-03	1.88E-03
R_22	548317.36	5399654.57	Residence		1.95E-05	5.68E-06	4.39E-06	1.59E+00	7.85E-02	1.27E-02	9.26E-03	6.10E-02	2.09E-02	1.34E-02	1.18E-03	2.22E-04	1.45E-04	3.72E-03	1.28E-03	8.24E-04	4.35E-04	1.50E-04	9.68E-05	3.89E-02	1.36E-02
R_3	545809.38	5397232.54	Bergagnini Apartment Rental		3.83E-04	9.95E-05	4.23E-05	4.61E-01	6.90E-02	2.89E-02	2.25E-02	1.64E-02	4.87E-03	3.66E-03	4.96E-04	8.10E-05	4.87E-05	9.98E-04	2.65E-04	2.07E-04	2.00E-04	6.91E-05	4.06E-05	1.05E-02	2.81E-03
R_4	546092.38	5396796.55	Residence		2.93E-04	6.39E-05	3.32E-05	8.65E-01	4.88E-02	1.94E-02	1.31E-02	1.35E-02	4.41E-03	3.35E-03	4.55E-04	7.00E-05	4.43E-05	8.17E-04	2.53E-04	1.92E-04	1.43E-04	5.22E-05	3.52E-05	8.54E-03	2.69E-03
R_5	545971.38	5396489.55	Condominium		2.27E-04	4.34E-05	1.93E-05	8.68E-01	1.38E-01	7.48E-02	5.28E-02	1.20E-02	3.81E-03	2.89E-03	4.32E-04	6.40E-05	4.10E-05	7.27E-04	2.25E-04	1.69E-04	1.12E-04	3.51E-05	2.71E-05	7.60E-03	2.39E-03
R_6	545655.38	5396520.55	Residence		4.24E-04	8.52E-05	3.64E-05	5.83E-01	5.83E-02	2.42E-02	1.94E-02	1.31E-02	4.93E-03	3.14E-03	3.94E-04	6.70E-05	4.12E-05	7.78E-04	2.66E-04	1.77E-04	2.04E-04	6.45E-05	3.49E-05	8.12E-03	2.83E-03
R_7	545438.38	5396408.54	I Sew Studio and Residence		3.50E-04	7.15E-05	3.74E-05	4.74E-01	1.39E-01	6.94E-02	5.26E-02	1.30E-02	4.52E-03	3.01E-03	3.95E-04	6.50E-05	3.92E-05	7.73E-04	2.47E-04	1.69E-04	1.89E-04	5.68E-05	3.43E-05	8.08E-03	2.63E-03
R_8	545380.38	5396243.54	Bayview Apartments		2.41E-04	5.10E-05	2.55E-05	4.76E-01	1.33E-01	6.62E-02	5.12E-02	1.22E-02	4.04E-03	2.71E-03	3.77E-04	6.20E-05	3.77E-05	7.26E-04	2.26E-04	1.56E-04	1.38E-04	4.62E-05	2.81E-05	7.58E-03	2.40E-03
R_9	545290.38	5396114.54	Residence		1.82E-04	4.23E-05	2.06E-05	4.68E-01	1.02E-01	4.37E-02	2.91E-02	1.18E-02	3.79E-03	2.56E-03	3.67E-04	6.00E-05	3.66E-05	7.00E-04	2.14E-04	1.48E-04	1.09E-04	4.14E-05	2.52E-05	7.31E-03	2.28E-03
RH_1	546049.39	5395894.55	Peninsula Manor		9.24E-05	1.52E-05	8.86E-06	6.01E-01	5.10E-02	1.60E-02	1.03E-02	1.15E-02	3.13E-03	2.42E-03	4.29E-04	5.30E-05	3.64E-05	6.81E-04	1.87E-04	1.45E-04	8.40E-05	2.62E-05	2.02E-05	6.85E-03	2.00E-03
RH_2	545320.89	5396196.57	Senior's Centre		2.09E-04	4.77E-05	2.34E-05	4.98E-01	1.60E-01	7.20E-02	5.22E-02	1.21E-02	3.93E-03	2.64E-03	3.75E-04	6.10E-05	3.72E-05	7.17E-04	2.21E-04	1.52E-04	1.22E-04	4.43E-05	2.68E-05	7.50E-03	2.35E-03
S_1	546339.38	5396624.55	Holy Saviour School		1.79E-04	2.90E-05	1.59E-05	6.91E-01	3.85E-02	1.48E-02	9.54E-03	1.32E-02	3.98E-03	3.01E-03	5.02E-04	6.30E-05	4.30E-05	7.77E-04	2.36E-04	1.78E-04	1.16E-04	3.61E-05	2.68E-05	7.85E-03	2.51E-03
S_2	545633.38	5396102.55	Confederation College Northshore Campus		2.51E-04	3.96E-05	1.56E-05	7.67E-01	1.15E-01	5.84E-02	4.46E-02	1.09E-02	3.78E-03	2.55E-03	3.63E-04	6.00E-05	3.73E-05	6.56E-04	2.15E-04	1.50E-04	1.27E-04	4.05E-05	2.34E-05	6.84E-03	2.29E-03
S_3	546200.38	5396036.55	Marathon High School		1.02E-04	1.65E-05	8.85E-06	5.00E-01	4.65E-02	1.55E-02	9.88E-03	1.21E-02	3.21E-03	2.52E-03	4.44E-04	5.50E-05	3.77E-05	7.12E-04	1.94E-04	1.51E-04	9.00E-05	2.61E-05	2.09E-05	7.18E-03	2.06E-03
S_4	546261.39	5395967.55	Ecole secondaire Cite-Superieure		9.19E-05	1.49E-05	8.09E-06	5.17E-01	3.79E-02	1.18E-02	8.00E-03	1.20E-02	3.16E-03	2.48E-03	4.35E-04	5.50E-05	3.73E-05	7.10E-04	1.91E-04	1.49E-04	8.90E-05	2.53E-05	2.03E-05	7.20E-03	2.02E-03
S_5	547019.39	5395082.56	Marathon Children and Family Centre		5.47E-05	7.96E-06	3.51E-06	1.63E+00	7.17E-02	5.58E-03	2.61E-03	1.18E-02	2.73E-03	2.14E-03	2.88E-04	5.50E-05	3.45E-05	7.12E-04	1.64E-04	1.30E-04	8.30E-05	2.12E-05	1.63E-05	7.27E-03	1.73E-03
S_6	547000.39	5395035.56	Margaret Twomey Public School		5.26E-05	8.04E-06	3.46E-06	1.62E+00	7.10E-02	5.51E-03	2.57E-03	1.17E-02	2.70E-03	2.12E-03	2.85E-04	5.40E-05	3.42E-05	7.05E-04	1.62E-04	1.28E-04	8.20E-05	2.08E-05	1.61E-05	7.19E-03	1.71E-03
W_1	547291.36	5399860.55	Shack Lake (northeast)		2.68E-05	5.94E-06	4.15E-06	6.08E-01	3.90E-02	1.09E-02	7.69E-03	3.48E-02	1.08E-02	7.75E-03	1.25E-03	2.30E-04	1.36E-04	2.12E-03	6.60E-04	4.74E-04	2.47E-04	7.77E-05	5.61E-05	2.22E-02	7.02E-03
W_10	546975.32	5406486.49	Bamoos Lake (south)		1.14E-05	2.63E-06	1.85E-06	6.07E+00	2.71E-01	1.54E-02	5.98E-03	3.27E-02	8.05E-03	4.86E-03	1.09E-03	2.27E-04	1.05E-04	2.00E-03	4.87E-04	2.93E-04	2.33E-04	5.64E-05	3.41E-05	2.14E-02	5.09E-03
W_11	545484.32	5405866.49	Bamoos Lake (west)		1.28E-05	2.91E-06	1.81E-06	7.06E+00	3.07E-01	1.76E-02	4.72E-03	2.71E-02	6.65E-03	3.54E-03	1.12E-03	2.34E-04	1.07E-04	1.64E-03	4.00E-04	2.14E-04	1.91E-04	4.67E-05	2.52E-05	1.75E-02	4.20E-03
W_12	546576.32	5407157.48	Bamoos Lake (north)		1.02E-05	2.44E-06	1.63E-06	7.81E+00	3.43E-01	1.76E-02	5.15E-03	2.60E-02	6.24E-03	3.71E-03	7.32E-04	1.52

Table F-1 Special Receptor Predictions (ug/m3) - Operations, Project Alone

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	)	TOC			TOC (METHANE)		
				Averaging Period	annual	24	month	annual	24	month	annual
				Criteria	-	-	-	-	37330	-	-
H_1	545937.38	5396169.55	Wilson Memorial General Hospital		1.65E-03	5.15E-02	1.12E-02	8.94E-03	4.57E-02	7.31E-03	3.80E-03
M_1	545694	5403864	PM-10 @ Hare Lake		3.14E-03	1.17E-01	3.53E-02	2.08E-02	1.13E-01	1.89E-02	1.10E-02
M_2	545694	5403873	Dustfall @ Hare Lake		3.13E-03	1.17E-01	3.53E-02	2.08E-02	1.12E-01	1.90E-02	1.10E-02
M_3	547152	5401222	PM-10 @ Mays Gifts		8.11E-03	3.94E-01	8.33E-02	5.41E-02	2.03E-01	3.50E-02	1.73E-02
M_4	547147	5401216	Dustfall @ Mays Gifts		8.06E-03	3.91E-01	8.28E-02	5.38E-02	2.05E-01	3.52E-02	1.73E-02
M_5	551637	5402371	PM-10 @ Pic River		6.98E-03	2.73E-01	7.55E-02	4.45E-02	1.91E-01	3.33E-02	1.76E-02
M_6	551643	5402374	Dustfall @ Pic River		6.96E-03	2.72E-01	7.54E-02	4.44E-02	1.90E-01	3.32E-02	1.75E-02
M_7	549180	5399815	Dustfall @ Airport		4.80E-02	2.37E-01	5.13E-02	3.63E-02	1.53E-01	2.71E-02	1.13E-02
M_8	545863	5397092	Dustfall @ Field Office		2.25E-03	6.07E-02	1.40E-02	1.08E-02	5.69E-02	8.56E-03	4.63E-03
O_1	547181.37	5398014.56	Pic Motel		3.10E-03	9.41E-02	2.06E-02	1.64E-02	9.09E-02	1.29E-02	6.93E-03
O_2	545734.38	5396872.55	Marathon Harbour Inn		2.71E-03	5.69E-02	1.32E-02	1.01E-02	5.47E-02	8.09E-03	4.36E-03
O_3	545885.38	5396448.55	Zero-100 Motor Inn		1.78E-03	5.10E-02	1.20E-02	9.42E-03	5.22E-02	7.78E-03	4.02E-03
O_4	545987.37	5397640.55	OPP Station		2.25E-03	7.28E-02	1.64E-02	1.25E-02	5.65E-02	9.59E-03	5.31E-03
O_5	545876.38	5396072.55	Library		1.60E-03	5.01E-02	1.10E-02	8.72E-03	4.50E-02	7.16E-03	3.71E-03
P_1	546958.38	5396138.56	Penn Lake Park and Campground		1.74E-03	4.91E-02	1.18E-02	9.51E-03	5.54E-02	6.60E-03	3.83E-03
P_2	548538.41	5392862.58	Craig's Pit Provincial Nature Reserve		8.92E-04	3.00E-02	7.66E-03	5.20E-03	4.27E-02	5.57E-03	2.35E-03
P_3	540005	5402014	Red Sucker Point Provincial Park		7.65E-04	3.03E-02	8.30E-03	4.94E-03	3.51E-02	5.53E-03	2.78E-03
P_4	552770	5383776	Pukaskwa National Park		2.76E-04	1.38E-02	2.75E-03	1.65E-03	1.30E-02	1.90E-03	8.85E-04
PR_1	553679.44	5385895.59	Children & Family Learning Centre		2.97E-04	9.87E-03	2.52E-03	1.76E-03	1.07E-02	1.75E-03	8.89E-04
PR_2	554004.44	5385857.59	Pic River Elementary		2.88E-04	8.65E-03	2.49E-03	1.71E-03	1.05E-02	1.72E-03	8.62E-04
PR_3	553836.44	5385603.59	Pic River Private High School		2.87E-04	9.32E-03	2.46E-03	1.70E-03	1.02E-02	1.70E-03	8.61E-04
PR_4	553930.44	5386048.59	Pic River Health Centre		2.94E-04	8.88E-03	2.54E-03	1.74E-03	1.06E-02	1.75E-03	8.77E-04
PR_5	552493.44	5384782.58	BIIDAABAN Healing Lodge		3.03E-04	1.50E-02	3.02E-03	1.81E-03	1.50E-02	2.08E-03	9.66E-04
PR_6	552843.43	5390099.59	Residence		4.71E-04	1.40E-02	3.96E-03	2.73E-03	1.63E-02	2.74E-03	1.40E-03
PR_7	553761.44	5387705.59	Residence		3.40E-04	9.26E-03	2.93E-03	2.00E-03	1.25E-02	1.98E-03	9.98E-04
PS_1	545001.33	5404050.49	North Hare Lake Cottage		2.37E-03	9.11E-02	2.66E-02	1.58E-02	9.65E-02	1.54E-02	8.95E-03
PS_2	544331.34	5403100.49	South Hare Lake Cottage		2.01E-03	8.55E-02	2.24E-02	1.31E-02	9.79E-02	1.17E-02	6.53E-03
PS_3	547056.12	5401003.77	May's Gifts		7.01E-03	3.23E-01	7.40E-02	4.79E-02	2.01E-01	3.43E-02	1.67E-02
PS_4	546811.35	5400952.54	Wayfare Inn		6.31E-03	3.05E-01	6.43E-02	4.17E-02	1.78E-01	2.96E-02	1.44E-02
PS_5	546996.35	5401027.54	Peninsula Inn		6.96E-03	3.30E-01	7.23E-02	4.68E-02	1.98E-01	3.32E-02	1.62E-02
PS_6	548471.36	5399488.57	Travelodge Hotel		1.19E-02	1.68E-01	4.22E-02	3.18E-02	1.32E-01	2.15E-02	1.09E-02
PS_7	546903.35	5401055.54	The Laughing Mooz Eatery Restaurant and Residence		6.86E-03	3.33E-01	6.91E-02	4.49E-02	1.89E-01	3.13E-02	1.53E-02
PW_1	545777.38	5397150.54	Kingdom Hall of Jehovah's Witnesses		2.26E-03	6.31E-02	1.42E-02	1.09E-02	5.41E-02	8.53E-03	4.68E-03
PW_2	546331.39	5395941.55	Parkland Pentecostal Church		1.58E-03	4.98E-02	1.10E-02	8.74E-03	5.75E-02	6.12E-03	3.60E-03
PW_3	545857.39	5395714.55	St. John's United Church		1.46E-03	4.75E-02	1.01E-02	8.08E-03	4.57E-02	6.46E-03	3.43E-03
PW_4	545425.03	5396043.49	Holy Saviour Roman Catholic Church		1.56E-03	4.43E-02	1.08E-02	8.35E-03	4.92E-02	6.96E-03	3.64E-03
PW_5	545390.38	5395988.55	Anglican Church-Trinity		1.53E-03	4.40E-02	1.07E-02	8.27E-03	4.87E-02	6.91E-03	3.61E-03
R_1	547226.37	5398095.56	Residence		3.20E-03	9.68E-02	2.13E-02	1.69E-02	9.59E-02	1.34E-02	7.21E-03
R_10	545421.38	5395953.55	Residence		1.52E-03	4.27E-02	1.06E-02	8.22E-03	4.85E-02	6.89E-03	3.58E-03
R_11	545619.39	5395877.55	Residence		1.50E-03	4.51E-02	1.04E-02	8.21E-03	4.60E-02	6.89E-03	3.54E-03
R_12	545831.38	5396000.55	Residence		1.56E-03	4.91E-02	1.08E-02	8.55E-03	4.44E-02	7.04E-03	3.65E-03
R_13	545806.92	5396173.19	Residence		1.64E-03	4.91E-02	1.12E-02	8.84E-03	4.84E-02	7.34E-03	3.78E-03
R_14	545827.05	5396228.86	Residence		1.67E-03	4.98E-02	1.14E-02	8.98E-03	4.91E-02	7.45E-03	3.84E-03
R_15	545662.38	5396175.55	Residence		1.64E-03	4.60E-02	1.12E-02	8.76E-03	5.01E-02	7.31E-03	3.78E-03
R_16	546254.38	5396484.55	Residence		1.81E-03	5.68E-02	1.21E-02	9.71E-03	5.15E-02	7.62E-03	4.04E-03
R_17	546471.38	5396506.55	Residence		1.85E-03	5.74E-02	1.25E-02	9.92E-03	5.99E-02	7.26E-03	4.06E-03
R_18	546601.38	5396387.56	Residence		1.81E-03	5.41E-02	1.23E-02	9.76E-03	6.29E-02	6.62E-03	3.97E-03
R_19	546856.39	5395580.56	Residence		1.51E-03	4.42E-02	1.06E-02	8.47E-03	4.69E-02	6.03E-03	3.48E-03
R_2	547273.37	5398044.56	Residence		3.18E-03	9.42E-02	2.11E-02	1.68E-02	1.03E-01	1.31E-02	7.21E-03
R_20	546950.39	5395533.56	Residence		1.51E-03	4.38E-02	1.07E-02	8.45E-03	4.45E-02	6.19E-03	3.48E-03
R_21	547201.39	5395415.56	Residence		1.49E-03	4.69E-02	1.09E-02	8.40E-03	4.28E-02	6.63E-03	3.51E-03
R_22	548317.36	5399654.57	Residence		8.79E-03	1.66E-01	4.36E-02	3.45E-02	1.34E-01	2.11E-02	1.12E-02
R_3	545809.38	5397232.54	Bergagnini Apartment Rental		2.21E-03	6.46E-02	1.46E-02	1.11E-02	5.42E-02	8.68E-03	4.77E-03
R_4	546092.38	5396796.55	Residence		2.05E-03	5.60E-02	1.31E-02	1.03E-02	5.58E-02	8.38E-03	4.34E-03
R_5	545971.38	5396489.55	Condominium		1.80E-03	5.27E-02	1.21E-02	9.52E-03	5.16E-02	7.82E-03	4.04E-03
R_6	545655.38	5396520.55	Residence		1.89E-03	5.12E-02	1.22E-02	9.46E-03	5.35E-02	7.75E-03	4.09E-03
R_7	545438.38	5396408.54	I Sew Studio and Residence		1.80E-03	5.07E-02	1.16E-02	8.95E-03	5.02E-02	7.24E-03	3.90E-03
R_8	545380.38	5396243.54	Bayview Apartments		1.66E-03	4.83E-02	1.12E-02	8.63E-03	4.95E-02	7.05E-03	3.77E-03
R_9	545290.38	5396114.54	Residence		1.58E-03	4.71E-02	1.08E-02	8.37E-03	4.83E-02	6.85E-03	3.67E-03
RH_1	546049.39	5395894.55	Peninsula Manor		1.54E-03	5.02E-02	1.07E-02	8.51E-03	5.06E-02	6.59E-03	3.58E-03
RH_2	545320.89	5396196.57	Senior's Centre		1.62E-03	4.81E-02	1.10E-02	8.50E-03	4.86E-02	6.93E-03	3.72E-03
S_1	546339.38	5396624.55	Holy Saviour School		1.90E-03	5.88E-02	1.26E-02	1.01E-02	5.33E-02	7.84E-03	4.17E-03
S_2	545633.38	5396102.55	Confederation College Northshore Campus		1.60E-03	4.54E-02	1.10E-02	8.60E-03	4.93E-02	7.20E-03	3.72E-03
S_3	546200.38	5396036.55	Marathon High School		1.61E-03	5.18E-02	1.11E-02	8.83E-03	5.43E-02	6.63E-03	3.68E-03
S_4	546261.39	5395967.55	Ecole secondaire Cite-Superieure		1.59E-03	5.07E-02	1.10E-02	8.74E-03	5.62E-02	6.34E-03	3.62E-03
S_5	547019.39	5395082.56	Marathon Children and Family Centre		1.38E-03	4.41E-02	1.02E-02	7.91E-03	4.30E-02	6.42E-03	3.43E-03
S_6	547000.39	5395035.56	Margaret Twomey Public School		1.36E-03	4.37E-02	1.01E-02	7.84E-03	4.27E-02	6.37E-03	3.41E-03
W_1	547291.36	5399860.55	Shack Lake (northeast)		5.07E-03	1.74E-01	4.23E-02	3.17E-02	1.08E-01	2.50E-02	1.24E-02
W_10	546975.32	5406486.49	Bamoos Lake (south)		3.02E-03	1.29E-01	3.07E-02	1.73E-02	1.07E-01	1.85E-02	8.78E-03
W_11	545484.32	5405866.49	Bamoos Lake (west)		2.24E-03	1.88E-01	3.52E-02	1.53E-02	1.07E-01	2.42E-02	1.16E-02
W_12	546576.32	5407157.48	Bamoos Lake (north)		2.25E-03	9.77E-02	2.18E-02	1.26E-02	8.37E-02	1.80E-02	8.37E-03

Table F-1 Special Receptor Predictions (ug/m3) - Operations, Project Alone

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	TOLUENE			TSP (See Note 1)			TSP (See Note 2)		TUNGSTEN (W)			URANIUM (U)			VANADIUM (V)		
				Averaging Period	24	month	annual	24	month	annual	24	annual	24	month	annual	24	month	annual	24	month	annual
				Criteria	2000	-	-	-	-	-	120	60	5	-	-	0.15	-	0.03	2	-	-
H_1	545937.38	5396169.55	Wilson Memorial General Hospital		1.36E-04	2.18E-05	1.13E-05	2.00E+01	9.66E+00	6.70E+00	4.23E+00	7.99E-01	4.07E-04	1.23E-04	9.10E-05	1.52E-04	3.90E-05	2.83E-05	1.21E-03	3.79E-04	2.85E-04
M_1	545694	5403864	PM-10 @ Hare Lake		3.36E-04	5.62E-05	3.28E-05	2.06E+01	6.08E+00	3.68E+00	1.29E+01	1.95E+00	9.56E-04	2.72E-04	1.59E-04	1.92E-04	5.36E-05	3.20E-05	3.18E-03	9.81E-04	5.92E-04
M_2	545694	5403873	Dustfall @ Hare Lake		3.35E-04	5.64E-05	3.29E-05	2.04E+01	6.06E+00	3.67E+00	1.28E+01	1.94E+00	9.50E-04	2.72E-04	1.59E-04	1.91E-04	5.36E-05	3.20E-05	3.16E-03	9.78E-04	5.90E-04
M_3	547152	5401222	PM-10 @ Mays Gifts		6.03E-04	1.04E-04	5.14E-05	4.79E+01	1.33E+01	9.21E+00	2.28E+01	3.69E+00	2.43E-03	6.60E-04	4.44E-04	4.70E-04	1.25E-04	8.52E-05	7.69E-03	2.15E-03	1.49E-03
M_4	547147	5401216	Dustfall @ Mays Gifts		6.10E-04	1.05E-04	5.16E-05	4.76E+01	1.32E+01	9.16E+00	2.27E+01	3.67E+00	2.42E-03	6.56E-04	4.42E-04	4.67E-04	1.25E-04	8.47E-05	7.65E-03	2.14E-03	1.48E-03
M_5	551637	5402371	PM-10 @ Pic River		5.69E-04	9.91E-05	5.23E-05	3.11E+01	1.24E+01	7.65E+00	1.88E+01	3.87E+00	1.63E-03	6.61E-04	4.13E-04	3.20E-04	1.28E-04	7.85E-05	4.98E-03	2.00E-03	1.24E-03
M_6	551643	5402374	Dustfall @ Pic River		5.65E-04	9.87E-05	5.22E-05	3.10E+01	1.24E+01	7.63E+00	1.87E+01	3.86E+00	1.62E-03	6.60E-04	4.12E-04	3.19E-04	1.27E-04	7.83E-05	4.96E-03	1.99E-03	1.24E-03
M_7	549180	5399815	Dustfall @ Airport		4.54E-04	8.06E-05	3.36E-05	1.54E+02	6.87E+01	5.24E+01	2.67E+01	2.25E+00	8.92E-03	3.95E-03	3.01E-03	1.58E-03	7.01E-04	5.35E-04	2.55E-02	1.13E-02	8.62E-03
M_8	545863	5397092	Dustfall @ Field Office		1.69E-04	2.55E-05	1.38E-05	1.49E+01	7.21E+00	5.45E+00	5.73E+00	1.66E+00	5.97E-04	1.52E-04	1.09E-04	3.37E-04	1.21E-04	7.00E-05	1.78E-03	4.74E-04	3.57E-04
O_1	547181.37	5398014.56	Pic Motel		2.70E-04	3.83E-05	2.06E-05	2.18E+01	6.26E+00	5.02E+00	7.13E+00	1.17E+00	9.52E-04	2.53E-04	1.80E-04	1.74E-04	4.92E-05	3.76E-05	2.79E-03	7.63E-04	5.52E-04
O_2	545734.38	5396872.55	Marathon Harbour Inn		1.63E-04	2.41E-05	1.30E-05	1.82E+01	8.95E+00	6.50E+00	8.54E+00	3.00E+00	5.48E-04	1.43E-04	1.02E-04	4.82E-04	2.81E-04	1.46E-04	1.66E-03	4.63E-04	3.67E-04
O_3	545885.38	5396448.55	Zero-100 Motor Inn		1.55E-04	2.32E-05	1.20E-05	1.88E+01	7.61E+00	5.94E+00	4.91E+00	9.54E-01	4.56E-04	1.32E-04	9.60E-05	2.22E-04	5.09E-05	3.61E-05	1.36E-03	4.10E-04	3.03E-04
O_4	545987.37	5397640.55	OPP Station		1.68E-04	2.86E-05	1.58E-05	1.84E+01	6.10E+00	4.68E+00	5.22E+00	1.18E+00	7.11E-04	1.74E-04	1.24E-04	2.02E-04	6.31E-05	3.89E-05	2.12E-03	5.37E-04	3.90E-04
O_5	545876.38	5396072.55	Library		1.34E-04	2.13E-05	1.11E-05	1.87E+01	8.05E+00	5.93E+00	4.02E+00	7.78E-01	3.96E-04	1.19E-04	8.90E-05	1.30E-04	4.14E-05	2.73E-05	1.18E-03	3.70E-04	2.77E-04
P_1	546958.38	5396138.56	Penn Lake Park and Campground		1.65E-04	1.96E-05	1.14E-05	9.72E+00	2.75E+00	2.18E+00	3.96E+00	7.67E-01	5.03E-04	1.28E-04	9.90E-05	9.80E-05	3.36E-05	2.45E-05	1.52E-03	3.91E-04	3.07E-04
P_2	548538.41	5392862.58	Craig's Pit Provincial Nature Reserve		1.27E-04	1.66E-05	6.98E-06	6.68E+00	1.59E+00	1.01E+00	2.97E+00	3.93E-01	3.52E-04	8.20E-05	5.20E-05	6.90E-05	1.68E-05	1.06E-05	1.05E-03	2.50E-04	1.59E-04
P_3	540005	5402014	Red Sucker Point Provincial Park		1.04E-04	1.65E-05	8.26E-06	5.93E+00	1.57E+00	8.87E-01	3.32E+00	4.06E-01	2.91E-04	7.60E-05	4.30E-05	5.90E-05	1.66E-05	9.99E-06	9.34E-04	2.44E-04	1.37E-04
P_4	552770	5383776	Pukaskwa National Park		3.90E-05	5.66E-06	2.63E-06	2.62E+00	5.30E-01	3.12E-01	1.20E+00	1.38E-01	1.40E-04	2.70E-05	1.60E-05	2.70E-05	5.96E-06	3.36E-06	4.16E-04	8.30E-05	4.90E-05
PR_1	553679.44	5385895.59	Children & Family Learning Centre		3.20E-05	5.19E-06	2.65E-06	2.20E+00	5.32E-01	3.37E-01	9.75E-01	1.47E-01	1.16E-04	2.70E-05	1.70E-05	2.20E-05	6.06E-06	3.61E-06	3.49E-04	8.20E-05	5.30E-05
PR_2	554004.44	5385857.59	Pic River Elementary		3.10E-05	5.10E-06	2.57E-06	1.90E+00	4.93E-01	3.26E-01	8.54E-01	1.41E-01	1.00E-04	2.50E-05	1.70E-05	1.90E-05	5.63E-06	3.50E-06	3.03E-04	7.60E-05	5.10E-05
PR_3	553836.44	5385603.59	Pic River Private High School		3.00E-05	5.06E-06	2.56E-06	2.06E+00	5.08E-01	3.25E-01	8.98E-01	1.42E-01	1.08E-04	2.60E-05	1.70E-05	2.10E-05	5.79E-06	3.49E-06	3.27E-04	7.90E-05	5.10E-05
PR_4	553930.44	5386048.59	Pic River Health Centre		3.20E-05	5.19E-06	2.61E-06	1.96E+00	5.05E-01	3.33E-01	8.75E-01	1.44E-01	1.03E-04	2.60E-05	1.70E-05	2.00E-05	5.76E-06	3.57E-06	3.12E-04	7.80E-05	5.20E-05
PR_5	552493.44	5384782.58	BIIDAABAN Healing Lodge		4.50E-05	6.18E-06	2.87E-06	2.86E+00	5.75E-01	3.42E-01	1.29E+00	1.50E-01	1.53E-04	2.90E-05	1.80E-05	3.00E-05	6.49E-06	3.68E-06	4.55E-04	9.00E-05	5.40E-05
PR_6	552843.43	5390099.59	Residence		4.90E-05	8.15E-06	4.15E-06	3.39E+00	8.11E-01	5.33E-01	1.52E+00	2.29E-01	1.79E-04	4.20E-05	2.70E-05	3.40E-05	8.81E-06	5.72E-06	5.38E-04	1.27E-04	8.40E-05
PR_7	553761.44	5387705.59	Residence		3.70E-05	5.89E-06	2.97E-06	2.08E+00	5.69E-01	3.85E-01	9.40E-01	1.65E-01	1.10E-04	2.90E-05	2.00E-05	2.10E-05	6.30E-06	4.13E-06	3.31E-04	8.90E-05	6.10E-05
PS_1	545001.33	5404050.49	North Hare Lake Cottage		2.87E-04	4.58E-05	2.66E-05	1.42E+01	4.67E+00	2.74E+00	7.26E+00	1.35E+00	6.87E-04	2.17E-04	1.26E-04	1.35E-04	4.23E-05	2.53E-05	2.24E-03	7.53E-04	4.38E-04
PS_2	544331.34	5403100.49	South Hare Lake Cottage		2.91E-04	3.47E-05	1.94E-05	1.58E+01	4.13E+00	2.31E+00	1.01E+01	1.11E+00	7.67E-04	1.95E-04	1.08E-04	1.51E-04	3.81E-05	2.18E-05	2.42E-03	6.62E-04	3.70E-04
PS_3	547056.12	5401003.77	May's Gifts		5.97E-04	1.02E-04	4.97E-05	4.21E+01	1.16E+01	7.93E+00	2.07E+01	3.27E+00	2.17E-03	5.81E-04	3.88E-04	4.18E-04	1.11E-04	7.48E-05	6.78E-03	1.87E-03	1.28E-03
PS_4	546811.35	5400952.54	Wayfare Inn		5.29E-04	8.80E-05	4.30E-05	3.86E+01	1.05E+01	7.17E+00	1.86E+01	2.96E+00	1.97E-03	5.19E-04	3.46E-04	3.81E-04	9.93E-05	6.71E-05	6.19E-03	1.70E-03	1.16E-03
PS_5	546996.35	5401027.54	Peninsula Inn		5.89E-04	9.89E-05	4.82E-05	4.19E+01	1.15E+01	7.89E+00	2.04E+01	3.24E+00	2.15E-03	5.74E-04	3.83E-04	4.15E-04	1.10E-04	7.39E-05	6.74E-03	1.86E-03	1.27E-03
PS_6	548471.36	5399488.57	Travelodge Hotel		3.94E-04	6.41E-05	3.23E-05	6.43E+01	2.19E+01	1.38E+01	1.79E+01	1.87E+00	3.53E-03	1.18E-03	7.27E-04	6.36E-04	2.13E-04	1.33E-04	1.02E-02	3.44E-03	2.13E-03
PS_7	546903.35	5401055.54	The Laughing Mooz Eatery Restaurant and Residence		5.61E-04	9.31E-05	4.55E-05	4.12E+01	1.14E+01	7.81E+00	1.97E+01	3.18E+00	2.10E-03	5.62E-04	3.74E-04	4.06E-04	1.07E-04	7.23E-05	6.62E-03	1.85E-03	1.26E-03
PW_1	545777.38	5397150.54	Kingdom Hall of Jehovah's Witnesses		1.61E-04	2.54E-05	1.39E-05	1.80E+01	6.57E+00	5.09E+00	7.47E+00	1.69E+00	6.11E-04	1.53E-04	1.09E-04	4.28E-04	1.40E-04	7.17E-05	1.82E-03	4.76E-04	3.58E-04
PW_2	546331.39	5395941.55	Parkland Pentecostal Church		1.71E-04	1.82E-05	1.07E-05	9.35E+00	2.78E+00	2.24E+00	4.32E+00	7.17E-01	4.17E-04	1.16E-04	9.00E-05	1.12E-04	3.02E-05	2.34E-05	1.28E-03	3.56E-04	2.78E-04
PW_3	545857.39	5395714.55	St. John's United Church		1.36E-04	1.92E-05	1.02E-05	9.13E+00	3.12E+00	2.37E+00	3.87E+00	6.94E-01	3.68E-04	1.08E-04	8.20E-05	9.80E-05	3.64E-05	2.30E-05	1.14E-03	3.34E-04	2.54E-04
PW_4	545425.03	5396043.49	Holy Saviour Roman Catholic Church		1.46E-04	2.07E-05	1.08E-05	1.57E+01	7.23E+00	5.42E+00	4.56E+00	8.83E-01	4.07E-04	1.16E-04	8.40E-05	2.12E-04	5.04E-05	3.15E-05	1.23E-03	3.65E-04	2.65E-04
PW_5	545390.38	5395988.55	Anglican Church-Trinity		1.45E-04	2.06E-05	1.08E-05	1.96E+01	7.98E+00	5.68E+00	4.30E+00	8.45E-01	4.02E-04	1.14E-04	8.30E-05	1.97E-04	4.81E-05	2.94E-05	1.21E-03	3.60E-04	2.61E-04
R_1	547226.37	5398095.56	Residence		2.85E-04	3.99E-05	2.15E-05	2.54E+01	7.86E+00	6.52E+00	7.32E+00	1.19E+00	1.02E-03	2.63E-04	1.87E-04	1.86E-04	5.08E-05	3.82E-05	2.98E-03	7.94E-04	5.71E-04
R_10	545421.38	5395953.55	Residence		1.44E-04	2.05E-05	1.07E-05	3.24E+01	1.10E+01	8.18E+00	4.22E+00	8.26E-01	3.95E-04	1.13E-04	8.20E-05	1.92E-04	4.55E-05	2.88E-05	1.19E-03	3.56E-04	2.60E-04
R_11	545619.39	5395877.55	Residence		1.37E-04	2.05E-05	1.05E-05	1.72E+01	6.29E+00	4.90E+00	3.62E+00	7.63E-01	3.77E-04	1.12E-04	8.30E-05	1.91E-04	4.75E-05	2.59E-05	1.13E-03	3.52E-04	2.59E-04
R_12	545831.38	5396000.55	Residence		1.32E-04	2.10E-05	1.09E-05	1.72E+01	6.36E+00	5.03E+00	3.90E+00	7.66E-01	3.87E-04	1.17E-04	8.70E-05	1.28E-04	4.34E-05	2.66E-05	1.16E-03	3.64E-04	2.71E-04
R_13	545806.92	5396173.19	Residence		1.44E-04	2.19E-05	1.13E-05	3.53E+01	1.58E+01	1.26E+01	3.87E+00	8.31E-01	4.13E-04	1.22E-04	9.00E-05	1.61E-04	5.03E-05	3.00E-05	1.23E-03	3.83E-04	2.82E-04
R_14	545827.05	5396228.86	Residence		1.46E-04	2.22E-05	1.14E-05	2.57E+01	1.12E+01	8.71E+00	4.07E+00	8.46E-01	4.21E-04	1.24E-04	9.10E-05	1.67E-04	4.93E-05	3.09E-05	1.26E-03	3.88E-04	2.86E-04
R_15	545662.38	5396175.55	Residence		1.49E-04	2.18E-05	1.12E-05	1.44E+01	6.10E+00	4.66E+00	4.37E+00	8.82E-01	4.20E-04	1.21E-04	8.90E-05	2.44E-04	6.30E-05	3.22E-05	1.26E-03	3.86E-04	2.79E-04
R_16	546254.38	5396484.55	Residence		1.53E-04	2.27E-05	1.20E-05	1.05E+01	3.69E+00	2.95E+00	4.82E+00	8.92E-01	4.38E-04	1.35E-04	1.01E-04	1.78E-04	4.60E-05	3.14E-05	1.33E-03	4.15E-04	3.14E-04
R_17	546471.38	5396506.55	Residence		1.78E-04	2.16E-05	1.21E-05	1.01E+01	3.33E+00	2.64E+00	4.89E+00	8.79E-01	4.54E-04	1.37E-04	1.04E-04	1.48E-04	4.19E-05	3.01E-05	1.40E-03	4.21E-04	3.22E-04
R_18	546601.38	5396387.56	Residence		1.87E-04	1.97E-05	1.18E-05	9.84E+00	3.08E+00	2.48E+00	4.69E+00	8.33E-01	4.58E-04	1.33E-04	1.02E-04	1.21E-04	3.87E-05	2.78E-05	1.40E-03	4.09E-04	3.16E-04
R_19	546856.39	5395580.56	Residence		1.40E-04	1.80E-05	1.03E-05	8.70E+00	2.27E+00	1.84E+00	3.52E+00	6.59E-01	4.50E-04	1.11E-04	8.70E-05	9.20E-05	2.68E-05	2.04E-05	1.37E-03	3.39E-04	2.68E-04
R_2	547273.37	5398044.56	Residence		3.08E-04	3.90E-05	2.15E-05	2.13E+01	5.91E+00	4.61E+00	7.31E+00	1.18E+00	9.85E-04	2.63E-04	1.86E-04	1.80E-04	5.09E-05	3.79E-05	2.92E-03	7.91E-04	5.68E-04
R_20	546950.39	5395533.56	Residence		1.33E-04	1.84E-05	1.04E-05	8.77E+00	2.25E+00	1.82E+00	3.62E+00	6.54E-01	4.56E-04	1.10E-04	8.70E-05	9.10E-05	2.66E-05	2.02E-05	1.38E-03	3.37E-04	2.67E-04
R_21	547201.39	5395415.56	Residence		1.27E-04	1.97E-05	1.05E-05	8.74E+00	2.24E+00	1.77E+00	3.64E+00	6.44E-01	4.60E-04	1.08E-04	8.60E-05	8.80E-05	2.60E-05	1.96E-05	1.38E-03	3.33E-04	2.65E-04
R_22	548317.36	5399654.57	Residence		4.00E-04	6.27E-05	3.34E-05	4.39E+01	1.52E+01	9.87E+00	2.45E+01	1.97E+00	2.37E-03	8.31E-04	5.30E-04	4.39E-04	1.51E-04	9.81E-05	7.00E-03	2.45E-03	1.57E-03
R_3	545809.38	5397232.54	Bergagnini Apartment Rental		1.61E-04	2.58E-05	1.42E-05	1.90E+01	6.47E+00	5.18E+00	6.67E+00	1.50E+00	6.28E-04	1.56E-04	1.12E-04	3.80E-04	1.15E-04	6.01E-05	1.87E-03	4.85E-04	3.60E-04
R_4	546092.38	5396796.55	Residence		1.66E-04	2.50E-05	1.29E-05	1.07E+01	4.33E+00	3.27E+00	5.26E+00	1.26E+00	5.14E-04	1.46E-04	1.06E-04	2.80E-04	8.02E-05	5.05E-05	1.53E-03	4.55E-04	3.38E-04
R_5	545971.38	5396489.55	Condominium		1.54E-04	2.33E-05	1.20E-05	1.46E+01	6.87E+00	5.53E+00	4.45E+00	9.54E-01	4.56E-04	1.33E-04	9.80E-05	2.19E-04	5.38E-05	3.58E-05	1.36E-03	4.12E-04	3.07E-04
R_6	545655.38	5396520.55	Residence		1.59E-04	2.31E-05	1.22E-05	1.20E+01	4.97E+00	3.53E+00	6.84E+00	1.22E+00	4.86E-04	1.33E-04	9.60E-05	4.03E-04	1.04E-04	5.16E-05	1.45E-03	4.35E-04	3.08E-04
R_7	545438.38	5396408.54	I Sew Studio and Residence		1.49E-04	2.16E-05	1.16E-05	1.24E+01	5.13E+00	3.95E+00	6.73E+00	1.30E+00	4.64E-04	1.25E-04	9.00E-05	3.53E-04	9.01E-05	5.15E-05	1.41E-03	4.09E-04	2.91E-04
R_8	545380.38	5396243.54	Bayview Apartments		1.47E-04	2.10E-05	1.12E-05	1.19E+01	4.84E+00	3.74E+00	4.99E+00	1.07E+00	4.38E-04	1.20E-04	8.60E-05	2.50E-04	6.98E-05	3.97E-05	1.33E-03	3.87E-04	2.76E-04
R_9	545290.38	5396114.54	Residence		1.44E-04	2.04E-05	1.09E-05	1.20E+01	4.42E+00	3.09E+00	4.24E+00	9.68E-01	4.22E-04	1.16E-04	8.40E-05	1.94E-04	6.09E-05	3.46E-05	1.28E-03	3.72E-04	2.66E-04
RH_1	546049.39	5395894.55	Peninsula Manor		1.51E-04	1.96E-05	1.06E-05	1.05E+01	3.13E+00	2.52E+00	4.23E+00	7.17E-01	3.93E-04	1.14E-04	8.70E-05	1.18E-04	3.22E-05	2.40E-05	1.22E-03	3.50E-04	2.69E-04
RH_2	545320.89	5396196.57	Senior's Centre		1.45E-04	2.06E-05	1.11E-05	1.34E+01	5.10E+00	3.65E+00	4.46E+00	1.03E+00	4.32E-04	1.18E-04	8.50E-05	2.19E-04	6.63E-05	3.75E-05	1.31E-03	3.80E-04	2.71E-04
S_1	546339.38	5396624.55	Holy Saviour School		1.59E-04	2.33E-05	1.24E-05	1.04E+01	3.57E+00	2.79E+00	5.00E+00	9.48E-01	4.58E-04	1.41E-04	1.05E-04	1.83E-04	4.84E-05	3.39E-05	1.39E-03	4.34E-04	3.28E-04
S_2	545633.38	5396102.55	Confederation College Northshore Campus		1.47E-04	2.14E-05	1.11E-05	1.67E+01	7.35E+00	5.72E+00	4.35E+00	8.51E-01	4.09E-04	1.19E-04	8.70E-05	2.44E-04	5.87E-05	3.05E-05	1.22E-03	3.77E-04	2.73E-04
S_3	546200.38	5396036.55	Marathon High School		1.62E-04	1.97E-05	1.09E-05	1.01E+01	3.22E+00	2.57E+00	4.45E+00	7.42E-01	4.11E-04	1.19E-04	9.10E-05	1.30E-04	3.17E-05	2.47E-05	1.27E-03	3.64E-04	2.81E-04
S_4	546261.39	5395967.55	Ecole secondaire Cite-Superieure		1.67E-04	1.89E-05	1.08E-05	9.62E+00	2.93E+00	2.35E+00	4.39E+00	7.25E-01	4.13E-04	1.17E-04	9.00E-05	1.21E-04	3.05E-05	2.38E-05	1.27E-03	3.58E-04	2.78E-04
S_5	547019.39	5395082.56	Marathon Children and Family Centre		1.28E-04	1.91E-05	1.02E-05	8.29E+00	2.04E+00	1.60E+00	3.49E+00	6.00E-01	4.34E-04	1.01E-04	7.90E-05	8.40E-05	2.36E-05	1.77E-05	1.31E-03	3.07E-04	2.44E-04
S_6	547000.39	5395035.56	Margaret Twomey Public School		1.27E-04	1.90E-05	1.01E-05	8.21E+00	2.02E+00	1.59E+00	3.46E+00	5.94E-01	4.29E-04	1.00E-04	7.80E-05	8.30E-05	2.32E-05	1.74E-05	1.30E-03	3.04E-04	2.41E-04
W_1	547291.36	5399860.55	Shack Lake (northeast)		3.22E-04	7.45E-05	3.70E-05	2.46E+01	7.82E+00	5.71E+00	9.74E+00	2.18E+00	1.32E-03	4.11E-04	2.93E-04	2.49E-04	7.86E-05	5.68E-05	3.96E-03	1.26E-03	9.09E-04
W_10	546975.32	5406486.49	Bamoos Lake (south)		3.20E-04	5.52E-05	2.61E-05	2.34E+01	5.62E+00	3.39E+00	1.49E+01	1.78E+00	1.23E-03	2.94E-04	1.73E-04	2.35E-04	5.68E-05	3.40E-05	3.78E-03	9.04E-04	5.42E-04
W_11	545484.32	5405866.49	Bamoos Lake (west)		3.19E-04	7.20E-05	3.45E-05	1.91E+01	4.67E+00	2.54E+00	1.12E+01	1.22E+00	1.00E-03	2.36E-04	1.25E-04	1.94E-04	4.67E-05	2.51E-05	3.07E-03	7.48E-04	4.04E-04
W_12	546576.32	5407157.48	Bamoos Lake (north)		2.49E-04	5.36E-05	2.49E-05	1.66E+01	4.28E+00	2.58E+00	1.09E+01	1.30E+00	8.50E-04	2.21E-04	1.30E-04	1.67E-04	4.31E-05	2.59E-05	2.51E-03	6.78E-04	4.08E-04

Table F-1 Special Receptor Predictions (ug/m3) - Operations, Project Alone

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	XYLENES				ZINC (ZN)			DUSTFALL (g/m2)		
				Averaging Period	10-Min	24	month	annual	24	month	annual	24	month	annual
				Criteria	3000	730	-	-	120	-	-		7	
H_1	545937.38	5396169.55	Wilson Memorial General Hospital		3.78E-03	9.30E-05	1.50E-05	7.77E-06	2.45E-03	4.60E-04	3.01E-04	3.42E-02	4.85E-01	4.90E+00
M_1	545694	5403864	PM-10 @ Hare Lake		6.10E-03	2.31E-04	3.86E-05	2.26E-05	1.20E-03	3.35E-04	2.12E-04	1.60E-02	1.97E-01	1.64E+00
M_2	545694	5403873	Dustfall @ Hare Lake		6.08E-03	2.30E-04	3.88E-05	2.26E-05	1.20E-03	3.35E-04	2.12E-04	1.60E-02	1.96E-01	1.63E+00
M_3	547152	5401222	PM-10 @ Mays Gifts		7.98E-03	4.15E-04	7.17E-05	3.54E-05	2.73E-03	7.36E-04	5.16E-04	4.84E-02	6.03E-01	5.18E+00
M_4	547147	5401216	Dustfall @ Mays Gifts		8.03E-03	4.19E-04	7.20E-05	3.55E-05	2.71E-03	7.32E-04	5.13E-04	4.84E-02	5.99E-01	5.15E+00
M_5	551637	5402371	PM-10 @ Pic River		8.19E-03	3.91E-04	6.82E-05	3.60E-05	1.90E-03	7.51E-04	4.51E-04	4.44E-02	4.67E-01	4.25E+00
M_6	551643	5402374	Dustfall @ Pic River		8.20E-03	3.89E-04	6.79E-05	3.59E-05	1.89E-03	7.50E-04	4.50E-04	4.43E-02	4.66E-01	4.24E+00
M_7	549180	5399815	Dustfall @ Airport		6.67E-03	3.12E-04	5.54E-05	2.31E-05	8.41E-03	3.77E-03	2.88E-03	1.85E-01	3.68E+00	3.68E+01
M_8	545863	5397092	Dustfall @ Field Office		4.12E-03	1.17E-04	1.75E-05	9.47E-06	5.99E-03	1.98E-03	1.02E-03	5.02E-02	5.10E-01	5.15E+00
O_1	547181.37	5398014.56	Pic Motel		5.41E-03	1.86E-04	2.64E-05	1.42E-05	1.00E-03	3.43E-04	2.61E-04	2.46E-02	3.53E-01	2.95E+00
O_2	545734.38	5396872.55	Marathon Harbour Inn		4.00E-03	1.12E-04	1.66E-05	8.93E-06	8.61E-03	4.91E-03	2.43E-03	1.00E-01	1.30E+00	1.25E+01
O_3	545885.38	5396448.55	Zero-100 Motor Inn		3.93E-03	1.07E-04	1.59E-05	8.23E-06	3.99E-03	7.27E-04	4.33E-04	5.55E-02	5.20E-01	4.90E+00
O_4	545987.37	5397640.55	OPP Station		4.38E-03	1.16E-04	1.96E-05	1.09E-05	3.43E-03	8.44E-04	4.18E-04	2.36E-02	3.56E-01	3.26E+00
O_5	545876.38	5396072.55	Library		3.73E-03	9.20E-05	1.47E-05	7.60E-06	2.32E-03	4.79E-04	2.89E-04	3.05E-02	4.36E-01	4.17E+00
P_1	546958.38	5396138.56	Penn Lake Park and Campground		3.92E-03	1.13E-04	1.35E-05	7.85E-06	1.33E-03	3.40E-04	2.13E-04	1.32E-02	1.38E-01	1.00E+00
P_2	548538.41	5392862.58	Craig's Pit Provincial Nature Reserve		3.10E-03	8.70E-05	1.14E-05	4.80E-06	4.40E-04	1.17E-04	7.10E-05	7.04E-03	4.86E-02	3.32E-01
P_3	540005	5402014	Red Sucker Point Provincial Park		2.62E-03	7.20E-05	1.13E-05	5.68E-06	4.66E-04	1.21E-04	8.10E-05	5.25E-03	4.06E-02	2.90E-01
P_4	552770	5383776	Pukaskwa National Park		1.27E-03	2.70E-05	3.89E-06	1.81E-06	1.58E-04	4.40E-05	2.30E-05	1.95E-03	1.30E-02	8.74E-02
PR_1	553679.44	5385895.59	Children & Family Learning Centre		1.05E-03	2.20E-05	3.57E-06	1.82E-06	1.51E-04	4.60E-05	2.50E-05	2.74E-03	1.28E-02	9.90E-02
PR_2	554004.44	5385857.59	Pic River Elementary		1.08E-03	2.20E-05	3.51E-06	1.76E-06	1.43E-04	4.30E-05	2.40E-05	2.64E-03	1.21E-02	9.57E-02
PR_3	553836.44	5385603.59	Pic River Private High School		1.04E-03	2.10E-05	3.48E-06	1.76E-06	1.43E-04	4.40E-05	2.40E-05	2.66E-03	1.22E-02	9.51E-02
PR_4	553930.44	5386048.59	Pic River Health Centre		1.09E-03	2.20E-05	3.57E-06	1.80E-06	1.47E-04	4.40E-05	2.40E-05	2.69E-03	1.24E-02	9.81E-02
PR_5	552493.44	5384782.58	BIIDAABAN Healing Lodge		1.35E-03	3.10E-05	4.25E-06	1.98E-06	1.77E-04	4.80E-05	2.50E-05	2.21E-03	1.46E-02	9.74E-02
PR_6	552843.43	5390099.59	Residence		1.61E-03	3.30E-05	5.61E-06	2.86E-06	2.21E-04	6.10E-05	3.90E-05	3.94E-03	2.07E-02	1.64E-01
PR_7	553761.44	5387705.59	Residence		1.24E-03	2.60E-05	4.05E-06	2.04E-06	1.53E-04	4.70E-05	2.80E-05	2.92E-03	1.43E-02	1.16E-01
PS_1	545001.33	5404050.49	North Hare Lake Cottage		5.39E-03	1.98E-04	3.15E-05	1.83E-05	7.98E-04	2.61E-04	1.64E-04	1.27E-02	1.36E-01	1.09E+00
PS_2	544331.34	5403100.49	South Hare Lake Cottage		4.96E-03	2.00E-04	2.39E-05	1.34E-05	9.02E-04	2.33E-04	1.42E-04	1.26E-02	1.34E-01	9.53E-01
PS_3	547056.12	5401003.77	May's Gifts		7.67E-03	4.11E-04	7.03E-05	3.42E-05	2.41E-03	6.49E-04	4.55E-04	4.21E-02	5.16E-01	4.33E+00
PS_4	546811.35	5400952.54	Wayfare Inn		7.39E-03	3.64E-04	6.05E-05	2.96E-05	2.21E-03	5.88E-04	4.15E-04	5.56E-02	4.71E-01	3.91E+00
PS_5	546996.35	5401027.54	Peninsula Inn		7.64E-03	4.05E-04	6.80E-05	3.31E-05	2.40E-03	6.44E-04	4.51E-04	4.81E-02	5.14E-01	4.33E+00
PS_6	548471.36	5399488.57	Travelodge Hotel		6.67E-03	2.71E-04	4.41E-05	2.22E-05	3.45E-03	1.17E-03	7.40E-04	6.85E-02	9.81E-01	8.21E+00
PS_7	546903.35	5401055.54	The Laughing Mooz Eatery Restaurant and Residence		7.75E-03	3.86E-04	6.40E-05	3.13E-05	2.36E-03	6.34E-04	4.45E-04	5.72E-02	5.13E-01	4.32E+00
PW_1	545777.38	5397150.54	Kingdom Hall of Jehovah's Witnesses		4.09E-03	1.11E-04	1.75E-05	9.58E-06	7.61E-03	2.29E-03	1.05E-03	9.91E-02	7.19E-01	5.55E+00
PW_2	546331.39	5395941.55	Parkland Pentecostal Church		3.80E-03	1.18E-04	1.25E-05	7.38E-06	1.59E-03	3.31E-04	2.15E-04	1.19E-02	1.37E-01	1.12E+00
PW_3	545857.39	5395714.55	St. John's United Church		3.55E-03	9.40E-05	1.32E-05	7.02E-06	1.75E-03	4.15E-04	2.27E-04	1.32E-02	1.56E-01	1.27E+00
PW_4	545425.03	5396043.49	Holy Saviour Roman Catholic Church		3.55E-03	1.01E-04	1.42E-05	7.45E-06	3.48E-03	6.47E-04	3.77E-04	2.92E-02	4.31E-01	4.01E+00
PW_5	545390.38	5395988.55	Anglican Church-Trinity		3.53E-03	1.00E-04	1.41E-05	7.39E-06	3.22E-03	6.08E-04	3.42E-04	3.37E-02	5.38E-01	4.55E+00
R_1	547226.37	5398095.56	Residence		5.60E-03	1.96E-04	2.75E-05	1.48E-05	1.02E-03	3.30E-04	2.59E-04	3.08E-02	4.79E-01	4.33E+00
R_10	545421.38	5395953.55	Residence		3.55E-03	9.90E-05	1.41E-05	7.33E-06	3.11E-03	5.66E-04	3.31E-04	5.30E-02	8.62E-01	7.23E+00
R_11	545619.39	5395877.55	Residence		3.62E-03	9.40E-05	1.41E-05	7.25E-06	3.42E-03	6.06E-04	2.77E-04	3.06E-02	3.92E-01	3.40E+00
R_12	545831.38	5396000.55	Residence		3.69E-03	9.10E-05	1.44E-05	7.47E-06	2.30E-03	5.22E-04	2.80E-04	2.70E-02	3.60E-01	3.30E+00
R_13	545806.92	5396173.19	Residence		3.79E-03	9.90E-05	1.50E-05	7.75E-06	2.88E-03	6.34E-04	3.36E-04	5.04E-02	1.08E+00	1.08E+01
R_14	545827.05	5396228.86	Residence		3.81E-03	1.01E-04	1.53E-05	7.86E-06	2.98E-03	6.11E-04	3.49E-04	3.77E-02	7.04E-01	6.94E+00
R_15	545662.38	5396175.55	Residence		3.77E-03	1.03E-04	1.50E-05	7.73E-06	4.39E-03	8.70E-04	3.79E-04	2.91E-02	3.64E-01	3.22E+00
R_16	546254.38	5396484.55	Residence		3.95E-03	1.05E-04	1.56E-05	8.28E-06	3.16E-03	5.95E-04	3.37E-04	2.23E-02	1.98E-01	1.72E+00
R_17	546471.38	5396506.55	Residence		4.03E-03	1.23E-04	1.49E-05	8.32E-06	2.61E-03	5.06E-04	3.07E-04	1.82E-02	1.77E-01	1.43E+00
R_18	546601.38	5396387.56	Residence		4.01E-03	1.29E-04	1.35E-05	8.12E-06	2.12E-03	4.45E-04	2.67E-04	1.34E-02	1.62E-01	1.26E+00
R_19	546856.39	5395580.56	Residence		3.74E-03	9.60E-05	1.23E-05	7.12E-06	1.00E-03	2.46E-04	1.68E-04	1.15E-02	1.10E-01	7.92E-01
R_2	547273.37	5398044.56	Residence		5.81E-03	2.12E-04	2.68E-05	1.48E-05	1.02E-03	3.22E-04	2.55E-04	2.28E-02	3.13E-01	2.53E+00
R_20	546950.39	5395533.56	Residence		3.73E-03	9.10E-05	1.27E-05	7.13E-06	8.79E-04	2.43E-04	1.64E-04	1.13E-02	1.07E-01	7.68E-01
R_21	547201.39	5395415.56	Residence		3.62E-03	8.80E-05	1.36E-05	7.19E-06	7.94E-04	2.30E-04	1.55E-04	1.07E-02	1.00E-01	7.16E-01
R_22	548317.36	5399654.57	Residence		6.48E-03	2.75E-04	4.31E-05	2.30E-05	2.44E-03	8.36E-04	5.55E-04	4.79E-02	6.32E-01	5.03E+00
R_3	545809.38	5397232.54	Bergagnini Apartment Rental		4.15E-03	1.11E-04	1.78E-05	9.77E-06	6.71E-03	1.83E-03	8.36E-04	6.87E-02	5.68E-01	4.86E+00
R_4	546092.38	5396796.55	Residence		4.13E-03	1.14E-04	1.72E-05	8.89E-06	5.08E-03	1.20E-03	6.73E-04	4.60E-02	2.97E-01	2.50E+00
R_5	545971.38	5396489.55	Condominium		3.96E-03	1.06E-04	1.60E-05	8.27E-06	3.95E-03	8.16E-04	4.24E-04	4.55E-02	4.91E-01	4.27E+00
R_6	545655.38	5396520.55	Residence		3.84E-03	1.10E-04	1.59E-05	8.38E-06	7.35E-03	1.59E-03	7.19E-04	7.08E-02	5.31E-01	3.44E+00
R_7	545438.38	5396408.54	I Sew Studio and Residence		3.73E-03	1.03E-04	1.48E-05	7.99E-06	6.17E-03	1.35E-03	7.30E-04	5.91E-02	5.25E-01	3.83E+00
R_8	545380.38	5396243.54	Bayview Apartments		3.68E-03	1.01E-04	1.44E-05	7.72E-06	4.29E-03	9.93E-04	5.22E-04	4.19E-02	4.10E-01	3.07E+00
R_9	545290.38	5396114.54	Residence		3.60E-03	9.90E-05	1.40E-05	7.51E-06	3.27E-03	8.40E-04	4.35E-04	3.24E-02	3.26E-01	2.24E+00
RH_1	546049.39	5395894.55	Peninsula Manor		3.65E-03	1.04E-04	1.35E-05	7.32E-06	1.76E-03	3.49E-04	2.34E-04	1.28E-02	1.58E-01	1.36E+00
RH_2	545320.89	5396196.57	Senior's Centre		3.63E-03	1.00E-04	1.42E-05	7.62E-06	3.73E-03	9.34E-04	4.85E-04	4.01E-02	4.15E-01	2.99E+00
S_1	546339.38	5396624.55	Holy Saviour School		4.03E-03	1.09E-04	1.60E-05	8.54E-06	3.16E-03	5.99E-04	3.73E-04	2.48E-02	1.96E-01	1.64E+00
S_2	545633.38	5396102.55	Confederation College Northshore Campus		3.73E-03	1.01E-04	1.47E-05	7.61E-06	4.38E-03	7.95E-04	3.51E-04	2.73E-02	4.10E-01	3.99E+00
S_3	546200.38	5396036.55	Marathon High School		3.71E-03	1.11E-04	1.36E-05	7.53E-06	1.94E-03	3.64E-04	2.37E-04	1.45E-02	1.55E-01	1.36E+00
S_4	546261.39	5395967.55	Ecole secondaire Cite-Superieure		3.78E-03	1.15E-04	1.30E-05	7.42E-06	1.76E-03	3.41E-04	2.23E-04	1.21E-02	1.43E-01	1.20E+00
S_5	547019.39	5395082.56	Marathon Children and Family Centre		3.61E-03	8.80E-05	1.31E-05	7.03E-06	1.02E-03	2.15E-04	1.35E-04	9.87E-03	8.81E-02	6.35E-01
S_6	547000.39	5395035.56	Margaret Twomey Public School		3.59E-03	8.80E-05	1.30E-05	6.97E-06	9.84E-04	2.15E-04	1.33E-04	9.76E-03	8.68E-02	6.26E-01
W_1	547291.36	5399860.55	Shack Lake (northeast)		6.30E-03	2.22E-04	5.12E-05	2.54E-05	1.40E-03	4.62E-04	3.46E-04	2.74E-02	3.74E-01	2.80E+00
W_10	546975.32	5406486.49	Bamoos Lake (south)		6.01E-03	2.20E-04	3.80E-05	1.80E-05	1.34E-03	3.23E-04	1.98E-04	2.09E-02	1.46E-01	1.29E+00
W_11	545484.32	5405866.49	Bamoos Lake (west)		5.29E-03	2.19E-04	4.95E-05	2.37E-05	1.11E-03	2.77E-04	1.54E-04	1.13E-02	9.76E-02	7.92E-01
W_12	546576.32	5407157.48	Bamoos Lake (north)		4.89E-03	1.71E-04	3.69E-05	1.71E-05	9.43E-04	2.46E-04	1.54E-04	1.09E-02	9.21E-02	7.77E-01

Table F-1 Special Receptor Predictions (ug/m3) - Operations, Project Alone

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	1,3-BUTADIENE			ACENAPHTHENE			ACENAPHTHYLENE			ACETALDEHYDE					ACROLEIN				ALDEHYDES		
				Averaging Period	24	month	annual	24	month	annual	24	month	annual	0.5	1	24	month	annual	1	24	month	annual	24	month	annual
				Criteria	10	-	2	-	-	-	-	-	-	500	-	500	-	-	4.5	0.4	-	-	-	-	-
W_13	546777.32	5406831.49	Bamoos Lake (center)		8.62E-04	2.28E-04	1.26E-04	5.86E-05	1.57E-05	8.74E-06	9.56E-05	2.56E-05	1.43E-05	5.35E-01	4.46E-01	7.45E-02	1.97E-02	1.08E-02	6.43E-02	1.07E-02	2.84E-03	1.56E-03	6.03E-02	1.29E-02	6.08E-03
W_14	554944.32	5408228.54	Page Lake (south)		6.49E-04	1.56E-04	7.14E-05	4.32E-05	1.05E-05	4.86E-06	7.03E-05	1.71E-05	7.93E-06	4.47E-01	3.73E-01	5.60E-02	1.34E-02	6.13E-03	5.37E-02	8.07E-03	1.93E-03	8.84E-04	2.18E-02	3.63E-03	2.04E-03
W_15	555054.32	5408903.54	Page Lake (center)		5.31E-04	1.15E-04	5.52E-05	3.55E-05	7.80E-06	3.77E-06	5.77E-05	1.27E-05	6.16E-06	4.11E-01	3.43E-01	4.58E-02	9.91E-03	4.74E-03	4.94E-02	6.60E-03	1.43E-03	6.83E-04	2.08E-02	2.94E-03	1.76E-03
W_16	555065.32	5409497.54	Page Lake (north)		2.96E-04	8.10E-05	4.28E-05	2.07E-05	5.54E-06	2.94E-06	3.39E-05	9.04E-06	4.81E-06	3.36E-01	2.80E-01	2.54E-02	6.99E-03	3.66E-03	4.03E-02	3.66E-03	1.01E-03	5.28E-04	1.82E-02	2.72E-03	1.59E-03
W_17	556593.36	5402126.57	Peacock Lake (east)		3.47E-04	9.30E-05	4.36E-05	2.28E-05	6.65E-06	3.13E-06	3.70E-05	1.10E-05	5.16E-06	4.09E-01	3.41E-01	3.00E-02	7.82E-03	3.67E-03	4.91E-02	4.32E-03	1.13E-03	5.30E-04	6.65E-02	6.89E-03	3.15E-03
W_18	556043.37	5401266.57	Peacock Lake (south)		4.01E-04	8.10E-05	4.42E-05	2.72E-05	6.06E-06	3.17E-06	4.43E-05	1.01E-05	5.24E-06	4.41E-01	3.68E-01	3.43E-02	6.74E-03	3.71E-03	5.29E-02	4.95E-03	9.73E-04	5.36E-04	6.59E-02	9.39E-03	3.17E-03
W_19	556277.36	5402068.57	Peacock Lake (west)		3.29E-04	9.40E-05	4.55E-05	2.17E-05	6.74E-06	3.26E-06	3.56E-05	1.11E-05	5.39E-06	4.30E-01	3.58E-01	2.85E-02	7.91E-03	3.83E-03	5.16E-02	4.10E-03	1.14E-03	5.53E-04	6.57E-02	6.96E-03	3.27E-03
W_2	547105.36	5399506.55	Shack Lake (center)		6.55E-04	1.79E-04	1.41E-04	4.71E-05	1.28E-05	9.90E-06	7.78E-05	2.12E-05	1.64E-05	5.68E-01	4.73E-01	5.54E-02	1.46E-02	1.14E-02	6.83E-02	7.99E-03	2.11E-03	1.64E-03	6.22E-02	1.38E-02	7.06E-03
W_20	556444.36	5402419.57	Peacock Lake (north)		3.77E-04	1.00E-04	4.64E-05	2.49E-05	7.25E-06	3.33E-06	4.04E-05	1.20E-05	5.49E-06	3.93E-01	3.28E-01	3.26E-02	8.51E-03	3.92E-03	4.72E-02	4.70E-03	1.23E-03	5.65E-04	6.53E-02	7.85E-03	3.37E-03
W_21	556424.36	5402099.57	Peacock Lake (center)		3.41E-04	9.30E-05	4.47E-05	2.25E-05	6.71E-06	3.21E-06	3.64E-05	1.11E-05	5.30E-06	4.20E-01	3.50E-01	2.95E-02	7.88E-03	3.77E-03	5.05E-02	4.25E-03	1.14E-03	5.44E-04	6.67E-02	6.99E-03	3.24E-03
W_22	550202.38	5397448.58	Three Finger Lake (north)		5.02E-04	8.70E-05	5.93E-05	3.93E-05	6.36E-06	4.26E-06	6.59E-05	1.06E-05	7.07E-06	4.73E-01	3.94E-01	4.27E-02	7.29E-03	4.82E-03	5.70E-02	6.16E-03	1.05E-03	6.96E-04	7.94E-02	7.57E-03	3.96E-03
W_23	550175.38	5396991.58	Three Finger Lake (center)		4.56E-04	8.00E-05	5.30E-05	3.60E-05	5.83E-06	3.80E-06	6.03E-05	9.71E-06	6.31E-06	4.45E-01	3.71E-01	3.88E-02	6.62E-03	4.31E-03	5.36E-02	5.60E-03	9.56E-04	6.22E-04	7.56E-02	6.84E-03	3.51E-03
W_24	549830.38	5396525.58	Three Finger Lake (south)		3.59E-04	7.60E-05	4.97E-05	2.80E-05	5.53E-06	3.52E-06	4.72E-05	9.16E-06	5.83E-06	4.41E-01	3.68E-01	3.07E-02	6.33E-03	4.04E-03	5.31E-02	4.42E-03	9.14E-04	5.83E-04	6.67E-02	6.37E-03	2.81E-03
W_25	546947.38	5396627.56	Penn Lake (north)		8.06E-04	2.79E-04	1.63E-04	5.38E-05	1.88E-05	1.11E-05	9.00E-05	3.13E-05	1.85E-05	3.74E-01	3.11E-01	5.70E-02	2.06E-02	1.21E-02	4.53E-02	8.25E-03	2.98E-03	1.75E-03	4.31E-02	4.59E-03	2.77E-03
W_26	547059.38	5396125.56	Penn Lake (center)		6.79E-04	2.26E-04	1.26E-04	4.62E-05	1.52E-05	8.58E-06	7.71E-05	2.53E-05	1.43E-05	3.84E-01	3.20E-01	4.98E-02	1.66E-02	9.42E-03	4.62E-02	7.21E-03	2.41E-03	1.36E-03	3.40E-02	4.36E-03	2.52E-03
W_27	546991.39	5395772.56	Penn Lake (south)		7.02E-04	1.72E-04	1.05E-04	4.68E-05	1.16E-05	7.20E-06	7.81E-05	1.92E-05	1.20E-05	3.66E-01	3.05E-01	5.05E-02	1.26E-02	7.96E-03	4.40E-02	7.30E-03	1.83E-03	1.15E-03	3.04E-02	4.13E-03	2.36E-03
W_28	544637	5401700	Angler Creek at Model Property Boundary		7.32E-04	1.49E-04	9.76E-05	5.02E-05	1.04E-05	6.75E-06	8.20E-05	1.72E-05	1.11E-05	4.21E-01	3.51E-01	6.31E-02	1.27E-02	8.27E-03	5.05E-02	9.10E-03	1.83E-03	1.19E-03	5.34E-02	1.03E-02	4.00E-03
W_29	551284	5407805	Pic River In-Flow to Model Property Boundary		9.06E-04	1.93E-04	1.11E-04	6.25E-05	1.32E-05	7.56E-06	1.02E-04	2.15E-05	1.23E-05	6.96E-01	5.80E-01	7.82E-02	1.66E-02	9.56E-03	8.37E-02	1.13E-02	2.39E-03	1.38E-03	3.98E-02	6.06E-03	3.06E-03
W_3	546725.36	5399333.55	Shack Lake (southwest)		6.37E-04	1.69E-04	1.31E-04	4.46E-05	1.22E-05	9.23E-06	7.34E-05	2.02E-05	1.53E-05	5.15E-01	4.29E-01	5.40E-02	1.40E-02	1.06E-02	6.18E-02	7.78E-03	2.02E-03	1.53E-03	5.78E-02	1.32E-02	6.46E-03
W_30	551654	5401167	Pic River Out-Flow from Model Property Boundary		5.16E-04	1.73E-04	1.15E-04	3.58E-05	1.25E-05	8.19E-06	6.00E-05	2.07E-05	1.35E-05	4.55E-01	3.80E-01	4.43E-02	1.46E-02	9.63E-03	5.47E-02	6.38E-03	2.10E-03	1.39E-03	7.67E-02	1.44E-02	6.99E-03
W_4	545636.33	5403828.5	Hare Lake (east)		8.10E-04	2.39E-04	1.36E-04	5.61E-05	1.66E-05	9.53E-06	9.20E-05	2.71E-05	1.57E-05	3.73E-01	3.11E-01	6.99E-02	2.06E-02	1.17E-02	4.48E-02	1.01E-02	2.97E-03	1.69E-03	7.37E-02	1.18E-02	7.04E-03
W_5	545048.34	5403556.5	Hare Lake (south)		7.56E-04	2.00E-04	1.08E-04	5.17E-05	1.38E-05	7.53E-06	8.46E-05	2.26E-05	1.24E-05	3.37E-01	2.81E-01	6.52E-02	1.72E-02	9.22E-03	4.05E-02	9.40E-03	2.48E-03	1.33E-03	6.60E-02	8.87E-03	5.49E-03
W_6	543955.34	5403079.49	Hare Lake (west)		5.60E-04	1.35E-04	7.02E-05	3.94E-05	9.46E-06	4.93E-06	6.48E-05	1.56E-05	8.12E-06	2.80E-01	2.33E-01	4.82E-02	1.15E-02	5.95E-03	3.36E-02	6.96E-03	1.67E-03	8.58E-04	5.74E-02	7.11E-03	3.89E-03
W_7	544603.33	5403943.49	Hare Lake (north)		6.06E-04	1.60E-04	8.52E-05	4.18E-05	1.11E-05	6.01E-06	6.84E-05	1.82E-05	9.89E-06	3.05E-01	2.54E-01	5.22E-02	1.37E-02	7.26E-03	3.66E-02	7.53E-03	1.98E-03	1.05E-03	5.65E-02	8.16E-03	5.08E-03
W_8	544830.34	5403751.49	Hare Lake (center)		6.85E-04	1.79E-04	9.49E-05	4.70E-05	1.23E-05	6.66E-06	7.68E-05	2.02E-05	1.10E-05	3.19E-01	2.66E-01	5.91E-02	1.53E-02	8.09E-03	3.83E-02	8.52E-03	2.21E-03	1.17E-03	5.37E-02	8.23E-03	5.28E-03
W_9	549326.32	5406971.51	Bamoos Lake (east)		2.05E-03	4.51E-04	2.35E-04	1.37E-04	3.00E-05	1.58E-05	2.22E-04	4.87E-05	2.57E-05	1.40E+00	1.17E+00	1.78E-01	3.90E-02	2.03E-02	1.68E-01	2.56E-02	5.61E-03	2.93E-03	5.15E-02	7.50E-03	4.11E-03
Maximum of Special Receptors					**1.80E-02**	**6.67E-03**	**4.92E-03**	**1.19E-03**	**4.42E-04**	**3.26E-04**	**1.97E-03**	**7.31E-04**	**5.39E-04**	**3.41E+00**	**2.84E+00**	**1.36E+00**	**5.10E-01**	**3.77E-01**	**4.11E-01**	**1.97E-01**	**7.36E-02**	**5.44E-02**	**1.34E-01**	**2.31E-02**	**1.15E-02**
Max % of Criteria					**0.2%**	-	**0.2%**	-	-	-	-	-	-	**0.7%**	-	**0.3%**	-	-	**9.1%**	**49.2%**	-	-	-	-	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by MECP Guideline A-10, Section 7.4.1 for facilities with a fugitive dust BMP. These model predictions were used for comparison to the applicable critiera.

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier 3 assumption).

Table F-1 Special Receptor Predictions (ug/m3) - Operations, Project Alone

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	ALUMINUM (AL)			ANTHRACENE			ANTIMONY (SB)			ARSENIC (AS)		
				Averaging Period	24	month	annual	24	month	annual	24	month	annual	24	month	annual
				Criteria	12	-	-	-	-	-	25	-	-	0.3	-	-
W_13	546777.32	5406831.49	Bamoos Lake (center)		2.16E-01	5.74E-02	3.41E-02	3.74E-05	9.97E-06	5.53E-06	3.92E-05	1.07E-05	6.42E-06	4.49E-05	1.21E-05	7.33E-06
W_14	554944.32	5408228.54	Page Lake (south)		1.35E-01	3.63E-02	1.95E-02	2.79E-05	6.76E-06	3.11E-06	2.40E-05	6.81E-06	3.69E-06	2.84E-05	7.78E-06	4.21E-06
W_15	555054.32	5408903.54	Page Lake (center)		8.94E-02	2.84E-02	1.58E-02	2.29E-05	5.01E-06	2.41E-06	1.65E-05	5.34E-06	3.01E-06	1.93E-05	6.12E-06	3.44E-06
W_16	555065.32	5409497.54	Page Lake (north)		7.27E-02	2.23E-02	1.33E-02	1.30E-05	3.55E-06	1.88E-06	1.34E-05	4.23E-06	2.54E-06	1.55E-05	4.84E-06	2.91E-06
W_17	556593.36	5402126.57	Peacock Lake (east)		1.69E-01	4.15E-02	1.96E-02	1.48E-05	4.17E-06	1.97E-06	3.29E-05	8.04E-06	3.79E-06	3.65E-05	9.22E-06	4.36E-06
W_18	556043.37	5401266.57	Peacock Lake (south)		1.72E-01	4.46E-02	2.02E-02	1.75E-05	3.73E-06	2.00E-06	3.33E-05	8.71E-06	3.92E-06	3.75E-05	1.01E-05	4.52E-06
W_19	556277.36	5402068.57	Peacock Lake (west)		1.76E-01	4.33E-02	2.08E-02	1.41E-05	4.23E-06	2.05E-06	3.42E-05	8.39E-06	4.01E-06	3.80E-05	9.60E-06	4.60E-06
W_2	547105.36	5399506.55	Shack Lake (center)		2.61E-01	7.70E-02	5.56E-02	2.96E-05	8.19E-06	6.43E-06	4.99E-05	1.49E-05	1.08E-05	5.52E-05	1.69E-05	1.26E-05
W_20	556444.36	5402419.57	Peacock Lake (north)		1.53E-01	4.42E-02	2.07E-02	1.61E-05	4.53E-06	2.09E-06	2.98E-05	8.55E-06	4.00E-06	3.33E-05	9.78E-06	4.59E-06
W_21	556424.36	5402099.57	Peacock Lake (center)		1.71E-01	4.23E-02	2.03E-02	1.46E-05	4.21E-06	2.02E-06	3.33E-05	8.20E-06	3.92E-06	3.70E-05	9.40E-06	4.50E-06
W_22	550202.38	5397448.58	Three Finger Lake (north)		3.31E-01	5.00E-02	3.22E-02	2.35E-05	4.06E-06	2.73E-06	6.33E-05	9.63E-06	6.34E-06	6.98E-05	1.16E-05	7.39E-06
W_23	550175.38	5396991.58	Three Finger Lake (center)		2.93E-01	4.35E-02	2.72E-02	2.14E-05	3.73E-06	2.44E-06	5.60E-05	8.40E-06	5.37E-06	6.19E-05	9.67E-06	6.31E-06
W_24	549830.38	5396525.58	Three Finger Lake (south)		2.29E-01	3.99E-02	2.38E-02	1.64E-05	3.47E-06	2.27E-06	4.38E-05	7.74E-06	4.70E-06	4.88E-05	8.81E-06	5.55E-06
W_25	546947.38	5396627.56	Penn Lake (north)		1.19E-01	3.33E-02	2.57E-02	3.76E-05	1.29E-05	7.54E-06	2.40E-05	8.60E-06	6.11E-06	4.84E-05	1.53E-05	9.43E-06
W_26	547059.38	5396125.56	Penn Lake (center)		1.16E-01	2.89E-02	2.26E-02	3.15E-05	1.04E-05	5.82E-06	2.20E-05	6.78E-06	5.11E-06	3.70E-05	1.12E-05	7.41E-06
W_27	546991.39	5395772.56	Penn Lake (south)		1.07E-01	2.62E-02	2.06E-02	3.25E-05	7.93E-06	4.86E-06	2.04E-05	6.03E-06	4.59E-06	3.24E-05	9.44E-06	6.53E-06
W_28	544637	5401700	Angler Creek at Model Property Boundary		1.69E-01	4.99E-02	2.97E-02	3.19E-05	6.57E-06	4.31E-06	3.20E-05	9.35E-06	5.62E-06	3.60E-05	1.06E-05	6.59E-06
W_29	551284	5407805	Pic River In-Flow to Model Property Boundary		1.78E-01	4.79E-02	2.96E-02	3.96E-05	8.40E-06	4.84E-06	3.32E-05	9.08E-06	5.61E-06	3.85E-05	1.04E-05	6.37E-06
W_3	546725.36	5399333.55	Shack Lake (southwest)		2.32E-01	6.75E-02	4.80E-02	2.84E-05	7.72E-06	6.00E-06	4.42E-05	1.31E-05	9.47E-06	4.89E-05	1.52E-05	1.13E-05
W_30	551654	5401167	Pic River Out-Flow from Model Property Boundary		2.34E-01	1.13E-01	7.36E-02	2.26E-05	7.84E-06	5.20E-06	4.65E-05	2.22E-05	1.43E-05	5.41E-05	2.57E-05	1.61E-05
W_4	545636.33	5403828.5	Hare Lake (east)		2.35E-01	6.58E-02	3.91E-02	3.56E-05	1.05E-05	6.01E-06	4.30E-05	1.20E-05	7.19E-06	5.01E-05	1.36E-05	8.30E-06
W_5	545048.34	5403556.5	Hare Lake (south)		2.12E-01	5.62E-02	3.24E-02	3.29E-05	8.77E-06	4.76E-06	3.85E-05	1.02E-05	6.03E-06	4.47E-05	1.15E-05	6.98E-06
W_6	543955.34	5403079.49	Hare Lake (west)		1.66E-01	4.16E-02	2.29E-02	2.48E-05	5.99E-06	3.12E-06	3.02E-05	7.76E-06	4.37E-06	3.50E-05	8.80E-06	5.14E-06
W_7	544603.33	5403943.49	Hare Lake (north)		1.48E-01	4.64E-02	2.69E-02	2.65E-05	7.05E-06	3.79E-06	2.72E-05	8.56E-06	5.08E-06	3.05E-05	9.61E-06	5.92E-06
W_8	544830.34	5403751.49	Hare Lake (center)		1.65E-01	5.09E-02	2.94E-02	2.99E-05	7.84E-06	4.21E-06	3.03E-05	9.33E-06	5.52E-06	3.50E-05	1.05E-05	6.41E-06
W_9	549326.32	5406971.51	Bamoos Lake (east)		4.30E-01	8.00E-02	5.17E-02	8.83E-05	1.94E-05	1.02E-05	7.66E-05	1.49E-05	9.70E-06	8.98E-05	1.68E-05	1.10E-05
Maximum of Special Receptors					**1.81E+00**	**8.05E-01**	**6.13E-01**	**8.02E-04**	**2.96E-04**	**2.18E-04**	**3.49E-04**	**1.56E-04**	**1.19E-04**	**3.77E-04**	**1.68E-04**	**1.28E-04**
Max % of Criteria					**15.1%**	-	-	-	-	-	**0.0%**	-	-	**0.1%**	-	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by MECP Guic

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier 3 assump

Table F-1 Special Receptor Predictions (ug/m3) - Operations, Project Alone

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	BARIUM (BA)			BENZENE		
				Averaging Period	24	month	annual	24	month	annual
				Criteria	10	-	-	2.3	-	0.45
W_13	546777.32	5406831.49	Bamoos Lake (center)		8.25E-04	2.20E-04	1.30E-04	1.42E-02	3.77E-03	2.09E-03
W_14	554944.32	5408228.54	Page Lake (south)		5.16E-04	1.39E-04	7.50E-05	1.05E-02	2.54E-03	1.17E-03
W_15	555054.32	5408903.54	Page Lake (center)		3.41E-04	1.09E-04	6.10E-05	8.63E-03	1.88E-03	9.06E-04
W_16	555065.32	5409497.54	Page Lake (north)		2.78E-04	8.60E-05	5.10E-05	4.94E-03	1.33E-03	7.04E-04
W_17	556593.36	5402126.57	Peacock Lake (east)		6.52E-04	1.59E-04	7.50E-05	5.59E-03	1.55E-03	7.28E-04
W_18	556043.37	5401266.57	Peacock Lake (south)		6.60E-04	1.71E-04	7.80E-05	6.53E-03	1.38E-03	7.36E-04
W_19	556277.36	5402068.57	Peacock Lake (west)		6.79E-04	1.66E-04	8.00E-05	5.31E-03	1.57E-03	7.59E-04
W_2	547105.36	5399506.55	Shack Lake (center)		1.00E-03	2.96E-04	2.14E-04	1.10E-02	2.91E-03	2.24E-03
W_20	556444.36	5402419.57	Peacock Lake (north)		5.90E-04	1.69E-04	7.90E-05	6.09E-03	1.69E-03	7.76E-04
W_21	556424.36	5402099.57	Peacock Lake (center)		6.61E-04	1.62E-04	7.80E-05	5.50E-03	1.56E-03	7.47E-04
W_22	550202.38	5397448.58	Three Finger Lake (north)		1.27E-03	1.92E-04	1.24E-04	8.96E-03	1.45E-03	9.61E-04
W_23	550175.38	5396991.58	Three Finger Lake (center)		1.12E-03	1.67E-04	1.05E-04	8.19E-03	1.32E-03	8.58E-04
W_24	549830.38	5396525.58	Three Finger Lake (south)		8.76E-04	1.53E-04	9.10E-05	6.33E-03	1.27E-03	7.99E-04
W_25	546947.38	5396627.56	Penn Lake (north)		4.57E-04	1.28E-04	9.90E-05	1.13E-02	4.05E-03	2.39E-03
W_26	547059.38	5396125.56	Penn Lake (center)		4.43E-04	1.11E-04	8.70E-05	9.94E-03	3.28E-03	1.86E-03
W_27	546991.39	5395772.56	Penn Lake (south)		4.10E-04	1.01E-04	7.90E-05	9.96E-03	2.49E-03	1.57E-03
W_28	544637	5401700	Angler Creek at Model Property Boundary		6.51E-04	1.92E-04	1.14E-04	1.21E-02	2.45E-03	1.60E-03
W_29	551284	5407805	Pic River In-Flow to Model Property Boundary		6.79E-04	1.83E-04	1.13E-04	1.50E-02	3.17E-03	1.82E-03
W_3	546725.36	5399333.55	Shack Lake (southwest)		8.89E-04	2.59E-04	1.84E-04	1.05E-02	2.80E-03	2.09E-03
W_30	551654	5401167	Pic River Out-Flow from Model Property Boundary		8.98E-04	4.33E-04	2.83E-04	8.48E-03	2.90E-03	1.89E-03
W_4	545636.33	5403828.5	Hare Lake (east)		9.03E-04	2.54E-04	1.51E-04	1.35E-02	3.97E-03	2.27E-03
W_5	545048.34	5403556.5	Hare Lake (south)		8.16E-04	2.17E-04	1.25E-04	1.25E-02	3.31E-03	1.79E-03
W_6	543955.34	5403079.49	Hare Lake (west)		6.37E-04	1.60E-04	8.80E-05	9.41E-03	2.25E-03	1.16E-03
W_7	544603.33	5403943.49	Hare Lake (north)		5.69E-04	1.79E-04	1.04E-04	1.00E-02	2.66E-03	1.42E-03
W_8	544830.34	5403751.49	Hare Lake (center)		6.34E-04	1.96E-04	1.13E-04	1.13E-02	2.95E-03	1.58E-03
W_9	549326.32	5406971.51	Bamoos Lake (east)		1.64E-03	3.07E-04	1.98E-04	3.33E-02	7.32E-03	3.84E-03
Maximum of Special Receptors					**6.95E-03**	**3.10E-03**	**2.36E-03**	**2.64E-01**	**9.86E-02**	**7.28E-02**
Max % of Criteria					**0.1%**	-	-	**11.5%**	-	**16.2%**

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by MECP Guic

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier 3 assump

Table F-1 Special Receptor Predictions (ug/m3) - Operations, Project Alone

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	BENZO(A)ANTHRACENE			BENZO(A)PYRENE			BENZO(B)FLUORANTHENE			BENZO(G,H,I)PERYLENE			BENZO(K)FLUORANTHENE		
				Averaging Period	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual
				Criteria	-	-	-	0.00005	-	0.00001	-	-	-	-	-	-	-	-	-
W_13	546777.32	5406831.49	Bamoos Lake (center)		9.02E-07	2.58E-07	1.68E-07	6.51E-07	1.92E-07	1.23E-07	1.17E-06	2.82E-07	1.51E-07	9.18E-06	1.69E-06	7.78E-07	3.16E-07	9.37E-08	6.04E-08
W_14	554944.32	5408228.54	Page Lake (south)		5.98E-07	1.55E-07	8.28E-08	4.96E-07	1.28E-07	6.44E-08	5.26E-07	1.13E-07	6.04E-08	3.23E-06	6.15E-07	3.07E-07	2.23E-07	5.87E-08	2.94E-08
W_15	555054.32	5408903.54	Page Lake (center)		5.53E-07	1.21E-07	6.93E-08	4.19E-07	9.83E-08	5.24E-08	4.66E-07	8.72E-08	5.07E-08	2.77E-06	4.41E-07	2.55E-07	2.01E-07	4.47E-08	2.40E-08
W_16	555065.32	5409497.54	Page Lake (north)		4.43E-07	9.77E-08	5.94E-08	3.22E-07	7.36E-08	4.33E-08	4.06E-07	7.08E-08	4.42E-08	2.62E-06	3.82E-07	2.27E-07	1.58E-07	3.37E-08	1.99E-08
W_17	556593.36	5402126.57	Peacock Lake (east)		8.16E-07	2.23E-07	1.07E-07	4.31E-07	1.38E-07	6.68E-08	1.23E-06	1.70E-07	7.95E-08	7.74E-06	9.63E-07	4.48E-07	2.66E-07	6.41E-08	3.08E-08
W_18	556043.37	5401266.57	Peacock Lake (south)		9.65E-07	2.67E-07	1.14E-07	4.82E-07	1.56E-07	7.06E-08	1.27E-06	2.19E-07	8.14E-08	8.48E-06	1.24E-06	4.51E-07	3.08E-07	7.51E-08	3.21E-08
W_19	556277.36	5402068.57	Peacock Lake (west)		8.21E-07	2.29E-07	1.11E-07	4.30E-07	1.43E-07	6.92E-08	1.22E-06	1.72E-07	8.24E-08	7.77E-06	9.93E-07	4.71E-07	2.65E-07	6.51E-08	3.19E-08
W_2	547105.36	5399506.55	Shack Lake (center)		2.11E-06	7.95E-07	5.74E-07	1.44E-06	5.23E-07	3.82E-07	1.31E-06	4.18E-07	2.81E-07	1.06E-05	1.87E-06	1.00E-06	5.33E-07	2.12E-07	1.55E-07
W_20	556444.36	5402419.57	Peacock Lake (north)		7.92E-07	2.35E-07	1.11E-07	4.74E-07	1.45E-07	6.92E-08	1.21E-06	1.89E-07	8.40E-08	8.05E-06	1.09E-06	4.77E-07	2.61E-07	6.92E-08	3.22E-08
W_21	556424.36	5402099.57	Peacock Lake (center)		8.24E-07	2.26E-07	1.10E-07	4.22E-07	1.41E-07	6.84E-08	1.24E-06	1.72E-07	8.16E-08	7.78E-06	9.79E-07	4.59E-07	2.68E-07	6.48E-08	3.15E-08
W_22	550202.38	5397448.58	Three Finger Lake (north)		1.48E-06	4.06E-07	2.42E-07	7.62E-07	2.47E-07	1.48E-07	1.60E-06	2.22E-07	1.28E-07	6.67E-06	9.62E-07	5.32E-07	4.31E-07	1.02E-07	6.07E-08
W_23	550175.38	5396991.58	Three Finger Lake (center)		1.41E-06	3.87E-07	2.15E-07	7.61E-07	2.39E-07	1.32E-07	1.52E-06	2.03E-07	1.14E-07	7.13E-06	8.98E-07	4.85E-07	4.04E-07	9.74E-08	5.43E-08
W_24	549830.38	5396525.58	Three Finger Lake (south)		1.14E-06	3.28E-07	1.94E-07	5.89E-07	2.07E-07	1.21E-07	1.33E-06	1.62E-07	9.77E-08	8.84E-06	8.19E-07	4.27E-07	3.47E-07	8.20E-08	4.91E-08
W_25	546947.38	5396627.56	Penn Lake (north)		7.48E-06	2.23E-06	1.20E-06	4.89E-06	1.46E-06	7.89E-07	2.15E-06	6.68E-07	3.89E-07	5.69E-06	7.58E-07	4.30E-07	1.72E-06	5.22E-07	2.86E-07
W_26	547059.38	5396125.56	Penn Lake (center)		5.41E-06	1.73E-06	8.95E-07	3.54E-06	1.14E-06	5.86E-07	1.77E-06	5.31E-07	2.96E-07	4.93E-06	7.29E-07	3.93E-07	1.28E-06	4.06E-07	2.13E-07
W_27	546991.39	5395772.56	Penn Lake (south)		6.09E-06	1.32E-06	7.14E-07	3.99E-06	8.69E-07	4.67E-07	1.75E-06	4.05E-07	2.42E-07	4.55E-06	6.83E-07	3.67E-07	1.40E-06	3.11E-07	1.71E-07
W_28	544637	5401700	Angler Creek at Model Property Boundary		1.05E-06	2.98E-07	1.89E-07	6.28E-07	1.99E-07	1.31E-07	1.11E-06	2.50E-07	1.21E-07	9.58E-06	1.77E-06	6.69E-07	3.24E-07	9.48E-08	5.76E-08
W_29	551284	5407805	Pic River In-Flow to Model Property Boundary		9.61E-07	2.20E-07	1.24E-07	7.53E-07	1.72E-07	9.78E-08	9.19E-07	1.71E-07	9.12E-08	5.02E-06	8.67E-07	4.50E-07	3.77E-07	8.01E-08	4.48E-08
W_3	546725.36	5399333.55	Shack Lake (southwest)		2.81E-06	7.56E-07	5.49E-07	1.87E-06	4.99E-07	3.66E-07	1.17E-06	3.93E-07	2.64E-07	9.14E-06	1.74E-06	9.27E-07	6.71E-07	2.00E-07	1.48E-07
W_30	551654	5401167	Pic River Out-Flow from Model Property Boundary		1.46E-06	5.02E-07	3.06E-07	8.14E-07	2.80E-07	1.75E-07	1.51E-06	3.36E-07	1.86E-07	1.07E-05	2.01E-06	9.89E-07	4.42E-07	1.23E-07	7.46E-08
W_4	545636.33	5403828.5	Hare Lake (east)		1.17E-06	3.23E-07	2.14E-07	7.36E-07	2.26E-07	1.48E-07	1.43E-06	2.81E-07	1.77E-07	1.29E-05	2.14E-06	1.26E-06	3.84E-07	1.08E-07	7.08E-08
W_5	545048.34	5403556.5	Hare Lake (south)		1.01E-06	2.64E-07	1.81E-07	6.45E-07	1.91E-07	1.24E-07	1.29E-06	2.10E-07	1.42E-07	1.16E-05	1.54E-06	9.64E-07	3.53E-07	9.02E-08	5.86E-08
W_6	543955.34	5403079.49	Hare Lake (west)		8.46E-07	2.30E-07	1.46E-07	5.48E-07	1.58E-07	9.80E-08	1.12E-06	1.83E-07	1.05E-07	9.60E-06	1.23E-06	6.66E-07	2.85E-07	7.47E-08	4.47E-08
W_7	544603.33	5403943.49	Hare Lake (north)		8.26E-07	2.31E-07	1.59E-07	5.29E-07	1.64E-07	1.07E-07	1.10E-06	1.94E-07	1.28E-07	9.96E-06	1.45E-06	8.89E-07	2.75E-07	7.80E-08	5.07E-08
W_8	544830.34	5403751.49	Hare Lake (center)		9.03E-07	2.47E-07	1.70E-07	5.76E-07	1.77E-07	1.15E-07	1.06E-06	1.98E-07	1.35E-07	9.54E-06	1.43E-06	9.26E-07	3.12E-07	8.39E-08	5.44E-08
W_9	549326.32	5406971.51	Bamoos Lake (east)		1.38E-06	3.12E-07	2.08E-07	1.38E-06	3.05E-07	1.82E-07	1.19E-06	2.28E-07	1.44E-07	7.53E-06	1.17E-06	6.22E-07	6.15E-07	1.36E-07	8.18E-08
Maximum of Special Receptors					**1.32E-04**	**6.26E-05**	**4.97E-05**	**8.57E-05**	**4.07E-05**	**3.23E-05**	**3.75E-05**	**1.78E-05**	**1.42E-05**	**1.98E-05**	**3.82E-06**	**1.88E-06**	**2.99E-05**	**1.42E-05**	**1.13E-05**
Max % of Criteria					-	-	-	**171.4%**	-	**323.5%**	-	-	-	-	-	-	-	-	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by MECP Guic

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier 3 assump

2.74E-06 1.04E-06

Table F-1 Special Receptor Predictions (ug/m3) - Operations, Project Alone

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	BERYLLIUM (BE)			BISMUTH (BI)			BORON (B)			BROMINE (BR)			CADMIUM (CD)		
				Averaging Period	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual
				Criteria	0.01	-	-	2.5	-	-	120	-	-	20	-	-	0.025	-	0.005
W_13	546777.32	5406831.49	Bamoos Lake (center)		1.01E-05	2.60E-06	1.53E-06	3.67E-05	1.10E-05	7.25E-06	1.73E-04	4.68E-05	2.75E-05	4.15E-03	8.58E-04	3.90E-04	1.06E-05	3.07E-06	1.96E-06
W_14	554944.32	5408228.54	Page Lake (south)		6.45E-06	1.65E-06	8.84E-07	2.43E-05	7.44E-06	4.12E-06	1.06E-04	2.94E-05	1.59E-05	1.35E-03	2.71E-04	1.38E-04	6.66E-06	2.04E-06	1.12E-06
W_15	555054.32	5408903.54	Page Lake (center)		4.08E-06	1.29E-06	7.17E-07	2.01E-05	5.92E-06	3.42E-06	7.10E-05	2.30E-05	1.29E-05	1.07E-03	2.03E-04	1.13E-04	5.10E-06	1.61E-06	9.24E-07
W_16	555065.32	5409497.54	Page Lake (north)		3.37E-06	1.01E-06	6.02E-07	1.64E-05	4.81E-06	2.94E-06	5.80E-05	1.82E-05	1.09E-05	9.88E-04	1.68E-04	1.00E-04	4.20E-06	1.30E-06	7.90E-07
W_17	556593.36	5402126.57	Peacock Lake (east)		7.76E-06	1.88E-06	8.85E-07	3.51E-05	9.67E-06	4.61E-06	1.43E-04	3.43E-05	1.61E-05	2.51E-03	4.81E-04	2.11E-04	9.65E-06	2.57E-06	1.22E-06
W_18	556043.37	5401266.57	Peacock Lake (south)		7.81E-06	2.02E-06	9.14E-07	3.76E-05	1.09E-05	4.82E-06	1.43E-04	3.70E-05	1.67E-05	3.57E-03	5.66E-04	2.14E-04	1.02E-05	2.87E-06	1.27E-06
W_19	556277.36	5402068.57	Peacock Lake (west)		8.09E-06	1.97E-06	9.37E-07	3.64E-05	1.00E-05	4.83E-06	1.49E-04	3.59E-05	1.71E-05	3.00E-03	5.25E-04	2.25E-04	1.00E-05	2.67E-06	1.28E-06
W_2	547105.36	5399506.55	Shack Lake (center)		1.19E-05	3.47E-06	2.50E-06	5.31E-05	1.78E-05	1.41E-05	2.18E-04	6.34E-05	4.54E-05	5.08E-03	8.29E-04	4.65E-04	1.42E-05	4.68E-06	3.67E-06
W_20	556444.36	5402419.57	Peacock Lake (north)		7.01E-06	2.00E-06	9.35E-07	3.27E-05	1.02E-05	4.82E-06	1.29E-04	3.65E-05	1.71E-05	2.66E-03	5.07E-04	2.25E-04	8.91E-06	2.71E-06	1.28E-06
W_21	556424.36	5402099.57	Peacock Lake (center)		7.87E-06	1.92E-06	9.14E-07	3.56E-05	9.84E-06	4.74E-06	1.45E-04	3.50E-05	1.67E-05	2.74E-03	5.02E-04	2.18E-04	9.78E-06	2.62E-06	1.26E-06
W_22	550202.38	5397448.58	Three Finger Lake (north)		1.52E-05	2.28E-06	1.46E-06	6.30E-05	1.44E-05	8.32E-06	2.78E-04	4.17E-05	2.67E-05	3.84E-03	4.85E-04	2.55E-04	1.77E-05	3.61E-06	2.16E-06
W_23	550175.38	5396991.58	Three Finger Lake (center)		1.34E-05	1.98E-06	1.23E-06	5.64E-05	1.19E-05	7.24E-06	2.45E-04	3.62E-05	2.25E-05	3.73E-03	4.31E-04	2.27E-04	1.58E-05	3.00E-06	1.87E-06
W_24	549830.38	5396525.58	Three Finger Lake (south)		1.04E-05	1.82E-06	1.07E-06	4.63E-05	1.00E-05	6.51E-06	1.91E-04	3.32E-05	1.96E-05	3.79E-03	3.55E-04	1.95E-04	1.28E-05	2.50E-06	1.67E-06
W_25	546947.38	5396627.56	Penn Lake (north)		5.41E-06	1.48E-06	1.13E-06	1.56E-04	3.64E-05	1.89E-05	9.80E-05	2.67E-05	2.04E-05	2.42E-03	3.06E-04	1.88E-04	3.14E-05	7.74E-06	4.16E-06
W_26	547059.38	5396125.56	Penn Lake (center)		5.25E-06	1.29E-06	1.00E-06	1.16E-04	2.45E-05	1.35E-05	9.50E-05	2.33E-05	1.81E-05	2.04E-03	2.78E-04	1.70E-04	2.34E-05	5.29E-06	3.05E-06
W_27	546991.39	5395772.56	Penn Lake (south)		4.87E-06	1.17E-06	9.16E-07	9.53E-05	1.92E-05	1.16E-05	8.80E-05	2.12E-05	1.66E-05	1.87E-03	2.60E-04	1.58E-04	1.94E-05	4.22E-06	2.62E-06
W_28	544637	5401700	Angler Creek at Model Property Boundary		7.52E-06	2.19E-06	1.29E-06	3.64E-05	1.05E-05	7.40E-06	1.36E-04	3.93E-05	2.29E-05	3.91E-03	7.24E-04	2.83E-04	9.63E-06	2.84E-06	1.91E-06
W_29	551284	5407805	Pic River In-Flow to Model Property Boundary		8.24E-06	2.19E-06	1.35E-06	3.63E-05	1.04E-05	6.15E-06	1.45E-04	3.90E-05	2.42E-05	2.11E-03	3.70E-04	1.96E-04	9.98E-06	2.80E-06	1.68E-06
W_3	546725.36	5399333.55	Shack Lake (southwest)		1.05E-05	3.04E-06	2.14E-06	6.20E-05	1.84E-05	1.37E-05	1.93E-04	5.53E-05	3.89E-05	3.72E-03	7.51E-04	4.18E-04	1.33E-05	4.42E-06	3.47E-06
W_30	551654	5401167	Pic River Out-Flow from Model Property Boundary		1.07E-05	5.14E-06	3.36E-06	6.35E-05	2.81E-05	1.62E-05	1.96E-04	9.42E-05	6.16E-05	5.59E-03	9.88E-04	5.10E-04	1.59E-05	7.36E-06	4.38E-06
W_4	545636.33	5403828.5	Hare Lake (east)		1.05E-05	2.84E-06	1.66E-06	4.93E-05	1.30E-05	8.81E-06	1.80E-04	5.00E-05	2.91E-05	5.58E-03	8.62E-04	5.42E-04	1.33E-05	3.55E-06	2.31E-06
W_5	545048.34	5403556.5	Hare Lake (south)		9.51E-06	2.43E-06	1.39E-06	4.20E-05	1.06E-05	7.51E-06	1.62E-04	4.29E-05	2.46E-05	6.01E-03	6.78E-04	4.10E-04	1.15E-05	2.93E-06	1.96E-06
W_6	543955.34	5403079.49	Hare Lake (west)		7.65E-06	1.83E-06	1.00E-06	3.48E-05	8.70E-06	5.84E-06	1.31E-04	3.27E-05	1.80E-05	3.41E-03	5.28E-04	2.77E-04	8.70E-06	2.35E-06	1.50E-06
W_7	544603.33	5403943.49	Hare Lake (north)		6.57E-06	2.04E-06	1.17E-06	2.84E-05	9.07E-06	6.48E-06	1.16E-04	3.62E-05	2.09E-05	3.79E-03	5.68E-04	3.65E-04	7.71E-06	2.49E-06	1.69E-06
W_8	544830.34	5403751.49	Hare Lake (center)		7.34E-06	2.22E-06	1.27E-06	3.40E-05	9.75E-06	6.97E-06	1.27E-04	3.93E-05	2.26E-05	4.93E-03	6.18E-04	3.86E-04	9.22E-06	2.69E-06	1.82E-06
W_9	549326.32	5406971.51	Bamoos Lake (east)		2.06E-05	3.72E-06	2.37E-06	7.06E-05	1.44E-05	1.01E-05	3.41E-04	6.55E-05	4.22E-05	2.94E-03	4.63E-04	2.94E-04	2.07E-05	4.11E-06	2.81E-06
Maximum of Special Receptors					**8.40E-05**	**3.74E-05**	**2.85E-05**	**7.77E-04**	**4.41E-04**	**2.16E-04**	**1.55E-03**	**6.88E-04**	**5.24E-04**	**1.52E-02**	**2.51E-03**	**1.00E-03**	**1.56E-04**	**8.87E-05**	**4.36E-05**
Max % of Criteria					**0.8%**	-	-	**0.0%**	-	-	**0.0%**	-	-	**0.1%**	-	-	**0.6%**	-	**0.9%**

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by MECP Guic

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier 3 assump

Table F-1 Special Receptor Predictions (ug/m3) - Operations, Project Alone

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	CALCIUM (CA)			CAO			CH4			CHROMIUM (CR)			CHRYSENE			CO					
				Averaging Period	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	0.5	1	8	24	month	annual
				Criteria	-	-	-	10	-	-	37330	-	-	0.5	-	-	-	-	-	6000	36200	15700	-	-	-
W_13	546777.32	5406831.49	Bamoos Lake (center)		2.19E-01	5.87E-02	3.48E-02	7.64E-02	1.42E-02	6.37E-03	8.72E-02	2.47E-02	1.42E-02	1.62E-03	4.57E-04	2.82E-04	1.91E-06	5.26E-07	3.10E-07	4.30E+02	3.58E+02	5.31E+01	2.45E+01	4.29E+00	2.40E+00
W_14	554944.32	5408228.54	Page Lake (south)		1.36E-01	3.71E-02	1.99E-02	2.41E-02	4.82E-03	2.39E-03	6.49E-02	1.65E-02	7.90E-03	1.00E-03	2.89E-04	1.56E-04	1.06E-06	2.80E-07	1.42E-07	5.15E+02	4.29E+02	5.45E+01	1.85E+01	2.94E+00	1.38E+00
W_15	555054.32	5408903.54	Page Lake (center)		9.06E-02	2.90E-02	1.62E-02	1.88E-02	3.55E-03	1.96E-03	5.23E-02	1.24E-02	6.21E-03	7.04E-04	2.27E-04	1.28E-04	9.78E-07	2.13E-07	1.16E-07	1.66E+02	1.38E+02	2.73E+01	9.59E+00	2.21E+00	1.08E+00
W_16	555065.32	5409497.54	Page Lake (north)		7.39E-02	2.29E-02	1.37E-02	1.79E-02	2.91E-03	1.73E-03	2.98E-02	9.16E-03	4.95E-03	5.63E-04	1.81E-04	1.08E-04	7.87E-07	1.62E-07	9.75E-08	1.49E+02	1.24E+02	1.96E+01	7.27E+00	1.55E+00	8.43E-01
W_17	556593.36	5402126.57	Peacock Lake (east)		1.75E-01	4.27E-02	2.02E-02	5.44E-02	7.75E-03	3.58E-03	3.36E-02	1.15E-02	5.76E-03	1.32E-03	3.30E-04	1.58E-04	1.82E-06	3.30E-07	1.55E-07	8.36E+01	6.97E+01	1.85E+01	6.20E+00	1.79E+00	8.66E-01
W_18	556043.37	5401266.57	Peacock Lake (south)		1.77E-01	4.59E-02	2.08E-02	6.40E-02	9.94E-03	3.61E-03	4.10E-02	1.04E-02	5.84E-03	1.36E-03	3.55E-04	1.63E-04	1.94E-06	3.93E-07	1.60E-07	2.74E+02	2.29E+02	2.98E+01	1.23E+01	1.61E+00	8.85E-01
W_19	556277.36	5402068.57	Peacock Lake (west)		1.83E-01	4.46E-02	2.13E-02	5.52E-02	8.44E-03	3.79E-03	3.63E-02	1.22E-02	6.05E-03	1.38E-03	3.44E-04	1.67E-04	1.81E-06	3.35E-07	1.61E-07	8.79E+01	7.32E+01	1.76E+01	5.90E+00	1.85E+00	9.06E-01
W_2	547105.36	5399506.55	Shack Lake (center)		2.69E-01	7.94E-02	5.74E-02	9.75E-02	1.51E-02	8.38E-03	8.80E-02	2.24E-02	1.72E-02	2.04E-03	6.39E-04	4.72E-04	2.33E-06	8.13E-07	5.76E-07	1.31E+02	1.09E+02	2.77E+01	1.31E+01	3.48E+00	2.69E+00
W_20	556444.36	5402419.57	Peacock Lake (north)		1.59E-01	4.55E-02	2.13E-02	5.89E-02	8.80E-03	3.82E-03	3.74E-02	1.24E-02	6.13E-03	1.20E-03	3.52E-04	1.67E-04	1.77E-06	3.61E-07	1.63E-07	8.04E+01	6.70E+01	2.01E+01	7.07E+00	1.96E+00	9.22E-01
W_21	556424.36	5402099.57	Peacock Lake (center)		1.78E-01	4.36E-02	2.08E-02	5.49E-02	8.07E-03	3.68E-03	3.33E-02	1.19E-02	5.93E-03	1.34E-03	3.36E-04	1.63E-04	1.83E-06	3.34E-07	1.59E-07	8.59E+01	7.16E+01	1.82E+01	6.10E+00	1.81E+00	8.89E-01
W_22	550202.38	5397448.58	Three Finger Lake (north)		3.41E-01	5.15E-02	3.32E-02	5.95E-02	8.31E-03	4.34E-03	6.14E-02	1.13E-02	7.59E-03	2.53E-03	3.95E-04	2.57E-04	2.73E-06	4.36E-07	2.60E-07	3.02E+02	2.52E+02	3.20E+01	1.56E+01	1.72E+00	1.16E+00
W_23	550175.38	5396991.58	Three Finger Lake (center)		3.01E-01	4.48E-02	2.81E-02	5.94E-02	7.55E-03	3.91E-03	5.67E-02	1.03E-02	6.79E-03	2.24E-03	3.40E-04	2.18E-04	2.55E-06	4.04E-07	2.31E-07	2.84E+02	2.37E+02	3.01E+01	1.44E+01	1.56E+00	1.03E+00
W_24	549830.38	5396525.58	Three Finger Lake (south)		2.35E-01	4.11E-02	2.45E-02	6.85E-02	6.30E-03	3.42E-03	4.82E-02	9.76E-03	6.35E-03	1.76E-03	3.13E-04	1.91E-04	2.18E-06	3.24E-07	2.03E-07	1.12E+02	9.32E+01	1.93E+01	8.55E+00	1.51E+00	9.64E-01
W_25	546947.38	5396627.56	Penn Lake (north)		1.22E-01	3.42E-02	2.64E-02	4.42E-02	5.78E-03	3.36E-03	6.04E-02	2.37E-02	1.46E-02	9.60E-04	2.68E-04	2.11E-04	5.05E-06	1.56E-06	8.84E-07	9.16E+01	7.63E+01	2.93E+01	1.31E+01	4.69E+00	2.79E+00
W_26	547059.38	5396125.56	Penn Lake (center)		1.19E-01	2.97E-02	2.32E-02	3.76E-02	5.22E-03	3.05E-03	5.62E-02	1.93E-02	1.16E-02	9.02E-04	2.33E-04	1.86E-04	3.98E-06	1.23E-06	6.70E-07	8.76E+01	7.30E+01	2.35E+01	1.14E+01	3.81E+00	2.18E+00
W_27	546991.39	5395772.56	Penn Lake (south)		1.10E-01	2.70E-02	2.12E-02	3.42E-02	4.88E-03	2.83E-03	5.40E-02	1.49E-02	9.98E-03	8.36E-04	2.12E-04	1.69E-04	4.14E-06	9.41E-07	5.45E-07	8.32E+01	6.93E+01	2.51E+01	1.15E+01	2.90E+00	1.84E+00
W_28	544637	5401700	Angler Creek at Model Property Boundary		1.75E-01	5.18E-02	3.08E-02	7.29E-02	1.34E-02	5.26E-03	7.89E-02	1.82E-02	1.15E-02	1.70E-03	4.91E-04	3.08E-04	1.89E-06	4.79E-07	2.60E-07	2.03E+02	1.70E+02	2.61E+01	1.37E+01	2.86E+00	1.88E+00
W_29	551284	5407805	Pic River In-Flow to Model Property Boundary		1.81E-01	4.90E-02	3.03E-02	3.69E-02	6.61E-03	3.46E-03	8.93E-02	2.06E-02	1.21E-02	1.33E-03	3.77E-04	2.34E-04	1.96E-06	3.91E-07	2.16E-07	1.50E+02	1.25E+02	3.54E+01	1.72E+01	3.71E+00	2.12E+00
W_3	546725.36	5399333.55	Shack Lake (southwest)		2.38E-01	6.96E-02	4.95E-02	7.20E-02	1.36E-02	7.57E-03	8.18E-02	2.10E-02	1.57E-02	1.83E-03	5.67E-04	4.13E-04	2.09E-06	7.48E-07	5.44E-07	1.18E+02	9.87E+01	2.63E+01	1.25E+01	3.35E+00	2.50E+00
W_30	551654	5401167	Pic River Out-Flow from Model Property Boundary		2.42E-01	1.16E-01	7.60E-02	8.75E-02	1.77E-02	8.70E-03	5.85E-02	2.28E-02	1.52E-02	1.81E-03	8.87E-04	5.78E-04	2.54E-06	6.62E-07	3.94E-07	1.18E+02	9.80E+01	2.18E+01	9.70E+00	3.46E+00	2.26E+00
W_4	545636.33	5403828.5	Hare Lake (east)		2.42E-01	6.85E-02	4.09E-02	1.03E-01	1.70E-02	1.03E-02	9.29E-02	2.81E-02	1.63E-02	2.31E-03	7.71E-04	4.60E-04	2.26E-06	5.63E-07	3.61E-07	3.05E+02	2.54E+02	3.73E+01	2.07E+01	4.62E+00	2.66E+00
W_5	545048.34	5403556.5	Hare Lake (south)		2.19E-01	5.85E-02	3.38E-02	1.00E-01	1.24E-02	7.71E-03	8.43E-02	2.33E-02	1.30E-02	2.10E-03	6.14E-04	3.59E-04	2.02E-06	4.56E-07	2.91E-07	3.17E+02	2.64E+02	3.63E+01	1.97E+01	3.85E+00	2.10E+00
W_6	543955.34	5403079.49	Hare Lake (west)		1.70E-01	4.30E-02	2.37E-02	6.96E-02	9.55E-03	5.16E-03	6.49E-02	1.61E-02	8.57E-03	1.45E-03	4.02E-04	2.24E-04	1.76E-06	3.72E-07	2.12E-07	3.21E+02	2.67E+02	3.48E+01	1.64E+01	2.62E+00	1.37E+00
W_7	544603.33	5403943.49	Hare Lake (north)		1.53E-01	4.80E-02	2.79E-02	7.32E-02	1.07E-02	6.91E-03	6.75E-02	1.87E-02	1.04E-02	1.40E-03	4.64E-04	2.73E-04	1.72E-06	3.95E-07	2.53E-07	6.26E+01	5.22E+01	2.20E+01	1.14E+01	3.09E+00	1.66E+00
W_8	544830.34	5403751.49	Hare Lake (center)		1.70E-01	5.28E-02	3.05E-02	7.76E-02	1.14E-02	7.29E-03	7.59E-02	2.08E-02	1.15E-02	1.61E-03	5.28E-04	3.09E-04	1.78E-06	4.23E-07	2.71E-07	1.77E+02	1.48E+02	2.41E+01	1.31E+01	3.44E+00	1.85E+00
W_9	549326.32	5406971.51	Bamoos Lake (east)		4.35E-01	8.19E-02	5.29E-02	5.26E-02	8.93E-03	5.18E-03	1.97E-01	4.42E-02	2.46E-02	3.13E-03	6.10E-04	4.06E-04	2.80E-06	6.20E-07	3.82E-07	1.08E+03	8.99E+02	1.25E+02	5.79E+01	8.11E+00	4.36E+00
Maximum of Special Receptors					**1.88E+00**	**8.38E-01**	**6.38E-01**	**2.46E-01**	**4.18E-02**	**1.68E-02**	**1.41E+00**	**5.29E-01**	**3.91E-01**	**1.37E-02**	**6.12E-03**	**4.66E-03**	**8.58E-05**	**4.08E-05**	**3.25E-05**	**1.08E+03**	**8.99E+02**	**4.08E+02**	**2.98E+02**	**1.11E+02**	**8.19E+01**
Max % of Criteria					-	-	-	**2.5%**	-	-	**0.0%**	-	-	**2.7%**	-	-	-	-	-	**18.0%**	**2.5%**	**2.6%**	-	-	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by MECP Guic

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier 3 assump

Table F-1 Special Receptor Predictions (ug/m3) - Operations, Project Alone

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	COBALT (CO)			COPPER (CU)		
				Averaging Period	24	month	annual	24	month	annual
				Criteria	0.1	-	-	50	-	-
W_13	546777.32	5406831.49	Bamoos Lake (center)		5.54E-04	1.57E-04	9.70E-05	4.04E-02	7.92E-03	4.72E-03
W_14	554944.32	5408228.54	Page Lake (south)		3.40E-04	1.01E-04	5.50E-05	2.64E-02	4.38E-03	2.52E-03
W_15	555054.32	5408903.54	Page Lake (center)		2.48E-04	8.00E-05	4.50E-05	2.42E-02	3.73E-03	2.22E-03
W_16	555065.32	5409497.54	Page Lake (north)		1.96E-04	6.30E-05	3.80E-05	2.10E-02	3.42E-03	2.01E-03
W_17	556593.36	5402126.57	Peacock Lake (east)		4.69E-04	1.20E-04	5.70E-05	3.08E-02	7.77E-03	3.55E-03
W_18	556043.37	5401266.57	Peacock Lake (south)		4.88E-04	1.32E-04	5.90E-05	2.79E-02	8.86E-03	3.78E-03
W_19	556277.36	5402068.57	Peacock Lake (west)		4.88E-04	1.25E-04	6.00E-05	3.01E-02	7.92E-03	3.62E-03
W_2	547105.36	5399506.55	Shack Lake (center)		7.15E-04	2.23E-04	1.68E-04	1.08E-01	2.10E-02	1.26E-02
W_20	556444.36	5402419.57	Peacock Lake (north)		4.30E-04	1.28E-04	6.00E-05	3.09E-02	8.36E-03	3.61E-03
W_21	556424.36	5402099.57	Peacock Lake (center)		4.76E-04	1.23E-04	5.90E-05	3.10E-02	7.91E-03	3.61E-03
W_22	550202.38	5397448.58	Three Finger Lake (north)		8.95E-04	1.53E-04	9.70E-05	5.15E-02	1.58E-02	7.44E-03
W_23	550175.38	5396991.58	Three Finger Lake (center)		7.95E-04	1.28E-04	8.30E-05	5.36E-02	1.39E-02	6.80E-03
W_24	549830.38	5396525.58	Three Finger Lake (south)		6.33E-04	1.15E-04	7.30E-05	6.18E-02	1.14E-02	6.42E-03
W_25	546947.38	5396627.56	Penn Lake (north)		6.90E-04	2.12E-04	1.29E-04	3.65E-01	7.48E-02	3.51E-02
W_26	547059.38	5396125.56	Penn Lake (center)		5.26E-04	1.54E-04	1.00E-04	2.69E-01	4.84E-02	2.36E-02
W_27	546991.39	5395772.56	Penn Lake (south)		4.60E-04	1.29E-04	8.80E-05	2.22E-01	3.63E-02	1.97E-02
W_28	544637	5401700	Angler Creek at Model Property Boundary		4.87E-04	1.46E-04	9.20E-05	6.61E-02	1.19E-02	7.00E-03
W_29	551284	5407805	Pic River In-Flow to Model Property Boundary		4.84E-04	1.35E-04	8.20E-05	3.85E-02	6.72E-03	3.51E-03
W_3	546725.36	5399333.55	Shack Lake (southwest)		6.37E-04	2.02E-04	1.52E-04	1.32E-01	2.57E-02	1.46E-02
W_30	551654	5401167	Pic River Out-Flow from Model Property Boundary		6.99E-04	3.34E-04	2.09E-04	7.38E-02	2.31E-02	1.00E-02
W_4	545636.33	5403828.5	Hare Lake (east)		6.75E-04	1.93E-04	1.20E-04	6.30E-02	1.24E-02	7.51E-03
W_5	545048.34	5403556.5	Hare Lake (south)		5.98E-04	1.62E-04	1.00E-04	6.38E-02	1.10E-02	6.51E-03
W_6	543955.34	5403079.49	Hare Lake (west)		4.46E-04	1.21E-04	7.10E-05	4.88E-02	8.40E-03	5.60E-03
W_7	544603.33	5403943.49	Hare Lake (north)		4.14E-04	1.33E-04	8.20E-05	5.06E-02	8.99E-03	5.77E-03
W_8	544830.34	5403751.49	Hare Lake (center)		4.72E-04	1.46E-04	9.00E-05	5.92E-02	1.00E-02	6.14E-03
W_9	549326.32	5406971.51	Bamoos Lake (east)		1.07E-03	2.10E-04	1.41E-04	4.07E-02	8.79E-03	4.74E-03
Maximum of Special Receptors					**4.70E-03**	**2.11E-03**	**1.61E-03**	**1.82E+00**	**1.03E+00**	**4.99E-01**
Max % of Criteria					**4.7%**	-	-	**3.6%**	-	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by MECP Guic

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier 3 assump

Table F-1 Special Receptor Predictions (ug/m3) - Operations, Project Alone

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	DIBENZ(A,H)PERYLENE			FLUORANTHENE			FLUORENE			FORMALDEHYDE			GALLIUM (GA)		
				Averaging Period	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual
				Criteria	-	-	-	-	-	-	-	-	-	65	-	-	-	-	-
W_13	546777.32	5406831.49	Bamoos Lake (center)		3.37E-07	7.20E-08	3.40E-08	5.87E-05	1.57E-05	8.76E-06	2.24E-04	5.97E-05	3.31E-05	2.34E-01	6.17E-02	3.39E-02	4.16E-02	7.18E-03	3.91E-03
W_14	554944.32	5408228.54	Page Lake (south)		1.22E-07	2.03E-08	1.14E-08	4.34E-05	1.06E-05	4.88E-06	1.66E-04	4.03E-05	1.85E-05	1.76E-01	4.20E-02	1.92E-02	2.65E-02	3.66E-03	2.09E-03
W_15	555054.32	5408903.54	Page Lake (center)		1.16E-07	1.65E-08	9.82E-09	3.57E-05	7.84E-06	3.80E-06	1.36E-04	2.98E-05	1.44E-05	1.44E-01	3.11E-02	1.49E-02	2.42E-02	3.28E-03	1.88E-03
W_16	555065.32	5409497.54	Page Lake (north)		1.02E-07	1.52E-08	8.89E-09	2.07E-05	5.57E-06	2.96E-06	7.80E-05	2.11E-05	1.12E-05	7.95E-02	2.19E-02	1.15E-02	2.09E-02	3.09E-03	1.73E-03
W_17	556593.36	5402126.57	Peacock Lake (east)		3.72E-07	3.85E-08	1.76E-08	2.29E-05	6.74E-06	3.17E-06	8.80E-05	2.47E-05	1.16E-05	9.40E-02	2.45E-02	1.15E-02	3.03E-02	7.41E-03	3.18E-03
W_18	556043.37	5401266.57	Peacock Lake (south)		3.69E-07	5.25E-08	1.77E-08	2.74E-05	6.16E-06	3.22E-06	1.03E-04	2.21E-05	1.17E-05	1.08E-01	2.11E-02	1.16E-02	2.83E-02	8.16E-03	3.42E-03
W_19	556277.36	5402068.57	Peacock Lake (west)		3.68E-07	3.89E-08	1.83E-08	2.17E-05	6.83E-06	3.31E-06	8.40E-05	2.50E-05	1.21E-05	8.93E-02	2.48E-02	1.20E-02	2.96E-02	7.39E-03	3.23E-03
W_2	547105.36	5399506.55	Shack Lake (center)		3.48E-07	7.73E-08	3.95E-08	4.78E-05	1.34E-05	1.04E-05	1.75E-04	4.66E-05	3.60E-05	1.73E-01	4.57E-02	3.55E-02	1.12E-01	2.08E-02	1.18E-02
W_20	556444.36	5402419.57	Peacock Lake (north)		3.66E-07	4.39E-08	1.88E-08	2.50E-05	7.32E-06	3.37E-06	9.60E-05	2.69E-05	1.24E-05	1.02E-01	2.67E-02	1.23E-02	2.98E-02	7.79E-03	3.21E-03
W_21	556424.36	5402099.57	Peacock Lake (center)		3.73E-07	3.91E-08	1.81E-08	2.25E-05	6.80E-06	3.26E-06	8.70E-05	2.49E-05	1.19E-05	9.24E-02	2.47E-02	1.18E-02	3.05E-02	7.45E-03	3.23E-03
W_22	550202.38	5397448.58	Three Finger Lake (north)		4.44E-07	4.24E-08	2.22E-08	3.92E-05	6.68E-06	4.45E-06	1.43E-04	2.33E-05	1.54E-05	1.34E-01	2.28E-02	1.51E-02	5.36E-02	1.54E-02	7.00E-03
W_23	550175.38	5396991.58	Three Finger Lake (center)		4.23E-07	3.83E-08	1.96E-08	3.58E-05	6.15E-06	3.97E-06	1.31E-04	2.11E-05	1.38E-05	1.22E-01	2.07E-02	1.35E-02	5.59E-02	1.37E-02	6.44E-03
W_24	549830.38	5396525.58	Three Finger Lake (south)		3.73E-07	3.56E-08	1.57E-08	2.78E-05	5.65E-06	3.68E-06	1.01E-04	2.03E-05	1.28E-05	9.61E-02	1.98E-02	1.26E-02	6.48E-02	1.11E-02	6.12E-03
W_25	546947.38	5396627.56	Penn Lake (north)		2.41E-07	2.57E-08	1.55E-08	6.27E-05	2.13E-05	1.24E-05	1.84E-04	6.54E-05	3.87E-05	1.77E-01	6.41E-02	3.77E-02	3.85E-01	7.80E-02	3.63E-02
W_26	547059.38	5396125.56	Penn Lake (center)		1.90E-07	2.44E-08	1.41E-08	5.23E-05	1.72E-05	9.57E-06	1.60E-04	5.30E-05	3.01E-05	1.55E-01	5.18E-02	2.94E-02	2.84E-01	5.03E-02	2.43E-02
W_27	546991.39	5395772.56	Penn Lake (south)		1.70E-07	2.31E-08	1.32E-08	5.38E-05	1.31E-05	7.99E-06	1.61E-04	4.03E-05	2.54E-05	1.57E-01	3.94E-02	2.48E-02	2.34E-01	3.76E-02	2.02E-02
W_28	544637	5401700	Angler Creek at Model Property Boundary		2.99E-07	5.74E-08	2.24E-08	5.02E-05	1.05E-05	6.84E-06	1.91E-04	3.89E-05	2.54E-05	1.98E-01	3.98E-02	2.59E-02	6.87E-02	1.18E-02	6.55E-03
W_29	551284	5407805	Pic River In-Flow to Model Property Boundary		2.23E-07	3.39E-08	1.71E-08	6.24E-05	1.32E-05	7.59E-06	2.38E-04	5.01E-05	2.88E-05	2.45E-01	5.20E-02	3.00E-02	3.68E-02	5.70E-03	2.86E-03
W_3	546725.36	5399333.55	Shack Lake (southwest)		3.23E-07	7.37E-08	3.61E-08	4.54E-05	1.25E-05	9.73E-06	1.67E-04	4.47E-05	3.35E-05	1.69E-01	4.38E-02	3.31E-02	1.38E-01	2.57E-02	1.41E-02
W_30	551654	5401167	Pic River Out-Flow from Model Property Boundary		4.29E-07	8.05E-08	3.91E-08	3.58E-05	1.27E-05	8.37E-06	1.34E-04	4.64E-05	3.03E-05	1.39E-01	4.56E-02	3.02E-02	7.34E-02	2.16E-02	8.71E-03
W_4	545636.33	5403828.5	Hare Lake (east)		4.12E-07	6.61E-08	3.94E-08	5.62E-05	1.66E-05	9.54E-06	2.14E-04	6.28E-05	3.60E-05	2.19E-01	6.45E-02	3.66E-02	6.48E-02	1.19E-02	6.79E-03
W_5	545048.34	5403556.5	Hare Lake (south)		3.69E-07	4.96E-08	3.07E-08	5.17E-05	1.38E-05	7.57E-06	1.97E-04	5.24E-05	2.84E-05	2.05E-01	5.39E-02	2.89E-02	6.58E-02	1.07E-02	5.94E-03
W_6	543955.34	5403079.49	Hare Lake (west)		3.21E-07	3.98E-08	2.18E-08	3.94E-05	9.53E-06	4.99E-06	1.49E-04	3.57E-05	1.85E-05	1.51E-01	3.62E-02	1.86E-02	5.01E-02	8.26E-03	5.25E-03
W_7	544603.33	5403943.49	Hare Lake (north)		3.16E-07	4.56E-08	2.84E-08	4.18E-05	1.12E-05	6.05E-06	1.59E-04	4.21E-05	2.26E-05	1.64E-01	4.31E-02	2.28E-02	5.21E-02	8.68E-03	5.30E-03
W_8	544830.34	5403751.49	Hare Lake (center)		3.01E-07	4.60E-08	2.95E-08	4.70E-05	1.24E-05	6.70E-06	1.79E-04	4.68E-05	2.51E-05	1.85E-01	4.81E-02	2.54E-02	6.11E-02	9.70E-03	5.63E-03
W_9	549326.32	5406971.51	Bamoos Lake (east)		2.88E-07	4.20E-08	2.30E-08	1.37E-04	3.01E-05	1.59E-05	5.27E-04	1.16E-04	6.07E-05	5.56E-01	1.22E-01	6.37E-02	3.80E-02	7.33E-03	3.50E-03
Maximum of Special Receptors					**7.52E-07**	**1.29E-07**	**6.45E-08**	**1.30E-03**	**4.79E-04**	**3.52E-04**	**4.22E-03**	**1.57E-03**	**1.16E-03**	**4.25E+00**	**1.59E+00**	**1.18E+00**	**1.92E+00**	**1.08E+00**	**5.26E-01**
Max % of Criteria					-	-	-	-	-	-	-	-	-	**6.5%**	-	-	-	-	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by MECP Guic

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier 3 assump

Table F-1 Special Receptor Predictions (ug/m3) - Operations, Project Alone

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	GOLD (AU)			HYDROCHLORIC ACID (HCL)			HYDROFLUORIC ACID (HF)			INDENO(1,2,3-CD)PYRENE			IRON (FE)			IRON SULFIDE		
				Averaging Period	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual
				Criteria	1.25	-	-	20	-	-	0.86	0.34	-	-	-	-	-	-	-	-	-	-
W_13	546777.32	5406831.49	Bamoos Lake (center)		9.19E-07	1.93E-07	1.21E-07	1.65E-03	3.39E-04	1.54E-04	1.99E-03	4.12E-04	1.87E-04	4.04E-07	8.62E-08	4.07E-08	9.32E-01	2.60E-01	1.57E-01	3.93E+00	8.84E-01	5.09E-01
W_14	554944.32	5408228.54	Page Lake (south)		6.10E-07	1.12E-07	6.51E-08	5.41E-04	1.08E-04	5.50E-05	6.46E-04	1.30E-04	6.60E-05	1.46E-07	2.43E-08	1.37E-08	5.69E-01	1.65E-01	8.95E-02	1.34E+00	4.55E-01	2.61E-01
W_15	555054.32	5408903.54	Page Lake (center)		5.62E-07	9.44E-08	5.67E-08	4.30E-04	8.10E-05	4.50E-05	5.11E-04	9.80E-05	5.40E-05	1.39E-07	1.97E-08	1.18E-08	4.00E-01	1.30E-01	7.31E-02	1.15E+00	3.80E-01	2.22E-01
W_16	555065.32	5409497.54	Page Lake (north)		4.87E-07	8.60E-08	5.10E-08	4.01E-04	6.60E-05	4.00E-05	4.75E-04	8.10E-05	4.80E-05	1.22E-07	1.82E-08	1.06E-08	3.21E-01	1.03E-01	6.18E-02	1.10E+00	3.23E-01	1.98E-01
W_17	556593.36	5402126.57	Peacock Lake (east)		7.26E-07	1.88E-07	8.81E-08	1.02E-03	1.87E-04	8.30E-05	1.21E-03	2.31E-04	1.01E-04	4.45E-07	4.61E-08	2.11E-08	7.88E-01	1.95E-01	9.23E-02	2.03E+00	6.50E-01	3.43E-01
W_18	556043.37	5401266.57	Peacock Lake (south)		6.44E-07	2.18E-07	9.35E-08	1.41E-03	2.24E-04	8.40E-05	1.72E-03	2.72E-04	1.03E-04	4.41E-07	6.29E-08	2.12E-08	8.03E-01	2.11E-01	9.53E-02	2.34E+00	5.98E-01	3.49E-01
W_19	556277.36	5402068.57	Peacock Lake (west)		7.08E-07	1.93E-07	9.02E-08	1.19E-03	2.04E-04	8.80E-05	1.44E-03	2.52E-04	1.08E-04	4.40E-07	4.66E-08	2.19E-08	8.21E-01	2.03E-01	9.75E-02	2.21E+00	6.90E-01	3.65E-01
W_2	547105.36	5399506.55	Shack Lake (center)		2.43E-06	4.91E-07	3.06E-07	2.00E-03	3.26E-04	1.81E-04	2.44E-03	3.98E-04	2.23E-04	4.17E-07	9.26E-08	4.73E-08	1.20E+00	3.63E-01	2.67E-01	5.28E+00	1.24E+00	9.40E-01
W_20	556444.36	5402419.57	Peacock Lake (north)		7.40E-07	2.03E-07	9.00E-08	1.17E-03	1.98E-04	8.80E-05	1.28E-03	2.43E-04	1.08E-04	4.38E-07	5.26E-08	2.26E-08	7.16E-01	2.07E-01	9.73E-02	2.24E+00	6.69E-01	3.63E-01
W_21	556424.36	5402099.57	Peacock Lake (center)		7.29E-07	1.92E-07	8.98E-08	1.09E-03	1.95E-04	8.50E-05	1.32E-03	2.41E-04	1.05E-04	4.47E-07	4.68E-08	2.17E-08	7.99E-01	1.99E-01	9.52E-02	2.13E+00	6.71E-01	3.54E-01
W_22	550202.38	5397448.58	Three Finger Lake (north)		1.17E-06	3.74E-07	1.81E-07	1.51E-03	1.89E-04	9.90E-05	1.84E-03	2.33E-04	1.22E-04	5.32E-07	5.07E-08	2.65E-08	1.51E+00	2.34E-01	1.54E-01	3.49E+00	7.18E-01	4.62E-01
W_23	550175.38	5396991.58	Three Finger Lake (center)		1.21E-06	3.28E-07	1.64E-07	1.47E-03	1.68E-04	8.90E-05	1.79E-03	2.07E-04	1.09E-04	5.07E-07	4.58E-08	2.35E-08	1.34E+00	2.02E-01	1.31E-01	3.20E+00	6.48E-01	4.15E-01
W_24	549830.38	5396525.58	Three Finger Lake (south)		1.39E-06	2.68E-07	1.54E-07	1.51E-03	1.40E-04	7.60E-05	1.82E-03	1.70E-04	9.40E-05	4.47E-07	4.27E-08	1.88E-08	1.05E+00	1.87E-01	1.15E-01	3.10E+00	5.73E-01	3.84E-01
W_25	546947.38	5396627.56	Penn Lake (north)		8.19E-06	1.69E-06	7.97E-07	9.76E-04	1.22E-04	7.40E-05	1.16E-03	1.47E-04	9.00E-05	2.88E-07	3.08E-08	1.86E-08	5.95E-01	2.21E-01	1.54E-01	1.88E+00	4.69E-01	3.77E-01
W_26	547059.38	5396125.56	Penn Lake (center)		6.04E-06	1.09E-06	5.39E-07	8.16E-04	1.11E-04	6.70E-05	9.79E-04	1.33E-04	8.20E-05	2.28E-07	2.92E-08	1.69E-08	5.30E-01	1.72E-01	1.28E-01	1.73E+00	4.23E-01	3.39E-01
W_27	546991.39	5395772.56	Penn Lake (south)		4.97E-06	8.24E-07	4.50E-07	7.48E-04	1.04E-04	6.20E-05	8.96E-04	1.25E-04	7.60E-05	2.04E-07	2.76E-08	1.58E-08	4.91E-01	1.52E-01	1.15E-01	1.61E+00	3.93E-01	3.14E-01
W_28	544637	5401700	Angler Creek at Model Property Boundary		1.50E-06	2.76E-07	1.68E-07	1.56E-03	2.88E-04	1.11E-04	1.88E-03	3.48E-04	1.36E-04	3.58E-07	6.87E-08	2.68E-08	8.01E-01	2.40E-01	1.47E-01	3.45E+00	8.93E-01	4.91E-01
W_29	551284	5407805	Pic River In-Flow to Model Property Boundary		9.15E-07	1.72E-07	9.16E-08	8.59E-04	1.49E-04	7.80E-05	1.01E-03	1.78E-04	9.40E-05	2.67E-07	4.06E-08	2.05E-08	7.94E-01	2.19E-01	1.36E-01	2.62E+00	5.67E-01	3.69E-01
W_3	546725.36	5399333.55	Shack Lake (southwest)		2.96E-06	5.95E-07	3.48E-07	1.48E-03	2.95E-04	1.63E-04	1.79E-03	3.61E-04	2.01E-04	3.87E-07	8.82E-08	4.33E-08	1.07E+00	3.22E-01	2.35E-01	4.36E+00	1.17E+00	8.34E-01
W_30	551654	5401167	Pic River Out-Flow from Model Property Boundary		1.73E-06	5.67E-07	2.56E-07	2.19E-03	3.88E-04	1.98E-04	2.69E-03	4.75E-04	2.45E-04	5.14E-07	9.64E-08	4.68E-08	1.12E+00	5.36E-01	3.44E-01	4.06E+00	1.37E+00	9.21E-01
W_4	545636.33	5403828.5	Hare Lake (east)		1.43E-06	2.92E-07	1.83E-07	2.20E-03	3.39E-04	2.14E-04	2.68E-03	4.14E-04	2.60E-04	4.94E-07	7.91E-08	4.71E-08	1.10E+00	3.20E-01	1.96E-01	4.04E+00	1.16E+00	7.04E-01
W_5	545048.34	5403556.5	Hare Lake (south)		1.45E-06	2.60E-07	1.58E-07	2.38E-03	2.68E-04	1.62E-04	2.89E-03	3.26E-04	1.97E-04	4.42E-07	5.94E-08	3.68E-08	9.90E-01	2.71E-01	1.61E-01	3.75E+00	9.10E-01	5.72E-01
W_6	543955.34	5403079.49	Hare Lake (west)		1.11E-06	1.97E-07	1.35E-07	1.35E-03	2.10E-04	1.10E-04	1.64E-03	2.53E-04	1.33E-04	3.85E-07	4.76E-08	2.61E-08	7.45E-01	1.98E-01	1.12E-01	2.60E+00	7.03E-01	4.08E-01
W_7	544603.33	5403943.49	Hare Lake (north)		1.15E-06	2.12E-07	1.40E-07	1.51E-03	2.26E-04	1.45E-04	1.82E-03	2.73E-04	1.75E-04	3.78E-07	5.46E-08	3.41E-08	6.90E-01	2.21E-01	1.32E-01	2.97E+00	7.62E-01	4.83E-01
W_8	544830.34	5403751.49	Hare Lake (center)		1.34E-06	2.36E-07	1.49E-07	1.96E-03	2.46E-04	1.53E-04	2.37E-03	2.97E-04	1.86E-04	3.60E-07	5.51E-08	3.54E-08	7.76E-01	2.43E-01	1.45E-01	3.30E+00	8.18E-01	5.25E-01
W_9	549326.32	5406971.51	Bamoos Lake (east)		9.86E-07	2.25E-07	1.29E-07	1.19E-03	1.83E-04	1.16E-04	1.41E-03	2.22E-04	1.41E-04	3.45E-07	5.03E-08	2.75E-08	1.81E+00	3.55E-01	2.34E-01	2.57E+00	7.82E-01	5.83E-01
Maximum of Special Receptors					**4.09E-05**	**2.31E-05**	**1.12E-05**	**5.76E-03**	**9.55E-04**	**3.83E-04**	**7.29E-03**	**1.20E-03**	**4.82E-04**	**9.00E-07**	**1.55E-07**	**7.72E-08**	**8.28E+00**	**3.69E+00**	**2.82E+00**	**1.35E+01**	**2.83E+00**	**1.84E+00**
Max % of Criteria					**0.0%**	-	-	**0.0%**	-	-	**0.8%**	**0.4%**	-	-	-	-	-	-	-	-	-	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by MECP Guic

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier 3 assump

Table F-1 Special Receptor Predictions (ug/m3) - Operations, Project Alone

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	LANTHANUM (LA)			LANTHANUM CHLORIDE (LACL3)			LEAD (PB)			MAGNESIUM (MG)			MANGANESE (MN)		
				Averaging Period	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual
				Criteria	-	-	-	2.5	-	-	0.5	0.2	-	72	-	-	0.4	-	-
W_13	546777.32	5406831.49	Bamoos Lake (center)		3.51E-04	8.06E-05	4.67E-05	2.75E-02	5.63E-03	2.54E-03	2.90E-04	6.50E-05	3.44E-05	2.37E-01	6.67E-02	4.00E-02	8.81E-03	2.43E-03	1.45E-03
W_14	554944.32	5408228.54	Page Lake (south)		2.41E-04	5.19E-05	2.73E-05	9.32E-03	1.83E-03	9.11E-04	1.26E-04	2.86E-05	1.48E-05	1.43E-01	4.20E-02	2.28E-02	5.38E-03	1.53E-03	8.26E-04
W_15	555054.32	5408903.54	Page Lake (center)		1.34E-04	4.04E-05	2.20E-05	7.53E-03	1.34E-03	7.50E-04	1.04E-04	2.16E-05	1.23E-05	1.01E-01	3.30E-02	1.86E-02	3.68E-03	1.20E-03	6.73E-04
W_16	555065.32	5409497.54	Page Lake (north)		1.14E-04	3.10E-05	1.83E-05	7.09E-03	1.10E-03	6.63E-04	9.70E-05	1.76E-05	1.08E-05	8.13E-02	2.62E-02	1.57E-02	3.00E-03	9.49E-04	5.68E-04
W_17	556593.36	5402126.57	Peacock Lake (east)		2.29E-04	5.62E-05	2.63E-05	2.10E-02	2.95E-03	1.35E-03	2.47E-04	4.08E-05	1.95E-05	2.03E-01	4.95E-02	2.34E-02	7.37E-03	1.79E-03	8.43E-04
W_18	556043.37	5401266.57	Peacock Lake (south)		2.29E-04	5.98E-05	2.72E-05	2.34E-02	3.76E-03	1.36E-03	2.68E-04	5.17E-05	1.99E-05	2.06E-01	5.35E-02	2.42E-02	7.44E-03	1.93E-03	8.70E-04
W_19	556277.36	5402068.57	Peacock Lake (west)		2.38E-04	5.86E-05	2.78E-05	2.06E-02	3.23E-03	1.43E-03	2.43E-04	4.40E-05	2.05E-05	2.11E-01	5.17E-02	2.48E-02	7.68E-03	1.87E-03	8.92E-04
W_2	547105.36	5399506.55	Shack Lake (center)		3.54E-04	1.02E-04	7.33E-05	3.29E-02	5.32E-03	2.89E-03	3.49E-04	7.27E-05	4.84E-05	3.09E-01	9.26E-02	6.75E-02	1.12E-02	3.34E-03	2.42E-03
W_20	556444.36	5402419.57	Peacock Lake (north)		2.06E-04	5.99E-05	2.78E-05	2.45E-02	3.21E-03	1.43E-03	2.77E-04	4.49E-05	2.06E-05	1.84E-01	5.26E-02	2.47E-02	6.67E-03	1.90E-03	8.90E-04
W_21	556424.36	5402099.57	Peacock Lake (center)		2.32E-04	5.72E-05	2.71E-05	2.08E-02	3.08E-03	1.38E-03	2.46E-04	4.23E-05	2.00E-05	2.06E-01	5.05E-02	2.42E-02	7.48E-03	1.82E-03	8.70E-04
W_22	550202.38	5397448.58	Three Finger Lake (north)		4.55E-04	6.80E-05	4.30E-05	2.50E-02	2.99E-03	1.57E-03	3.12E-04	5.05E-05	2.74E-05	3.91E-01	5.96E-02	3.88E-02	1.42E-02	2.16E-03	1.39E-03
W_23	550175.38	5396991.58	Three Finger Lake (center)		4.06E-04	5.90E-05	3.63E-05	2.46E-02	2.67E-03	1.41E-03	3.02E-04	4.37E-05	2.44E-05	3.45E-01	5.17E-02	3.29E-02	1.26E-02	1.87E-03	1.18E-03
W_24	549830.38	5396525.58	Three Finger Lake (south)		3.10E-04	5.40E-05	3.16E-05	2.53E-02	2.32E-03	1.19E-03	2.98E-04	3.49E-05	2.13E-05	2.70E-01	4.76E-02	2.87E-02	9.78E-03	1.72E-03	1.03E-03
W_25	546947.38	5396627.56	Penn Lake (north)		1.63E-04	4.38E-05	3.34E-05	1.71E-02	2.07E-03	1.19E-03	3.29E-04	8.49E-05	4.75E-05	1.42E-01	4.33E-02	3.35E-02	5.09E-03	1.44E-03	1.11E-03
W_26	547059.38	5396125.56	Penn Lake (center)		1.60E-04	3.84E-05	2.96E-05	1.40E-02	1.89E-03	1.09E-03	2.44E-04	6.39E-05	3.57E-05	1.36E-01	3.65E-02	2.89E-02	4.92E-03	1.25E-03	9.78E-04
W_27	546991.39	5395772.56	Penn Lake (south)		1.48E-04	3.49E-05	2.70E-05	1.29E-02	1.77E-03	1.01E-03	2.01E-04	5.43E-05	3.12E-05	1.25E-01	3.28E-02	2.62E-02	4.55E-03	1.13E-03	8.91E-04
W_28	544637	5401700	Angler Creek at Model Property Boundary		2.19E-04	6.38E-05	3.75E-05	2.63E-02	4.82E-03	1.83E-03	2.94E-04	6.02E-05	2.91E-05	2.05E-01	6.14E-02	3.71E-02	7.41E-03	2.21E-03	1.33E-03
W_29	551284	5407805	Pic River In-Flow to Model Property Boundary		2.72E-04	6.85E-05	4.16E-05	1.54E-02	2.58E-03	1.34E-03	1.90E-04	4.07E-05	2.19E-05	2.01E-01	5.56E-02	3.46E-02	7.37E-03	2.02E-03	1.26E-03
W_3	546725.36	5399333.55	Shack Lake (southwest)		3.13E-04	8.95E-05	6.29E-05	2.49E-02	4.82E-03	2.63E-03	2.76E-04	6.99E-05	4.65E-05	2.74E-01	8.15E-02	5.86E-02	9.96E-03	2.93E-03	2.09E-03
W_30	551654	5401167	Pic River Out-Flow from Model Property Boundary		3.16E-04	1.52E-04	9.96E-05	3.56E-02	6.32E-03	3.11E-03	3.64E-04	9.25E-05	5.10E-05	2.82E-01	1.36E-01	8.81E-02	1.02E-02	4.89E-03	3.19E-03
W_4	545636.33	5403828.5	Hare Lake (east)		3.35E-04	8.29E-05	4.74E-05	3.62E-02	5.53E-03	3.51E-03	3.55E-04	6.83E-05	4.59E-05	2.80E-01	8.25E-02	4.99E-02	1.02E-02	2.97E-03	1.79E-03
W_5	545048.34	5403556.5	Hare Lake (south)		3.08E-04	7.10E-05	4.01E-05	3.96E-02	4.41E-03	2.66E-03	3.82E-04	5.40E-05	3.65E-05	2.51E-01	6.99E-02	4.09E-02	9.20E-03	2.53E-03	1.47E-03
W_6	543955.34	5403079.49	Hare Lake (west)		2.58E-04	5.41E-05	2.93E-05	2.23E-02	3.52E-03	1.82E-03	2.39E-04	4.57E-05	2.65E-05	1.89E-01	5.07E-02	2.83E-02	6.98E-03	1.83E-03	1.01E-03
W_7	544603.33	5403943.49	Hare Lake (north)		2.00E-04	6.02E-05	3.41E-05	2.53E-02	3.79E-03	2.40E-03	2.53E-04	4.68E-05	3.26E-05	1.77E-01	5.67E-02	3.34E-02	6.43E-03	2.05E-03	1.20E-03
W_8	544830.34	5403751.49	Hare Lake (center)		2.30E-04	6.54E-05	3.69E-05	3.28E-02	4.11E-03	2.53E-03	3.16E-04	5.07E-05	3.45E-05	1.97E-01	6.26E-02	3.67E-02	7.18E-03	2.26E-03	1.32E-03
W_9	549326.32	5406971.51	Bamoos Lake (east)		7.62E-04	1.22E-04	7.47E-05	2.08E-02	3.41E-03	1.89E-03	2.52E-04	5.29E-05	3.21E-05	4.56E-01	9.09E-02	5.97E-02	1.72E-02	3.35E-03	2.18E-03
Maximum of Special Receptors					**2.50E-03**	**1.11E-03**	**8.45E-04**	**8.56E-02**	**1.44E-02**	**5.78E-03**	**1.64E-03**	**9.34E-04**	**4.62E-04**	**2.16E+00**	**9.61E-01**	**7.32E-01**	**7.92E-02**	**3.53E-02**	**2.68E-02**
Max % of Criteria					-	-	-	**3.4%**	-	-	**0.3%**	**0.5%**	-	**3.0%**	-	-	**19.8%**	-	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by MECP Guic

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier 3 assump

Table F-1 Special Receptor Predictions (ug/m3) - Operations, Project Alone

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	MERCURY (HG)			MOLYBDENUM (MO)			N2O			NAPHTHALENE				NICKEL (NI)		NITRIC ACID (HNO3)			NON-METHANE HYDROCARBONS		
				Averaging Period	24	month	annual	24	month	annual	24	month	annual	10-min	24	month	annual	24	annual	24	month	annual	24	month	annual
				Criteria	2	-	-	120	-	-	9000	-	-	50	22.5	-	-	0.2	0.04	35	-	-	-	-	-
W_13	546777.32	5406831.49	Bamoos Lake (center)		1.74E-05	4.71E-06	2.78E-06	2.43E-05	6.77E-06	4.36E-06	2.84E-01	8.26E-02	4.82E-02	3.49E-03	1.27E-04	2.70E-05	1.28E-05	1.59E-03	3.46E-04	1.94E-03	4.01E-04	1.82E-04	8.24E-01	2.18E-01	1.20E-01
W_14	554944.32	5408228.54	Page Lake (south)		1.07E-05	2.97E-06	1.60E-06	1.58E-05	4.40E-06	2.39E-06	2.11E-01	5.46E-02	2.66E-02	1.58E-03	4.60E-05	7.63E-06	4.28E-06	1.13E-03	1.90E-04	6.29E-04	1.27E-04	6.40E-05	6.20E-01	1.48E-01	6.80E-02
W_15	555054.32	5408903.54	Page Lake (center)		7.18E-06	2.32E-06	1.30E-06	1.10E-05	3.49E-06	1.97E-06	1.69E-01	4.16E-02	2.11E-02	1.36E-03	4.40E-05	6.18E-06	3.69E-06	9.84E-04	1.59E-04	4.98E-04	9.50E-05	5.30E-05	5.07E-01	1.10E-01	5.26E-02
W_16	555065.32	5409497.54	Page Lake (north)		5.86E-06	1.84E-06	1.10E-06	8.75E-06	2.80E-06	1.67E-06	1.00E-01	3.10E-02	1.69E-02	1.31E-03	3.80E-05	5.71E-06	3.34E-06	8.11E-04	1.37E-04	4.63E-04	7.90E-05	4.70E-05	2.82E-01	7.76E-02	4.07E-02
W_17	556593.36	5402126.57	Peacock Lake (east)		1.44E-05	3.47E-06	1.63E-06	1.95E-05	5.12E-06	2.46E-06	1.10E-01	4.09E-02	2.06E-02	3.01E-03	1.40E-04	1.45E-05	6.62E-06	1.50E-03	2.14E-04	1.18E-03	2.25E-04	9.90E-05	3.32E-01	8.72E-02	4.10E-02
W_18	556043.37	5401266.57	Peacock Lake (south)		1.45E-05	3.74E-06	1.69E-06	2.04E-05	5.59E-06	2.55E-06	1.35E-01	3.72E-02	2.09E-02	3.19E-03	1.38E-04	1.97E-05	6.65E-06	1.67E-03	2.23E-04	1.67E-03	2.64E-04	1.00E-04	3.81E-01	7.55E-02	4.15E-02
W_19	556277.36	5402068.57	Peacock Lake (west)		1.50E-05	3.63E-06	1.73E-06	2.03E-05	5.32E-06	2.59E-06	1.29E-01	4.32E-02	2.17E-02	3.14E-03	1.38E-04	1.46E-05	6.87E-06	1.56E-03	2.24E-04	1.40E-03	2.45E-04	1.05E-04	3.15E-01	8.84E-02	4.28E-02
W_2	547105.36	5399506.55	Shack Lake (center)		2.19E-05	6.42E-06	4.62E-06	2.95E-05	1.00E-05	7.72E-06	3.16E-01	7.94E-02	6.08E-02	4.10E-03	1.31E-04	2.90E-05	1.48E-05	2.85E-03	6.78E-04	2.37E-03	3.87E-04	2.17E-04	6.19E-01	1.65E-01	1.30E-01
W_20	556444.36	5402419.57	Peacock Lake (north)		1.30E-05	3.69E-06	1.73E-06	1.79E-05	5.44E-06	2.58E-06	1.22E-01	4.36E-02	2.19E-02	2.93E-03	1.37E-04	1.65E-05	7.07E-06	1.43E-03	2.23E-04	1.25E-03	2.37E-04	1.05E-04	3.61E-01	9.48E-02	4.37E-02
W_21	556424.36	5402099.57	Peacock Lake (center)		1.46E-05	3.54E-06	1.69E-06	1.98E-05	5.21E-06	2.53E-06	1.19E-01	4.21E-02	2.12E-02	3.09E-03	1.40E-04	1.47E-05	6.80E-06	1.52E-03	2.20E-04	1.28E-03	2.34E-04	1.02E-04	3.26E-01	8.79E-02	4.21E-02
W_22	550202.38	5397448.58	Three Finger Lake (north)		2.79E-05	4.20E-06	2.71E-06	3.60E-05	6.43E-06	4.13E-06	2.14E-01	4.06E-02	2.72E-02	3.89E-03	1.67E-04	1.59E-05	8.32E-06	2.65E-03	3.86E-04	1.79E-03	2.26E-04	1.19E-04	4.74E-01	8.17E-02	5.47E-02
W_23	550175.38	5396991.58	Three Finger Lake (center)		2.46E-05	3.65E-06	2.29E-06	3.19E-05	5.39E-06	3.55E-06	1.99E-01	3.70E-02	2.44E-02	3.66E-03	1.59E-04	1.44E-05	7.38E-06	2.40E-03	3.39E-04	1.74E-03	2.01E-04	1.06E-04	4.31E-01	7.42E-02	4.89E-02
W_24	549830.38	5396525.58	Three Finger Lake (south)		1.92E-05	3.35E-06	1.99E-06	2.53E-05	4.77E-06	3.15E-06	1.74E-01	3.48E-02	2.28E-02	3.41E-03	1.40E-04	1.34E-05	5.90E-06	2.02E-03	3.07E-04	1.77E-03	1.66E-04	9.10E-05	3.41E-01	7.10E-02	4.58E-02
W_25	546947.38	5396627.56	Penn Lake (north)		9.92E-06	2.85E-06	2.20E-06	3.05E-05	9.36E-06	5.71E-06	1.94E-01	7.71E-02	4.83E-02	2.80E-03	9.00E-05	9.65E-06	5.83E-06	8.44E-03	9.76E-04	1.13E-03	1.43E-04	8.80E-05	6.93E-01	2.45E-01	1.44E-01
W_26	547059.38	5396125.56	Penn Lake (center)		9.60E-06	2.46E-06	1.92E-06	2.33E-05	6.83E-06	4.45E-06	1.82E-01	6.34E-02	3.88E-02	2.70E-03	7.10E-05	9.16E-06	5.30E-06	6.25E-03	6.94E-04	9.53E-04	1.30E-04	8.00E-05	5.95E-01	1.98E-01	1.11E-01
W_27	546991.39	5395772.56	Penn Lake (south)		8.89E-06	2.22E-06	1.75E-06	2.09E-05	5.73E-06	3.92E-06	1.71E-01	4.91E-02	3.35E-02	2.57E-03	6.40E-05	8.67E-06	4.95E-06	5.15E-03	5.91E-04	8.73E-04	1.22E-04	7.40E-05	6.09E-01	1.51E-01	9.37E-02
W_28	544637	5401700	Angler Creek at Model Property Boundary		1.38E-05	4.01E-06	2.36E-06	2.81E-05	8.04E-06	5.37E-06	2.63E-01	6.37E-02	3.97E-02	3.33E-03	1.12E-04	2.15E-05	8.40E-06	1.96E-03	4.02E-04	1.83E-03	3.38E-04	1.32E-04	6.99E-01	1.41E-01	9.22E-02
W_29	551284	5407805	Pic River In-Flow to Model Property Boundary		1.46E-05	3.94E-06	2.44E-06	2.04E-05	5.82E-06	3.55E-06	2.88E-01	6.84E-02	4.05E-02	2.51E-03	8.40E-05	1.27E-05	6.44E-06	1.64E-03	2.78E-04	9.87E-04	1.73E-04	9.20E-05	8.66E-01	1.84E-01	1.06E-01
W_3	546725.36	5399333.55	Shack Lake (southwest)		1.94E-05	5.61E-06	3.98E-06	2.65E-05	9.21E-06	7.07E-06	2.90E-01	7.42E-02	5.56E-02	3.92E-03	1.21E-04	2.77E-05	1.36E-05	3.33E-03	6.74E-04	1.74E-03	3.51E-04	1.95E-04	6.02E-01	1.58E-01	1.21E-01
W_30	551654	5401167	Pic River Out-Flow from Model Property Boundary		1.99E-05	9.54E-06	6.21E-06	2.89E-05	1.40E-05	8.73E-06	1.99E-01	8.17E-02	5.43E-02	4.81E-03	1.61E-04	3.02E-05	1.47E-05	2.94E-03	7.14E-04	2.61E-03	4.62E-04	2.38E-04	4.91E-01	1.62E-01	1.08E-01
W_4	545636.33	5403828.5	Hare Lake (east)		1.84E-05	5.13E-06	3.01E-06	3.93E-05	1.34E-05	8.12E-06	3.16E-01	9.62E-02	5.65E-02	4.14E-03	1.55E-04	2.48E-05	1.48E-05	2.63E-03	5.23E-04	2.61E-03	4.03E-04	2.53E-04	7.74E-01	2.28E-01	1.30E-01
W_5	545048.34	5403556.5	Hare Lake (south)		1.66E-05	4.39E-06	2.53E-06	3.56E-05	1.03E-05	6.27E-06	2.84E-01	7.98E-02	4.50E-02	3.71E-03	1.39E-04	1.86E-05	1.15E-05	2.24E-03	4.27E-04	2.81E-03	3.17E-04	1.92E-04	7.22E-01	1.91E-01	1.02E-01
W_6	543955.34	5403079.49	Hare Lake (west)		1.32E-05	3.33E-06	1.84E-06	2.32E-05	6.56E-06	3.86E-06	2.22E-01	5.58E-02	2.99E-02	3.13E-03	1.21E-04	1.49E-05	8.17E-06	1.83E-03	3.07E-04	1.59E-03	2.47E-04	1.30E-04	5.34E-01	1.28E-01	6.63E-02
W_7	544603.33	5403943.49	Hare Lake (north)		1.18E-05	3.69E-06	2.15E-06	2.28E-05	7.79E-06	4.67E-06	2.28E-01	6.43E-02	3.62E-02	3.40E-03	1.19E-04	1.71E-05	1.07E-05	1.52E-03	3.48E-04	1.77E-03	2.66E-04	1.71E-04	5.78E-01	1.52E-01	8.07E-02
W_8	544830.34	5403751.49	Hare Lake (center)		1.30E-05	4.01E-06	2.32E-06	2.71E-05	8.79E-06	5.34E-06	2.55E-01	7.13E-02	4.00E-02	3.58E-03	1.13E-04	1.73E-05	1.11E-05	1.80E-03	3.83E-04	2.30E-03	2.89E-04	1.81E-04	6.54E-01	1.70E-01	9.00E-02
W_9	549326.32	5406971.51	Bamoos Lake (east)		3.42E-05	6.58E-06	4.25E-06	4.84E-05	9.04E-06	6.09E-06	6.26E-01	1.42E-01	8.11E-02	3.46E-03	1.08E-04	1.58E-05	8.64E-06	2.98E-03	4.53E-04	1.38E-03	2.16E-04	1.37E-04	1.96E+00	4.31E-01	2.25E-01
Maximum of Special Receptors					**1.55E-04**	**6.89E-05**	**5.24E-05**	**1.90E-04**	**8.59E-05**	**6.53E-05**	**4.41E+00**	**1.65E+00**	**1.22E+00**	**5.52E-03**	**2.82E-04**	**4.85E-05**	**2.42E-05**	**4.20E-02**	**1.16E-02**	**7.08E-03**	**1.17E-03**	**4.68E-04**	**1.60E+01**	**5.97E+00**	**4.41E+00**
Max % of Criteria					**0.0%**	-	-	**0.0%**	-	-	**0.0%**	-	-	**0.0%**	**0.0%**	-	-	**21.0%**	**29.1%**	**0.0%**	-	-	-	-	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by MECP Guic

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier 3 assump

Table F-1 Special Receptor Predictions (ug/m3) - Operations, Project Alone

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	NO2 (See Note 3)			PALLADIUM (PD)			PHENANTHRENE			PHOSPHOROUS (P)			PLATINUM (PT)			PM10 (see Note 1)			PM10 (see Note 2)	PM2.5 (See Note	
				Averaging Period	1	24	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	24	month
				Criteria	400	200	-	10	-	-	-	-	-	-	-	-	0.2	-	-	-	-	-	50	-	-
W_13	546777.32	5406831.49	Bamoos Lake (center)		5.96E+01	1.14E+01	2.07E+00	8.97E-06	1.69E-06	9.79E-07	9.99E-04	2.65E-04	1.46E-04	2.22E-02	6.35E-03	3.80E-03	1.91E-06	3.93E-07	2.43E-07	7.00E+00	1.58E+00	9.39E-01	4.93E+00	9.48E-01	3.02E-01
W_14	554944.32	5408228.54	Page Lake (south)		6.00E+01	9.08E+00	1.24E+00	5.80E-06	9.09E-07	5.21E-07	7.42E-04	1.79E-04	8.20E-05	1.31E-02	3.97E-03	2.16E-03	1.26E-06	2.26E-07	1.31E-07	4.98E+00	1.02E+00	5.32E-01	4.65E+00	6.94E-01	1.98E-01
W_15	555054.32	5408903.54	Page Lake (center)		5.70E+01	7.23E+00	9.67E-01	5.33E-06	7.82E-07	4.62E-07	6.09E-04	1.33E-04	6.40E-05	9.42E-03	3.12E-03	1.77E-03	1.16E-06	1.91E-07	1.14E-07	2.66E+00	7.98E-01	4.31E-01	2.06E+00	5.57E-01	1.54E-01
W_16	555065.32	5409497.54	Page Lake (north)		4.51E+01	4.47E+00	7.53E-01	4.61E-06	7.26E-07	4.21E-07	3.45E-04	9.40E-05	4.90E-05	7.60E-03	2.49E-03	1.49E-03	1.01E-06	1.74E-07	1.03E-07	2.32E+00	6.11E-01	3.59E-01	1.77E+00	3.88E-01	1.17E-01
W_17	556593.36	5402126.57	Peacock Lake (east)		4.84E+01	4.71E+00	7.52E-01	6.71E-06	1.67E-06	7.50E-07	3.95E-04	1.08E-04	5.10E-05	1.96E-02	4.71E-03	2.23E-03	1.49E-06	3.84E-07	1.79E-07	4.88E+00	1.09E+00	5.17E-01	3.81E+00	8.97E-01	1.91E-01
W_18	556043.37	5401266.57	Peacock Lake (south)		4.85E+01	5.23E+00	7.94E-01	6.16E-06	1.89E-06	8.02E-07	4.58E-04	9.50E-05	5.10E-05	1.97E-02	5.10E-03	2.30E-03	1.33E-06	4.43E-07	1.90E-07	4.92E+00	1.19E+00	5.32E-01	3.59E+00	9.11E-01	2.07E-01
W_19	556277.36	5402068.57	Peacock Lake (west)		4.90E+01	5.40E+00	7.84E-01	6.57E-06	1.70E-06	7.65E-07	3.75E-04	1.09E-04	5.30E-05	2.04E-02	4.93E-03	2.36E-03	1.46E-06	3.93E-07	1.83E-07	5.06E+00	1.14E+00	5.47E-01	3.87E+00	9.22E-01	1.97E-01
W_2	547105.36	5399506.55	Shack Lake (center)		7.69E+01	8.91E+00	1.86E+00	2.40E-05	4.59E-06	2.70E-06	7.64E-04	2.01E-04	1.55E-04	2.97E-02	8.86E-03	6.43E-03	5.05E-06	1.01E-06	6.24E-07	6.85E+00	2.03E+00	1.47E+00	3.67E+00	1.20E+00	3.56E-01
W_20	556444.36	5402419.57	Peacock Lake (north)		4.76E+01	5.31E+00	8.04E-01	6.68E-06	1.79E-06	7.62E-07	4.30E-04	1.17E-04	5.40E-05	1.77E-02	5.02E-03	2.36E-03	1.52E-06	4.14E-07	1.82E-07	4.49E+00	1.17E+00	5.47E-01	3.67E+00	8.48E-01	2.08E-01
W_21	556424.36	5402099.57	Peacock Lake (center)		4.85E+01	5.00E+00	7.72E-01	6.76E-06	1.70E-06	7.63E-07	3.88E-04	1.08E-04	5.20E-05	1.99E-02	4.81E-03	2.30E-03	1.50E-06	3.92E-07	1.82E-07	4.94E+00	1.11E+00	5.34E-01	3.82E+00	9.05E-01	1.94E-01
W_22	550202.38	5397448.58	Three Finger Lake (north)		6.35E+01	8.81E+00	9.06E-01	1.15E-05	3.43E-06	1.60E-06	6.15E-04	1.01E-04	6.60E-05	3.76E-02	5.73E-03	3.69E-03	2.42E-06	7.69E-07	3.69E-07	8.96E+00	1.28E+00	8.28E-01	5.45E+00	1.46E+00	2.08E-01
W_23	550175.38	5396991.58	Three Finger Lake (center)		6.15E+01	8.49E+00	8.18E-01	1.20E-05	3.04E-06	1.46E-06	5.61E-04	9.10E-05	5.90E-05	3.32E-02	4.95E-03	3.12E-03	2.52E-06	6.75E-07	3.35E-07	8.04E+00	1.13E+00	7.05E-01	4.99E+00	1.32E+00	1.84E-01
W_24	549830.38	5396525.58	Three Finger Lake (south)		6.32E+01	7.37E+00	7.38E-01	1.38E-05	2.47E-06	1.38E-06	4.32E-04	8.80E-05	5.50E-05	2.59E-02	4.54E-03	2.72E-03	2.90E-06	5.52E-07	3.15E-07	6.20E+00	1.04E+00	6.15E-01	3.39E+00	1.06E+00	1.72E-01
W_25	546947.38	5396627.56	Penn Lake (north)		5.85E+01	5.76E+00	1.01E+00	8.18E-05	1.67E-05	7.80E-06	7.49E-04	2.72E-04	1.61E-04	1.34E-02	3.73E-03	2.88E-03	1.71E-05	3.51E-06	1.66E-06	3.30E+00	9.77E-01	7.69E-01	1.88E+00	6.34E-01	1.93E-01
W_26	547059.38	5396125.56	Penn Lake (center)		6.55E+01	5.22E+00	8.72E-01	6.03E-05	1.08E-05	5.24E-06	6.64E-04	2.20E-04	1.26E-04	1.29E-02	3.25E-03	2.55E-03	1.26E-05	2.28E-06	1.12E-06	3.15E+00	8.37E-01	6.57E-01	1.61E+00	5.62E-01	1.69E-01
W_27	546991.39	5395772.56	Penn Lake (south)		6.31E+01	4.86E+00	7.79E-01	4.96E-05	8.08E-06	4.37E-06	6.62E-04	1.67E-04	1.06E-04	1.20E-02	2.95E-03	2.33E-03	1.04E-05	1.71E-06	9.34E-07	2.93E+00	7.49E-01	5.92E-01	1.49E+00	5.27E-01	1.44E-01
W_28	544637	5401700	Angler Creek at Model Property Boundary		5.35E+01	1.03E+01	1.42E+00	1.47E-05	2.59E-06	1.50E-06	8.48E-04	1.71E-04	1.11E-04	1.97E-02	5.91E-03	3.54E-03	3.11E-06	5.70E-07	3.44E-07	4.52E+00	1.33E+00	7.95E-01	2.68E+00	1.01E+00	2.70E-01
W_29	551284	5407805	Pic River In-Flow to Model Property Boundary		6.90E+01	1.26E+01	1.69E+00	8.36E-06	1.40E-06	7.20E-07	1.06E-03	2.22E-04	1.28E-04	1.89E-02	5.27E-03	3.29E-03	1.88E-06	3.46E-07	1.84E-07	5.25E+00	1.33E+00	7.99E-01	3.67E+00	1.02E+00	2.54E-01
W_3	546725.36	5399333.55	Shack Lake (southwest)		7.58E+01	8.43E+00	1.73E+00	2.94E-05	5.64E-06	3.17E-06	7.35E-04	1.93E-04	1.44E-04	2.64E-02	7.76E-03	5.54E-03	6.17E-06	1.23E-06	7.13E-07	6.08E+00	1.80E+00	1.28E+00	2.88E+00	1.04E+00	3.22E-01
W_30	551654	5401167	Pic River Out-Flow from Model Property Boundary		5.91E+01	8.38E+00	1.91E+00	1.61E-05	4.94E-06	2.09E-06	5.95E-04	2.01E-04	1.32E-04	2.69E-02	1.29E-02	8.45E-03	3.57E-06	1.16E-06	5.17E-07	6.03E+00	2.85E+00	1.87E+00	3.22E+00	1.05E+00	4.43E-01
W_4	545636.33	5403828.5	Hare Lake (east)		5.94E+01	1.24E+01	2.01E+00	1.40E-05	2.68E-06	1.59E-06	9.46E-04	2.77E-04	1.58E-04	2.65E-02	8.01E-03	4.81E-03	2.97E-06	5.99E-07	3.72E-07	7.25E+00	1.79E+00	1.05E+00	5.57E+00	1.22E+00	3.99E-01
W_5	545048.34	5403556.5	Hare Lake (south)		5.59E+01	1.08E+01	1.63E+00	1.42E-05	2.40E-06	1.38E-06	8.75E-04	2.31E-04	1.25E-04	2.39E-02	6.77E-03	3.93E-03	3.00E-06	5.34E-07	3.22E-07	6.61E+00	1.51E+00	8.68E-01	5.18E+00	1.11E+00	3.33E-01
W_6	543955.34	5403079.49	Hare Lake (west)		4.81E+01	8.78E+00	1.08E+00	1.08E-05	1.83E-06	1.20E-06	6.58E-04	1.57E-04	8.10E-05	1.78E-02	4.86E-03	2.70E-03	2.31E-06	4.06E-07	2.75E-07	5.35E+00	1.12E+00	6.14E-01	4.36E+00	8.87E-01	2.30E-01
W_7	544603.33	5403943.49	Hare Lake (north)		5.10E+01	8.99E+00	1.33E+00	1.12E-05	1.95E-06	1.23E-06	7.04E-04	1.86E-04	9.90E-05	1.70E-02	5.46E-03	3.19E-03	2.39E-06	4.36E-07	2.85E-07	4.11E+00	1.25E+00	7.23E-01	2.41E+00	8.69E-01	2.63E-01
W_8	544830.34	5403751.49	Hare Lake (center)		5.37E+01	9.94E+00	1.46E+00	1.31E-05	2.17E-06	1.31E-06	7.94E-04	2.07E-04	1.10E-04	1.89E-02	6.04E-03	3.52E-03	2.79E-06	4.84E-07	3.04E-07	4.93E+00	1.37E+00	7.89E-01	3.51E+00	9.80E-01	2.94E-01
W_9	549326.32	5406971.51	Bamoos Lake (east)		8.45E+01	1.81E+01	3.12E+00	8.76E-06	1.82E-06	9.44E-07	2.36E-03	5.17E-04	2.70E-04	4.21E-02	8.64E-03	5.67E-03	2.01E-06	4.54E-07	2.56E-07	1.54E+01	2.27E+00	1.44E+00	1.23E+01	1.94E+00	4.57E-01
Maximum of Special Receptors					**8.45E+01**	**3.35E+01**	**1.01E+01**	**4.08E-04**	**2.30E-04**	**1.12E-04**	**1.77E-02**	**6.62E-03**	**4.89E-03**	**2.10E-01**	**9.36E-02**	**7.12E-02**	**8.52E-05**	**4.81E-05**	**2.33E-05**	**4.08E+01**	**1.85E+01**	**1.40E+01**	**1.23E+01**	**4.54E+00**	**2.06E+00**
Max % of Criteria					**21.1%**	**16.7%**	-	**0.0%**	-	-	-	-	-	-	-	-	**0.0%**	-	-	-	-	-	**24.7%**	-	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by MECP Guic

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier 3 assump

Table F-1 Special Receptor Predictions (ug/m3) - Operations, Project Alone

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	1)	PM2.5 (See Note 2)		POTASSIUM (K)			PROPYLENE			PYRENE			SCANDIUM (SC)			SILICA			SILICON (SI)		
				Averaging Period	annual	24	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual
				Criteria	-	27	8.8	1	-	-	4000	-	-	-	-	-	-	-	-	5	-	-	27	-	-
W_13	546777.32	5406831.49	Bamoos Lake (center)		1.83E-01	6.96E-01	1.40E-01	1.28E-02	3.64E-03	2.18E-03	2.72E-03	5.81E-04	2.74E-04	4.99E-05	1.34E-05	7.52E-06	3.10E-05	8.29E-06	4.87E-06	3.27E+00	7.15E-01	4.20E-01	9.12E-03	1.95E-03	1.16E-03
W_14	554944.32	5408228.54	Page Lake (south)		1.00E-01	5.17E-01	8.55E-02	7.56E-03	2.28E-03	1.24E-03	9.86E-04	1.64E-04	9.20E-05	3.70E-05	9.03E-06	4.18E-06	1.91E-05	5.22E-06	2.81E-06	2.36E+00	4.60E-01	2.40E-01	5.70E-03	9.87E-04	5.62E-04
W_15	555054.32	5408903.54	Page Lake (center)		8.10E-02	4.42E-01	6.76E-02	5.43E-03	1.79E-03	1.01E-03	9.38E-04	1.33E-04	7.90E-05	3.04E-05	6.71E-06	3.26E-06	1.27E-05	4.09E-06	2.28E-06	1.19E+00	3.60E-01	1.94E-01	5.23E-03	8.66E-04	5.04E-04
W_16	555065.32	5409497.54	Page Lake (north)		6.68E-02	3.05E-01	5.33E-02	4.37E-03	1.43E-03	8.55E-04	8.21E-04	1.23E-04	7.20E-05	1.78E-05	4.77E-06	2.55E-06	1.04E-05	3.22E-06	1.92E-06	1.07E+00	2.75E-01	1.62E-01	4.53E-03	7.94E-04	4.62E-04
W_17	556593.36	5402126.57	Peacock Lake (east)		9.12E-02	7.78E-01	6.45E-02	1.11E-02	2.70E-03	1.28E-03	3.00E-03	3.11E-04	1.42E-04	1.94E-05	5.90E-06	2.78E-06	2.51E-05	6.05E-06	2.85E-06	2.26E+00	4.95E-01	2.33E-01	6.53E-03	1.73E-03	7.82E-04
W_18	556043.37	5401266.57	Peacock Lake (south)		9.28E-02	7.63E-01	6.93E-02	1.13E-02	2.91E-03	1.32E-03	2.97E-03	4.24E-04	1.43E-04	2.35E-05	5.46E-06	2.83E-06	2.52E-05	6.51E-06	2.94E-06	2.25E+00	5.40E-01	2.39E-01	5.99E-03	1.92E-03	8.34E-04
W_19	556277.36	5402068.57	Peacock Lake (west)		9.63E-02	7.91E-01	6.72E-02	1.16E-02	2.82E-03	1.35E-03	2.97E-03	3.14E-04	1.48E-04	1.84E-05	5.99E-06	2.90E-06	2.61E-05	6.32E-06	3.02E-06	2.34E+00	5.15E-01	2.46E-01	6.40E-03	1.76E-03	7.98E-04
W_2	547105.36	5399506.55	Shack Lake (center)		2.62E-01	8.45E-01	1.69E-01	1.70E-02	5.05E-03	3.66E-03	2.81E-03	6.24E-04	3.18E-04	4.18E-05	1.22E-05	9.47E-06	3.84E-05	1.12E-05	8.00E-06	3.12E+00	9.04E-01	6.47E-01	2.46E-02	5.04E-03	3.14E-03
W_20	556444.36	5402419.57	Peacock Lake (north)		9.66E-02	7.54E-01	7.00E-02	1.01E-02	2.87E-03	1.35E-03	2.95E-03	3.54E-04	1.52E-04	2.14E-05	6.40E-06	2.95E-06	2.26E-05	6.44E-06	3.01E-06	2.07E+00	5.31E-01	2.46E-01	6.46E-03	1.86E-03	7.95E-04
W_21	556424.36	5402099.57	Peacock Lake (center)		9.41E-02	7.81E-01	6.61E-02	1.13E-02	2.75E-03	1.32E-03	3.01E-03	3.16E-04	1.46E-04	1.91E-05	5.95E-06	2.86E-06	2.54E-05	6.17E-06	2.94E-06	2.29E+00	5.04E-01	2.40E-01	6.58E-03	1.76E-03	7.96E-04
W_22	550202.38	5397448.58	Three Finger Lake (north)		1.34E-01	9.94E-01	8.36E-02	2.15E-02	3.27E-03	2.11E-03	3.58E-03	3.42E-04	1.79E-04	3.43E-05	6.11E-06	4.04E-06	4.89E-05	7.35E-06	4.70E-06	4.19E+00	5.89E-01	3.72E-01	1.13E-02	3.37E-03	1.62E-03
W_23	550175.38	5396991.58	Three Finger Lake (center)		1.16E-01	9.09E-01	7.42E-02	1.90E-02	2.83E-03	1.78E-03	3.41E-03	3.09E-04	1.58E-04	3.13E-05	5.64E-06	3.60E-06	4.32E-05	6.38E-06	3.97E-06	3.76E+00	5.14E-01	3.16E-01	1.17E-02	3.01E-03	1.49E-03
W_24	549830.38	5396525.58	Three Finger Lake (south)		1.02E-01	7.54E-01	6.50E-02	1.48E-02	2.60E-03	1.56E-03	3.01E-03	2.87E-04	1.27E-04	2.44E-05	5.12E-06	3.34E-06	3.36E-05	5.85E-06	3.46E-06	2.85E+00	4.71E-01	2.74E-01	1.34E-02	2.48E-03	1.42E-03
W_25	546947.38	5396627.56	Penn Lake (north)		1.47E-01	4.39E-01	8.07E-02	7.69E-03	2.16E-03	1.67E-03	1.94E-03	2.07E-04	1.25E-04	6.27E-05	2.09E-05	1.20E-05	1.74E-05	4.71E-06	3.60E-06	1.44E+00	3.81E-01	2.91E-01	7.91E-02	1.63E-02	7.70E-03
W_26	547059.38	5396125.56	Penn Lake (center)		1.23E-01	3.77E-01	6.97E-02	7.41E-03	1.87E-03	1.47E-03	1.54E-03	1.97E-04	1.14E-04	5.10E-05	1.67E-05	9.22E-06	1.69E-05	4.12E-06	3.20E-06	1.41E+00	3.36E-01	2.59E-01	5.83E-02	1.06E-02	5.20E-03
W_27	546991.39	5395772.56	Penn Lake (south)		1.10E-01	3.55E-01	6.29E-02	6.86E-03	1.70E-03	1.34E-03	1.37E-03	1.86E-04	1.06E-04	5.33E-05	1.27E-05	7.65E-06	1.56E-05	3.75E-06	2.92E-06	1.32E+00	3.06E-01	2.36E-01	4.80E-02	7.95E-03	4.35E-03
W_28	544637	5401700	Angler Creek at Model Property Boundary		1.66E-01	7.80E-01	1.21E-01	1.12E-02	3.33E-03	1.99E-03	2.41E-03	4.63E-04	1.81E-04	4.29E-05	9.11E-06	5.96E-06	2.41E-05	6.94E-06	4.05E-06	1.98E+00	5.75E-01	3.38E-01	1.60E-02	3.43E-03	2.52E-03
W_29	551284	5407805	Pic River In-Flow to Model Property Boundary		1.51E-01	8.11E-01	1.12E-01	1.08E-02	3.02E-03	1.88E-03	1.80E-03	2.74E-04	1.38E-04	5.32E-05	1.13E-05	6.50E-06	2.57E-05	6.92E-06	4.29E-06	2.39E+00	6.01E-01	3.61E-01	7.74E-03	1.42E-03	7.51E-04
W_3	546725.36	5399333.55	Shack Lake (southwest)		2.34E-01	7.18E-01	1.54E-01	1.51E-02	4.43E-03	3.16E-03	2.61E-03	5.94E-04	2.92E-04	3.96E-05	1.13E-05	8.86E-06	3.40E-05	9.75E-06	6.87E-06	2.76E+00	7.95E-01	5.58E-01	2.96E-02	6.08E-03	3.59E-03
W_30	551654	5401167	Pic River Out-Flow from Model Property Boundary		2.97E-01	7.31E-01	1.85E-01	1.54E-02	7.39E-03	4.82E-03	3.46E-03	6.50E-04	3.15E-04	3.14E-05	1.12E-05	7.40E-06	3.45E-05	1.66E-05	1.08E-05	2.75E+00	1.30E+00	8.58E-01	1.58E-02	4.88E-03	2.07E-03
W_4	545636.33	5403828.5	Hare Lake (east)		2.43E-01	9.77E-01	1.92E-01	1.49E-02	4.43E-03	2.67E-03	3.33E-03	5.33E-04	3.18E-04	4.81E-05	1.42E-05	8.22E-06	3.20E-05	8.84E-06	5.15E-06	3.19E+00	7.57E-01	4.36E-01	1.69E-02	5.39E-03	3.72E-03
W_5	545048.34	5403556.5	Hare Lake (south)		1.92E-01	8.57E-01	1.48E-01	1.34E-02	3.78E-03	2.19E-03	2.98E-03	4.00E-04	2.48E-04	4.42E-05	1.19E-05	6.54E-06	2.89E-05	7.58E-06	4.34E-06	2.93E+00	6.45E-01	3.65E-01	1.56E-02	3.93E-03	2.83E-03
W_6	543955.34	5403079.49	Hare Lake (west)		1.25E-01	6.70E-01	9.22E-02	1.01E-02	2.74E-03	1.52E-03	2.59E-03	3.21E-04	1.76E-04	3.38E-05	8.23E-06	4.35E-06	2.33E-05	5.78E-06	3.17E-06	2.44E+00	4.89E-01	2.64E-01	1.20E-02	2.41E-03	1.80E-03
W_7	544603.33	5403943.49	Hare Lake (north)		1.52E-01	6.56E-01	1.13E-01	9.61E-03	3.07E-03	1.80E-03	2.55E-03	3.68E-04	2.29E-04	3.58E-05	9.60E-06	5.24E-06	2.06E-05	6.40E-06	3.70E-06	1.80E+00	5.43E-01	3.10E-01	1.20E-02	2.93E-03	2.06E-03
W_8	544830.34	5403751.49	Hare Lake (center)		1.69E-01	7.45E-01	1.28E-01	1.07E-02	3.39E-03	1.97E-03	2.43E-03	3.71E-04	2.38E-04	4.02E-05	1.06E-05	5.80E-06	2.26E-05	6.95E-06	4.00E-06	2.17E+00	5.91E-01	3.35E-01	1.41E-02	3.34E-03	2.38E-03
W_9	549326.32	5406971.51	Bamoos Lake (east)		2.79E-01	1.47E+00	2.21E-01	2.42E-02	4.94E-03	3.25E-03	2.32E-03	3.39E-04	1.86E-04	1.16E-04	2.56E-05	1.35E-05	6.13E-05	1.16E-05	7.48E-06	7.31E+00	1.03E+00	6.49E-01	8.45E-03	1.84E-03	9.83E-04
Maximum of Special Receptors					**1.56E+00**	**2.11E+00**	**3.60E-01**	**1.20E-01**	**5.32E-02**	**4.05E-02**	**6.07E-03**	**1.04E-03**	**5.20E-04**	**1.25E-03**	**4.55E-04**	**3.34E-04**	**2.72E-04**	**1.21E-04**	**9.19E-05**	**1.94E+01**	**8.75E+00**	**6.65E+00**	**3.95E-01**	**2.23E-01**	**1.08E-01**
Max % of Criteria					-	**7.8%**	**4.1%**	**12.0%**	-	-	**0.0%**	-	-	-	-	-	-	-	-	**388.1%**	-	-	**1.5%**	-	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by MECP Guic

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier 3 assump

Table F-1 Special Receptor Predictions (ug/m3) - Operations, Project Alone

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	SILVER (AG)			SO2				SODIUM (NA)			SODIUM CARBOXYMETHYL CELLULOSE			STRONTIUM (SR)			THALLIUM (TL)			TITANIUM (TI	
				Averaging Period	24	month	annual	1	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month
				Criteria	1	-	-	100	-	-	10	-	-	-	120	-	-	120	-	-	0.5	-	-	120	-
W_13	546777.32	5406831.49	Bamoos Lake (center)		1.14E-05	2.69E-06	1.80E-06	8.01E+00	3.52E-01	1.85E-02	5.66E-03	2.73E-02	7.00E-03	4.14E-03	8.16E-04	1.70E-04	8.12E-05	1.57E-03	4.18E-04	2.48E-04	1.83E-04	4.87E-05	2.90E-05	1.35E-02	4.19E-03
W_14	554944.32	5408228.54	Page Lake (south)		7.78E-06	1.72E-06	9.79E-07	9.57E+00	4.00E-01	1.67E-02	4.19E-03	1.75E-02	4.45E-03	2.37E-03	2.42E-04	6.00E-05	3.12E-05	9.76E-04	2.64E-04	1.42E-04	1.15E-04	3.09E-05	1.66E-05	8.27E-03	2.60E-03
W_15	555054.32	5408903.54	Page Lake (center)		7.21E-06	1.41E-06	8.41E-07	3.06E+00	1.29E-01	7.59E-03	3.33E-03	1.11E-02	3.48E-03	1.92E-03	1.71E-04	4.50E-05	2.56E-05	6.48E-04	2.07E-04	1.15E-04	7.60E-05	2.42E-05	1.36E-05	5.97E-03	2.04E-03
W_16	555065.32	5409497.54	Page Lake (north)		6.31E-06	1.25E-06	7.45E-07	2.75E+00	1.17E-01	6.73E-03	2.71E-03	9.10E-03	2.72E-03	1.61E-03	1.50E-04	3.70E-05	2.24E-05	5.27E-04	1.63E-04	9.70E-05	6.20E-05	1.91E-05	1.14E-05	4.80E-03	1.65E-03
W_17	556593.36	5402126.57	Peacock Lake (east)		9.54E-06	2.58E-06	1.25E-06	4.81E-01	2.49E-02	4.58E-03	2.37E-03	2.02E-02	4.99E-03	2.36E-03	5.48E-04	1.00E-04	4.76E-05	1.24E-03	3.03E-04	1.43E-04	1.46E-04	3.58E-05	1.69E-05	1.33E-02	3.18E-03
W_18	556043.37	5401266.57	Peacock Lake (south)		8.73E-06	3.05E-06	1.32E-06	5.17E+00	2.21E-01	9.94E-03	2.63E-03	2.05E-02	5.35E-03	2.43E-03	6.92E-04	1.16E-04	4.83E-05	1.26E-03	3.26E-04	1.48E-04	1.48E-04	3.86E-05	1.74E-05	1.34E-02	3.45E-03
W_19	556277.36	5402068.57	Peacock Lake (west)		9.27E-06	2.65E-06	1.29E-06	9.17E-01	4.59E-02	4.82E-03	2.51E-03	2.10E-02	5.21E-03	2.50E-03	5.59E-04	1.08E-04	5.06E-05	1.29E-03	3.16E-04	1.52E-04	1.52E-04	3.74E-05	1.79E-05	1.38E-02	3.33E-03
W_2	547105.36	5399506.55	Shack Lake (center)		2.97E-05	6.39E-06	4.21E-06	5.92E-01	3.62E-02	9.62E-03	6.86E-03	3.14E-02	9.20E-03	6.63E-03	1.09E-03	1.93E-04	1.15E-04	1.91E-03	5.62E-04	4.05E-04	2.23E-04	6.63E-05	4.83E-05	2.01E-02	5.97E-03
W_20	556444.36	5402419.57	Peacock Lake (north)		9.98E-06	2.79E-06	1.28E-06	8.83E-01	3.89E-02	4.76E-03	2.52E-03	1.83E-02	5.32E-03	2.50E-03	6.00E-04	1.09E-04	5.08E-05	1.12E-03	3.23E-04	1.51E-04	1.32E-04	3.81E-05	1.78E-05	1.20E-02	3.38E-03
W_21	556424.36	5402099.57	Peacock Lake (center)		9.56E-06	2.64E-06	1.28E-06	5.08E-01	2.82E-02	4.72E-03	2.45E-03	2.04E-02	5.09E-03	2.44E-03	5.54E-04	1.04E-04	4.91E-05	1.26E-03	3.09E-04	1.48E-04	1.48E-04	3.65E-05	1.74E-05	1.35E-02	3.25E-03
W_22	550202.38	5397448.58	Three Finger Lake (north)		1.43E-05	4.96E-06	2.48E-06	5.56E+00	2.46E-01	1.03E-02	3.23E-03	3.99E-02	6.00E-03	3.86E-03	6.86E-04	1.06E-04	5.94E-05	2.42E-03	3.65E-04	2.35E-04	2.83E-04	4.29E-05	2.80E-05	2.54E-02	3.87E-03
W_23	550175.38	5396991.58	Three Finger Lake (center)		1.48E-05	4.30E-06	2.23E-06	5.19E+00	2.30E-01	9.52E-03	2.90E-03	3.53E-02	5.23E-03	3.27E-03	6.68E-04	9.60E-05	5.33E-05	2.14E-03	3.18E-04	1.99E-04	2.50E-04	3.74E-05	2.37E-05	2.24E-02	3.34E-03
W_24	549830.38	5396525.58	Three Finger Lake (south)		1.69E-05	3.54E-06	2.08E-06	1.78E+00	8.75E-02	4.71E-03	2.64E-03	2.76E-02	4.80E-03	2.85E-03	7.48E-04	8.10E-05	4.79E-05	1.67E-03	2.92E-04	1.73E-04	1.95E-04	3.44E-05	2.07E-05	1.75E-02	3.07E-03
W_25	546947.38	5396627.56	Penn Lake (north)		9.89E-05	2.06E-05	9.85E-06	5.95E-01	3.53E-02	8.53E-03	5.49E-03	1.45E-02	4.04E-03	3.11E-03	4.39E-04	6.80E-05	4.49E-05	8.72E-04	2.42E-04	1.86E-04	1.04E-04	3.40E-05	2.53E-05	9.02E-03	2.56E-03
W_26	547059.38	5396125.56	Penn Lake (center)		7.29E-05	1.34E-05	6.71E-06	8.93E-01	4.91E-02	7.05E-03	4.44E-03	1.40E-02	3.50E-03	2.73E-03	3.71E-04	6.30E-05	4.06E-05	8.44E-04	2.11E-04	1.64E-04	9.90E-05	2.77E-05	2.15E-05	8.65E-03	2.22E-03
W_27	546991.39	5395772.56	Penn Lake (south)		6.00E-05	1.02E-05	5.62E-06	9.24E-01	4.88E-02	6.21E-03	3.85E-03	1.30E-02	3.17E-03	2.48E-03	3.39E-04	5.80E-05	3.77E-05	7.82E-04	1.91E-04	1.50E-04	9.10E-05	2.49E-05	1.94E-05	8.00E-03	2.01E-03
W_28	544637	5401700	Angler Creek at Model Property Boundary		1.84E-05	3.57E-06	2.30E-06	3.78E+00	1.63E-01	9.26E-03	4.66E-03	2.01E-02	5.87E-03	3.47E-03	8.05E-04	1.59E-04	6.81E-05	1.23E-03	3.62E-04	2.14E-04	1.45E-04	4.27E-05	2.57E-05	1.32E-02	3.90E-03
W_29	551284	5407805	Pic River In-Flow to Model Property Boundary		1.23E-05	2.55E-06	1.40E-06	2.01E+00	9.10E-02	1.10E-02	5.76E-03	2.21E-02	5.85E-03	3.60E-03	3.69E-04	7.60E-05	4.37E-05	1.29E-03	3.49E-04	2.16E-04	1.52E-04	4.10E-05	2.53E-05	1.20E-02	3.45E-03
W_3	546725.36	5399333.55	Shack Lake (southwest)		3.61E-05	7.62E-06	4.64E-06	7.68E-01	4.47E-02	9.62E-03	6.29E-03	2.79E-02	8.08E-03	5.72E-03	8.39E-04	1.75E-04	1.03E-04	1.70E-03	4.92E-04	3.49E-04	1.98E-04	5.84E-05	4.20E-05	1.78E-02	5.23E-03
W_30	551654	5401167	Pic River Out-Flow from Model Property Boundary		2.26E-05	7.89E-06	3.78E-06	2.19E+00	1.03E-01	1.01E-02	6.29E-03	2.79E-02	1.35E-02	8.82E-03	1.06E-03	2.17E-04	1.16E-04	1.71E-03	8.25E-04	5.38E-04	2.04E-04	9.82E-05	6.35E-05	1.83E-02	8.77E-03
W_4	545636.33	5403828.5	Hare Lake (east)		1.77E-05	3.86E-06	2.54E-06	5.83E+00	2.69E-01	1.78E-02	6.47E-03	2.83E-02	7.66E-03	4.49E-03	1.18E-03	2.10E-04	1.25E-04	1.69E-03	4.74E-04	2.81E-04	2.01E-04	5.61E-05	3.36E-05	1.65E-02	5.13E-03
W_5	545048.34	5403556.5	Hare Lake (south)		1.78E-05	3.42E-06	2.20E-06	6.03E+00	2.73E-01	1.64E-02	5.20E-03	2.56E-02	6.54E-03	3.75E-03	1.12E-03	1.51E-04	9.47E-05	1.53E-03	4.05E-04	2.33E-04	1.82E-04	4.78E-05	2.79E-05	1.47E-02	4.37E-03
W_6	543955.34	5403079.49	Hare Lake (west)		1.38E-05	2.58E-06	1.84E-06	6.08E+00	2.66E-01	1.40E-02	3.56E-03	2.05E-02	4.92E-03	2.70E-03	7.29E-04	1.15E-04	6.35E-05	1.20E-03	3.01E-04	1.66E-04	1.42E-04	3.55E-05	1.98E-05	1.15E-02	3.19E-03
W_7	544603.33	5403943.49	Hare Lake (north)		1.43E-05	2.80E-06	1.93E-06	9.13E-01	5.23E-02	7.44E-03	4.14E-03	1.77E-02	5.47E-03	3.16E-03	7.83E-04	1.30E-04	8.28E-05	1.07E-03	3.35E-04	1.95E-04	1.26E-04	3.95E-05	2.32E-05	1.10E-02	3.56E-03
W_8	544830.34	5403751.49	Hare Lake (center)		1.66E-05	3.11E-06	2.06E-06	3.38E+00	1.59E-01	1.18E-02	4.61E-03	1.97E-02	5.97E-03	3.43E-03	8.88E-04	1.34E-04	8.85E-05	1.19E-03	3.67E-04	2.12E-04	1.41E-04	4.33E-05	2.53E-05	1.22E-02	3.92E-03
W_9	549326.32	5406971.51	Bamoos Lake (east)		1.36E-05	3.37E-06	2.08E-06	2.04E+01	1.15E+00	3.92E-02	9.59E-03	5.54E-02	9.87E-03	6.33E-03	5.80E-04	1.10E-04	7.08E-05	3.11E-03	5.82E-04	3.77E-04	3.66E-04	6.83E-05	4.41E-05	2.38E-02	5.49E-03
Maximum of Special Receptors					**4.94E-04**	**2.79E-04**	**1.36E-04**	**2.04E+01**	**1.15E+00**	**1.77E-01**	**1.31E-01**	**2.15E-01**	**9.58E-02**	**7.29E-02**	**2.96E-03**	**5.07E-04**	**2.37E-04**	**1.32E-02**	**5.90E-03**	**4.49E-03**	**1.55E-03**	**6.92E-04**	**5.27E-04**	**1.42E-01**	**6.31E-02**
Max % of Criteria					**0.0%**	-	-	**20.4%**	-	-	**1.3%**	-	-	-	**0.0%**	-	-	**0.0%**	-	-	**0.3%**	-	-	**0.1%**	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by MECP Guic

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier 3 assump

Table F-1 Special Receptor Predictions (ug/m3) - Operations, Project Alone

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	)	TOC			TOC (METHANE)		
				Averaging Period	annual	24	month	annual	24	month	annual
				Criteria	-	-	-	-	37330	-	-
W_13	546777.32	5406831.49	Bamoos Lake (center)		2.52E-03	1.06E-01	2.46E-02	1.42E-02	9.19E-02	1.96E-02	9.27E-03
W_14	554944.32	5408228.54	Page Lake (south)		1.43E-03	3.73E-02	1.27E-02	7.24E-03	3.33E-02	5.54E-03	3.11E-03
W_15	555054.32	5408903.54	Page Lake (center)		1.17E-03	3.19E-02	1.06E-02	6.16E-03	3.17E-02	4.49E-03	2.68E-03
W_16	555065.32	5409497.54	Page Lake (north)		9.95E-04	3.07E-02	9.01E-03	5.49E-03	2.77E-02	4.14E-03	2.42E-03
W_17	556593.36	5402126.57	Peacock Lake (east)		1.51E-03	5.66E-02	1.82E-02	9.54E-03	1.01E-01	1.05E-02	4.81E-03
W_18	556043.37	5401266.57	Peacock Lake (south)		1.55E-03	6.73E-02	1.69E-02	9.72E-03	1.00E-01	1.43E-02	4.83E-03
W_19	556277.36	5402068.57	Peacock Lake (west)		1.59E-03	6.15E-02	1.93E-02	1.02E-02	1.00E-01	1.06E-02	4.99E-03
W_2	547105.36	5399506.55	Shack Lake (center)		4.33E-03	1.50E-01	3.55E-02	2.67E-02	9.49E-02	2.11E-02	1.08E-02
W_20	556444.36	5402419.57	Peacock Lake (north)		1.59E-03	6.25E-02	1.87E-02	1.01E-02	9.96E-02	1.20E-02	5.13E-03
W_21	556424.36	5402099.57	Peacock Lake (center)		1.56E-03	5.90E-02	1.88E-02	9.86E-03	1.02E-01	1.07E-02	4.94E-03
W_22	550202.38	5397448.58	Three Finger Lake (north)		2.50E-03	9.65E-02	1.99E-02	1.29E-02	1.21E-01	1.15E-02	6.04E-03
W_23	550175.38	5396991.58	Three Finger Lake (center)		2.12E-03	8.89E-02	1.80E-02	1.15E-02	1.15E-01	1.04E-02	5.35E-03
W_24	549830.38	5396525.58	Three Finger Lake (south)		1.84E-03	8.70E-02	1.61E-02	1.07E-02	1.02E-01	9.71E-03	4.28E-03
W_25	546947.38	5396627.56	Penn Lake (north)		1.98E-03	5.32E-02	1.32E-02	1.06E-02	6.57E-02	7.01E-03	4.23E-03
W_26	547059.38	5396125.56	Penn Lake (center)		1.75E-03	4.91E-02	1.19E-02	9.53E-03	5.19E-02	6.65E-03	3.84E-03
W_27	546991.39	5395772.56	Penn Lake (south)		1.59E-03	4.55E-02	1.11E-02	8.82E-03	4.64E-02	6.29E-03	3.59E-03
W_28	544637	5401700	Angler Creek at Model Property Boundary		2.32E-03	1.01E-01	2.58E-02	1.41E-02	8.15E-02	1.56E-02	6.10E-03
W_29	551284	5407805	Pic River In-Flow to Model Property Boundary		2.18E-03	7.09E-02	1.56E-02	1.02E-02	6.08E-02	9.24E-03	4.67E-03
W_3	546725.36	5399333.55	Shack Lake (southwest)		3.73E-03	1.26E-01	3.28E-02	2.37E-02	8.81E-02	2.01E-02	9.85E-03
W_30	551654	5401167	Pic River Out-Flow from Model Property Boundary		5.71E-03	1.12E-01	3.80E-02	2.55E-02	1.17E-01	2.19E-02	1.07E-02
W_4	545636.33	5403828.5	Hare Lake (east)		3.10E-03	1.15E-01	3.40E-02	2.04E-02	1.12E-01	1.80E-02	1.07E-02
W_5	545048.34	5403556.5	Hare Lake (south)		2.56E-03	1.07E-01	2.61E-02	1.65E-02	1.01E-01	1.35E-02	8.37E-03
W_6	543955.34	5403079.49	Hare Lake (west)		1.78E-03	7.46E-02	2.01E-02	1.17E-02	8.76E-02	1.08E-02	5.93E-03
W_7	544603.33	5403943.49	Hare Lake (north)		2.10E-03	8.48E-02	2.21E-02	1.39E-02	8.61E-02	1.24E-02	7.75E-03
W_8	544830.34	5403751.49	Hare Lake (center)		2.30E-03	9.48E-02	2.35E-02	1.51E-02	8.19E-02	1.25E-02	8.05E-03
W_9	549326.32	5406971.51	Bamoos Lake (east)		3.70E-03	7.02E-02	2.18E-02	1.62E-02	7.85E-02	1.14E-02	6.27E-03
Maximum of Special Receptors					**4.80E-02**	**3.94E-01**	**8.33E-02**	**5.41E-02**	**2.05E-01**	**3.52E-02**	**1.76E-02**
Max % of Criteria					-	-	-	-	**0.0%**	-	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by MECP Guic

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier 3 assump

Table F-1 Special Receptor Predictions (ug/m3) - Operations, Project Alone

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	TOLUENE			TSP (See Note 1)			TSP (See Note 2)		TUNGSTEN (W)			URANIUM (U)			VANADIUM (V)		
				Averaging Period	24	month	annual	24	month	annual	24	annual	24	month	annual	24	month	annual	24	month	annual
				Criteria	2000	-	-	-	-	-	120	60	5	-	-	0.15	-	0.03	2	-	-
W_13	546777.32	5406831.49	Bamoos Lake (center)		2.74E-04	5.84E-05	2.76E-05	1.74E+01	4.81E+00	2.88E+00	1.13E+01	1.43E+00	8.96E-04	2.49E-04	1.45E-04	1.76E-04	4.84E-05	2.89E-05	2.65E-03	7.63E-04	4.56E-04
W_14	554944.32	5408228.54	Page Lake (south)		9.90E-05	1.65E-05	9.25E-06	1.07E+01	3.03E+00	1.63E+00	8.98E+00	8.92E-01	5.36E-04	1.55E-04	8.50E-05	1.08E-04	3.07E-05	1.67E-05	1.56E-03	4.77E-04	2.60E-04
W_15	555054.32	5408903.54	Page Lake (center)		9.40E-05	1.34E-05	7.96E-06	7.39E+00	2.38E+00	1.33E+00	4.14E+00	7.11E-01	3.65E-04	1.22E-04	6.90E-05	7.50E-05	2.41E-05	1.36E-05	1.13E-03	3.75E-04	2.12E-04
W_16	555065.32	5409497.54	Page Lake (north)		8.30E-05	1.23E-05	7.21E-06	5.95E+00	1.88E+00	1.12E+00	3.81E+00	5.72E-01	3.03E-04	9.70E-05	5.90E-05	6.00E-05	1.91E-05	1.15E-05	9.10E-04	2.99E-04	1.80E-04
W_17	556593.36	5402126.57	Peacock Lake (east)		3.02E-04	3.13E-05	1.43E-05	1.45E+01	3.54E+00	1.67E+00	1.05E+01	7.14E-01	8.06E-04	1.88E-04	8.80E-05	1.49E-04	3.65E-05	1.72E-05	2.37E-03	5.68E-04	2.69E-04
W_18	556043.37	5401266.57	Peacock Lake (south)		2.99E-04	4.26E-05	1.44E-05	1.48E+01	3.83E+00	1.73E+00	9.87E+00	7.72E-01	7.97E-04	2.04E-04	9.10E-05	1.51E-04	3.96E-05	1.78E-05	2.38E-03	6.15E-04	2.77E-04
W_19	556277.36	5402068.57	Peacock Lake (west)		2.98E-04	3.16E-05	1.48E-05	1.52E+01	3.70E+00	1.77E+00	1.07E+01	7.44E-01	8.40E-04	1.97E-04	9.30E-05	1.55E-04	3.81E-05	1.82E-05	2.47E-03	5.94E-04	2.84E-04
W_2	547105.36	5399506.55	Shack Lake (center)		2.82E-04	6.27E-05	3.20E-05	2.23E+01	6.73E+00	4.92E+00	8.93E+00	1.86E+00	1.20E-03	3.49E-04	2.50E-04	2.25E-04	6.73E-05	4.91E-05	3.58E-03	1.07E-03	7.76E-04
W_20	556444.36	5402419.57	Peacock Lake (north)		2.97E-04	3.56E-05	1.53E-05	1.32E+01	3.77E+00	1.77E+00	1.01E+01	7.79E-01	7.23E-04	2.00E-04	9.30E-05	1.35E-04	3.88E-05	1.82E-05	2.14E-03	6.05E-04	2.84E-04
W_21	556424.36	5402099.57	Peacock Lake (center)		3.03E-04	3.17E-05	1.47E-05	1.48E+01	3.62E+00	1.73E+00	1.05E+01	7.32E-01	8.17E-04	1.92E-04	9.10E-05	1.51E-04	3.72E-05	1.78E-05	2.40E-03	5.80E-04	2.77E-04
W_22	550202.38	5397448.58	Three Finger Lake (north)		3.60E-04	3.44E-05	1.80E-05	2.80E+01	4.27E+00	2.79E+00	1.32E+01	9.42E-01	1.54E-03	2.31E-04	1.48E-04	2.86E-04	4.42E-05	2.89E-05	4.53E-03	6.91E-04	4.45E-04
W_23	550175.38	5396991.58	Three Finger Lake (center)		3.43E-04	3.11E-05	1.59E-05	2.48E+01	3.70E+00	2.36E+00	1.21E+01	8.32E-01	1.35E-03	2.00E-04	1.24E-04	2.53E-04	3.81E-05	2.45E-05	4.00E-03	5.97E-04	3.76E-04
W_24	549830.38	5396525.58	Three Finger Lake (south)		3.03E-04	2.89E-05	1.27E-05	1.94E+01	3.40E+00	2.06E+00	8.94E+00	7.17E-01	1.04E-03	1.83E-04	1.08E-04	1.98E-04	3.51E-05	2.15E-05	3.11E-03	5.48E-04	3.28E-04
W_25	546947.38	5396627.56	Penn Lake (north)		1.95E-04	2.09E-05	1.26E-05	1.05E+01	3.15E+00	2.53E+00	4.75E+00	8.83E-01	5.32E-04	1.47E-04	1.13E-04	1.13E-04	4.33E-05	2.96E-05	1.61E-03	4.50E-04	3.48E-04
W_26	547059.38	5396125.56	Penn Lake (center)		1.54E-04	1.98E-05	1.14E-05	9.91E+00	2.72E+00	2.16E+00	3.99E+00	7.65E-01	5.15E-04	1.28E-04	1.00E-04	1.00E-04	3.32E-05	2.44E-05	1.56E-03	3.92E-04	3.08E-04
W_27	546991.39	5395772.56	Penn Lake (south)		1.38E-04	1.87E-05	1.07E-05	9.17E+00	2.41E+00	1.95E+00	3.71E+00	6.91E-01	4.76E-04	1.16E-04	9.10E-05	9.20E-05	2.93E-05	2.18E-05	1.44E-03	3.56E-04	2.81E-04
W_28	544637	5401700	Angler Creek at Model Property Boundary		2.43E-04	4.65E-05	1.82E-05	1.49E+01	4.46E+00	2.69E+00	7.56E+00	1.23E+00	7.40E-04	2.13E-04	1.24E-04	1.43E-04	4.16E-05	2.50E-05	2.38E-03	7.16E-04	4.30E-04
W_29	551284	5407805	Pic River In-Flow to Model Property Boundary		1.81E-04	2.75E-05	1.39E-05	1.46E+01	4.00E+00	2.47E+00	8.11E+00	1.18E+00	7.67E-04	2.09E-04	1.31E-04	1.51E-04	4.11E-05	2.54E-05	2.26E-03	6.33E-04	3.96E-04
W_3	546725.36	5399333.55	Shack Lake (southwest)		2.62E-04	5.98E-05	2.93E-05	1.98E+01	5.92E+00	4.27E+00	7.28E+00	1.69E+00	1.06E-03	3.03E-04	2.14E-04	1.99E-04	5.95E-05	4.31E-05	3.18E-03	9.37E-04	6.70E-04
W_30	551654	5401167	Pic River Out-Flow from Model Property Boundary		3.48E-04	6.53E-05	3.17E-05	2.01E+01	9.67E+00	6.28E+00	8.52E+00	2.15E+00	1.11E-03	5.26E-04	3.44E-04	2.12E-04	1.01E-04	6.48E-05	3.25E-03	1.56E-03	1.02E-03
W_4	545636.33	5403828.5	Hare Lake (east)		3.34E-04	5.36E-05	3.19E-05	2.07E+01	6.04E+00	3.64E+00	1.31E+01	1.93E+00	9.52E-04	2.68E-04	1.57E-04	1.91E-04	5.27E-05	3.15E-05	3.20E-03	9.76E-04	5.85E-04
W_5	545048.34	5403556.5	Hare Lake (south)		3.00E-04	4.03E-05	2.49E-05	1.86E+01	5.10E+00	2.98E+00	1.19E+01	1.51E+00	8.57E-04	2.30E-04	1.33E-04	1.71E-04	4.49E-05	2.66E-05	2.88E-03	8.21E-04	4.78E-04
W_6	543955.34	5403079.49	Hare Lake (west)		2.61E-04	3.22E-05	1.77E-05	1.40E+01	3.67E+00	2.05E+00	9.02E+00	9.66E-01	6.87E-04	1.76E-04	9.70E-05	1.36E-04	3.45E-05	1.96E-05	2.14E-03	5.88E-04	3.26E-04
W_7	544603.33	5403943.49	Hare Lake (north)		2.56E-04	3.70E-05	2.31E-05	1.29E+01	4.12E+00	2.42E+00	6.47E+00	1.17E+00	6.16E-04	1.94E-04	1.13E-04	1.21E-04	3.79E-05	2.27E-05	2.05E-03	6.61E-04	3.87E-04
W_8	544830.34	5403751.49	Hare Lake (center)		2.44E-04	3.73E-05	2.40E-05	1.45E+01	4.56E+00	2.66E+00	8.53E+00	1.31E+00	6.79E-04	2.11E-04	1.22E-04	1.35E-04	4.11E-05	2.45E-05	2.29E-03	7.32E-04	4.27E-04
W_9	549326.32	5406971.51	Bamoos Lake (east)		2.34E-04	3.41E-05	1.87E-05	3.42E+01	6.61E+00	4.31E+00	2.76E+01	2.19E+00	1.74E-03	3.53E-04	2.26E-04	3.46E-04	6.71E-05	4.38E-05	5.02E-03	1.04E-03	6.81E-04
Maximum of Special Receptors					**6.10E-04**	**1.05E-04**	**5.23E-05**	**1.54E+02**	**6.87E+01**	**5.24E+01**	**2.76E+01**	**3.87E+00**	**8.92E-03**	**3.95E-03**	**3.01E-03**	**1.58E-03**	**7.01E-04**	**5.35E-04**	**2.55E-02**	**1.13E-02**	**8.62E-03**
Max % of Criteria					**0.0%**	-	-	-	-	-	**23.0%**	**6.4%**	**0.2%**	-	-	**1.1%**	-	**1.8%**	**1.3%**	-	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by MECP Guic

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier 3 assump

Table F-1 Special Receptor Predictions (ug/m3) - Operations, Project Alone

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	XYLENES				ZINC (ZN)			DUSTFALL (g/m2)		
				Averaging Period	10-Min	24	month	annual	24	month	annual	24	month	annual
				Criteria	3000	730	-	-	120	-	-		7	
W_13	546777.32	5406831.49	Bamoos Lake (center)		5.19E-03	1.88E-04	4.02E-05	1.90E-05	9.93E-04	2.76E-04	1.72E-04	1.18E-02	1.05E-01	8.96E-01
W_14	554944.32	5408228.54	Page Lake (south)		2.34E-03	6.80E-05	1.13E-05	6.37E-06	6.25E-04	1.80E-04	9.80E-05	8.39E-03	9.76E-02	7.12E-01
W_15	555054.32	5408903.54	Page Lake (center)		2.02E-03	6.50E-05	9.19E-06	5.48E-06	4.45E-04	1.42E-04	8.00E-05	7.50E-03	8.06E-02	5.77E-01
W_16	555065.32	5409497.54	Page Lake (north)		1.95E-03	5.70E-05	8.48E-06	4.96E-06	3.56E-04	1.13E-04	6.80E-05	7.10E-03	6.79E-02	4.89E-01
W_17	556593.36	5402126.57	Peacock Lake (east)		4.47E-03	2.07E-04	2.15E-05	9.84E-06	8.44E-04	2.18E-04	1.04E-04	9.07E-03	7.83E-02	5.82E-01
W_18	556043.37	5401266.57	Peacock Lake (south)		4.73E-03	2.06E-04	2.93E-05	9.89E-06	8.76E-04	2.40E-04	1.08E-04	9.06E-03	7.49E-02	5.76E-01
W_19	556277.36	5402068.57	Peacock Lake (west)		4.66E-03	2.05E-04	2.17E-05	1.02E-05	8.78E-04	2.27E-04	1.09E-04	1.00E-02	8.36E-02	6.23E-01
W_2	547105.36	5399506.55	Shack Lake (center)		6.09E-03	1.94E-04	4.31E-05	2.20E-05	1.27E-03	4.02E-04	3.07E-04	2.34E-02	3.19E-01	2.37E+00
W_20	556444.36	5402419.57	Peacock Lake (north)		4.36E-03	2.04E-04	2.45E-05	1.05E-05	7.74E-04	2.31E-04	1.09E-04	8.95E-03	8.50E-02	6.29E-01
W_21	556424.36	5402099.57	Peacock Lake (center)		4.59E-03	2.08E-04	2.18E-05	1.01E-05	8.56E-04	2.22E-04	1.07E-04	9.49E-03	8.10E-02	6.04E-01
W_22	550202.38	5397448.58	Three Finger Lake (north)		5.78E-03	2.48E-04	2.36E-05	1.24E-05	1.59E-03	2.87E-04	1.78E-04	2.19E-02	1.84E-01	1.12E+00
W_23	550175.38	5396991.58	Three Finger Lake (center)		5.43E-03	2.36E-04	2.14E-05	1.10E-05	1.41E-03	2.39E-04	1.53E-04	1.88E-02	1.55E-01	9.22E-01
W_24	549830.38	5396525.58	Three Finger Lake (south)		5.06E-03	2.08E-04	1.99E-05	8.76E-06	1.12E-03	2.07E-04	1.36E-04	1.89E-02	1.36E-01	7.97E-01
W_25	546947.38	5396627.56	Penn Lake (north)		4.15E-03	1.34E-04	1.43E-05	8.66E-06	1.73E-03	4.79E-04	2.75E-04	1.46E-02	1.68E-01	1.23E+00
W_26	547059.38	5396125.56	Penn Lake (center)		4.01E-03	1.06E-04	1.36E-05	7.87E-06	1.31E-03	3.38E-04	2.09E-04	1.33E-02	1.36E-01	9.81E-01
W_27	546991.39	5395772.56	Penn Lake (south)		3.82E-03	9.50E-05	1.29E-05	7.35E-06	1.12E-03	2.77E-04	1.82E-04	1.21E-02	1.19E-01	8.49E-01
W_28	544637	5401700	Angler Creek at Model Property Boundary		4.95E-03	1.67E-04	3.20E-05	1.25E-05	8.55E-04	2.55E-04	1.65E-04	2.09E-02	1.95E-01	1.24E+00
W_29	551284	5407805	Pic River In-Flow to Model Property Boundary		3.73E-03	1.24E-04	1.89E-05	9.56E-06	8.79E-04	2.43E-04	1.48E-04	2.45E-02	1.91E-01	1.43E+00
W_3	546725.36	5399333.55	Shack Lake (southwest)		5.83E-03	1.80E-04	4.11E-05	2.02E-05	1.12E-03	3.66E-04	2.81E-04	2.14E-02	2.71E-01	2.05E+00
W_30	551654	5401167	Pic River Out-Flow from Model Property Boundary		7.14E-03	2.39E-04	4.49E-05	2.18E-05	1.30E-03	6.13E-04	3.77E-04	3.01E-02	3.64E-01	3.47E+00
W_4	545636.33	5403828.5	Hare Lake (east)		6.16E-03	2.30E-04	3.69E-05	2.20E-05	1.20E-03	3.31E-04	2.09E-04	1.63E-02	1.95E-01	1.62E+00
W_5	545048.34	5403556.5	Hare Lake (south)		5.51E-03	2.06E-04	2.77E-05	1.71E-05	1.06E-03	2.77E-04	1.75E-04	1.51E-02	1.64E-01	1.26E+00
W_6	543955.34	5403079.49	Hare Lake (west)		4.65E-03	1.79E-04	2.22E-05	1.21E-05	8.02E-04	2.11E-04	1.28E-04	1.10E-02	1.15E-01	8.14E-01
W_7	544603.33	5403943.49	Hare Lake (north)		5.05E-03	1.76E-04	2.55E-05	1.59E-05	7.15E-04	2.29E-04	1.46E-04	1.17E-02	1.19E-01	9.42E-01
W_8	544830.34	5403751.49	Hare Lake (center)		5.32E-03	1.68E-04	2.57E-05	1.65E-05	8.37E-04	2.51E-04	1.59E-04	1.31E-02	1.39E-01	1.08E+00
W_9	549326.32	5406971.51	Bamoos Lake (east)		5.13E-03	1.61E-04	2.34E-05	1.28E-05	1.96E-03	3.76E-04	2.51E-04	2.34E-02	2.05E-01	1.64E+00
Maximum of Special Receptors					**8.20E-03**	**4.19E-04**	**7.20E-05**	**3.60E-05**	**8.61E-03**	**4.91E-03**	**2.88E-03**	**1.85E-01**	**3.68E+00**	**3.68E+01**
Max % of Criteria					**0.0%**	**0.0%**	-	-	**0.0%**	-	-	-	**52.5%**	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by MECP Guic

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier 3 assump

Table F-2 Fence Line Receptor Predictions (ug/m3) - Operations, Project Alone

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	1,3-BUTADIENE			ACENAPHTHENE			ACENAPHTHYLENE		
				Averaging Period	24	month	annual	24	month	annual	24	month	annual
				Criteria	10	-	2	-	-	-	-	-	-
Maximum of Fence Line Receptors					4.30E-03	1.29E-03	1.05E-03	2.83E-04	8.62E-05	7.01E-05	4.59E-04	1.41E-04	1.14E-04
Max % of Criteria					0.0%	-	0.1%	-	-	-	-	-	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by MECP Guideline A-10, Section 7.4.1 for facilities with a fugitive dust BMP. These model predictions were used for comparison to the applic

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier 3 assumption).

Table F-2 Fence Line Receptor Predictions (ug/m3) - Operations, Project Alone

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	ACETALDEHYDE					ACROLEIN			
				Averaging Period	0.5	1	24	month	annual	1	24	month	annual
				Criteria	500	-	500	-	-	4.5	0.4	-	-
Maximum of Fence Line Receptors					1.96E+00	1.64E+00	3.73E-01	1.11E-01	9.07E-02	2.36E-01	5.36E-02	1.61E-02	1.31E-02
Max % of Criteria					0.4%	-	0.1%	-	-	5.2%	13.4%	-	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by MECP Guitable critiera.

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier 3 assump

Table F-2 Fence Line Receptor Predictions (ug/m3) - Operations, Project Alone

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	ALDEHYDES			ALUMINUM (AL)			ANTHRACENE		
				Averaging Period	24	month	annual	24	month	annual	24	month	annual
				Criteria	-	-	-	12	-	-	-	-	-
Maximum of Fence Line Receptors					2.02E-01	4.16E-02	2.14E-02	3.22E+00	1.24E+00	9.42E-01	1.84E-04	5.47E-05	4.47E-05
Max % of Criteria					-	-	-	26.9%	-	-	-	-	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by MECP Gui

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier 3 assump

Table F-2 Fence Line Receptor Predictions (ug/m3) - Operations, Project Alone

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	ANTIMONY (SB)			ARSENIC (AS)			BARIUM (BA)		
				Averaging Period	24	month	annual	24	month	annual	24	month	annual
				Criteria	25	-	-	0.3	-	-	10	-	-
Maximum of Fence Line Receptors					6.22E-04	2.84E-04	1.82E-04	1.40E-03	8.47E-04	5.24E-04	1.24E-02	4.77E-03	3.63E-03
Max % of Criteria					0.0%	-	-	0.5%	-	-	0.1%	-	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by MECP Gui

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier 3 assump

Table F-2 Fence Line Receptor Predictions (ug/m3) - Operations, Project Alone

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	BENZENE			BENZO(A)ANTHRACENE			BENZO(A)PYRENE		
				Averaging Period	24	month	annual	24	month	annual	24	month	annual
				Criteria	2.3	-	0.45	-	-	-	0.00005	-	0.00001
Maximum of Fence Line Receptors					6.94E-02	2.09E-02	1.71E-02	8.07E-06	3.18E-06	2.39E-06	2.62E-06	1.01E-06	7.52E-07
Max % of Criteria					3.0%	-	3.8%	-	-	-	5.2%	-	7.5%

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by MECP Gui

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier 3 assump

Table F-2 Fence Line Receptor Predictions (ug/m3) - Operations, Project Alone

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	BENZO(B)FLUORANTHENE			BENZO(G,H,I)PERYLENE			BENZO(K)FLUORANTHENE		
				Averaging Period	24	month	annual	24	month	annual	24	month	annual
				Criteria	-	-	-	-	-	-	-	-	-
Maximum of Fence Line Receptors					4.05E-06	9.22E-07	4.90E-07	2.77E-05	6.46E-06	3.14E-06	1.32E-06	4.09E-07	2.86E-07
Max % of Criteria					-	-	-	-	-	-	-	-	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by MECP Gui

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier 3 assump

Table F-2 Fence Line Receptor Predictions (ug/m3) - Operations, Project Alone

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	BERYLLIUM (BE)			BISMUTH (BI)			BORON (B)		
				Averaging Period	24	month	annual	24	month	annual	24	month	annual
				Criteria	**0.01**	-	-	**2.5**	-	-	**120**	-	-
Maximum of Fence Line Receptors					1.50E-04	5.76E-05	4.38E-05	4.65E-03	2.81E-03	1.73E-03	2.75E-03	1.06E-03	8.05E-04
Max % of Criteria					**1.5%**	-	-	**0.2%**	-	-	**0.0%**	-	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by MECP Gui

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier 3 assump

Table F-2 Fence Line Receptor Predictions (ug/m3) - Operations, Project Alone

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	BROMINE (BR)			CADMIUM (CD)			CALCIUM (CA)		
				Averaging Period	24	month	annual	24	month	annual	24	month	annual
				Criteria	20	-	-	0.025	-	0.005	-	-	-
Maximum of Fence Line Receptors					1.96E-02	3.87E-03	1.89E-03	9.34E-04	5.64E-04	3.48E-04	3.35E+00	1.29E+00	9.78E-01
Max % of Criteria					0.1%	-	-	3.7%	-	7.0%	-	-	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by MECP Gui

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier 3 assump

Table F-2 Fence Line Receptor Predictions (ug/m3) - Operations, Project Alone

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	CAO			CH4			CHROMIUM (CR)		
				Averaging Period	24	month	annual	24	month	annual	24	month	annual
				Criteria	10	-	-	37330	-	-	0.5	-	-
Maximum of Fence Line Receptors					3.25E-01	6.39E-02	3.09E-02	4.39E-01	1.42E-01	1.14E-01	2.44E-02	9.39E-03	7.14E-03
Max % of Criteria					3.3%	-	-	0.0%	-	-	4.9%	-	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by MECP Gui

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier 3 assump

Table F-2 Fence Line Receptor Predictions (ug/m3) - Operations, Project Alone

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	CHRYSENE			CO					
				Averaging Period	24	month	annual	0.5	1	8	24	month	annual
				Criteria	-	-	-	6000	36200	15700	-	-	-
Maximum of Fence Line Receptors					7.04E-06	2.52E-06	1.82E-06	1.15E+03	9.57E+02	1.93E+02	7.62E+01	2.45E+01	1.99E+01
Max % of Criteria					-	-	-	19.1%	2.6%	1.2%	-	-	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by MECP Gui

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier 3 assump

Table F-2 Fence Line Receptor Predictions (ug/m3) - Operations, Project Alone

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	COBALT (CO)			COPPER (CU)			DIBENZ(A,H)PERYLENE		
				Averaging Period	24	month	annual	24	month	annual	24	month	annual
				Criteria	0.1	-	-	50	-	-	-	-	-
Maximum of Fence Line Receptors					2.01E-02	1.21E-02	7.51E-03	1.10E+01	6.62E+00	4.08E+00	1.13E-06	2.33E-07	1.20E-07
Max % of Criteria					20.1%	-	-	21.9%	-	-	-	-	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by MECP Gui

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier 3 assump

Table F-2 Fence Line Receptor Predictions (ug/m3) - Operations, Project Alone

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	FLUORANTHENE			FLUORENE			FORMALDEHYDE		
				Averaging Period	24	month	annual	24	month	annual	24	month	annual
				Criteria	-	-	-	-	-	-	65	-	-
Maximum of Fence Line Receptors					2.84E-04	8.49E-05	6.92E-05	1.10E-03	3.29E-04	2.69E-04	1.17E+00	3.49E-01	2.85E-01
Max % of Criteria					-	-	-	-	-	-	1.8%	-	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by MECP Gui

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier 3 assump

Table F-2 Fence Line Receptor Predictions (ug/m3) - Operations, Project Alone

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	GALLIUM (GA)			GOLD (AU)			HYDROCHLORIC ACID (HCL)		
				Averaging Period	24	month	annual	24	month	annual	24	month	annual
				Criteria	-	-	-	1.25	-	-	20	-	-
Maximum of Fence Line Receptors					1.15E+01	6.97E+00	4.30E+00	2.46E-04	1.49E-04	9.17E-05	7.35E-03	1.47E-03	7.28E-04
Max % of Criteria					-	-	-	0.0%	-	-	0.0%	-	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by MECP Gui

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier 3 assump

Table F-2 Fence Line Receptor Predictions (ug/m3) - Operations, Project Alone

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	HYDROFLUORIC ACID (HF)			INDENO(1,2,3-CD)PYRENE			IRON (FE)		
				Averaging Period	24	month	annual	24	month	annual	24	month	annual
				Criteria	**0.86**	**0.34**	-	-	-	-	-	-	-
Maximum of Fence Line Receptors					9.42E-03	1.86E-03	9.10E-04	1.35E-06	2.78E-07	1.44E-07	1.48E+01	7.96E+00	4.95E+00
Max % of Criteria					**1.1%**	**0.5%**	-	-	-	-	-	-	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by MECP Gui

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier 3 assump

Table F-2 Fence Line Receptor Predictions (ug/m3) - Operations, Project Alone

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	IRON SULFIDE			LANTHANUM (LA)			LANTHANUM CHLORIDE (LACL3)		
				Averaging Period	24	month	annual	24	month	annual	24	month	annual
				Criteria	-	-	-	-	-	-	**2.5**	-	-
Maximum of Fence Line Receptors					2.73E+01	5.61E+00	3.66E+00	4.44E-03	1.71E-03	1.30E-03	1.05E-01	2.20E-02	1.11E-02
Max % of Criteria					-	-	-	-	-	-	**4.2%**	-	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by MECP Gui

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier 3 assump

Table F-2 Fence Line Receptor Predictions (ug/m3) - Operations, Project Alone

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	LEAD (PB)			MAGNESIUM (MG)			MANGANESE (MN)		
				Averaging Period	24	month	annual	24	month	annual	24	month	annual
				Criteria	0.5	0.2	-	72	-	-	0.4	-	-
Maximum of Fence Line Receptors					9.81E-03	5.93E-03	3.66E-03	3.85E+00	1.48E+00	1.13E+00	1.41E-01	5.42E-02	4.12E-02
Max % of Criteria					2.0%	3.0%	-	5.4%	-	-	35.2%	-	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by MECP Gui

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier 3 assump

Table F-2 Fence Line Receptor Predictions (ug/m3) - Operations, Project Alone

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	MERCURY (HG)			MOLYBDENUM (MO)			N2O		
				Averaging Period	24	month	annual	24	month	annual	24	month	annual
				Criteria	2	-	-	120	-	-	9000	-	-
Maximum of Fence Line Receptors					2.76E-04	1.06E-04	8.07E-05	8.89E-04	5.37E-04	3.32E-04	1.59E+00	4.79E-01	3.82E-01
Max % of Criteria					0.0%	-	-	0.0%	-	-	0.0%	-	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by MECP Gui

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier 3 assump

Table F-2 Fence Line Receptor Predictions (ug/m3) - Operations, Project Alone

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	NAPHTHALENE				NICKEL (NI)		NITRIC ACID (HNO3)		
				Averaging Period	10-min	24	month	annual	24	annual	24	month	annual
				Criteria	50	22.5	-	-	0.2	0.04	35	-	-
Maximum of Fence Line Receptors					6.42E-03	4.25E-04	8.73E-05	4.50E-05	2.82E-01	1.14E-01	9.14E-03	1.80E-03	8.84E-04
Max % of Criteria					0.0%	0.0%	-	-	141.0%	285.0%	0.0%	-	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by MECP Gui

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier 3 assump

Table F-2 Fence Line Receptor Predictions (ug/m3) - Operations, Project Alone

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	NON-METHANE HYDROCARBONS			NO2 (See Note 3)			PALLADIUM (PD)		
				Averaging Period	24	month	annual	1	24	annual	24	month	annual
				Criteria	-	-	-	400	200	-	10	-	-
Maximum of Fence Line Receptors					4.12E+00	1.23E+00	1.00E+00	9.15E+01	3.76E+01	1.10E+01	2.45E-03	1.48E-03	9.13E-04
Max % of Criteria					-	-	-	22.9%	18.8%	-	0.0%	-	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by MECP Gui

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier 3 assump

Table F-2 Fence Line Receptor Predictions (ug/m3) - Operations, Project Alone

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	PHENANTHRENE			PHOSPHOROUS (P)			PLATINUM (PT)		
				Averaging Period	24	month	annual	24	month	annual	24	month	annual
				Criteria	-	-	-	-	-	-	**0.2**	-	-
Maximum of Fence Line Receptors					4.91E-03	1.46E-03	1.20E-03	3.75E-01	1.44E-01	1.10E-01	5.12E-04	3.09E-04	1.91E-04
Max % of Criteria					-	-	-	-	-	-	**0.3%**	-	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by MECP Gui

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier 3 assump

Table F-2 Fence Line Receptor Predictions (ug/m3) - Operations, Project Alone

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	PM10 (see Note 1)			PM10 (see Note 2)	PM2.5 (See Note 1)			PM2.5 (See Note 2)	
				Averaging Period	24	month	annual	24	24	month	annual	24	annual
				Criteria	-	-	-	50	-	-	-	27	8.8
Maximum of Fence Line Receptors					7.43E+01	2.82E+01	2.14E+01	2.24E+01	8.42E+00	3.10E+00	2.34E+00	5.10E+00	1.40E+00
Max % of Criteria					-	-	-	44.7%	-	-	-	18.9%	15.9%

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by MECP Gui

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier 3 assump

Table F-2 Fence Line Receptor Predictions (ug/m3) - Operations, Project Alone

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	POTASSIUM (K)			PROPYLENE			PYRENE		
				Averaging Period	24	month	annual	24	month	annual	24	month	annual
				Criteria	1	-	-	4000	-	-	-	-	-
Maximum of Fence Line Receptors					2.13E-01	8.18E-02	6.22E-02	9.13E-03	1.88E-03	9.68E-04	2.40E-04	7.22E-05	5.87E-05
Max % of Criteria					21.3%	-	-	0.0%	-	-	-	-	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by MECP Gui

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier 3 assump

Table F-2 Fence Line Receptor Predictions (ug/m3) - Operations, Project Alone

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	SCANDIUM (SC)			SILICA			SILICON (SI)		
				Averaging Period	24	month	annual	24	month	annual	24	month	annual
				Criteria	-	-	-	5	-	-	27	-	-
Maximum of Fence Line Receptors					4.83E-04	1.85E-04	1.41E-04	3.52E+01	1.34E+01	1.02E+01	2.38E+00	1.43E+00	8.85E-01
Max % of Criteria					-	-	-	704.9%	-	-	8.8%	-	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by MECP Gui

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier 3 assump

Table F-2 Fence Line Receptor Predictions (ug/m3) - Operations, Project Alone

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	SILVER (AG)			SO2			
				Averaging Period	24	month	annual	1	24	month	annual
				Criteria	1	-	-	100	-	-	10
Maximum of Fence Line Receptors					2.97E-03	1.79E-03	1.11E-03	2.17E+01	1.23E+00	7.89E-02	3.98E-02
Max % of Criteria					0.3%	-	-	21.7%	-	-	0.4%

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by MECP Gui

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier 3 assump

Table F-2 Fence Line Receptor Predictions (ug/m3) - Operations, Project Alone

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	SODIUM (NA)			SODIUM CARBOXYMETHYL CELLULOSE			STRONTIUM (SR)		
				Averaging Period	24	month	annual	24	month	annual	24	month	annual
				Criteria	-	-	-	120	-	-	120	-	-
Maximum of Fence Line Receptors					3.83E-01	1.47E-01	1.12E-01	5.35E-03	8.91E-04	4.65E-04	2.36E-02	9.07E-03	6.90E-03
Max % of Criteria					-	-	-	0.0%	-	-	0.0%	-	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by MECP Gui

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier 3 assump

Table F-2 Fence Line Receptor Predictions (ug/m3) - Operations, Project Alone

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	THALLIUM (TL)			TITANIUM (TI)			TOC		
				Averaging Period	24	month	annual	24	month	annual	24	month	annual
				Criteria	0.5	-	-	120	-	-	-	-	-
Maximum of Fence Line Receptors					2.77E-03	1.07E-03	8.11E-04	2.53E-01	9.71E-02	7.39E-02	8.10E-01	1.67E-01	1.10E-01
Max % of Criteria					0.6%	-	-	0.2%	-	-	-	-	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by MECP Gui

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier 3 assump

Table F-2 Fence Line Receptor Predictions (ug/m3) - Operations, Project Alone

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	TOC (METHANE)			TOLUENE			TSP (See Note 1)		
				Averaging Period	24	month	annual	24	month	annual	24	month	annual
				Criteria	37330	-	-	2000	-	-	-	-	-
Maximum of Fence Line Receptors					3.08E-01	6.34E-02	3.27E-02	9.17E-04	1.89E-04	9.73E-05	2.75E+02	1.06E+02	8.03E+01
Max % of Criteria					0.0%	-	-	0.0%	-	-	-	-	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by MECP Gui

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier 3 assump

Table F-2 Fence Line Receptor Predictions (ug/m3) - Operations, Project Alone

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	TSP (See Note 2)		TUNGSTEN (W)			URANIUM (U)		
				Averaging Period	24	annual	24	month	annual	24	month	annual
				Criteria	120	60	5	-	-	0.15	-	0.03
Maximum of Fence Line Receptors					5.93E+01	1.93E+01	1.59E-02	6.11E-03	4.65E-03	2.82E-03	1.70E-03	1.06E-03
Max % of Criteria					49.4%	32.2%	0.3%	-	-	1.9%	-	3.5%

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by MECP Gui

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier 3 assump

Table F-2 Fence Line Receptor Predictions (ug/m3) - Operations, Project Alone

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	VANADIUM (V)			XYLENES			
				Averaging Period	24	month	annual	10-Min	24	month	annual
				Criteria	2	-	-	3000	730	-	-
Maximum of Fence Line Receptors					4.54E-02	1.75E-02	1.33E-02	9.53E-03	6.31E-04	1.30E-04	6.69E-05
Max % of Criteria					2.3%	-	-	0.0%	0.0%	-	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by MECP Gui

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier 3 assump

Table F-2 Fence Line Receptor Predictions (ug/m3) - Operations, Project Alone

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	ZINC (ZN)			DUSTFALL (g/m2)		
				Averaging Period	24	month	annual	24	month	annual
				Criteria	120	-	-	0	7	0
Maximum of Fence Line Receptors					5.13E-02	3.10E-02	1.91E-02	4.90E-01	8.76E+00	8.27E+01
Max % of Criteria					0.0%	-	-	-	125.1%	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by MECP Gui

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier 3 assump

Table F-3 Special Receptor Predictions (ug/m3) - Operations, Cumulative (Project + Background)

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	1,3-BUTADIENE			ACENAPHTHENE			ACENAPHTHYLENE			ACETALDEHYDE					ACROLEIN				ALDEHYDES		
				Averaging Period	24	month	annual	24	month	annual	24	month	annual	0.5	1	24	month	annual	1	24	month	annual	24	month	annual
				Criteria	10	-	2	-	-	-	-	-	-	500	-	500	-	-	4.5	0.4	-	-	-	-	-
				Background Concentration (ug/m3)	1.09E-01	4.21E-02	7.32E-02	1.81E-03	6.98E-04	9.10E-04	1.79E-03	6.91E-04	1.06E-03	1.18E+01	9.74E+00	4.00E+00	1.54E+00	1.60E+00	1.22E-01	5.00E-02	1.93E-02	2.30E-02			
H_1	545937.4	5396169.55	Wilson Memorial General Hospital		1.15E-01	4.49E-02	7.49E-02	2.21E-03	8.87E-04	1.03E-03	2.46E-03	1.01E-03	1.26E-03	1.34E+01	1.11E+01	4.38E+00	1.73E+00	1.71E+00	3.16E-01	1.06E-01	4.57E-02	3.91E-02	2.99E-02	4.80E-03	2.49E-03
M_1	545694	5403864	PM-10 @ Hare Lake		1.10E-01	4.23E-02	7.33E-02	1.87E-03	7.15E-04	9.20E-04	1.88E-03	7.18E-04	1.08E-03	1.22E+01	1.01E+01	4.07E+00	1.56E+00	1.61E+00	1.67E-01	6.02E-02	2.23E-02	2.47E-02	7.40E-02	1.24E-02	7.23E-03
M_2	545694	5403873	Dustfall @ Hare Lake		1.10E-01	4.23E-02	7.33E-02	1.87E-03	7.15E-04	9.20E-04	1.88E-03	7.18E-04	1.08E-03	1.22E+01	1.01E+01	4.07E+00	1.56E+00	1.61E+00	1.67E-01	6.02E-02	2.22E-02	2.47E-02	7.37E-02	1.24E-02	7.24E-03
M_3	547152	5401222	PM-10 @ Mays Gifts		1.10E-01	4.25E-02	7.35E-02	1.91E-03	7.26E-04	9.31E-04	1.95E-03	7.36E-04	1.10E-03	1.27E+01	1.04E+01	4.11E+00	1.58E+00	1.63E+00	2.22E-01	6.61E-02	2.42E-02	2.67E-02	1.33E-01	2.30E-02	1.13E-02
M_4	547147	5401216	Dustfall @ Mays Gifts		1.10E-01	4.24E-02	7.35E-02	1.90E-03	7.26E-04	9.31E-04	1.95E-03	7.36E-04	1.10E-03	1.26E+01	1.04E+01	4.11E+00	1.58E+00	1.63E+00	2.20E-01	6.59E-02	2.41E-02	2.66E-02	1.34E-01	2.31E-02	1.14E-02
M_5	551637	5402371	PM-10 @ Pic River		1.10E-01	4.23E-02	7.34E-02	1.86E-03	7.16E-04	9.22E-04	1.88E-03	7.21E-04	1.08E-03	1.24E+01	1.03E+01	4.06E+00	1.56E+00	1.61E+00	1.97E-01	5.92E-02	2.23E-02	2.50E-02	1.25E-01	2.18E-02	1.15E-02
M_6	551643	5402374	Dustfall @ Pic River		1.10E-01	4.23E-02	7.34E-02	1.86E-03	7.16E-04	9.22E-04	1.88E-03	7.21E-04	1.08E-03	1.24E+01	1.03E+01	4.06E+00	1.56E+00	1.61E+00	1.97E-01	5.91E-02	2.23E-02	2.50E-02	1.24E-01	2.17E-02	1.15E-02
M_7	549180	5399815	Dustfall @ Airport		1.10E-01	4.26E-02	7.36E-02	1.89E-03	7.33E-04	9.38E-04	1.93E-03	7.48E-04	1.11E-03	1.27E+01	1.05E+01	4.10E+00	1.58E+00	1.63E+00	2.29E-01	6.38E-02	2.50E-02	2.74E-02	1.00E-01	1.78E-02	7.41E-03
M_8	545863	5397092	Dustfall @ Field Office		1.11E-01	4.34E-02	7.42E-02	1.98E-03	7.87E-04	9.76E-04	2.07E-03	8.40E-04	1.17E-03	1.24E+01	1.02E+01	4.17E+00	1.63E+00	1.67E+00	1.88E-01	7.48E-02	3.23E-02	3.26E-02	3.73E-02	5.61E-03	3.03E-03
O_1	547181.4	5398014.56	Pic Motel		1.11E-01	4.28E-02	7.37E-02	1.93E-03	7.48E-04	9.47E-04	2.00E-03	7.74E-04	1.12E-03	1.25E+01	1.03E+01	4.12E+00	1.59E+00	1.64E+00	2.00E-01	6.80E-02	2.64E-02	2.83E-02	5.96E-02	8.45E-03	4.54E-03
O_2	545734.4	5396872.55	Marathon Harbour Inn		1.14E-01	4.43E-02	7.49E-02	2.13E-03	8.47E-04	1.02E-03	2.33E-03	9.37E-04	1.25E-03	1.30E+01	1.07E+01	4.37E+00	1.71E+00	1.73E+00	2.62E-01	1.03E-01	4.38E-02	4.17E-02	3.59E-02	5.31E-03	2.86E-03
O_3	545885.4	5396448.55	Zero-100 Motor Inn		1.15E-01	4.47E-02	7.53E-02	2.24E-03	8.77E-04	1.05E-03	2.50E-03	9.89E-04	1.29E-03	1.30E+01	1.07E+01	4.47E+00	1.74E+00	1.75E+00	2.62E-01	1.18E-01	4.74E-02	4.48E-02	3.42E-02	5.10E-03	2.64E-03
O_4	545987.4	5397640.55	OPP Station		1.11E-01	4.30E-02	7.39E-02	1.94E-03	7.62E-04	9.58E-04	2.01E-03	7.98E-04	1.14E-03	1.24E+01	1.02E+01	4.13E+00	1.61E+00	1.65E+00	1.88E-01	6.84E-02	2.83E-02	2.98E-02	3.70E-02	6.29E-03	3.48E-03
O_5	545876.4	5396072.55	Library		1.14E-01	4.45E-02	7.47E-02	2.14E-03	8.59E-04	1.01E-03	2.34E-03	9.62E-04	1.24E-03	1.34E+01	1.10E+01	4.33E+00	1.70E+00	1.70E+00	3.11E-01	9.81E-02	4.23E-02	3.75E-02	2.95E-02	4.70E-03	2.44E-03
P_1	546958.4	5396138.56	Penn Lake Park and Campground		1.10E-01	4.23E-02	7.33E-02	1.86E-03	7.15E-04	9.20E-04	1.87E-03	7.19E-04	1.08E-03	1.22E+01	1.01E+01	4.05E+00	1.56E+00	1.61E+00	1.69E-01	5.77E-02	2.19E-02	2.45E-02	3.63E-02	4.33E-03	2.51E-03
P_2	548538.4	5392862.58	Craig's Pit Provincial Nature Reserve		1.09E-01	4.21E-02	7.32E-02	1.83E-03	7.02E-04	9.13E-04	1.82E-03	6.96E-04	1.07E-03	1.21E+01	1.00E+01	4.02E+00	1.55E+00	1.60E+00	1.60E-01	5.27E-02	1.99E-02	2.33E-02	2.80E-02	3.65E-03	1.54E-03
P_3	540005	5402014	Red Sucker Point Provincial Park		1.09E-01	4.21E-02	7.32E-02	1.83E-03	7.03E-04	9.13E-04	1.82E-03	6.98E-04	1.07E-03	1.20E+01	9.89E+00	4.02E+00	1.55E+00	1.60E+00	1.44E-01	5.32E-02	2.00E-02	2.34E-02	2.30E-02	3.63E-03	1.82E-03
P_4	552770	5383776	Pukaskwa National Park		1.09E-01	4.21E-02	7.32E-02	1.82E-03	7.00E-04	9.11E-04	1.80E-03	6.93E-04	1.06E-03	1.21E+01	9.94E+00	4.01E+00	1.54E+00	1.60E+00	1.51E-01	5.13E-02	1.95E-02	2.31E-02	8.55E-03	1.25E-03	5.80E-04
PR_1	553679.4	5385895.59	Children & Family Learning Centre		1.09E-01	4.21E-02	7.32E-02	1.82E-03	7.00E-04	9.11E-04	1.80E-03	6.93E-04	1.06E-03	1.20E+01	9.88E+00	4.01E+00	1.55E+00	1.60E+00	1.43E-01	5.12E-02	1.95E-02	2.31E-02	7.04E-03	1.15E-03	5.83E-04
PR_2	554004.4	5385857.59	Pic River Elementary		1.09E-01	4.21E-02	7.32E-02	1.82E-03	7.00E-04	9.11E-04	1.80E-03	6.93E-04	1.06E-03	1.20E+01	9.85E+00	4.01E+00	1.54E+00	1.60E+00	1.38E-01	5.10E-02	1.95E-02	2.31E-02	6.90E-03	1.13E-03	5.65E-04
PR_3	553836.4	5385603.59	Pic River Private High School		1.09E-01	4.21E-02	7.32E-02	1.82E-03	7.00E-04	9.11E-04	1.80E-03	6.93E-04	1.06E-03	1.20E+01	9.87E+00	4.01E+00	1.54E+00	1.60E+00	1.41E-01	5.11E-02	1.95E-02	2.31E-02	6.72E-03	1.12E-03	5.65E-04
PR_4	553930.4	5386048.59	Pic River Health Centre		1.09E-01	4.21E-02	7.32E-02	1.82E-03	7.00E-04	9.11E-04	1.80E-03	6.93E-04	1.06E-03	1.20E+01	9.86E+00	4.01E+00	1.54E+00	1.60E+00	1.39E-01	5.11E-02	1.95E-02	2.31E-02	6.97E-03	1.14E-03	5.75E-04
PR_5	552493.4	5384782.58	BIIDAABAN Healing Lodge		1.09E-01	4.21E-02	7.32E-02	1.82E-03	7.00E-04	9.11E-04	1.80E-03	6.93E-04	1.06E-03	1.21E+01	9.94E+00	4.01E+00	1.54E+00	1.60E+00	1.51E-01	5.13E-02	1.95E-02	2.31E-02	9.85E-03	1.36E-03	6.33E-04
PR_6	552843.4	5390099.59	Residence		1.09E-01	4.21E-02	7.32E-02	1.82E-03	7.00E-04	9.12E-04	1.81E-03	6.94E-04	1.06E-03	1.20E+01	9.93E+00	4.01E+00	1.55E+00	1.60E+00	1.49E-01	5.17E-02	1.97E-02	2.32E-02	1.07E-02	1.80E-03	9.15E-04
PR_7	553761.4	5387705.59	Residence		1.09E-01	4.21E-02	7.32E-02	1.82E-03	7.00E-04	9.11E-04	1.80E-03	6.93E-04	1.06E-03	1.20E+01	9.85E+00	4.01E+00	1.55E+00	1.60E+00	1.38E-01	5.12E-02	1.95E-02	2.31E-02	8.22E-03	1.30E-03	6.55E-04
PS_1	545001.3	5404050.49	North Hare Lake Cottage		1.10E-01	4.22E-02	7.33E-02	1.86E-03	7.11E-04	9.17E-04	1.86E-03	7.11E-04	1.07E-03	1.22E+01	1.00E+01	4.06E+00	1.56E+00	1.61E+00	1.61E-01	5.81E-02	2.15E-02	2.42E-02	6.33E-02	1.01E-02	5.87E-03
PS_2	544331.3	5403100.49	South Hare Lake Cottage		1.10E-01	4.22E-02	7.33E-02	1.85E-03	7.09E-04	9.16E-04	1.86E-03	7.08E-04	1.07E-03	1.21E+01	9.99E+00	4.05E+00	1.56E+00	1.61E+00	1.58E-01	5.76E-02	2.12E-02	2.40E-02	6.42E-02	7.65E-03	4.28E-03
PS_3	547056.1	5401003.77	May's Gifts		1.10E-01	4.24E-02	7.34E-02	1.89E-03	7.22E-04	9.27E-04	1.92E-03	7.29E-04	1.09E-03	1.26E+01	1.04E+01	4.09E+00	1.57E+00	1.62E+00	2.18E-01	6.32E-02	2.34E-02	2.60E-02	1.32E-01	2.25E-02	1.10E-02
PS_4	546811.4	5400952.54	Wayfare Inn		1.10E-01	4.24E-02	7.34E-02	1.89E-03	7.21E-04	9.27E-04	1.92E-03	7.28E-04	1.09E-03	1.26E+01	1.04E+01	4.09E+00	1.57E+00	1.62E+00	2.18E-01	6.28E-02	2.34E-02	2.59E-02	1.17E-01	1.94E-02	9.48E-03
PS_5	546996.4	5401027.54	Peninsula Inn		1.10E-01	4.24E-02	7.35E-02	1.89E-03	7.23E-04	9.28E-04	1.92E-03	7.30E-04	1.09E-03	1.27E+01	1.04E+01	4.10E+00	1.57E+00	1.62E+00	2.21E-01	6.40E-02	2.36E-02	2.61E-02	1.30E-01	2.18E-02	1.06E-02
PS_6	548471.4	5399488.57	Travelodge Hotel		1.10E-01	4.25E-02	7.36E-02	1.91E-03	7.31E-04	9.36E-04	1.95E-03	7.45E-04	1.10E-03	1.26E+01	1.04E+01	4.10E+00	1.58E+00	1.63E+00	2.18E-01	6.51E-02	2.43E-02	2.68E-02	8.69E-02	1.41E-02	7.13E-03
PS_7	546903.4	5401055.54	The Laughing Mooz Eatery Restaurant and Residence		1.10E-01	4.24E-02	7.35E-02	1.89E-03	7.23E-04	9.28E-04	1.93E-03	7.32E-04	1.09E-03	1.26E+01	1.04E+01	4.10E+00	1.57E+00	1.62E+00	2.20E-01	6.48E-02	2.38E-02	2.62E-02	1.24E-01	2.05E-02	1.00E-02
PW_1	545777.4	5397150.54	Kingdom Hall of Jehovah's Witnesses		1.11E-01	4.31E-02	7.40E-02	1.97E-03	7.70E-04	9.65E-04	2.06E-03	8.11E-04	1.15E-03	1.25E+01	1.03E+01	4.16E+00	1.61E+00	1.66E+00	2.07E-01	7.33E-02	2.96E-02	3.11E-02	3.55E-02	5.59E-03	3.07E-03
PW_2	546331.4	5395941.55	Parkland Pentecostal Church		1.10E-01	4.24E-02	7.34E-02	1.88E-03	7.22E-04	9.26E-04	1.90E-03	7.30E-04	1.09E-03	1.23E+01	1.02E+01	4.07E+00	1.57E+00	1.62E+00	1.82E-01	6.06E-02	2.30E-02	2.54E-02	3.77E-02	4.01E-03	2.36E-03
PW_3	545857.4	5395714.55	St. John's United Church		1.10E-01	4.25E-02	7.36E-02	1.90E-03	7.30E-04	9.34E-04	1.93E-03	7.44E-04	1.10E-03	1.22E+01	1.01E+01	4.09E+00	1.58E+00	1.63E+00	1.73E-01	6.29E-02	2.42E-02	2.66E-02	3.00E-02	4.23E-03	2.25E-03
PW_4	545425	5396043.49	Holy Saviour Roman Catholic Church		1.18E-01	4.60E-02	7.63E-02	2.39E-03	9.58E-04	1.12E-03	2.75E-03	1.12E-03	1.40E-03	1.37E+01	1.13E+01	4.69E+00	1.85E+00	1.84E+00	3.48E-01	1.49E-01	6.38E-02	5.83E-02	3.22E-02	4.56E-03	2.39E-03
PW_5	545390.4	5395988.55	Anglican Church-Trinity		1.21E-01	4.71E-02	7.66E-02	2.63E-03	1.03E-03	1.13E-03	3.14E-03	1.24E-03	1.43E-03	1.45E+01	1.20E+01	4.94E+00	1.93E+00	1.87E+00	4.50E-01	1.86E-01	7.57E-02	6.12E-02	3.20E-02	4.53E-03	2.37E-03
R_1	547226.4	5398095.56	Residence		1.12E-01	4.34E-02	7.41E-02	1.99E-03	7.88E-04	9.75E-04	2.10E-03	8.42E-04	1.17E-03	1.26E+01	1.04E+01	4.18E+00	1.63E+00	1.66E+00	2.17E-01	7.66E-02	3.20E-02	3.22E-02	6.29E-02	8.80E-03	4.73E-03
R_10	545421.4	5395953.55	Residence		1.27E-01	4.87E-02	7.81E-02	3.00E-03	1.14E-03	1.24E-03	3.76E-03	1.42E-03	1.60E-03	1.52E+01	1.26E+01	5.36E+00	2.05E+00	1.98E+00	5.33E-01	2.47E-01	9.29E-02	7.74E-02	3.18E-02	4.52E-03	2.35E-03
R_11	545619.4	5395877.55	Residence		1.14E-01	4.41E-02	7.48E-02	2.17E-03	8.34E-04	1.02E-03	2.39E-03	9.17E-04	1.25E-03	1.31E+01	1.08E+01	4.38E+00	1.69E+00	1.72E+00	2.71E-01	1.06E-01	4.07E-02	4.00E-02	3.02E-02	4.52E-03	2.32E-03
R_12	545831.4	5396000.55	Residence		1.13E-01	4.40E-02	7.45E-02	2.08E-03	8.28E-04	9.97E-04	2.24E-03	9.08E-04	1.21E-03	1.32E+01	1.09E+01	4.26E+00	1.67E+00	1.69E+00	2.86E-01	8.79E-02	3.83E-02	3.56E-02	2.91E-02	4.62E-03	2.39E-03
R_13	545806.9	5396173.19	Residence		1.18E-01	4.65E-02	7.68E-02	2.44E-03	9.97E-04	1.15E-03	2.86E-03	1.20E-03	1.47E-03	1.33E+01	1.09E+01	4.58E+00	1.83E+00	1.83E+00	2.97E-01	1.35E-01	6.06E-02	5.62E-02	3.17E-02	4.82E-03	2.48E-03
R_14	545827.1	5396228.86	Residence		1.15E-01	4.50E-02	7.56E-02	2.24E-03	8.97E-04	1.07E-03	2.52E-03	1.03E-03	1.33E-03	1.29E+01	1.06E+01	4.40E+00	1.73E+00	1.75E+00	2.53E-01	1.09E-01	4.64E-02	4.51E-02	3.22E-02	4.89E-03	2.52E-03
R_15	545662.4	5396175.55	Residence		1.12E-01	4.36E-02	7.44E-02	2.04E-03	8.01E-04	9.92E-04	2.17E-03	8.62E-04	1.20E-03	1.25E+01	1.03E+01	4.23E+00	1.65E+00	1.68E+00	1.99E-01	8.31E-02	3.50E-02	3.51E-02	3.29E-02	4.80E-03	2.48E-03
R_16	546254.4	5396484.55	Residence		1.11E-01	4.28E-02	7.36E-02	1.92E-03	7.46E-04	9.39E-04	1.97E-03	7.70E-04	1.11E-03	1.23E+01	1.01E+01	4.11E+00	1.59E+00	1.63E+00	1.81E-01	6.59E-02	2.66E-02	2.74E-02	3.38E-02	4.99E-03	2.65E-03
R_17	546471.4	5396506.55	Residence		1.10E-01	4.25E-02	7.35E-02	1.89E-03	7.30E-04	9.29E-04	1.92E-03	7.43E-04	1.09E-03	1.22E+01	1.01E+01	4.08E+00	1.58E+00	1.62E+00	1.69E-01	6.18E-02	2.41E-02	2.59E-02	3.93E-02	4.76E-03	2.67E-03
R_18	546601.4	5396387.56	Residence		1.10E-01	4.24E-02	7.34E-02	1.88E-03	7.24E-04	9.26E-04	1.90E-03	7.33E-04	1.09E-03	1.22E+01	1.01E+01	4.07E+00	1.57E+00	1.62E+00	1.70E-01	6.04E-02	2.33E-02	2.54E-02	4.12E-02	4.34E-03	2.60E-03
R_19	546856.4	5395580.56	Residence		1.10E-01	4.22E-02	7.33E-02	1.85E-03	7.09E-04	9.17E-04	1.86E-03	7.09E-04	1.07E-03	1.22E+01	1.01E+01	4.04E+00	1.56E+00	1.61E+00	1.67E-01	5.63E-02	2.10E-02	2.41E-02	3.08E-02	3.96E-03	2.28E-03
R_2	547273.4	5398044.56	Residence		1.10E-01	4.26E-02	7.36E-02	1.90E-03	7.35E-04	9.37E-04	1.95E-03	7.53E-04	1.11E-03	1.24E+01	1.02E+01	4.10E+00	1.58E+00	1.63E+00	1.93E-01	6.42E-02	2.46E-02	2.69E-02	6.78E-02	8.59E-03	4.73E-03
R_20	546950.4	5395533.56	Residence		1.10E-01	4.22E-02	7.33E-02	1.85E-03	7.08E-04	9.17E-04	1.85E-03	7.07E-04	1.07E-03	1.22E+01	1.00E+01	4.04E+00	1.55E+00	1.61E+00	1.65E-01	5.57E-02	2.08E-02	2.40E-02	2.92E-02	4.06E-03	2.28E-03
R_21	547201.4	5395415.56	Residence		1.09E-01	4.22E-02	7.33E-02	1.84E-03	7.06E-04	9.16E-04	1.83E-03	7.03E-04	1.07E-03	1.21E+01	9.99E+00	4.03E+00	1.55E+00	1.61E+00	1.58E-01	5.42E-02	2.05E-02	2.38E-02	2.81E-02	4.35E-03	2.31E-03
R_22	548317.4	5399654.57	Residence		1.10E-01	4.23E-02	7.34E-02	1.88E-03	7.18E-04	9.25E-04	1.90E-03	7.22E-04	1.09E-03	1.26E+01	1.04E+01	4.08E+00	1.56E+00	1.62E+00	2.19E-01	6.15E-02	2.24E-02	2.53E-02	8.81E-02	1.38E-02	7.36E-03
R_3	545809.4	5397232.54	Bergagnini Apartment Rental		1.12E-01	4.32E-02	7.41E-02	1.99E-03	7.74E-04	9.68E-04	2.09E-03	8.18E-04	1.16E-03	1.26E+01	1.03E+01	4.17E+00	1.62E+00	1.66E+00	2.10E-01	7.49E-02	3.00E-02	3.14E-02	3.56E-02	5.69E-03	3.13E-03
R_4	546092.4	5396796.55	Residence		1.10E-01	4.28E-02	7.37E-02	1.91E-03	7.45E-04	9.41E-04	1.95E-03	7.69E-04	1.11E-03	1.22E+01	1.01E+01	4.11E+00	1.60E+00	1.63E+00	1.72E-01	6.59E-02	2.69E-02	2.79E-02	3.66E-02	5.50E-03	2.85E-03
R_5	545971.4	5396489.55	Condominium		1.14E-01	4.49E-02	7.52E-02	2.16E-03	8.88E-04	1.04E-03	2.37E-03	1.01E-03	1.28E-03	1.28E+01	1.06E+01	4.39E+00	1.75E+00	1.75E+00	2.44E-01	1.07E-01	4.98E-02	4.44E-02	3.39E-02	5.13E-03	2.65E-03
R_6	545655.4	5396520.55	Residence		1.11E-01	4.29E-02	7.39E-02	1.95E-03	7.58E-04	9.57E-04	2.03E-03	7.90E-04	1.14E-03	1.26E+01	1.04E+01	4.16E+00	1.61E+00	1.65E+00	2.15E-01	7.29E-02	2.88E-02	3.06E-02	3.51E-02	5.08E-03	2.68E-03
R_7	545438.4	5396408.54	I Sew Studio and Residence		1.14E-01	4.46E-02	7.51E-02	2.14E-03	8.65E-04	1.04E-03	2.33E-03	9.63E-04	1.27E-03	1.29E+01	1.06E+01	4.40E+00	1.75E+00	1.75E+00	2.50E-01	1.08E-01	4.88E-02	4.51E-02	3.29E-02	4.75E-03	2.56E-03
R_8	545380.4	5396243.54	Bayview Apartments		1.14E-01	4.45E-02	7.51E-02	2.13E-03	8.57E-04	1.03E-03	2.31E-03	9.51E-04	1.26E-03	1.28E+01	1.05E+01	4.39E+00	1.74E+00	1.75E+00	2.36E-01	1.06E-01	4.74E-02	4.45E-02	3.24E-02	4.62E-03	2.47E-03
R_9	545290.4	5396114.54	Residence		1.13E-01	4.37E-02	7.43E-02	2.06E-03	8.05E-04	9.80E-04	2.20E-03	8.66E-04	1.18E-03	1.28E+01	1.06E+01	4.29E+00	1.67E+00	1.68E+00	2.44E-01	9.21E-02	3.74E-02	3.49E-02	3.17E-02	4.49E-03	2.41E-03
RH_1	546049.4	5395894.55	Peninsula Manor		1.11E-01	4.27E-02	7.36E-02	1.94E-03	7.38E-04	9.35E-04	2.01E-03	7.57E-04	1.10E-03	1.26E+01	1.04E+01	4.14E+00	1.59E+00	1.63E+00	2.19E-01	7.04E-02	2.54E-02	2.67E-02	3.32E-02	4.32E-03	2.35E-03
RH_2	545320.9	5396196.57	Senior's Centre		1.15E-01	4.47E-02	7.51E-02	2.20E-03	8.72E-04	1.04E-03	2.42E-03	9.75E-04	1.27E-03	1.34E+01	1.11E+01	4.47E+00	1.75E+00	1.75E+00	3.13E-01	1.17E-01	4.97E-02	4.50E-02	3.19E-02	4.55E-03	2.44E-03
S_1	546339.4	5396624.55	Holy Saviour School		1.10E-01	4.26E-02	7.35E-02	1.89E-03	7.34E-04	9.32E-04	1.92E-03	7.50E-04	1.10E-03	1.22E+01	1.01E+01	4.08E+00	1.58E+00	1.62E+00	1.72E-01	6.21E-02	2.49E-02	2.64E-02	3.49E-02	5.14E-03	2.74E-03
S_2	545633.4	5396102.55	Confederation College Northshore Campus		1.14E-01	4.43E-02	7.49E-02	2.12E-03	8.50E-04	1.03E-03	2.30E-03	9.44E-04	1.26E-03	1.28E+01	1.05E+01	4.31E+00	1.70E+00	1.72E+00	2.36E-01	9.47E-02	4.26E-02	4.04E-02	3.23E-02	4.72E-03	2.44E-03
S_3	546200.4	5396036.55	Marathon High School		1.10E-01	4.26E-02	7.35E-02	1.90E-03	7.37E-04	9.34E-04	1.94E-03	7.55E-04	1.10E-03	1.25E+01	1.03E+01	4.09E+00	1.58E+00	1.62E+00	1.99E-01	6.34E-02	2.51E-02	2.66E-02	3.56E-02	4.35E-03	2.41E-03
S_4	546261.4	5395967.55	Ecole secondaire Cite-Superieure		1.10E-01	4.25E-02	7.35E-02	1.89E-03	7.27E-04	9.29E-04	1.92E-03	7.38E-04	1.09E-03	1.24E+01	1.02E+01	4.08E+00	1.57E+00	1.62E+00	1.87E-01	6.20E-02	2.37E-02	2.58E-02	3.69E-02	4.16E-03	2.38E-03
S_5	547019.4	5395082.56	Marathon Children and Family Centre		1.09E-01	4.21E-02	7.33E-02	1.83E-03	7.05E-04	9.15E-04	1.82E-03	7.01E-04	1.07E-03	1.21E+01	9.99E+00	4.02E+00	1.55E+00	1.60E+00	1.57E-01	5.34E-02	2.03E-02	2.37E-02	2.82E-02	4.21E-03	2.25E-03

Table F-3 Special Receptor Predictions (ug/m3) - Operations, Cumulative (Project + Background)

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	ALUMINUM (AL)			ANTHRACENE			ANTIMONY (SB)			ARSENIC (AS)			BARIUM (BA)			BENZENE			BENZO(A)ANTHRACENE		
				Averaging Period	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual
				Criteria	12	-	-	-	-	-	25	-	-	0.3	-	-	10	-	-	2.3	-	0.45	-	-	-
				Background Concentration (ug/m3)	5.88E-01	2.27E-01	2.84E-01	4.49E-04	1.73E-04	2.51E-04	2.71E-02	1.05E-02	9.39E-03				3.99E-02	1.54E-02	1.92E-02	1.44E+00	5.56E-01	9.02E-01	2.14E-04	8.26E-05	1.07E-04
H_1	545937.4	5396169.55	Wilson Memorial General Hospital		6.81E-01	2.55E-01	3.05E-01	7.37E-04	3.11E-04	3.36E-04	2.71E-02	1.05E-02	9.40E-03	6.84E-05	1.42E-05	9.79E-06	4.03E-02	1.55E-02	1.93E-02	1.52E+00	5.93E-01	9.25E-01	2.88E-04	1.19E-04	1.29E-04
M_1	545694	5403864	PM-10 @ Hare Lake		8.22E-01	2.93E-01	3.24E-01	4.85E-04	1.84E-04	2.57E-04	2.71E-02	1.05E-02	9.40E-03	5.03E-05	1.38E-05	8.42E-06	4.08E-02	1.57E-02	1.94E-02	1.45E+00	5.60E-01	9.04E-01	2.15E-04	8.29E-05	1.07E-04
M_2	545694	5403873	Dustfall @ Hare Lake		8.21E-01	2.93E-01	3.24E-01	4.85E-04	1.84E-04	2.57E-04	2.71E-02	1.05E-02	9.40E-03	5.00E-05	1.38E-05	8.41E-06	4.08E-02	1.57E-02	1.94E-02	1.45E+00	5.60E-01	9.04E-01	2.15E-04	8.29E-05	1.07E-04
M_3	547152	5401222	PM-10 @ Mays Gifts		1.14E+00	3.77E-01	3.87E-01	5.08E-04	1.91E-04	2.64E-04	2.72E-02	1.05E-02	9.41E-03	1.17E-04	3.13E-05	2.15E-05	4.20E-02	1.60E-02	1.96E-02	1.46E+00	5.62E-01	9.07E-01	2.16E-04	8.32E-05	1.07E-04
M_4	547147	5401216	Dustfall @ Mays Gifts		1.14E+00	3.77E-01	3.86E-01	5.07E-04	1.91E-04	2.64E-04	2.72E-02	1.05E-02	9.41E-03	1.16E-04	3.11E-05	2.14E-05	4.20E-02	1.60E-02	1.96E-02	1.46E+00	5.62E-01	9.07E-01	2.16E-04	8.32E-05	1.07E-04
M_5	551637	5402371	PM-10 @ Pic River		9.53E-01	3.72E-01	3.74E-01	4.82E-04	1.84E-04	2.59E-04	2.72E-02	1.05E-02	9.41E-03	8.02E-05	3.19E-05	1.94E-05	4.13E-02	1.60E-02	1.95E-02	1.45E+00	5.60E-01	9.05E-01	2.16E-04	8.31E-05	1.07E-04
M_6	551643	5402374	Dustfall @ Pic River		9.51E-01	3.72E-01	3.74E-01	4.82E-04	1.84E-04	2.59E-04	2.72E-02	1.05E-02	9.41E-03	7.99E-05	3.19E-05	1.94E-05	4.13E-02	1.60E-02	1.95E-02	1.45E+00	5.60E-01	9.05E-01	2.16E-04	8.31E-05	1.07E-04
M_7	549180	5399815	Dustfall @ Airport		2.39E+00	1.03E+00	8.97E-01	5.04E-04	1.97E-04	2.70E-04	2.74E-02	1.06E-02	9.51E-03	3.77E-04	1.68E-04	1.28E-04	4.69E-02	1.85E-02	2.16E-02	1.46E+00	5.63E-01	9.08E-01	2.20E-04	8.51E-05	1.09E-04
M_8	545863	5397092	Dustfall @ Field Office		7.18E-01	2.66E-01	3.14E-01	5.68E-04	2.36E-04	2.98E-04	2.72E-02	1.05E-02	9.40E-03	1.65E-04	5.58E-05	2.98E-05	4.04E-02	1.55E-02	1.93E-02	1.47E+00	5.74E-01	9.15E-01	2.40E-04	9.61E-05	1.17E-04
O_1	547181.4	5398014.56	Pic Motel		7.89E-01	2.82E-01	3.24E-01	5.35E-04	2.09E-04	2.78E-04	2.71E-02	1.05E-02	9.40E-03	4.23E-05	1.27E-05	1.02E-05	4.07E-02	1.56E-02	1.94E-02	1.47E+00	5.65E-01	9.09E-01	2.31E-04	9.07E-05	1.13E-04
O_2	545734.4	5396872.55	Marathon Harbour Inn		7.16E-01	2.78E-01	3.20E-01	6.67E-04	2.73E-04	3.27E-04	2.72E-02	1.05E-02	9.42E-03	2.37E-04	1.36E-04	6.82E-05	4.04E-02	1.56E-02	1.93E-02	1.51E+00	5.88E-01	9.27E-01	2.44E-04	9.62E-05	1.17E-04
O_3	545885.4	5396448.55	Zero-100 Motor Inn		6.88E-01	2.58E-01	3.07E-01	7.41E-04	2.97E-04	3.47E-04	2.71E-02	1.05E-02	9.40E-03	1.10E-04	2.13E-05	1.35E-05	4.03E-02	1.55E-02	1.93E-02	1.53E+00	5.94E-01	9.32E-01	2.63E-04	1.05E-04	1.24E-04
O_4	545987.4	5397640.55	OPP Station		7.42E-01	2.66E-01	3.13E-01	5.43E-04	2.19E-04	2.86E-04	2.71E-02	1.05E-02	9.40E-03	9.56E-05	2.53E-05	1.35E-05	4.05E-02	1.55E-02	1.93E-02	1.47E+00	5.68E-01	9.12E-01	2.37E-04	9.32E-05	1.15E-04
O_5	545876.4	5396072.55	Library		6.78E-01	2.55E-01	3.05E-01	6.84E-04	2.89E-04	3.26E-04	2.71E-02	1.05E-02	9.40E-03	6.38E-05	1.51E-05	9.40E-06	4.02E-02	1.55E-02	1.93E-02	1.51E+00	5.88E-01	9.22E-01	2.69E-04	1.11E-04	1.26E-04
P_1	546958.4	5396138.56	Penn Lake Park and Campground		7.01E-01	2.56E-01	3.07E-01	4.83E-04	1.85E-04	2.58E-04	2.71E-02	1.05E-02	9.40E-03	3.78E-05	1.13E-05	7.52E-06	4.03E-02	1.55E-02	1.93E-02	1.45E+00	5.59E-01	9.04E-01	2.20E-04	8.45E-05	1.08E-04
P_2	548538.4	5392862.58	Craig's Pit Provincial Nature Reserve		6.68E-01	2.45E-01	2.96E-01	4.59E-04	1.75E-04	2.53E-04	2.71E-02	1.05E-02	9.39E-03	1.77E-05	4.48E-06	2.83E-06	4.02E-02	1.55E-02	1.92E-02	1.44E+00	5.56E-01	9.02E-01	2.15E-04	8.28E-05	1.07E-04
P_3	540005	5402014	Red Sucker Point Provincial Park		6.57E-01	2.45E-01	2.94E-01	4.61E-04	1.76E-04	2.53E-04	2.71E-02	1.05E-02	9.39E-03	1.76E-05	4.59E-06	2.94E-06	4.02E-02	1.55E-02	1.92E-02	1.44E+00	5.57E-01	9.03E-01	2.15E-04	8.27E-05	1.07E-04
P_4	552770	5383776	Pukaskwa National Park		6.19E-01	2.33E-01	2.88E-01	4.54E-04	1.74E-04	2.52E-04	2.71E-02	1.05E-02	9.39E-03	6.81E-06	1.67E-06	9.09E-07	4.00E-02	1.54E-02	1.92E-02	1.44E+00	5.56E-01	9.02E-01	2.14E-04	8.26E-05	1.07E-04
PR_1	553679.4	5385895.59	Children & Family Learning Centre		6.14E-01	2.33E-01	2.88E-01	4.53E-04	1.74E-04	2.52E-04	2.71E-02	1.05E-02	9.39E-03	5.55E-06	1.73E-06	9.73E-07	4.00E-02	1.54E-02	1.92E-02	1.44E+00	5.56E-01	9.02E-01	2.14E-04	8.26E-05	1.07E-04
PR_2	554004.4	5385857.59	Pic River Elementary		6.10E-01	2.33E-01	2.88E-01	4.53E-04	1.74E-04	2.52E-04	2.71E-02	1.05E-02	9.39E-03	4.81E-06	1.61E-06	9.44E-07	4.00E-02	1.54E-02	1.92E-02	1.44E+00	5.56E-01	9.02E-01	2.14E-04	8.26E-05	1.07E-04
PR_3	553836.4	5385603.59	Pic River Private High School		6.12E-01	2.33E-01	2.88E-01	4.53E-04	1.74E-04	2.52E-04	2.71E-02	1.05E-02	9.39E-03	5.20E-06	1.66E-06	9.41E-07	4.00E-02	1.54E-02	1.92E-02	1.44E+00	5.56E-01	9.02E-01	2.14E-04	8.26E-05	1.07E-04
PR_4	553930.4	5386048.59	Pic River Health Centre		6.11E-01	2.33E-01	2.88E-01	4.53E-04	1.74E-04	2.52E-04	2.71E-02	1.05E-02	9.39E-03	4.96E-06	1.65E-06	9.63E-07	4.00E-02	1.54E-02	1.92E-02	1.44E+00	5.56E-01	9.02E-01	2.14E-04	8.26E-05	1.07E-04
PR_5	552493.4	5384782.58	BIIDAABAN Healing Lodge		6.22E-01	2.34E-01	2.88E-01	4.54E-04	1.74E-04	2.52E-04	2.71E-02	1.05E-02	9.39E-03	7.54E-06	1.83E-06	9.95E-07	4.00E-02	1.54E-02	1.92E-02	1.44E+00	5.56E-01	9.02E-01	2.14E-04	8.26E-05	1.07E-04
PR_6	552843.4	5390099.59	Residence		6.28E-01	2.36E-01	2.90E-01	4.55E-04	1.75E-04	2.52E-04	2.71E-02	1.05E-02	9.39E-03	8.53E-06	2.41E-06	1.54E-06	4.01E-02	1.54E-02	1.92E-02	1.44E+00	5.56E-01	9.02E-01	2.14E-04	8.27E-05	1.07E-04
PR_7	553761.4	5387705.59	Residence		6.12E-01	2.33E-01	2.88E-01	4.53E-04	1.74E-04	2.52E-04	2.71E-02	1.05E-02	9.39E-03	5.27E-06	1.78E-06	1.12E-06	4.00E-02	1.54E-02	1.92E-02	1.44E+00	5.56E-01	9.02E-01	2.14E-04	8.26E-05	1.07E-04
PS_1	545001.3	5404050.49	North Hare Lake Cottage		7.52E-01	2.79E-01	3.14E-01	4.78E-04	1.81E-04	2.56E-04	2.71E-02	1.05E-02	9.40E-03	3.41E-05	1.07E-05	6.61E-06	4.05E-02	1.56E-02	1.93E-02	1.45E+00	5.59E-01	9.04E-01	2.15E-04	8.28E-05	1.07E-04
PS_2	544331.3	5403100.49	South Hare Lake Cottage		7.74E-01	2.73E-01	3.10E-01	4.76E-04	1.80E-04	2.55E-04	2.71E-02	1.05E-02	9.39E-03	3.92E-05	9.70E-06	5.70E-06	4.06E-02	1.56E-02	1.93E-02	1.45E+00	5.58E-01	9.03E-01	2.15E-04	8.28E-05	1.07E-04
PS_3	547056.1	5401003.77	May's Gifts		1.08E+00	3.59E-01	3.73E-01	4.97E-04	1.88E-04	2.62E-04	2.72E-02	1.05E-02	9.41E-03	1.03E-04	2.76E-05	1.89E-05	4.18E-02	1.59E-02	1.95E-02	1.46E+00	5.61E-01	9.06E-01	2.16E-04	8.32E-05	1.07E-04
PS_4	546811.4	5400952.54	Wayfare Inn		1.04E+00	3.46E-01	3.64E-01	4.96E-04	1.88E-04	2.62E-04	2.72E-02	1.05E-02	9.41E-03	9.46E-05	2.49E-05	1.71E-05	4.16E-02	1.59E-02	1.95E-02	1.46E+00	5.61E-01	9.06E-01	2.16E-04	8.31E-05	1.07E-04
PS_5	546996.4	5401027.54	Peninsula Inn		1.08E+00	3.58E-01	3.72E-01	4.99E-04	1.89E-04	2.62E-04	2.72E-02	1.05E-02	9.41E-03	1.03E-04	2.73E-05	1.87E-05	4.18E-02	1.59E-02	1.95E-02	1.46E+00	5.61E-01	9.06E-01	2.16E-04	8.32E-05	1.07E-04
PS_6	548471.4	5399488.57	Travelodge Hotel		1.32E+00	4.73E-01	4.36E-01	5.13E-04	1.95E-04	2.69E-04	2.72E-02	1.05E-02	9.42E-03	1.53E-04	5.15E-05	3.23E-05	4.27E-02	1.63E-02	1.98E-02	1.46E+00	5.62E-01	9.07E-01	2.22E-04	8.60E-05	1.10E-04
PS_7	546903.4	5401055.54	The Laughing Mooz Eatery Restaurant and Residence		1.07E+00	3.56E-01	3.71E-01	5.01E-04	1.89E-04	2.63E-04	2.72E-02	1.05E-02	9.41E-03	1.01E-04	2.68E-05	1.84E-05	4.17E-02	1.59E-02	1.95E-02	1.46E+00	5.62E-01	9.06E-01	2.16E-04	8.32E-05	1.07E-04
PW_1	545777.4	5397150.54	Kingdom Hall of Jehovah's Witnesses		7.21E-01	2.66E-01	3.14E-01	5.64E-04	2.24E-04	2.90E-04	2.72E-02	1.05E-02	9.40E-03	2.09E-04	6.45E-05	3.07E-05	4.04E-02	1.55E-02	1.93E-02	1.47E+00	5.70E-01	9.13E-01	2.40E-04	9.38E-05	1.15E-04
PW_2	546331.4	5395941.55	Parkland Pentecostal Church		6.86E-01	2.53E-01	3.04E-01	4.96E-04	1.90E-04	2.62E-04	2.71E-02	1.05E-02	9.39E-03	4.68E-05	1.06E-05	7.41E-06	4.03E-02	1.55E-02	1.93E-02	1.45E+00	5.61E-01	9.05E-01	2.23E-04	8.57E-05	1.09E-04
PW_3	545857.4	5395714.55	St. John's United Church		6.75E-01	2.52E-01	3.03E-01	5.09E-04	1.95E-04	2.68E-04	2.71E-02	1.05E-02	9.39E-03	4.81E-05	1.31E-05	7.59E-06	4.02E-02	1.55E-02	1.93E-02	1.46E+00	5.62E-01	9.07E-01	2.27E-04	8.69E-05	1.10E-04
PW_4	545425	5396043.49	Holy Saviour Roman Catholic Church		6.79E-01	2.55E-01	3.04E-01	8.36E-04	3.45E-04	3.88E-04	2.71E-02	1.05E-02	9.40E-03	9.80E-05	1.97E-05	1.17E-05	4.03E-02	1.55E-02	1.93E-02	1.57E+00	6.15E-01	9.49E-01	2.63E-04	1.04E-04	1.23E-04
PW_5	545390.4	5395988.55	Anglican Church-Trinity		6.78E-01	2.55E-01	3.04E-01	9.95E-04	3.93E-04	4.00E-04	2.71E-02	1.05E-02	9.40E-03	9.07E-05	1.86E-05	1.07E-05	4.02E-02	1.55E-02	1.93E-02	1.62E+00	6.31E-01	9.53E-01	2.88E-04	1.09E-04	1.24E-04
R_1	547226.4	5398095.56	Residence		8.02E-01	2.84E-01	3.25E-01	5.78E-04	2.38E-04	2.98E-04	2.71E-02	1.05E-02	9.40E-03	4.50E-05	1.29E-05	1.02E-05	4.07E-02	1.56E-02	1.94E-02	1.48E+00	5.73E-01	9.15E-01	2.42E-04	9.77E-05	1.17E-04
R_10	545421.4	5395953.55	Residence		6.76E-01	2.54E-01	3.04E-01	1.25E-03	4.69E-04	4.69E-04	2.71E-02	1.05E-02	9.40E-03	8.80E-05	1.74E-05	1.05E-05	4.02E-02	1.55E-02	1.93E-02	1.70E+00	6.54E-01	9.75E-01	3.30E-04	1.23E-04	1.36E-04
R_11	545619.4	5395877.55	Residence		6.72E-01	2.54E-01	3.03E-01	7.01E-04	2.67E-04	3.28E-04	2.71E-02	1.05E-02	9.40E-03	9.39E-05	1.85E-05	8.99E-06	4.02E-02	1.55E-02	1.93E-02	1.52E+00	5.85E-01	9.25E-01	2.64E-04	1.00E-04	1.22E-04
R_12	545831.4	5396000.55	Residence		6.76E-01	2.55E-01	3.04E-01	6.41E-04	2.66E-04	3.14E-04	2.71E-02	1.05E-02	9.40E-03	6.31E-05	1.62E-05	9.13E-06	4.02E-02	1.55E-02	1.93E-02	1.49E+00	5.82E-01	9.20E-01	2.61E-04	1.04E-04	1.22E-04
R_13	545806.9	5396173.19	Residence		6.78E-01	2.57E-01	3.05E-01	9.16E-04	3.95E-04	4.31E-04	2.71E-02	1.05E-02	9.40E-03	7.90E-05	1.94E-05	1.07E-05	4.02E-02	1.55E-02	1.93E-02	1.56E+00	6.14E-01	9.49E-01	3.46E-04	1.45E-04	1.57E-04
R_14	545827.1	5396228.86	Residence		6.80E-01	2.57E-01	3.06E-01	7.67E-04	3.20E-04	3.69E-04	2.71E-02	1.05E-02	9.40E-03	8.19E-05	1.88E-05	1.11E-05	4.03E-02	1.55E-02	1.93E-02	1.52E+00	5.94E-01	9.33E-01	3.02E-04	1.23E-04	1.38E-04
R_15	545662.4	5396175.55	Residence		6.80E-01	2.58E-01	3.05E-01	6.11E-04	2.45E-04	3.09E-04	2.71E-02	1.05E-02	9.40E-03	1.20E-04	2.58E-05	1.19E-05	4.03E-02	1.55E-02	1.93E-02	1.49E+00	5.77E-01	9.19E-01	2.52E-04	9.91E-05	1.19E-04
R_16	546254.4	5396484.55	Residence		6.91E-01	2.58E-01	3.08E-01	5.24E-04	2.06E-04	2.71E-04	2.71E-02	1.05E-02	9.40E-03	8.70E-05	1.80E-05	1.09E-05	4.03E-02	1.55E-02	1.93E-02	1.46E+00	5.66E-01	9.08E-01	2.30E-04	8.90E-05	1.11E-04
R_17	546471.4	5396506.55	Residence		6.96E-01	2.58E-01	3.08E-01	5.03E-04	1.95E-04	2.64E-04	2.71E-02	1.05E-02	9.40E-03	7.19E-05	1.57E-05	1.01E-05	4.03E-02	1.55E-02	1.93E-02	1.46E+00	5.62E-01	9.06E-01	2.25E-04	8.66E-05	1.09E-04
R_18	546601.4	5396387.56	Residence		6.95E-01	2.57E-01	3.07E-01	4.96E-04	1.91E-04	2.62E-04	2.71E-02	1.05E-02	9.40E-03	5.85E-05	1.40E-05	9.02E-06	4.03E-02	1.55E-02	1.93E-02	1.45E+00	5.61E-01	9.05E-01	2.23E-04	8.59E-05	1.09E-04
R_19	546856.4	5395580.56	Residence		6.90E-01	2.52E-01	3.04E-01	4.76E-04	1.81E-04	2.56E-04	2.71E-02	1.05E-02	9.39E-03	2.89E-05	8.49E-06	6.07E-06	4.03E-02	1.55E-02	1.93E-02	1.45E+00	5.58E-01	9.03E-01	2.18E-04	8.37E-05	1.07E-04
R_2	547273.4	5398044.56	Residence		7.99E-01	2.84E-01	3.25E-01	5.14E-04	1.99E-04	2.70E-04	2.71E-02	1.05E-02	9.40E-03	4.42E-05	1.29E-05	1.01E-05	4.07E-02	1.56E-02	1.94E-02	1.46E+00	5.63E-01	9.07E-01	2.25E-04	8.82E-05	1.11E-04
R_20	546950.4	5395533.56	Residence		6.91E-01	2.52E-01	3.03E-01	4.73E-04	1.80E-04	2.56E-04	2.71E-02	1.05E-02	9.39E-03	2.76E-05	8.36E-06	5.96E-06	4.03E-02	1.55E-02	1.93E-02	1.45E+00	5.58E-01	9.03E-01	2.18E-04	8.36E-05	1.07E-04
R_21	547201.4	5395415.56	Residence		6.91E-01	2.51E-01	3.03E-01	4.67E-04	1.78E-04	2.55E-04	2.71E-02	1.05E-02	9.39E-03	2.52E-05	7.97E-06	5.71E-06	4.03E-02	1.55E-02	1.93E-02	1.45E+00	5.57E-01	9.03E-01	2.17E-04	8.33E-05	1.07E-04
R_22	548317.4	5399654.57	Residence		1.10E+00	4.02E-01	3.97E-01	4.94E-04	1.86E-04	2.61E-04	2.72E-02	1.05E-02	9.41E-03	1.07E-04	3.68E-05	2.41E-05	4.19E-02	1.61E-02	1.96E-02	1.46E+00	5.60E-01	9.05E-01	2.18E-04	8.40E-05	1.08E-04
R_3	545809.4	5397232.54	Bergagnini Apartment Rental		7.25E-01	2.63E-01	3.13E-01	5.74E-04	2.27E-04	2.93E-04	2.72E-02	1.05E-02	9.40E-03	1.85E-04	5.21E-05	2.47E-05	4.04E-02	1.55E-02	1.93E-02	1.47E+00	5.71E-01	9.14E-01	2.42E-04	9.49E-05	1.16E-04
R_4	546092.4	5396796.55	Residence		7.00E-01	2.62E-01	3.11E-01	5.14E-04	2.05E-04	2.72E-04	2.71E-02	1.05E-02	9.40E-03	1.39E-04	3.45E-05	2.02E-05	4.03E-02	1.55E-02	1.93E-02	1.46E+00	5.66E-01	9.09E-01	2.23E-04	8.72E-05	1.10E-04
R_5	545971.4	5396489.55	Condominium		6.88E-01	2.58E-01	3.07E-01	6.88E-04	3.03E-04	3.43E-04	2.71E-02	1.05E-02	9.40E-03	1.08E-04	2.35E-05	1.33E-05	4.03E-02	1.55E-02	1.93E-02	1.52E+00	5.97E-01	9.31E-01	2.52E-04	1.03E-04	1.22E-04
R_6	545655.4	5396520.55	Residence		6.95E-01	2.65E-01	3.09E-01	5.48E-04	2.14E-04	2.83E-04	2.72E-02	1.05E-02	9.40E-03	2.01E-04	4.58E-05	2.13E-05	4.03E-02	1.55E-02	1.93E-02	1.47E+00	5.69E-01	9.12E-01	2.31E-04	8.98E-05	1.12E-04
R_7	545438.4	5396408.54	I Sew Studio and Residence		6.94E-01	2.62E-01	3.08E-01	6.64E-04	2.80E-04	3.33E-04	2.72E-02	1.05E-02	9.40E-03	1.71E-04	3.91E-05	2.15E-05	4.03E-02	1.55E-02	1.93E-02	1.52E+00	5.94E-01	9.31E-01	2.33E-04	9.10E-05	1.14E-04
R_8	545380.4	5396243.54	Bayview Apartments		6.88E-01	2.58E-01	3.06E-01	6.57E-04	2.76E-04	3.31E-04	2.71E-02	1.05E-02	9.40E-03	1.19E-04	2.92E-05	1.57E-05	4.03E-02	1.55E-02	1.93E-02	1.51E+00	5.93E-01	9.30E-01	2.34E-04	9.15E-05	1.14E-04
R_9	545290.4	5396114.54	Residence		6.84E-01	2.57E-01	3.05E-01	6.13E-04	2.43E-04	2.97E-04	2.71E-02	1.05E-02	9.40E-03	9.13E-05	2.49E-05	1.33E-05	4.03E-02	1.55E-02	1.93E-02	1.50E+00	5.80E-01	9.18E-01	2.35E-04	9.07E-05	1.12E-04
RH_1	546049.4	5395894.55	Peninsula Manor		6.82E-01	2.53E-01	3.04E-01	5.39E-04	2.01E-04	2.69E-04	2.71E-02	1.05E-02	9.39E-03	5.10E-05	1.11E-05	7.87E-06	4.03E-02	1.55E-02	1.93E-02	1.47E+00	5.64E-01	9.07E-01	2.31E-04	8.81E-05	1.10E-04
RH_2	545320.9	5396196.57	Senior's Centre		6.87E-01	2.58E-01	3.05E-01	7.00E-04	2.86E-04	3.32E-04	2.71E-02	1.05E-02	9.40E-03	1.04E-04	2.75E-05	1.47E-05	4.03E-02	1.55E-02	1.93E-02	1.53E+00	5.96E-01	9.31E-01	2.37E-04	9.28E-05	1.14E-04
S_1	546339.4	5396624.55	Holy Saviour School		6.95E-01	2.59E-01	3.09E-01	5.03E-04	1.98E-04	2.66E-04	2.71E-02	1.05E-02	9.40E-03	8.76E-05	1.82E-05	1.20E-05	4.03E-02	1.55E-02	1.93E-02	1.46E+00	5.63E-01	9.07E-01	2.25E-04	8.68E-05	1.09E-04
S_2	545633.4	5396102.55	Confederation College Northshore Campus		6.78E-01	2.57E-01	3.05E-01	6.68E-04	2.79E-04	3.34E-04	2.71E-02	1.05E-02	9.40E-03	1.20E-04	2.37E-05	1.11E-05	4.02E-02	1.55E-02	1.93E-02	1.50E+00	5.88E-01	9.26E-01	2.65E-04	1.05E-04	1.25E-04
S_3	546200.4	5396036.55	Marathon High School		6.86E-01	2.54E-01	3.05E-01	5.09E-04	2.00E-04	2.68E-04	2.71E-02	1.05E-02	9.40E-03	5.61E-05	1.14E-05	8.02E-06	4.03E-02	1.55E-02	1.93E-02	1.46E+00	5.64E-01	9.07E-01	2.26E-04	8.79E-05	1.10E-04
S_4	546261.4	5395967.55	Ecole secondaire Cite-Superieure		6.86E-01	2.53E-01	3.04E-01	5.03E-04	1.93E-04	2.64E-04	2.71E-02	1.05E-02	9.39E-03	5.15E-05	1.08E-05	7.62E-06	4.03E-02	1.55E-02	1.93E-02	1.46E+00	5.62E-01	9.06E-01	2.25E-04	8.64E-05	1.09E-04
S_5	547019.4	5395082.56	Marathon Children and Family Centre		6.86E-01	2.49E-01	3.02E-01	4.62E-04	1.77E-04	2.54E-04	2.71E-02	1.05E-02	9.39E-03	2.92E-05	7.27E-06	5.03E-06	4.03E-02	1.55E-02	1.93E-02	1.44E+00	5.57E-01	9.03E-01	2.16E-04	8.31E-05	1.07E-04

Table F-3 Special Receptor Predictions (ug/m3) - Operations, Cumulative (Project + Background)

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	BENZO(A)PYRENE			BENZO(B)FLUORANTHENE			BENZO(G,H,I)PERYLENE			BENZO(K)FLUORANTHENE			BERYLLIUM (BE)			BISMUTH (BI)			BORON (B)		
				Averaging Period	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual
				Criteria	0.00005	-	0.00001	-	-	-	-	-	-	-	-	-	0.01	-	-	2.5	-	-	120	-	-
				Background Concentration (ug/m3)	2.06E-04	7.95E-05	1.03E-04	3.19E-04	1.23E-04	2.07E-04	2.80E-04	1.08E-04	1.32E-04	1.04E-04	4.03E-05	6.07E-05									
H_1	545937.4	5396169.55	Wilson Memorial General Hospital		2.54E-04	1.03E-04	1.18E-04	3.40E-04	1.33E-04	2.14E-04	2.86E-04	1.09E-04	1.32E-04	1.21E-04	4.85E-05	6.58E-05	4.11E-06	1.23E-06	9.27E-07	2.21E-04	3.69E-05	2.24E-05	7.40E-05	2.23E-05	1.66E-05
M_1	545694	5403864	PM-10 @ Hare Lake		2.07E-04	7.97E-05	1.03E-04	3.20E-04	1.23E-04	2.08E-04	2.93E-04	1.10E-04	1.33E-04	1.05E-04	4.04E-05	6.08E-05	1.05E-05	2.88E-06	1.69E-06	4.97E-05	1.33E-05	8.94E-06	1.81E-04	5.08E-05	2.96E-05
M_2	545694	5403873	Dustfall @ Hare Lake		2.07E-04	7.97E-05	1.03E-04	3.20E-04	1.23E-04	2.08E-04	2.93E-04	1.10E-04	1.33E-04	1.05E-04	4.04E-05	6.08E-05	1.04E-05	2.88E-06	1.69E-06	4.95E-05	1.33E-05	8.93E-06	1.80E-04	5.07E-05	2.96E-05
M_3	547152	5401222	PM-10 @ Mays Gifts		2.07E-04	7.99E-05	1.03E-04	3.21E-04	1.23E-04	2.08E-04	3.00E-04	1.12E-04	1.34E-04	1.05E-04	4.05E-05	6.08E-05	2.48E-05	6.68E-06	4.51E-06	1.11E-04	2.90E-05	2.08E-05	4.51E-04	1.20E-04	8.10E-05
M_4	547147	5401216	Dustfall @ Mays Gifts		2.07E-04	7.99E-05	1.03E-04	3.21E-04	1.23E-04	2.08E-04	3.00E-04	1.12E-04	1.33E-04	1.05E-04	4.05E-05	6.08E-05	2.46E-05	6.65E-06	4.49E-06	1.10E-04	2.88E-05	2.07E-05	4.48E-04	1.20E-04	8.05E-05
M_5	551637	5402371	PM-10 @ Pic River		2.07E-04	7.98E-05	1.03E-04	3.21E-04	1.23E-04	2.08E-04	3.00E-04	1.11E-04	1.33E-04	1.05E-04	4.04E-05	6.08E-05	1.64E-05	6.59E-06	4.10E-06	8.40E-05	3.27E-05	1.89E-05	3.01E-04	1.21E-04	7.51E-05
M_6	551643	5402374	Dustfall @ Pic River		2.07E-04	7.98E-05	1.03E-04	3.21E-04	1.23E-04	2.08E-04	3.00E-04	1.11E-04	1.33E-04	1.05E-04	4.04E-05	6.08E-05	1.63E-05	6.58E-06	4.09E-06	8.37E-05	3.26E-05	1.88E-05	3.00E-04	1.20E-04	7.49E-05
M_7	549180	5399815	Dustfall @ Airport		2.09E-04	8.06E-05	1.04E-04	3.21E-04	1.23E-04	2.08E-04	2.94E-04	1.11E-04	1.33E-04	1.05E-04	4.06E-05	6.09E-05	8.40E-05	3.74E-05	2.85E-05	3.20E-04	1.44E-04	1.11E-04	1.55E-03	6.88E-04	5.24E-04
M_8	545863	5397092	Dustfall @ Field Office		2.23E-04	8.85E-05	1.10E-04	3.26E-04	1.27E-04	2.10E-04	2.86E-04	1.09E-04	1.32E-04	1.10E-04	4.35E-05	6.31E-05	5.93E-06	1.55E-06	1.17E-06	5.40E-04	1.75E-04	8.69E-05	1.08E-04	2.77E-05	1.99E-05
O_1	547181.4	5398014.56	Pic Motel		2.18E-04	8.49E-05	1.07E-04	3.24E-04	1.25E-04	2.09E-04	2.89E-04	1.09E-04	1.32E-04	1.09E-04	4.23E-05	6.21E-05	9.24E-06	2.50E-06	1.79E-06	6.08E-05	2.16E-05	1.40E-05	1.69E-04	4.56E-05	3.26E-05
O_2	545734.4	5396872.55	Marathon Harbour Inn		2.26E-04	8.84E-05	1.10E-04	3.27E-04	1.27E-04	2.10E-04	2.86E-04	1.09E-04	1.32E-04	1.11E-04	4.35E-05	6.31E-05	5.57E-06	1.57E-06	1.23E-06	7.77E-04	4.41E-04	2.16E-04	9.90E-05	2.59E-05	1.86E-05
O_3	545885.4	5396448.55	Zero-100 Motor Inn		2.38E-04	9.42E-05	1.14E-04	3.33E-04	1.29E-04	2.12E-04	2.86E-04	1.09E-04	1.32E-04	1.16E-04	4.55E-05	6.46E-05	4.54E-06	1.34E-06	9.88E-07	3.61E-04	6.22E-05	3.41E-05	8.30E-05	2.39E-05	1.75E-05
O_4	545987.4	5397640.55	OPP Station		2.21E-04	8.65E-05	1.08E-04	3.25E-04	1.26E-04	2.10E-04	2.87E-04	1.09E-04	1.32E-04	1.10E-04	4.28E-05	6.26E-05	7.04E-06	1.74E-06	1.26E-06	3.05E-04	6.95E-05	3.12E-05	1.29E-04	3.15E-05	2.26E-05
O_5	545876.4	5396072.55	Library		2.42E-04	9.83E-05	1.15E-04	3.34E-04	1.31E-04	2.13E-04	2.86E-04	1.09E-04	1.32E-04	1.17E-04	4.69E-05	6.50E-05	4.00E-06	1.21E-06	9.01E-07	2.09E-04	3.71E-05	2.14E-05	7.20E-05	2.17E-05	1.61E-05
P_1	546958.4	5396138.56	Penn Lake Park and Campground		2.10E-04	8.08E-05	1.04E-04	3.21E-04	1.24E-04	2.08E-04	2.85E-04	1.09E-04	1.32E-04	1.06E-04	4.07E-05	6.09E-05	5.13E-06	1.29E-06	9.99E-07	1.19E-04	2.46E-05	1.40E-05	9.30E-05	2.33E-05	1.80E-05
P_2	548538.4	5392862.58	Craig's Pit Provincial Nature Reserve		2.07E-04	7.96E-05	1.03E-04	3.19E-04	1.23E-04	2.07E-04	2.84E-04	1.09E-04	1.32E-04	1.05E-04	4.03E-05	6.07E-05	3.65E-06	8.29E-07	5.20E-07	3.22E-05	6.92E-06	3.61E-06	6.50E-05	1.50E-05	9.45E-06
P_3	540005	5402014	Red Sucker Point Provincial Park		2.06E-04	7.96E-05	1.03E-04	3.19E-04	1.23E-04	2.07E-04	2.84E-04	1.09E-04	1.32E-04	1.05E-04	4.03E-05	6.07E-05	3.08E-06	7.92E-07	4.38E-07	3.64E-05	8.17E-06	4.90E-06	5.50E-05	1.42E-05	7.87E-06
P_4	552770	5383776	Pukaskwa National Park		2.06E-04	7.95E-05	1.03E-04	3.19E-04	1.23E-04	2.07E-04	2.81E-04	1.08E-04	1.32E-04	1.04E-04	4.03E-05	6.07E-05	1.43E-06	2.74E-07	1.62E-07	9.74E-06	2.51E-06	1.22E-06	2.60E-05	4.98E-06	2.94E-06
PR_1	553679.4	5385895.59	Children & Family Learning Centre		2.06E-04	7.95E-05	1.03E-04	3.19E-04	1.23E-04	2.07E-04	2.81E-04	1.08E-04	1.32E-04	1.04E-04	4.03E-05	6.07E-05	1.18E-06	2.77E-07	1.75E-07	1.12E-05	2.68E-06	1.29E-06	2.10E-05	4.97E-06	3.17E-06
PR_2	554004.4	5385857.59	Pic River Elementary		2.06E-04	7.95E-05	1.03E-04	3.19E-04	1.23E-04	2.07E-04	2.81E-04	1.08E-04	1.32E-04	1.04E-04	4.03E-05	6.07E-05	1.02E-06	2.55E-07	1.69E-07	1.12E-05	2.53E-06	1.26E-06	1.80E-05	4.60E-06	3.07E-06
PR_3	553836.4	5385603.59	Pic River Private High School		2.06E-04	7.95E-05	1.03E-04	3.19E-04	1.23E-04	2.07E-04	2.81E-04	1.08E-04	1.32E-04	1.04E-04	4.03E-05	6.07E-05	1.11E-06	2.64E-07	1.68E-07	1.07E-05	2.58E-06	1.25E-06	2.00E-05	4.75E-06	3.06E-06
PR_4	553930.4	5386048.59	Pic River Health Centre		2.06E-04	7.95E-05	1.03E-04	3.19E-04	1.23E-04	2.07E-04	2.81E-04	1.08E-04	1.32E-04	1.04E-04	4.03E-05	6.07E-05	1.05E-06	2.62E-07	1.72E-07	1.15E-05	2.57E-06	1.28E-06	1.90E-05	4.71E-06	3.13E-06
PR_5	552493.4	5384782.58	BIIDAABAN Healing Lodge		2.06E-04	7.95E-05	1.03E-04	3.19E-04	1.23E-04	2.07E-04	2.81E-04	1.08E-04	1.32E-04	1.04E-04	4.03E-05	6.07E-05	1.55E-06	2.97E-07	1.77E-07	1.04E-05	2.78E-06	1.34E-06	2.80E-05	5.39E-06	3.22E-06
PR_6	552843.4	5390099.59	Residence		2.06E-04	7.95E-05	1.03E-04	3.19E-04	1.23E-04	2.07E-04	2.82E-04	1.08E-04	1.32E-04	1.04E-04	4.03E-05	6.07E-05	1.84E-06	4.24E-07	2.76E-07	1.56E-05	3.66E-06	2.05E-06	3.30E-05	7.65E-06	5.02E-06
PR_7	553761.4	5387705.59	Residence		2.06E-04	7.95E-05	1.03E-04	3.19E-04	1.23E-04	2.07E-04	2.81E-04	1.08E-04	1.32E-04	1.04E-04	4.03E-05	6.07E-05	1.11E-06	2.95E-07	1.99E-07	1.15E-05	2.69E-06	1.50E-06	2.00E-05	5.36E-06	3.61E-06
PS_1	545001.3	5404050.49	North Hare Lake Cottage		2.07E-04	7.97E-05	1.03E-04	3.20E-04	1.23E-04	2.08E-04	2.91E-04	1.10E-04	1.33E-04	1.05E-04	4.04E-05	6.08E-05	7.31E-06	2.28E-06	1.32E-06	3.21E-05	1.05E-05	7.16E-06	1.30E-04	4.04E-05	2.34E-05
PS_2	544331.3	5403100.49	South Hare Lake Cottage		2.07E-04	7.97E-05	1.03E-04	3.20E-04	1.23E-04	2.07E-04	2.91E-04	1.09E-04	1.32E-04	1.05E-04	4.04E-05	6.07E-05	8.54E-06	2.03E-06	1.12E-06	3.51E-05	9.41E-06	6.36E-06	1.46E-04	3.62E-05	2.00E-05
PS_3	547056.1	5401003.77	May's Gifts		2.07E-04	7.99E-05	1.03E-04	3.21E-04	1.23E-04	2.08E-04	2.97E-04	1.12E-04	1.33E-04	1.05E-04	4.05E-05	6.08E-05	2.20E-05	5.87E-06	3.93E-06	9.78E-05	2.62E-05	1.88E-05	4.01E-04	1.06E-04	7.08E-05
PS_4	546811.4	5400952.54	Wayfare Inn		2.07E-04	7.99E-05	1.03E-04	3.21E-04	1.23E-04	2.08E-04	2.97E-04	1.11E-04	1.33E-04	1.05E-04	4.05E-05	6.08E-05	2.00E-05	5.28E-06	3.52E-06	9.03E-05	2.38E-05	1.74E-05	3.65E-04	9.50E-05	6.31E-05
PS_5	546996.4	5401027.54	Peninsula Inn		2.07E-04	7.99E-05	1.03E-04	3.21E-04	1.23E-04	2.08E-04	2.98E-04	1.12E-04	1.33E-04	1.05E-04	4.05E-05	6.08E-05	2.18E-05	5.82E-06	3.89E-06	9.76E-05	2.59E-05	1.87E-05	3.98E-04	1.05E-04	6.99E-05
PS_6	548471.4	5399488.57	Travelodge Hotel		2.11E-04	8.18E-05	1.05E-04	3.22E-04	1.24E-04	2.08E-04	2.92E-04	1.10E-04	1.33E-04	1.07E-04	4.12E-05	6.14E-05	3.39E-05	1.13E-05	6.99E-06	1.33E-04	4.53E-05	2.98E-05	6.22E-04	2.08E-04	1.28E-04
PS_7	546903.4	5401055.54	The Laughing Mooz Eatery Restaurant and Residence		2.07E-04	7.99E-05	1.03E-04	3.21E-04	1.23E-04	2.08E-04	2.98E-04	1.11E-04	1.33E-04	1.05E-04	4.05E-05	6.08E-05	2.14E-05	5.71E-06	3.81E-06	9.62E-05	2.52E-05	1.83E-05	3.89E-04	1.03E-04	6.83E-05
PW_1	545777.4	5397150.54	Kingdom Hall of Jehovah's Witnesses		2.23E-04	8.69E-05	1.09E-04	3.27E-04	1.26E-04	2.10E-04	2.86E-04	1.09E-04	1.32E-04	1.11E-04	4.30E-05	6.27E-05	6.06E-06	1.56E-06	1.18E-06	6.86E-04	2.01E-04	8.98E-05	1.11E-04	2.77E-05	1.99E-05
PW_2	546331.4	5395941.55	Parkland Pentecostal Church		2.12E-04	8.15E-05	1.04E-04	3.21E-04	1.24E-04	2.08E-04	2.86E-04	1.09E-04	1.32E-04	1.06E-04	4.10E-05	6.12E-05	4.36E-06	1.16E-06	9.02E-07	1.34E-04	2.52E-05	1.47E-05	7.90E-05	2.11E-05	1.63E-05
PW_3	545857.4	5395714.55	St. John's United Church		2.14E-04	8.23E-05	1.05E-04	3.22E-04	1.24E-04	2.08E-04	2.86E-04	1.09E-04	1.32E-04	1.07E-04	4.13E-05	6.14E-05	3.91E-06	1.09E-06	8.27E-07	1.58E-04	3.19E-05	1.61E-05	7.00E-05	1.96E-05	1.49E-05
PW_4	545425	5396043.49	Holy Saviour Roman Catholic Church		2.38E-04	9.37E-05	1.14E-04	3.33E-04	1.29E-04	2.12E-04	2.85E-04	1.09E-04	1.32E-04	1.16E-04	4.53E-05	6.45E-05	4.10E-06	1.20E-06	8.63E-07	3.07E-04	5.25E-05	2.97E-05	7.40E-05	2.10E-05	1.53E-05
PW_5	545390.4	5395988.55	Anglican Church-Trinity		2.55E-04	9.72E-05	1.15E-04	3.40E-04	1.31E-04	2.12E-04	2.85E-04	1.09E-04	1.32E-04	1.22E-04	4.66E-05	6.48E-05	4.05E-06	1.19E-06	8.51E-07	2.83E-04	4.91E-05	2.65E-05	7.30E-05	2.08E-05	1.51E-05
R_1	547226.4	5398095.56	Residence		2.25E-04	8.97E-05	1.10E-04	3.27E-04	1.28E-04	2.11E-04	2.89E-04	1.09E-04	1.32E-04	1.11E-04	4.40E-05	6.33E-05	9.84E-06	2.60E-06	1.85E-06	5.81E-05	2.01E-05	1.34E-05	1.81E-04	4.75E-05	3.37E-05
R_10	545421.4	5395953.55	Residence		2.82E-04	1.06E-04	1.22E-04	3.52E-04	1.35E-04	2.16E-04	2.85E-04	1.09E-04	1.32E-04	1.31E-04	4.97E-05	6.76E-05	3.97E-06	1.17E-06	8.45E-07	2.73E-04	4.53E-05	2.56E-05	7.20E-05	2.06E-05	1.50E-05
R_11	545619.4	5395877.55	Residence		2.39E-04	9.10E-05	1.13E-04	3.33E-04	1.28E-04	2.12E-04	2.85E-04	1.09E-04	1.32E-04	1.16E-04	4.43E-05	6.41E-05	3.78E-06	1.15E-06	8.43E-07	3.08E-04	4.90E-05	2.07E-05	6.90E-05	2.04E-05	1.51E-05
R_12	545831.4	5396000.55	Residence		2.37E-04	9.33E-05	1.13E-04	3.32E-04	1.29E-04	2.12E-04	2.86E-04	1.09E-04	1.32E-04	1.15E-04	4.51E-05	6.41E-05	3.92E-06	1.19E-06	8.82E-07	2.08E-04	4.12E-05	2.07E-05	7.10E-05	2.12E-05	1.58E-05
R_13	545806.9	5396173.19	Residence		2.92E-04	1.20E-04	1.35E-04	3.56E-04	1.41E-04	2.22E-04	2.86E-04	1.09E-04	1.32E-04	1.34E-04	5.45E-05	7.20E-05	4.11E-06	1.25E-06	9.18E-07	2.60E-04	5.11E-05	2.56E-05	7.50E-05	2.22E-05	1.63E-05
R_14	545827.1	5396228.86	Residence		2.63E-04	1.06E-04	1.23E-04	3.44E-04	1.34E-04	2.16E-04	2.86E-04	1.09E-04	1.32E-04	1.24E-04	4.95E-05	6.78E-05	4.20E-06	1.27E-06	9.33E-07	2.69E-04	4.88E-05	2.68E-05	7.70E-05	2.26E-05	1.66E-05
R_15	545662.4	5396175.55	Residence		2.31E-04	9.03E-05	1.11E-04	3.29E-04	1.28E-04	2.11E-04	2.85E-04	1.09E-04	1.32E-04	1.13E-04	4.41E-05	6.36E-05	4.19E-06	1.27E-06	9.10E-07	3.96E-04	7.25E-05	2.96E-05	7.60E-05	2.21E-05	1.61E-05
R_16	546254.4	5396484.55	Residence		2.16E-04	8.37E-05	1.05E-04	3.23E-04	1.25E-04	2.08E-04	2.87E-04	1.09E-04	1.32E-04	1.08E-04	4.18E-05	6.16E-05	4.58E-06	1.36E-06	1.02E-06	2.85E-04	4.83E-05	2.52E-05	8.20E-05	2.44E-05	1.82E-05
R_17	546471.4	5396506.55	Residence		2.13E-04	8.21E-05	1.05E-04	3.22E-04	1.24E-04	2.08E-04	2.87E-04	1.09E-04	1.32E-04	1.07E-04	4.12E-05	6.12E-05	4.79E-06	1.38E-06	1.05E-06	2.34E-04	3.99E-05	2.22E-05	8.60E-05	2.48E-05	1.88E-05
R_18	546601.4	5396387.56	Residence		2.12E-04	8.16E-05	1.04E-04	3.21E-04	1.24E-04	2.08E-04	2.86E-04	1.09E-04	1.32E-04	1.06E-04	4.10E-05	6.11E-05	4.77E-06	1.34E-06	1.03E-06	1.90E-04	3.43E-05	1.87E-05	8.60E-05	2.42E-05	1.85E-05
R_19	546856.4	5395580.56	Residence		2.09E-04	8.02E-05	1.03E-04	3.20E-04	1.23E-04	2.08E-04	2.85E-04	1.09E-04	1.32E-04	1.05E-04	4.06E-05	6.09E-05	4.61E-06	1.12E-06	8.71E-07	8.63E-05	1.71E-05	1.05E-05	8.40E-05	2.02E-05	1.58E-05
R_2	547273.4	5398044.56	Residence		2.14E-04	8.33E-05	1.06E-04	3.23E-04	1.25E-04	2.09E-04	2.89E-04	1.09E-04	1.32E-04	1.07E-04	4.17E-05	6.17E-05	9.54E-06	2.59E-06	1.84E-06	5.33E-05	1.91E-05	1.31E-05	1.75E-04	4.74E-05	3.36E-05
R_20	546950.4	5395533.56	Residence		2.09E-04	8.01E-05	1.03E-04	3.20E-04	1.23E-04	2.08E-04	2.84E-04	1.09E-04	1.32E-04	1.05E-04	4.05E-05	6.08E-05	4.67E-06	1.11E-06	8.69E-07	7.82E-05	1.67E-05	1.02E-05	8.50E-05	2.01E-05	1.57E-05
R_21	547201.4	5395415.56	Residence		2.08E-04	8.00E-05	1.03E-04	3.20E-04	1.23E-04	2.08E-04	2.84E-04	1.09E-04	1.32E-04	1.05E-04	4.05E-05	6.08E-05	4.68E-06	1.09E-06	8.62E-07	7.05E-05	1.55E-05	9.42E-06	8.50E-05	1.98E-05	1.56E-05
R_22	548317.4	5399654.57	Residence		2.08E-04	8.04E-05	1.04E-04	3.21E-04	1.23E-04	2.08E-04	2.92E-04	1.10E-04	1.33E-04	1.05E-04	4.06E-05	6.10E-05	2.33E-05	8.04E-06	5.15E-06	9.99E-05	3.28E-05	2.27E-05	4.26E-04	1.47E-04	9.44E-05
R_3	545809.4	5397232.54	Bergagnini Apartment Rental		2.25E-04	8.77E-05	1.09E-04	3.27E-04	1.27E-04	2.10E-04	2.86E-04	1.09E-04	1.32E-04	1.11E-04	4.32E-05	6.29E-05	6.23E-06	1.59E-06	1.18E-06	6.05E-04	1.60E-04	6.99E-05	1.14E-04	2.83E-05	2.03E-05
R_4	546092.4	5396796.55	Residence		2.12E-04	8.25E-05	1.05E-04	3.21E-04	1.24E-04	2.08E-04	2.86E-04	1.09E-04	1.32E-04	1.07E-04	4.14E-05	6.15E-05	5.10E-06	1.50E-06	1.11E-06	4.60E-04	1.03E-04	5.54E-05	9.30E-05	2.64E-05	1.93E-05
R_5	545971.4	5396489.55	Condominium		2.31E-04	9.30E-05	1.13E-04	3.29E-04	1.29E-04	2.12E-04	2.86E-04	1.09E-04	1.32E-04	1.13E-04	4.51E-05	6.41E-05	4.53E-06	1.34E-06	1.00E-06	3.58E-04	7.03E-05	3.33E-05	8.30E-05	2.42E-05	1.77E-05
R_6	545655.4	5396520.55	Residence		2.17E-04	8.42E-05	1.06E-04	3.23E-04	1.25E-04	2.09E-04	2.85E-04	1.09E-04	1.32E-04	1.08E-04	4.20E-05	6.19E-05	4.85E-06	1.44E-06	1.01E-06	6.67E-04	1.38E-04	6.01E-05	8.80E-05	2.41E-05	1.74E-05
R_7	545438.4	5396408.54	I Sew Studio and Residence		2.19E-04	8.53E-05	1.08E-04	3.24E-04	1.26E-04	2.09E-04	2.85E-04	1.09E-04	1.32E-04	1.09E-04	4.24E-05	6.24E-05	4.71E-06	1.36E-06	9.54E-07	5.54E-04	1.16E-04	6.14E-05	8.50E-05	2.27E-05	1.63E-05
R_8	545380.4	5396243.54	Bayview Apartments		2.20E-04	8.55E-05	1.08E-04	3.25E-04	1.26E-04	2.10E-04	2.85E-04	1.09E-04	1.32E-04	1.09E-04	4.25E-05	6.25E-05	4.44E-06	1.28E-06	9.02E-07	3.83E-04	8.37E-05	4.27E-05	8.00E-05	2.19E-05	1.57E-05
R_9	545290.4	5396114.54	Residence		2.20E-04	8.49E-05	1.06E-04	3.25E-04	1.25E-04	2.09E-04	2.85E-04	1.09E-04	1.32E-04	1.09E-04	4.22E-05	6.19E-05	4.27E-06	1.23E-06	8.67E-07	2.90E-04	7.00E-05	3.49E-05	7.70E-05	2.12E-05	1.52E-05
RH_1	546049.4	5395894.55	Peninsula Manor		2.17E-04	8.31E-05	1.05E-04	3.23E-04	1.25E-04	2.08E-04	2.86E-04	1.09E-04	1.32E-04	1.08E-04	4.15E-05	6.15E-05	4.18E-06	1.14E-06	8.76E-07	1.50E-04	2.67E-05	1.65E-05	7.50E-05	2.07E-05	1.57E-05
RH_2	545320.9	5396196.57	Senior's Centre		2.22E-04	8.64E-05	1.08E-04	3.26E-04	1.26E-04	2.09E-04	2.85E-04	1.09E-04	1.32E-04	1.10E-04	4.28E-05	6.24E-05	4.38E-06	1.25E-06	8.85E-07	3.32E-04	7.84E-05	3.94E-05	7.90E-05	2.15E-05	1.55E-05
S_1	546339.4	5396624.55	Holy Saviour School		2.13E-04	8.23E-05	1.05E-04	3.22E-04	1.24E-04	2.08E-04	2.87E-04	1.09E-04	1.32E-04	1.07E-04	4.13E-05	6.13E-05	4.73E-06	1.42E-06	1.07E-06	2.84E-04	4.87E-05	2.82E-05	8.50E-05	2.55E-05	1.90E-05
S_2	545633.4	5396102.55	Confederation College Northshore Campus		2.39E-04	9.43E-05	1.15E-04	3.33E-04	1.29E-04	2.12E-04	2.85E-04	1.09E-04	1.32E-04	1.16E-04	4.55E-05	6.48E-05	4.09E-06	1.24E-06	8.91E-07	3.95E-04	6.58E-05	2.72E-05	7.50E-05	2.16E-05	1.58E-05
S_3	546200.4	5396036.55	Marathon High School		2.14E-04	8.30E-05	1.05E-04	3.22E-04	1.24E-04	2.08E-04	2.86E-04	1.09E-04	1.32E-04	1.07E-04	4.15E-05	6.15E-05	4.35E-06	1.19E-06	9.14E-07	1.66E-04	2.85E-05	1.66E-05	7.80E-05	2.16E-05	1.64E-05
S_4	546261.4	5395967.55	Ecole secondaire Cite-Superieure		2.13E-04	8.20E-05	1.05E-04	3.22E-04	1.24E-04	2.08E-04	2.86E-04	1.09E-04	1.32E-04	1.07E-04	4.12E-05	6.13E-05	4.35E-06	1.17E-06	9.03E-07	1.50E-04	2.61E-05	1.54E-05	7.80E-05	2.12E-05	1.63E-05
S_5	547019.4	5395082.56	Marathon Children and Family Centre		2.07E-04	7.98E-05	1.03E-04	3.19E-04	1.23E-04	2.07E-04	2.84E-04	1.09E-04	1.32E-04	1.05E-04	4.04E-05	6.08E-05	4.44E-06	1.01E-06	7.95E-07	8.83E-05	1.50E-05	7.90E-06	8.00E-05	1.84E-05	1.44E-05

Table F-3 Special Receptor Predictions (ug/m3) - Operations, Cumulative (Project + Background)

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	BROMINE (BR)			CADMIUM (CD)			CALCIUM (CA)			CAO			CH4			CHROMIUM (CR)			CHRYSENE		
				Averaging Period	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual
				Criteria	20	-	-	0.025	-	0.005	-	-	-	10	-	-	37330	-	-	0.5	-	-	-	-	-
				Background Concentration (ug/m3)				1.20E-02	4.63E-03	3.62E-03	1.74E+00	6.71E-01	7.62E-01							1.46E-03	5.63E-04	6.76E-04	2.65E-04	1.02E-04	1.57E-04
H_1	545937.4	5396169.55	Wilson Memorial General Hospital		2.19E-03	2.71E-04	1.62E-04	1.20E-02	4.64E-03	3.62E-03	1.83E+00	7.01E-01	7.84E-01	4.43E-02	4.89E-03	2.89E-03	3.91E-01	1.85E-01	1.13E-01	2.18E-03	8.00E-04	8.52E-04	3.13E-04	1.26E-04	1.72E-04
M_1	545694	5403864	PM-10 @ Hare Lake		5.81E-03	9.14E-04	5.59E-04	1.20E-02	4.63E-03	3.62E-03	1.98E+00	7.41E-01	8.03E-01	1.04E-01	1.80E-02	1.06E-02	9.43E-02	2.82E-02	1.65E-02	3.72E-03	1.32E-03	1.14E-03	2.67E-04	1.03E-04	1.57E-04
M_2	545694	5403873	Dustfall @ Hare Lake		5.83E-03	9.20E-04	5.60E-04	1.20E-02	4.63E-03	3.62E-03	1.98E+00	7.40E-01	8.03E-01	1.04E-01	1.81E-02	1.06E-02	9.42E-02	2.81E-02	1.65E-02	3.70E-03	1.32E-03	1.14E-03	2.67E-04	1.03E-04	1.57E-04
M_3	547152	5401222	PM-10 @ Mays Gifts		1.13E-02	1.83E-03	9.07E-04	1.20E-02	4.64E-03	3.63E-03	2.31E+00	8.27E-01	8.69E-01	2.00E-01	3.36E-02	1.68E-02	1.96E-01	5.19E-02	3.74E-02	6.21E-03	1.98E-03	1.70E-03	2.70E-04	1.03E-04	1.58E-04
M_4	547147	5401216	Dustfall @ Mays Gifts		1.12E-02	1.82E-03	9.03E-04	1.20E-02	4.64E-03	3.63E-03	2.31E+00	8.27E-01	8.68E-01	1.99E-01	3.35E-02	1.67E-02	1.94E-01	5.16E-02	3.72E-02	6.19E-03	1.97E-03	1.69E-03	2.70E-04	1.03E-04	1.58E-04
M_5	551637	5402371	PM-10 @ Pic River		1.52E-02	2.51E-03	1.00E-03	1.20E-02	4.64E-03	3.63E-03	2.11E+00	8.21E-01	8.55E-01	2.46E-01	4.18E-02	1.66E-02	1.05E-01	3.72E-02	2.31E-02	4.33E-03	1.71E-03	1.39E-03	2.69E-04	1.03E-04	1.57E-04
M_6	551643	5402374	Dustfall @ Pic River		1.52E-02	2.50E-03	1.00E-03	1.20E-02	4.64E-03	3.63E-03	2.11E+00	8.21E-01	8.55E-01	2.45E-01	4.16E-02	1.66E-02	1.04E-01	3.72E-02	2.31E-02	4.32E-03	1.71E-03	1.38E-03	2.69E-04	1.03E-04	1.57E-04
M_7	549180	5399815	Dustfall @ Airport		7.47E-03	1.16E-03	5.73E-04	1.21E-02	4.67E-03	3.65E-03	3.62E+00	1.51E+00	1.40E+00	1.31E-01	2.06E-02	9.58E-03	1.38E-01	5.05E-02	3.88E-02	1.52E-02	6.69E-03	5.34E-03	2.70E-04	1.04E-04	1.58E-04
M_8	545863	5397092	Dustfall @ Field Office		2.52E-03	3.59E-04	1.99E-04	1.21E-02	4.67E-03	3.64E-03	1.87E+00	7.10E-01	7.92E-01	4.74E-02	6.65E-03	3.58E-03	1.76E-01	9.29E-02	6.96E-02	2.47E-03	8.73E-04	9.17E-04	2.82E-04	1.11E-04	1.64E-04
O_1	547181.4	5398014.56	Pic Motel		4.02E-03	4.53E-04	2.84E-04	1.20E-02	4.63E-03	3.62E-03	1.95E+00	7.28E-01	8.03E-01	7.56E-02	8.08E-03	5.01E-03	1.42E-01	5.27E-02	4.00E-02	3.13E-03	1.01E-03	1.00E-03	2.77E-04	1.08E-04	1.61E-04
O_2	545734.4	5396872.55	Marathon Harbour Inn		2.39E-03	3.38E-04	1.87E-04	1.22E-02	4.72E-03	3.66E-03	1.87E+00	7.21E-01	7.98E-01	4.49E-02	6.27E-03	3.37E-03	3.84E-01	1.77E-01	1.35E-01	2.45E-03	9.56E-04	9.63E-04	2.86E-04	1.12E-04	1.64E-04
O_3	545885.4	5396448.55	Zero-100 Motor Inn		2.04E-03	3.01E-04	1.72E-04	1.21E-02	4.64E-03	3.63E-03	1.84E+00	7.03E-01	7.86E-01	4.18E-02	5.49E-03	3.08E-03	4.89E-01	2.00E-01	1.56E-01	2.24E-03	8.22E-04	8.67E-04	2.99E-04	1.18E-04	1.69E-04
O_4	545987.4	5397640.55	OPP Station		2.85E-03	4.10E-04	2.29E-04	1.21E-02	4.64E-03	3.63E-03	1.90E+00	7.12E-01	7.92E-01	5.48E-02	7.61E-03	4.15E-03	1.40E-01	6.56E-02	4.99E-02	2.66E-03	8.87E-04	9.19E-04	2.80E-04	1.09E-04	1.62E-04
O_5	545876.4	5396072.55	Library		2.13E-03	2.66E-04	1.58E-04	1.20E-02	4.64E-03	3.62E-03	1.83E+00	7.00E-01	7.83E-01	4.31E-02	4.80E-03	2.83E-03	3.38E-01	1.62E-01	1.02E-01	2.16E-03	7.96E-04	8.48E-04	3.01E-04	1.21E-04	1.69E-04
P_1	546958.4	5396138.56	Penn Lake Park and Campground		2.06E-03	2.75E-04	1.70E-04	1.20E-02	4.64E-03	3.62E-03	1.86E+00	7.01E-01	7.85E-01	3.86E-02	5.15E-03	3.03E-03	5.96E-02	2.11E-02	1.23E-02	2.34E-03	7.96E-04	8.61E-04	2.69E-04	1.04E-04	1.58E-04
P_2	548538.4	5392862.58	Craig's Pit Provincial Nature Reserve		1.45E-03	1.93E-04	9.10E-05	1.20E-02	4.63E-03	3.62E-03	1.82E+00	6.90E-01	7.74E-01	2.66E-02	3.52E-03	1.53E-03	2.42E-02	5.72E-03	3.52E-03	2.07E-03	7.12E-04	7.71E-04	2.66E-04	1.02E-04	1.57E-04
P_3	540005	5402014	Red Sucker Point Provincial Park		1.18E-03	2.29E-04	1.15E-04	1.20E-02	4.63E-03	3.62E-03	1.81E+00	6.90E-01	7.72E-01	2.38E-02	4.21E-03	2.11E-03	2.93E-02	7.15E-03	3.79E-03	2.06E-03	7.20E-04	7.63E-04	2.66E-04	1.02E-04	1.57E-04
P_4	552770	5383776	Pukaskwa National Park		4.21E-04	7.10E-05	3.50E-05	1.20E-02	4.63E-03	3.62E-03	1.77E+00	6.78E-01	7.66E-01	7.77E-03	1.25E-03	6.15E-04	1.14E-02	1.94E-03	1.18E-03	1.70E-03	6.12E-04	7.05E-04	2.65E-04	1.02E-04	1.57E-04
PR_1	553679.4	5385895.59	Children & Family Learning Centre		3.66E-04	6.60E-05	3.60E-05	1.20E-02	4.63E-03	3.62E-03	1.77E+00	6.78E-01	7.66E-01	7.05E-03	1.19E-03	6.25E-04	9.92E-03	2.26E-03	1.31E-03	1.66E-03	6.12E-04	7.08E-04	2.65E-04	1.02E-04	1.57E-04
PR_2	554004.4	5385857.59	Pic River Elementary		3.79E-04	6.40E-05	3.50E-05	1.20E-02	4.63E-03	3.62E-03	1.76E+00	6.77E-01	7.66E-01	7.16E-03	1.16E-03	6.09E-04	8.73E-03	2.08E-03	1.26E-03	1.64E-03	6.09E-04	7.07E-04	2.65E-04	1.02E-04	1.57E-04
PR_3	553836.4	5385603.59	Pic River Private High School		3.62E-04	6.40E-05	3.50E-05	1.20E-02	4.63E-03	3.62E-03	1.76E+00	6.77E-01	7.66E-01	6.95E-03	1.16E-03	6.06E-04	9.43E-03	2.16E-03	1.26E-03	1.65E-03	6.10E-04	7.07E-04	2.65E-04	1.02E-04	1.57E-04
PR_4	553930.4	5386048.59	Pic River Health Centre		3.85E-04	6.60E-05	3.50E-05	1.20E-02	4.63E-03	3.62E-03	1.76E+00	6.77E-01	7.66E-01	7.28E-03	1.18E-03	6.20E-04	8.91E-03	2.13E-03	1.29E-03	1.64E-03	6.10E-04	7.07E-04	2.65E-04	1.02E-04	1.57E-04
PR_5	552493.4	5384782.58	BIIDAABAN Healing Lodge		4.84E-04	7.80E-05	3.80E-05	1.20E-02	4.63E-03	3.62E-03	1.77E+00	6.78E-01	7.66E-01	8.63E-03	1.38E-03	6.73E-04	1.22E-02	2.09E-03	1.28E-03	1.72E-03	6.16E-04	7.08E-04	2.65E-04	1.02E-04	1.57E-04
PR_6	552843.4	5390099.59	Residence		5.83E-04	1.01E-04	5.50E-05	1.20E-02	4.63E-03	3.62E-03	1.78E+00	6.81E-01	7.68E-01	1.09E-02	1.81E-03	9.60E-04	1.50E-02	3.41E-03	2.01E-03	1.77E-03	6.38E-04	7.26E-04	2.65E-04	1.02E-04	1.57E-04
PR_7	553761.4	5387705.59	Residence		4.44E-04	7.50E-05	4.00E-05	1.20E-02	4.63E-03	3.62E-03	1.77E+00	6.78E-01	7.67E-01	8.35E-03	1.34E-03	7.11E-04	9.73E-03	2.34E-03	1.48E-03	1.65E-03	6.16E-04	7.12E-04	2.65E-04	1.02E-04	1.57E-04
PS_1	545001.3	5404050.49	North Hare Lake Cottage		4.69E-03	7.07E-04	4.30E-04	1.20E-02	4.63E-03	3.62E-03	1.91E+00	7.25E-01	7.93E-01	8.53E-02	1.39E-02	8.15E-03	7.44E-02	2.13E-02	1.19E-02	3.08E-03	1.13E-03	9.92E-04	2.67E-04	1.03E-04	1.57E-04
PS_2	544331.3	5403100.49	South Hare Lake Cottage		3.96E-03	5.84E-04	3.11E-04	1.20E-02	4.63E-03	3.62E-03	1.93E+00	7.19E-01	7.89E-01	8.02E-02	1.05E-02	5.78E-03	7.14E-02	1.82E-02	9.76E-03	3.10E-03	1.03E-03	9.36E-04	2.67E-04	1.03E-04	1.57E-04
PS_3	547056.1	5401003.77	May's Gifts		9.18E-03	1.67E-03	8.23E-04	1.20E-02	4.64E-03	3.63E-03	2.24E+00	8.08E-01	8.54E-01	1.64E-01	3.09E-02	1.52E-02	1.59E-01	4.41E-02	3.15E-02	5.56E-03	1.77E-03	1.53E-03	2.70E-04	1.03E-04	1.58E-04
PS_4	546811.4	5400952.54	Wayfare Inn		9.10E-03	1.47E-03	7.25E-04	1.20E-02	4.64E-03	3.62E-03	2.20E+00	7.95E-01	8.45E-01	1.64E-01	2.71E-02	1.34E-02	1.54E-01	4.16E-02	2.93E-02	5.26E-03	1.69E-03	1.47E-03	2.69E-04	1.03E-04	1.58E-04
PS_5	546996.4	5401027.54	Peninsula Inn		9.54E-03	1.63E-03	8.05E-04	1.20E-02	4.64E-03	3.63E-03	2.24E+00	8.07E-01	8.54E-01	1.71E-01	3.01E-02	1.49E-02	1.63E-01	4.45E-02	3.18E-02	5.58E-03	1.78E-03	1.54E-03	2.70E-04	1.03E-04	1.58E-04
PS_6	548471.4	5399488.57	Travelodge Hotel		4.89E-03	8.90E-04	5.35E-04	1.20E-02	4.64E-03	3.63E-03	2.50E+00	9.26E-01	9.20E-01	9.69E-02	1.59E-02	9.23E-03	1.31E-01	4.37E-02	3.35E-02	7.07E-03	2.47E-03	1.86E-03	2.72E-04	1.05E-04	1.59E-04
PS_7	546903.4	5401055.54	The Laughing Mooz Eatery Restaurant and Residence		9.84E-03	1.56E-03	7.71E-04	1.20E-02	4.64E-03	3.62E-03	2.23E+00	8.05E-01	8.52E-01	1.77E-01	2.88E-02	1.43E-02	1.68E-01	4.52E-02	3.21E-02	5.54E-03	1.80E-03	1.55E-03	2.69E-04	1.03E-04	1.58E-04
PW_1	545777.4	5397150.54	Kingdom Hall of Jehovah's Witnesses		2.56E-03	3.61E-04	2.01E-04	1.21E-02	4.67E-03	3.64E-03	1.88E+00	7.10E-01	7.92E-01	4.86E-02	6.70E-03	3.63E-03	1.72E-01	7.45E-02	5.84E-02	2.50E-03	8.73E-04	9.19E-04	2.82E-04	1.10E-04	1.63E-04
PW_2	546331.4	5395941.55	Parkland Pentecostal Church		2.30E-03	2.50E-04	1.56E-04	1.20E-02	4.64E-03	3.62E-03	1.84E+00	6.98E-01	7.83E-01	4.42E-02	4.73E-03	2.79E-03	7.57E-02	2.82E-02	1.89E-02	2.22E-03	7.78E-04	8.45E-04	2.71E-04	1.04E-04	1.58E-04
PW_3	545857.4	5395714.55	St. John's United Church		2.11E-03	2.34E-04	1.46E-04	1.20E-02	4.64E-03	3.62E-03	1.83E+00	6.97E-01	7.81E-01	4.22E-02	4.19E-03	2.61E-03	9.77E-02	3.64E-02	2.73E-02	2.14E-03	7.73E-04	8.32E-04	2.73E-04	1.05E-04	1.59E-04
PW_4	545425	5396043.49	Holy Saviour Roman Catholic Church		1.89E-03	2.79E-04	1.54E-04	1.21E-02	4.64E-03	3.63E-03	1.83E+00	7.01E-01	7.83E-01	3.51E-02	5.15E-03	2.78E-03	7.13E-01	3.22E-01	2.55E-01	2.17E-03	7.96E-04	8.44E-04	3.00E-04	1.18E-04	1.69E-04
PW_5	545390.4	5395988.55	Anglican Church-Trinity		1.87E-03	2.76E-04	1.53E-04	1.21E-02	4.64E-03	3.63E-03	1.83E+00	7.00E-01	7.82E-01	3.47E-02	5.09E-03	2.75E-03	9.77E-01	4.07E-01	2.77E-01	2.16E-03	7.91E-04	8.40E-04	3.18E-04	1.22E-04	1.70E-04
R_1	547226.4	5398095.56	Residence		4.13E-03	4.68E-04	2.93E-04	1.20E-02	4.63E-03	3.62E-03	1.96E+00	7.30E-01	8.04E-01	7.73E-02	8.32E-03	5.16E-03	2.02E-01	9.13E-02	6.70E-02	3.18E-03	1.02E-03	1.02E-03	2.84E-04	1.12E-04	1.64E-04
R_10	545421.4	5395953.55	Residence		1.83E-03	2.73E-04	1.52E-04	1.21E-02	4.64E-03	3.63E-03	1.83E+00	7.00E-01	7.82E-01	3.37E-02	5.03E-03	2.73E-03	1.41E+00	5.29E-01	3.91E-01	2.15E-03	7.90E-04	8.39E-04	3.47E-04	1.31E-04	1.78E-04
R_11	545619.4	5395877.55	Residence		1.85E-03	2.62E-04	1.50E-04	1.21E-02	4.64E-03	3.62E-03	1.83E+00	6.99E-01	7.82E-01	3.79E-02	4.77E-03	2.69E-03	4.00E-01	1.53E-01	1.22E-01	2.11E-03	7.89E-04	8.37E-04	2.99E-04	1.14E-04	1.67E-04
R_12	545831.4	5396000.55	Residence		2.09E-03	2.62E-04	1.55E-04	1.20E-02	4.64E-03	3.62E-03	1.83E+00	7.00E-01	7.83E-01	4.23E-02	4.72E-03	2.78E-03	2.71E-01	1.35E-01	8.94E-02	2.15E-03	7.93E-04	8.44E-04	2.96E-04	1.16E-04	1.67E-04
R_13	545806.9	5396173.19	Residence		2.02E-03	2.79E-04	1.61E-04	1.21E-02	4.64E-03	3.63E-03	1.83E+00	7.02E-01	7.84E-01	4.12E-02	5.07E-03	2.89E-03	5.90E-01	2.87E-01	2.30E-01	2.16E-03	8.07E-04	8.52E-04	3.51E-04	1.43E-04	1.89E-04
R_14	545827.1	5396228.86	Residence		2.03E-03	2.84E-04	1.63E-04	1.21E-02	4.64E-03	3.63E-03	1.83E+00	7.02E-01	7.84E-01	4.15E-02	5.15E-03	2.93E-03	4.11E-01	1.89E-01	1.54E-01	2.18E-03	8.10E-04	8.55E-04	3.22E-04	1.29E-04	1.78E-04
R_15	545662.4	5396175.55	Residence		1.82E-03	2.85E-04	1.60E-04	1.21E-02	4.64E-03	3.63E-03	1.83E+00	7.03E-01	7.84E-01	3.70E-02	5.22E-03	2.88E-03	2.36E-01	1.12E-01	8.68E-02	2.18E-03	8.16E-04	8.52E-04	2.90E-04	1.13E-04	1.65E-04
R_16	546254.4	5396484.55	Residence		2.52E-03	2.79E-04	1.74E-04	1.21E-02	4.64E-03	3.63E-03	1.84E+00	7.03E-01	7.86E-01	5.02E-02	4.98E-03	3.12E-03	1.16E-01	5.33E-02	3.30E-02	2.26E-03	8.16E-04	8.70E-04	2.76E-04	1.07E-04	1.60E-04
R_17	546471.4	5396506.55	Residence		2.63E-03	2.81E-04	1.77E-04	1.20E-02	4.64E-03	3.62E-03	1.85E+00	7.04E-01	7.87E-01	5.12E-02	5.25E-03	3.16E-03	8.83E-02	3.64E-02	2.24E-02	2.30E-03	8.17E-04	8.73E-04	2.72E-04	1.05E-04	1.59E-04
R_18	546601.4	5396387.56	Residence		2.51E-03	2.78E-04	1.74E-04	1.20E-02	4.64E-03	3.62E-03	1.85E+00	7.03E-01	7.86E-01	4.77E-02	5.31E-03	3.11E-03	7.56E-02	3.01E-02	1.87E-02	2.30E-03	8.09E-04	8.69E-04	2.71E-04	1.05E-04	1.58E-04
R_19	546856.4	5395580.56	Residence		1.82E-03	2.47E-04	1.52E-04	1.20E-02	4.63E-03	3.62E-03	1.84E+00	6.97E-01	7.82E-01	3.37E-02	4.64E-03	2.71E-03	5.23E-02	1.42E-02	9.29E-03	2.26E-03	7.64E-04	8.37E-04	2.68E-04	1.03E-04	1.57E-04
R_2	547273.4	5398044.56	Residence		4.08E-03	4.70E-04	2.91E-04	1.20E-02	4.63E-03	3.62E-03	1.96E+00	7.30E-01	8.04E-01	7.48E-02	8.37E-03	5.11E-03	1.16E-01	4.10E-02	3.04E-02	3.21E-03	1.02E-03	1.01E-03	2.73E-04	1.06E-04	1.60E-04
R_20	546950.4	5395533.56	Residence		1.76E-03	2.51E-04	1.52E-04	1.20E-02	4.63E-03	3.62E-03	1.85E+00	6.97E-01	7.82E-01	3.21E-02	4.70E-03	2.71E-03	4.63E-02	1.29E-02	8.76E-03	2.26E-03	7.63E-04	8.37E-04	2.68E-04	1.03E-04	1.57E-04
R_21	547201.4	5395415.56	Residence		1.51E-03	2.57E-04	1.52E-04	1.20E-02	4.63E-03	3.62E-03	1.85E+00	6.96E-01	7.82E-01	2.91E-02	4.75E-03	2.69E-03	3.76E-02	1.09E-02	7.67E-03	2.26E-03	7.63E-04	8.35E-04	2.67E-04	1.03E-04	1.57E-04
R_22	548317.4	5399654.57	Residence		5.79E-03	9.31E-04	5.74E-04	1.20E-02	4.64E-03	3.63E-03	2.26E+00	8.53E-01	8.79E-01	9.75E-02	1.70E-02	9.96E-03	1.13E-01	3.10E-02	2.31E-02	5.41E-03	1.94E-03	1.57E-03	2.69E-04	1.03E-04	1.58E-04
R_3	545809.4	5397232.54	Bergagnini Apartment Rental		2.60E-03	3.68E-04	2.05E-04	1.21E-02	4.66E-03	3.63E-03	1.88E+00	7.09E-01	7.91E-01	4.96E-02	6.84E-03	3.70E-03	1.83E-01	7.75E-02	6.04E-02	2.53E-03	8.66E-04	9.14E-04	2.84E-04	1.10E-04	1.63E-04
R_4	546092.4	5396796.55	Residence		2.25E-03	3.26E-04	1.87E-04	1.21E-02	4.65E-03	3.63E-03	1.86E+00	7.07E-01	7.89E-01	4.62E-02	5.94E-03	3.35E-03	1.17E-01	5.66E-02	3.72E-02	2.33E-03	8.46E-04	8.95E-04	2.71E-04	1.06E-04	1.59E-04
R_5	545971.4	5396489.55	Condominium		2.16E-03	3.00E-04	1.73E-04	1.21E-02	4.64E-03	3.63E-03	1.84E+00	7.03E-01	7.86E-01	4.42E-02	5.45E-03	3.10E-03	4.05E-01	2.19E-01	1.53E-01	2.23E-03	8.20E-04	8.69E-04	2.91E-04	1.17E-04	1.67E-04
R_6	545655.4	5396520.55	Residence		2.15E-03	3.13E-04	1.74E-04	1.21E-02	4.66E-03	3.63E-03	1.85E+00	7.09E-01	7.87E-01	3.98E-02	5.78E-03	3.12E-03	1.68E-01	6.96E-02	5.56E-02	2.29E-03	8.67E-04	8.79E-04	2.77E-04	1.07E-04	1.61E-04
R_7	545438.4	5396408.54	I Sew Studio and Residence		2.14E-03	3.01E-04	1.66E-04	1.21E-02	4.65E-03	3.63E-03	1.85E+00	7.06E-01	7.86E-01	4.03E-02	5.59E-03	3.00E-03	4.27E-01	2.15E-01	1.62E-01	2.29E-03	8.41E-04	8.69E-04	2.80E-04	1.09E-04	1.62E-04
R_8	545380.4	5396243.54	Bayview Apartments		2.05E-03	2.90E-04	1.60E-04	1.21E-02	4.65E-03	3.63E-03	1.84E+00	7.03E-01	7.84E-01	3.86E-02	5.39E-03	2.89E-03	4.08E-01	2.05E-01	1.57E-01	2.24E-03	8.17E-04	8.55E-04	2.80E-04	1.09E-04	1.62E-04
R_9	545290.4	5396114.54	Residence		1.99E-03	2.82E-04	1.56E-04	1.21E-02	4.64E-03	3.63E-03	1.84E+00	7.02E-01	7.83E-01	3.76E-02	5.23E-03	2.81E-03	3.07E-01	1.32E-01	8.75E-02	2.21E-03	8.04E-04	8.46E-04	2.80E-04	1.08E-04	1.61E-04
RH_1	546049.4	5395894.55	Peninsula Manor		2.25E-03	2.39E-04	1.53E-04	1.20E-02	4.64E-03	3.62E-03	1.84E+00	6.98E-01	7.83E-01	4.46E-02	4.40E-03	2.73E-03	1.46E-01	4.48E-02	2.81E-02	2.19E-03	7.78E-04	8.41E-04	2.76E-04	1.06E-04	1.59E-04
RH_2	545320.9	5396196.57	Senior's Centre		2.03E-03	2.86E-04	1.58E-04	1.21E-02	4.65E-03	3.63E-03	1.84E+00	7.03E-01	7.84E-01	3.84E-02	5.32E-03	2.85E-03	4.90E-01	2.22E-01	1.60E-01	2.23E-03	8.12E-04	8.51E-04	2.83E-04	1.10E-04	1.62E-04
S_1	546339.4	5396624.55	Holy Saviour School		2.61E-03	2.87E-04	1.81E-04	1.21E-02	4.64E-03	3.63E-03	1.85E+00	7.05E-01	7.87E-01	5.21E-02	5.12E-03	3.23E-03	8.88E-02	4.19E-02	2.63E-02	2.30E-03	8.27E-04	8.79E-04	2.72E-04	1.05E-04	1.59E-04
S_2	545633.4	5396102.55	Confederation College Northshore Campus		1.78E-03	2.80E-04	1.58E-04	1.21E-02	4.64E-03	3.63E-03	1.83E+00	7.02E-01	7.83E-01	3.67E-02	5.12E-03	2.83E-03	3.17E-01	1.66E-01	1.24E-01	2.16E-03	8.09E-04	8.48E-04	2.99E-04	1.17E-04	1.69E-04
S_3	546200.4	5396036.55	Marathon High School		2.35E-03	2.50E-04	1.58E-04	1.20E-02	4.64E-03	3.62E-03	1.84E+00	6.99E-01	7.83E-01	4.62E-02	4.64E-03	2.83E-03	9.88E-02	4.33E-02	2.68E-02	2.22E-03	7.85E-04	8.48E-04	2.73E-04	1.06E-04	1.59E-04
S_4	546261.4	5395967.55	Ecole secondaire Cite-Superieure		2.33E-03	2.50E-04	1.56E-04	1.20E-02	4.64E-03	3.62E-03	1.84E+00	6.98E-01	7.83E-01	4.52E-02	4.68E-03	2.80E-03	8.58E-02	3.29E-02	2.17E-02	2.22E-03	7.80E-04	8.45E-04	2.72E-04	1.05E-04	1.59E-04
S_5	547019.4	5395082.56	Marathon Children and Family Centre		1.49E-03	2.43E-04	1.44E-04	1.20E-02	4.63E-03	3.62E-03	1.84E+00	6.95E-01	7.80E-01	2.65E-02	4.48E-03	2.54E-03	3.25E-02	9.24E-03	6.46E-03	2.22E-03	7.49E-04	8.23E-04	2.66E-04	1.03E-04	1.57E-04

Table F-3 Special Receptor Predictions (ug/m3) - Operations, Cumulative (Project + Background)

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	CO						COBALT (CO)			COPPER (CU)			DIBENZ(A,H)PERYLENE			FLUORANTHENE		
				Averaging Period	0.5	1	8	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual
				Criteria	-	36200	15700	-	-	-	0.1	-	-	50	-	-	-	-	-	-	-	-
				Background Concentration (ug/m3)	1.17E+03	9.65E+02	9.65E+02	9.65E+02	3.72E+02	5.91E+02										1.91E-03	7.37E-04	1.06E-03
H_1	545937.4	5396169.55	Wilson Memorial General Hospital		1.57E+03	1.30E+03	1.14E+03	1.06E+03	4.16E+02	6.18E+02	9.73E-04	1.99E-04	1.35E-04	5.17E-01	7.99E-02	4.53E-02	1.68E-07	2.68E-08	1.39E-08	2.40E-03	9.73E-04	1.21E-03
M_1	545694	5403864	PM-10 @ Hare Lake		1.47E+03	1.22E+03	1.00E+03	9.85E+02	3.77E+02	5.94E+02	6.74E-04	1.95E-04	1.22E-04	6.28E-02	1.25E-02	7.60E-03	4.14E-07	6.92E-08	4.05E-08	1.97E-03	7.54E-04	1.07E-03
M_2	545694	5403873	Dustfall @ Hare Lake		1.47E+03	1.21E+03	1.00E+03	9.85E+02	3.77E+02	5.94E+02	6.70E-04	1.94E-04	1.22E-04	6.27E-02	1.25E-02	7.60E-03	4.13E-07	6.96E-08	4.05E-08	1.97E-03	7.53E-04	1.07E-03
M_3	547152	5401222	PM-10 @ Mays Gifts		1.35E+03	1.11E+03	1.01E+03	9.92E+02	3.80E+02	5.97E+02	1.56E-03	4.24E-04	2.96E-04	7.25E-02	1.93E-02	1.20E-02	7.44E-07	1.29E-07	6.34E-08	2.01E-03	7.65E-04	1.08E-03
M_4	547147	5401216	Dustfall @ Mays Gifts		1.34E+03	1.11E+03	1.01E+03	9.92E+02	3.80E+02	5.97E+02	1.55E-03	4.22E-04	2.95E-04	7.30E-02	1.94E-02	1.21E-02	7.52E-07	1.29E-07	6.36E-08	2.00E-03	7.65E-04	1.08E-03
M_5	551637	5402371	PM-10 @ Pic River		1.33E+03	1.09E+03	9.94E+02	9.80E+02	3.77E+02	5.94E+02	1.06E-03	4.18E-04	2.53E-04	6.88E-02	2.22E-02	1.03E-02	7.01E-07	1.22E-07	6.45E-08	1.96E-03	7.55E-04	1.07E-03
M_6	551643	5402374	Dustfall @ Pic River		1.33E+03	1.09E+03	9.94E+02	9.79E+02	3.77E+02	5.94E+02	1.06E-03	4.17E-04	2.52E-04	6.86E-02	2.22E-02	1.02E-02	6.97E-07	1.22E-07	6.44E-08	1.96E-03	7.55E-04	1.07E-03
M_7	549180	5399815	Dustfall @ Airport		1.36E+03	1.13E+03	1.02E+03	9.86E+02	3.81E+02	5.98E+02	4.70E-03	2.11E-03	1.61E-03	7.16E-02	2.91E-02	1.97E-02	5.60E-07	9.94E-08	4.15E-08	2.00E-03	7.75E-04	1.09E-03
M_8	545863	5397092	Dustfall @ Field Office		1.30E+03	1.08E+03	1.04E+03	1.00E+03	3.93E+02	6.06E+02	2.36E-03	7.94E-04	4.21E-04	1.26E+00	4.04E-01	1.96E-01	2.09E-07	3.14E-08	1.70E-08	2.11E-03	8.42E-04	1.14E-03
O_1	547181.4	5398014.56	Pic Motel		1.33E+03	1.10E+03	1.02E+03	9.94E+02	3.84E+02	6.00E+02	5.49E-04	1.69E-04	1.36E-04	1.37E-01	3.66E-02	1.80E-02	3.33E-07	4.73E-08	2.54E-08	2.05E-03	7.97E-04	1.11E-03
O_2	545734.4	5396872.55	Marathon Harbour Inn		1.45E+03	1.19E+03	1.11E+03	1.05E+03	4.09E+02	6.19E+02	3.39E-03	1.94E-03	9.72E-04	1.82E+00	1.03E+00	4.99E-01	2.01E-07	2.97E-08	1.60E-08	2.26E-03	8.98E-04	1.18E-03
O_3	545885.4	5396448.55	Zero-100 Motor Inn		1.44E+03	1.19E+03	1.12E+03	1.07E+03	4.16E+02	6.25E+02	1.57E-03	3.00E-04	1.88E-04	8.47E-01	1.41E-01	7.23E-02	1.91E-07	2.86E-08	1.47E-08	2.39E-03	9.41E-04	1.22E-03
O_4	545987.4	5397640.55	OPP Station		1.31E+03	1.08E+03	1.03E+03	9.95E+02	3.87E+02	6.02E+02	1.36E-03	3.56E-04	1.87E-04	7.09E-01	1.53E-01	6.33E-02	2.07E-07	3.52E-08	1.95E-08	2.07E-03	8.14E-04	1.12E-03
O_5	545876.4	5396072.55	Library		1.55E+03	1.28E+03	1.12E+03	1.04E+03	4.10E+02	6.15E+02	9.14E-04	2.10E-04	1.30E-04	4.89E-01	7.77E-02	4.30E-02	1.65E-07	2.63E-08	1.36E-08	2.31E-03	9.35E-04	1.19E-03
P_1	546958.4	5396138.56	Penn Lake Park and Campground		1.26E+03	1.04E+03	9.90E+02	9.77E+02	3.76E+02	5.93E+02	5.32E-04	1.55E-04	1.02E-04	2.76E-01	4.88E-02	2.47E-02	2.03E-07	2.42E-08	1.41E-08	1.97E-03	7.56E-04	1.07E-03
P_2	548538.4	5392862.58	Craig's Pit Provincial Nature Reserve		1.24E+03	1.02E+03	9.77E+02	9.70E+02	3.73E+02	5.91E+02	2.29E-04	5.90E-05	3.80E-05	7.07E-02	1.07E-02	4.20E-03	1.57E-07	2.04E-08	8.60E-09	1.93E-03	7.41E-04	1.06E-03
P_3	540005	5402014	Red Sucker Point Provincial Park		1.31E+03	1.08E+03	9.80E+02	9.71E+02	3.73E+02	5.91E+02	2.28E-04	6.20E-05	4.00E-05	7.88E-02	1.55E-02	7.97E-03	1.29E-07	2.03E-08	1.02E-08	1.93E-03	7.41E-04	1.06E-03
P_4	552770	5383776	Pukaskwa National Park		1.22E+03	1.01E+03	9.70E+02	9.67E+02	3.73E+02	5.91E+02	8.70E-05	2.20E-05	1.20E-05	2.02E-02	3.67E-03	1.54E-03	4.78E-08	6.98E-09	3.25E-09	1.92E-03	7.38E-04	1.06E-03
PR_1	553679.4	5385895.59	Children & Family Learning Centre		1.21E+03	9.95E+02	9.70E+02	9.66E+02	3.73E+02	5.91E+02	7.20E-05	2.30E-05	1.30E-05	2.32E-02	4.05E-03	1.61E-03	3.94E-08	6.40E-09	3.26E-09	1.92E-03	7.38E-04	1.06E-03
PR_2	554004.4	5385857.59	Pic River Elementary		1.20E+03	9.88E+02	9.69E+02	9.66E+02	3.73E+02	5.91E+02	6.30E-05	2.20E-05	1.30E-05	2.36E-02	3.87E-03	1.57E-03	3.86E-08	6.29E-09	3.16E-09	1.92E-03	7.38E-04	1.06E-03
PR_3	553836.4	5385603.59	Pic River Private High School		1.20E+03	9.93E+02	9.69E+02	9.66E+02	3.73E+02	5.91E+02	6.80E-05	2.20E-05	1.30E-05	2.23E-02	3.93E-03	1.56E-03	3.76E-08	6.24E-09	3.16E-09	1.92E-03	7.38E-04	1.06E-03
PR_4	553930.4	5386048.59	Pic River Health Centre		1.20E+03	9.89E+02	9.69E+02	9.66E+02	3.73E+02	5.91E+02	6.40E-05	2.20E-05	1.30E-05	2.42E-02	3.93E-03	1.60E-03	3.90E-08	6.40E-09	3.22E-09	1.92E-03	7.38E-04	1.06E-03
PR_5	552493.4	5384782.58	BIIDAABAN Healing Lodge		1.22E+03	1.01E+03	9.70E+02	9.67E+02	3.73E+02	5.91E+02	9.70E-05	2.50E-05	1.30E-05	2.16E-02	4.11E-03	1.69E-03	5.51E-08	7.62E-09	3.54E-09	1.92E-03	7.38E-04	1.06E-03
PR_6	552843.4	5390099.59	Residence		1.22E+03	1.00E+03	9.71E+02	9.67E+02	3.73E+02	5.91E+02	1.12E-04	3.20E-05	2.10E-05	3.46E-02	5.69E-03	2.56E-03	5.98E-08	1.00E-08	5.12E-09	1.92E-03	7.39E-04	1.06E-03
PR_7	553761.4	5387705.59	Residence		1.20E+03	9.91E+02	9.69E+02	9.66E+02	3.73E+02	5.91E+02	6.90E-05	2.40E-05	1.50E-05	2.39E-02	3.97E-03	1.90E-03	4.60E-08	7.26E-09	3.66E-09	1.92E-03	7.38E-04	1.06E-03
PS_1	545001.3	5404050.49	North Hare Lake Cottage		1.24E+03	1.02E+03	9.89E+02	9.77E+02	3.76E+02	5.93E+02	4.59E-04	1.51E-04	9.30E-05	5.84E-02	1.01E-02	6.26E-03	3.54E-07	5.65E-08	3.28E-08	1.96E-03	7.50E-04	1.07E-03
PS_2	544331.3	5403100.49	South Hare Lake Cottage		1.52E+03	1.25E+03	1.00E+03	9.83E+02	3.75E+02	5.92E+02	5.03E-04	1.34E-04	7.90E-05	5.12E-02	9.27E-03	5.89E-03	3.59E-07	4.28E-08	2.39E-08	1.95E-03	7.48E-04	1.07E-03
PS_3	547056.1	5401003.77	May's Gifts		1.33E+03	1.10E+03	1.01E+03	9.87E+02	3.79E+02	5.96E+02	1.37E-03	3.72E-04	2.59E-04	8.25E-02	2.01E-02	1.22E-02	7.36E-07	1.26E-07	6.13E-08	1.99E-03	7.61E-04	1.08E-03
PS_4	546811.4	5400952.54	Wayfare Inn		1.33E+03	1.10E+03	1.01E+03	9.86E+02	3.79E+02	5.95E+02	1.26E-03	3.38E-04	2.36E-04	9.43E-02	2.05E-02	1.22E-02	6.52E-07	1.08E-07	5.30E-08	1.99E-03	7.60E-04	1.08E-03
PS_5	546996.4	5401027.54	Peninsula Inn		1.34E+03	1.11E+03	1.01E+03	9.88E+02	3.79E+02	5.96E+02	1.37E-03	3.70E-04	2.57E-04	8.42E-02	2.01E-02	1.21E-02	7.27E-07	1.22E-07	5.94E-08	1.99E-03	7.61E-04	1.08E-03
PS_6	548471.4	5399488.57	Travelodge Hotel		1.36E+03	1.12E+03	1.01E+03	9.89E+02	3.80E+02	5.97E+02	1.94E-03	6.53E-04	4.12E-04	6.47E-02	1.72E-02	1.13E-02	4.86E-07	7.90E-08	3.99E-08	2.01E-03	7.73E-04	1.09E-03
PS_7	546903.4	5401055.54	The Laughing Mooz Eatery Restaurant and Residence		1.34E+03	1.10E+03	1.01E+03	9.88E+02	3.79E+02	5.96E+02	1.35E-03	3.65E-04	2.54E-04	8.63E-02	1.99E-02	1.20E-02	6.92E-07	1.15E-07	5.61E-08	1.99E-03	7.62E-04	1.08E-03
PW_1	545777.4	5397150.54	Kingdom Hall of Jehovah's Witnesses		1.35E+03	1.11E+03	1.03E+03	1.00E+03	3.89E+02	6.04E+02	3.00E-03	9.18E-04	4.33E-04	1.61E+00	4.65E-01	2.02E-01	1.99E-07	3.13E-08	1.72E-08	2.10E-03	8.22E-04	1.13E-03
PW_2	546331.4	5395941.55	Parkland Pentecostal Church		1.29E+03	1.06E+03	1.01E+03	9.81E+02	3.78E+02	5.95E+02	6.61E-04	1.47E-04	1.01E-04	2.99E-01	5.23E-02	2.72E-02	2.11E-07	2.24E-08	1.32E-08	1.99E-03	7.64E-04	1.08E-03
PW_3	545857.4	5395714.55	St. John's United Church		1.28E+03	1.05E+03	1.01E+03	9.85E+02	3.80E+02	5.97E+02	6.90E-04	1.82E-04	1.04E-04	3.69E-01	6.63E-02	3.13E-02	1.68E-07	2.37E-08	1.26E-08	2.01E-03	7.74E-04	1.09E-03
PW_4	545425	5396043.49	Holy Saviour Roman Catholic Church		1.59E+03	1.31E+03	1.25E+03	1.11E+03	4.38E+02	6.44E+02	1.40E-03	2.75E-04	1.64E-04	7.08E-01	1.14E-01	6.30E-02	1.80E-07	2.55E-08	1.34E-08	2.53E-03	1.01E-03	1.28E-03
PW_5	545390.4	5395988.55	Anglican Church-Trinity		1.78E+03	1.47E+03	1.32E+03	1.17E+03	4.57E+02	6.48E+02	1.29E-03	2.60E-04	1.50E-04	6.52E-01	1.06E-01	5.56E-02	1.79E-07	2.53E-08	1.33E-08	2.79E-03	1.09E-03	1.30E-03
R_1	547226.4	5398095.56	Residence		1.37E+03	1.13E+03	1.04E+03	1.01E+03	3.93E+02	6.06E+02	5.73E-04	1.70E-04	1.36E-04	1.23E-01	3.24E-02	1.62E-02	3.52E-07	4.92E-08	2.65E-08	2.13E-03	8.46E-04	1.14E-03
R_10	545421.4	5395953.55	Residence		1.95E+03	1.61E+03	1.37E+03	1.26E+03	4.83E+02	6.73E+02	1.25E-03	2.43E-04	1.45E-04	6.29E-01	9.73E-02	5.35E-02	1.78E-07	2.53E-08	1.31E-08	3.21E-03	1.22E-03	1.41E-03
R_11	545619.4	5395877.55	Residence		1.48E+03	1.22E+03	1.12E+03	1.05E+03	4.05E+02	6.18E+02	1.35E-03	2.58E-04	1.24E-04	7.22E-01	1.06E-01	4.19E-02	1.69E-07	2.53E-08	1.30E-08	2.33E-03	8.92E-04	1.19E-03
R_12	545831.4	5396000.55	Residence		1.49E+03	1.23E+03	1.09E+03	1.03E+03	4.03E+02	6.11E+02	9.05E-04	2.26E-04	1.26E-04	4.87E-01	8.75E-02	4.16E-02	1.63E-07	2.58E-08	1.34E-08	2.24E-03	8.93E-04	1.17E-03
R_13	545806.9	5396173.19	Residence		1.55E+03	1.28E+03	1.21E+03	1.11E+03	4.41E+02	6.47E+02	1.13E-03	2.71E-04	1.49E-04	6.09E-01	1.10E-01	5.30E-02	1.77E-07	2.69E-08	1.39E-08	2.72E-03	1.12E-03	1.37E-03
R_14	545827.1	5396228.86	Residence		1.43E+03	1.18E+03	1.13E+03	1.06E+03	4.18E+02	6.28E+02	1.17E-03	2.62E-04	1.54E-04	6.31E-01	1.05E-01	5.55E-02	1.80E-07	2.73E-08	1.41E-08	2.46E-03	9.90E-04	1.26E-03
R_15	545662.4	5396175.55	Residence		1.32E+03	1.09E+03	1.05E+03	1.02E+03	3.97E+02	6.10E+02	1.73E-03	3.63E-04	1.65E-04	9.29E-01	1.61E-01	6.25E-02	1.84E-07	2.68E-08	1.39E-08	2.18E-03	8.57E-04	1.16E-03
R_16	546254.4	5396484.55	Residence		1.29E+03	1.07E+03	1.02E+03	9.90E+02	3.84E+02	5.98E+02	1.24E-03	2.53E-04	1.51E-04	6.68E-01	1.05E-01	5.10E-02	1.89E-07	2.79E-08	1.48E-08	2.03E-03	7.92E-04	1.09E-03
R_17	546471.4	5396506.55	Residence		1.27E+03	1.04E+03	1.00E+03	9.84E+02	3.80E+02	5.95E+02	1.03E-03	2.19E-04	1.40E-04	5.48E-01	8.53E-02	4.38E-02	2.20E-07	2.67E-08	1.49E-08	2.00E-03	7.73E-04	1.08E-03
R_18	546601.4	5396387.56	Residence		1.27E+03	1.05E+03	9.97E+02	9.81E+02	3.78E+02	5.95E+02	8.36E-04	1.95E-04	1.24E-04	4.44E-01	7.16E-02	3.56E-02	2.31E-07	2.43E-08	1.45E-08	1.99E-03	7.66E-04	1.08E-03
R_19	546856.4	5395580.56	Residence		1.26E+03	1.04E+03	9.87E+02	9.75E+02	3.75E+02	5.93E+02	4.10E-04	1.16E-04	8.20E-05	1.96E-01	3.29E-02	1.76E-02	1.72E-07	2.21E-08	1.28E-08	1.95E-03	7.49E-04	1.07E-03
R_2	547273.4	5398044.56	Residence		1.32E+03	1.09E+03	1.01E+03	9.88E+02	3.81E+02	5.97E+02	5.78E-04	1.69E-04	1.34E-04	1.19E-01	3.03E-02	1.56E-02	3.79E-07	4.81E-08	2.65E-08	2.02E-03	7.81E-04	1.09E-03
R_20	546950.4	5395533.56	Residence		1.25E+03	1.03E+03	9.86E+02	9.74E+02	3.75E+02	5.92E+02	3.72E-04	1.14E-04	8.10E-05	1.81E-01	3.10E-02	1.68E-02	1.63E-07	2.27E-08	1.28E-08	1.95E-03	7.48E-04	1.07E-03
R_21	547201.4	5395415.56	Residence		1.27E+03	1.05E+03	9.82E+02	9.71E+02	3.74E+02	5.92E+02	3.39E-04	1.09E-04	7.70E-05	1.63E-01	2.84E-02	1.51E-02	1.57E-07	2.43E-08	1.29E-08	1.94E-03	7.45E-04	1.07E-03
R_22	548317.4	5399654.57	Residence		1.36E+03	1.12E+03	1.01E+03	9.83E+02	3.77E+02	5.95E+02	1.37E-03	4.70E-04	3.10E-04	4.66E-02	1.47E-02	1.02E-02	4.93E-07	7.73E-08	4.12E-08	1.98E-03	7.58E-04	1.08E-03
R_3	545809.4	5397232.54	Bergagnini Apartment Rental		1.35E+03	1.12E+03	1.04E+03	1.01E+03	3.90E+02	6.04E+02	2.65E-03	7.40E-04	3.49E-04	1.42E+00	3.67E-01	1.55E-01	1.99E-07	3.19E-08	1.75E-08	2.12E-03	8.28E-04	1.13E-03
R_4	546092.4	5396796.55	Residence		1.27E+03	1.05E+03	1.01E+03	9.89E+02	3.84E+02	5.99E+02	1.99E-03	4.89E-04	2.84E-04	1.08E+00	2.35E-01	1.22E-01	2.05E-07	3.08E-08	1.59E-08	2.01E-03	7.89E-04	1.10E-03
R_5	545971.4	5396489.55	Condominium		1.40E+03	1.16E+03	1.11E+03	1.05E+03	4.19E+02	6.24E+02	1.55E-03	3.33E-04	1.85E-04	8.40E-01	1.60E-01	7.02E-02	1.89E-07	2.87E-08	1.48E-08	2.30E-03	9.49E-04	1.21E-03
R_6	545655.4	5396520.55	Residence		1.35E+03	1.12E+03	1.03E+03	1.00E+03	3.87E+02	6.03E+02	2.88E-03	6.49E-04	3.00E-04	1.57E+00	3.13E-01	1.34E-01	1.96E-07	2.84E-08	1.50E-08	2.07E-03	8.04E-04	1.11E-03
R_7	545438.4	5396408.54	I Sew Studio and Residence		1.40E+03	1.15E+03	1.10E+03	1.05E+03	4.15E+02	6.23E+02	2.44E-03	5.53E-04	3.03E-04	1.29E+00	2.63E-01	1.37E-01	1.84E-07	2.66E-08	1.43E-08	2.25E-03	9.06E-04	1.19E-03
R_8	545380.4	5396243.54	Bayview Apartments		1.37E+03	1.13E+03	1.08E+03	1.05E+03	4.13E+02	6.23E+02	1.70E-03	4.11E-04	2.21E-04	8.91E-01	1.87E-01	9.35E-02	1.82E-07	2.58E-08	1.38E-08	2.24E-03	8.99E-04	1.19E-03
R_9	545290.4	5396114.54	Residence		1.40E+03	1.15E+03	1.08E+03	1.03E+03	3.99E+02	6.09E+02	1.30E-03	3.51E-04	1.86E-04	6.73E-01	1.55E-01	7.53E-02	1.77E-07	2.51E-08	1.35E-08	2.17E-03	8.49E-04	1.14E-03
RH_1	546049.4	5395894.55	Peninsula Manor		1.36E+03	1.12E+03	1.03E+03	9.96E+02	3.82E+02	5.97E+02	7.22E-04	1.55E-04	1.08E-04	3.40E-01	5.51E-02	3.18E-02	1.86E-07	2.42E-08	1.31E-08	2.06E-03	7.83E-04	1.09E-03
RH_2	545320.9	5396196.57	Senior's Centre		1.52E+03	1.25E+03	1.13E+03	1.06E+03	4.17E+02	6.23E+02	1.48E-03	3.88E-04	2.06E-04	7.72E-01	1.75E-01	8.57E-02	1.78E-07	2.54E-08	1.37E-08	2.31E-03	9.15E-04	1.19E-03
S_1	546339.4	5396624.55	Holy Saviour School		1.27E+03	1.05E+03	1.01E+03	9.84E+02	3.81E+02	5.96E+02	1.25E-03	2.54E-04	1.66E-04	6.62E-01	1.06E-01	5.76E-02	1.95E-07	2.88E-08	1.53E-08	2.00E-03	7.77E-04	1.09E-03
S_2	545633.4	5396102.55	Confederation College Northshore Campus		1.39E+03	1.15E+03	1.10E+03	1.04E+03	4.09E+02	6.19E+02	1.72E-03	3.34E-04	1.54E-04	9.28E-01	1.45E-01	5.68E-02	1.81E-07	2.64E-08	1.36E-08	2.28E-03	9.14E-04	1.20E-03
S_3	546200.4	5396036.55	Marathon High School		1.32E+03	1.09E+03	1.02E+03	9.86E+02	3.82E+02	5.97E+02	7.96E-04	1.58E-04	1.10E-04	3.76E-01	6.01E-02	3.17E-02	1.99E-07	2.43E-08	1.35E-08	2.01E-03	7.82E-04	1.09E-03
S_4	546261.4	5395967.55	Ecole secondaire Cite-Superieure		1.30E+03	1.07E+03	1.01E+03	9.84E+02	3.79E+02	5.95E+02	7.28E-04	1.50E-04	1.04E-04	3.38E-01	5.44E-02	2.89E-02	2.06E-07	2.33E-08	1.33E-08	2.00E-03	7.69E-04	1.08E-03
S_5	547019.4	5395082.56	Marathon Children and Family Centre		1.26E+03	1.04E+03	9.78E+02	9.70E+02	3.74E+02	5.92E+02	4.15E-04	1.00E-04	6.80E-05	2.01E-01	2.85E-02	1.21E-02	1.58E-07	2.36E-08	1.26E-08	1.93E-03	7.44E-04	1.07E-03

Table F-3 Special Receptor Predictions (ug/m3) - Operations, Cumulative (Project + Background)

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	FLUORENE			FORMALDEHYDE			GALLIUM (GA)			GOLD (AU)			HYDROCHLORIC ACID (HCL)			HYDROFLUORIC ACID (HF)		
				Averaging Period	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual
				Criteria	-	-	-	65	-	-	-	-	-	1.25	-	-	20	-	-	0.86	0.34	-
				Background Concentration (ug/m3)	2.91E-03	1.12E-03	1.62E-03	5.40E+00	2.08E+00	1.90E+00												
H_1	545937.4	5396169.55	Wilson Memorial General Hospital		4.21E-03	1.74E-03	2.00E-03	6.59E+00	2.65E+00	2.24E+00	5.45E-01	8.37E-02	4.72E-02	1.16E-05	1.80E-06	1.02E-06	8.94E-04	1.08E-04	6.40E-05	1.05E-03	1.30E-04	7.80E-05
M_1	545694	5403864	PM-10 @ Hare Lake		3.13E-03	1.19E-03	1.66E-03	5.62E+00	2.15E+00	1.94E+00	6.44E-02	1.20E-02	6.88E-03	1.43E-06	2.94E-07	1.85E-07	2.29E-03	3.59E-04	2.20E-04	2.79E-03	4.39E-04	2.69E-04
M_2	545694	5403873	Dustfall @ Hare Lake		3.13E-03	1.19E-03	1.66E-03	5.62E+00	2.15E+00	1.94E+00	6.43E-02	1.20E-02	6.88E-03	1.43E-06	2.94E-07	1.85E-07	2.30E-03	3.62E-04	2.21E-04	2.80E-03	4.42E-04	2.69E-04
M_3	547152	5401222	PM-10 @ Mays Gifts		3.27E-03	1.23E-03	1.70E-03	5.75E+00	2.19E+00	1.98E+00	7.38E-02	1.75E-02	9.89E-03	1.66E-06	4.75E-07	3.11E-07	4.32E-03	7.15E-04	3.53E-04	5.40E-03	8.78E-04	4.36E-04
M_4	547147	5401216	Dustfall @ Mays Gifts		3.26E-03	1.23E-03	1.70E-03	5.75E+00	2.19E+00	1.98E+00	7.44E-02	1.75E-02	9.92E-03	1.67E-06	4.76E-07	3.11E-07	4.30E-03	7.12E-04	3.51E-04	5.38E-03	8.74E-04	4.34E-04
M_5	551637	5402371	PM-10 @ Pic River		3.11E-03	1.19E-03	1.66E-03	5.60E+00	2.15E+00	1.94E+00	6.54E-02	1.93E-02	8.34E-03	1.65E-06	5.62E-07	2.69E-07	5.76E-03	9.55E-04	3.83E-04	7.29E-03	1.20E-03	4.82E-04
M_6	551643	5402374	Dustfall @ Pic River		3.11E-03	1.19E-03	1.66E-03	5.60E+00	2.15E+00	1.94E+00	6.52E-02	1.93E-02	8.34E-03	1.65E-06	5.61E-07	2.69E-07	5.76E-03	9.53E-04	3.82E-04	7.29E-03	1.20E-03	4.81E-04
M_7	549180	5399815	Dustfall @ Airport		3.21E-03	1.25E-03	1.72E-03	5.70E+00	2.21E+00	2.00E+00	5.61E-02	1.51E-02	7.87E-03	2.00E-06	9.65E-07	6.99E-07	2.89E-03	4.54E-04	2.18E-04	3.59E-03	5.56E-04	2.75E-04
M_8	545863	5397092	Dustfall @ Field Office		3.47E-03	1.42E-03	1.84E-03	5.93E+00	2.36E+00	2.11E+00	1.33E+00	4.26E-01	2.06E-01	2.83E-05	9.07E-06	4.39E-06	1.01E-03	1.43E-04	7.80E-05	1.21E-03	1.72E-04	9.50E-05
O_1	547181.4	5398014.56	Pic Motel		3.32E-03	1.29E-03	1.74E-03	5.79E+00	2.23E+00	2.01E+00	1.44E-01	3.76E-02	1.80E-02	3.08E-06	8.36E-07	4.21E-07	1.61E-03	1.74E-04	1.11E-04	1.93E-03	2.18E-04	1.36E-04
O_2	545734.4	5396872.55	Marathon Harbour Inn		4.05E-03	1.65E-03	2.02E-03	6.55E+00	2.61E+00	2.30E+00	1.92E+00	1.08E+00	5.26E-01	4.09E-05	2.31E-05	1.12E-05	9.58E-04	1.35E-04	7.40E-05	1.15E-03	1.62E-04	9.00E-05
O_3	545885.4	5396448.55	Zero-100 Motor Inn		4.39E-03	1.74E-03	2.10E-03	6.86E+00	2.69E+00	2.37E+00	8.92E-01	1.48E-01	7.56E-02	1.90E-05	3.16E-06	1.63E-06	8.29E-04	1.20E-04	6.70E-05	9.77E-04	1.45E-04	8.20E-05
O_4	545987.4	5397640.55	OPP Station		3.34E-03	1.33E-03	1.78E-03	5.79E+00	2.28E+00	2.05E+00	7.46E-01	1.60E-01	6.59E-02	1.59E-05	3.43E-06	1.43E-06	1.14E-03	1.63E-04	9.00E-05	1.37E-03	1.97E-04	1.10E-04
O_5	545876.4	5396072.55	Library		4.01E-03	1.65E-03	1.96E-03	6.43E+00	2.57E+00	2.21E+00	5.16E-01	8.12E-02	4.48E-02	1.10E-05	1.75E-06	9.72E-07	8.70E-04	1.06E-04	6.20E-05	1.02E-03	1.28E-04	7.60E-05
P_1	546958.4	5396138.56	Penn Lake Park and Campground		3.08E-03	1.18E-03	1.65E-03	5.57E+00	2.14E+00	1.93E+00	2.91E-01	5.07E-02	2.54E-02	6.19E-06	1.10E-06	5.62E-07	8.28E-04	1.10E-04	6.70E-05	9.92E-04	1.32E-04	8.10E-05
P_2	548538.4	5392862.58	Craig's Pit Provincial Nature Reserve		2.97E-03	1.14E-03	1.63E-03	5.46E+00	2.10E+00	1.91E+00	7.42E-02	1.08E-02	4.12E-03	1.59E-06	2.45E-07	9.91E-08	5.83E-04	7.70E-05	3.50E-05	6.95E-04	9.30E-05	4.30E-05
P_3	540005	5402014	Red Sucker Point Provincial Park		2.98E-03	1.14E-03	1.63E-03	5.47E+00	2.10E+00	1.91E+00	8.25E-02	1.61E-02	8.12E-03	1.77E-06	3.52E-07	1.83E-07	4.71E-04	9.20E-05	4.60E-05	5.65E-04	1.10E-04	5.50E-05
P_4	552770	5383776	Pukaskwa National Park		2.94E-03	1.13E-03	1.62E-03	5.43E+00	2.09E+00	1.90E+00	2.11E-02	3.69E-03	1.53E-03	4.56E-07	8.48E-08	3.61E-08	1.71E-04	2.80E-05	1.40E-05	2.02E-04	3.40E-05	1.70E-05
PR_1	553679.4	5385895.59	Children & Family Learning Centre		2.94E-03	1.13E-03	1.62E-03	5.43E+00	2.09E+00	1.90E+00	2.42E-02	4.10E-03	1.59E-03	5.24E-07	9.35E-08	3.77E-08	1.48E-04	2.60E-05	1.40E-05	1.76E-04	3.20E-05	1.70E-05
PR_2	554004.4	5385857.59	Pic River Elementary		2.93E-03	1.13E-03	1.62E-03	5.42E+00	2.09E+00	1.90E+00	2.47E-02	3.92E-03	1.55E-03	5.32E-07	8.92E-08	3.68E-08	1.54E-04	2.60E-05	1.40E-05	1.82E-04	3.10E-05	1.70E-05
PR_3	553836.4	5385603.59	Pic River Private High School		2.93E-03	1.13E-03	1.62E-03	5.42E+00	2.09E+00	1.90E+00	2.32E-02	3.98E-03	1.54E-03	5.02E-07	9.06E-08	3.65E-08	1.47E-04	2.60E-05	1.40E-05	1.74E-04	3.10E-05	1.70E-05
PR_4	553930.4	5386048.59	Pic River Health Centre		2.93E-03	1.13E-03	1.62E-03	5.42E+00	2.09E+00	1.90E+00	2.53E-02	3.98E-03	1.58E-03	5.45E-07	9.05E-08	3.75E-08	1.56E-04	2.60E-05	1.40E-05	1.85E-04	3.10E-05	1.70E-05
PR_5	552493.4	5384782.58	BIIDAABAN Healing Lodge		2.94E-03	1.13E-03	1.62E-03	5.43E+00	2.09E+00	1.90E+00	2.26E-02	4.14E-03	1.67E-03	4.88E-07	9.49E-08	3.95E-08	1.97E-04	3.10E-05	1.50E-05	2.33E-04	3.70E-05	1.80E-05
PR_6	552843.4	5390099.59	Residence		2.95E-03	1.13E-03	1.63E-03	5.44E+00	2.09E+00	1.90E+00	3.63E-02	5.77E-03	2.52E-03	7.78E-07	1.31E-07	5.99E-08	2.35E-04	4.00E-05	2.20E-05	2.80E-04	4.90E-05	2.70E-05
PR_7	553761.4	5387705.59	Residence		2.94E-03	1.13E-03	1.62E-03	5.43E+00	2.09E+00	1.90E+00	2.49E-02	4.02E-03	1.88E-03	5.39E-07	9.15E-08	4.45E-08	1.80E-04	3.00E-05	1.60E-05	2.13E-04	3.60E-05	1.90E-05
PS_1	545001.3	5404050.49	North Hare Lake Cottage		3.08E-03	1.17E-03	1.65E-03	5.58E+00	2.13E+00	1.93E+00	6.03E-02	9.75E-03	5.72E-03	1.33E-06	2.38E-07	1.52E-07	1.86E-03	2.79E-04	1.70E-04	2.25E-03	3.40E-04	2.06E-04
PS_2	544331.3	5403100.49	South Hare Lake Cottage		3.07E-03	1.16E-03	1.64E-03	5.57E+00	2.12E+00	1.92E+00	5.26E-02	9.08E-03	5.47E-03	1.17E-06	2.17E-07	1.42E-07	1.56E-03	2.32E-04	1.23E-04	1.90E-03	2.80E-04	1.49E-04
PS_3	547056.1	5401003.77	May's Gifts		3.20E-03	1.21E-03	1.69E-03	5.69E+00	2.17E+00	1.97E+00	8.47E-02	1.86E-02	1.04E-02	1.88E-06	4.87E-07	3.09E-07	3.53E-03	6.56E-04	3.20E-04	4.41E-03	8.04E-04	3.95E-04
PS_4	546811.4	5400952.54	Wayfare Inn		3.20E-03	1.21E-03	1.68E-03	5.68E+00	2.17E+00	1.96E+00	9.74E-02	1.93E-02	1.07E-02	2.14E-06	4.92E-07	3.06E-07	3.52E-03	5.77E-04	2.83E-04	4.37E-03	7.05E-04	3.48E-04
PS_5	546996.4	5401027.54	Peninsula Inn		3.21E-03	1.21E-03	1.69E-03	5.70E+00	2.18E+00	1.97E+00	8.66E-02	1.87E-02	1.03E-02	1.92E-06	4.87E-07	3.07E-07	3.68E-03	6.40E-04	3.14E-04	4.58E-03	7.84E-04	3.87E-04
PS_6	548471.4	5399488.57	Travelodge Hotel		3.25E-03	1.23E-03	1.71E-03	5.73E+00	2.19E+00	1.98E+00	6.44E-02	1.48E-02	8.37E-03	1.52E-06	4.48E-07	3.17E-07	1.93E-03	3.50E-04	2.06E-04	2.35E-03	4.27E-04	2.57E-04
PS_7	546903.4	5401055.54	The Laughing Mooz Eatery Restaurant and Residence		3.22E-03	1.22E-03	1.69E-03	5.72E+00	2.18E+00	1.97E+00	8.89E-02	1.85E-02	1.03E-02	1.97E-06	4.82E-07	3.04E-07	3.80E-03	6.11E-04	3.01E-04	4.73E-03	7.48E-04	3.70E-04
PW_1	545777.4	5397150.54	Kingdom Hall of Jehovah's Witnesses		3.45E-03	1.36E-03	1.80E-03	5.90E+00	2.30E+00	2.07E+00	1.69E+00	4.89E-01	2.13E-01	3.60E-05	1.04E-05	4.55E-06	1.03E-03	1.44E-04	7.90E-05	1.23E-03	1.73E-04	9.60E-05
PW_2	546331.4	5395941.55	Parkland Pentecostal Church		3.14E-03	1.20E-03	1.68E-03	5.63E+00	2.16E+00	1.95E+00	3.14E-01	5.47E-02	2.81E-02	6.72E-06	1.18E-06	6.18E-07	9.36E-04	9.90E-05	6.10E-05	1.10E-03	1.20E-04	7.50E-05
PW_3	545857.4	5395714.55	St. John's United Church		3.20E-03	1.23E-03	1.70E-03	5.68E+00	2.19E+00	1.98E+00	3.89E-01	6.92E-02	3.25E-02	8.27E-06	1.49E-06	7.08E-07	8.64E-04	9.30E-05	5.70E-05	1.01E-03	1.12E-04	7.00E-05
PW_4	545425	5396043.49	Holy Saviour Roman Catholic Church		5.00E-03	2.06E-03	2.37E-03	7.54E+00	3.05E+00	2.66E+00	7.45E-01	1.20E-01	6.59E-02	1.59E-05	2.57E-06	1.42E-06	7.61E-04	1.11E-04	6.10E-05	9.09E-04	1.34E-04	7.40E-05
PW_5	545390.4	5395988.55	Anglican Church-Trinity		5.82E-03	2.32E-03	2.43E-03	8.34E+00	3.30E+00	2.73E+00	6.86E-01	1.11E-01	5.81E-02	1.46E-05	2.39E-06	1.25E-06	7.53E-04	1.10E-04	6.00E-05	8.99E-04	1.33E-04	7.30E-05
R_1	547226.4	5398095.56	Residence		3.52E-03	1.42E-03	1.83E-03	5.97E+00	2.35E+00	2.10E+00	1.29E-01	3.31E-02	1.60E-02	2.76E-06	7.43E-07	3.81E-07	1.65E-03	1.80E-04	1.14E-04	1.98E-03	2.25E-04	1.41E-04
R_10	545421.4	5395953.55	Residence		7.13E-03	2.69E-03	2.78E-03	9.65E+00	3.68E+00	3.08E+00	6.62E-01	1.02E-01	5.59E-02	1.41E-05	2.19E-06	1.21E-06	7.34E-04	1.09E-04	6.00E-05	8.77E-04	1.31E-04	7.30E-05
R_11	545619.4	5395877.55	Residence		4.15E-03	1.59E-03	2.00E-03	6.60E+00	2.54E+00	2.27E+00	7.60E-01	1.11E-01	4.36E-02	1.62E-05	2.39E-06	9.46E-07	7.55E-04	1.05E-04	5.90E-05	8.88E-04	1.26E-04	7.20E-05
R_12	545831.4	5396000.55	Residence		3.79E-03	1.56E-03	1.91E-03	6.21E+00	2.49E+00	2.17E+00	5.13E-01	9.15E-02	4.33E-02	1.09E-05	1.97E-06	9.40E-07	8.53E-04	1.04E-04	6.10E-05	1.00E-03	1.26E-04	7.50E-05
R_13	545806.9	5396173.19	Residence		4.93E-03	2.09E-03	2.40E-03	7.21E+00	2.96E+00	2.61E+00	6.41E-01	1.15E-01	5.53E-02	1.36E-05	2.48E-06	1.20E-06	8.23E-04	1.11E-04	6.30E-05	9.68E-04	1.34E-04	7.70E-05
R_14	545827.1	5396228.86	Residence		4.30E-03	1.76E-03	2.14E-03	6.65E+00	2.66E+00	2.37E+00	6.65E-01	1.10E-01	5.80E-02	1.41E-05	2.36E-06	1.25E-06	8.27E-04	1.13E-04	6.40E-05	9.74E-04	1.36E-04	7.80E-05
R_15	545662.4	5396175.55	Residence		3.66E-03	1.47E-03	1.89E-03	6.11E+00	2.42E+00	2.16E+00	9.79E-01	1.69E-01	6.53E-02	2.08E-05	3.61E-06	1.41E-06	7.31E-04	1.14E-04	6.30E-05	8.76E-04	1.37E-04	7.70E-05
R_16	546254.4	5396484.55	Residence		3.27E-03	1.28E-03	1.72E-03	5.74E+00	2.24E+00	1.99E+00	7.03E-01	1.10E-01	5.31E-02	1.50E-05	2.37E-06	1.15E-06	1.03E-03	1.11E-04	6.80E-05	1.21E-03	1.34E-04	8.40E-05
R_17	546471.4	5396506.55	Residence		3.17E-03	1.23E-03	1.69E-03	5.65E+00	2.19E+00	1.96E+00	5.78E-01	8.94E-02	4.56E-02	1.23E-05	1.92E-06	9.92E-07	1.07E-03	1.10E-04	6.90E-05	1.26E-03	1.35E-04	8.50E-05
R_18	546601.4	5396387.56	Residence		3.14E-03	1.21E-03	1.67E-03	5.62E+00	2.17E+00	1.95E+00	4.68E-01	7.48E-02	3.69E-02	9.95E-06	1.61E-06	8.07E-07	1.02E-03	1.11E-04	6.80E-05	1.21E-03	1.34E-04	8.30E-05
R_19	546856.4	5395580.56	Residence		3.05E-03	1.16E-03	1.64E-03	5.54E+00	2.12E+00	1.92E+00	2.06E-01	3.42E-02	1.81E-02	4.39E-06	7.46E-07	4.03E-07	7.30E-04	9.90E-05	6.00E-05	8.73E-04	1.19E-04	7.30E-05
R_2	547273.4	5398044.56	Residence		3.23E-03	1.24E-03	1.71E-03	5.70E+00	2.20E+00	1.98E+00	1.25E-01	3.09E-02	1.54E-02	2.68E-06	6.96E-07	3.67E-07	1.62E-03	1.80E-04	1.13E-04	1.96E-03	2.26E-04	1.40E-04
R_20	546950.4	5395533.56	Residence		3.04E-03	1.16E-03	1.64E-03	5.52E+00	2.12E+00	1.92E+00	1.91E-01	3.20E-02	1.72E-02	4.07E-06	7.03E-07	3.86E-07	7.05E-04	1.00E-04	6.00E-05	8.44E-04	1.21E-04	7.30E-05
R_21	547201.4	5395415.56	Residence		3.00E-03	1.15E-03	1.64E-03	5.49E+00	2.11E+00	1.92E+00	1.72E-01	2.93E-02	1.54E-02	3.66E-06	6.45E-07	3.46E-07	6.05E-04	1.03E-04	5.90E-05	7.27E-04	1.24E-04	7.30E-05
R_22	548317.4	5399654.57	Residence		3.16E-03	1.19E-03	1.67E-03	5.65E+00	2.15E+00	1.95E+00	4.73E-02	1.31E-02	8.03E-03	1.23E-06	3.71E-07	2.77E-07	2.24E-03	3.66E-04	2.21E-04	2.78E-03	4.47E-04	2.76E-04
R_3	545809.4	5397232.54	Bergagnini Apartment Rental		3.49E-03	1.37E-03	1.81E-03	5.93E+00	2.31E+00	2.08E+00	1.49E+00	3.86E-01	1.63E-01	3.17E-05	8.22E-06	3.49E-06	1.05E-03	1.47E-04	8.10E-05	1.25E-03	1.77E-04	9.90E-05
R_4	546092.4	5396796.55	Residence		3.25E-03	1.29E-03	1.73E-03	5.74E+00	2.25E+00	2.01E+00	1.14E+00	2.47E-01	1.28E-01	2.42E-05	5.28E-06	2.74E-06	9.14E-04	1.30E-04	7.30E-05	1.08E-03	1.57E-04	9.00E-05
R_5	545971.4	5396489.55	Condominium		4.13E-03	1.79E-03	2.09E-03	6.62E+00	2.74E+00	2.36E+00	8.85E-01	1.68E-01	7.34E-02	1.88E-05	3.58E-06	1.58E-06	8.80E-04	1.20E-04	6.80E-05	1.04E-03	1.44E-04	8.30E-05
R_6	545655.4	5396520.55	Residence		3.41E-03	1.33E-03	1.79E-03	5.89E+00	2.29E+00	2.06E+00	1.65E+00	3.30E-01	1.40E-01	3.52E-05	7.04E-06	3.00E-06	8.62E-04	1.25E-04	6.80E-05	1.03E-03	1.51E-04	8.30E-05
R_7	545438.4	5396408.54	I Sew Studio and Residence		4.12E-03	1.73E-03	2.08E-03	6.66E+00	2.72E+00	2.38E+00	1.36E+00	2.77E-01	1.44E-01	2.90E-05	5.91E-06	3.08E-06	8.60E-04	1.20E-04	6.50E-05	1.03E-03	1.44E-04	8.00E-05
R_8	545380.4	5396243.54	Bayview Apartments		4.07E-03	1.71E-03	2.07E-03	6.61E+00	2.69E+00	2.37E+00	9.38E-01	1.97E-01	9.80E-02	2.00E-05	4.20E-06	2.10E-06	8.26E-04	1.16E-04	6.30E-05	9.85E-04	1.39E-04	7.70E-05
R_9	545290.4	5396114.54	Residence		3.80E-03	1.50E-03	1.87E-03	6.31E+00	2.47E+00	2.16E+00	7.08E-01	1.63E-01	7.89E-02	1.51E-05	3.49E-06	1.69E-06	8.04E-04	1.13E-04	6.10E-05	9.58E-04	1.35E-04	7.50E-05
RH_1	546049.4	5395894.55	Peninsula Manor		3.36E-03	1.26E-03	1.71E-03	5.84E+00	2.21E+00	1.98E+00	3.57E-01	5.75E-02	3.30E-02	7.63E-06	1.24E-06	7.20E-07	9.21E-04	9.40E-05	6.00E-05	1.08E-03	1.15E-04	7.30E-05
RH_2	545320.9	5396196.57	Senior's Centre		4.31E-03	1.76E-03	2.08E-03	6.86E+00	2.74E+00	2.38E+00	8.12E-01	1.84E-01	8.98E-02	1.73E-05	3.93E-06	1.93E-06	8.20E-04	1.15E-04	6.20E-05	9.77E-04	1.38E-04	7.60E-05
S_1	546339.4	5396624.55	Holy Saviour School		3.18E-03	1.25E-03	1.70E-03	5.66E+00	2.20E+00	1.97E+00	6.98E-01	1.11E-01	6.01E-02	1.48E-05	2.38E-06	1.30E-06	1.07E-03	1.14E-04	7.10E-05	1.26E-03	1.38E-04	8.70E-05
S_2	545633.4	5396102.55	Confederation College Northshore Campus		3.93E-03	1.64E-03	2.01E-03	6.36E+00	2.58E+00	2.27E+00	9.78E-01	1.52E-01	5.94E-02	2.08E-05	3.27E-06	1.28E-06	7.26E-04	1.12E-04	6.20E-05	8.56E-04	1.34E-04	7.60E-05
S_3	546200.4	5396036.55	Marathon High School		3.21E-03	1.25E-03	1.70E-03	5.69E+00	2.21E+00	1.98E+00	3.95E-01	6.29E-02	3.28E-02	8.44E-06	1.35E-06	7.18E-07	9.60E-04	9.80E-05	6.20E-05	1.13E-03	1.20E-04	7.60E-05
S_4	546261.4	5395967.55	Ecole secondaire Cite-Superieure		3.18E-03	1.22E-03	1.68E-03	5.66E+00	2.18E+00	1.96E+00	3.54E-01	5.69E-02	2.99E-02	7.58E-06	1.22E-06	6.55E-07	9.48E-04	9.80E-05	6.10E-05	1.12E-03	1.20E-04	7.50E-05
S_5	547019.4	5395082.56	Marathon Children and Family Centre		2.99E-03	1.14E-03	1.64E-03	5.47E+00	2.11E+00	1.91E+00	2.12E-01	2.95E-02	1.22E-02	4.52E-06	6.46E-07	2.77E-07	5.95E-04	9.70E-05	5.60E-05	7.14E-04	1.17E-04	6.90E-05

Table F-3 Special Receptor Predictions (ug/m3) - Operations, Cumulative (Project + Background)

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	INDENO(1,2,3-CD)PYRENE			IRON (FE)			IRON SULFIDE			LANTHANUM (LA)			LANTHANUM CHLORIDE (LACL3)			LEAD (PB)		
				Averaging Period	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual
				Criteria	-	-	-	-	-	-	-	-	-	-	-	-	2.5	-	-	0.5	0.2	-
				Background Concentration (ug/m3)				3.85E-01	1.49E-01	1.91E-01										5.74E-03	2.21E-03	3.01E-03
H_1	545937.4	5396169.55	Wilson Memorial General Hospital		2.01E-07	3.21E-08	1.67E-08	1.12E+00	3.48E-01	3.36E-01	1.78E+00	3.99E-01	3.18E-01	1.27E-04	3.64E-05	2.72E-05	1.60E-02	1.83E-03	1.04E-03	6.21E-03	2.30E-03	3.06E-03
M_1	545694	5403864	PM-10 @ Hare Lake		4.95E-07	8.29E-08	4.84E-08	1.48E+00	4.72E-01	3.89E-01	4.04E+00	1.21E+00	7.19E-01	3.35E-04	8.43E-05	4.82E-05	3.77E-02	5.86E-03	3.62E-03	6.11E-03	2.29E-03	3.06E-03
M_2	545694	5403873	Dustfall @ Hare Lake		4.94E-07	8.33E-08	4.85E-08	1.48E+00	4.71E-01	3.88E-01	4.03E+00	1.21E+00	7.18E-01	3.33E-04	8.43E-05	4.82E-05	3.79E-02	5.90E-03	3.63E-03	6.11E-03	2.29E-03	3.06E-03
M_3	547152	5401222	PM-10 @ Mays Gifts		8.90E-07	1.54E-07	7.59E-08	2.97E+00	8.60E-01	6.84E-01	1.35E+01	2.83E+00	1.84E+00	7.27E-04	1.95E-04	1.30E-04	6.63E-02	1.15E-02	5.57E-03	6.41E-03	2.35E-03	3.09E-03
M_4	547147	5401216	Dustfall @ Mays Gifts		9.00E-07	1.55E-07	7.61E-08	2.95E+00	8.56E-01	6.82E-01	1.35E+01	2.81E+00	1.83E+00	7.23E-04	1.94E-04	1.30E-04	6.60E-02	1.14E-02	5.55E-03	6.40E-03	2.35E-03	3.09E-03
M_5	551637	5402371	PM-10 @ Pic River		8.39E-07	1.46E-07	7.72E-08	2.09E+00	8.28E-01	6.09E-01	9.81E+00	2.72E+00	1.61E+00	4.77E-04	1.95E-04	1.21E-04	8.55E-02	1.44E-02	5.78E-03	6.47E-03	2.37E-03	3.08E-03
M_6	551643	5402374	Dustfall @ Pic River		8.34E-07	1.46E-07	7.71E-08	2.09E+00	8.27E-01	6.08E-01	9.78E+00	2.71E+00	1.61E+00	4.75E-04	1.94E-04	1.21E-04	8.56E-02	1.44E-02	5.77E-03	6.47E-03	2.37E-03	3.08E-03
M_7	549180	5399815	Dustfall @ Airport		6.70E-07	1.19E-07	4.97E-08	8.67E+00	3.84E+00	3.01E+00	8.17E+00	1.83E+00	1.30E+00	2.50E-03	1.11E-03	8.45E-04	4.55E-02	7.39E-03	3.26E-03	6.34E-03	2.45E-03	3.18E-03
M_8	545863	5397092	Dustfall @ Field Office		2.50E-07	3.76E-08	2.03E-08	1.97E+00	7.31E-01	5.34E-01	2.16E+00	4.96E-01	3.84E-01	1.78E-04	4.58E-05	3.42E-05	1.75E-02	2.43E-03	1.28E-03	6.88E-03	2.59E-03	3.20E-03
O_1	547181.4	5398014.56	Pic Motel		3.99E-07	5.66E-08	3.04E-08	1.31E+00	4.12E-01	3.92E-01	3.33E+00	7.29E-01	5.81E-01	2.75E-04	7.38E-05	5.27E-05	2.74E-02	2.80E-03	1.76E-03	6.07E-03	2.27E-03	3.05E-03
O_2	545734.4	5396872.55	Marathon Harbour Inn		2.41E-07	3.55E-08	1.92E-08	2.65E+00	1.48E+00	8.89E-01	2.02E+00	4.65E-01	3.60E-01	1.66E-04	4.49E-05	3.54E-05	1.66E-02	2.30E-03	1.21E-03	7.38E-03	3.15E-03	3.47E-03
O_3	545885.4	5396448.55	Zero-100 Motor Inn		2.29E-07	3.42E-08	1.77E-08	1.43E+00	4.00E-01	3.74E-01	1.75E+00	4.26E-01	3.35E-01	1.36E-04	3.94E-05	2.90E-05	1.47E-02	2.04E-03	1.10E-03	6.50E-03	2.35E-03	3.09E-03
O_4	545987.4	5397640.55	OPP Station		2.48E-07	4.21E-08	2.33E-08	1.35E+00	4.63E-01	3.91E-01	2.57E+00	5.79E-01	4.44E-01	2.10E-04	5.14E-05	3.71E-05	1.96E-02	2.75E-03	1.48E-03	6.38E-03	2.37E-03	3.09E-03
O_5	545876.4	5396072.55	Library		1.98E-07	3.15E-08	1.63E-08	1.00E+00	3.59E-01	3.31E-01	1.73E+00	3.90E-01	3.10E-01	1.23E-04	3.55E-05	2.65E-05	1.56E-02	1.80E-03	1.02E-03	6.18E-03	2.31E-03	3.06E-03
P_1	546958.4	5396138.56	Penn Lake Park and Campground		2.43E-07	2.90E-08	1.68E-08	9.04E-01	3.22E-01	3.20E-01	1.72E+00	4.19E-01	3.38E-01	1.55E-04	3.82E-05	2.94E-05	1.43E-02	1.87E-03	1.08E-03	5.99E-03	2.28E-03	3.05E-03
P_2	548538.4	5392862.58	Craig's Pit Provincial Nature Reserve		1.88E-07	2.45E-08	1.03E-08	7.51E-01	2.38E-01	2.48E-01	1.06E+00	2.71E-01	1.86E-01	1.15E-04	2.49E-05	1.54E-05	1.01E-02	1.31E-03	5.64E-04	5.86E-03	2.24E-03	3.02E-03
P_3	540005	5402014	Red Sucker Point Provincial Park		1.54E-07	2.43E-08	1.22E-08	7.04E-01	2.39E-01	2.45E-01	1.05E+00	2.92E-01	1.74E-01	9.80E-05	2.37E-05	1.29E-05	8.07E-03	1.56E-03	7.62E-04	5.86E-03	2.24E-03	3.03E-03
P_4	552770	5383776	Pukaskwa National Park		5.73E-08	8.35E-09	3.89E-09	5.28E-01	1.80E-01	2.09E-01	5.01E-01	9.85E-02	5.92E-02	4.40E-05	8.18E-06	4.81E-06	3.20E-03	4.90E-04	2.32E-04	5.79E-03	2.22E-03	3.01E-03
PR_1	553679.4	5385895.59	Children & Family Learning Centre		4.72E-08	7.67E-09	3.91E-09	5.04E-01	1.80E-01	2.10E-01	3.57E-01	8.99E-02	6.31E-02	3.60E-05	8.40E-06	5.19E-06	2.61E-03	4.52E-04	2.34E-04	5.78E-03	2.22E-03	3.01E-03
PR_2	554004.4	5385857.59	Pic River Elementary		4.62E-08	7.54E-09	3.79E-09	4.88E-01	1.78E-01	2.10E-01	3.11E-01	8.89E-02	6.14E-02	3.10E-05	7.72E-06	5.02E-06	2.70E-03	4.42E-04	2.27E-04	5.78E-03	2.22E-03	3.01E-03
PR_3	553836.4	5385603.59	Pic River Private High School		4.50E-08	7.47E-09	3.78E-09	4.96E-01	1.79E-01	2.10E-01	3.37E-01	8.75E-02	6.11E-02	3.40E-05	8.01E-06	5.01E-06	2.58E-03	4.39E-04	2.26E-04	5.77E-03	2.22E-03	3.01E-03
PR_4	553930.4	5386048.59	Pic River Health Centre		4.67E-08	7.66E-09	3.85E-09	4.91E-01	1.79E-01	2.10E-01	3.20E-01	9.04E-02	6.26E-02	3.20E-05	7.92E-06	5.13E-06	2.74E-03	4.50E-04	2.31E-04	5.78E-03	2.22E-03	3.01E-03
PR_5	552493.4	5384782.58	BIIDAABAN Healing Lodge		6.60E-08	9.13E-09	4.24E-09	5.42E-01	1.83E-01	2.11E-01	5.44E-01	1.08E-01	6.49E-02	4.80E-05	8.82E-06	5.26E-06	3.54E-03	5.40E-04	2.54E-04	5.79E-03	2.23E-03	3.01E-03
PR_6	552843.4	5390099.59	Residence		7.16E-08	1.20E-08	6.13E-09	5.68E-01	1.95E-01	2.22E-01	5.03E-01	1.41E-01	9.79E-02	5.70E-05	1.29E-05	8.23E-06	4.11E-03	6.89E-04	3.58E-04	5.80E-03	2.23E-03	3.02E-03
PR_7	553761.4	5387705.59	Residence		5.51E-08	8.70E-09	4.39E-09	4.98E-01	1.82E-01	2.13E-01	3.31E-01	1.04E-01	7.19E-02	3.40E-05	8.82E-06	5.91E-06	3.16E-03	5.11E-04	2.64E-04	5.78E-03	2.22E-03	3.02E-03
PS_1	545001.3	5404050.49	North Hare Lake Cottage		4.24E-07	6.76E-08	3.93E-08	1.15E+00	3.98E-01	3.40E-01	3.14E+00	9.14E-01	5.48E-01	2.23E-04	6.72E-05	3.82E-05	3.10E-02	4.62E-03	2.83E-03	6.05E-03	2.27E-03	3.05E-03
PS_2	544331.3	5403100.49	South Hare Lake Cottage		4.30E-07	5.12E-08	2.87E-08	1.22E+00	3.70E-01	3.17E-01	2.88E+00	7.84E-01	4.57E-01	2.87E-04	5.98E-05	3.26E-05	2.58E-02	3.88E-03	2.03E-03	6.01E-03	2.26E-03	3.04E-03
PS_3	547056.1	5401003.77	May's Gifts		8.81E-07	1.51E-07	7.34E-08	2.66E+00	7.70E-01	6.18E-01	1.12E+01	2.54E+00	1.65E+00	6.47E-04	1.72E-04	1.14E-04	5.49E-02	1.06E-02	5.09E-03	6.32E-03	2.34E-03	3.08E-03
PS_4	546811.4	5400952.54	Wayfare Inn		7.81E-07	1.30E-07	6.35E-08	2.47E+00	7.13E-01	5.78E-01	1.05E+01	2.20E+00	1.43E+00	5.89E-04	1.54E-04	1.02E-04	5.53E-02	9.36E-03	4.52E-03	6.31E-03	2.33E-03	3.08E-03
PS_5	546996.4	5401027.54	Peninsula Inn		8.70E-07	1.46E-07	7.11E-08	2.65E+00	7.67E-01	6.16E-01	1.14E+01	2.48E+00	1.61E+00	6.42E-04	1.70E-04	1.13E-04	5.72E-02	1.03E-02	4.98E-03	6.33E-03	2.34E-03	3.08E-03
PS_6	548471.4	5399488.57	Travelodge Hotel		5.82E-07	9.46E-08	4.77E-08	3.74E+00	1.28E+00	8.95E-01	5.93E+00	1.48E+00	1.13E+00	1.01E-03	3.36E-04	2.07E-04	3.18E-02	5.76E-03	3.17E-03	6.14E-03	2.32E-03	3.08E-03
PS_7	546903.4	5401055.54	The Laughing Mooz Eatery Restaurant and Residence		8.29E-07	1.37E-07	6.72E-08	2.61E+00	7.60E-01	6.11E-01	1.14E+01	2.36E+00	1.54E+00	6.28E-04	1.66E-04	1.10E-04	5.93E-02	9.89E-03	4.79E-03	6.35E-03	2.34E-03	3.08E-03
PW_1	545777.4	5397150.54	Kingdom Hall of Jehovah's Witnesses		2.38E-07	3.75E-08	2.06E-08	2.40E+00	8.20E-01	5.42E-01	2.23E+00	5.03E-01	3.87E-01	1.81E-04	4.60E-05	3.43E-05	1.77E-02	2.44E-03	1.30E-03	7.18E-03	2.65E-03	3.21E-03
PW_2	546331.4	5395941.55	Parkland Pentecostal Church		2.53E-07	2.69E-08	1.58E-08	9.37E-01	3.04E-01	3.13E-01	1.76E+00	3.91E-01	3.11E-01	1.33E-04	3.44E-05	2.66E-05	1.67E-02	1.69E-03	9.99E-04	6.06E-03	2.28E-03	3.05E-03
PW_3	545857.4	5395714.55	St. John's United Church		2.01E-07	2.84E-08	1.51E-08	8.63E-01	3.34E-01	3.10E-01	1.65E+00	3.57E-01	2.87E-01	1.20E-04	3.21E-05	2.43E-05	1.56E-02	1.58E-03	9.40E-04	6.07E-03	2.29E-03	3.05E-03
PW_4	545425	5396043.49	Holy Saviour Roman Catholic Church		2.16E-07	3.06E-08	1.60E-08	1.41E+00	4.00E-01	3.50E-01	1.58E+00	3.81E-01	2.97E-01	1.23E-04	3.53E-05	2.53E-05	1.32E-02	1.90E-03	9.99E-04	6.42E-03	2.34E-03	3.08E-03
PW_5	545390.4	5395988.55	Anglican Church-Trinity		2.14E-07	3.03E-08	1.59E-08	1.34E+00	3.89E-01	3.41E-01	1.57E+00	3.78E-01	2.94E-01	1.21E-04	3.49E-05	2.50E-05	1.31E-02	1.88E-03	9.89E-04	6.37E-03	2.33E-03	3.07E-03
R_1	547226.4	5398095.56	Residence		4.21E-07	5.90E-08	3.17E-08	1.37E+00	4.20E-01	3.96E-01	3.42E+00	7.52E-01	5.99E-01	2.93E-04	7.67E-05	5.45E-05	2.80E-02	2.88E-03	1.81E-03	6.07E-03	2.27E-03	3.05E-03
R_10	545421.4	5395953.55	Residence		2.13E-07	3.03E-08	1.57E-08	1.31E+00	3.77E-01	3.38E-01	1.53E+00	3.75E-01	2.92E-01	1.19E-04	3.44E-05	2.48E-05	1.27E-02	1.86E-03	9.81E-04	6.35E-03	2.32E-03	3.07E-03
R_11	545619.4	5395877.55	Residence		2.02E-07	3.02E-08	1.56E-08	1.29E+00	3.87E-01	3.24E-01	1.55E+00	3.71E-01	2.92E-01	1.13E-04	3.39E-05	2.48E-05	1.35E-02	1.78E-03	9.69E-04	6.39E-03	2.33E-03	3.06E-03
R_12	545831.4	5396000.55	Residence		1.95E-07	3.09E-08	1.60E-08	9.91E-01	3.68E-01	3.28E-01	1.70E+00	3.83E-01	3.04E-01	1.21E-04	3.49E-05	2.59E-05	1.53E-02	1.77E-03	9.99E-04	6.18E-03	2.31E-03	3.06E-03
R_13	545806.9	5396173.19	Residence		2.12E-07	3.23E-08	1.66E-08	1.14E+00	4.01E-01	3.44E-01	1.69E+00	3.99E-01	3.15E-01	1.23E-04	3.68E-05	2.70E-05	1.47E-02	1.89E-03	1.04E-03	6.29E-03	2.34E-03	3.07E-03
R_14	545827.1	5396228.86	Residence		2.16E-07	3.27E-08	1.69E-08	1.17E+00	3.97E-01	3.49E-01	1.71E+00	4.05E-01	3.19E-01	1.26E-04	3.73E-05	2.74E-05	1.47E-02	1.92E-03	1.05E-03	6.31E-03	2.33E-03	3.07E-03
R_15	545662.4	5396175.55	Residence		2.20E-07	3.21E-08	1.66E-08	1.54E+00	4.61E-01	3.54E-01	1.58E+00	3.98E-01	3.11E-01	1.26E-04	3.73E-05	2.67E-05	1.29E-02	1.94E-03	1.04E-03	6.58E-03	2.38E-03	3.08E-03
R_16	546254.4	5396484.55	Residence		2.26E-07	3.35E-08	1.78E-08	1.22E+00	3.80E-01	3.52E-01	1.98E+00	4.29E-01	3.45E-01	1.40E-04	4.01E-05	3.00E-05	1.83E-02	1.87E-03	1.12E-03	6.34E-03	2.33E-03	3.07E-03
R_17	546471.4	5396506.55	Residence		2.63E-07	3.19E-08	1.79E-08	1.09E+00	3.61E-01	3.47E-01	2.02E+00	4.43E-01	3.53E-01	1.46E-04	4.07E-05	3.08E-05	1.90E-02	1.85E-03	1.13E-03	6.23E-03	2.31E-03	3.06E-03
R_18	546601.4	5396387.56	Residence		2.76E-07	2.91E-08	1.74E-08	9.58E-01	3.46E-01	3.35E-01	1.92E+00	4.37E-01	3.47E-01	1.45E-04	3.96E-05	3.02E-05	1.81E-02	1.89E-03	1.11E-03	6.14E-03	2.30E-03	3.06E-03
R_19	546856.4	5395580.56	Residence		2.06E-07	2.65E-08	1.53E-08	8.65E-01	2.89E-01	2.99E-01	1.56E+00	3.76E-01	3.02E-01	1.40E-04	3.32E-05	2.57E-05	1.26E-02	1.68E-03	9.72E-04	5.92E-03	2.26E-03	3.04E-03
R_2	547273.4	5398044.56	Residence		4.54E-07	5.76E-08	3.17E-08	1.36E+00	4.20E-01	3.94E-01	3.34E+00	7.47E-01	5.95E-01	2.85E-04	7.66E-05	5.43E-05	2.74E-02	2.92E-03	1.80E-03	6.06E-03	2.27E-03	3.05E-03
R_20	546950.4	5395533.56	Residence		1.96E-07	2.72E-08	1.53E-08	8.58E-01	2.88E-01	2.98E-01	1.55E+00	3.78E-01	3.01E-01	1.42E-04	3.31E-05	2.56E-05	1.22E-02	1.71E-03	9.71E-04	5.91E-03	2.26E-03	3.04E-03
R_21	547201.4	5395415.56	Residence		1.88E-07	2.91E-08	1.54E-08	8.55E-01	2.85E-01	2.95E-01	1.67E+00	3.85E-01	2.99E-01	1.43E-04	3.24E-05	2.54E-05	1.04E-02	1.75E-03	9.68E-04	5.89E-03	2.26E-03	3.04E-03
R_22	548317.4	5399654.57	Residence		5.90E-07	9.25E-08	4.93E-08	2.71E+00	9.55E-01	7.14E-01	5.81E+00	1.53E+00	1.22E+00	7.01E-04	2.38E-04	1.52E-04	3.51E-02	5.99E-03	3.39E-03	6.15E-03	2.31E-03	3.07E-03
R_3	545809.4	5397232.54	Bergagnini Apartment Rental		2.38E-07	3.81E-08	2.10E-08	2.18E+00	7.06E-01	4.88E-01	2.28E+00	5.14E-01	3.96E-01	1.86E-04	4.68E-05	3.45E-05	1.80E-02	2.49E-03	1.32E-03	7.01E-03	2.56E-03	3.17E-03
R_4	546092.4	5396796.55	Residence		2.45E-07	3.68E-08	1.91E-08	1.70E+00	5.42E-01	4.42E-01	1.93E+00	4.64E-01	3.66E-01	1.53E-04	4.40E-05	3.24E-05	1.61E-02	2.21E-03	1.20E-03	6.71E-03	2.44E-03	3.13E-03
R_5	545971.4	5396489.55	Condominium		2.27E-07	3.44E-08	1.77E-08	1.41E+00	4.11E-01	3.72E-01	1.82E+00	4.29E-01	3.38E-01	1.36E-04	3.96E-05	2.94E-05	1.56E-02	2.03E-03	1.11E-03	6.49E-03	2.37E-03	3.09E-03
R_6	545655.4	5396520.55	Residence		2.35E-07	3.40E-08	1.80E-08	2.28E+00	6.54E-01	4.46E-01	1.83E+00	4.32E-01	3.36E-01	1.45E-04	4.23E-05	2.95E-05	1.49E-02	2.13E-03	1.12E-03	7.15E-03	2.52E-03	3.14E-03
R_7	545438.4	5396408.54	I Sew Studio and Residence		2.21E-07	3.18E-08	1.71E-08	2.06E+00	5.87E-01	4.45E-01	1.80E+00	4.11E-01	3.18E-01	1.41E-04	3.97E-05	2.79E-05	1.50E-02	2.05E-03	1.08E-03	6.93E-03	2.47E-03	3.15E-03
R_8	545380.4	5396243.54	Bayview Apartments		2.17E-07	3.09E-08	1.66E-08	1.57E+00	4.92E-01	3.89E-01	1.72E+00	3.95E-01	3.07E-01	1.33E-04	3.74E-05	2.64E-05	1.44E-02	1.98E-03	1.04E-03	6.57E-03	2.40E-03	3.11E-03
R_9	545290.4	5396114.54	Residence		2.12E-07	3.01E-08	1.61E-08	1.31E+00	4.50E-01	3.65E-01	1.67E+00	3.83E-01	2.98E-01	1.28E-04	3.60E-05	2.54E-05	1.40E-02	1.93E-03	1.01E-03	6.38E-03	2.37E-03	3.09E-03
RH_1	546049.4	5395894.55	Peninsula Manor		2.22E-07	2.90E-08	1.57E-08	9.63E-01	3.14E-01	3.16E-01	1.76E+00	3.79E-01	3.03E-01	1.28E-04	3.38E-05	2.58E-05	1.66E-02	1.58E-03	9.82E-04	6.09E-03	2.28E-03	3.05E-03
RH_2	545320.9	5396196.57	Senior's Centre		2.14E-07	3.05E-08	1.64E-08	1.43E+00	4.75E-01	3.79E-01	1.71E+00	3.90E-01	3.02E-01	1.31E-04	3.68E-05	2.60E-05	1.43E-02	1.96E-03	1.03E-03	6.46E-03	2.39E-03	3.10E-03
S_1	546339.4	5396624.55	Holy Saviour School		2.34E-07	3.44E-08	1.83E-08	1.27E+00	3.93E-01	3.65E-01	2.05E+00	4.46E-01	3.58E-01	1.45E-04	4.20E-05	3.13E-05	1.90E-02	1.92E-03	1.16E-03	6.34E-03	2.33E-03	3.08E-03
S_2	545633.4	5396102.55	Confederation College Northshore Campus		2.17E-07	3.16E-08	1.63E-08	1.54E+00	4.40E-01	3.46E-01	1.56E+00	3.91E-01	3.06E-01	1.23E-04	3.64E-05	2.62E-05	1.29E-02	1.91E-03	1.02E-03	6.58E-03	2.37E-03	3.07E-03
S_3	546200.4	5396036.55	Marathon High School		2.39E-07	2.91E-08	1.62E-08	1.02E+00	3.11E-01	3.19E-01	1.82E+00	3.94E-01	3.14E-01	1.33E-04	3.51E-05	2.69E-05	1.72E-02	1.65E-03	1.01E-03	6.12E-03	2.28E-03	3.05E-03
S_4	546261.4	5395967.55	Ecole secondaire Cite-Superieure		2.47E-07	2.78E-08	1.59E-08	9.78E-01	3.05E-01	3.15E-01	1.78E+00	3.91E-01	3.11E-01	1.33E-04	3.45E-05	2.66E-05	1.70E-02	1.66E-03	1.00E-03	6.09E-03	2.28E-03	3.05E-03
S_5	547019.4	5395082.56	Marathon Children and Family Centre		1.89E-07	2.82E-08	1.51E-08	8.31E-01	2.73E-01	2.85E-01	1.56E+00	3.62E-01	2.82E-01	1.35E-04	3.02E-05	2.35E-05	1.02E-02	1.65E-03	9.14E-04	5.93E-03	2.25E-03	3.03E-03

Table F-3 Special Receptor Predictions (ug/m3) - Operations, Cumulative (Project + Background)

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	MAGNESIUM (MG)			MANGANESE (MN)			MERCURY (HG)			MOLYBDENUM (MO)			N2O			NAPHTHALENE			
				Averaging Period	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	10-min	24	month	annual
				Criteria	72	-	-	0.4	-	-	2	-	-	120	-	-	9000	-	-	50	22.5	-	-
				Background Concentration (ug/m3)				1.42E-02	5.48E-03	7.71E-03										2.37E+00	2.39E-01	9.22E-02	9.64E-02
H_1	545937.4	5396169.55	Wilson Memorial General Hospital		1.12E-01	3.96E-02	2.93E-02	1.81E-02	6.71E-03	8.63E-03	7.67E-06	2.49E-06	1.86E-06	4.33E-05	8.87E-06	6.02E-06	1.22E+00	5.78E-01	3.55E-01	2.37E+00	2.39E-01	9.22E-02	9.64E-02
M_1	545694	5403864	PM-10 @ Hare Lake		2.78E-01	8.31E-02	5.05E-02	2.43E-02	8.47E-03	9.52E-03	1.85E-05	5.21E-06	3.06E-06	3.83E-05	1.31E-05	8.15E-06	3.21E-01	9.70E-02	5.72E-02	2.37E+00	2.39E-01	9.22E-02	9.64E-02
M_2	545694	5403873	Dustfall @ Hare Lake		2.77E-01	8.29E-02	5.03E-02	2.43E-02	8.47E-03	9.51E-03	1.84E-05	5.20E-06	3.06E-06	3.79E-05	1.30E-05	8.09E-06	3.21E-01	9.67E-02	5.70E-02	2.37E+00	2.39E-01	9.22E-02	9.64E-02
M_3	547152	5401222	PM-10 @ Mays Gifts		6.64E-01	1.84E-01	1.27E-01	3.82E-02	1.21E-02	1.23E-02	4.56E-05	1.22E-05	8.25E-06	7.20E-05	2.23E-05	1.67E-05	7.19E-01	1.85E-01	1.32E-01	2.37E+00	2.39E-01	9.23E-02	9.64E-02
M_4	547147	5401216	Dustfall @ Mays Gifts		6.60E-01	1.83E-01	1.26E-01	3.81E-02	1.21E-02	1.23E-02	4.53E-05	1.22E-05	8.21E-06	7.16E-05	2.21E-05	1.66E-05	7.14E-01	1.84E-01	1.31E-01	2.37E+00	2.39E-01	9.23E-02	9.64E-02
M_5	551637	5402371	PM-10 @ Pic River		4.35E-01	1.73E-01	1.07E-01	2.98E-02	1.17E-02	1.16E-02	3.05E-05	1.22E-05	7.57E-06	4.34E-05	1.74E-05	1.05E-05	3.80E-01	1.37E-01	8.43E-02	2.37E+00	2.39E-01	9.23E-02	9.64E-02
M_6	551643	5402374	Dustfall @ Pic River		4.33E-01	1.73E-01	1.07E-01	2.97E-02	1.17E-02	1.16E-02	3.03E-05	1.22E-05	7.55E-06	4.32E-05	1.74E-05	1.05E-05	3.82E-01	1.37E-01	8.41E-02	2.37E+00	2.39E-01	9.23E-02	9.64E-02
M_7	549180	5399815	Dustfall @ Airport		2.16E+00	9.61E-01	7.32E-01	9.34E-02	4.07E-02	3.46E-02	1.55E-04	6.89E-05	5.24E-05	1.90E-04	8.55E-05	6.53E-05	4.83E-01	1.71E-01	1.31E-01	2.37E+00	2.39E-01	9.23E-02	9.64E-02
M_8	545863	5397092	Dustfall @ Field Office		1.72E-01	7.60E-02	5.21E-02	1.98E-02	7.12E-03	8.98E-03	1.09E-05	3.88E-06	2.83E-06	1.04E-04	3.53E-05	1.87E-05	5.52E-01	2.92E-01	2.20E-01	2.37E+00	2.39E-01	9.22E-02	9.64E-02
O_1	547181.4	5398014.56	Pic Motel		2.39E-01	6.64E-02	4.90E-02	2.29E-02	7.87E-03	9.44E-03	1.70E-05	4.62E-06	3.35E-06	2.48E-05	7.65E-06	6.03E-06	4.64E-01	1.69E-01	1.29E-01	2.37E+00	2.39E-01	9.22E-02	9.64E-02
O_2	545734.4	5396872.55	Marathon Harbour Inn		2.52E-01	1.50E-01	8.64E-02	1.97E-02	7.60E-03	9.24E-03	1.13E-05	6.23E-06	3.99E-06	1.50E-04	8.59E-05	4.30E-05	1.20E+00	5.54E-01	4.24E-01	2.37E+00	2.39E-01	9.22E-02	9.64E-02
O_3	545885.4	5396448.55	Zero-100 Motor Inn		1.34E-01	4.55E-02	3.38E-02	1.85E-02	6.83E-03	8.71E-03	8.35E-06	2.78E-06	2.06E-06	6.94E-05	1.33E-05	8.34E-06	1.53E+00	6.27E-01	4.88E-01	2.37E+00	2.39E-01	9.22E-02	9.64E-02
O_4	545987.4	5397640.55	OPP Station		1.83E-01	5.29E-02	4.02E-02	2.08E-02	7.18E-03	8.97E-03	1.30E-05	3.34E-06	2.54E-06	6.04E-05	1.59E-05	8.39E-06	4.50E-01	2.08E-01	1.59E-01	2.37E+00	2.39E-01	9.22E-02	9.64E-02
O_5	545876.4	5396072.55	Library		1.06E-01	4.02E-02	2.84E-02	1.79E-02	6.69E-03	8.61E-03	7.37E-06	2.48E-06	1.80E-06	4.06E-05	9.36E-06	5.78E-06	1.05E+00	5.05E-01	3.21E-01	2.37E+00	2.39E-01	9.22E-02	9.64E-02
P_1	546958.4	5396138.56	Penn Lake Park and Campground		1.33E-01	3.66E-02	2.89E-02	1.90E-02	6.72E-03	8.69E-03	9.39E-06	2.46E-06	1.92E-06	2.35E-05	6.89E-06	4.53E-06	1.92E-01	6.88E-02	4.10E-02	2.37E+00	2.39E-01	9.22E-02	9.64E-02
P_2	548538.4	5392862.58	Craig's Pit Provincial Nature Reserve		9.26E-02	2.22E-02	1.41E-02	1.76E-02	6.27E-03	8.21E-03	6.60E-06	1.53E-06	9.67E-07	9.54E-06	2.63E-06	1.66E-06	8.19E-02	1.99E-02	1.24E-02	2.37E+00	2.39E-01	9.22E-02	9.64E-02
P_3	540005	5402014	Red Sucker Point Provincial Park		8.15E-02	2.19E-02	1.25E-02	1.72E-02	6.25E-03	8.14E-03	5.58E-06	1.47E-06	8.26E-07	1.05E-05	2.96E-06	1.89E-06	9.97E-02	2.46E-02	1.32E-02	2.37E+00	2.39E-01	9.22E-02	9.64E-02
P_4	552770	5383776	Pukaskwa National Park		3.64E-02	7.52E-03	4.39E-03	1.55E-02	5.74E-03	7.87E-03	2.60E-06	5.15E-07	3.01E-07	3.63E-06	9.62E-07	5.30E-07	3.86E-02	6.78E-03	4.14E-03	2.37E+00	2.39E-01	9.22E-02	9.64E-02
PR_1	553679.4	5385895.59	Children & Family Learning Centre		3.04E-02	7.54E-03	4.73E-03	1.53E-02	5.74E-03	7.88E-03	2.15E-06	5.16E-07	3.25E-07	3.10E-06	1.00E-06	5.70E-07	3.27E-02	7.74E-03	4.56E-03	2.37E+00	2.39E-01	9.22E-02	9.64E-02
PR_2	554004.4	5385857.59	Pic River Elementary		2.63E-02	6.99E-03	4.58E-03	1.52E-02	5.72E-03	7.87E-03	1.86E-06	4.77E-07	3.14E-07	2.73E-06	9.42E-07	5.54E-07	2.87E-02	7.12E-03	4.41E-03	2.37E+00	2.39E-01	9.22E-02	9.64E-02
PR_3	553836.4	5385603.59	Pic River Private High School		2.85E-02	7.20E-03	4.56E-03	1.52E-02	5.73E-03	7.87E-03	2.01E-06	4.93E-07	3.13E-07	2.91E-06	9.65E-07	5.51E-07	3.10E-02	7.40E-03	4.41E-03	2.37E+00	2.39E-01	9.22E-02	9.64E-02
PR_4	553930.4	5386048.59	Pic River Health Centre		2.72E-02	7.16E-03	4.67E-03	1.52E-02	5.73E-03	7.88E-03	1.92E-06	4.89E-07	3.21E-07	2.81E-06	9.61E-07	5.65E-07	2.93E-02	7.31E-03	4.50E-03	2.37E+00	2.39E-01	9.22E-02	9.64E-02
PR_5	552493.4	5384782.58	BIIDAABAN Healing Lodge		3.99E-02	8.16E-03	4.81E-03	1.56E-02	5.76E-03	7.88E-03	2.84E-06	5.58E-07	3.30E-07	3.99E-06	1.05E-06	5.80E-07	4.17E-02	7.22E-03	4.50E-03	2.37E+00	2.39E-01	9.22E-02	9.64E-02
PR_6	552843.4	5390099.59	Residence		4.69E-02	1.14E-02	7.48E-03	1.59E-02	5.88E-03	7.98E-03	3.33E-06	7.85E-07	5.15E-07	4.71E-06	1.38E-06	9.00E-07	5.07E-02	1.17E-02	7.02E-03	2.37E+00	2.39E-01	9.22E-02	9.64E-02
PR_7	553761.4	5387705.59	Residence		2.88E-02	7.97E-03	5.40E-03	1.52E-02	5.76E-03	7.90E-03	2.03E-06	5.49E-07	3.70E-07	3.23E-06	1.04E-06	6.56E-07	3.19E-02	8.04E-03	5.16E-03	2.37E+00	2.39E-01	9.22E-02	9.64E-02
PS_1	545001.3	5404050.49	North Hare Lake Cottage		1.95E-01	6.40E-02	3.78E-02	2.13E-02	7.79E-03	9.06E-03	1.32E-05	4.12E-06	2.40E-06	2.78E-05	9.61E-06	5.43E-06	2.53E-01	7.31E-02	4.15E-02	2.37E+00	2.39E-01	9.22E-02	9.64E-02
PS_2	544331.3	5403100.49	South Hare Lake Cottage		2.13E-01	5.68E-02	3.20E-02	2.21E-02	7.53E-03	8.85E-03	1.48E-05	3.69E-06	2.05E-06	2.66E-05	7.59E-06	4.48E-06	2.44E-01	6.27E-02	3.40E-02	2.37E+00	2.39E-01	9.22E-02	9.64E-02
PS_3	547056.1	5401003.77	May's Gifts		5.85E-01	1.60E-01	1.10E-01	3.54E-02	1.13E-02	1.17E-02	4.05E-05	1.08E-05	7.21E-06	6.15E-05	1.89E-05	1.39E-05	5.84E-01	1.58E-01	1.11E-01	2.37E+00	2.39E-01	9.23E-02	9.64E-02
PS_4	546811.4	5400952.54	Wayfare Inn		5.35E-01	1.46E-01	9.90E-02	3.35E-02	1.07E-02	1.13E-02	3.69E-05	9.65E-06	6.44E-06	5.74E-05	1.79E-05	1.31E-05	5.65E-01	1.47E-01	1.03E-01	2.37E+00	2.39E-01	9.23E-02	9.64E-02
PS_5	546996.4	5401027.54	Peninsula Inn		5.83E-01	1.60E-01	1.09E-01	3.53E-02	1.13E-02	1.16E-02	4.02E-05	1.07E-05	7.13E-06	6.20E-05	1.92E-05	1.41E-05	6.00E-01	1.58E-01	1.12E-01	2.37E+00	2.39E-01	9.23E-02	9.64E-02
PS_6	548471.4	5399488.57	Travelodge Hotel		8.72E-01	2.93E-01	1.82E-01	4.61E-02	1.62E-02	1.43E-02	6.24E-05	2.09E-05	1.29E-05	7.90E-05	2.70E-05	1.72E-05	4.42E-01	1.48E-01	1.13E-01	2.37E+00	2.39E-01	9.22E-02	9.64E-02
PS_7	546903.4	5401055.54	The Laughing Mooz Eatery Restaurant and Residence		5.72E-01	1.58E-01	1.08E-01	3.49E-02	1.12E-02	1.16E-02	3.93E-05	1.04E-05	6.97E-06	6.19E-05	1.96E-05	1.44E-05	6.14E-01	1.59E-01	1.12E-01	2.37E+00	2.39E-01	9.23E-02	9.64E-02
PW_1	545777.4	5397150.54	Kingdom Hall of Jehovah's Witnesses		2.18E-01	8.63E-02	5.29E-02	1.99E-02	7.12E-03	8.98E-03	1.12E-05	4.12E-06	2.86E-06	1.32E-04	4.06E-05	1.92E-05	5.49E-01	2.36E-01	1.85E-01	2.37E+00	2.39E-01	9.22E-02	9.64E-02
PW_2	546331.4	5395941.55	Parkland Pentecostal Church		1.19E-01	3.32E-02	2.67E-02	1.83E-02	6.60E-03	8.60E-03	8.17E-06	2.20E-06	1.75E-06	2.93E-05	6.58E-06	4.51E-06	2.37E-01	9.06E-02	6.13E-02	2.37E+00	2.39E-01	9.22E-02	9.64E-02
PW_3	545857.4	5395714.55	St. John's United Church		1.02E-01	3.58E-02	2.51E-02	1.78E-02	6.57E-03	8.53E-03	7.16E-06	2.22E-06	1.62E-06	3.09E-05	8.15E-06	4.65E-06	3.14E-01	1.15E-01	8.73E-02	2.37E+00	2.39E-01	9.22E-02	9.64E-02
PW_4	545425	5396043.49	Holy Saviour Roman Catholic Church		1.31E-01	4.38E-02	2.95E-02	1.81E-02	6.71E-03	8.58E-03	7.73E-06	2.60E-06	1.80E-06	6.22E-05	1.22E-05	7.28E-06	2.22E+00	1.01E+00	7.97E-01	2.37E+00	2.39E-01	9.22E-02	9.64E-02
PW_5	545390.4	5395988.55	Anglican Church-Trinity		1.24E-01	4.25E-02	2.84E-02	1.80E-02	6.69E-03	8.57E-03	7.62E-06	2.54E-06	1.75E-06	5.76E-05	1.15E-05	6.66E-06	3.05E+00	1.27E+00	8.63E-01	2.37E+00	2.39E-01	9.22E-02	9.64E-02
R_1	547226.4	5398095.56	Residence		2.55E-01	6.89E-02	5.04E-02	2.35E-02	7.96E-03	9.50E-03	1.81E-05	4.81E-06	3.45E-06	2.56E-05	7.47E-06	6.04E-06	6.50E-01	2.89E-01	2.13E-01	2.37E+00	2.39E-01	9.22E-02	9.64E-02
R_10	545421.4	5395953.55	Residence		1.22E-01	4.11E-02	2.80E-02	1.80E-02	6.66E-03	8.56E-03	7.44E-06	2.47E-06	1.73E-06	5.59E-05	1.08E-05	6.48E-06	4.41E+00	1.65E+00	1.22E+00	2.37E+00	2.39E-01	9.22E-02	9.64E-02
R_11	545619.4	5395877.55	Residence		1.12E-01	4.18E-02	2.67E-02	1.78E-02	6.66E-03	8.55E-03	7.09E-06	2.48E-06	1.69E-06	6.04E-05	1.15E-05	5.54E-06	1.25E+00	4.79E-01	3.83E-01	2.37E+00	2.39E-01	9.22E-02	9.64E-02
R_12	545831.4	5396000.55	Residence		1.05E-01	4.06E-02	2.77E-02	1.79E-02	6.68E-03	8.59E-03	7.19E-06	2.47E-06	1.76E-06	4.04E-05	1.01E-05	5.62E-06	8.53E-01	4.23E-01	2.81E-01	2.37E+00	2.39E-01	9.22E-02	9.64E-02
R_13	545806.9	5396173.19	Residence		1.11E-01	4.48E-02	2.99E-02	1.81E-02	6.76E-03	8.63E-03	7.57E-06	2.67E-06	1.87E-06	5.02E-05	1.21E-05	6.62E-06	1.84E+00	8.95E-01	7.19E-01	2.37E+00	2.39E-01	9.22E-02	9.64E-02
R_14	545827.1	5396228.86	Residence		1.12E-01	4.47E-02	3.06E-02	1.82E-02	6.77E-03	8.65E-03	7.72E-06	2.69E-06	1.90E-06	5.20E-05	1.17E-05	6.86E-06	1.29E+00	5.92E-01	4.83E-01	2.37E+00	2.39E-01	9.22E-02	9.64E-02
R_15	545662.4	5396175.55	Residence		1.29E-01	5.07E-02	3.07E-02	1.81E-02	6.81E-03	8.63E-03	7.85E-06	2.88E-06	1.88E-06	7.73E-05	1.61E-05	7.36E-06	7.42E-01	3.53E-01	2.73E-01	2.37E+00	2.39E-01	9.22E-02	9.64E-02
R_16	546254.4	5396484.55	Residence		1.28E-01	4.13E-02	3.24E-02	1.85E-02	6.81E-03	8.73E-03	8.66E-06	2.68E-06	2.05E-06	5.50E-05	1.13E-05	6.71E-06	3.66E-01	1.69E-01	1.05E-01	2.37E+00	2.39E-01	9.22E-02	9.64E-02
R_17	546471.4	5396506.55	Residence		1.31E-01	4.16E-02	3.23E-02	1.87E-02	6.83E-03	8.75E-03	9.00E-06	2.71E-06	2.07E-06	4.54E-05	9.78E-06	6.20E-06	2.82E-01	1.16E-01	7.26E-02	2.37E+00	2.39E-01	9.22E-02	9.64E-02
R_18	546601.4	5396387.56	Residence		1.29E-01	3.96E-02	3.09E-02	1.87E-02	6.79E-03	8.72E-03	8.93E-06	2.61E-06	2.01E-06	3.70E-05	8.71E-06	5.49E-06	2.38E-01	9.71E-02	6.08E-02	2.37E+00	2.39E-01	9.22E-02	9.64E-02
R_19	546856.4	5395580.56	Residence		1.19E-01	3.07E-02	2.48E-02	1.85E-02	6.55E-03	8.56E-03	8.43E-06	2.10E-06	1.66E-06	1.84E-05	5.15E-06	3.65E-06	1.73E-01	4.67E-02	3.13E-02	2.37E+00	2.39E-01	9.22E-02	9.64E-02
R_2	547273.4	5398044.56	Residence		2.51E-01	6.88E-02	5.01E-02	2.33E-02	7.95E-03	9.49E-03	1.76E-05	4.80E-06	3.44E-06	2.60E-05	7.30E-06	5.95E-06	3.83E-01	1.33E-01	9.95E-02	2.37E+00	2.39E-01	9.22E-02	9.64E-02
R_20	546950.4	5395533.56	Residence		1.20E-01	3.07E-02	2.46E-02	1.86E-02	6.54E-03	8.55E-03	8.52E-06	2.09E-06	1.65E-06	1.63E-05	5.08E-06	3.57E-06	1.54E-01	4.28E-02	2.96E-02	2.37E+00	2.39E-01	9.22E-02	9.64E-02
R_21	547201.4	5395415.56	Residence		1.20E-01	3.09E-02	2.42E-02	1.86E-02	6.53E-03	8.55E-03	8.55E-06	2.06E-06	1.63E-06	1.49E-05	4.83E-06	3.41E-06	1.28E-01	3.66E-02	2.62E-02	2.37E+00	2.39E-01	9.22E-02	9.64E-02
R_22	548317.4	5399654.57	Residence		6.01E-01	2.09E-01	1.35E-01	3.61E-02	1.31E-02	1.26E-02	4.28E-05	1.48E-05	9.50E-06	5.70E-05	1.98E-05	1.31E-05	3.93E-01	1.09E-01	8.14E-02	2.37E+00	2.39E-01	9.22E-02	9.64E-02
R_3	545809.4	5397232.54	Bergagnini Apartment Rental		1.96E-01	7.52E-02	4.79E-02	2.01E-02	7.06E-03	8.95E-03	1.15E-05	3.74E-06	2.70E-06	1.17E-04	3.28E-05	1.55E-05	5.84E-01	2.45E-01	1.91E-01	2.37E+00	2.39E-01	9.22E-02	9.64E-02
R_4	546092.4	5396796.55	Residence		1.45E-01	6.00E-02	4.23E-02	1.90E-02	6.99E-03	8.86E-03	9.39E-06	3.28E-06	2.45E-06	8.80E-05	2.17E-05	1.26E-05	3.68E-01	1.79E-01	1.19E-01	2.37E+00	2.39E-01	9.22E-02	9.64E-02
R_5	545971.4	5396489.55	Condominium		1.19E-01	4.34E-02	3.39E-02	1.85E-02	6.82E-03	8.72E-03	8.35E-06	2.72E-06	2.08E-06	6.85E-05	1.48E-05	8.21E-06	1.27E+00	6.84E-01	4.80E-01	2.37E+00	2.39E-01	9.22E-02	9.64E-02
R_6	545655.4	5396520.55	Residence		1.92E-01	7.18E-02	4.10E-02	1.88E-02	7.08E-03	8.77E-03	9.56E-06	3.73E-06	2.31E-06	1.28E-04	2.87E-05	1.33E-05	5.35E-01	2.20E-01	1.76E-01	2.37E+00	2.39E-01	9.22E-02	9.64E-02
R_7	545438.4	5396408.54	I Sew Studio and Residence		1.88E-01	6.40E-02	4.00E-02	1.88E-02	6.96E-03	8.72E-03	9.23E-06	3.40E-06	2.22E-06	1.08E-04	2.44E-05	1.34E-05	1.34E+00	6.73E-01	5.06E-01	2.37E+00	2.39E-01	9.22E-02	9.64E-02
R_8	545380.4	5396243.54	Bayview Apartments		1.40E-01	5.37E-02	3.39E-02	1.85E-02	6.83E-03	8.64E-03	8.60E-06	2.99E-06	1.98E-06	7.53E-05	1.82E-05	9.82E-06	1.28E+00	6.40E-01	4.92E-01	2.37E+00	2.39E-01	9.22E-02	9.64E-02
R_9	545290.4	5396114.54	Residence		1.25E-01	4.89E-02	3.10E-02	1.83E-02	6.76E-03	8.60E-03	8.30E-06	2.78E-06	1.85E-06	5.76E-05	1.55E-05	8.28E-06	9.61E-01	4.13E-01	2.75E-01	2.37E+00	2.39E-01	9.22E-02	9.64E-02
RH_1	546049.4	5395894.55	Peninsula Manor		1.12E-01	3.44E-02	2.65E-02	1.81E-02	6.60E-03	8.57E-03	7.77E-06	2.22E-06	1.72E-06	3.21E-05	6.92E-06	4.81E-06	4.59E-01	1.42E-01	8.98E-02	2.37E+00	2.39E-01	9.22E-02	9.64E-02
RH_2	545320.9	5396196.57	Senior's Centre		1.29E-01	5.17E-02	3.26E-02	1.84E-02	6.80E-03	8.62E-03	8.52E-06	2.90E-06	1.92E-06	6.56E-05	1.71E-05	9.16E-06	1.53E+00	6.93E-01	5.02E-01	2.37E+00	2.39E-01	9.22E-02	9.64E-02
S_1	546339.4	5396624.55	Holy Saviour School		1.33E-01	4.47E-02	3.43E-02	1.87E-02	6.88E-03	8.78E-03	8.97E-06	2.84E-06	2.16E-06	5.53E-05	1.13E-05	7.36E-06	2.84E-01	1.33E-01	8.47E-02	2.37E+00	2.39E-01	9.22E-02	9.64E-02
S_2	545633.4	5396102.55	Confederation College Northshore Campus		1.26E-01	4.82E-02	2.96E-02	1.81E-02	6.77E-03	8.61E-03	7.67E-06	2.77E-06	1.83E-06	7.71E-05	1.48E-05	6.86E-06	9.94E-01	5.19E-01	3.89E-01	2.37E+00	2.39E-01	9.22E-02	9.64E-02
S_3	546200.4	5396036.55	Marathon High School		1.19E-01	3.47E-02	2.75E-02	1.83E-02	6.63E-03	8.61E-03	8.17E-06	2.27E-06	1.79E-06	3.53E-05	7.01E-06	4.90E-06	3.13E-01	1.38E-01	8.59E-02	2.37E+00	2.39E-01	9.22E-02	9.64E-02
S_4	546261.4	5395967.55	Ecole secondaire Cite-Superieure		1.19E-01	3.37E-02	2.69E-02	1.83E-02	6.61E-03	8.60E-03	8.16E-06	2.21E-06	1.76E-06	3.23E-05	6.75E-06	4.64E-06	2.69E-01	1.05E-01	6.99E-02	2.37E+00	2.39E-01	9.22E-02	9.64E-02
S_5	547019.4	5395082.56	Marathon Children and Family Centre		1.14E-01	2.84E-02	2.22E-02	1.83E-02	6.45E-03	8.48E-03	8.09E-06	1.90E-06	1.50E-06	1.86E-05	4.51E-06	3.00E-06	1.12E-01	3.16E-02	2.23E-02	2.37E+00	2.39E-01	9.22E-02	9.64E-02

Table F-3 Special Receptor Predictions (ug/m3) - Operations, Cumulative (Project + Background)

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	NICKEL (NI)		NITRIC ACID (HNO3)			NON-METHANE HYDROCARBONS			NO2 (See Note 3)			PALLADIUM (PD)			PHENANTHRENE			PHOSPHOROUS (P)		
				Averaging Period	24	annual	24	month	annual	24	month	annual	1	24	annual	24	month	annual	24	month	annual	24	month	annual
				Criteria	0.2	0.04	35	-	-	-	-	-	400	200	-	10	-	-	-	-	-	-	-	-
				Background Concentration (ug/m3)	2.60E-03	1.00E-03							6.34E+01	3.17E+01	1.74E+01				7.86E-03	3.03E-03	4.59E-03			
H_1	545937.4	5396169.55	Wilson Memorial General Hospital		1.45E-02	2.18E-03	1.03E-03	1.27E-04	7.60E-05	4.88E+00	2.32E+00	1.41E+00	1.29E+02	4.54E+01	2.22E+01	1.16E-04	1.79E-05	1.01E-05	1.30E-02	5.46E-03	6.07E-03	1.01E-02	3.14E-03	2.36E-03
M_1	545694	5403864	PM-10 @ Hare Lake		5.21E-03	1.53E-03	2.72E-03	4.27E-04	2.61E-04	7.81E-01	2.28E-01	1.31E-01	1.23E+02	4.44E+01	1.95E+01	1.39E-05	2.70E-06	1.61E-06	8.82E-03	3.31E-03	4.75E-03	2.64E-02	8.06E-03	4.87E-03
M_2	545694	5403873	Dustfall @ Hare Lake		5.20E-03	1.53E-03	2.72E-03	4.30E-04	2.62E-04	7.80E-01	2.27E-01	1.30E-01	1.23E+02	4.44E+01	1.95E+01	1.39E-05	2.70E-06	1.61E-06	8.82E-03	3.31E-03	4.75E-03	2.62E-02	8.04E-03	4.85E-03
M_3	547152	5401222	PM-10 @ Mays Gifts		7.87E-03	2.09E-03	5.25E-03	8.54E-04	4.24E-04	1.23E+00	3.74E-01	2.81E-01	1.41E+02	5.36E+01	2.19E+01	1.60E-05	4.08E-06	2.46E-06	9.42E-03	3.49E-03	4.93E-03	6.37E-02	1.78E-02	1.23E-02
M_4	547147	5401216	Dustfall @ Mays Gifts		7.84E-03	2.08E-03	5.22E-03	8.50E-04	4.22E-04	1.22E+00	3.72E-01	2.80E-01	1.41E+02	5.35E+01	2.19E+01	1.61E-05	4.09E-06	2.47E-06	9.41E-03	3.49E-03	4.93E-03	6.34E-02	1.77E-02	1.22E-02
M_5	551637	5402371	PM-10 @ Pic River		6.48E-03	1.84E-03	7.08E-03	1.17E-03	4.68E-04	7.04E-01	2.34E-01	1.50E-01	1.40E+02	4.49E+01	2.03E+01	1.49E-05	4.65E-06	2.10E-06	8.73E-03	3.33E-03	4.78E-03	4.14E-02	1.66E-02	1.03E-02
M_6	551643	5402374	Dustfall @ Pic River		6.46E-03	1.83E-03	7.08E-03	1.17E-03	4.67E-04	7.01E-01	2.34E-01	1.50E-01	1.40E+02	4.49E+01	2.03E+01	1.48E-05	4.64E-06	2.10E-06	8.72E-03	3.32E-03	4.78E-03	4.12E-02	1.65E-02	1.03E-02
M_7	549180	5399815	Dustfall @ Airport		1.48E-02	5.32E-03	3.49E-03	5.41E-04	2.67E-04	1.07E+00	4.46E-01	3.46E-01	1.47E+02	4.45E+01	2.10E+01	1.41E-05	4.98E-06	3.13E-06	9.15E-03	3.56E-03	5.00E-03	2.10E-01	9.36E-02	7.12E-02
M_8	545863	5397092	Dustfall @ Field Office		3.18E-02	5.66E-03	1.18E-03	1.68E-04	9.30E-05	2.11E+00	1.11E+00	8.22E-01	1.32E+02	3.93E+01	2.03E+01	2.83E-04	9.05E-05	4.38E-05	1.01E-02	4.22E-03	5.47E-03	1.48E-02	3.93E-03	2.96E-03
O_1	547181.4	5398014.56	Pic Motel		5.86E-03	1.68E-03	1.88E-03	2.12E-04	1.33E-04	1.53E+00	6.13E-01	4.54E-01	1.44E+02	4.05E+01	1.96E+01	3.07E-05	8.11E-06	3.95E-06	9.53E-03	3.68E-03	5.08E-03	2.31E-02	6.32E-03	4.57E-03
O_2	545734.4	5396872.55	Marathon Harbour Inn		4.46E-02	1.26E-02	1.12E-03	1.58E-04	8.70E-05	4.31E+00	1.98E+00	1.51E+00	1.38E+02	4.43E+01	2.15E+01	4.08E-04	2.30E-04	1.12E-04	1.26E-02	5.23E-03	6.27E-03	1.38E-02	3.84E-03	3.04E-03
O_3	545885.4	5396448.55	Zero-100 Motor Inn		2.21E-02	2.81E-03	9.53E-04	1.41E-04	8.00E-05	5.60E+00	2.32E+00	1.80E+00	1.39E+02	4.71E+01	2.24E+01	1.90E-04	3.15E-05	1.61E-05	1.40E-02	5.57E-03	6.56E-03	1.13E-02	3.40E-03	2.51E-03
O_4	545987.4	5397640.55	OPP Station		1.91E-02	2.65E-03	1.33E-03	1.92E-04	1.07E-04	1.61E+00	7.84E-01	5.90E-01	1.32E+02	4.03E+01	1.98E+01	1.59E-04	3.41E-05	1.41E-05	9.56E-03	3.86E-03	5.22E-03	1.76E-02	4.45E-03	3.23E-03
O_5	545876.4	5396072.55	Library		1.39E-02	2.12E-03	9.97E-04	1.24E-04	7.40E-05	4.13E+00	1.99E+00	1.27E+00	1.31E+02	4.34E+01	2.16E+01	1.10E-04	1.73E-05	9.59E-06	1.22E-02	5.13E-03	5.92E-03	9.80E-03	3.07E-03	2.30E-03
P_1	546958.4	5396138.56	Penn Lake Park and Campground		9.01E-03	1.72E-03	9.66E-04	1.29E-04	7.90E-05	6.36E-01	2.19E-01	1.20E-01	1.26E+02	3.70E+01	1.83E+01	6.18E-05	1.09E-05	5.48E-06	8.57E-03	3.27E-03	4.73E-03	1.27E-02	3.25E-03	2.54E-03
P_2	548538.4	5392862.58	Craig's Pit Provincial Nature Reserve		4.32E-03	1.18E-03	6.77E-04	9.00E-05	4.20E-05	2.05E-01	4.51E-02	2.69E-02	1.16E+02	3.55E+01	1.79E+01	1.58E-05	2.35E-06	9.16E-07	8.12E-03	3.09E-03	4.62E-03	8.74E-03	2.08E-03	1.32E-03
P_3	540005	5402014	Red Sucker Point Provincial Park		4.55E-03	1.25E-03	5.50E-04	1.07E-04	5.40E-05	2.46E-01	5.88E-02	3.03E-02	9.02E+01	3.58E+01	1.79E+01	1.76E-05	3.46E-06	1.76E-06	8.16E-03	3.10E-03	4.63E-03	7.76E-03	2.03E-03	1.13E-03
P_4	552770	5383776	Pukaskwa National Park		3.12E-03	1.06E-03	1.97E-04	3.30E-05	1.60E-05	9.98E-02	1.59E-02	9.16E-03	9.77E+01	3.34E+01	1.76E+01	4.51E-06	8.07E-07	3.38E-07	7.98E-03	3.05E-03	4.60E-03	3.46E-03	6.87E-04	4.08E-04
PR_1	553679.4	5385895.59	Children & Family Learning Centre		3.19E-03	1.06E-03	1.71E-04	3.10E-05	1.70E-05	9.13E-02	1.88E-02	1.03E-02	8.88E+01	3.31E+01	1.76E+01	5.19E-06	8.94E-07	3.51E-07	7.97E-03	3.06E-03	4.60E-03	2.90E-03	6.84E-04	4.40E-04
PR_2	554004.4	5385857.59	Pic River Elementary		3.19E-03	1.06E-03	1.78E-04	3.00E-05	1.60E-05	8.05E-02	1.72E-02	9.91E-03	8.30E+01	3.30E+01	1.76E+01	5.27E-06	8.55E-07	3.43E-07	7.96E-03	3.05E-03	4.60E-03	2.52E-03	6.34E-04	4.27E-04
PR_3	553836.4	5385603.59	Pic River Private High School		3.17E-03	1.06E-03	1.70E-04	3.00E-05	1.60E-05	8.74E-02	1.80E-02	9.92E-03	8.71E+01	3.30E+01	1.76E+01	4.97E-06	8.67E-07	3.41E-07	7.97E-03	3.05E-03	4.60E-03	2.72E-03	6.53E-04	4.25E-04
PR_4	553930.4	5386048.59	Pic River Health Centre		3.21E-03	1.06E-03	1.80E-04	3.10E-05	1.70E-05	8.21E-02	1.77E-02	1.01E-02	8.40E+01	3.30E+01	1.76E+01	5.40E-06	8.67E-07	3.49E-07	7.96E-03	3.05E-03	4.60E-03	2.59E-03	6.50E-04	4.35E-04
PR_5	552493.4	5384782.58	BIIDAABAN Healing Lodge		3.15E-03	1.07E-03	2.27E-04	3.60E-05	1.80E-05	1.03E-01	1.70E-02	9.92E-03	9.78E+01	3.35E+01	1.76E+01	4.82E-06	9.06E-07	3.69E-07	7.99E-03	3.05E-03	4.60E-03	3.78E-03	7.45E-04	4.47E-04
PR_6	552843.4	5390099.59	Residence		3.44E-03	1.10E-03	2.73E-04	4.70E-05	2.60E-05	1.29E-01	2.84E-02	1.58E-02	8.99E+01	3.37E+01	1.77E+01	7.74E-06	1.26E-06	5.59E-07	8.02E-03	3.07E-03	4.61E-03	4.47E-03	1.05E-03	6.97E-04
PR_7	553761.4	5387705.59	Residence		3.21E-03	1.07E-03	2.08E-04	3.50E-05	1.90E-05	9.03E-02	1.93E-02	1.16E-02	8.40E+01	3.32E+01	1.76E+01	5.33E-06	8.76E-07	4.16E-07	7.97E-03	3.06E-03	4.60E-03	2.75E-03	7.42E-04	5.03E-04
PS_1	545001.3	5404050.49	North Hare Lake Cottage		4.37E-03	1.39E-03	2.19E-03	3.31E-04	2.01E-04	6.24E-01	1.72E-01	9.28E-02	1.17E+02	4.17E+01	1.89E+01	1.30E-05	2.19E-06	1.33E-06	8.62E-03	3.24E-03	4.70E-03	1.86E-02	6.19E-03	3.62E-03
PS_2	544331.3	5403100.49	South Hare Lake Cottage		4.47E-03	1.34E-03	1.85E-03	2.73E-04	1.45E-04	5.86E-01	1.45E-01	7.58E-02	1.15E+02	4.12E+01	1.87E+01	1.13E-05	2.02E-06	1.26E-06	8.58E-03	3.21E-03	4.68E-03	2.01E-02	5.47E-03	3.05E-03
PS_3	547056.1	5401003.77	May's Gifts		7.16E-03	1.96E-03	4.28E-03	7.82E-04	3.84E-04	1.02E+00	3.19E-01	2.32E-01	1.39E+02	5.13E+01	2.12E+01	1.83E-05	4.28E-06	2.52E-06	9.13E-03	3.42E-03	4.87E-03	5.62E-02	1.55E-02	1.06E-02
PS_4	546811.4	5400952.54	Wayfare Inn		6.87E-03	1.91E-03	4.25E-03	6.86E-04	3.38E-04	9.86E-01	3.15E-01	2.22E-01	1.39E+02	5.04E+01	2.10E+01	2.09E-05	4.39E-06	2.55E-06	9.11E-03	3.42E-03	4.86E-03	5.13E-02	1.41E-02	9.54E-03
PS_5	546996.4	5401027.54	Peninsula Inn		7.19E-03	1.97E-03	4.45E-03	7.63E-04	3.76E-04	1.08E+00	3.29E-01	2.37E-01	1.39E+02	5.14E+01	2.13E+01	1.87E-05	4.29E-06	2.51E-06	9.17E-03	3.44E-03	4.88E-03	5.59E-02	1.54E-02	1.05E-02
PS_6	548471.4	5399488.57	Travelodge Hotel		7.91E-03	2.24E-03	2.29E-03	4.16E-04	2.50E-04	1.22E+00	4.11E-01	3.18E-01	1.42E+02	4.30E+01	1.99E+01	1.41E-05	3.54E-06	2.20E-06	9.28E-03	3.50E-03	4.95E-03	8.46E-02	2.85E-02	1.76E-02
PS_7	546903.4	5401055.54	The Laughing Mooz Eatery Restaurant and Residence		7.18E-03	1.96E-03	4.59E-03	7.28E-04	3.60E-04	1.13E+00	3.44E-01	2.45E-01	1.39E+02	5.15E+01	2.14E+01	1.91E-05	4.25E-06	2.49E-06	9.23E-03	3.45E-03	4.89E-03	5.49E-02	1.53E-02	1.04E-02
PW_1	545777.4	5397150.54	Kingdom Hall of Jehovah's Witnesses		3.97E-02	5.82E-03	1.20E-03	1.69E-04	9.40E-05	2.00E+00	8.84E-01	6.88E-01	1.35E+02	4.07E+01	1.99E+01	3.60E-04	1.04E-04	4.53E-05	1.00E-02	3.97E-03	5.33E-03	1.51E-02	3.95E-03	2.97E-03
PW_2	546331.4	5395941.55	Parkland Pentecostal Church		9.78E-03	1.76E-03	1.08E-03	1.17E-04	7.30E-05	8.82E-01	3.08E-01	2.02E-01	1.23E+02	3.79E+01	1.85E+01	6.69E-05	1.17E-05	6.04E-06	8.82E-03	3.37E-03	4.81E-03	1.07E-02	2.95E-03	2.30E-03
PW_3	545857.4	5395714.55	St. John's United Church		1.11E-02	1.84E-03	9.89E-04	1.09E-04	6.80E-05	1.08E+00	4.13E-01	3.05E-01	1.19E+02	3.78E+01	1.87E+01	8.27E-05	1.48E-05	6.96E-06	9.04E-03	3.48E-03	4.92E-03	9.50E-03	2.77E-03	2.11E-03
PW_4	545425	5396043.49	Holy Saviour Roman Catholic Church		1.92E-02	2.58E-03	8.86E-04	1.30E-04	7.20E-05	7.96E+00	3.56E+00	2.83E+00	1.32E+02	4.98E+01	2.44E+01	1.58E-04	2.55E-05	1.41E-05	1.67E-02	7.02E-03	7.75E-03	1.02E-02	3.03E-03	2.19E-03
PW_5	545390.4	5395988.55	Anglican Church-Trinity		1.79E-02	2.40E-03	8.76E-04	1.29E-04	7.10E-05	1.10E+01	4.54E+00	3.07E+00	1.33E+02	5.60E+01	2.46E+01	1.46E-04	2.37E-05	1.24E-05	2.01E-02	8.09E-03	8.02E-03	1.00E-02	2.99E-03	2.16E-03
R_1	547226.4	5398095.56	Residence		5.68E-03	1.65E-03	1.93E-03	2.19E-04	1.37E-04	2.28E+00	1.10E+00	7.95E-01	1.45E+02	4.25E+01	2.06E+01	2.74E-05	7.17E-06	3.55E-06	1.03E-02	4.19E-03	5.43E-03	2.46E-02	6.57E-03	4.72E-03
R_10	545421.4	5395953.55	Residence		1.73E-02	2.36E-03	8.54E-04	1.28E-04	7.10E-05	1.60E+01	5.97E+00	4.41E+00	1.45E+02	6.52E+01	2.75E+01	1.41E-04	2.17E-05	1.19E-05	2.56E-02	9.65E-03	9.48E-03	9.86E-03	2.95E-03	2.15E-03
R_11	545619.4	5395877.55	Residence		1.93E-02	2.09E-03	8.66E-04	1.23E-04	7.00E-05	4.67E+00	1.78E+00	1.43E+00	1.41E+02	4.51E+01	2.14E+01	1.62E-04	2.38E-05	9.33E-06	1.29E-02	4.97E-03	6.14E-03	9.37E-03	2.92E-03	2.15E-03
R_12	545831.4	5396000.55	Residence		1.38E-02	2.09E-03	9.77E-04	1.22E-04	7.30E-05	3.29E+00	1.63E+00	1.08E+00	1.32E+02	4.27E+01	2.09E+01	1.09E-04	1.95E-05	9.27E-06	1.13E-02	4.77E-03	5.74E-03	9.58E-03	3.01E-03	2.25E-03
R_13	545806.9	5396173.19	Residence		1.66E-02	2.35E-03	9.44E-04	1.31E-04	7.50E-05	7.59E+00	3.64E+00	2.95E+00	1.44E+02	5.49E+01	2.63E+01	1.36E-04	2.46E-05	1.18E-05	1.57E-02	6.82E-03	7.64E-03	1.02E-02	3.17E-03	2.34E-03
R_14	545827.1	5396228.86	Residence		1.72E-02	2.42E-03	9.50E-04	1.33E-04	7.60E-05	5.22E+00	2.41E+00	1.95E+00	1.40E+02	4.81E+01	2.34E+01	1.41E-04	2.34E-05	1.24E-05	1.33E-02	5.53E-03	6.62E-03	1.04E-02	3.22E-03	2.37E-03
R_15	545662.4	5396175.55	Residence		2.41E-02	2.57E-03	8.53E-04	1.33E-04	7.50E-05	2.84E+00	1.32E+00	1.03E+00	1.29E+02	4.06E+01	2.07E+01	2.08E-04	3.59E-05	1.39E-05	1.09E-02	4.46E-03	5.70E-03	1.04E-02	3.20E-03	2.31E-03
R_16	546254.4	5396484.55	Residence		1.80E-02	2.32E-03	1.18E-03	1.30E-04	8.10E-05	1.35E+00	6.10E-01	3.68E-01	1.25E+02	3.89E+01	1.90E+01	1.49E-04	2.35E-05	1.14E-05	9.31E-03	3.69E-03	4.99E-03	1.11E-02	3.44E-03	2.60E-03
R_17	546471.4	5396506.55	Residence		1.53E-02	2.16E-03	1.23E-03	1.31E-04	8.30E-05	9.96E-01	4.04E-01	2.40E-01	1.24E+02	3.82E+01	1.87E+01	1.23E-04	1.91E-05	9.76E-06	8.94E-03	3.47E-03	4.85E-03	1.17E-02	3.49E-03	2.66E-03
R_18	546601.4	5396387.56	Residence		1.29E-02	1.97E-03	1.18E-03	1.30E-04	8.10E-05	8.72E-01	3.30E-01	1.96E-01	1.23E+02	3.79E+01	1.85E+01	9.94E-05	1.60E-05	7.92E-06	8.81E-03	3.39E-03	4.81E-03	1.17E-02	3.39E-03	2.62E-03
R_19	546856.4	5395580.56	Residence		7.24E-03	1.54E-03	8.50E-04	1.16E-04	7.10E-05	5.14E-01	1.42E-01	8.65E-02	1.24E+02	3.63E+01	1.82E+01	4.38E-05	7.33E-06	3.91E-06	8.45E-03	3.19E-03	4.69E-03	1.13E-02	2.81E-03	2.22E-03
R_2	547273.4	5398044.56	Residence		5.45E-03	1.64E-03	1.91E-03	2.19E-04	1.36E-04	1.19E+00	4.57E-01	3.30E-01	1.44E+02	4.01E+01	1.93E+01	2.67E-05	6.71E-06	3.41E-06	9.18E-03	3.52E-03	4.95E-03	2.42E-02	6.56E-03	4.70E-03
R_20	546950.4	5395533.56	Residence		6.82E-03	1.52E-03	8.22E-04	1.17E-04	7.10E-05	4.67E-01	1.27E-01	8.01E-02	1.25E+02	3.65E+01	1.82E+01	4.06E-05	6.88E-06	3.73E-06	8.38E-03	3.17E-03	4.68E-03	1.15E-02	2.80E-03	2.21E-03
R_21	547201.4	5395415.56	Residence		6.40E-03	1.48E-03	7.08E-04	1.20E-04	7.10E-05	3.45E-01	1.01E-01	6.73E-02	1.21E+02	3.64E+01	1.81E+01	3.66E-05	6.31E-06	3.33E-06	8.26E-03	3.15E-03	4.67E-03	1.15E-02	2.76E-03	2.19E-03
R_22	548317.4	5399654.57	Residence		6.82E-03	1.98E-03	2.70E-03	4.35E-04	2.68E-04	9.07E-01	2.48E-01	1.81E-01	1.42E+02	4.25E+01	1.95E+01	1.02E-05	3.08E-06	2.05E-06	8.94E-03	3.32E-03	4.80E-03	5.80E-02	2.02E-02	1.30E-02
R_3	545809.4	5397232.54	Bergagnini Apartment Rental		3.53E-02	4.74E-03	1.22E-03	1.72E-04	9.60E-05	2.15E+00	9.28E-01	7.19E-01	1.37E+02	4.12E+01	2.01E+01	3.17E-04	8.20E-05	3.47E-05	1.02E-02	4.02E-03	5.35E-03	1.55E-02	4.02E-03	2.98E-03
R_4	546092.4	5396796.55	Residence		2.75E-02	3.96E-03	1.05E-03	1.53E-04	8.70E-05	1.29E+00	6.23E-01	4.05E-01	1.27E+02	3.86E+01	1.91E+01	2.42E-04	5.26E-05	2.72E-05	9.29E-03	3.72E-03	5.04E-03	1.27E-02	3.77E-03	2.80E-03
R_5	545971.4	5396489.55	Condominium		2.19E-02	2.76E-03	1.01E-03	1.40E-04	8.10E-05	4.63E+00	2.50E+00	1.75E+00	1.30E+02	4.34E+01	2.25E+01	1.88E-04	3.57E-05	1.57E-05	1.30E-02	5.78E-03	6.52E-03	1.13E-02	3.41E-03	2.54E-03
R_6	545655.4	5396520.55	Residence		3.87E-02	4.22E-03	1.00E-03	1.47E-04	8.10E-05	1.89E+00	7.84E-01	6.19E-01	1.32E+02	3.91E+01	1.95E+01	3.51E-04	7.01E-05	2.99E-05	9.94E-03	3.89E-03	5.27E-03	1.21E-02	3.61E-03	2.55E-03
R_7	545438.4	5396408.54	I Sew Studio and Residence		3.25E-02	4.29E-03	1.00E-03	1.41E-04	7.80E-05	4.62E+00	2.33E+00	1.75E+00	1.32E+02	4.34E+01	2.18E+01	2.90E-04	5.89E-05	3.07E-05	1.31E-02	5.67E-03	6.57E-03	1.17E-02	3.39E-03	2.41E-03
R_8	545380.4	5396243.54	Bayview Apartments		2.33E-02	3.28E-03	9.59E-04	1.36E-04	7.50E-05	4.43E+00	2.22E+00	1.71E+00	1.32E+02	4.31E+01	2.17E+01	1.99E-04	4.18E-05	2.09E-05	1.29E-02	5.54E-03	6.52E-03	1.10E-02	3.20E-03	2.29E-03
R_9	545290.4	5396114.54	Residence		1.83E-02	2.86E-03	9.33E-04	1.32E-04	7.30E-05	3.38E+00	1.45E+00	9.56E-01	1.32E+02	4.10E+01	2.01E+01	1.51E-04	3.47E-05	1.68E-05	1.16E-02	4.66E-03	5.66E-03	1.06E-02	3.08E-03	2.20E-03
RH_1	546049.4	5395894.55	Peninsula Manor		1.07E-02	1.86E-03	1.06E-03	1.12E-04	7.10E-05	1.70E+00	5.12E-01	3.15E-01	1.23E+02	3.82E+01	1.88E+01	7.60E-05	1.23E-05	7.07E-06	9.70E-03	3.59E-03	4.93E-03	1.02E-02	2.90E-03	2.23E-03
RH_2	545320.9	5396196.57	Senior's Centre		2.05E-02	3.10E-03	9.52E-04	1.34E-04	7.40E-05	5.35E+00	2.41E+00	1.74E+00	1.35E+02	4.51E+01	2.17E+01	1.73E-04	3.91E-05	1.91E-05	1.39E-02	5.75E-03	6.56E-03	1.09E-02	3.15E-03	2.25E-03
S_1	546339.4	5396624.55	Holy Saviour School		1.79E-02	2.48E-03	1.22E-03	1.34E-04	8.40E-05	1.00E+00	4.65E-01	2.83E-01	1.26E+02	3.86E+01	1.88E+01	1.48E-04	2.37E-05	1.29E-05	8.95E-03	3.54E-03	4.90E-03	1.15E-02	3.60E-03	2.71E-03
S_2	545633.4	5396102.55	Confederation College Northshore Campus		2.40E-02	2.44E-03	8.34E-04	1.31E-04	7.40E-05	3.84E+00	1.96E+00	1.48E+00	1.31E+02	4.31E+01	2.18E+01	2.08E-04	3.25E-05	1.27E-05	1.19E-02	5.14E-03	6.18E-03	1.02E-02	3.12E-03	2.27E-03
S_3	546200.4	5396036.55	Marathon High School		1.15E-02	1.87E-03	1.10E-03	1.17E-04	7.40E-05	1.12E+00	4.92E-01	3.00E-01	1.23E+02	3.86E+01	1.88E+01	8.41E-05	1.34E-05	7.05E-06	9.08E-03	3.57E-03	4.92E-03	1.06E-02	3.02E-03	2.33E-03
S_4	546261.4	5395967.55	Ecole secondaire Cite-Superieure		1.07E-02	1.80E-03	1.09E-03	1.17E-04	7.30E-05	1.00E+00	3.64E-01	2.36E-01	1.23E+02	3.82E+01	1.86E+01	7.55E-05	1.21E-05	6.42E-06	8.95E-03	3.43E-03	4.85E-03	1.06E-02	2.96E-03	2.30E-03
S_5	547019.4	5395082.56	Marathon Children and Family Centre		7.36E-03	1.40E-03	6.95E-04	1.14E-04	6.70E-05	2.61E-01	8.00E-02	5.43E-02	1.22E+02	3.64E+01	1.81E+01	4.50E-05	6.34E-06	2.66E-06	8.19E-03	3.13E-03	4.65E-03	1.09E-02	2.55E-03	2.02E-03

Table F-3 Special Receptor Predictions (ug/m3) - Operations, Cumulative (Project + Background)

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	PLATINUM (PT)			PM10 (see Note 1)			PM10 (see Note 2)	PM2.5 (See Note 1)			PM2.5 (See Note 2)		POTASSIUM (K)			PROPYLENE			PYRENE		
				Averaging Period	24	month	annual	24	month	annual	24	24	month	annual	24	annual	24	month	annual	24	month	annual	24	month	annual
				Criteria	0.2	-	-	-	-	-	50	-	-	-	27	8.8	1	-	-	4000	-	-	-	-	-
				Background Concentration (ug/m3)				2.28E+01	8.80E+00	1.27E+01	2.28E+01	1.23E+01	4.75E+00	6.80E+00	1.23E+01	6.80E+00	2.79E-01	1.08E-01	1.49E-01				1.34E-03	5.17E-04	8.01E-04
H_1	545937.4	5396169.55	Wilson Memorial General Hospital		2.42E-05	3.75E-06	2.13E-06	2.83E+01	1.14E+01	1.45E+01	2.46E+01	1.39E+01	5.57E+00	7.35E+00	1.27E+01	6.87E+00	2.85E-01	1.09E-01	1.50E-01	1.35E-03	2.16E-04	1.12E-04	1.85E-03	7.64E-04	9.53E-04
M_1	545694	5403864	PM-10 @ Hare Lake		2.97E-06	6.04E-07	3.76E-07	3.00E+01	1.06E+01	1.38E+01	2.83E+01	1.35E+01	5.15E+00	7.05E+00	1.33E+01	6.99E+00	2.94E-01	1.12E-01	1.52E-01	3.34E-03	5.59E-04	3.26E-04	1.39E-03	5.31E-04	8.09E-04
M_2	545694	5403873	Dustfall @ Hare Lake		2.97E-06	6.03E-07	3.76E-07	3.00E+01	1.06E+01	1.38E+01	2.83E+01	1.35E+01	5.14E+00	7.04E+00	1.33E+01	6.99E+00	2.94E-01	1.12E-01	1.52E-01	3.33E-03	5.61E-04	3.27E-04	1.39E-03	5.31E-04	8.09E-04
M_3	547152	5401222	PM-10 @ Mays Gifts		3.44E-06	9.65E-07	6.23E-07	3.78E+01	1.27E+01	1.54E+01	3.12E+01	1.52E+01	5.49E+00	7.33E+00	1.44E+01	7.16E+00	3.15E-01	1.18E-01	1.56E-01	6.00E-03	1.04E-03	5.12E-04	1.42E-03	5.41E-04	8.19E-04
M_4	547147	5401216	Dustfall @ Mays Gifts		3.47E-06	9.67E-07	6.23E-07	3.78E+01	1.27E+01	1.54E+01	3.11E+01	1.52E+01	5.49E+00	7.33E+00	1.44E+01	7.16E+00	3.15E-01	1.18E-01	1.56E-01	6.07E-03	1.04E-03	5.13E-04	1.42E-03	5.41E-04	8.19E-04
M_5	551637	5402371	PM-10 @ Pic River		3.38E-06	1.13E-06	5.39E-07	3.31E+01	1.27E+01	1.51E+01	2.98E+01	1.42E+01	5.45E+00	7.22E+00	1.39E+01	7.13E+00	3.03E-01	1.17E-01	1.55E-01	5.66E-03	9.86E-04	5.20E-04	1.38E-03	5.33E-04	8.11E-04
M_6	551643	5402374	Dustfall @ Pic River		3.37E-06	1.13E-06	5.38E-07	3.30E+01	1.27E+01	1.51E+01	2.98E+01	1.42E+01	5.45E+00	7.22E+00	1.39E+01	7.12E+00	3.03E-01	1.17E-01	1.55E-01	5.62E-03	9.82E-04	5.19E-04	1.38E-03	5.33E-04	8.11E-04
M_7	549180	5399815	Dustfall @ Airport		3.95E-06	1.84E-06	1.32E-06	6.36E+01	2.73E+01	2.67E+01	3.24E+01	1.68E+01	6.81E+00	8.36E+00	1.43E+01	7.00E+00	3.99E-01	1.61E-01	1.90E-01	4.52E-03	8.02E-04	3.35E-04	1.42E-03	5.53E-04	8.29E-04
M_8	545863	5397092	Dustfall @ Field Office		5.91E-05	1.89E-05	9.16E-06	2.71E+01	1.11E+01	1.43E+01	2.55E+01	1.33E+01	5.33E+00	7.22E+00	1.29E+01	6.96E+00	2.87E-01	1.10E-01	1.51E-01	1.69E-03	2.53E-04	1.37E-04	1.54E-03	6.24E-04	8.80E-04
O_1	547181.4	5398014.56	Pic Motel		6.42E-06	1.73E-06	8.68E-07	2.90E+01	1.06E+01	1.41E+01	2.55E+01	1.36E+01	5.12E+00	7.10E+00	1.30E+01	6.91E+00	2.92E-01	1.11E-01	1.52E-01	2.69E-03	3.81E-04	2.05E-04	1.48E-03	5.78E-04	8.46E-04
O_2	545734.4	5396872.55	Marathon Harbour Inn		8.52E-05	4.81E-05	2.33E-05	2.87E+01	1.22E+01	1.50E+01	2.67E+01	1.37E+01	5.54E+00	7.36E+00	1.30E+01	7.04E+00	2.87E-01	1.10E-01	1.51E-01	1.62E-03	2.40E-04	1.29E-04	1.68E-03	6.70E-04	9.17E-04
O_3	545885.4	5396448.55	Zero-100 Motor Inn		3.96E-05	6.58E-06	3.39E-06	2.81E+01	1.10E+01	1.44E+01	2.49E+01	1.39E+01	5.43E+00	7.34E+00	1.28E+01	6.89E+00	2.85E-01	1.10E-01	1.50E-01	1.55E-03	2.30E-04	1.19E-04	1.81E-03	7.18E-04	9.56E-04
O_4	545987.4	5397640.55	OPP Station		3.31E-05	7.15E-06	2.97E-06	2.80E+01	1.05E+01	1.40E+01	2.49E+01	1.34E+01	5.16E+00	7.12E+00	1.28E+01	6.91E+00	2.89E-01	1.10E-01	1.51E-01	1.67E-03	2.84E-04	1.57E-04	1.51E-03	5.96E-04	8.60E-04
O_5	545876.4	5396072.55	Library		2.29E-05	3.65E-06	2.02E-06	2.80E+01	1.10E+01	1.43E+01	2.45E+01	1.37E+01	5.44E+00	7.29E+00	1.27E+01	6.87E+00	2.85E-01	1.09E-01	1.50E-01	1.33E-03	2.12E-04	1.10E-04	1.75E-03	7.22E-04	9.33E-04
P_1	546958.4	5396138.56	Penn Lake Park and Campground		1.29E-05	2.29E-06	1.17E-06	2.59E+01	9.64E+00	1.34E+01	2.44E+01	1.29E+01	4.92E+00	6.93E+00	1.27E+01	6.87E+00	2.86E-01	1.10E-01	1.50E-01	1.64E-03	1.95E-04	1.13E-04	1.40E-03	5.36E-04	8.11E-04
P_2	548538.4	5392862.58	Craig's Pit Provincial Nature Reserve		3.31E-06	5.08E-07	2.04E-07	2.51E+01	9.30E+00	1.30E+01	2.40E+01	1.27E+01	4.83E+00	6.85E+00	1.26E+01	6.84E+00	2.84E-01	1.09E-01	1.50E-01	1.26E-03	1.65E-04	6.90E-05	1.35E-03	5.20E-04	8.03E-04
P_3	540005	5402014	Red Sucker Point Provincial Park		3.69E-06	7.33E-07	3.79E-07	2.49E+01	9.29E+00	1.30E+01	2.45E+01	1.27E+01	4.84E+00	6.85E+00	1.26E+01	6.84E+00	2.83E-01	1.09E-01	1.50E-01	1.04E-03	1.64E-04	8.20E-05	1.36E-03	5.21E-04	8.03E-04
P_4	552770	5383776	Pukaskwa National Park		9.50E-07	1.75E-07	7.45E-08	2.37E+01	8.96E+00	1.28E+01	2.33E+01	1.25E+01	4.78E+00	6.82E+00	1.24E+01	6.81E+00	2.81E-01	1.08E-01	1.49E-01	3.86E-04	5.60E-05	2.60E-05	1.35E-03	5.18E-04	8.01E-04
PR_1	553679.4	5385895.59	Children & Family Learning Centre		1.09E-06	1.93E-07	7.76E-08	2.35E+01	8.97E+00	1.28E+01	2.32E+01	1.24E+01	4.78E+00	6.82E+00	1.24E+01	6.81E+00	2.81E-01	1.08E-01	1.49E-01	3.18E-04	5.20E-05	2.60E-05	1.35E-03	5.18E-04	8.02E-04
PR_2	554004.4	5385857.59	Pic River Elementary		1.11E-06	1.85E-07	7.57E-08	2.34E+01	8.95E+00	1.28E+01	2.32E+01	1.24E+01	4.78E+00	6.82E+00	1.24E+01	6.81E+00	2.80E-01	1.08E-01	1.49E-01	3.11E-04	5.10E-05	2.60E-05	1.35E-03	5.18E-04	8.01E-04
PR_3	553836.4	5385603.59	Pic River Private High School		1.05E-06	1.88E-07	7.53E-08	2.35E+01	8.96E+00	1.28E+01	2.32E+01	1.24E+01	4.78E+00	6.82E+00	1.24E+01	6.81E+00	2.81E-01	1.08E-01	1.49E-01	3.03E-04	5.00E-05	2.50E-05	1.35E-03	5.18E-04	8.01E-04
PR_4	553930.4	5386048.59	Pic River Health Centre		1.13E-06	1.87E-07	7.72E-08	2.34E+01	8.96E+00	1.28E+01	2.32E+01	1.24E+01	4.78E+00	6.82E+00	1.24E+01	6.81E+00	2.80E-01	1.08E-01	1.49E-01	3.15E-04	5.20E-05	2.60E-05	1.35E-03	5.18E-04	8.01E-04
PR_5	552493.4	5384782.58	BIIDAABAN Healing Lodge		1.02E-06	1.96E-07	8.13E-08	2.37E+01	8.98E+00	1.28E+01	2.33E+01	1.25E+01	4.78E+00	6.82E+00	1.24E+01	6.81E+00	2.81E-01	1.08E-01	1.49E-01	4.44E-04	6.10E-05	2.90E-05	1.35E-03	5.18E-04	8.01E-04
PR_6	552843.4	5390099.59	Residence		1.62E-06	2.71E-07	1.23E-07	2.39E+01	9.06E+00	1.29E+01	2.34E+01	1.25E+01	4.79E+00	6.83E+00	1.24E+01	6.82E+00	2.82E-01	1.08E-01	1.49E-01	4.83E-04	8.10E-05	4.10E-05	1.35E-03	5.19E-04	8.02E-04
PR_7	553761.4	5387705.59	Residence		1.12E-06	1.89E-07	9.17E-08	2.35E+01	8.98E+00	1.28E+01	2.32E+01	1.24E+01	4.78E+00	6.82E+00	1.24E+01	6.82E+00	2.81E-01	1.08E-01	1.49E-01	3.71E-04	5.90E-05	3.00E-05	1.35E-03	5.18E-04	8.02E-04
PS_1	545001.3	5404050.49	North Hare Lake Cottage		2.76E-06	4.89E-07	3.10E-07	2.74E+01	1.02E+01	1.35E+01	2.56E+01	1.33E+01	5.04E+00	6.97E+00	1.30E+01	6.93E+00	2.90E-01	1.11E-01	1.51E-01	2.86E-03	4.56E-04	2.65E-04	1.38E-03	5.28E-04	8.07E-04
PS_2	544331.3	5403100.49	South Hare Lake Cottage		2.42E-06	4.47E-07	2.90E-07	2.88E+01	1.00E+01	1.34E+01	2.76E+01	1.33E+01	5.01E+00	6.94E+00	1.30E+01	6.91E+00	2.90E-01	1.11E-01	1.51E-01	2.90E-03	3.45E-04	1.93E-04	1.38E-03	5.26E-04	8.06E-04
PS_3	547056.1	5401003.77	May's Gifts		3.90E-06	9.93E-07	6.22E-07	3.61E+01	1.23E+01	1.50E+01	3.04E+01	1.48E+01	5.40E+00	7.25E+00	1.42E+01	7.11E+00	3.11E-01	1.16E-01	1.55E-01	5.94E-03	1.02E-03	4.94E-04	1.41E-03	5.38E-04	8.16E-04
PS_4	546811.4	5400952.54	Wayfare Inn		4.45E-06	1.01E-06	6.17E-07	3.50E+01	1.19E+01	1.48E+01	2.98E+01	1.46E+01	5.35E+00	7.21E+00	1.40E+01	7.09E+00	3.08E-01	1.16E-01	1.54E-01	5.26E-03	8.75E-04	4.28E-04	1.41E-03	5.37E-04	8.15E-04
PS_5	546996.4	5401027.54	Peninsula Inn		3.99E-06	9.92E-07	6.18E-07	3.61E+01	1.22E+01	1.50E+01	3.04E+01	1.48E+01	5.40E+00	7.25E+00	1.42E+01	7.11E+00	3.11E-01	1.16E-01	1.55E-01	5.86E-03	9.83E-04	4.79E-04	1.41E-03	5.38E-04	8.16E-04
PS_6	548471.4	5399488.57	Travelodge Hotel		3.13E-06	9.00E-07	6.26E-07	4.11E+01	1.48E+01	1.65E+01	2.93E+01	1.49E+01	5.56E+00	7.34E+00	1.37E+01	6.97E+00	3.27E-01	1.24E-01	1.59E-01	3.92E-03	6.38E-04	3.22E-04	1.44E-03	5.52E-04	8.28E-04
PS_7	546903.4	5401055.54	The Laughing Mooz Eatery Restaurant and Residence		4.08E-06	9.82E-07	6.13E-07	3.58E+01	1.22E+01	1.50E+01	3.02E+01	1.48E+01	5.40E+00	7.25E+00	1.41E+01	7.11E+00	3.10E-01	1.16E-01	1.55E-01	5.59E-03	9.26E-04	4.53E-04	1.41E-03	5.39E-04	8.16E-04
PW_1	545777.4	5397150.54	Kingdom Hall of Jehovah's Witnesses		7.51E-05	2.17E-05	9.47E-06	2.79E+01	1.10E+01	1.43E+01	2.63E+01	1.34E+01	5.27E+00	7.18E+00	1.30E+01	6.96E+00	2.88E-01	1.10E-01	1.51E-01	1.60E-03	2.52E-04	1.39E-04	1.54E-03	6.04E-04	8.67E-04
PW_2	546331.4	5395941.55	Parkland Pentecostal Church		1.40E-05	2.45E-06	1.28E-06	2.59E+01	9.63E+00	1.34E+01	2.45E+01	1.29E+01	4.93E+00	6.94E+00	1.27E+01	6.87E+00	2.85E-01	1.09E-01	1.50E-01	1.70E-03	1.81E-04	1.07E-04	1.42E-03	5.44E-04	8.19E-04
PW_3	545857.4	5395714.55	St. John's United Church		1.73E-05	3.11E-06	1.47E-06	2.56E+01	9.75E+00	1.34E+01	2.44E+01	1.29E+01	4.96E+00	6.96E+00	1.27E+01	6.86E+00	2.84E-01	1.09E-01	1.50E-01	1.35E-03	1.91E-04	1.01E-04	1.44E-03	5.54E-04	8.28E-04
PW_4	545425	5396043.49	Holy Saviour Roman Catholic Church		3.31E-05	5.35E-06	2.95E-06	2.75E+01	1.10E+01	1.44E+01	2.48E+01	1.39E+01	5.53E+00	7.41E+00	1.27E+01	6.88E+00	2.85E-01	1.09E-01	1.50E-01	1.46E-03	2.06E-04	1.08E-04	1.92E-03	7.76E-04	1.00E-03
PW_5	545390.4	5395988.55	Anglican Church-Trinity		3.05E-05	4.97E-06	2.61E-06	2.87E+01	1.12E+01	1.44E+01	2.47E+01	1.45E+01	5.68E+00	7.45E+00	1.27E+01	6.88E+00	2.85E-01	1.09E-01	1.50E-01	1.44E-03	2.04E-04	1.07E-04	2.18E-03	8.48E-04	1.02E-03
R_1	547226.4	5398095.56	Residence		5.74E-06	1.54E-06	7.85E-07	2.99E+01	1.09E+01	1.45E+01	2.55E+01	1.38E+01	5.27E+00	7.22E+00	1.30E+01	6.91E+00	2.93E-01	1.11E-01	1.52E-01	2.84E-03	3.97E-04	2.14E-04	1.56E-03	6.29E-04	8.81E-04
R_10	545421.4	5395953.55	Residence		2.94E-05	4.56E-06	2.51E-06	3.23E+01	1.21E+01	1.51E+01	2.47E+01	1.59E+01	6.01E+00	7.74E+00	1.27E+01	6.88E+00	2.85E-01	1.09E-01	1.50E-01	1.44E-03	2.04E-04	1.06E-04	2.59E-03	9.72E-04	1.14E-03
R_11	545619.4	5395877.55	Residence		3.37E-05	4.98E-06	1.97E-06	2.76E+01	1.06E+01	1.41E+01	2.44E+01	1.38E+01	5.29E+00	7.24E+00	1.27E+01	6.87E+00	2.84E-01	1.09E-01	1.50E-01	1.36E-03	2.04E-04	1.05E-04	1.76E-03	6.70E-04	9.27E-04
R_12	545831.4	5396000.55	Residence		2.27E-05	4.10E-06	1.96E-06	2.76E+01	1.06E+01	1.41E+01	2.44E+01	1.36E+01	5.29E+00	7.21E+00	1.27E+01	6.87E+00	2.85E-01	1.09E-01	1.50E-01	1.32E-03	2.09E-04	1.08E-04	1.68E-03	6.77E-04	9.10E-04
R_13	545806.9	5396173.19	Residence		2.84E-05	5.17E-06	2.49E-06	3.22E+01	1.30E+01	1.60E+01	2.44E+01	1.52E+01	6.09E+00	7.88E+00	1.27E+01	6.88E+00	2.85E-01	1.10E-01	1.50E-01	1.43E-03	2.17E-04	1.12E-04	2.20E-03	9.24E-04	1.13E-03
R_14	545827.1	5396228.86	Residence		2.95E-05	4.91E-06	2.61E-06	2.98E+01	1.18E+01	1.51E+01	2.45E+01	1.43E+01	5.67E+00	7.53E+00	1.27E+01	6.88E+00	2.85E-01	1.10E-01	1.50E-01	1.45E-03	2.21E-04	1.14E-04	1.92E-03	7.84E-04	1.01E-03
R_15	545662.4	5396175.55	Residence		4.34E-05	7.52E-06	2.93E-06	2.69E+01	1.06E+01	1.40E+01	2.48E+01	1.34E+01	5.23E+00	7.18E+00	1.27E+01	6.88E+00	2.85E-01	1.10E-01	1.50E-01	1.48E-03	2.16E-04	1.12E-04	1.62E-03	6.39E-04	8.99E-04
R_16	546254.4	5396484.55	Residence		3.12E-05	4.93E-06	2.39E-06	2.63E+01	9.92E+00	1.36E+01	2.48E+01	1.31E+01	5.02E+00	7.00E+00	1.28E+01	6.88E+00	2.85E-01	1.10E-01	1.51E-01	1.52E-03	2.25E-04	1.20E-04	1.47E-03	5.72E-04	8.34E-04
R_17	546471.4	5396506.55	Residence		2.56E-05	4.00E-06	2.06E-06	2.62E+01	9.82E+00	1.35E+01	2.48E+01	1.30E+01	4.97E+00	6.97E+00	1.28E+01	6.88E+00	2.86E-01	1.10E-01	1.51E-01	1.77E-03	2.15E-04	1.20E-04	1.43E-03	5.52E-04	8.22E-04
R_18	546601.4	5396387.56	Residence		2.07E-05	3.36E-06	1.68E-06	2.60E+01	9.74E+00	1.35E+01	2.47E+01	1.30E+01	4.95E+00	6.95E+00	1.27E+01	6.88E+00	2.86E-01	1.10E-01	1.51E-01	1.86E-03	1.96E-04	1.17E-04	1.42E-03	5.46E-04	8.18E-04
R_19	546856.4	5395580.56	Residence		9.16E-06	1.55E-06	8.36E-07	2.56E+01	9.50E+00	1.33E+01	2.42E+01	1.28E+01	4.88E+00	6.90E+00	1.26E+01	6.86E+00	2.86E-01	1.09E-01	1.50E-01	1.39E-03	1.79E-04	1.03E-04	1.38E-03	5.29E-04	8.08E-04
R_2	547273.4	5398044.56	Residence		5.58E-06	1.44E-06	7.56E-07	2.90E+01	1.05E+01	1.40E+01	2.54E+01	1.35E+01	5.07E+00	7.06E+00	1.30E+01	6.91E+00	2.93E-01	1.11E-01	1.52E-01	3.06E-03	3.88E-04	2.13E-04	1.45E-03	5.61E-04	8.32E-04
R_20	546950.4	5395533.56	Residence		8.48E-06	1.46E-06	7.99E-07	2.56E+01	9.50E+00	1.33E+01	2.43E+01	1.28E+01	4.88E+00	6.90E+00	1.26E+01	6.86E+00	2.86E-01	1.09E-01	1.50E-01	1.32E-03	1.83E-04	1.03E-04	1.38E-03	5.27E-04	8.07E-04
R_21	547201.4	5395415.56	Residence		7.63E-06	1.34E-06	7.17E-07	2.56E+01	9.50E+00	1.32E+01	2.43E+01	1.28E+01	4.88E+00	6.90E+00	1.26E+01	6.86E+00	2.86E-01	1.09E-01	1.50E-01	1.27E-03	1.96E-04	1.04E-04	1.37E-03	5.25E-04	8.06E-04
R_22	548317.4	5399654.57	Residence		2.45E-06	7.48E-07	5.51E-07	3.64E+01	1.31E+01	1.55E+01	3.16E+01	1.47E+01	5.34E+00	7.21E+00	1.42E+01	6.98E+00	3.12E-01	1.19E-01	1.56E-01	3.98E-03	6.23E-04	3.32E-04	1.41E-03	5.36E-04	8.15E-04
R_3	545809.4	5397232.54	Bergagnini Apartment Rental		6.62E-05	1.71E-05	7.27E-06	2.81E+01	1.09E+01	1.42E+01	2.59E+01	1.35E+01	5.25E+00	7.18E+00	1.29E+01	6.94E+00	2.88E-01	1.10E-01	1.51E-01	1.61E-03	2.57E-04	1.41E-04	1.56E-03	6.10E-04	8.72E-04
R_4	546092.4	5396796.55	Residence		5.06E-05	1.10E-05	5.70E-06	2.64E+01	1.02E+01	1.37E+01	2.51E+01	1.31E+01	5.07E+00	7.03E+00	1.28E+01	6.92E+00	2.86E-01	1.10E-01	1.51E-01	1.65E-03	2.48E-04	1.29E-04	1.44E-03	5.67E-04	8.34E-04
R_5	545971.4	5396489.55	Condominium		3.93E-05	7.47E-06	3.30E-06	2.72E+01	1.08E+01	1.43E+01	2.47E+01	1.35E+01	5.41E+00	7.31E+00	1.27E+01	6.89E+00	2.85E-01	1.10E-01	1.51E-01	1.53E-03	2.32E-04	1.20E-04	1.72E-03	7.23E-04	9.46E-04
R_6	545655.4	5396520.55	Residence		7.33E-05	1.47E-05	6.26E-06	2.69E+01	1.05E+01	1.38E+01	2.61E+01	1.32E+01	5.13E+00	7.08E+00	1.30E+01	6.91E+00	2.86E-01	1.10E-01	1.51E-01	1.58E-03	2.29E-04	1.21E-04	1.50E-03	5.83E-04	8.52E-04
R_7	545438.4	5396408.54	I Sew Studio and Residence		6.05E-05	1.23E-05	6.42E-06	2.67E+01	1.06E+01	1.40E+01	2.59E+01	1.34E+01	5.23E+00	7.22E+00	1.30E+01	6.92E+00	2.86E-01	1.10E-01	1.50E-01	1.49E-03	2.14E-04	1.16E-04	1.65E-03	6.69E-04	9.17E-04
R_8	545380.4	5396243.54	Bayview Apartments		4.16E-05	8.76E-06	4.38E-06	2.65E+01	1.04E+01	1.39E+01	2.51E+01	1.34E+01	5.22E+00	7.19E+00	1.28E+01	6.90E+00	2.85E-01	1.10E-01	1.50E-01	1.47E-03	2.09E-04	1.12E-04	1.64E-03	6.63E-04	9.15E-04
R_9	545290.4	5396114.54	Residence		3.14E-05	7.27E-06	3.53E-06	2.65E+01	1.02E+01	1.37E+01	2.46E+01	1.33E+01	5.15E+00	7.08E+00	1.27E+01	6.89E+00	2.85E-01	1.10E-01	1.50E-01	1.43E-03	2.03E-04	1.09E-04	1.59E-03	6.22E-04	8.69E-04
RH_1	546049.4	5395894.55	Peninsula Manor		1.59E-05	2.59E-06	1.50E-06	2.59E+01	9.74E+00	1.35E+01	2.45E+01	1.30E+01	4.97E+00	6.97E+00	1.27E+01	6.87E+00	2.85E-01	1.09E-01	1.50E-01	1.50E-03	1.95E-04	1.06E-04	1.49E-03	5.63E-04	8.30E-04
RH_2	545320.9	5396196.57	Senior's Centre		3.61E-05	8.19E-06	4.02E-06	2.70E+01	1.05E+01	1.39E+01	2.48E+01	1.35E+01	5.29E+00	7.19E+00	1.27E+01	6.90E+00	2.85E-01	1.10E-01	1.50E-01	1.44E-03	2.05E-04	1.10E-04	1.70E-03	6.79E-04	9.17E-04
S_1	546339.4	5396624.55	Holy Saviour School		3.09E-05	4.97E-06	2.71E-06	2.63E+01	9.92E+00	1.36E+01	2.49E+01	1.31E+01	4.99E+00	6.98E+00	1.28E+01	6.89E+00	2.86E-01	1.10E-01	1.51E-01	1.58E-03	2.32E-04	1.24E-04	1.43E-03	5.57E-04	8.25E-04
S_2	545633.4	5396102.55	Confederation College Northshore Campus		4.34E-05	6.80E-06	2.67E-06	2.75E+01	1.09E+01	1.43E+01	2.48E+01	1.36E+01	5.36E+00	7.30E+00	1.27E+01	6.88E+00	2.85E-01	1.10E-01	1.50E-01	1.46E-03	2.13E-04	1.10E-04	1.72E-03	6.94E-04	9.41E-04
S_3	546200.4	5396036.55	Marathon High School		1.76E-05	2.82E-06	1.49E-06	2.61E+01	9.75E+00	1.35E+01	2.46E+01	1.30E+01	4.97E+00	6.97E+00	1.27E+01	6.87E+00	2.85E-01	1.09E-01	1.50E-01	1.61E-03	1.96E-04	1.09E-04	1.44E-03	5.62E-04	8.28E-04
S_4	546261.4	5395967.55	Ecole secondaire Cite-Superieure		1.58E-05	2.55E-06	1.36E-06	2.60E+01	9.67E+00	1.34E+01	2.46E+01	1.30E+01	4.94E+00	6.95E+00	1.27E+01	6.87E+00	2.85E-01	1.09E-01	1.50E-01	1.66E-03	1.88E-04	1.07E-04	1.43E-03	5.49E-04	8.22E-04
S_5	547019.4	5395082.56	Marathon Children and Family Centre		9.42E-06	1.34E-06	5.74E-07	2.55E+01	9.44E+00	1.32E+01	2.44E+01	1.28E+01	4.87E+00	6.89E+00	1.26E+01	6.85E+00	2.85E-01	1.09E-01	1.50E-01	1.27E-03	1.90E-04	1.02E-04	1.36E-03	5.23E-04	8.05E-04

Table F-3 Special Receptor Predictions (ug/m3) - Operations, Cumulative (Project + Background)

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	SCANDIUM (SC)			CRYSTALLINE SILICA			SILICON (SI)			SILVER (AG)			SO2				SODIUM (NA)		
				Averaging Period	24	month	annual	24	month	annual	24	month	annual	24	month	annual	1	24	month	annual	24	month	annual
				Criteria	-	-	-	5	-	-	27	-	-	1	-	-	100	-	-	10	-	-	-
				Background Concentration (ug/m3)													2.76E+00	5.79E+00	2.23E+00	2.48E+00			
H_1	545937.4	5396169.55	Wilson Memorial General Hospital		1.31E-05	3.93E-06	2.92E-06	1.17E+00	3.19E-01	2.39E-01	1.12E-01	1.74E-02	9.90E-03	1.40E-04	2.19E-05	1.25E-05	3.59E+00	5.93E+00	2.30E+00	2.52E+00	1.14E-02	3.49E-03	2.60E-03
M_1	545694	5403864	PM-10 @ Hare Lake		3.22E-05	8.98E-06	5.23E-06	3.19E+00	7.70E-01	4.43E-01	1.70E-02	5.17E-03	3.71E-03	1.79E-05	3.89E-06	2.58E-06	8.50E+00	6.05E+00	2.25E+00	2.49E+00	2.83E-02	7.77E-03	4.56E-03
M_2	545694	5403873	Dustfall @ Hare Lake		3.20E-05	8.98E-06	5.23E-06	3.17E+00	7.69E-01	4.43E-01	1.69E-02	5.12E-03	3.68E-03	1.78E-05	3.89E-06	2.58E-06	8.43E+00	6.05E+00	2.25E+00	2.49E+00	2.81E-02	7.76E-03	4.55E-03
M_3	547152	5401222	PM-10 @ Mays Gifts		7.96E-05	2.13E-05	1.43E-05	6.69E+00	1.73E+00	1.16E+00	1.92E-02	7.52E-03	5.52E-03	2.36E-05	6.69E-06	4.67E-06	5.57E+00	5.95E+00	2.25E+00	2.50E+00	6.64E-02	1.78E-02	1.20E-02
M_4	547147	5401216	Dustfall @ Mays Gifts		7.92E-05	2.11E-05	1.42E-05	6.65E+00	1.72E+00	1.15E+00	1.93E-02	7.50E-03	5.49E-03	2.35E-05	6.69E-06	4.67E-06	5.57E+00	5.95E+00	2.25E+00	2.49E+00	6.60E-02	1.77E-02	1.19E-02
M_5	551637	5402371	PM-10 @ Pic River		5.32E-05	2.13E-05	1.32E-05	4.62E+00	1.78E+00	1.10E+00	1.47E-02	4.59E-03	2.07E-03	2.23E-05	8.15E-06	4.10E-06	5.69E+00	5.93E+00	2.25E+00	2.49E+00	4.39E-02	1.75E-02	1.08E-02
M_6	551643	5402374	Dustfall @ Pic River		5.30E-05	2.12E-05	1.32E-05	4.60E+00	1.78E+00	1.10E+00	1.47E-02	4.58E-03	2.06E-03	2.22E-05	8.13E-06	4.10E-06	5.71E+00	5.93E+00	2.25E+00	2.49E+00	4.38E-02	1.75E-02	1.08E-02
M_7	549180	5399815	Dustfall @ Airport		2.72E-04	1.21E-04	9.19E-05	1.94E+01	8.75E+00	6.65E+00	1.21E-02	3.54E-03	1.97E-03	3.66E-05	1.84E-05	1.40E-05	4.27E+00	5.88E+00	2.25E+00	2.49E+00	2.15E-01	9.58E-02	7.29E-02
M_8	545863	5397092	Dustfall @ Field Office		1.91E-05	4.88E-06	3.51E-06	1.54E+00	4.01E-01	3.03E-01	2.74E-01	8.76E-02	4.25E-02	3.42E-04	1.10E-04	5.33E-05	3.25E+00	5.85E+00	2.27E+00	2.51E+00	1.57E-02	5.10E-03	3.79E-03
O_1	547181.4	5398014.56	Pic Motel		2.98E-05	8.03E-06	5.74E-06	2.34E+00	6.33E-01	4.57E-01	2.98E-02	8.24E-03	4.06E-03	3.73E-05	1.04E-05	5.45E-06	3.41E+00	5.85E+00	2.25E+00	2.50E+00	2.40E-02	6.59E-03	4.77E-03
O_2	545734.4	5396872.55	Marathon Harbour Inn		1.75E-05	4.57E-06	3.28E-06	1.45E+00	4.10E-01	3.18E-01	3.95E-01	2.23E-01	1.08E-01	4.94E-04	2.79E-04	1.36E-04	3.27E+00	5.92E+00	2.29E+00	2.53E+00	1.57E-02	7.49E-03	5.03E-03
O_3	545885.4	5396448.55	Zero-100 Motor Inn		1.46E-05	4.21E-06	3.08E-06	1.19E+00	3.47E-01	2.55E-01	1.83E-01	3.05E-02	1.58E-02	2.29E-04	3.83E-05	1.99E-05	3.63E+00	5.96E+00	2.30E+00	2.53E+00	1.20E-02	3.87E-03	2.86E-03
O_4	545987.4	5397640.55	OPP Station		2.27E-05	5.56E-06	3.98E-06	1.82E+00	4.52E-01	3.27E-01	1.54E-01	3.32E-02	1.39E-02	1.92E-04	4.17E-05	1.75E-05	3.19E+00	5.84E+00	2.26E+00	2.50E+00	1.86E-02	4.74E-03	3.56E-03
O_5	545876.4	5396072.55	Library		1.28E-05	3.82E-06	2.84E-06	1.14E+00	3.12E-01	2.33E-01	1.06E-01	1.70E-02	9.41E-03	1.32E-04	2.14E-05	1.19E-05	3.60E+00	5.91E+00	2.29E+00	2.52E+00	1.10E-02	3.46E-03	2.53E-03
P_1	546958.4	5396138.56	Penn Lake Park and Campground		1.65E-05	4.11E-06	3.18E-06	1.38E+00	3.35E-01	2.57E-01	5.98E-02	1.07E-02	5.43E-03	7.48E-05	1.35E-05	6.99E-06	3.54E+00	5.83E+00	2.24E+00	2.49E+00	1.37E-02	3.50E-03	2.72E-03
P_2	548538.4	5392862.58	Craig's Pit Provincial Nature Reserve		1.16E-05	2.65E-06	1.67E-06	1.03E+00	2.20E-01	1.35E-01	1.55E-02	2.38E-03	9.47E-04	1.93E-05	3.10E-06	1.30E-06	3.72E+00	5.84E+00	2.24E+00	2.48E+00	9.76E-03	2.22E-03	1.39E-03
P_3	540005	5402014	Red Sucker Point Provincial Park		9.76E-06	2.51E-06	1.39E-06	9.21E-01	2.13E-01	1.16E-01	1.73E-02	3.48E-03	1.84E-03	2.16E-05	4.35E-06	2.30E-06	5.39E+00	5.90E+00	2.24E+00	2.48E+00	8.35E-03	2.16E-03	1.20E-03
P_4	552770	5383776	Pukaskwa National Park		4.56E-06	8.79E-07	5.19E-07	3.92E-01	7.29E-02	4.26E-02	4.44E-03	7.94E-04	3.42E-04	5.58E-06	1.08E-06	4.70E-07	3.00E+00	5.80E+00	2.23E+00	2.48E+00	3.81E-03	7.43E-04	4.35E-04
PR_1	553679.4	5385895.59	Children & Family Learning Centre		3.78E-06	8.79E-07	5.59E-07	3.21E-01	7.42E-02	4.59E-02	5.02E-03	8.82E-04	3.59E-04	6.42E-06	1.19E-06	4.91E-07	3.13E+00	5.80E+00	2.23E+00	2.48E+00	3.16E-03	7.49E-04	4.69E-04
PR_2	554004.4	5385857.59	Pic River Elementary		3.26E-06	8.12E-07	5.41E-07	2.72E-01	6.81E-02	4.44E-02	5.11E-03	8.45E-04	3.51E-04	6.50E-06	1.13E-06	4.79E-07	3.12E+00	5.80E+00	2.23E+00	2.48E+00	2.71E-03	6.91E-04	4.54E-04
PR_3	553836.4	5385603.59	Pic River Private High School		3.53E-06	8.39E-07	5.40E-07	2.98E-01	7.07E-02	4.43E-02	4.81E-03	8.56E-04	3.48E-04	6.14E-06	1.15E-06	4.76E-07	3.10E+00	5.80E+00	2.23E+00	2.48E+00	2.95E-03	7.15E-04	4.53E-04
PR_4	553930.4	5386048.59	Pic River Health Centre		3.36E-06	8.33E-07	5.52E-07	2.81E-01	6.98E-02	4.53E-02	5.23E-03	8.57E-04	3.57E-04	6.65E-06	1.15E-06	4.88E-07	3.09E+00	5.80E+00	2.23E+00	2.48E+00	2.79E-03	7.09E-04	4.63E-04
PR_5	552493.4	5384782.58	BIIDAABAN Healing Lodge		4.97E-06	9.52E-07	5.68E-07	4.22E-01	7.86E-02	4.66E-02	4.74E-03	8.90E-04	3.74E-04	5.96E-06	1.21E-06	5.14E-07	3.00E+00	5.80E+00	2.23E+00	2.48E+00	4.13E-03	8.04E-04	4.76E-04
PR_6	552843.4	5390099.59	Residence		5.86E-06	1.35E-06	8.86E-07	5.01E-01	1.13E-01	7.25E-02	7.50E-03	1.24E-03	5.68E-04	9.45E-06	1.65E-06	7.81E-07	3.21E+00	5.81E+00	2.23E+00	2.48E+00	4.90E-03	1.14E-03	7.42E-04
PR_7	553761.4	5387705.59	Residence		3.56E-06	9.46E-07	6.37E-07	2.95E-01	7.83E-02	5.22E-02	5.25E-03	8.70E-04	4.24E-04	6.59E-06	1.17E-06	5.79E-07	3.28E+00	5.81E+00	2.23E+00	2.48E+00	2.96E-03	7.95E-04	5.34E-04
PS_1	545001.3	5404050.49	North Hare Lake Cottage		2.31E-05	7.14E-06	4.13E-06	2.02E+00	6.08E-01	3.47E-01	1.39E-02	3.77E-03	2.39E-03	1.64E-05	3.15E-06	2.11E-06	3.84E+00	5.85E+00	2.24E+00	2.49E+00	1.98E-02	6.12E-03	3.55E-03
PS_2	544331.3	5403100.49	South Hare Lake Cottage		2.60E-05	6.40E-06	3.54E-06	2.71E+00	5.41E-01	2.95E-01	1.29E-02	2.78E-03	2.05E-03	1.45E-05	2.84E-06	1.95E-06	9.27E+00	6.07E+00	2.25E+00	2.48E+00	2.29E-02	5.46E-03	3.02E-03
PS_3	547056.1	5401003.77	May's Gifts		7.08E-05	1.87E-05	1.25E-05	5.98E+00	1.53E+00	1.02E+00	2.03E-02	6.75E-03	4.71E-03	2.35E-05	6.71E-06	4.53E-06	5.53E+00	5.95E+00	2.25E+00	2.49E+00	5.88E-02	1.56E-02	1.05E-02
PS_4	546811.4	5400952.54	Wayfare Inn		6.44E-05	1.68E-05	1.11E-05	5.42E+00	1.37E+00	9.06E-01	2.27E-02	6.79E-03	4.81E-03	2.65E-05	6.68E-06	4.40E-06	5.33E+00	5.94E+00	2.25E+00	2.49E+00	5.37E-02	1.40E-02	9.37E-03
PS_5	546996.4	5401027.54	Peninsula Inn		7.02E-05	1.85E-05	1.23E-05	5.92E+00	1.51E+00	1.00E+00	2.08E-02	6.91E-03	4.88E-03	2.39E-05	6.70E-06	4.50E-06	5.51E+00	5.95E+00	2.25E+00	2.49E+00	5.84E-02	1.55E-02	1.04E-02
PS_6	548471.4	5399488.57	Travelodge Hotel		1.09E-04	3.66E-05	2.26E-05	8.39E+00	2.73E+00	1.69E+00	1.40E-02	3.61E-03	2.19E-03	1.98E-05	6.77E-06	5.23E-06	5.47E+00	5.92E+00	2.25E+00	2.49E+00	8.76E-02	2.93E-02	1.81E-02
PS_7	546903.4	5401055.54	The Laughing Mooz Eatery Restaurant and Residence		6.87E-05	1.81E-05	1.20E-05	5.77E+00	1.48E+00	9.79E-01	2.14E-02	7.09E-03	5.13E-03	2.45E-05	6.62E-06	4.44E-06	5.39E+00	5.94E+00	2.25E+00	2.49E+00	5.73E-02	1.52E-02	1.01E-02
PW_1	545777.4	5397150.54	Kingdom Hall of Jehovah's Witnesses		1.95E-05	4.89E-06	3.51E-06	1.57E+00	4.07E-01	3.04E-01	3.48E-01	1.01E-01	4.39E-02	4.35E-04	1.26E-04	5.51E-05	3.22E+00	5.85E+00	2.26E+00	2.50E+00	1.60E-02	5.27E-03	3.82E-03
PW_2	546331.4	5395941.55	Parkland Pentecostal Church		1.39E-05	3.73E-06	2.87E-06	1.22E+00	3.01E-01	2.33E-01	6.49E-02	1.14E-02	5.98E-03	8.15E-05	1.44E-05	7.64E-06	3.29E+00	5.82E+00	2.24E+00	2.49E+00	1.20E-02	3.14E-03	2.48E-03
PW_3	545857.4	5395714.55	St. John's United Church		1.25E-05	3.46E-06	2.62E-06	1.11E+00	2.80E-01	2.14E-01	8.02E-02	1.45E-02	6.86E-03	9.99E-05	1.83E-05	8.72E-06	3.46E+00	5.83E+00	2.25E+00	2.49E+00	1.07E-02	3.10E-03	2.29E-03
PW_4	545425	5396043.49	Holy Saviour Roman Catholic Church		1.31E-05	3.71E-06	2.69E-06	1.11E+00	3.11E-01	2.24E-01	1.54E-01	2.48E-02	1.37E-02	1.92E-04	3.12E-05	1.73E-05	3.34E+00	6.02E+00	2.34E+00	2.56E+00	1.11E-02	3.57E-03	2.50E-03
PW_5	545390.4	5395988.55	Anglican Church-Trinity		1.29E-05	3.67E-06	2.66E-06	1.10E+00	3.06E-01	2.20E-01	1.41E-01	2.30E-02	1.21E-02	1.77E-04	2.90E-05	1.53E-05	3.56E+00	6.11E+00	2.37E+00	2.57E+00	1.09E-02	3.50E-03	2.44E-03
R_1	547226.4	5398095.56	Residence		3.18E-05	8.36E-06	5.94E-06	2.45E+00	6.58E-01	4.73E-01	2.67E-02	7.35E-03	3.68E-03	3.36E-05	9.33E-06	4.98E-06	3.43E+00	5.86E+00	2.27E+00	2.51E+00	2.56E-02	6.85E-03	4.92E-03
R_10	545421.4	5395953.55	Residence		1.27E-05	3.64E-06	2.65E-06	1.08E+00	3.04E-01	2.19E-01	1.37E-01	2.12E-02	1.17E-02	1.71E-04	2.67E-05	1.47E-05	3.78E+00	6.26E+00	2.41E+00	2.61E+00	1.07E-02	3.42E-03	2.42E-03
R_11	545619.4	5395877.55	Residence		1.21E-05	3.59E-06	2.65E-06	1.02E+00	2.99E-01	2.18E-01	1.57E-01	2.31E-02	9.16E-03	1.95E-04	2.91E-05	1.16E-05	3.61E+00	5.93E+00	2.29E+00	2.52E+00	1.02E-02	3.42E-03	2.37E-03
R_12	545831.4	5396000.55	Residence		1.25E-05	3.74E-06	2.78E-06	1.12E+00	3.06E-01	2.28E-01	1.06E-01	1.91E-02	9.10E-03	1.32E-04	2.40E-05	1.15E-05	3.60E+00	5.89E+00	2.28E+00	2.51E+00	1.08E-02	3.44E-03	2.48E-03
R_13	545806.9	5396173.19	Residence		1.32E-05	3.91E-06	2.88E-06	1.10E+00	3.24E-01	2.37E-01	1.32E-01	2.40E-02	1.16E-02	1.65E-04	3.02E-05	1.46E-05	3.65E+00	6.01E+00	2.34E+00	2.57E+00	1.09E-02	3.69E-03	2.61E-03
R_14	545827.1	5396228.86	Residence		1.35E-05	3.98E-06	2.92E-06	1.11E+00	3.28E-01	2.41E-01	1.37E-01	2.28E-02	1.21E-02	1.71E-04	2.87E-05	1.53E-05	3.63E+00	5.94E+00	2.31E+00	2.54E+00	1.11E-02	3.72E-03	2.66E-03
R_15	545662.4	5396175.55	Residence		1.35E-05	3.89E-06	2.84E-06	1.11E+00	3.29E-01	2.35E-01	2.02E-01	3.49E-02	1.36E-02	2.51E-04	4.38E-05	1.72E-05	3.52E+00	5.87E+00	2.27E+00	2.51E+00	1.11E-02	3.92E-03	2.62E-03
R_16	546254.4	5396484.55	Residence		1.45E-05	4.31E-06	3.22E-06	1.30E+00	3.49E-01	2.63E-01	1.44E-01	2.29E-02	1.11E-02	1.81E-04	2.88E-05	1.41E-05	3.46E+00	5.83E+00	2.25E+00	2.49E+00	1.28E-02	3.77E-03	2.87E-03
R_17	546471.4	5396506.55	Residence		1.53E-05	4.38E-06	3.31E-06	1.35E+00	3.55E-01	2.69E-01	1.19E-01	1.85E-02	9.59E-03	1.48E-04	2.34E-05	1.22E-05	3.28E+00	5.83E+00	2.25E+00	2.49E+00	1.32E-02	3.82E-03	2.91E-03
R_18	546601.4	5396387.56	Residence		1.53E-05	4.27E-06	3.26E-06	1.33E+00	3.46E-01	2.65E-01	9.61E-02	1.56E-02	7.80E-03	1.20E-04	1.97E-05	9.95E-06	3.34E+00	5.82E+00	2.24E+00	2.49E+00	1.31E-02	3.69E-03	2.83E-03
R_19	546856.4	5395580.56	Residence		1.48E-05	3.57E-06	2.78E-06	1.25E+00	2.91E-01	2.25E-01	4.26E-02	7.27E-03	3.90E-03	5.32E-05	9.18E-06	5.05E-06	3.62E+00	5.84E+00	2.24E+00	2.48E+00	1.23E-02	3.01E-03	2.36E-03
R_2	547273.4	5398044.56	Residence		3.08E-05	8.34E-06	5.92E-06	2.47E+00	6.57E-01	4.71E-01	2.59E-02	6.88E-03	3.54E-03	3.25E-05	8.76E-06	4.81E-06	3.46E+00	5.84E+00	2.25E+00	2.49E+00	2.52E-02	6.84E-03	4.90E-03
R_20	546950.4	5395533.56	Residence		1.50E-05	3.55E-06	2.77E-06	1.27E+00	2.90E-01	2.24E-01	3.93E-02	6.80E-03	3.72E-03	4.91E-05	8.69E-06	4.83E-06	3.78E+00	5.84E+00	2.24E+00	2.48E+00	1.25E-02	2.99E-03	2.35E-03
R_21	547201.4	5395415.56	Residence		1.50E-05	3.49E-06	2.75E-06	1.27E+00	2.85E-01	2.23E-01	3.54E-02	6.24E-03	3.33E-03	4.42E-05	7.98E-06	4.35E-06	4.59E+00	5.87E+00	2.24E+00	2.48E+00	1.25E-02	2.96E-03	2.33E-03
R_22	548317.4	5399654.57	Residence		7.50E-05	2.59E-05	1.66E-05	6.30E+00	1.96E+00	1.27E+00	1.03E-02	3.30E-03	2.20E-03	1.95E-05	5.68E-06	4.39E-06	4.35E+00	5.87E+00	2.25E+00	2.49E+00	6.10E-02	2.09E-02	1.34E-02
R_3	545809.4	5397232.54	Bergagnini Apartment Rental		2.00E-05	4.99E-06	3.58E-06	1.61E+00	4.11E-01	3.05E-01	3.06E-01	7.95E-02	3.37E-02	3.83E-04	9.95E-05	4.23E-05	3.22E+00	5.86E+00	2.26E+00	2.50E+00	1.64E-02	4.87E-03	3.66E-03
R_4	546092.4	5396796.55	Residence		1.64E-05	4.66E-06	3.39E-06	1.33E+00	3.85E-01	2.85E-01	2.34E-01	5.11E-02	2.65E-02	2.93E-04	6.39E-05	3.32E-05	3.62E+00	5.84E+00	2.25E+00	2.49E+00	1.35E-02	4.41E-03	3.35E-03
R_5	545971.4	5396489.55	Condominium		1.46E-05	4.26E-06	3.12E-06	1.18E+00	3.47E-01	2.58E-01	1.82E-01	3.46E-02	1.53E-02	2.27E-04	4.34E-05	1.93E-05	3.62E+00	5.93E+00	2.31E+00	2.53E+00	1.20E-02	3.81E-03	2.89E-03
R_6	545655.4	5396520.55	Residence		1.56E-05	4.25E-06	3.06E-06	1.27E+00	3.76E-01	2.61E-01	3.40E-01	6.80E-02	2.90E-02	4.24E-04	8.52E-05	3.64E-05	3.34E+00	5.85E+00	2.26E+00	2.50E+00	1.31E-02	4.93E-03	3.14E-03
R_7	545438.4	5396408.54	I Sew Studio and Residence		1.49E-05	4.01E-06	2.88E-06	1.23E+00	3.51E-01	2.47E-01	2.80E-01	5.70E-02	2.98E-02	3.50E-04	7.15E-05	3.74E-05	3.23E+00	5.93E+00	2.30E+00	2.53E+00	1.30E-02	4.52E-03	3.01E-03
R_8	545380.4	5396243.54	Bayview Apartments		1.41E-05	3.85E-06	2.77E-06	1.16E+00	3.31E-01	2.34E-01	1.93E-01	4.06E-02	2.03E-02	2.41E-04	5.10E-05	2.55E-05	3.23E+00	5.92E+00	2.30E+00	2.53E+00	1.22E-02	4.04E-03	2.71E-03
R_9	545290.4	5396114.54	Residence		1.36E-05	3.73E-06	2.68E-06	1.14E+00	3.17E-01	2.25E-01	1.46E-01	3.37E-02	1.64E-02	1.82E-04	4.23E-05	2.06E-05	3.22E+00	5.89E+00	2.28E+00	2.51E+00	1.18E-02	3.79E-03	2.56E-03
RH_1	546049.4	5395894.55	Peninsula Manor		1.33E-05	3.65E-06	2.78E-06	1.18E+00	2.95E-01	2.26E-01	7.38E-02	1.20E-02	6.97E-03	9.24E-05	1.52E-05	8.86E-06	3.36E+00	5.84E+00	2.25E+00	2.49E+00	1.15E-02	3.13E-03	2.42E-03
RH_2	545320.9	5396196.57	Senior's Centre		1.39E-05	3.80E-06	2.73E-06	1.15E+00	3.25E-01	2.29E-01	1.67E-01	3.79E-02	1.87E-02	2.09E-04	4.77E-05	2.34E-05	3.25E+00	5.95E+00	2.31E+00	2.53E+00	1.21E-02	3.93E-03	2.64E-03
S_1	546339.4	5396624.55	Holy Saviour School		1.50E-05	4.50E-06	3.35E-06	1.34E+00	3.66E-01	2.75E-01	1.43E-01	2.31E-02	1.26E-02	1.79E-04	2.90E-05	1.59E-05	3.45E+00	5.83E+00	2.25E+00	2.49E+00	1.32E-02	3.98E-03	3.01E-03
S_2	545633.4	5396102.55	Confederation College Northshore Campus		1.31E-05	3.81E-06	2.79E-06	1.09E+00	3.21E-01	2.30E-01	2.01E-01	3.16E-02	1.24E-02	2.51E-04	3.96E-05	1.56E-05	3.52E+00	5.90E+00	2.29E+00	2.53E+00	1.09E-02	3.78E-03	2.55E-03
S_3	546200.4	5396036.55	Marathon High School		1.39E-05	3.80E-06	2.90E-06	1.23E+00	3.07E-01	2.36E-01	8.16E-02	1.31E-02	6.95E-03	1.02E-04	1.65E-05	8.85E-06	3.26E+00	5.83E+00	2.25E+00	2.49E+00	1.21E-02	3.21E-03	2.52E-03
S_4	546261.4	5395967.55	Ecole secondaire Cite-Superieure		1.39E-05	3.74E-06	2.87E-06	1.22E+00	3.02E-01	2.33E-01	7.32E-02	1.18E-02	6.34E-03	9.19E-05	1.49E-05	8.09E-06	3.27E+00	5.83E+00	2.25E+00	2.49E+00	1.20E-02	3.16E-03	2.48E-03
S_5	547019.4	5395082.56	Marathon Children and Family Centre		1.42E-05	3.25E-06	2.54E-06	1.20E+00	2.65E-01	2.06E-01	4.38E-02	6.29E-03	2.68E-03	5.47E-05	7.96E-06	3.51E-06	4.39E+00	5.86E+00	2.24E+00	2.48E+00	1.18E-02	2.73E-03	2.14E-03

Table F-3 Special Receptor Predictions (ug/m3) - Operations, Cumulative (Project + Background)

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	SODIUM CARBOXYMETHYL CELLULOSE			STRONTIUM (SR)			THALLIUM (TL)			TITANIUM (TI)			TOC			TOC (METHANE)		
				Averaging Period	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual
				Criteria	120	-	-	120	-	-	0.5	-	-	120	-	-	-	-	-	37330	-	-
				Background Concentration (ug/m3)				4.36E-03	1.68E-03	1.89E-03				1.89E-02	7.29E-03	8.99E-03						
H_1	545937.4	5396169.55	Wilson Memorial General Hospital		4.30E-04	5.90E-05	3.84E-05	5.03E-03	1.89E-03	2.04E-03	9.50E-05	3.09E-05	2.27E-05	2.57E-02	9.49E-03	1.06E-02	5.15E-02	1.12E-02	8.94E-03	4.57E-02	7.31E-03	3.80E-03
M_1	545694	5403864	PM-10 @ Hare Lake		1.20E-03	2.21E-04	1.28E-04	6.05E-03	2.16E-03	2.18E-03	2.01E-04	5.68E-05	3.41E-05	3.54E-02	1.25E-02	1.21E-02	1.17E-01	3.53E-02	2.08E-02	1.13E-01	1.89E-02	1.10E-02
M_2	545694	5403873	Dustfall @ Hare Lake		1.19E-03	2.21E-04	1.28E-04	6.04E-03	2.16E-03	2.17E-03	2.00E-04	5.67E-05	3.40E-05	3.53E-02	1.25E-02	1.21E-02	1.17E-01	3.53E-02	2.08E-02	1.12E-01	1.90E-02	1.10E-02
M_3	547152	5401222	PM-10 @ Mays Gifts		2.64E-03	4.54E-04	2.37E-04	8.40E-03	2.78E-03	2.63E-03	4.71E-04	1.28E-04	8.79E-05	6.18E-02	1.91E-02	1.71E-02	3.94E-01	8.33E-02	5.41E-02	2.03E-01	3.50E-02	1.73E-02
M_4	547147	5401216	Dustfall @ Mays Gifts		2.63E-03	4.52E-04	2.36E-04	8.38E-03	2.77E-03	2.63E-03	4.69E-04	1.28E-04	8.74E-05	6.16E-02	1.90E-02	1.71E-02	3.91E-01	8.28E-02	5.38E-02	2.05E-01	3.52E-02	1.73E-02
M_5	551637	5402371	PM-10 @ Pic River		2.96E-03	5.07E-04	2.26E-04	7.03E-03	2.75E-03	2.55E-03	3.12E-04	1.25E-04	7.73E-05	4.73E-02	1.85E-02	1.60E-02	2.73E-01	7.55E-02	4.45E-02	1.91E-01	3.33E-02	1.76E-02
M_6	551643	5402374	Dustfall @ Pic River		2.94E-03	5.05E-04	2.25E-04	7.02E-03	2.74E-03	2.55E-03	3.11E-04	1.25E-04	7.71E-05	4.72E-02	1.85E-02	1.59E-02	2.72E-01	7.54E-02	4.44E-02	1.90E-01	3.32E-02	1.75E-02
M_7	549180	5399815	Dustfall @ Airport		1.66E-03	2.76E-04	1.48E-04	1.76E-02	7.58E-03	6.38E-03	1.55E-03	6.92E-04	5.27E-04	1.61E-01	7.04E-02	5.70E-02	2.37E-01	5.13E-02	3.63E-02	1.53E-01	2.71E-02	1.13E-02
M_8	545863	5397092	Dustfall @ Field Office		4.71E-04	7.80E-05	4.71E-05	5.31E-03	1.96E-03	2.10E-03	1.76E-04	7.05E-05	4.54E-05	2.89E-02	1.02E-02	1.12E-02	6.07E-02	1.40E-02	1.08E-02	5.69E-02	8.56E-03	4.63E-03
O_1	547181.4	5398014.56	Pic Motel		7.94E-04	1.03E-04	6.98E-05	5.83E-03	2.08E-03	2.18E-03	1.72E-04	4.79E-05	3.56E-05	3.45E-02	1.16E-02	1.21E-02	9.41E-02	2.06E-02	1.64E-02	9.09E-02	1.29E-02	6.93E-03
O_2	545734.4	5396872.55	Marathon Harbour Inn		4.43E-04	7.30E-05	4.42E-05	5.28E-03	2.03E-03	2.14E-03	2.50E-04	1.50E-04	8.28E-05	2.86E-02	1.10E-02	1.17E-02	5.69E-02	1.32E-02	1.01E-02	5.47E-02	8.09E-03	4.36E-03
O_3	545885.4	5396448.55	Zero-100 Motor Inn		4.13E-04	6.40E-05	4.07E-05	5.09E-03	1.91E-03	2.06E-03	1.19E-04	3.64E-05	2.71E-05	2.65E-02	9.70E-03	1.08E-02	5.10E-02	1.20E-02	9.42E-03	5.22E-02	7.78E-03	4.02E-03
O_4	545987.4	5397640.55	OPP Station		5.54E-04	9.10E-05	5.46E-05	5.49E-03	1.97E-03	2.10E-03	1.32E-04	4.41E-05	3.12E-05	3.07E-02	1.03E-02	1.12E-02	7.28E-02	1.64E-02	1.25E-02	5.65E-02	9.59E-03	5.31E-03
O_5	545876.4	5396072.55	Library		4.18E-04	5.70E-05	3.75E-05	5.01E-03	1.89E-03	2.04E-03	8.50E-05	3.18E-05	2.20E-05	2.55E-02	9.45E-03	1.06E-02	5.01E-02	1.10E-02	8.72E-03	4.50E-02	7.16E-03	3.71E-03
P_1	546958.4	5396138.56	Penn Lake Park and Campground		3.80E-04	6.10E-05	4.05E-05	5.19E-03	1.89E-03	2.05E-03	9.60E-05	2.77E-05	2.16E-05	2.74E-02	9.51E-03	1.07E-02	4.91E-02	1.18E-02	9.51E-03	5.54E-02	6.60E-03	3.83E-03
P_2	548538.4	5392862.58	Craig's Pit Provincial Nature Reserve		2.72E-04	4.30E-05	2.19E-05	4.94E-03	1.82E-03	1.97E-03	6.90E-05	1.62E-05	1.02E-05	2.46E-02	8.69E-03	9.88E-03	3.00E-02	7.66E-03	5.20E-03	4.27E-02	5.57E-03	2.35E-03
P_3	540005	5402014	Red Sucker Point Provincial Park		2.30E-04	5.00E-05	2.63E-05	4.86E-03	1.81E-03	1.96E-03	5.90E-05	1.59E-05	9.19E-06	2.40E-02	8.65E-03	9.76E-03	3.03E-02	8.30E-03	4.94E-03	3.51E-02	5.53E-03	2.78E-03
P_4	552770	5383776	Pukaskwa National Park		7.70E-05	1.50E-05	7.86E-06	4.59E-03	1.73E-03	1.92E-03	2.70E-05	5.54E-06	3.20E-06	2.12E-02	7.76E-03	9.27E-03	1.38E-02	2.75E-03	1.65E-03	1.30E-02	1.90E-03	8.85E-04
PR_1	553679.4	5385895.59	Children & Family Learning Centre		6.70E-05	1.40E-05	8.17E-06	4.55E-03	1.73E-03	1.92E-03	2.20E-05	5.61E-06	3.44E-06	2.08E-02	7.75E-03	9.29E-03	9.87E-03	2.52E-03	1.76E-03	1.07E-02	1.75E-03	8.89E-04
PR_2	554004.4	5385857.59	Pic River Elementary		6.80E-05	1.40E-05	7.96E-06	4.52E-03	1.72E-03	1.92E-03	1.90E-05	5.20E-06	3.34E-06	2.06E-02	7.72E-03	9.28E-03	8.65E-03	2.49E-03	1.71E-03	1.05E-02	1.72E-03	8.62E-04
PR_3	553836.4	5385603.59	Pic River Private High School		6.60E-05	1.30E-05	7.92E-06	4.54E-03	1.73E-03	1.92E-03	2.10E-05	5.36E-06	3.33E-06	2.07E-02	7.73E-03	9.28E-03	9.32E-03	2.46E-03	1.70E-03	1.02E-02	1.70E-03	8.61E-04
PR_4	553930.4	5386048.59	Pic River Health Centre		6.90E-05	1.40E-05	8.10E-06	4.53E-03	1.72E-03	1.92E-03	2.00E-05	5.32E-06	3.40E-06	2.06E-02	7.73E-03	9.28E-03	8.88E-03	2.54E-03	1.74E-03	1.06E-02	1.75E-03	8.77E-04
PR_5	552493.4	5384782.58	BIIDAABAN Healing Lodge		8.80E-05	1.60E-05	8.59E-06	4.61E-03	1.73E-03	1.92E-03	2.90E-05	6.01E-06	3.50E-06	2.14E-02	7.80E-03	9.29E-03	1.50E-02	3.02E-03	1.81E-03	1.50E-02	2.08E-03	9.66E-04
PR_6	552843.4	5390099.59	Residence		1.07E-04	2.20E-05	1.27E-05	4.65E-03	1.75E-03	1.94E-03	3.40E-05	8.37E-06	5.45E-06	2.19E-02	8.00E-03	9.46E-03	1.40E-02	3.96E-03	2.73E-03	1.63E-02	2.74E-03	1.40E-03
PR_7	553761.4	5387705.59	Residence		7.90E-05	1.60E-05	9.28E-06	4.54E-03	1.73E-03	1.92E-03	2.10E-05	5.87E-06	3.93E-06	2.07E-02	7.79E-03	9.33E-03	9.26E-03	2.93E-03	2.00E-03	1.25E-02	1.98E-03	9.98E-04
PS_1	545001.3	5404050.49	North Hare Lake Cottage		9.27E-04	1.65E-04	9.70E-05	5.55E-03	2.06E-03	2.11E-03	1.39E-04	4.42E-05	2.61E-05	3.11E-02	1.13E-02	1.14E-02	9.11E-02	2.66E-02	1.58E-02	9.65E-02	1.54E-02	8.95E-03
PS_2	544331.3	5403100.49	South Hare Lake Cottage		8.49E-04	1.28E-04	7.14E-05	5.70E-03	2.02E-03	2.08E-03	1.59E-04	3.95E-05	2.22E-05	3.15E-02	1.09E-02	1.10E-02	8.55E-02	2.24E-02	1.31E-02	9.79E-02	1.17E-02	6.53E-03
PS_3	547056.1	5401003.77	May's Gifts		2.11E-03	4.08E-04	2.12E-04	7.94E-03	2.64E-03	2.54E-03	4.17E-04	1.13E-04	7.64E-05	5.68E-02	1.76E-02	1.60E-02	3.23E-01	7.40E-02	4.79E-02	2.01E-01	3.43E-02	1.67E-02
PS_4	546811.4	5400952.54	Wayfare Inn		2.06E-03	3.54E-04	1.85E-04	7.63E-03	2.55E-03	2.47E-03	3.81E-04	1.02E-04	6.87E-05	5.35E-02	1.66E-02	1.53E-02	3.05E-01	6.43E-02	4.17E-02	1.78E-01	2.96E-02	1.44E-02
PS_5	546996.4	5401027.54	Peninsula Inn		2.19E-03	3.98E-04	2.08E-04	7.92E-03	2.63E-03	2.53E-03	4.15E-04	1.12E-04	7.57E-05	5.66E-02	1.75E-02	1.59E-02	3.30E-01	7.23E-02	4.68E-02	1.98E-01	3.32E-02	1.62E-02
PS_6	548471.4	5399488.57	Travelodge Hotel		1.19E-03	2.10E-04	1.33E-04	9.73E-03	3.48E-03	3.00E-03	6.29E-04	2.11E-04	1.31E-04	7.58E-02	2.65E-02	2.09E-02	1.68E-01	4.22E-02	3.18E-02	1.32E-01	2.15E-02	1.09E-02
PS_7	546903.4	5401055.54	The Laughing Mooz Eatery Restaurant and Residence		2.25E-03	3.79E-04	1.99E-04	7.85E-03	2.62E-03	2.52E-03	4.07E-04	1.10E-04	7.45E-05	5.59E-02	1.74E-02	1.58E-02	3.33E-01	6.91E-02	4.49E-02	1.89E-01	3.13E-02	1.53E-02
PW_1	545777.4	5397150.54	Kingdom Hall of Jehovah's Witnesses		4.85E-04	7.90E-05	4.76E-05	5.33E-03	1.95E-03	2.10E-03	2.24E-04	8.12E-05	4.62E-05	2.91E-02	1.02E-02	1.13E-02	6.31E-02	1.42E-02	1.09E-02	5.41E-02	8.53E-03	4.68E-03
PW_2	546331.4	5395941.55	Parkland Pentecostal Church		4.27E-04	5.60E-05	3.72E-05	5.07E-03	1.87E-03	2.04E-03	8.90E-05	2.48E-05	2.01E-05	2.61E-02	9.30E-03	1.06E-02	4.98E-02	1.10E-02	8.74E-03	5.75E-02	6.12E-03	3.60E-03
PW_3	545857.4	5395714.55	St. John's United Church		4.04E-04	5.10E-05	3.47E-05	5.00E-03	1.86E-03	2.03E-03	7.50E-05	2.82E-05	1.92E-05	2.53E-02	9.24E-03	1.04E-02	4.75E-02	1.01E-02	8.08E-03	4.57E-02	6.46E-03	3.43E-03
PW_4	545425	5396043.49	Holy Saviour Roman Catholic Church		3.44E-04	5.90E-05	3.64E-05	5.02E-03	1.89E-03	2.04E-03	1.23E-04	3.61E-05	2.37E-05	2.58E-02	9.48E-03	1.05E-02	4.43E-02	1.08E-02	8.35E-03	4.92E-02	6.96E-03	3.64E-03
PW_5	545390.4	5395988.55	Anglican Church-Trinity		3.40E-04	5.90E-05	3.61E-05	5.02E-03	1.88E-03	2.03E-03	1.16E-04	3.48E-05	2.26E-05	2.57E-02	9.44E-03	1.05E-02	4.40E-02	1.07E-02	8.27E-03	4.87E-02	6.91E-03	3.61E-03
R_1	547226.4	5398095.56	Residence		8.17E-04	1.06E-04	7.21E-05	5.93E-03	2.10E-03	2.19E-03	1.83E-04	4.96E-05	3.65E-05	3.55E-02	1.17E-02	1.22E-02	9.68E-02	2.13E-02	1.69E-02	9.59E-02	1.34E-02	7.21E-03
R_10	545421.4	5395953.55	Residence		3.30E-04	5.80E-05	3.58E-05	5.00E-03	1.88E-03	2.03E-03	1.13E-04	3.34E-05	2.22E-05	2.56E-02	9.40E-03	1.05E-02	4.27E-02	1.06E-02	8.22E-03	4.85E-02	6.89E-03	3.58E-03
R_11	545619.4	5395877.55	Residence		3.69E-04	5.60E-05	3.55E-05	4.97E-03	1.88E-03	2.03E-03	1.00E-04	3.42E-05	2.08E-05	2.53E-02	9.39E-03	1.05E-02	4.51E-02	1.04E-02	8.21E-03	4.60E-02	6.89E-03	3.54E-03
R_12	545831.4	5396000.55	Residence		4.09E-04	5.60E-05	3.68E-05	5.00E-03	1.88E-03	2.04E-03	7.90E-05	3.26E-05	2.15E-05	2.54E-02	9.43E-03	1.06E-02	4.91E-02	1.08E-02	8.55E-03	4.44E-02	7.04E-03	3.65E-03
R_13	545806.9	5396173.19	Residence		4.03E-04	6.00E-05	3.82E-05	5.02E-03	1.90E-03	2.04E-03	8.80E-05	3.66E-05	2.35E-05	2.58E-02	9.56E-03	1.06E-02	4.91E-02	1.12E-02	8.84E-03	4.84E-02	7.34E-03	3.78E-03
R_14	545827.1	5396228.86	Residence		4.07E-04	6.10E-05	3.87E-05	5.03E-03	1.90E-03	2.05E-03	9.50E-05	3.62E-05	2.41E-05	2.59E-02	9.59E-03	1.07E-02	4.98E-02	1.14E-02	8.98E-03	4.91E-02	7.45E-03	3.84E-03
R_15	545662.4	5396175.55	Residence		3.67E-04	6.10E-05	3.79E-05	5.03E-03	1.90E-03	2.04E-03	1.27E-04	4.29E-05	2.45E-05	2.59E-02	9.65E-03	1.06E-02	4.60E-02	1.12E-02	8.76E-03	5.01E-02	7.31E-03	3.78E-03
R_16	546254.4	5396484.55	Residence		4.84E-04	6.10E-05	4.15E-05	5.11E-03	1.91E-03	2.06E-03	9.70E-05	3.30E-05	2.52E-05	2.64E-02	9.68E-03	1.08E-02	5.68E-02	1.21E-02	9.71E-03	5.15E-02	7.62E-03	4.04E-03
R_17	546471.4	5396506.55	Residence		4.93E-04	6.20E-05	4.22E-05	5.14E-03	1.91E-03	2.06E-03	9.90E-05	3.22E-05	2.48E-05	2.68E-02	9.71E-03	1.08E-02	5.74E-02	1.25E-02	9.92E-03	5.99E-02	7.26E-03	4.06E-03
R_18	546601.4	5396387.56	Residence		4.64E-04	6.30E-05	4.15E-05	5.14E-03	1.90E-03	2.06E-03	9.70E-05	3.00E-05	2.34E-05	2.68E-02	9.63E-03	1.08E-02	5.41E-02	1.23E-02	9.76E-03	6.29E-02	6.62E-03	3.97E-03
R_19	546856.4	5395580.56	Residence		3.33E-04	5.60E-05	3.63E-05	5.10E-03	1.86E-03	2.03E-03	8.70E-05	2.31E-05	1.84E-05	2.65E-02	9.20E-03	1.05E-02	4.42E-02	1.06E-02	8.47E-03	4.69E-02	6.03E-03	3.48E-03
R_2	547273.4	5398044.56	Residence		7.98E-04	1.07E-04	7.16E-05	5.90E-03	2.10E-03	2.19E-03	1.80E-04	4.96E-05	3.63E-05	3.50E-02	1.17E-02	1.22E-02	9.42E-02	2.11E-02	1.68E-02	1.03E-01	1.31E-02	7.21E-03
R_20	546950.4	5395533.56	Residence		3.21E-04	5.60E-05	3.62E-05	5.11E-03	1.86E-03	2.03E-03	8.80E-05	2.31E-05	1.82E-05	2.66E-02	9.19E-03	1.05E-02	4.38E-02	1.07E-02	8.45E-03	4.45E-02	6.19E-03	3.48E-03
R_21	547201.4	5395415.56	Residence		3.13E-04	5.70E-05	3.62E-05	5.11E-03	1.86E-03	2.03E-03	8.80E-05	2.31E-05	1.79E-05	2.66E-02	9.17E-03	1.05E-02	4.69E-02	1.09E-02	8.40E-03	4.28E-02	6.63E-03	3.51E-03
R_22	548317.4	5399654.57	Residence		1.18E-03	2.22E-04	1.45E-04	8.08E-03	2.96E-03	2.71E-03	4.35E-04	1.50E-04	9.68E-05	5.78E-02	2.09E-02	1.78E-02	1.66E-01	4.36E-02	3.45E-02	1.34E-01	2.11E-02	1.12E-02
R_3	545809.4	5397232.54	Bergagnini Apartment Rental		4.96E-04	8.10E-05	4.87E-05	5.36E-03	1.95E-03	2.10E-03	2.00E-04	6.91E-05	4.06E-05	2.94E-02	1.01E-02	1.12E-02	6.46E-02	1.46E-02	1.11E-02	5.42E-02	8.68E-03	4.77E-03
R_4	546092.4	5396796.55	Residence		4.55E-04	7.00E-05	4.43E-05	5.18E-03	1.94E-03	2.08E-03	1.43E-04	5.22E-05	3.52E-05	2.74E-02	9.98E-03	1.10E-02	5.60E-02	1.31E-02	1.03E-02	5.58E-02	8.38E-03	4.34E-03
R_5	545971.4	5396489.55	Condominium		4.32E-04	6.40E-05	4.10E-05	5.09E-03	1.91E-03	2.06E-03	1.12E-04	3.51E-05	2.71E-05	2.65E-02	9.68E-03	1.08E-02	5.27E-02	1.21E-02	9.52E-03	5.16E-02	7.82E-03	4.04E-03
R_6	545655.4	5396520.55	Residence		3.94E-04	6.70E-05	4.12E-05	5.14E-03	1.95E-03	2.07E-03	2.04E-04	6.45E-05	3.49E-05	2.70E-02	1.01E-02	1.09E-02	5.12E-02	1.22E-02	9.46E-03	5.35E-02	7.75E-03	4.09E-03
R_7	545438.4	5396408.54	I Sew Studio and Residence		3.95E-04	6.50E-05	3.92E-05	5.13E-03	1.93E-03	2.06E-03	1.89E-04	5.68E-05	3.43E-05	2.70E-02	9.92E-03	1.08E-02	5.07E-02	1.16E-02	8.95E-03	5.02E-02	7.24E-03	3.90E-03
R_8	545380.4	5396243.54	Bayview Apartments		3.77E-04	6.20E-05	3.77E-05	5.09E-03	1.91E-03	2.05E-03	1.38E-04	4.62E-05	2.81E-05	2.65E-02	9.70E-03	1.07E-02	4.83E-02	1.12E-02	8.63E-03	4.95E-02	7.05E-03	3.77E-03
R_9	545290.4	5396114.54	Residence		3.67E-04	6.00E-05	3.66E-05	5.06E-03	1.90E-03	2.04E-03	1.09E-04	4.14E-05	2.52E-05	2.62E-02	9.57E-03	1.06E-02	4.71E-02	1.08E-02	8.37E-03	4.83E-02	6.85E-03	3.67E-03
RH_1	546049.4	5395894.55	Peninsula Manor		4.29E-04	5.30E-05	3.64E-05	5.04E-03	1.87E-03	2.04E-03	8.40E-05	2.62E-05	2.02E-05	2.57E-02	9.29E-03	1.05E-02	5.02E-02	1.07E-02	8.51E-03	5.06E-02	6.59E-03	3.58E-03
RH_2	545320.9	5396196.57	Senior's Centre		3.75E-04	6.10E-05	3.72E-05	5.08E-03	1.90E-03	2.04E-03	1.22E-04	4.43E-05	2.68E-05	2.64E-02	9.64E-03	1.06E-02	4.81E-02	1.10E-02	8.50E-03	4.86E-02	6.93E-03	3.72E-03
S_1	546339.4	5396624.55	Holy Saviour School		5.02E-04	6.30E-05	4.30E-05	5.14E-03	1.92E-03	2.07E-03	1.16E-04	3.61E-05	2.68E-05	2.67E-02	9.80E-03	1.09E-02	5.88E-02	1.26E-02	1.01E-02	5.33E-02	7.84E-03	4.17E-03
S_2	545633.4	5396102.55	Confederation College Northshore Campus		3.63E-04	6.00E-05	3.73E-05	5.02E-03	1.90E-03	2.04E-03	1.27E-04	4.05E-05	2.34E-05	2.57E-02	9.58E-03	1.06E-02	4.54E-02	1.10E-02	8.60E-03	4.93E-02	7.20E-03	3.72E-03
S_3	546200.4	5396036.55	Marathon High School		4.44E-04	5.50E-05	3.77E-05	5.07E-03	1.88E-03	2.04E-03	9.00E-05	2.61E-05	2.09E-05	2.61E-02	9.35E-03	1.06E-02	5.18E-02	1.11E-02	8.83E-03	5.43E-02	6.63E-03	3.68E-03
S_4	546261.4	5395967.55	Ecole secondaire Cite-Superieure		4.35E-04	5.50E-05	3.73E-05	5.07E-03	1.87E-03	2.04E-03	8.90E-05	2.53E-05	2.03E-05	2.61E-02	9.31E-03	1.06E-02	5.07E-02	1.10E-02	8.74E-03	5.62E-02	6.34E-03	3.62E-03
S_5	547019.4	5395082.56	Marathon Children and Family Centre		2.88E-04	5.50E-05	3.45E-05	5.07E-03	1.85E-03	2.02E-03	8.30E-05	2.12E-05	1.63E-05	2.62E-02	9.02E-03	1.04E-02	4.41E-02	1.02E-02	7.91E-03	4.30E-02	6.42E-03	3.43E-03

Table F-3 Special Receptor Predictions (ug/m3) - Operations, Cumulative (Project + Background)

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	TOLUENE			TSP (See Note 1)			TSP (See Note 2)		TUNGSTEN (W)			URANIUM (U)			VANADIUM (V)			XYLENES			
				Averaging Period	24	month	annual	24	month	annual	24	annual	24	month	annual	24	month	annual	24	month	annual	10-Min	24	month	annual
				Criteria	2000	-	-	-	-	-	120	60	5	-	-	0.15	-	0.03	2	-	-	3000	730	-	-
				Background Concentration (ug/m3)	2.81E+00	1.08E+00	1.53E+00	4.41E+01	1.70E+01	2.44E+01	4.41E+01	2.44E+01							3.14E-03	1.21E-03	8.86E-04	8.28E+00	2.06E+00	7.94E-01	1.08E+00
H_1	545937.4	5396169.55	Wilson Memorial General Hospital		2.81E+00	1.08E+00	1.53E+00	6.41E+01	2.67E+01	3.11E+01	4.83E+01	2.52E+01	4.07E-04	1.23E-04	9.10E-05	1.52E-04	3.90E-05	2.83E-05	4.35E-03	1.59E-03	1.17E-03	8.28E+00	2.06E+00	7.94E-01	1.08E+00
M_1	545694	5403864	PM-10 @ Hare Lake		2.81E+00	1.08E+00	1.53E+00	6.47E+01	2.31E+01	2.81E+01	5.70E+01	2.63E+01	9.56E-04	2.72E-04	1.59E-04	1.92E-04	5.36E-05	3.20E-05	6.32E-03	2.19E-03	1.48E-03	8.29E+00	2.06E+00	7.94E-01	1.08E+00
M_2	545694	5403873	Dustfall @ Hare Lake		2.81E+00	1.08E+00	1.53E+00	6.45E+01	2.31E+01	2.81E+01	5.69E+01	2.63E+01	9.50E-04	2.72E-04	1.59E-04	1.91E-04	5.36E-05	3.20E-05	6.30E-03	2.19E-03	1.48E-03	8.29E+00	2.06E+00	7.94E-01	1.08E+00
M_3	547152	5401222	PM-10 @ Mays Gifts		2.81E+00	1.08E+00	1.53E+00	9.20E+01	3.03E+01	3.36E+01	6.69E+01	2.81E+01	2.43E-03	6.60E-04	4.44E-04	4.70E-04	1.25E-04	8.52E-05	1.08E-02	3.36E-03	2.38E-03	8.29E+00	2.06E+00	7.95E-01	1.08E+00
M_4	547147	5401216	Dustfall @ Mays Gifts		2.81E+00	1.08E+00	1.53E+00	9.17E+01	3.02E+01	3.35E+01	6.68E+01	2.81E+01	2.42E-03	6.56E-04	4.42E-04	4.67E-04	1.25E-04	8.47E-05	1.08E-02	3.35E-03	2.37E-03	8.29E+00	2.06E+00	7.95E-01	1.08E+00
M_5	551637	5402371	PM-10 @ Pic River		2.81E+00	1.08E+00	1.53E+00	7.52E+01	2.94E+01	3.20E+01	6.29E+01	2.82E+01	1.63E-03	6.61E-04	4.13E-04	3.20E-04	1.28E-04	7.85E-05	8.12E-03	3.21E-03	2.13E-03	8.29E+00	2.06E+00	7.95E-01	1.08E+00
M_6	551643	5402374	Dustfall @ Pic River		2.81E+00	1.08E+00	1.53E+00	7.51E+01	2.94E+01	3.20E+01	6.28E+01	2.82E+01	1.62E-03	6.60E-04	4.12E-04	3.19E-04	1.27E-04	7.83E-05	8.10E-03	3.20E-03	2.12E-03	8.29E+00	2.06E+00	7.95E-01	1.08E+00
M_7	549180	5399815	Dustfall @ Airport		2.81E+00	1.08E+00	1.53E+00	1.98E+02	8.57E+01	7.68E+01	7.08E+01	2.66E+01	8.92E-03	3.95E-03	3.01E-03	1.58E-03	7.01E-04	5.35E-04	2.86E-02	1.25E-02	9.51E-03	8.29E+00	2.06E+00	7.94E-01	1.08E+00
M_8	545863	5397092	Dustfall @ Field Office		2.81E+00	1.08E+00	1.53E+00	5.90E+01	2.42E+01	2.98E+01	4.98E+01	2.60E+01	5.97E-04	1.52E-04	1.09E-04	3.37E-04	1.21E-04	7.00E-05	4.92E-03	1.69E-03	1.24E-03	8.28E+00	2.06E+00	7.94E-01	1.08E+00
O_1	547181.4	5398014.56	Pic Motel		2.81E+00	1.08E+00	1.53E+00	6.59E+01	2.33E+01	2.94E+01	5.12E+01	2.56E+01	9.52E-04	2.53E-04	1.80E-04	1.74E-04	4.92E-05	3.76E-05	5.93E-03	1.97E-03	1.44E-03	8.28E+00	2.06E+00	7.94E-01	1.08E+00
O_2	545734.4	5396872.55	Marathon Harbour Inn		2.81E+00	1.08E+00	1.53E+00	6.23E+01	2.60E+01	3.09E+01	5.26E+01	2.74E+01	5.48E-04	1.43E-04	1.02E-04	4.82E-04	2.81E-04	1.46E-04	4.80E-03	1.67E-03	1.25E-03	8.28E+00	2.06E+00	7.94E-01	1.08E+00
O_3	545885.4	5396448.55	Zero-100 Motor Inn		2.81E+00	1.08E+00	1.53E+00	6.29E+01	2.46E+01	3.03E+01	4.90E+01	2.53E+01	4.56E-04	1.32E-04	9.60E-05	2.22E-04	5.09E-05	3.61E-05	4.50E-03	1.62E-03	1.19E-03	8.28E+00	2.06E+00	7.94E-01	1.08E+00
O_4	545987.4	5397640.55	OPP Station		2.81E+00	1.08E+00	1.53E+00	6.25E+01	2.31E+01	2.91E+01	4.93E+01	2.56E+01	7.11E-04	1.74E-04	1.24E-04	2.02E-04	6.31E-05	3.89E-05	5.26E-03	1.75E-03	1.28E-03	8.28E+00	2.06E+00	7.94E-01	1.08E+00
O_5	545876.4	5396072.55	Library		2.81E+00	1.08E+00	1.53E+00	6.28E+01	2.51E+01	3.03E+01	4.81E+01	2.52E+01	3.96E-04	1.19E-04	8.90E-05	1.30E-04	4.14E-05	2.73E-05	4.32E-03	1.58E-03	1.16E-03	8.28E+00	2.06E+00	7.94E-01	1.08E+00
P_1	546958.4	5396138.56	Penn Lake Park and Campground		2.81E+00	1.08E+00	1.53E+00	5.38E+01	1.98E+01	2.66E+01	4.81E+01	2.51E+01	5.03E-04	1.28E-04	9.90E-05	9.80E-05	3.36E-05	2.45E-05	4.66E-03	1.60E-03	1.19E-03	8.28E+00	2.06E+00	7.94E-01	1.08E+00
P_2	548538.4	5392862.58	Craig's Pit Provincial Nature Reserve		2.81E+00	1.08E+00	1.53E+00	5.08E+01	1.86E+01	2.54E+01	4.71E+01	2.48E+01	3.52E-04	8.20E-05	5.20E-05	6.90E-05	1.68E-05	1.06E-05	4.19E-03	1.46E-03	1.05E-03	8.28E+00	2.06E+00	7.94E-01	1.08E+00
P_3	540005	5402014	Red Sucker Point Provincial Park		2.81E+00	1.08E+00	1.53E+00	5.00E+01	1.86E+01	2.53E+01	4.74E+01	2.48E+01	2.91E-04	7.60E-05	4.30E-05	5.90E-05	1.66E-05	9.99E-06	4.07E-03	1.46E-03	1.02E-03	8.28E+00	2.06E+00	7.94E-01	1.08E+00
P_4	552770	5383776	Pukaskwa National Park		2.81E+00	1.08E+00	1.53E+00	4.67E+01	1.75E+01	2.47E+01	4.53E+01	2.45E+01	1.40E-04	2.70E-05	1.60E-05	2.70E-05	5.96E-06	3.36E-06	3.56E-03	1.29E-03	9.35E-04	8.28E+00	2.06E+00	7.94E-01	1.08E+00
PR_1	553679.4	5385895.59	Children & Family Learning Centre		2.81E+00	1.08E+00	1.53E+00	4.63E+01	1.75E+01	2.47E+01	4.51E+01	2.45E+01	1.16E-04	2.70E-05	1.70E-05	2.20E-05	6.06E-06	3.61E-06	3.49E-03	1.29E-03	9.39E-04	8.28E+00	2.06E+00	7.94E-01	1.08E+00
PR_2	554004.4	5385857.59	Pic River Elementary		2.81E+00	1.08E+00	1.53E+00	4.60E+01	1.75E+01	2.47E+01	4.50E+01	2.45E+01	1.00E-04	2.50E-05	1.70E-05	1.90E-05	5.63E-06	3.50E-06	3.44E-03	1.29E-03	9.37E-04	8.28E+00	2.06E+00	7.94E-01	1.08E+00
PR_3	553836.4	5385603.59	Pic River Private High School		2.81E+00	1.08E+00	1.53E+00	4.62E+01	1.75E+01	2.47E+01	4.50E+01	2.45E+01	1.08E-04	2.60E-05	1.70E-05	2.10E-05	5.79E-06	3.49E-06	3.47E-03	1.29E-03	9.37E-04	8.28E+00	2.06E+00	7.94E-01	1.08E+00
PR_4	553930.4	5386048.59	Pic River Health Centre		2.81E+00	1.08E+00	1.53E+00	4.61E+01	1.75E+01	2.47E+01	4.50E+01	2.45E+01	1.03E-04	2.60E-05	1.70E-05	2.00E-05	5.76E-06	3.57E-06	3.45E-03	1.29E-03	9.38E-04	8.28E+00	2.06E+00	7.94E-01	1.08E+00
PR_5	552493.4	5384782.58	BIIDAABAN Healing Lodge		2.81E+00	1.08E+00	1.53E+00	4.70E+01	1.76E+01	2.47E+01	4.54E+01	2.45E+01	1.53E-04	2.90E-05	1.80E-05	3.00E-05	6.49E-06	3.68E-06	3.60E-03	1.30E-03	9.40E-04	8.28E+00	2.06E+00	7.94E-01	1.08E+00
PR_6	552843.4	5390099.59	Residence		2.81E+00	1.08E+00	1.53E+00	4.75E+01	1.78E+01	2.49E+01	4.56E+01	2.46E+01	1.79E-04	4.20E-05	2.70E-05	3.40E-05	8.81E-06	5.72E-06	3.68E-03	1.34E-03	9.70E-04	8.28E+00	2.06E+00	7.94E-01	1.08E+00
PR_7	553761.4	5387705.59	Residence		2.81E+00	1.08E+00	1.53E+00	4.62E+01	1.76E+01	2.48E+01	4.50E+01	2.45E+01	1.10E-04	2.90E-05	2.00E-05	2.10E-05	6.30E-06	4.13E-06	3.47E-03	1.30E-03	9.47E-04	8.28E+00	2.06E+00	7.94E-01	1.08E+00
PS_1	545001.3	5404050.49	North Hare Lake Cottage		2.81E+00	1.08E+00	1.53E+00	5.83E+01	2.17E+01	2.71E+01	5.14E+01	2.57E+01	6.87E-04	2.17E-04	1.26E-04	1.35E-04	4.23E-05	2.53E-05	5.38E-03	1.96E-03	1.32E-03	8.28E+00	2.06E+00	7.94E-01	1.08E+00
PS_2	544331.3	5403100.49	South Hare Lake Cottage		2.81E+00	1.08E+00	1.53E+00	5.99E+01	2.11E+01	2.67E+01	5.42E+01	2.55E+01	7.67E-04	1.95E-04	1.08E-04	1.51E-04	3.81E-05	2.18E-05	5.56E-03	1.87E-03	1.26E-03	8.28E+00	2.06E+00	7.94E-01	1.08E+00
PS_3	547056.1	5401003.77	May's Gifts		2.81E+00	1.08E+00	1.53E+00	8.62E+01	2.86E+01	3.23E+01	6.48E+01	2.76E+01	2.17E-03	5.81E-04	3.88E-04	4.18E-04	1.11E-04	7.48E-05	9.92E-03	3.08E-03	2.17E-03	8.29E+00	2.06E+00	7.95E-01	1.08E+00
PS_4	546811.4	5400952.54	Wayfare Inn		2.81E+00	1.08E+00	1.53E+00	8.27E+01	2.76E+01	3.16E+01	6.27E+01	2.73E+01	1.97E-03	5.19E-04	3.46E-04	3.81E-04	9.93E-05	6.71E-05	9.33E-03	2.91E-03	2.04E-03	8.29E+00	2.06E+00	7.95E-01	1.08E+00
PS_5	546996.4	5401027.54	Peninsula Inn		2.81E+00	1.08E+00	1.53E+00	8.60E+01	2.85E+01	3.23E+01	6.45E+01	2.76E+01	2.15E-03	5.74E-04	3.83E-04	4.15E-04	1.10E-04	7.39E-05	9.88E-03	3.08E-03	2.16E-03	8.29E+00	2.06E+00	7.95E-01	1.08E+00
PS_6	548471.4	5399488.57	Travelodge Hotel		2.81E+00	1.08E+00	1.53E+00	1.08E+02	3.89E+01	3.81E+01	6.20E+01	2.63E+01	3.53E-03	1.18E-03	7.27E-04	6.36E-04	2.13E-04	1.33E-04	1.34E-02	4.65E-03	3.01E-03	8.29E+00	2.06E+00	7.94E-01	1.08E+00
PS_7	546903.4	5401055.54	The Laughing Mooz Eatery Restaurant and Residence		2.81E+00	1.08E+00	1.53E+00	8.53E+01	2.84E+01	3.22E+01	6.38E+01	2.76E+01	2.10E-03	5.62E-04	3.74E-04	4.06E-04	1.07E-04	7.23E-05	9.76E-03	3.06E-03	2.15E-03	8.29E+00	2.06E+00	7.95E-01	1.08E+00
PW_1	545777.4	5397150.54	Kingdom Hall of Jehovah's Witnesses		2.81E+00	1.08E+00	1.53E+00	6.21E+01	2.36E+01	2.95E+01	5.16E+01	2.61E+01	6.11E-04	1.53E-04	1.09E-04	4.28E-04	1.40E-04	7.17E-05	4.96E-03	1.69E-03	1.24E-03	8.28E+00	2.06E+00	7.94E-01	1.08E+00
PW_2	546331.4	5395941.55	Parkland Pentecostal Church		2.81E+00	1.08E+00	1.53E+00	5.35E+01	1.98E+01	2.66E+01	4.84E+01	2.51E+01	4.17E-04	1.16E-04	9.00E-05	1.12E-04	3.02E-05	2.34E-05	4.42E-03	1.57E-03	1.16E-03	8.28E+00	2.06E+00	7.94E-01	1.08E+00
PW_3	545857.4	5395714.55	St. John's United Church		2.81E+00	1.08E+00	1.53E+00	5.32E+01	2.01E+01	2.68E+01	4.80E+01	2.51E+01	3.68E-04	1.08E-04	8.20E-05	9.80E-05	3.64E-05	2.30E-05	4.28E-03	1.55E-03	1.14E-03	8.28E+00	2.06E+00	7.94E-01	1.08E+00
PW_4	545425	5396043.49	Holy Saviour Roman Catholic Church		2.81E+00	1.08E+00	1.53E+00	5.98E+01	2.42E+01	2.98E+01	4.87E+01	2.53E+01	4.07E-04	1.16E-04	8.40E-05	2.12E-04	5.04E-05	3.15E-05	4.37E-03	1.58E-03	1.15E-03	8.28E+00	2.06E+00	7.94E-01	1.08E+00
PW_5	545390.4	5395988.55	Anglican Church-Trinity		2.81E+00	1.08E+00	1.53E+00	6.37E+01	2.50E+01	3.01E+01	4.84E+01	2.52E+01	4.02E-04	1.14E-04	8.30E-05	1.97E-04	4.81E-05	2.94E-05	4.35E-03	1.57E-03	1.15E-03	8.28E+00	2.06E+00	7.94E-01	1.08E+00
R_1	547226.4	5398095.56	Residence		2.81E+00	1.08E+00	1.53E+00	6.95E+01	2.49E+01	3.09E+01	5.14E+01	2.56E+01	1.02E-03	2.63E-04	1.87E-04	1.86E-04	5.08E-05	3.82E-05	6.12E-03	2.01E-03	1.46E-03	8.28E+00	2.06E+00	7.94E-01	1.08E+00
R_10	545421.4	5395953.55	Residence		2.81E+00	1.08E+00	1.53E+00	7.65E+01	2.80E+01	3.26E+01	4.83E+01	2.52E+01	3.95E-04	1.13E-04	8.20E-05	1.92E-04	4.55E-05	2.88E-05	4.33E-03	1.57E-03	1.15E-03	8.28E+00	2.06E+00	7.94E-01	1.08E+00
R_11	545619.4	5395877.55	Residence		2.81E+00	1.08E+00	1.53E+00	6.13E+01	2.33E+01	2.93E+01	4.77E+01	2.51E+01	3.77E-04	1.12E-04	8.30E-05	1.91E-04	4.75E-05	2.59E-05	4.27E-03	1.56E-03	1.15E-03	8.28E+00	2.06E+00	7.94E-01	1.08E+00
R_12	545831.4	5396000.55	Residence		2.81E+00	1.08E+00	1.53E+00	6.13E+01	2.34E+01	2.94E+01	4.80E+01	2.51E+01	3.87E-04	1.17E-04	8.70E-05	1.28E-04	4.34E-05	2.66E-05	4.30E-03	1.58E-03	1.16E-03	8.28E+00	2.06E+00	7.94E-01	1.08E+00
R_13	545806.9	5396173.19	Residence		2.81E+00	1.08E+00	1.53E+00	7.94E+01	3.29E+01	3.70E+01	4.80E+01	2.52E+01	4.13E-04	1.22E-04	9.00E-05	1.61E-04	5.03E-05	3.00E-05	4.37E-03	1.59E-03	1.17E-03	8.28E+00	2.06E+00	7.94E-01	1.08E+00
R_14	545827.1	5396228.86	Residence		2.81E+00	1.08E+00	1.53E+00	6.98E+01	2.82E+01	3.31E+01	4.82E+01	2.52E+01	4.21E-04	1.24E-04	9.10E-05	1.67E-04	4.93E-05	3.09E-05	4.40E-03	1.60E-03	1.17E-03	8.28E+00	2.06E+00	7.94E-01	1.08E+00
R_15	545662.4	5396175.55	Residence		2.81E+00	1.08E+00	1.53E+00	5.85E+01	2.31E+01	2.90E+01	4.85E+01	2.53E+01	4.20E-04	1.21E-04	8.90E-05	2.44E-04	6.30E-05	3.22E-05	4.40E-03	1.60E-03	1.17E-03	8.28E+00	2.06E+00	7.94E-01	1.08E+00
R_16	546254.4	5396484.55	Residence		2.81E+00	1.08E+00	1.53E+00	5.46E+01	2.07E+01	2.73E+01	4.89E+01	2.53E+01	4.38E-04	1.35E-04	1.01E-04	1.78E-04	4.60E-05	3.14E-05	4.47E-03	1.63E-03	1.20E-03	8.28E+00	2.06E+00	7.94E-01	1.08E+00
R_17	546471.4	5396506.55	Residence		2.81E+00	1.08E+00	1.53E+00	5.42E+01	2.03E+01	2.70E+01	4.90E+01	2.53E+01	4.54E-04	1.37E-04	1.04E-04	1.48E-04	4.19E-05	3.01E-05	4.54E-03	1.63E-03	1.21E-03	8.28E+00	2.06E+00	7.94E-01	1.08E+00
R_18	546601.4	5396387.56	Residence		2.81E+00	1.08E+00	1.53E+00	5.39E+01	2.01E+01	2.69E+01	4.88E+01	2.52E+01	4.58E-04	1.33E-04	1.02E-04	1.21E-04	3.87E-05	2.78E-05	4.54E-03	1.62E-03	1.20E-03	8.28E+00	2.06E+00	7.94E-01	1.08E+00
R_19	546856.4	5395580.56	Residence		2.81E+00	1.08E+00	1.53E+00	5.28E+01	1.93E+01	2.62E+01	4.76E+01	2.50E+01	4.50E-04	1.11E-04	8.70E-05	9.20E-05	2.68E-05	2.04E-05	4.51E-03	1.55E-03	1.15E-03	8.28E+00	2.06E+00	7.94E-01	1.08E+00
R_2	547273.4	5398044.56	Residence		2.81E+00	1.08E+00	1.53E+00	6.54E+01	2.29E+01	2.90E+01	5.14E+01	2.56E+01	9.85E-04	2.63E-04	1.86E-04	1.80E-04	5.09E-05	3.79E-05	6.06E-03	2.00E-03	1.45E-03	8.29E+00	2.06E+00	7.94E-01	1.08E+00
R_20	546950.4	5395533.56	Residence		2.81E+00	1.08E+00	1.53E+00	5.29E+01	1.93E+01	2.62E+01	4.77E+01	2.50E+01	4.56E-04	1.10E-04	8.70E-05	9.10E-05	2.66E-05	2.02E-05	4.52E-03	1.55E-03	1.15E-03	8.28E+00	2.06E+00	7.94E-01	1.08E+00
R_21	547201.4	5395415.56	Residence		2.81E+00	1.08E+00	1.53E+00	5.28E+01	1.93E+01	2.61E+01	4.77E+01	2.50E+01	4.60E-04	1.08E-04	8.60E-05	8.80E-05	2.60E-05	1.96E-05	4.52E-03	1.54E-03	1.15E-03	8.28E+00	2.06E+00	7.94E-01	1.08E+00
R_22	548317.4	5399654.57	Residence		2.81E+00	1.08E+00	1.53E+00	8.80E+01	3.22E+01	3.43E+01	6.86E+01	2.63E+01	2.37E-03	8.31E-04	5.30E-04	4.39E-04	1.51E-04	9.81E-05	1.01E-02	3.66E-03	2.46E-03	8.29E+00	2.06E+00	7.94E-01	1.08E+00
R_3	545809.4	5397232.54	Bergagnini Apartment Rental		2.81E+00	1.08E+00	1.53E+00	6.31E+01	2.35E+01	2.96E+01	5.08E+01	2.59E+01	6.28E-04	1.56E-04	1.12E-04	3.80E-04	1.15E-04	6.01E-05	5.01E-03	1.70E-03	1.25E-03	8.28E+00	2.06E+00	7.94E-01	1.08E+00
R_4	546092.4	5396796.55	Residence		2.81E+00	1.08E+00	1.53E+00	5.48E+01	2.13E+01	2.76E+01	4.94E+01	2.56E+01	5.14E-04	1.46E-04	1.06E-04	2.80E-04	8.02E-05	5.05E-05	4.67E-03	1.67E-03	1.22E-03	8.28E+00	2.06E+00	7.94E-01	1.08E+00
R_5	545971.4	5396489.55	Condominium		2.81E+00	1.08E+00	1.53E+00	5.87E+01	2.39E+01	2.99E+01	4.85E+01	2.53E+01	4.56E-04	1.33E-04	9.80E-05	2.19E-04	5.38E-05	3.58E-05	4.50E-03	1.62E-03	1.19E-03	8.28E+00	2.06E+00	7.94E-01	1.08E+00
R_6	545655.4	5396520.55	Residence		2.81E+00	1.08E+00	1.53E+00	5.61E+01	2.20E+01	2.79E+01	5.09E+01	2.56E+01	4.86E-04	1.33E-04	9.60E-05	4.03E-04	1.04E-04	5.16E-05	4.59E-03	1.65E-03	1.19E-03	8.28E+00	2.06E+00	7.94E-01	1.08E+00
R_7	545438.4	5396408.54	I Sew Studio and Residence		2.81E+00	1.08E+00	1.53E+00	5.65E+01	2.21E+01	2.83E+01	5.08E+01	2.57E+01	4.64E-04	1.25E-04	9.00E-05	3.53E-04	9.01E-05	5.15E-05	4.55E-03	1.62E-03	1.18E-03	8.28E+00	2.06E+00	7.94E-01	1.08E+00
R_8	545380.4	5396243.54	Bayview Apartments		2.81E+00	1.08E+00	1.53E+00	5.60E+01	2.19E+01	2.81E+01	4.91E+01	2.54E+01	4.38E-04	1.20E-04	8.60E-05	2.50E-04	6.98E-05	3.97E-05	4.47E-03	1.60E-03	1.16E-03	8.28E+00	2.06E+00	7.94E-01	1.08E+00
R_9	545290.4	5396114.54	Residence		2.81E+00	1.08E+00	1.53E+00	5.61E+01	2.14E+01	2.75E+01	4.83E+01	2.53E+01	4.22E-04	1.16E-04	8.40E-05	1.94E-04	6.09E-05	3.46E-05	4.42E-03	1.58E-03	1.15E-03	8.28E+00	2.06E+00	7.94E-01	1.08E+00
RH_1	546049.4	5395894.55	Peninsula Manor		2.81E+00	1.08E+00	1.53E+00	5.46E+01	2.01E+01	2.69E+01	4.83E+01	2.51E+01	3.93E-04	1.14E-04	8.70E-05	1.18E-04	3.22E-05	2.40E-05	4.36E-03	1.56E-03	1.16E-03	8.28E+00	2.06E+00	7.94E-01	1.08E+00
RH_2	545320.9	5396196.57	Senior's Centre		2.81E+00	1.08E+00	1.53E+00	5.75E+01	2.21E+01	2.80E+01	4.86E+01	2.54E+01	4.32E-04	1.18E-04	8.50E-05	2.19E-04	6.63E-05	3.75E-05	4.45E-03	1.59E-03	1.16E-03	8.28E+00	2.06E+00	7.94E-01	1.08E+00
S_1	546339.4	5396624.55	Holy Saviour School		2.81E+00	1.08E+00	1.53E+00	5.45E+01	2.06E+01	2.72E+01	4.91E+01	2.53E+01	4.58E-04	1.41E-04	1.05E-04	1.83E-04	4.84E-05	3.39E-05	4.53E-03	1.65E-03	1.21E-03	8.28E+00	2.06E+00	7.94E-01	1.08E+00
S_2	545633.4	5396102.55	Confederation College Northshore Campus		2.81E+00	1.08E+00	1.53E+00	6.08E+01	2.44E+01	3.01E+01	4.85E+01	2.52E+01	4.09E-04	1.19E-04	8.70E-05	2.44E-04	5.87E-05	3.05E-05	4.36E-03	1.59E-03	1.16E-03	8.28E+00	2.06E+00	7.94E-01	1.08E+00
S_3	546200.4	5396036.55	Marathon High School		2.81E+00	1.08E+00	1.53E+00	5.42E+01	2.02E+01	2.69E+01	4.86E+01	2.51E+01	4.11E-04	1.19E-04	9.10E-05	1.30E-04	3.17E-05	2.47E-05	4.41E-03	1.58E-03	1.17E-03	8.28E+00	2.06E+00	7.94E-01	1.08E+00
S_4	546261.4	5395967.55	Ecole secondaire Cite-Superieure		2.81E+00	1.08E+00	1.53E+00	5.37E+01	1.99E+01	2.67E+01	4.85E+01	2.51E+01	4.13E-04	1.17E-04	9.00E-05	1.21E-04	3.05E-05	2.38E-05	4.41E-03	1.57E-03	1.16E-03	8.28E+00	2.06E+00	7.94E-01	1.08E+00
S_5	547019.4	5395082.56	Marathon Children and Family Centre		2.81E+00	1.08E+00	1.53E+00	5.24E+01	1.91E+01	2.60E+01	4.76E+01	2.50E+01	4.34E-04	1.01E-04	7.90E-05	8.40E-05	2.36E-05	1.77E-05	4.45E-03	1.52E-03	1.13E-03	8.28E+00	2.06E+00	7.94E-01	1.08E+00

Table F-3 Special Receptor Predictions (ug/m3) - Operations, Cumulative (Project + Background)

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	ZINC (ZN)			DUSTFALL (g/m2)		
				Averaging Period	24	month	annual	24	month	annual
				Criteria	120	-	-		7	
				Background Concentration (ug/m3)	3.35E-02	1.29E-02	1.55E-02		1.44E+00	
H_1	545937.4	5396169.55	Wilson Memorial General Hospital		3.60E-02	1.34E-02	1.58E-02	3.42E-02	1.92E+00	4.90E+00
M_1	545694	5403864	PM-10 @ Hare Lake		3.47E-02	1.33E-02	1.57E-02	1.60E-02	1.64E+00	1.64E+00
M_2	545694	5403873	Dustfall @ Hare Lake		3.47E-02	1.33E-02	1.57E-02	1.60E-02	1.64E+00	1.63E+00
M_3	547152	5401222	PM-10 @ Mays Gifts		3.62E-02	1.37E-02	1.60E-02	4.84E-02	2.04E+00	5.18E+00
M_4	547147	5401216	Dustfall @ Mays Gifts		3.62E-02	1.37E-02	1.60E-02	4.84E-02	2.04E+00	5.15E+00
M_5	551637	5402371	PM-10 @ Pic River		3.54E-02	1.37E-02	1.60E-02	4.44E-02	1.91E+00	4.25E+00
M_6	551643	5402374	Dustfall @ Pic River		3.54E-02	1.37E-02	1.60E-02	4.43E-02	1.91E+00	4.24E+00
M_7	549180	5399815	Dustfall @ Airport		4.19E-02	1.67E-02	1.84E-02	1.85E-01	5.12E+00	3.68E+01
M_8	545863	5397092	Dustfall @ Field Office		3.95E-02	1.49E-02	1.65E-02	5.02E-02	1.95E+00	5.15E+00
O_1	547181.4	5398014.56	Pic Motel		3.45E-02	1.33E-02	1.58E-02	2.46E-02	1.79E+00	2.95E+00
O_2	545734.4	5396872.55	Marathon Harbour Inn		4.21E-02	1.78E-02	1.79E-02	1.00E-01	2.74E+00	1.25E+01
O_3	545885.4	5396448.55	Zero-100 Motor Inn		3.75E-02	1.37E-02	1.59E-02	5.55E-02	1.96E+00	4.90E+00
O_4	545987.4	5397640.55	OPP Station		3.69E-02	1.38E-02	1.59E-02	2.36E-02	1.80E+00	3.26E+00
O_5	545876.4	5396072.55	Library		3.58E-02	1.34E-02	1.58E-02	3.05E-02	1.88E+00	4.17E+00
P_1	546958.4	5396138.56	Penn Lake Park and Campground		3.48E-02	1.33E-02	1.57E-02	1.32E-02	1.58E+00	1.00E+00
P_2	548538.4	5392862.58	Craig's Pit Provincial Nature Reserve		3.39E-02	1.30E-02	1.56E-02	7.04E-03	1.49E+00	3.32E-01
P_3	540005	5402014	Red Sucker Point Provincial Park		3.40E-02	1.30E-02	1.56E-02	5.25E-03	1.48E+00	2.90E-01
P_4	552770	5383776	Pukaskwa National Park		3.37E-02	1.30E-02	1.55E-02	1.95E-03	1.45E+00	8.74E-02
PR_1	553679.4	5385895.59	Children & Family Learning Centre		3.37E-02	1.30E-02	1.55E-02	2.74E-03	1.45E+00	9.90E-02
PR_2	554004.4	5385857.59	Pic River Elementary		3.36E-02	1.30E-02	1.55E-02	2.64E-03	1.45E+00	9.57E-02
PR_3	553836.4	5385603.59	Pic River Private High School		3.36E-02	1.30E-02	1.55E-02	2.66E-03	1.45E+00	9.51E-02
PR_4	553930.4	5386048.59	Pic River Health Centre		3.36E-02	1.30E-02	1.55E-02	2.69E-03	1.45E+00	9.81E-02
PR_5	552493.4	5384782.58	BIIDAABAN Healing Lodge		3.37E-02	1.30E-02	1.55E-02	2.21E-03	1.45E+00	9.74E-02
PR_6	552843.4	5390099.59	Residence		3.37E-02	1.30E-02	1.55E-02	3.94E-03	1.46E+00	1.64E-01
PR_7	553761.4	5387705.59	Residence		3.37E-02	1.30E-02	1.55E-02	2.92E-03	1.45E+00	1.16E-01
PS_1	545001.3	5404050.49	North Hare Lake Cottage		3.43E-02	1.32E-02	1.57E-02	1.27E-02	1.58E+00	1.09E+00
PS_2	544331.3	5403100.49	South Hare Lake Cottage		3.44E-02	1.32E-02	1.56E-02	1.26E-02	1.57E+00	9.53E-01
PS_3	547056.1	5401003.77	May's Gifts		3.59E-02	1.36E-02	1.60E-02	4.21E-02	1.96E+00	4.33E+00
PS_4	546811.4	5400952.54	Wayfare Inn		3.57E-02	1.35E-02	1.59E-02	5.56E-02	1.91E+00	3.91E+00
PS_5	546996.4	5401027.54	Peninsula Inn		3.59E-02	1.36E-02	1.60E-02	4.81E-02	1.95E+00	4.33E+00
PS_6	548471.4	5399488.57	Travelodge Hotel		3.70E-02	1.41E-02	1.62E-02	6.85E-02	2.42E+00	8.21E+00
PS_7	546903.4	5401055.54	The Laughing Mooz Eatery Restaurant and Residence		3.59E-02	1.36E-02	1.59E-02	5.72E-02	1.95E+00	4.32E+00
PW_1	545777.4	5397150.54	Kingdom Hall of Jehovah's Witnesses		4.11E-02	1.52E-02	1.66E-02	9.91E-02	2.16E+00	5.55E+00
PW_2	546331.4	5395941.55	Parkland Pentecostal Church		3.51E-02	1.33E-02	1.57E-02	1.19E-02	1.58E+00	1.12E+00
PW_3	545857.4	5395714.55	St. John's United Church		3.53E-02	1.33E-02	1.57E-02	1.32E-02	1.60E+00	1.27E+00
PW_4	545425	5396043.49	Holy Saviour Roman Catholic Church		3.70E-02	1.36E-02	1.59E-02	2.92E-02	1.87E+00	4.01E+00
PW_5	545390.4	5395988.55	Anglican Church-Trinity		3.67E-02	1.35E-02	1.58E-02	3.37E-02	1.98E+00	4.55E+00
R_1	547226.4	5398095.56	Residence		3.45E-02	1.33E-02	1.58E-02	3.08E-02	1.92E+00	4.33E+00
R_10	545421.4	5395953.55	Residence		3.66E-02	1.35E-02	1.58E-02	5.30E-02	2.30E+00	7.23E+00
R_11	545619.4	5395877.55	Residence		3.69E-02	1.35E-02	1.58E-02	3.06E-02	1.83E+00	3.40E+00
R_12	545831.4	5396000.55	Residence		3.58E-02	1.34E-02	1.58E-02	2.70E-02	1.80E+00	3.30E+00
R_13	545806.9	5396173.19	Residence		3.64E-02	1.36E-02	1.58E-02	5.04E-02	2.52E+00	1.08E+01
R_14	545827.1	5396228.86	Residence		3.65E-02	1.35E-02	1.58E-02	3.77E-02	2.14E+00	6.94E+00
R_15	545662.4	5396175.55	Residence		3.79E-02	1.38E-02	1.59E-02	2.91E-02	1.80E+00	3.22E+00
R_16	546254.4	5396484.55	Residence		3.67E-02	1.35E-02	1.58E-02	2.23E-02	1.64E+00	1.72E+00
R_17	546471.4	5396506.55	Residence		3.61E-02	1.34E-02	1.58E-02	1.82E-02	1.62E+00	1.43E+00
R_18	546601.4	5396387.56	Residence		3.56E-02	1.34E-02	1.58E-02	1.34E-02	1.60E+00	1.26E+00
R_19	546856.4	5395580.56	Residence		3.45E-02	1.32E-02	1.57E-02	1.15E-02	1.55E+00	7.92E-01
R_2	547273.4	5398044.56	Residence		3.45E-02	1.32E-02	1.58E-02	2.28E-02	1.75E+00	2.53E+00
R_20	546950.4	5395533.56	Residence		3.44E-02	1.32E-02	1.57E-02	1.13E-02	1.55E+00	7.68E-01
R_21	547201.4	5395415.56	Residence		3.43E-02	1.32E-02	1.57E-02	1.07E-02	1.54E+00	7.16E-01
R_22	548317.4	5399654.57	Residence		3.59E-02	1.38E-02	1.61E-02	4.79E-02	2.07E+00	5.03E+00
R_3	545809.4	5397232.54	Bergagnini Apartment Rental		4.02E-02	1.48E-02	1.63E-02	6.87E-02	2.01E+00	4.86E+00
R_4	546092.4	5396796.55	Residence		3.86E-02	1.41E-02	1.62E-02	4.60E-02	1.74E+00	2.50E+00
R_5	545971.4	5396489.55	Condominium		3.74E-02	1.37E-02	1.59E-02	4.55E-02	1.93E+00	4.27E+00
R_6	545655.4	5396520.55	Residence		4.09E-02	1.45E-02	1.62E-02	7.08E-02	1.97E+00	3.44E+00
R_7	545438.4	5396408.54	I Sew Studio and Residence		3.97E-02	1.43E-02	1.62E-02	5.91E-02	1.96E+00	3.83E+00
R_8	545380.4	5396243.54	Bayview Apartments		3.78E-02	1.39E-02	1.60E-02	4.19E-02	1.85E+00	3.07E+00
R_9	545290.4	5396114.54	Residence		3.68E-02	1.38E-02	1.59E-02	3.24E-02	1.77E+00	2.24E+00
RH_1	546049.4	5395894.55	Peninsula Manor		3.53E-02	1.33E-02	1.57E-02	1.28E-02	1.60E+00	1.36E+00
RH_2	545320.9	5396196.57	Senior's Centre		3.72E-02	1.39E-02	1.60E-02	4.01E-02	1.86E+00	2.99E+00
S_1	546339.4	5396624.55	Holy Saviour School		3.67E-02	1.35E-02	1.59E-02	2.48E-02	1.64E+00	1.64E+00
S_2	545633.4	5396102.55	Confederation College Northshore Campus		3.79E-02	1.37E-02	1.59E-02	2.73E-02	1.85E+00	3.99E+00
S_3	546200.4	5396036.55	Marathon High School		3.54E-02	1.33E-02	1.57E-02	1.45E-02	1.59E+00	1.36E+00
S_4	546261.4	5395967.55	Ecole secondaire Cite-Superieure		3.53E-02	1.33E-02	1.57E-02	1.21E-02	1.58E+00	1.20E+00
S_5	547019.4	5395082.56	Marathon Children and Family Centre		3.45E-02	1.31E-02	1.56E-02	9.87E-03	1.53E+00	6.35E-01

Table F-3 Special Receptor Predictions (ug/m3) - Operations, Cumulative (Project + Background)

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	1,3-BUTADIENE			ACENAPHTHENE			ACENAPHTHYLENE			ACETALDEHYDE					ACROLEIN				ALDEHYDES		
				Averaging Period	24	month	annual	24	month	annual	24	month	annual	0.5	1	24	month	annual	1	24	month	annual	24	month	annual
				Criteria	10	-	2	-	-	-	-	-	-	500	-	500	-	-	4.5	0.4	-	-	-	-	-
				Background Concentration (ug/m3)	1.09E-01	4.21E-02	7.32E-02	1.81E-03	6.98E-04	9.10E-04	1.79E-03	6.91E-04	1.06E-03	1.18E+01	9.74E+00	4.00E+00	1.54E+00	1.60E+00	1.22E-01	5.00E-02	1.93E-02	2.30E-02			
S_6	547000.4	5395035.56	Margaret Twomey Public School		1.09E-01	4.21E-02	7.33E-02	1.83E-03	7.04E-04	9.15E-04	1.82E-03	7.01E-04	1.07E-03	1.21E+01	9.98E+00	4.02E+00	1.55E+00	1.60E+00	1.57E-01	5.34E-02	2.03E-02	2.37E-02	2.80E-02	4.18E-03	2.23E-03
W_1	547291.4	5399860.55	Shack Lake (northeast)		1.10E-01	4.22E-02	7.33E-02	1.86E-03	7.12E-04	9.21E-04	1.87E-03	7.14E-04	1.08E-03	1.24E+01	1.03E+01	4.06E+00	1.56E+00	1.61E+00	1.96E-01	5.87E-02	2.16E-02	2.48E-02	7.10E-02	1.64E-02	8.15E-03
W_10	546975.3	5406486.49	Bamoos Lake (south)		1.10E-01	4.23E-02	7.33E-02	1.87E-03	7.13E-04	9.19E-04	1.88E-03	7.15E-04	1.08E-03	1.23E+01	1.02E+01	4.08E+00	1.56E+00	1.61E+00	1.81E-01	6.11E-02	2.20E-02	2.46E-02	7.04E-02	1.22E-02	5.76E-03
W_11	545484.3	5405866.49	Bamoos Lake (west)		1.10E-01	4.22E-02	7.33E-02	1.86E-03	7.09E-04	9.17E-04	1.87E-03	7.08E-04	1.07E-03	1.22E+01	1.01E+01	4.06E+00	1.56E+00	1.61E+00	1.67E-01	5.90E-02	2.11E-02	2.41E-02	7.03E-02	1.59E-02	7.59E-03
W_12	546576.3	5407157.48	Bamoos Lake (north)		1.10E-01	4.23E-02	7.33E-02	1.87E-03	7.12E-04	9.18E-04	1.88E-03	7.14E-04	1.08E-03	1.23E+01	1.02E+01	4.07E+00	1.56E+00	1.61E+00	1.84E-01	6.05E-02	2.18E-02	2.44E-02	5.49E-02	1.18E-02	5.49E-03
W_13	546777.3	5406831.49	Bamoos Lake (center)		1.10E-01	4.23E-02	7.33E-02	1.87E-03	7.14E-04	9.19E-04	1.89E-03	7.16E-04	1.08E-03	1.24E+01	1.02E+01	4.07E+00	1.56E+00	1.61E+00	1.86E-01	6.07E-02	2.21E-02	2.46E-02	6.03E-02	1.29E-02	6.08E-03
W_14	554944.3	5408228.54	Page Lake (south)		1.10E-01	4.22E-02	7.33E-02	1.85E-03	7.09E-04	9.15E-04	1.86E-03	7.08E-04	1.07E-03	1.23E+01	1.01E+01	4.06E+00	1.56E+00	1.61E+00	1.75E-01	5.81E-02	2.12E-02	2.39E-02	2.18E-02	3.63E-03	2.04E-03
W_15	555054.3	5408903.54	Page Lake (center)		1.10E-01	4.22E-02	7.33E-02	1.85E-03	7.06E-04	9.14E-04	1.85E-03	7.03E-04	1.07E-03	1.22E+01	1.01E+01	4.05E+00	1.55E+00	1.60E+00	1.71E-01	5.66E-02	2.07E-02	2.37E-02	2.08E-02	2.94E-03	1.76E-03
W_16	555065.3	5409497.54	Page Lake (north)		1.09E-01	4.21E-02	7.32E-02	1.83E-03	7.04E-04	9.13E-04	1.82E-03	7.00E-04	1.07E-03	1.22E+01	1.00E+01	4.03E+00	1.55E+00	1.60E+00	1.62E-01	5.37E-02	2.03E-02	2.35E-02	1.82E-02	2.72E-03	1.59E-03
W_17	556593.4	5402126.57	Peacock Lake (east)		1.09E-01	4.21E-02	7.32E-02	1.83E-03	7.05E-04	9.14E-04	1.83E-03	7.02E-04	1.07E-03	1.22E+01	1.01E+01	4.03E+00	1.55E+00	1.60E+00	1.71E-01	5.43E-02	2.04E-02	2.35E-02	6.65E-02	6.89E-03	3.15E-03
W_18	556043.4	5401266.57	Peacock Lake (south)		1.09E-01	4.21E-02	7.32E-02	1.84E-03	7.04E-04	9.14E-04	1.83E-03	7.01E-04	1.07E-03	1.23E+01	1.01E+01	4.03E+00	1.55E+00	1.60E+00	1.75E-01	5.49E-02	2.03E-02	2.35E-02	6.59E-02	9.39E-03	3.17E-03
W_19	556277.4	5402068.57	Peacock Lake (west)		1.09E-01	4.22E-02	7.32E-02	1.83E-03	7.05E-04	9.14E-04	1.83E-03	7.02E-04	1.07E-03	1.23E+01	1.01E+01	4.03E+00	1.55E+00	1.60E+00	1.73E-01	5.41E-02	2.04E-02	2.36E-02	6.57E-02	6.96E-03	3.27E-03
W_2	547105.4	5399506.55	Shack Lake (center)		1.10E-01	4.22E-02	7.33E-02	1.86E-03	7.11E-04	9.20E-04	1.87E-03	7.12E-04	1.08E-03	1.24E+01	1.02E+01	4.06E+00	1.56E+00	1.61E+00	1.90E-01	5.80E-02	2.14E-02	2.46E-02	6.22E-02	1.38E-02	7.06E-03
W_20	556444.4	5402419.57	Peacock Lake (north)		1.09E-01	4.22E-02	7.32E-02	1.83E-03	7.06E-04	9.14E-04	1.83E-03	7.03E-04	1.07E-03	1.22E+01	1.01E+01	4.03E+00	1.55E+00	1.60E+00	1.69E-01	5.47E-02	2.05E-02	2.36E-02	6.53E-02	7.85E-03	3.37E-03
W_21	556424.4	5402099.57	Peacock Lake (center)		1.09E-01	4.21E-02	7.32E-02	1.83E-03	7.05E-04	9.14E-04	1.83E-03	7.02E-04	1.07E-03	1.22E+01	1.01E+01	4.03E+00	1.55E+00	1.60E+00	1.72E-01	5.42E-02	2.04E-02	2.35E-02	6.67E-02	6.99E-03	3.24E-03
W_22	550202.4	5397448.58	Three Finger Lake (north)		1.10E-01	4.21E-02	7.33E-02	1.85E-03	7.05E-04	9.15E-04	1.86E-03	7.01E-04	1.07E-03	1.23E+01	1.01E+01	4.04E+00	1.55E+00	1.60E+00	1.79E-01	5.62E-02	2.03E-02	2.37E-02	7.94E-02	7.57E-03	3.96E-03
W_23	550175.4	5396991.58	Three Finger Lake (center)		1.09E-01	4.21E-02	7.33E-02	1.85E-03	7.04E-04	9.14E-04	1.85E-03	7.00E-04	1.07E-03	1.23E+01	1.01E+01	4.04E+00	1.55E+00	1.60E+00	1.75E-01	5.56E-02	2.02E-02	2.36E-02	7.56E-02	6.84E-03	3.51E-03
W_24	549830.4	5396525.58	Three Finger Lake (south)		1.09E-01	4.21E-02	7.32E-02	1.84E-03	7.04E-04	9.14E-04	1.84E-03	7.00E-04	1.07E-03	1.23E+01	1.01E+01	4.03E+00	1.55E+00	1.60E+00	1.75E-01	5.44E-02	2.02E-02	2.36E-02	6.67E-02	6.37E-03	2.81E-03
W_25	546947.4	5396627.56	Penn Lake (north)		1.10E-01	4.23E-02	7.34E-02	1.86E-03	7.17E-04	9.22E-04	1.88E-03	7.22E-04	1.08E-03	1.22E+01	1.01E+01	4.06E+00	1.56E+00	1.61E+00	1.67E-01	5.83E-02	2.23E-02	2.48E-02	4.31E-02	4.59E-03	2.77E-03
W_26	547059.4	5396125.56	Penn Lake (center)		1.10E-01	4.23E-02	7.33E-02	1.86E-03	7.14E-04	9.19E-04	1.87E-03	7.16E-04	1.08E-03	1.22E+01	1.01E+01	4.05E+00	1.56E+00	1.61E+00	1.68E-01	5.72E-02	2.17E-02	2.44E-02	3.40E-02	4.36E-03	2.52E-03
W_27	546991.4	5395772.56	Penn Lake (south)		1.10E-01	4.22E-02	7.33E-02	1.86E-03	7.10E-04	9.18E-04	1.87E-03	7.10E-04	1.07E-03	1.22E+01	1.00E+01	4.05E+00	1.56E+00	1.61E+00	1.66E-01	5.73E-02	2.11E-02	2.42E-02	3.04E-02	4.13E-03	2.36E-03
W_28	544637	5401700	Angler Creek at Model Property Boundary		1.10E-01	4.22E-02	7.33E-02	1.86E-03	7.09E-04	9.17E-04	1.87E-03	7.08E-04	1.07E-03	1.22E+01	1.01E+01	4.06E+00	1.56E+00	1.61E+00	1.72E-01	5.91E-02	2.11E-02	2.42E-02	5.34E-02	1.03E-02	4.00E-03
W_29	551284	5407805	Pic River In-Flow to Model Property Boundary		1.10E-01	4.22E-02	7.33E-02	1.87E-03	7.12E-04	9.18E-04	1.89E-03	7.12E-04	1.07E-03	1.25E+01	1.03E+01	4.08E+00	1.56E+00	1.61E+00	2.05E-01	6.13E-02	2.17E-02	2.44E-02	3.98E-02	6.06E-03	3.06E-03
W_3	546725.4	5399333.55	Shack Lake (southwest)		1.10E-01	4.22E-02	7.33E-02	1.85E-03	7.11E-04	9.20E-04	1.86E-03	7.11E-04	1.08E-03	1.23E+01	1.02E+01	4.05E+00	1.56E+00	1.61E+00	1.84E-01	5.78E-02	2.13E-02	2.45E-02	5.78E-02	1.32E-02	6.46E-03
W_30	551654	5401167	Pic River Out-Flow from Model Property Boundary		1.10E-01	4.22E-02	7.33E-02	1.85E-03	7.11E-04	9.19E-04	1.85E-03	7.11E-04	1.08E-03	1.23E+01	1.01E+01	4.04E+00	1.56E+00	1.61E+00	1.76E-01	5.64E-02	2.14E-02	2.44E-02	7.67E-02	1.44E-02	6.99E-03
W_4	545636.3	5403828.5	Hare Lake (east)		1.10E-01	4.23E-02	7.33E-02	1.87E-03	7.15E-04	9.20E-04	1.88E-03	7.18E-04	1.08E-03	1.22E+01	1.00E+01	4.07E+00	1.56E+00	1.61E+00	1.67E-01	6.01E-02	2.23E-02	2.47E-02	7.37E-02	1.18E-02	7.04E-03
W_5	545048.3	5403556.5	Hare Lake (south)		1.10E-01	4.23E-02	7.33E-02	1.86E-03	7.12E-04	9.18E-04	1.87E-03	7.13E-04	1.07E-03	1.22E+01	1.00E+01	4.07E+00	1.56E+00	1.61E+00	1.62E-01	5.94E-02	2.18E-02	2.43E-02	6.60E-02	8.87E-03	5.49E-03
W_6	543955.3	5403079.49	Hare Lake (west)		1.10E-01	4.22E-02	7.33E-02	1.85E-03	7.08E-04	9.15E-04	1.85E-03	7.06E-04	1.07E-03	1.21E+01	9.97E+00	4.05E+00	1.55E+00	1.61E+00	1.55E-01	5.70E-02	2.10E-02	2.39E-02	5.74E-02	7.11E-03	3.89E-03
W_7	544603.3	5403943.49	Hare Lake (north)		1.10E-01	4.22E-02	7.33E-02	1.85E-03	7.09E-04	9.16E-04	1.86E-03	7.09E-04	1.07E-03	1.21E+01	9.99E+00	4.05E+00	1.56E+00	1.61E+00	1.58E-01	5.75E-02	2.13E-02	2.40E-02	5.65E-02	8.16E-03	5.08E-03
W_8	544830.3	5403751.49	Hare Lake (center)		1.10E-01	4.22E-02	7.33E-02	1.86E-03	7.11E-04	9.17E-04	1.87E-03	7.11E-04	1.07E-03	1.21E+01	1.00E+01	4.06E+00	1.56E+00	1.61E+00	1.60E-01	5.85E-02	2.15E-02	2.42E-02	5.37E-02	8.23E-03	5.28E-03
W_9	549326.3	5406971.51	Bamoos Lake (east)		1.11E-01	4.25E-02	7.34E-02	1.95E-03	7.28E-04	9.26E-04	2.01E-03	7.39E-04	1.09E-03	1.32E+01	1.09E+01	4.18E+00	1.58E+00	1.62E+00	2.90E-01	7.56E-02	2.49E-02	2.59E-02	5.15E-02	7.50E-03	4.11E-03
Maximum of Special Receptors					**1.27E-01**	**4.87E-02**	**7.81E-02**	**3.00E-03**	**1.14E-03**	**1.24E-03**	**3.76E-03**	**1.42E-03**	**1.60E-03**	**1.52E+01**	**1.26E+01**	**5.36E+00**	**2.05E+00**	**1.98E+00**	**5.33E-01**	**2.47E-01**	**9.29E-02**	**7.74E-02**	**1.34E-01**	**2.31E-02**	**1.15E-02**
Max % of Criteria					**1.3%**	-	**3.9%**	-	-	-	-	-	-	**3.0%**	-	**1.1%**	-	-	**11.8%**	**61.7%**	-	-	-	-	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by MECP Guideline A-10, Section 7.4.1 for facilities with a fugitive dust BMP. These model predictions were used for comparison to the applicable critiera.

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier 3 assumption).

Table F-3 Special Receptor Predictions (ug/m3) - Operations, Cumulative (Project + Background)

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	ALUMINUM (AL)			ANTHRACENE			ANTIMONY (SB)			ARSENIC (AS)			BARIUM (BA)			BENZENE			BENZO(A)ANTHRACENE		
				Averaging Period	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual
				Criteria	12	-	-	-	-	-	25	-	-	0.3	-	-	10	-	-	2.3	-	0.45	-	-	-
				Background Concentration (ug/m3)	5.88E-01	2.27E-01	2.84E-01	4.49E-04	1.73E-04	2.51E-04	2.71E-02	1.05E-02	9.39E-03				3.99E-02	1.54E-02	1.92E-02	1.44E+00	5.56E-01	9.02E-01	2.14E-04	8.26E-05	1.07E-04
S_6	547000.4	5395035.56	Margaret Twomey Public School		6.85E-01	2.49E-01	3.02E-01	4.62E-04	1.77E-04	2.54E-04	2.71E-02	1.05E-02	9.39E-03	2.82E-05	7.27E-06	4.97E-06	4.03E-02	1.55E-02	1.93E-02	1.44E+00	5.57E-01	9.03E-01	2.16E-04	8.31E-05	1.07E-04
W_1	547291.4	5399860.55	Shack Lake (northeast)		8.77E-01	3.17E-01	3.49E-01	4.81E-04	1.82E-04	2.58E-04	2.72E-02	1.05E-02	9.40E-03	6.12E-05	1.96E-05	1.44E-05	4.10E-02	1.57E-02	1.95E-02	1.45E+00	5.59E-01	9.04E-01	2.16E-04	8.33E-05	1.07E-04
W_10	546975.3	5406486.49	Bamoos Lake (south)		8.61E-01	2.94E-01	3.24E-01	4.87E-04	1.83E-04	2.57E-04	2.72E-02	1.05E-02	9.40E-03	5.79E-05	1.40E-05	8.52E-06	4.09E-02	1.56E-02	1.94E-02	1.45E+00	5.59E-01	9.04E-01	2.15E-04	8.28E-05	1.07E-04
W_11	545484.3	5405866.49	Bamoos Lake (west)		8.13E-01	2.82E-01	3.13E-01	4.80E-04	1.80E-04	2.55E-04	2.71E-02	1.05E-02	9.40E-03	4.78E-05	1.18E-05	6.41E-06	4.08E-02	1.56E-02	1.93E-02	1.45E+00	5.58E-01	9.04E-01	2.15E-04	8.29E-05	1.07E-04
W_12	546576.3	5407157.48	Bamoos Lake (north)		7.93E-01	2.78E-01	3.14E-01	4.86E-04	1.82E-04	2.56E-04	2.71E-02	1.05E-02	9.40E-03	4.27E-05	1.08E-05	6.57E-06	4.07E-02	1.56E-02	1.93E-02	1.45E+00	5.59E-01	9.04E-01	2.15E-04	8.28E-05	1.07E-04
W_13	546777.3	5406831.49	Bamoos Lake (center)		8.04E-01	2.84E-01	3.18E-01	4.86E-04	1.83E-04	2.57E-04	2.71E-02	1.05E-02	9.40E-03	4.49E-05	1.21E-05	7.33E-06	4.07E-02	1.56E-02	1.93E-02	1.45E+00	5.59E-01	9.04E-01	2.15E-04	8.28E-05	1.07E-04
W_14	554944.3	5408228.54	Page Lake (south)		7.23E-01	2.63E-01	3.03E-01	4.77E-04	1.80E-04	2.55E-04	2.71E-02	1.05E-02	9.39E-03	2.84E-05	7.78E-06	4.21E-06	4.04E-02	1.55E-02	1.93E-02	1.45E+00	5.58E-01	9.03E-01	2.15E-04	8.27E-05	1.07E-04
W_15	555054.3	5408903.54	Page Lake (center)		6.77E-01	2.55E-01	3.00E-01	4.72E-04	1.78E-04	2.54E-04	2.71E-02	1.05E-02	9.39E-03	1.93E-05	6.12E-06	3.44E-06	4.02E-02	1.55E-02	1.93E-02	1.45E+00	5.57E-01	9.03E-01	2.15E-04	8.27E-05	1.07E-04
W_16	555065.3	5409497.54	Page Lake (north)		6.61E-01	2.49E-01	2.97E-01	4.62E-04	1.77E-04	2.53E-04	2.71E-02	1.05E-02	9.39E-03	1.55E-05	4.84E-06	2.91E-06	4.02E-02	1.55E-02	1.93E-02	1.44E+00	5.57E-01	9.03E-01	2.14E-04	8.27E-05	1.07E-04
W_17	556593.4	5402126.57	Peacock Lake (east)		7.57E-01	2.68E-01	3.04E-01	4.64E-04	1.77E-04	2.53E-04	2.71E-02	1.05E-02	9.39E-03	3.65E-05	9.22E-06	4.36E-06	4.06E-02	1.56E-02	1.93E-02	1.45E+00	5.57E-01	9.03E-01	2.15E-04	8.28E-05	1.07E-04
W_18	556043.4	5401266.57	Peacock Lake (south)		7.60E-01	2.71E-01	3.04E-01	4.66E-04	1.77E-04	2.53E-04	2.71E-02	1.05E-02	9.39E-03	3.75E-05	1.01E-05	4.52E-06	4.06E-02	1.56E-02	1.93E-02	1.45E+00	5.57E-01	9.03E-01	2.15E-04	8.28E-05	1.07E-04
W_19	556277.4	5402068.57	Peacock Lake (west)		7.64E-01	2.70E-01	3.05E-01	4.63E-04	1.77E-04	2.53E-04	2.71E-02	1.05E-02	9.39E-03	3.80E-05	9.60E-06	4.60E-06	4.06E-02	1.56E-02	1.93E-02	1.45E+00	5.57E-01	9.03E-01	2.15E-04	8.28E-05	1.07E-04
W_2	547105.4	5399506.55	Shack Lake (center)		8.49E-01	3.04E-01	3.40E-01	4.79E-04	1.81E-04	2.58E-04	2.71E-02	1.05E-02	9.40E-03	5.52E-05	1.69E-05	1.26E-05	4.09E-02	1.57E-02	1.94E-02	1.45E+00	5.59E-01	9.04E-01	2.16E-04	8.34E-05	1.07E-04
W_20	556444.4	5402419.57	Peacock Lake (north)		7.41E-01	2.71E-01	3.05E-01	4.65E-04	1.78E-04	2.53E-04	2.71E-02	1.05E-02	9.39E-03	3.33E-05	9.78E-06	4.59E-06	4.05E-02	1.56E-02	1.93E-02	1.45E+00	5.57E-01	9.03E-01	2.15E-04	8.28E-05	1.07E-04
W_21	556424.4	5402099.57	Peacock Lake (center)		7.59E-01	2.69E-01	3.04E-01	4.64E-04	1.77E-04	2.53E-04	2.71E-02	1.05E-02	9.39E-03	3.70E-05	9.40E-06	4.50E-06	4.06E-02	1.56E-02	1.93E-02	1.45E+00	5.57E-01	9.03E-01	2.15E-04	8.28E-05	1.07E-04
W_22	550202.4	5397448.58	Three Finger Lake (north)		9.19E-01	2.77E-01	3.16E-01	4.72E-04	1.77E-04	2.54E-04	2.72E-02	1.05E-02	9.40E-03	6.98E-05	1.16E-05	7.39E-06	4.12E-02	1.56E-02	1.93E-02	1.45E+00	5.57E-01	9.03E-01	2.15E-04	8.30E-05	1.07E-04
W_23	550175.4	5396991.58	Three Finger Lake (center)		8.81E-01	2.70E-01	3.11E-01	4.70E-04	1.77E-04	2.54E-04	2.72E-02	1.05E-02	9.40E-03	6.19E-05	9.67E-06	6.31E-06	4.10E-02	1.56E-02	1.93E-02	1.45E+00	5.57E-01	9.03E-01	2.15E-04	8.30E-05	1.07E-04
W_24	549830.4	5396525.58	Three Finger Lake (south)		8.17E-01	2.67E-01	3.08E-01	4.65E-04	1.77E-04	2.54E-04	2.71E-02	1.05E-02	9.39E-03	4.88E-05	8.81E-06	5.55E-06	4.08E-02	1.55E-02	1.93E-02	1.45E+00	5.57E-01	9.03E-01	2.15E-04	8.29E-05	1.07E-04
W_25	546947.4	5396627.56	Penn Lake (north)		7.07E-01	2.60E-01	3.10E-01	4.87E-04	1.86E-04	2.59E-04	2.71E-02	1.05E-02	9.40E-03	4.84E-05	1.53E-05	9.43E-06	4.04E-02	1.55E-02	1.93E-02	1.45E+00	5.60E-01	9.04E-01	2.21E-04	8.48E-05	1.08E-04
W_26	547059.4	5396125.56	Penn Lake (center)		7.04E-01	2.56E-01	3.07E-01	4.81E-04	1.84E-04	2.57E-04	2.71E-02	1.05E-02	9.40E-03	3.70E-05	1.12E-05	7.41E-06	4.03E-02	1.55E-02	1.93E-02	1.45E+00	5.59E-01	9.04E-01	2.19E-04	8.43E-05	1.08E-04
W_27	546991.4	5395772.56	Penn Lake (south)		6.95E-01	2.53E-01	3.05E-01	4.81E-04	1.81E-04	2.56E-04	2.71E-02	1.05E-02	9.39E-03	3.24E-05	9.44E-06	6.53E-06	4.03E-02	1.55E-02	1.93E-02	1.45E+00	5.58E-01	9.04E-01	2.20E-04	8.39E-05	1.08E-04
W_28	544637	5401700	Angler Creek at Model Property Boundary		7.57E-01	2.77E-01	3.14E-01	4.81E-04	1.80E-04	2.56E-04	2.71E-02	1.05E-02	9.40E-03	3.60E-05	1.06E-05	6.59E-06	4.06E-02	1.56E-02	1.93E-02	1.45E+00	5.58E-01	9.04E-01	2.15E-04	8.29E-05	1.07E-04
W_29	551284	5407805	Pic River In-Flow to Model Property Boundary		7.66E-01	2.75E-01	3.14E-01	4.89E-04	1.82E-04	2.56E-04	2.71E-02	1.05E-02	9.40E-03	3.85E-05	1.04E-05	6.37E-06	4.06E-02	1.56E-02	1.93E-02	1.46E+00	5.59E-01	9.04E-01	2.15E-04	8.28E-05	1.07E-04
W_3	546725.4	5399333.55	Shack Lake (southwest)		8.20E-01	2.94E-01	3.32E-01	4.77E-04	1.81E-04	2.57E-04	2.71E-02	1.05E-02	9.40E-03	4.89E-05	1.52E-05	1.13E-05	4.08E-02	1.57E-02	1.94E-02	1.45E+00	5.58E-01	9.04E-01	2.17E-04	8.33E-05	1.07E-04
W_30	551654	5401167	Pic River Out-Flow from Model Property Boundary		8.22E-01	3.40E-01	3.58E-01	4.72E-04	1.81E-04	2.57E-04	2.71E-02	1.05E-02	9.40E-03	5.41E-05	2.57E-05	1.61E-05	4.08E-02	1.58E-02	1.95E-02	1.45E+00	5.59E-01	9.04E-01	2.15E-04	8.31E-05	1.07E-04
W_4	545636.3	5403828.5	Hare Lake (east)		8.23E-01	2.93E-01	3.23E-01	4.85E-04	1.84E-04	2.57E-04	2.71E-02	1.05E-02	9.40E-03	5.01E-05	1.36E-05	8.30E-06	4.08E-02	1.56E-02	1.94E-02	1.45E+00	5.60E-01	9.04E-01	2.15E-04	8.29E-05	1.07E-04
W_5	545048.3	5403556.5	Hare Lake (south)		8.00E-01	2.83E-01	3.16E-01	4.82E-04	1.82E-04	2.56E-04	2.71E-02	1.05E-02	9.40E-03	4.47E-05	1.15E-05	6.98E-06	4.07E-02	1.56E-02	1.93E-02	1.45E+00	5.59E-01	9.04E-01	2.15E-04	8.28E-05	1.07E-04
W_6	543955.3	5403079.49	Hare Lake (west)		7.54E-01	2.68E-01	3.07E-01	4.74E-04	1.79E-04	2.55E-04	2.71E-02	1.05E-02	9.39E-03	3.50E-05	8.80E-06	5.14E-06	4.05E-02	1.56E-02	1.93E-02	1.45E+00	5.58E-01	9.03E-01	2.15E-04	8.28E-05	1.07E-04
W_7	544603.3	5403943.49	Hare Lake (north)		7.36E-01	2.73E-01	3.11E-01	4.76E-04	1.80E-04	2.55E-04	2.71E-02	1.05E-02	9.40E-03	3.05E-05	9.61E-06	5.92E-06	4.05E-02	1.56E-02	1.93E-02	1.45E+00	5.58E-01	9.03E-01	2.15E-04	8.28E-05	1.07E-04
W_8	544830.3	5403751.49	Hare Lake (center)		7.53E-01	2.78E-01	3.13E-01	4.79E-04	1.81E-04	2.56E-04	2.71E-02	1.05E-02	9.40E-03	3.50E-05	1.05E-05	6.41E-06	4.05E-02	1.56E-02	1.93E-02	1.45E+00	5.59E-01	9.04E-01	2.15E-04	8.28E-05	1.07E-04
W_9	549326.3	5406971.51	Bamoos Lake (east)		1.02E+00	3.07E-01	3.36E-01	5.37E-04	1.93E-04	2.62E-04	2.72E-02	1.05E-02	9.40E-03	8.98E-05	1.68E-05	1.10E-05	4.15E-02	1.57E-02	1.94E-02	1.47E+00	5.63E-01	9.06E-01	2.15E-04	8.29E-05	1.07E-04
Maximum of Special Receptors					**2.39E+00**	**1.03E+00**	**8.97E-01**	**1.25E-03**	**4.69E-04**	**4.69E-04**	**2.74E-02**	**1.06E-02**	**9.51E-03**	**3.77E-04**	**1.68E-04**	**1.28E-04**	**4.69E-02**	**1.85E-02**	**2.16E-02**	**1.70E+00**	**6.54E-01**	**9.75E-01**	**3.46E-04**	**1.45E-04**	**1.57E-04**
Max % of Criteria					**20.0%**	-	-	-	-	-	**0.1%**	-	-	**0.1%**	-	-	**0.5%**	-	-	**74.1%**	-	**216.6%**	-	-	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by M

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier

Table F-3 Special Receptor Predictions (ug/m3) - Operations, Cumulative (Project + Background)

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	BENZO(A)PYRENE			BENZO(B)FLUORANTHENE			BENZO(G,H,I)PERYLENE			BENZO(K)FLUORANTHENE			BERYLLIUM (BE)			BISMUTH (BI)			BORON (B)		
				Averaging Period	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual
				Criteria	0.00005	-	0.00001	-	-	-	-	-	-	-	-	-	0.01	-	-	2.5	-	-	120	-	-
				Background Concentration (ug/m3)	2.06E-04	7.95E-05	1.03E-04	3.19E-04	1.23E-04	2.07E-04	2.80E-04	1.08E-04	1.32E-04	1.04E-04	4.03E-05	6.07E-05									
S_6	547000.4	5395035.56	Margaret Twomey Public School		2.07E-04	7.98E-05	1.03E-04	3.19E-04	1.23E-04	2.07E-04	2.84E-04	1.09E-04	1.32E-04	1.05E-04	4.04E-05	6.08E-05	4.39E-06	1.00E-06	7.86E-07	8.50E-05	1.51E-05	7.80E-06	8.00E-05	1.82E-05	1.43E-05
W_1	547291.4	5399860.55	Shack Lake (northeast)		2.07E-04	7.99E-05	1.03E-04	3.20E-04	1.23E-04	2.08E-04	2.91E-04	1.10E-04	1.33E-04	1.05E-04	4.05E-05	6.08E-05	1.32E-05	4.08E-06	2.92E-06	5.66E-05	1.97E-05	1.53E-05	2.41E-04	7.46E-05	5.32E-05
W_10	546975.3	5406486.49	Bamoos Lake (south)		2.07E-04	7.97E-05	1.03E-04	3.20E-04	1.23E-04	2.08E-04	2.90E-04	1.10E-04	1.33E-04	1.05E-04	4.04E-05	6.08E-05	1.23E-05	3.00E-06	1.80E-06	5.50E-05	1.31E-05	8.18E-06	2.26E-04	5.48E-05	3.25E-05
W_11	545484.3	5405866.49	Bamoos Lake (west)		2.07E-04	7.97E-05	1.03E-04	3.20E-04	1.23E-04	2.08E-04	2.90E-04	1.10E-04	1.33E-04	1.05E-04	4.04E-05	6.08E-05	1.01E-05	2.46E-06	1.31E-06	4.60E-05	1.18E-05	6.67E-06	1.86E-04	4.45E-05	2.36E-05
W_12	546576.3	5407157.48	Bamoos Lake (north)		2.07E-04	7.97E-05	1.03E-04	3.20E-04	1.23E-04	2.07E-04	2.88E-04	1.10E-04	1.32E-04	1.05E-04	4.04E-05	6.08E-05	9.63E-06	2.32E-06	1.37E-06	3.48E-05	9.84E-06	6.52E-06	1.64E-04	4.16E-05	2.46E-05
W_13	546777.3	5406831.49	Bamoos Lake (center)		2.07E-04	7.97E-05	1.03E-04	3.20E-04	1.23E-04	2.08E-04	2.89E-04	1.10E-04	1.32E-04	1.05E-04	4.04E-05	6.08E-05	1.01E-05	2.60E-06	1.53E-06	3.67E-05	1.10E-05	7.25E-06	1.73E-04	4.68E-05	2.75E-05
W_14	554944.3	5408228.54	Page Lake (south)		2.06E-04	7.96E-05	1.03E-04	3.19E-04	1.23E-04	2.07E-04	2.83E-04	1.09E-04	1.32E-04	1.05E-04	4.03E-05	6.07E-05	6.45E-06	1.65E-06	8.84E-07	2.43E-05	7.44E-06	4.12E-06	1.06E-04	2.94E-05	1.59E-05
W_15	555054.3	5408903.54	Page Lake (center)		2.06E-04	7.96E-05	1.03E-04	3.19E-04	1.23E-04	2.07E-04	2.83E-04	1.08E-04	1.32E-04	1.05E-04	4.03E-05	6.07E-05	4.08E-06	1.29E-06	7.17E-07	2.01E-05	5.92E-06	3.42E-06	7.10E-05	2.30E-05	1.29E-05
W_16	555065.3	5409497.54	Page Lake (north)		2.06E-04	7.96E-05	1.03E-04	3.19E-04	1.23E-04	2.07E-04	2.83E-04	1.08E-04	1.32E-04	1.05E-04	4.03E-05	6.07E-05	3.37E-06	1.01E-06	6.02E-07	1.64E-05	4.81E-06	2.94E-06	5.80E-05	1.82E-05	1.09E-05
W_17	556593.4	5402126.57	Peacock Lake (east)		2.06E-04	7.96E-05	1.03E-04	3.20E-04	1.23E-04	2.07E-04	2.88E-04	1.09E-04	1.32E-04	1.05E-04	4.03E-05	6.07E-05	7.76E-06	1.88E-06	8.85E-07	3.51E-05	9.67E-06	4.61E-06	1.43E-04	3.43E-05	1.61E-05
W_18	556043.4	5401266.57	Peacock Lake (south)		2.06E-04	7.96E-05	1.03E-04	3.20E-04	1.23E-04	2.07E-04	2.88E-04	1.09E-04	1.32E-04	1.05E-04	4.04E-05	6.07E-05	7.81E-06	2.02E-06	9.14E-07	3.76E-05	1.09E-05	4.82E-06	1.43E-04	3.70E-05	1.67E-05
W_19	556277.4	5402068.57	Peacock Lake (west)		2.06E-04	7.96E-05	1.03E-04	3.20E-04	1.23E-04	2.07E-04	2.88E-04	1.09E-04	1.32E-04	1.05E-04	4.03E-05	6.07E-05	8.09E-06	1.97E-06	9.37E-07	3.64E-05	1.00E-05	4.83E-06	1.49E-04	3.59E-05	1.71E-05
W_2	547105.4	5399506.55	Shack Lake (center)		2.07E-04	8.00E-05	1.03E-04	3.20E-04	1.23E-04	2.08E-04	2.91E-04	1.10E-04	1.33E-04	1.05E-04	4.05E-05	6.09E-05	1.19E-05	3.47E-06	2.50E-06	5.31E-05	1.78E-05	1.41E-05	2.18E-04	6.34E-05	4.54E-05
W_20	556444.4	5402419.57	Peacock Lake (north)		2.06E-04	7.96E-05	1.03E-04	3.20E-04	1.23E-04	2.07E-04	2.88E-04	1.09E-04	1.32E-04	1.05E-04	4.04E-05	6.07E-05	7.01E-06	2.00E-06	9.35E-07	3.27E-05	1.02E-05	4.82E-06	1.29E-04	3.65E-05	1.71E-05
W_21	556424.4	5402099.57	Peacock Lake (center)		2.06E-04	7.96E-05	1.03E-04	3.20E-04	1.23E-04	2.07E-04	2.88E-04	1.09E-04	1.32E-04	1.05E-04	4.03E-05	6.07E-05	7.87E-06	1.92E-06	9.14E-07	3.56E-05	9.84E-06	4.74E-06	1.45E-04	3.50E-05	1.67E-05
W_22	550202.4	5397448.58	Three Finger Lake (north)		2.07E-04	7.97E-05	1.03E-04	3.20E-04	1.23E-04	2.07E-04	2.87E-04	1.09E-04	1.32E-04	1.05E-04	4.04E-05	6.08E-05	1.52E-05	2.28E-06	1.46E-06	6.30E-05	1.44E-05	8.32E-06	2.78E-04	4.17E-05	2.67E-05
W_23	550175.4	5396991.58	Three Finger Lake (center)		2.07E-04	7.97E-05	1.03E-04	3.20E-04	1.23E-04	2.07E-04	2.87E-04	1.09E-04	1.32E-04	1.05E-04	4.04E-05	6.08E-05	1.34E-05	1.98E-06	1.23E-06	5.64E-05	1.19E-05	7.24E-06	2.45E-04	3.62E-05	2.25E-05
W_24	549830.4	5396525.58	Three Finger Lake (south)		2.07E-04	7.97E-05	1.03E-04	3.20E-04	1.23E-04	2.07E-04	2.89E-04	1.09E-04	1.32E-04	1.05E-04	4.04E-05	6.07E-05	1.04E-05	1.82E-06	1.07E-06	4.63E-05	1.00E-05	6.51E-06	1.91E-04	3.32E-05	1.96E-05
W_25	546947.4	5396627.56	Penn Lake (north)		2.11E-04	8.09E-05	1.04E-04	3.21E-04	1.24E-04	2.08E-04	2.86E-04	1.09E-04	1.32E-04	1.06E-04	4.08E-05	6.10E-05	5.41E-06	1.48E-06	1.13E-06	1.56E-04	3.64E-05	1.89E-05	9.80E-05	2.67E-05	2.04E-05
W_26	547059.4	5396125.56	Penn Lake (center)		2.10E-04	8.06E-05	1.04E-04	3.20E-04	1.23E-04	2.08E-04	2.85E-04	1.09E-04	1.32E-04	1.06E-04	4.07E-05	6.09E-05	5.25E-06	1.29E-06	1.00E-06	1.16E-04	2.45E-05	1.35E-05	9.50E-05	2.33E-05	1.81E-05
W_27	546991.4	5395772.56	Penn Lake (south)		2.10E-04	8.04E-05	1.03E-04	3.20E-04	1.23E-04	2.08E-04	2.85E-04	1.09E-04	1.32E-04	1.06E-04	4.06E-05	6.09E-05	4.87E-06	1.17E-06	9.16E-07	9.53E-05	1.92E-05	1.16E-05	8.80E-05	2.12E-05	1.66E-05
W_28	544637	5401700	Angler Creek at Model Property Boundary		2.07E-04	7.97E-05	1.03E-04	3.20E-04	1.23E-04	2.07E-04	2.90E-04	1.10E-04	1.32E-04	1.05E-04	4.04E-05	6.08E-05	7.52E-06	2.19E-06	1.29E-06	3.64E-05	1.05E-05	7.40E-06	1.36E-04	3.93E-05	2.29E-05
W_29	551284	5407805	Pic River In-Flow to Model Property Boundary		2.07E-04	7.97E-05	1.03E-04	3.20E-04	1.23E-04	2.07E-04	2.85E-04	1.09E-04	1.32E-04	1.05E-04	4.04E-05	6.07E-05	8.24E-06	2.19E-06	1.35E-06	3.63E-05	1.04E-05	6.15E-06	1.45E-04	3.90E-05	2.42E-05
W_3	546725.4	5399333.55	Shack Lake (southwest)		2.08E-04	8.00E-05	1.03E-04	3.20E-04	1.23E-04	2.08E-04	2.89E-04	1.10E-04	1.33E-04	1.05E-04	4.05E-05	6.08E-05	1.05E-05	3.04E-06	2.14E-06	6.20E-05	1.84E-05	1.37E-05	1.93E-04	5.53E-05	3.89E-05
W_30	551654	5401167	Pic River Out-Flow from Model Property Boundary		2.07E-04	7.98E-05	1.03E-04	3.20E-04	1.23E-04	2.08E-04	2.91E-04	1.10E-04	1.33E-04	1.05E-04	4.04E-05	6.08E-05	1.07E-05	5.14E-06	3.36E-06	6.35E-05	2.81E-05	1.62E-05	1.96E-04	9.42E-05	6.16E-05
W_4	545636.3	5403828.5	Hare Lake (east)		2.07E-04	7.97E-05	1.03E-04	3.20E-04	1.23E-04	2.08E-04	2.93E-04	1.10E-04	1.33E-04	1.05E-04	4.04E-05	6.08E-05	1.05E-05	2.84E-06	1.66E-06	4.93E-05	1.30E-05	8.81E-06	1.80E-04	5.00E-05	2.91E-05
W_5	545048.3	5403556.5	Hare Lake (south)		2.07E-04	7.97E-05	1.03E-04	3.20E-04	1.23E-04	2.07E-04	2.92E-04	1.10E-04	1.33E-04	1.05E-04	4.04E-05	6.08E-05	9.51E-06	2.43E-06	1.39E-06	4.20E-05	1.06E-05	7.51E-06	1.62E-04	4.29E-05	2.46E-05
W_6	543955.3	5403079.49	Hare Lake (west)		2.07E-04	7.96E-05	1.03E-04	3.20E-04	1.23E-04	2.07E-04	2.90E-04	1.09E-04	1.32E-04	1.05E-04	4.04E-05	6.07E-05	7.65E-06	1.83E-06	1.00E-06	3.48E-05	8.70E-06	5.84E-06	1.31E-04	3.27E-05	1.80E-05
W_7	544603.3	5403943.49	Hare Lake (north)		2.07E-04	7.96E-05	1.03E-04	3.20E-04	1.23E-04	2.07E-04	2.90E-04	1.09E-04	1.33E-04	1.05E-04	4.04E-05	6.08E-05	6.57E-06	2.04E-06	1.17E-06	2.84E-05	9.07E-06	6.48E-06	1.16E-04	3.62E-05	2.09E-05
W_8	544830.3	5403751.49	Hare Lake (center)		2.07E-04	7.97E-05	1.03E-04	3.20E-04	1.23E-04	2.07E-04	2.90E-04	1.09E-04	1.33E-04	1.05E-04	4.04E-05	6.08E-05	7.34E-06	2.22E-06	1.27E-06	3.40E-05	9.75E-06	6.97E-06	1.27E-04	3.93E-05	2.26E-05
W_9	549326.3	5406971.51	Bamoos Lake (east)		2.07E-04	7.98E-05	1.03E-04	3.20E-04	1.23E-04	2.08E-04	2.88E-04	1.09E-04	1.32E-04	1.05E-04	4.04E-05	6.08E-05	2.06E-05	3.72E-06	2.37E-06	7.06E-05	1.44E-05	1.01E-05	3.41E-04	6.55E-05	4.22E-05
Maximum of Special Receptors					**2.92E-04**	**1.20E-04**	**1.35E-04**	**3.56E-04**	**1.41E-04**	**2.22E-04**	**3.00E-04**	**1.12E-04**	**1.34E-04**	**1.34E-04**	**5.45E-05**	**7.20E-05**	**8.40E-05**	**3.74E-05**	**2.85E-05**	**7.77E-04**	**4.41E-04**	**2.16E-04**	**1.55E-03**	**6.88E-04**	**5.24E-04**
Max % of Criteria					**583.4%**	-	**1353.5%**	-	-	-	-	-	-	-	-	-	**0.8%**	-	-	**0.0%**	-	-	**0.0%**	-	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by M

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier

Table F-3 Special Receptor Predictions (ug/m3) - Operations, Cumulative (Project + Background)

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	BROMINE (BR)			CADMIUM (CD)			CALCIUM (CA)			CAO			CH4			CHROMIUM (CR)			CHRYSENE		
				Averaging Period	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual
				Criteria	20	-	-	0.025	-	0.005	-	-	-	10	-	-	37330	-	-	0.5	-	-	-	-	-
				Background Concentration (ug/m3)				1.20E-02	4.63E-03	3.62E-03	1.74E+00	6.71E-01	7.62E-01							1.46E-03	5.63E-04	6.76E-04	2.65E-04	1.02E-04	1.57E-04
S_6	547000.4	5395035.56	Margaret Twomey Public School		1.48E-03	2.41E-04	1.42E-04	1.20E-02	4.63E-03	3.62E-03	1.84E+00	6.94E-01	7.80E-01	2.63E-02	4.44E-03	2.52E-03	3.23E-02	9.07E-03	6.37E-03	2.21E-03	7.47E-04	8.21E-04	2.66E-04	1.03E-04	1.57E-04
W_1	547291.4	5399860.55	Shack Lake (northeast)		5.63E-03	9.78E-04	5.47E-04	1.20E-02	4.64E-03	3.62E-03	2.04E+00	7.65E-01	8.29E-01	1.09E-01	1.78E-02	9.87E-03	9.84E-02	2.53E-02	1.92E-02	3.73E-03	1.31E-03	1.23E-03	2.67E-04	1.03E-04	1.58E-04
W_10	546975.3	5406486.49	Bamoos Lake (south)		5.44E-03	1.15E-03	5.18E-04	1.20E-02	4.63E-03	3.62E-03	2.02E+00	7.40E-01	8.03E-01	9.09E-02	1.74E-02	8.18E-03	8.65E-02	2.45E-02	1.51E-02	3.68E-03	1.09E-03	1.01E-03	2.67E-04	1.03E-04	1.57E-04
W_11	545484.3	5405866.49	Bamoos Lake (west)		4.55E-03	1.08E-03	4.93E-04	1.20E-02	4.63E-03	3.62E-03	1.97E+00	7.28E-01	7.92E-01	8.21E-02	1.89E-02	8.84E-03	6.92E-02	1.86E-02	1.12E-02	3.24E-03	1.02E-03	9.34E-04	2.67E-04	1.03E-04	1.57E-04
W_12	546576.3	5407157.48	Bamoos Lake (north)		3.75E-03	7.64E-04	3.46E-04	1.20E-02	4.63E-03	3.62E-03	1.95E+00	7.24E-01	7.93E-01	6.90E-02	1.27E-02	5.67E-03	8.46E-02	2.22E-02	1.27E-02	3.00E-03	9.70E-04	9.28E-04	2.67E-04	1.03E-04	1.57E-04
W_13	546777.3	5406831.49	Bamoos Lake (center)		4.15E-03	8.58E-04	3.90E-04	1.20E-02	4.63E-03	3.62E-03	1.96E+00	7.30E-01	7.97E-01	7.64E-02	1.42E-02	6.37E-03	8.72E-02	2.47E-02	1.42E-02	3.08E-03	1.02E-03	9.58E-04	2.67E-04	1.03E-04	1.57E-04
W_14	554944.3	5408228.54	Page Lake (south)		1.35E-03	2.71E-04	1.38E-04	1.20E-02	4.63E-03	3.62E-03	1.88E+00	7.08E-01	7.82E-01	2.41E-02	4.82E-03	2.39E-03	6.49E-02	1.65E-02	7.90E-03	2.46E-03	8.52E-04	8.32E-04	2.66E-04	1.03E-04	1.57E-04
W_15	555054.3	5408903.54	Page Lake (center)		1.07E-03	2.03E-04	1.13E-04	1.20E-02	4.63E-03	3.62E-03	1.83E+00	7.00E-01	7.78E-01	1.88E-02	3.55E-03	1.96E-03	5.23E-02	1.24E-02	6.21E-03	2.16E-03	7.90E-04	8.04E-04	2.66E-04	1.02E-04	1.57E-04
W_16	555065.3	5409497.54	Page Lake (north)		9.88E-04	1.68E-04	1.00E-04	1.20E-02	4.63E-03	3.62E-03	1.81E+00	6.94E-01	7.76E-01	1.79E-02	2.91E-03	1.73E-03	2.98E-02	9.16E-03	4.95E-03	2.02E-03	7.44E-04	7.84E-04	2.66E-04	1.02E-04	1.57E-04
W_17	556593.4	5402126.57	Peacock Lake (east)		2.51E-03	4.81E-04	2.11E-04	1.20E-02	4.63E-03	3.62E-03	1.92E+00	7.14E-01	7.82E-01	5.44E-02	7.75E-03	3.58E-03	3.36E-02	1.15E-02	5.76E-03	2.78E-03	8.93E-04	8.34E-04	2.67E-04	1.03E-04	1.57E-04
W_18	556043.4	5401266.57	Peacock Lake (south)		3.57E-03	5.66E-04	2.14E-04	1.20E-02	4.63E-03	3.62E-03	1.92E+00	7.17E-01	7.83E-01	6.40E-02	9.94E-03	3.61E-03	4.10E-02	1.04E-02	5.84E-03	2.82E-03	9.18E-04	8.39E-04	2.67E-04	1.03E-04	1.57E-04
W_19	556277.4	5402068.57	Peacock Lake (west)		3.00E-03	5.25E-04	2.25E-04	1.20E-02	4.63E-03	3.62E-03	1.92E+00	7.16E-01	7.83E-01	5.52E-02	8.44E-03	3.79E-03	3.63E-02	1.22E-02	6.05E-03	2.84E-03	9.07E-04	8.43E-04	2.67E-04	1.03E-04	1.57E-04
W_2	547105.4	5399506.55	Shack Lake (center)		5.08E-03	8.29E-04	4.65E-04	1.20E-02	4.63E-03	3.62E-03	2.01E+00	7.51E-01	8.19E-01	9.75E-02	1.51E-02	8.38E-03	8.80E-02	2.24E-02	1.72E-02	3.50E-03	1.20E-03	1.15E-03	2.67E-04	1.03E-04	1.58E-04
W_20	556444.4	5402419.57	Peacock Lake (north)		2.66E-03	5.07E-04	2.25E-04	1.20E-02	4.63E-03	3.62E-03	1.90E+00	7.17E-01	7.83E-01	5.89E-02	8.80E-03	3.82E-03	3.74E-02	1.24E-02	6.13E-03	2.66E-03	9.15E-04	8.43E-04	2.67E-04	1.03E-04	1.57E-04
W_21	556424.4	5402099.57	Peacock Lake (center)		2.74E-03	5.02E-04	2.18E-04	1.20E-02	4.63E-03	3.62E-03	1.92E+00	7.15E-01	7.83E-01	5.49E-02	8.07E-03	3.68E-03	3.33E-02	1.19E-02	5.93E-03	2.80E-03	8.99E-04	8.39E-04	2.67E-04	1.03E-04	1.57E-04
W_22	550202.4	5397448.58	Three Finger Lake (north)		3.84E-03	4.85E-04	2.55E-04	1.20E-02	4.63E-03	3.62E-03	2.08E+00	7.23E-01	7.95E-01	5.95E-02	8.31E-03	4.34E-03	6.14E-02	1.13E-02	7.59E-03	3.99E-03	9.58E-04	9.33E-04	2.68E-04	1.03E-04	1.57E-04
W_23	550175.4	5396991.58	Three Finger Lake (center)		3.73E-03	4.31E-04	2.27E-04	1.20E-02	4.63E-03	3.62E-03	2.04E+00	7.16E-01	7.90E-01	5.94E-02	7.55E-03	3.91E-03	5.67E-02	1.03E-02	6.79E-03	3.70E-03	9.03E-04	8.94E-04	2.68E-04	1.03E-04	1.57E-04
W_24	549830.4	5396525.58	Three Finger Lake (south)		3.79E-03	3.55E-04	1.95E-04	1.20E-02	4.63E-03	3.62E-03	1.97E+00	7.12E-01	7.86E-01	6.85E-02	6.30E-03	3.42E-03	4.82E-02	9.76E-03	6.35E-03	3.22E-03	8.76E-04	8.67E-04	2.67E-04	1.03E-04	1.57E-04
W_25	546947.4	5396627.56	Penn Lake (north)		2.42E-03	3.06E-04	1.88E-04	1.20E-02	4.64E-03	3.62E-03	1.86E+00	7.06E-01	7.88E-01	4.42E-02	5.78E-03	3.36E-03	6.04E-02	2.37E-02	1.46E-02	2.42E-03	8.31E-04	8.87E-04	2.70E-04	1.04E-04	1.58E-04
W_26	547059.4	5396125.56	Penn Lake (center)		2.04E-03	2.78E-04	1.70E-04	1.20E-02	4.64E-03	3.62E-03	1.86E+00	7.01E-01	7.85E-01	3.76E-02	5.22E-03	3.05E-03	5.62E-02	1.93E-02	1.16E-02	2.36E-03	7.96E-04	8.62E-04	2.69E-04	1.03E-04	1.58E-04
W_27	546991.4	5395772.56	Penn Lake (south)		1.87E-03	2.60E-04	1.58E-04	1.20E-02	4.63E-03	3.62E-03	1.85E+00	6.98E-01	7.83E-01	3.42E-02	4.88E-03	2.83E-03	5.40E-02	1.49E-02	9.98E-03	2.30E-03	7.75E-04	8.45E-04	2.69E-04	1.03E-04	1.58E-04
W_28	544637	5401700	Angler Creek at Model Property Boundary		3.91E-03	7.24E-04	2.83E-04	1.20E-02	4.63E-03	3.62E-03	1.91E+00	7.23E-01	7.93E-01	7.29E-02	1.34E-02	5.26E-03	7.89E-02	1.82E-02	1.15E-02	3.16E-03	1.05E-03	9.84E-04	2.67E-04	1.03E-04	1.57E-04
W_29	551284	5407805	Pic River In-Flow to Model Property Boundary		2.11E-03	3.70E-04	1.96E-04	1.20E-02	4.63E-03	3.62E-03	1.92E+00	7.20E-01	7.92E-01	3.69E-02	6.61E-03	3.46E-03	8.93E-02	2.06E-02	1.21E-02	2.79E-03	9.40E-04	9.10E-04	2.67E-04	1.03E-04	1.57E-04
W_3	546725.4	5399333.55	Shack Lake (southwest)		3.72E-03	7.51E-04	4.18E-04	1.20E-02	4.63E-03	3.62E-03	1.98E+00	7.41E-01	8.12E-01	7.20E-02	1.36E-02	7.57E-03	8.18E-02	2.10E-02	1.57E-02	3.29E-03	1.13E-03	1.09E-03	2.67E-04	1.03E-04	1.58E-04
W_30	551654	5401167	Pic River Out-Flow from Model Property Boundary		5.59E-03	9.88E-04	5.10E-04	1.20E-02	4.64E-03	3.62E-03	1.98E+00	7.88E-01	8.38E-01	8.75E-02	1.77E-02	8.70E-03	5.85E-02	2.28E-02	1.52E-02	3.27E-03	1.45E-03	1.25E-03	2.68E-04	1.03E-04	1.57E-04
W_4	545636.3	5403828.5	Hare Lake (east)		5.58E-03	8.62E-04	5.42E-04	1.20E-02	4.63E-03	3.62E-03	1.98E+00	7.40E-01	8.03E-01	1.03E-01	1.70E-02	1.03E-02	9.29E-02	2.81E-02	1.63E-02	3.77E-03	1.33E-03	1.14E-03	2.67E-04	1.03E-04	1.57E-04
W_5	545048.3	5403556.5	Hare Lake (south)		6.01E-03	6.78E-04	4.10E-04	1.20E-02	4.63E-03	3.62E-03	1.96E+00	7.30E-01	7.96E-01	1.00E-01	1.24E-02	7.71E-03	8.43E-02	2.33E-02	1.30E-02	3.56E-03	1.18E-03	1.04E-03	2.67E-04	1.03E-04	1.57E-04
W_6	543955.3	5403079.49	Hare Lake (west)		3.41E-03	5.28E-04	2.77E-04	1.20E-02	4.63E-03	3.62E-03	1.91E+00	7.14E-01	7.86E-01	6.96E-02	9.55E-03	5.16E-03	6.49E-02	1.61E-02	8.57E-03	2.91E-03	9.65E-04	9.00E-04	2.67E-04	1.03E-04	1.57E-04
W_7	544603.3	5403943.49	Hare Lake (north)		3.79E-03	5.68E-04	3.65E-04	1.20E-02	4.63E-03	3.62E-03	1.89E+00	7.19E-01	7.90E-01	7.32E-02	1.07E-02	6.91E-03	6.75E-02	1.87E-02	1.04E-02	2.86E-03	1.03E-03	9.49E-04	2.67E-04	1.03E-04	1.57E-04
W_8	544830.3	5403751.49	Hare Lake (center)		4.93E-03	6.18E-04	3.86E-04	1.20E-02	4.63E-03	3.62E-03	1.91E+00	7.24E-01	7.93E-01	7.76E-02	1.14E-02	7.29E-03	7.59E-02	2.08E-02	1.15E-02	3.07E-03	1.09E-03	9.85E-04	2.67E-04	1.03E-04	1.57E-04
W_9	549326.3	5406971.51	Bamoos Lake (east)		2.94E-03	4.63E-04	2.94E-04	1.20E-02	4.63E-03	3.62E-03	2.17E+00	7.53E-01	8.15E-01	5.26E-02	8.93E-03	5.18E-03	1.97E-01	4.42E-02	2.46E-02	4.59E-03	1.17E-03	1.08E-03	2.68E-04	1.03E-04	1.57E-04
Maximum of Special Receptors					**1.52E-02**	**2.51E-03**	**1.00E-03**	**1.22E-02**	**4.72E-03**	**3.66E-03**	**3.62E+00**	**1.51E+00**	**1.40E+00**	**2.46E-01**	**4.18E-02**	**1.68E-02**	**1.41E+00**	**5.29E-01**	**3.91E-01**	**1.52E-02**	**6.69E-03**	**5.34E-03**	**3.51E-04**	**1.43E-04**	**1.89E-04**
Max % of Criteria					**0.1%**	-	-	**48.6%**	-	**73.3%**	-	-	-	**2.5%**	-	-	**0.0%**	-	-	**3.0%**	-	-	-	-	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by M

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier

Table F-3 Special Receptor Predictions (ug/m3) - Operations, Cumulative (Project + Background)

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	CO						COBALT (CO)			COPPER (CU)			DIBENZ(A,H)PERYLENE			FLUORANTHENE		
				Averaging Period	0.5	1	8	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual
				Criteria	-	36200	15700	-	-	-	0.1	-	-	50	-	-	-	-	-	-	-	-
				Background Concentration (ug/m3)	1.17E+03	9.65E+02	9.65E+02	9.65E+02	3.72E+02	5.91E+02										1.91E-03	7.37E-04	1.06E-03
S_6	547000.4	5395035.56	Margaret Twomey Public School		1.26E+03	1.04E+03	9.78E+02	9.70E+02	3.74E+02	5.92E+02	4.01E-04	1.00E-04	6.70E-05	1.94E-01	2.88E-02	1.19E-02	1.57E-07	2.34E-08	1.25E-08	1.93E-03	7.43E-04	1.07E-03
W_1	547291.4	5399860.55	Shack Lake (northeast)		1.31E+03	1.08E+03	9.95E+02	9.79E+02	3.76E+02	5.94E+02	7.94E-04	2.58E-04	1.91E-04	9.65E-02	1.89E-02	1.19E-02	3.97E-07	9.18E-08	4.56E-08	1.96E-03	7.51E-04	1.07E-03
W_10	546975.3	5406486.49	Bamoos Lake (south)		1.51E+03	1.25E+03	1.01E+03	9.86E+02	3.76E+02	5.93E+02	7.65E-04	1.85E-04	1.13E-04	2.72E-02	7.22E-03	4.61E-03	3.94E-07	6.80E-08	3.22E-08	1.97E-03	7.52E-04	1.07E-03
W_11	545484.3	5405866.49	Bamoos Lake (west)		1.54E+03	1.27E+03	1.01E+03	9.83E+02	3.75E+02	5.93E+02	6.32E-04	1.57E-04	8.70E-05	4.51E-02	7.76E-03	5.09E-03	3.93E-07	8.88E-08	4.25E-08	1.96E-03	7.48E-04	1.07E-03
W_12	546576.3	5407157.48	Bamoos Lake (north)		1.58E+03	1.31E+03	1.02E+03	9.89E+02	3.76E+02	5.93E+02	5.24E-04	1.40E-04	8.70E-05	3.49E-02	7.23E-03	4.31E-03	3.07E-07	6.61E-08	3.07E-08	1.97E-03	7.51E-04	1.07E-03
W_13	546777.3	5406831.49	Bamoos Lake (center)		1.60E+03	1.32E+03	1.02E+03	9.89E+02	3.77E+02	5.93E+02	5.54E-04	1.57E-04	9.70E-05	4.04E-02	7.92E-03	4.72E-03	3.37E-07	7.20E-08	3.40E-08	1.97E-03	7.53E-04	1.07E-03
W_14	554944.3	5408228.54	Page Lake (south)		1.69E+03	1.39E+03	1.02E+03	9.83E+02	3.75E+02	5.92E+02	3.40E-04	1.01E-04	5.50E-05	2.64E-02	4.38E-03	2.52E-03	1.22E-07	2.03E-08	1.14E-08	1.95E-03	7.48E-04	1.07E-03
W_15	555054.3	5408903.54	Page Lake (center)		1.34E+03	1.10E+03	9.92E+02	9.74E+02	3.74E+02	5.92E+02	2.48E-04	8.00E-05	4.50E-05	2.42E-02	3.73E-03	2.22E-03	1.16E-07	1.65E-08	9.82E-09	1.95E-03	7.45E-04	1.07E-03
W_16	555065.3	5409497.54	Page Lake (north)		1.32E+03	1.09E+03	9.84E+02	9.72E+02	3.74E+02	5.92E+02	1.96E-04	6.30E-05	3.80E-05	2.10E-02	3.42E-03	2.01E-03	1.02E-07	1.52E-08	8.89E-09	1.93E-03	7.43E-04	1.06E-03
W_17	556593.4	5402126.57	Peacock Lake (east)		1.25E+03	1.03E+03	9.83E+02	9.71E+02	3.74E+02	5.92E+02	4.69E-04	1.20E-04	5.70E-05	3.08E-02	7.77E-03	3.55E-03	3.72E-07	3.85E-08	1.76E-08	1.93E-03	7.44E-04	1.06E-03
W_18	556043.4	5401266.57	Peacock Lake (south)		1.44E+03	1.19E+03	9.95E+02	9.77E+02	3.74E+02	5.92E+02	4.88E-04	1.32E-04	5.90E-05	2.79E-02	8.86E-03	3.78E-03	3.69E-07	5.25E-08	1.77E-08	1.94E-03	7.43E-04	1.06E-03
W_19	556277.4	5402068.57	Peacock Lake (west)		1.26E+03	1.04E+03	9.82E+02	9.71E+02	3.74E+02	5.92E+02	4.88E-04	1.25E-04	6.00E-05	3.01E-02	7.92E-03	3.62E-03	3.68E-07	3.89E-08	1.83E-08	1.93E-03	7.44E-04	1.06E-03
W_2	547105.4	5399506.55	Shack Lake (center)		1.30E+03	1.07E+03	9.92E+02	9.78E+02	3.76E+02	5.94E+02	7.15E-04	2.23E-04	1.68E-04	1.08E-01	2.10E-02	1.26E-02	3.48E-07	7.73E-08	3.95E-08	1.96E-03	7.50E-04	1.07E-03
W_20	556444.4	5402419.57	Peacock Lake (north)		1.25E+03	1.03E+03	9.85E+02	9.72E+02	3.74E+02	5.92E+02	4.30E-04	1.28E-04	6.00E-05	3.09E-02	8.36E-03	3.61E-03	3.66E-07	4.39E-08	1.88E-08	1.94E-03	7.44E-04	1.06E-03
W_21	556424.4	5402099.57	Peacock Lake (center)		1.26E+03	1.04E+03	9.83E+02	9.71E+02	3.74E+02	5.92E+02	4.76E-04	1.23E-04	5.90E-05	3.10E-02	7.91E-03	3.61E-03	3.73E-07	3.91E-08	1.81E-08	1.93E-03	7.44E-04	1.06E-03
W_22	550202.4	5397448.58	Three Finger Lake (north)		1.47E+03	1.22E+03	9.97E+02	9.80E+02	3.74E+02	5.92E+02	8.95E-04	1.53E-04	9.70E-05	5.15E-02	1.58E-02	7.44E-03	4.44E-07	4.24E-08	2.22E-08	1.95E-03	7.44E-04	1.07E-03
W_23	550175.4	5396991.58	Three Finger Lake (center)		1.45E+03	1.20E+03	9.95E+02	9.79E+02	3.74E+02	5.92E+02	7.95E-04	1.28E-04	8.30E-05	5.36E-02	1.39E-02	6.80E-03	4.23E-07	3.83E-08	1.96E-08	1.95E-03	7.43E-04	1.07E-03
W_24	549830.4	5396525.58	Three Finger Lake (south)		1.28E+03	1.06E+03	9.84E+02	9.73E+02	3.74E+02	5.92E+02	6.33E-04	1.15E-04	7.30E-05	6.18E-02	1.14E-02	6.42E-03	3.73E-07	3.56E-08	1.57E-08	1.94E-03	7.43E-04	1.07E-03
W_25	546947.4	5396627.56	Penn Lake (north)		1.26E+03	1.04E+03	9.94E+02	9.78E+02	3.77E+02	5.94E+02	6.90E-04	2.12E-04	1.29E-04	3.65E-01	7.48E-02	3.51E-02	2.41E-07	2.57E-08	1.55E-08	1.97E-03	7.58E-04	1.07E-03
W_26	547059.4	5396125.56	Penn Lake (center)		1.26E+03	1.04E+03	9.88E+02	9.76E+02	3.76E+02	5.93E+02	5.26E-04	1.54E-04	1.00E-04	2.69E-01	4.84E-02	2.36E-02	1.90E-07	2.44E-08	1.41E-08	1.96E-03	7.54E-04	1.07E-03
W_27	546991.4	5395772.56	Penn Lake (south)		1.25E+03	1.03E+03	9.90E+02	9.76E+02	3.75E+02	5.93E+02	4.60E-04	1.29E-04	8.80E-05	2.22E-01	3.63E-02	1.97E-02	1.70E-07	2.31E-08	1.32E-08	1.96E-03	7.50E-04	1.07E-03
W_28	544637	5401700	Angler Creek at Model Property Boundary		1.37E+03	1.13E+03	9.91E+02	9.78E+02	3.75E+02	5.93E+02	4.87E-04	1.46E-04	9.20E-05	6.61E-02	1.19E-02	7.00E-03	2.99E-07	5.74E-08	2.24E-08	1.96E-03	7.47E-04	1.07E-03
W_29	551284	5407805	Pic River In-Flow to Model Property Boundary		1.32E+03	1.09E+03	1.00E+03	9.82E+02	3.76E+02	5.93E+02	4.84E-04	1.35E-04	8.20E-05	3.85E-02	6.72E-03	3.51E-03	2.23E-07	3.39E-08	1.71E-08	1.97E-03	7.50E-04	1.07E-03
W_3	546725.4	5399333.55	Shack Lake (southwest)		1.29E+03	1.06E+03	9.91E+02	9.77E+02	3.76E+02	5.93E+02	6.37E-04	2.02E-04	1.52E-04	1.32E-01	2.57E-02	1.46E-02	3.23E-07	7.37E-08	3.61E-08	1.96E-03	7.49E-04	1.07E-03
W_30	551654	5401167	Pic River Out-Flow from Model Property Boundary		1.29E+03	1.06E+03	9.87E+02	9.74E+02	3.76E+02	5.93E+02	6.99E-04	3.34E-04	2.09E-04	7.38E-02	2.31E-02	1.00E-02	4.29E-07	8.05E-08	3.91E-08	1.95E-03	7.50E-04	1.07E-03
W_4	545636.3	5403828.5	Hare Lake (east)		1.47E+03	1.22E+03	1.00E+03	9.85E+02	3.77E+02	5.94E+02	6.75E-04	1.93E-04	1.20E-04	6.30E-02	1.24E-02	7.51E-03	4.12E-07	6.61E-08	3.94E-08	1.97E-03	7.54E-04	1.07E-03
W_5	545048.3	5403556.5	Hare Lake (south)		1.49E+03	1.23E+03	1.00E+03	9.84E+02	3.76E+02	5.93E+02	5.98E-04	1.62E-04	1.00E-04	6.38E-02	1.10E-02	6.51E-03	3.69E-07	4.96E-08	3.07E-08	1.96E-03	7.51E-04	1.07E-03
W_6	543955.3	5403079.49	Hare Lake (west)		1.49E+03	1.23E+03	1.00E+03	9.81E+02	3.75E+02	5.92E+02	4.46E-04	1.21E-04	7.10E-05	4.88E-02	8.40E-03	5.60E-03	3.21E-07	3.98E-08	2.18E-08	1.95E-03	7.46E-04	1.07E-03
W_7	544603.3	5403943.49	Hare Lake (north)		1.23E+03	1.02E+03	9.87E+02	9.76E+02	3.75E+02	5.93E+02	4.14E-04	1.33E-04	8.20E-05	5.06E-02	8.99E-03	5.77E-03	3.16E-07	4.56E-08	2.84E-08	1.95E-03	7.48E-04	1.07E-03
W_8	544830.3	5403751.49	Hare Lake (center)		1.35E+03	1.11E+03	9.89E+02	9.78E+02	3.76E+02	5.93E+02	4.72E-04	1.46E-04	9.00E-05	5.92E-02	1.00E-02	6.14E-03	3.01E-07	4.60E-08	2.95E-08	1.96E-03	7.49E-04	1.07E-03
W_9	549326.3	5406971.51	Bamoos Lake (east)		2.25E+03	1.86E+03	1.09E+03	1.02E+03	3.80E+02	5.95E+02	1.07E-03	2.10E-04	1.41E-04	4.07E-02	8.79E-03	4.74E-03	2.88E-07	4.20E-08	2.30E-08	2.05E-03	7.67E-04	1.08E-03
Maximum of Special Receptors					**2.25E+03**	**1.86E+03**	**1.37E+03**	**1.26E+03**	**4.83E+02**	**6.73E+02**	**4.70E-03**	**2.11E-03**	**1.61E-03**	**1.82E+00**	**1.03E+00**	**4.99E-01**	**7.52E-07**	**1.29E-07**	**6.45E-08**	**3.21E-03**	**1.22E-03**	**1.41E-03**
Max % of Criteria					-	**5.1%**	**8.7%**	-	-	-	**4.7%**	-	-	**3.6%**	-	-	-	-	-	-	-	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by M

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier

Table F-3 Special Receptor Predictions (ug/m3) - Operations, Cumulative (Project + Background)

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	FLUORENE			FORMALDEHYDE			GALLIUM (GA)			GOLD (AU)			HYDROCHLORIC ACID (HCL)			HYDROFLUORIC ACID (HF)		
				Averaging Period	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual
				Criteria	-	-	-	65	-	-	-	-	-	1.25	-	-	20	-	-	0.86	0.34	-
				Background Concentration (ug/m3)	2.91E-03	1.12E-03	1.62E-03	5.40E+00	2.08E+00	1.90E+00												
S_6	547000.4	5395035.56	Margaret Twomey Public School		2.99E-03	1.14E-03	1.64E-03	5.47E+00	2.10E+00	1.91E+00	2.04E-01	2.98E-02	1.21E-02	4.34E-06	6.52E-07	2.74E-07	5.91E-04	9.60E-05	5.60E-05	7.09E-04	1.16E-04	6.80E-05
W_1	547291.4	5399860.55	Shack Lake (northeast)		3.10E-03	1.17E-03	1.66E-03	5.59E+00	2.13E+00	1.94E+00	1.00E-01	1.84E-02	1.08E-02	2.18E-06	4.48E-07	2.94E-07	2.21E-03	3.83E-04	2.13E-04	2.70E-03	4.70E-04	2.63E-04
W_10	546975.3	5406486.49	Bamoos Lake (south)		3.14E-03	1.18E-03	1.65E-03	5.64E+00	2.14E+00	1.93E+00	2.08E-02	6.21E-03	3.61E-03	7.32E-07	1.82E-07	1.21E-07	2.12E-03	4.51E-04	2.05E-04	2.61E-03	5.52E-04	2.49E-04
W_11	545484.3	5405866.49	Bamoos Lake (west)		3.10E-03	1.16E-03	1.65E-03	5.60E+00	2.12E+00	1.92E+00	4.63E-02	7.01E-03	4.45E-03	1.03E-06	1.98E-07	1.27E-07	1.81E-03	4.25E-04	1.95E-04	2.19E-03	5.16E-04	2.37E-04
W_12	546576.3	5407157.48	Bamoos Lake (north)		3.13E-03	1.18E-03	1.65E-03	5.63E+00	2.14E+00	1.93E+00	3.54E-02	6.58E-03	3.59E-03	8.05E-07	1.76E-07	1.10E-07	1.49E-03	3.03E-04	1.37E-04	1.80E-03	3.67E-04	1.66E-04
W_13	546777.3	5406831.49	Bamoos Lake (center)		3.13E-03	1.18E-03	1.65E-03	5.63E+00	2.15E+00	1.93E+00	4.16E-02	7.18E-03	3.91E-03	9.19E-07	1.93E-07	1.21E-07	1.65E-03	3.39E-04	1.54E-04	1.99E-03	4.12E-04	1.87E-04
W_14	554944.3	5408228.54	Page Lake (south)		3.08E-03	1.16E-03	1.64E-03	5.58E+00	2.13E+00	1.92E+00	2.65E-02	3.66E-03	2.09E-03	6.10E-07	1.12E-07	6.51E-08	5.41E-04	1.08E-04	5.50E-05	6.46E-04	1.30E-04	6.60E-05
W_15	555054.3	5408903.54	Page Lake (center)		3.05E-03	1.15E-03	1.64E-03	5.54E+00	2.11E+00	1.91E+00	2.42E-02	3.28E-03	1.88E-03	5.62E-07	9.44E-08	5.67E-08	4.30E-04	8.10E-05	4.50E-05	5.11E-04	9.80E-05	5.40E-05
W_16	555065.3	5409497.54	Page Lake (north)		2.99E-03	1.14E-03	1.63E-03	5.48E+00	2.11E+00	1.91E+00	2.09E-02	3.09E-03	1.73E-03	4.87E-07	8.60E-08	5.10E-08	4.01E-04	6.60E-05	4.00E-05	4.75E-04	8.10E-05	4.80E-05
W_17	556593.4	5402126.57	Peacock Lake (east)		3.00E-03	1.15E-03	1.63E-03	5.49E+00	2.11E+00	1.91E+00	3.03E-02	7.41E-03	3.18E-03	7.26E-07	1.88E-07	8.81E-08	1.02E-03	1.87E-04	8.30E-05	1.21E-03	2.31E-04	1.01E-04
W_18	556043.4	5401266.57	Peacock Lake (south)		3.01E-03	1.14E-03	1.63E-03	5.51E+00	2.10E+00	1.91E+00	2.83E-02	8.16E-03	3.42E-03	6.44E-07	2.18E-07	9.35E-08	1.41E-03	2.24E-04	8.40E-05	1.72E-03	2.72E-04	1.03E-04
W_19	556277.4	5402068.57	Peacock Lake (west)		2.99E-03	1.15E-03	1.63E-03	5.49E+00	2.11E+00	1.91E+00	2.96E-02	7.39E-03	3.23E-03	7.08E-07	1.93E-07	9.02E-08	1.19E-03	2.04E-04	8.80E-05	1.44E-03	2.52E-04	1.08E-04
W_2	547105.4	5399506.55	Shack Lake (center)		3.09E-03	1.17E-03	1.66E-03	5.57E+00	2.13E+00	1.94E+00	1.12E-01	2.08E-02	1.18E-02	2.43E-06	4.91E-07	3.06E-07	2.00E-03	3.26E-04	1.81E-04	2.44E-03	3.98E-04	2.23E-04
W_20	556444.4	5402419.57	Peacock Lake (north)		3.01E-03	1.15E-03	1.63E-03	5.50E+00	2.11E+00	1.91E+00	2.98E-02	7.79E-03	3.21E-03	7.40E-07	2.03E-07	9.00E-08	1.17E-03	1.98E-04	8.80E-05	1.28E-03	2.43E-04	1.08E-04
W_21	556424.4	5402099.57	Peacock Lake (center)		3.00E-03	1.15E-03	1.63E-03	5.49E+00	2.11E+00	1.91E+00	3.05E-02	7.45E-03	3.23E-03	7.29E-07	1.92E-07	8.98E-08	1.09E-03	1.95E-04	8.50E-05	1.32E-03	2.41E-04	1.05E-04
W_22	550202.4	5397448.58	Three Finger Lake (north)		3.05E-03	1.15E-03	1.64E-03	5.53E+00	2.11E+00	1.92E+00	5.36E-02	1.54E-02	7.00E-03	1.17E-06	3.74E-07	1.81E-07	1.51E-03	1.89E-04	9.90E-05	1.84E-03	2.33E-04	1.22E-04
W_23	550175.4	5396991.58	Three Finger Lake (center)		3.04E-03	1.14E-03	1.63E-03	5.52E+00	2.10E+00	1.91E+00	5.59E-02	1.37E-02	6.44E-03	1.21E-06	3.28E-07	1.64E-07	1.47E-03	1.68E-04	8.90E-05	1.79E-03	2.07E-04	1.09E-04
W_24	549830.4	5396525.58	Three Finger Lake (south)		3.01E-03	1.14E-03	1.63E-03	5.50E+00	2.10E+00	1.91E+00	6.48E-02	1.11E-02	6.12E-03	1.39E-06	2.68E-07	1.54E-07	1.51E-03	1.40E-04	7.60E-05	1.82E-03	1.70E-04	9.40E-05
W_25	546947.4	5396627.56	Penn Lake (north)		3.09E-03	1.19E-03	1.66E-03	5.58E+00	2.15E+00	1.94E+00	3.85E-01	7.80E-02	3.63E-02	8.19E-06	1.69E-06	7.97E-07	9.76E-04	1.22E-04	7.40E-05	1.16E-03	1.47E-04	9.00E-05
W_26	547059.4	5396125.56	Penn Lake (center)		3.07E-03	1.18E-03	1.65E-03	5.56E+00	2.14E+00	1.93E+00	2.84E-01	5.03E-02	2.43E-02	6.04E-06	1.09E-06	5.39E-07	8.16E-04	1.11E-04	6.70E-05	9.79E-04	1.33E-04	8.20E-05
W_27	546991.4	5395772.56	Penn Lake (south)		3.07E-03	1.16E-03	1.65E-03	5.56E+00	2.12E+00	1.92E+00	2.34E-01	3.76E-02	2.02E-02	4.97E-06	8.24E-07	4.50E-07	7.48E-04	1.04E-04	6.20E-05	8.96E-04	1.25E-04	7.60E-05
W_28	544637	5401700	Angler Creek at Model Property Boundary		3.10E-03	1.16E-03	1.65E-03	5.60E+00	2.12E+00	1.93E+00	6.87E-02	1.18E-02	6.55E-03	1.50E-06	2.76E-07	1.68E-07	1.56E-03	2.88E-04	1.11E-04	1.88E-03	3.48E-04	1.36E-04
W_29	551284	5407805	Pic River In-Flow to Model Property Boundary		3.15E-03	1.17E-03	1.65E-03	5.65E+00	2.14E+00	1.93E+00	3.68E-02	5.70E-03	2.86E-03	9.15E-07	1.72E-07	9.16E-08	8.59E-04	1.49E-04	7.80E-05	1.01E-03	1.78E-04	9.40E-05
W_3	546725.4	5399333.55	Shack Lake (southwest)		3.08E-03	1.17E-03	1.65E-03	5.57E+00	2.13E+00	1.93E+00	1.38E-01	2.57E-02	1.41E-02	2.96E-06	5.95E-07	3.48E-07	1.48E-03	2.95E-04	1.63E-04	1.79E-03	3.61E-04	2.01E-04
W_30	551654	5401167	Pic River Out-Flow from Model Property Boundary		3.04E-03	1.17E-03	1.65E-03	5.54E+00	2.13E+00	1.93E+00	7.34E-02	2.16E-02	8.71E-03	1.73E-06	5.67E-07	2.56E-07	2.19E-03	3.88E-04	1.98E-04	2.69E-03	4.75E-04	2.45E-04
W_4	545636.3	5403828.5	Hare Lake (east)		3.12E-03	1.19E-03	1.66E-03	5.62E+00	2.15E+00	1.94E+00	6.48E-02	1.19E-02	6.79E-03	1.43E-06	2.92E-07	1.83E-07	2.20E-03	3.39E-04	2.14E-04	2.68E-03	4.14E-04	2.60E-04
W_5	545048.3	5403556.5	Hare Lake (south)		3.11E-03	1.18E-03	1.65E-03	5.60E+00	2.14E+00	1.93E+00	6.58E-02	1.07E-02	5.94E-03	1.45E-06	2.60E-07	1.58E-07	2.38E-03	2.68E-04	1.62E-04	2.89E-03	3.26E-04	1.97E-04
W_6	543955.3	5403079.49	Hare Lake (west)		3.06E-03	1.16E-03	1.64E-03	5.55E+00	2.12E+00	1.92E+00	5.01E-02	8.26E-03	5.25E-03	1.11E-06	1.97E-07	1.35E-07	1.35E-03	2.10E-04	1.10E-04	1.64E-03	2.53E-04	1.33E-04
W_7	544603.3	5403943.49	Hare Lake (north)		3.07E-03	1.16E-03	1.64E-03	5.56E+00	2.13E+00	1.92E+00	5.21E-02	8.68E-03	5.30E-03	1.15E-06	2.12E-07	1.40E-07	1.51E-03	2.26E-04	1.45E-04	1.82E-03	2.73E-04	1.75E-04
W_8	544830.3	5403751.49	Hare Lake (center)		3.09E-03	1.17E-03	1.65E-03	5.59E+00	2.13E+00	1.93E+00	6.11E-02	9.70E-03	5.63E-03	1.34E-06	2.36E-07	1.49E-07	1.96E-03	2.46E-04	1.53E-04	2.37E-03	2.97E-04	1.86E-04
W_9	549326.3	5406971.51	Bamoos Lake (east)		3.44E-03	1.24E-03	1.68E-03	5.96E+00	2.21E+00	1.96E+00	3.80E-02	7.33E-03	3.50E-03	9.86E-07	2.25E-07	1.29E-07	1.19E-03	1.83E-04	1.16E-04	1.41E-03	2.22E-04	1.41E-04
Maximum of Special Receptors					**7.13E-03**	**2.69E-03**	**2.78E-03**	**9.65E+00**	**3.68E+00**	**3.08E+00**	**1.92E+00**	**1.08E+00**	**5.26E-01**	**4.09E-05**	**2.31E-05**	**1.12E-05**	**5.76E-03**	**9.55E-04**	**3.83E-04**	**7.29E-03**	**1.20E-03**	**4.82E-04**
Max % of Criteria					-	-	-	**14.9%**	-	-	-	-	-	**0.0%**	-	-	**0.0%**	-	-	**0.8%**	**0.4%**	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by M

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier

Table F-3 Special Receptor Predictions (ug/m3) - Operations, Cumulative (Project + Background)

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	INDENO(1,2,3-CD)PYRENE			IRON (FE)			IRON SULFIDE			LANTHANUM (LA)			LANTHANUM CHLORIDE (LACL3)			LEAD (PB)		
				Averaging Period	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual
				Criteria	-	-	-	-	-	-	-	-	-	-	-	-	2.5	-	-	0.5	0.2	-
				Background Concentration (ug/m3)				3.85E-01	1.49E-01	1.91E-01										5.74E-03	2.21E-03	3.01E-03
S_6	547000.4	5395035.56	Margaret Twomey Public School		1.88E-07	2.80E-08	1.50E-08	8.26E-01	2.71E-01	2.84E-01	1.55E+00	3.58E-01	2.79E-01	1.34E-04	2.99E-05	2.32E-05	1.01E-02	1.63E-03	9.06E-04	5.92E-03	2.25E-03	3.03E-03
W_1	547291.4	5399860.55	Shack Lake (northeast)		4.75E-07	1.10E-07	5.46E-08	1.71E+00	5.73E-01	5.01E-01	6.12E+00	1.48E+00	1.11E+00	3.92E-04	1.20E-04	8.58E-05	3.59E-02	6.21E-03	3.38E-03	6.11E-03	2.30E-03	3.06E-03
W_10	546975.3	5406486.49	Bamoos Lake (south)		4.72E-07	8.15E-08	3.86E-08	1.65E+00	4.54E-01	3.76E-01	4.83E+00	1.10E+00	6.21E-01	3.58E-04	8.90E-05	5.41E-05	3.40E-02	7.29E-03	3.38E-03	6.10E-03	2.29E-03	3.05E-03
W_11	545484.3	5405866.49	Bamoos Lake (west)		4.71E-07	1.06E-07	5.09E-08	1.42E+00	4.03E-01	3.30E-01	6.81E+00	1.25E+00	5.37E-01	2.95E-04	7.39E-05	3.89E-05	3.02E-02	7.01E-03	3.24E-03	6.07E-03	2.29E-03	3.05E-03
W_12	546576.3	5407157.48	Bamoos Lake (north)		3.68E-07	7.91E-08	3.68E-08	1.27E+00	3.80E-01	3.32E-01	3.62E+00	7.84E-01	4.51E-01	3.37E-04	7.19E-05	4.19E-05	2.51E-02	5.05E-03	2.26E-03	6.01E-03	2.27E-03	3.04E-03
W_13	546777.3	5406831.49	Bamoos Lake (center)		4.04E-07	8.62E-08	4.07E-08	1.32E+00	4.09E-01	3.48E-01	3.93E+00	8.84E-01	5.09E-01	3.51E-04	8.06E-05	4.67E-05	2.75E-02	5.63E-03	2.54E-03	6.03E-03	2.28E-03	3.04E-03
W_14	554944.3	5408228.54	Page Lake (south)		1.46E-07	2.43E-08	1.37E-08	9.54E-01	3.14E-01	2.80E-01	1.34E+00	4.55E-01	2.61E-01	2.41E-04	5.19E-05	2.73E-05	9.32E-03	1.83E-03	9.11E-04	5.87E-03	2.24E-03	3.02E-03
W_15	555054.3	5408903.54	Page Lake (center)		1.39E-07	1.97E-08	1.18E-08	7.85E-01	2.78E-01	2.64E-01	1.15E+00	3.80E-01	2.22E-01	1.34E-04	4.04E-05	2.20E-05	7.53E-03	1.34E-03	7.50E-04	5.84E-03	2.24E-03	3.02E-03
W_16	555065.3	5409497.54	Page Lake (north)		1.22E-07	1.82E-08	1.06E-08	7.06E-01	2.52E-01	2.53E-01	1.10E+00	3.23E-01	1.98E-01	1.14E-04	3.10E-05	1.83E-05	7.09E-03	1.10E-03	6.63E-04	5.84E-03	2.23E-03	3.02E-03
W_17	556593.4	5402126.57	Peacock Lake (east)		4.45E-07	4.61E-08	2.11E-08	1.17E+00	3.43E-01	2.83E-01	2.03E+00	6.50E-01	3.43E-01	2.29E-04	5.62E-05	2.63E-05	2.10E-02	2.95E-03	1.35E-03	5.99E-03	2.26E-03	3.03E-03
W_18	556043.4	5401266.57	Peacock Lake (south)		4.41E-07	6.29E-08	2.12E-08	1.19E+00	3.60E-01	2.86E-01	2.34E+00	5.98E-01	3.49E-01	2.29E-04	5.98E-05	2.72E-05	2.34E-02	3.76E-03	1.36E-03	6.01E-03	2.27E-03	3.03E-03
W_19	556277.4	5402068.57	Peacock Lake (west)		4.40E-07	4.66E-08	2.19E-08	1.21E+00	3.52E-01	2.89E-01	2.21E+00	6.90E-01	3.65E-01	2.38E-04	5.86E-05	2.78E-05	2.06E-02	3.23E-03	1.43E-03	5.98E-03	2.26E-03	3.03E-03
W_2	547105.4	5399506.55	Shack Lake (center)		4.17E-07	9.26E-08	4.73E-08	1.58E+00	5.12E-01	4.58E-01	5.28E+00	1.24E+00	9.40E-01	3.54E-04	1.02E-04	7.33E-05	3.29E-02	5.32E-03	2.89E-03	6.09E-03	2.29E-03	3.06E-03
W_20	556444.4	5402419.57	Peacock Lake (north)		4.38E-07	5.26E-08	2.26E-08	1.10E+00	3.56E-01	2.88E-01	2.24E+00	6.69E-01	3.63E-01	2.06E-04	5.99E-05	2.78E-05	2.45E-02	3.21E-03	1.43E-03	6.02E-03	2.26E-03	3.03E-03
W_21	556424.4	5402099.57	Peacock Lake (center)		4.47E-07	4.68E-08	2.17E-08	1.18E+00	3.47E-01	2.86E-01	2.13E+00	6.71E-01	3.54E-01	2.32E-04	5.72E-05	2.71E-05	2.08E-02	3.08E-03	1.38E-03	5.99E-03	2.26E-03	3.03E-03
W_22	550202.4	5397448.58	Three Finger Lake (north)		5.32E-07	5.07E-08	2.65E-08	1.90E+00	3.83E-01	3.45E-01	3.49E+00	7.18E-01	4.62E-01	4.55E-04	6.80E-05	4.30E-05	2.50E-02	2.99E-03	1.57E-03	6.05E-03	2.27E-03	3.04E-03
W_23	550175.4	5396991.58	Three Finger Lake (center)		5.07E-07	4.58E-08	2.35E-08	1.72E+00	3.51E-01	3.22E-01	3.20E+00	6.48E-01	4.15E-01	4.06E-04	5.90E-05	3.63E-05	2.46E-02	2.67E-03	1.41E-03	6.04E-03	2.26E-03	3.03E-03
W_24	549830.4	5396525.58	Three Finger Lake (south)		4.47E-07	4.27E-08	1.88E-08	1.44E+00	3.35E-01	3.06E-01	3.10E+00	5.73E-01	3.84E-01	3.10E-04	5.40E-05	3.16E-05	2.53E-02	2.32E-03	1.19E-03	6.04E-03	2.25E-03	3.03E-03
W_25	546947.4	5396627.56	Penn Lake (north)		2.88E-07	3.08E-08	1.86E-08	9.80E-01	3.69E-01	3.45E-01	1.88E+00	4.69E-01	3.77E-01	1.63E-04	4.38E-05	3.34E-05	1.71E-02	2.07E-03	1.19E-03	6.07E-03	2.30E-03	3.06E-03
W_26	547059.4	5396125.56	Penn Lake (center)		2.28E-07	2.92E-08	1.69E-08	9.15E-01	3.21E-01	3.19E-01	1.73E+00	4.23E-01	3.39E-01	1.60E-04	3.84E-05	2.96E-05	1.40E-02	1.89E-03	1.09E-03	5.98E-03	2.28E-03	3.05E-03
W_27	546991.4	5395772.56	Penn Lake (south)		2.04E-07	2.76E-08	1.58E-08	8.76E-01	3.01E-01	3.06E-01	1.61E+00	3.93E-01	3.14E-01	1.48E-04	3.49E-05	2.70E-05	1.29E-02	1.77E-03	1.01E-03	5.94E-03	2.27E-03	3.04E-03
W_28	544637	5401700	Angler Creek at Model Property Boundary		3.58E-07	6.87E-08	2.68E-08	1.19E+00	3.88E-01	3.38E-01	3.45E+00	8.93E-01	4.91E-01	2.19E-04	6.38E-05	3.75E-05	2.63E-02	4.82E-03	1.83E-03	6.03E-03	2.27E-03	3.04E-03
W_29	551284	5407805	Pic River In-Flow to Model Property Boundary		2.67E-07	4.06E-08	2.05E-08	1.18E+00	3.68E-01	3.27E-01	2.62E+00	5.67E-01	3.69E-01	2.72E-04	6.85E-05	4.16E-05	1.54E-02	2.58E-03	1.34E-03	5.93E-03	2.26E-03	3.03E-03
W_3	546725.4	5399333.55	Shack Lake (southwest)		3.87E-07	8.82E-08	4.33E-08	1.45E+00	4.71E-01	4.26E-01	4.36E+00	1.17E+00	8.34E-01	3.13E-04	8.95E-05	6.29E-05	2.49E-02	4.82E-03	2.63E-03	6.02E-03	2.28E-03	3.06E-03
W_30	551654	5401167	Pic River Out-Flow from Model Property Boundary		5.14E-07	9.64E-08	4.68E-08	1.50E+00	6.85E-01	5.35E-01	4.06E+00	1.37E+00	9.21E-01	3.16E-04	1.52E-04	9.96E-05	3.56E-02	6.32E-03	3.11E-03	6.10E-03	2.31E-03	3.06E-03
W_4	545636.3	5403828.5	Hare Lake (east)		4.94E-07	7.91E-08	4.71E-08	1.49E+00	4.69E-01	3.87E-01	4.04E+00	1.16E+00	7.04E-01	3.35E-04	8.29E-05	4.74E-05	3.62E-02	5.53E-03	3.51E-03	6.10E-03	2.28E-03	3.06E-03
W_5	545048.3	5403556.5	Hare Lake (south)		4.42E-07	5.94E-08	3.68E-08	1.37E+00	4.20E-01	3.52E-01	3.75E+00	9.10E-01	5.72E-01	3.08E-04	7.10E-05	4.01E-05	3.96E-02	4.41E-03	2.66E-03	6.12E-03	2.27E-03	3.05E-03
W_6	543955.3	5403079.49	Hare Lake (west)		3.85E-07	4.76E-08	2.61E-08	1.13E+00	3.47E-01	3.03E-01	2.60E+00	7.03E-01	4.08E-01	2.58E-04	5.41E-05	2.93E-05	2.23E-02	3.52E-03	1.82E-03	5.98E-03	2.26E-03	3.04E-03
W_7	544603.3	5403943.49	Hare Lake (north)		3.78E-07	5.46E-08	3.41E-08	1.07E+00	3.69E-01	3.23E-01	2.97E+00	7.62E-01	4.83E-01	2.00E-04	6.02E-05	3.41E-05	2.53E-02	3.79E-03	2.40E-03	5.99E-03	2.26E-03	3.04E-03
W_8	544830.3	5403751.49	Hare Lake (center)		3.60E-07	5.51E-08	3.54E-08	1.16E+00	3.92E-01	3.36E-01	3.30E+00	8.18E-01	5.25E-01	2.30E-04	6.54E-05	3.69E-05	3.28E-02	4.11E-03	2.53E-03	6.06E-03	2.27E-03	3.04E-03
W_9	549326.3	5406971.51	Bamoos Lake (east)		3.45E-07	5.03E-08	2.75E-08	2.19E+00	5.04E-01	4.25E-01	2.57E+00	7.82E-01	5.83E-01	7.62E-04	1.22E-04	7.47E-05	2.08E-02	3.41E-03	1.89E-03	5.99E-03	2.27E-03	3.04E-03
Maximum of Special Receptors					**9.00E-07**	**1.55E-07**	**7.72E-08**	**8.67E+00**	**3.84E+00**	**3.01E+00**	**1.35E+01**	**2.83E+00**	**1.84E+00**	**2.50E-03**	**1.11E-03**	**8.45E-04**	**8.56E-02**	**1.44E-02**	**5.78E-03**	**7.38E-03**	**3.15E-03**	**3.47E-03**
Max % of Criteria					-	-	-	-	-	-	-	-	-	-	-	-	**3.4%**	-	-	**1.5%**	**1.6%**	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by N

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier

Table F-3 Special Receptor Predictions (ug/m3) - Operations, Cumulative (Project + Background)

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	MAGNESIUM (MG)			MANGANESE (MN)			MERCURY (HG)			MOLYBDENUM (MO)			N2O			NAPHTHALENE			
				Averaging Period	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	10-min	24	month	annual
				Criteria	72	-	-	0.4	-	-	2	-	-	120	-	-	9000	-	-	50	22.5	-	-
				Background Concentration (ug/m3)				1.42E-02	5.48E-03	7.71E-03										2.37E+00	2.39E-01	9.22E-02	9.64E-02
S_6	547000.4	5395035.56	Margaret Twomey Public School		1.13E-01	2.80E-02	2.19E-02	1.83E-02	6.44E-03	8.47E-03	8.01E-06	1.88E-06	1.48E-06	1.80E-05	4.51E-06	2.97E-06	1.12E-01	3.10E-02	2.20E-02	2.37E+00	2.39E-01	9.22E-02	9.64E-02
W_1	547291.4	5399860.55	Shack Lake (northeast)		3.42E-01	1.09E-01	7.87E-02	2.66E-02	9.40E-03	1.05E-02	2.42E-05	7.54E-06	5.40E-06	3.28E-05	1.15E-05	8.81E-06	3.55E-01	9.04E-02	6.85E-02	2.37E+00	2.39E-01	9.22E-02	9.64E-02
W_10	546975.3	5406486.49	Bamoos Lake (south)		3.26E-01	7.85E-02	4.73E-02	2.60E-02	8.32E-03	9.42E-03	2.28E-05	5.52E-06	3.29E-06	3.27E-05	7.69E-06	5.01E-06	2.77E-01	8.33E-02	5.17E-02	2.37E+00	2.39E-01	9.22E-02	9.64E-02
W_11	545484.3	5405866.49	Bamoos Lake (west)		2.67E-01	6.51E-02	3.53E-02	2.38E-02	7.82E-03	8.98E-03	1.87E-05	4.50E-06	2.39E-06	2.60E-05	7.01E-06	4.12E-06	2.50E-01	6.65E-02	3.92E-02	2.37E+00	2.39E-01	9.22E-02	9.64E-02
W_12	546576.3	5407157.48	Bamoos Lake (north)		2.25E-01	5.93E-02	3.58E-02	2.26E-02	7.64E-03	9.00E-03	1.65E-05	4.19E-06	2.49E-06	2.31E-05	6.05E-06	3.90E-06	2.75E-01	7.41E-02	4.32E-02	2.37E+00	2.39E-01	9.22E-02	9.64E-02
W_13	546777.3	5406831.49	Bamoos Lake (center)		2.37E-01	6.67E-02	4.00E-02	2.30E-02	7.90E-03	9.16E-03	1.74E-05	4.71E-06	2.78E-06	2.43E-05	6.77E-06	4.36E-06	2.84E-01	8.26E-02	4.82E-02	2.37E+00	2.39E-01	9.22E-02	9.64E-02
W_14	554944.3	5408228.54	Page Lake (south)		1.43E-01	4.20E-02	2.28E-02	1.96E-02	7.00E-03	8.54E-03	1.07E-05	2.97E-06	1.60E-06	1.58E-05	4.40E-06	2.39E-06	2.11E-01	5.46E-02	2.66E-02	2.37E+00	2.39E-01	9.22E-02	9.64E-02
W_15	555054.3	5408903.54	Page Lake (center)		1.01E-01	3.30E-02	1.86E-02	1.79E-02	6.68E-03	8.38E-03	7.18E-06	2.32E-06	1.30E-06	1.10E-05	3.49E-06	1.97E-06	1.69E-01	4.16E-02	2.11E-02	2.37E+00	2.39E-01	9.22E-02	9.64E-02
W_16	555065.3	5409497.54	Page Lake (north)		8.13E-02	2.62E-02	1.57E-02	1.72E-02	6.43E-03	8.28E-03	5.86E-06	1.84E-06	1.10E-06	8.75E-06	2.80E-06	1.67E-06	1.00E-01	3.10E-02	1.69E-02	2.37E+00	2.39E-01	9.22E-02	9.64E-02
W_17	556593.4	5402126.57	Peacock Lake (east)		2.03E-01	4.95E-02	2.34E-02	2.16E-02	7.26E-03	8.55E-03	1.44E-05	3.47E-06	1.63E-06	1.95E-05	5.12E-06	2.46E-06	1.10E-01	4.09E-02	2.06E-02	2.37E+00	2.39E-01	9.22E-02	9.64E-02
W_18	556043.4	5401266.57	Peacock Lake (south)		2.06E-01	5.35E-02	2.42E-02	2.16E-02	7.40E-03	8.58E-03	1.45E-05	3.74E-06	1.69E-06	2.04E-05	5.59E-06	2.55E-06	1.35E-01	3.72E-02	2.09E-02	2.37E+00	2.39E-01	9.22E-02	9.64E-02
W_19	556277.4	5402068.57	Peacock Lake (west)		2.11E-01	5.17E-02	2.48E-02	2.19E-02	7.34E-03	8.60E-03	1.50E-05	3.63E-06	1.73E-06	2.03E-05	5.32E-06	2.59E-06	1.29E-01	4.32E-02	2.17E-02	2.37E+00	2.39E-01	9.22E-02	9.64E-02
W_2	547105.4	5399506.55	Shack Lake (center)		3.09E-01	9.26E-02	6.75E-02	2.54E-02	8.82E-03	1.01E-02	2.19E-05	6.42E-06	4.62E-06	2.95E-05	1.00E-05	7.72E-06	3.16E-01	7.94E-02	6.08E-02	2.37E+00	2.39E-01	9.22E-02	9.64E-02
W_20	556444.4	5402419.57	Peacock Lake (north)		1.84E-01	5.26E-02	2.47E-02	2.09E-02	7.38E-03	8.60E-03	1.30E-05	3.69E-06	1.73E-06	1.79E-05	5.44E-06	2.58E-06	1.22E-01	4.36E-02	2.19E-02	2.37E+00	2.39E-01	9.22E-02	9.64E-02
W_21	556424.4	5402099.57	Peacock Lake (center)		2.06E-01	5.05E-02	2.42E-02	2.17E-02	7.30E-03	8.58E-03	1.46E-05	3.54E-06	1.69E-06	1.98E-05	5.21E-06	2.53E-06	1.19E-01	4.21E-02	2.12E-02	2.37E+00	2.39E-01	9.22E-02	9.64E-02
W_22	550202.4	5397448.58	Three Finger Lake (north)		3.91E-01	5.96E-02	3.88E-02	2.84E-02	7.64E-03	9.10E-03	2.79E-05	4.20E-06	2.71E-06	3.60E-05	6.43E-06	4.13E-06	2.14E-01	4.06E-02	2.72E-02	2.37E+00	2.39E-01	9.22E-02	9.64E-02
W_23	550175.4	5396991.58	Three Finger Lake (center)		3.45E-01	5.17E-02	3.29E-02	2.68E-02	7.35E-03	8.89E-03	2.46E-05	3.65E-06	2.29E-06	3.19E-05	5.39E-06	3.55E-06	1.99E-01	3.70E-02	2.44E-02	2.37E+00	2.39E-01	9.22E-02	9.64E-02
W_24	549830.4	5396525.58	Three Finger Lake (south)		2.70E-01	4.76E-02	2.87E-02	2.40E-02	7.20E-03	8.74E-03	1.92E-05	3.35E-06	1.99E-06	2.53E-05	4.77E-06	3.15E-06	1.74E-01	3.48E-02	2.28E-02	2.37E+00	2.39E-01	9.22E-02	9.64E-02
W_25	546947.4	5396627.56	Penn Lake (north)		1.42E-01	4.33E-02	3.35E-02	1.93E-02	6.91E-03	8.82E-03	9.92E-06	2.85E-06	2.20E-06	3.05E-05	9.36E-06	5.71E-06	1.94E-01	7.71E-02	4.83E-02	2.37E+00	2.39E-01	9.22E-02	9.64E-02
W_26	547059.4	5396125.56	Penn Lake (center)		1.36E-01	3.65E-02	2.89E-02	1.91E-02	6.72E-03	8.69E-03	9.60E-06	2.46E-06	1.92E-06	2.33E-05	6.83E-06	4.45E-06	1.82E-01	6.34E-02	3.88E-02	2.37E+00	2.39E-01	9.22E-02	9.64E-02
W_27	546991.4	5395772.56	Penn Lake (south)		1.25E-01	3.28E-02	2.62E-02	1.88E-02	6.61E-03	8.60E-03	8.89E-06	2.22E-06	1.75E-06	2.09E-05	5.73E-06	3.92E-06	1.71E-01	4.91E-02	3.35E-02	2.37E+00	2.39E-01	9.22E-02	9.64E-02
W_28	544637	5401700	Angler Creek at Model Property Boundary		2.05E-01	6.14E-02	3.71E-02	2.16E-02	7.69E-03	9.04E-03	1.38E-05	4.01E-06	2.36E-06	2.81E-05	8.04E-06	5.37E-06	2.63E-01	6.37E-02	3.97E-02	2.37E+00	2.39E-01	9.22E-02	9.64E-02
W_29	551284	5407805	Pic River In-Flow to Model Property Boundary		2.01E-01	5.56E-02	3.46E-02	2.16E-02	7.50E-03	8.97E-03	1.46E-05	3.94E-06	2.44E-06	2.04E-05	5.82E-06	3.55E-06	2.88E-01	6.84E-02	4.05E-02	2.37E+00	2.39E-01	9.22E-02	9.64E-02
W_3	546725.4	5399333.55	Shack Lake (southwest)		2.74E-01	8.15E-02	5.86E-02	2.42E-02	8.41E-03	9.80E-03	1.94E-05	5.61E-06	3.98E-06	2.65E-05	9.21E-06	7.07E-06	2.90E-01	7.42E-02	5.56E-02	2.37E+00	2.39E-01	9.22E-02	9.64E-02
W_30	551654	5401167	Pic River Out-Flow from Model Property Boundary		2.82E-01	1.36E-01	8.81E-02	2.44E-02	1.04E-02	1.09E-02	1.99E-05	9.54E-06	6.21E-06	2.89E-05	1.40E-05	8.73E-06	1.99E-01	8.17E-02	5.43E-02	2.37E+00	2.39E-01	9.22E-02	9.64E-02
W_4	545636.3	5403828.5	Hare Lake (east)		2.80E-01	8.25E-02	4.99E-02	2.44E-02	8.45E-03	9.50E-03	1.84E-05	5.13E-06	3.01E-06	3.93E-05	1.34E-05	8.12E-06	3.16E-01	9.62E-02	5.65E-02	2.37E+00	2.39E-01	9.22E-02	9.64E-02
W_5	545048.3	5403556.5	Hare Lake (south)		2.51E-01	6.99E-02	4.09E-02	2.34E-02	8.01E-03	9.18E-03	1.66E-05	4.39E-06	2.53E-06	3.56E-05	1.03E-05	6.27E-06	2.84E-01	7.98E-02	4.50E-02	2.37E+00	2.39E-01	9.22E-02	9.64E-02
W_6	543955.3	5403079.49	Hare Lake (west)		1.89E-01	5.07E-02	2.83E-02	2.12E-02	7.31E-03	8.72E-03	1.32E-05	3.33E-06	1.84E-06	2.32E-05	6.56E-06	3.86E-06	2.22E-01	5.58E-02	2.99E-02	2.37E+00	2.39E-01	9.22E-02	9.64E-02
W_7	544603.3	5403943.49	Hare Lake (north)		1.77E-01	5.67E-02	3.34E-02	2.06E-02	7.53E-03	8.91E-03	1.18E-05	3.69E-06	2.15E-06	2.28E-05	7.79E-06	4.67E-06	2.28E-01	6.43E-02	3.62E-02	2.37E+00	2.39E-01	9.22E-02	9.64E-02
W_8	544830.3	5403751.49	Hare Lake (center)		1.97E-01	6.26E-02	3.67E-02	2.14E-02	7.74E-03	9.03E-03	1.30E-05	4.01E-06	2.32E-06	2.71E-05	8.79E-06	5.34E-06	2.55E-01	7.13E-02	4.00E-02	2.37E+00	2.39E-01	9.22E-02	9.64E-02
W_9	549326.3	5406971.51	Bamoos Lake (east)		4.56E-01	9.09E-02	5.97E-02	3.14E-02	8.83E-03	9.89E-03	3.42E-05	6.58E-06	4.25E-06	4.84E-05	9.04E-06	6.09E-06	6.26E-01	1.42E-01	8.11E-02	2.37E+00	2.39E-01	9.22E-02	9.64E-02
Maximum of Special Receptors					**2.16E+00**	**9.61E-01**	**7.32E-01**	**9.34E-02**	**4.07E-02**	**3.46E-02**	**1.55E-04**	**6.89E-05**	**5.24E-05**	**1.90E-04**	**8.59E-05**	**6.53E-05**	**4.41E+00**	**1.65E+00**	**1.22E+00**	**2.37E+00**	**2.39E-01**	**9.23E-02**	**9.64E-02**
Max % of Criteria					**3.0%**	-	-	**23.4%**	-	-	**0.0%**	-	-	**0.0%**	-	-	**0.0%**	-	-	**4.7%**	**1.1%**	-	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by M

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier

Table F-3 Special Receptor Predictions (ug/m3) - Operations, Cumulative (Project + Background)

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	NICKEL (NI)		NITRIC ACID (HNO3)			NON-METHANE HYDROCARBONS			NO2 (See Note 3)			PALLADIUM (PD)			PHENANTHRENE			PHOSPHOROUS (P)		
				Averaging Period	24	annual	24	month	annual	24	month	annual	1	24	annual	24	month	annual	24	month	annual	24	month	annual
				Criteria	0.2	0.04	35	-	-	-	-	-	400	200	-	10	-	-	-	-	-	-	-	-
				Background Concentration (ug/m3)	2.60E-03	1.00E-03							6.34E+01	3.17E+01	1.74E+01				7.86E-03	3.03E-03	4.59E-03			
S_6	547000.4	5395035.56	Margaret Twomey Public School		7.18E-03	1.39E-03	6.91E-04	1.13E-04	6.70E-05	2.60E-01	7.83E-02	5.35E-02	1.22E+02	3.64E+01	1.81E+01	4.33E-05	6.40E-06	2.62E-06	8.19E-03	3.12E-03	4.65E-03	1.08E-02	2.52E-03	2.00E-03
W_1	547291.4	5399860.55	Shack Lake (northeast)		5.26E-03	1.73E-03	2.63E-03	4.57E-04	2.56E-04	6.75E-01	1.80E-01	1.39E-01	1.41E+02	4.17E+01	1.96E+01	2.15E-05	4.10E-06	2.52E-06	8.69E-03	3.25E-03	4.76E-03	3.29E-02	1.04E-02	7.53E-03
W_10	546975.3	5406486.49	Bamoos Lake (south)		5.10E-03	1.39E-03	2.54E-03	5.37E-04	2.42E-04	8.51E-01	2.05E-01	1.22E-01	1.23E+02	4.17E+01	1.95E+01	5.49E-06	1.51E-06	9.40E-07	8.87E-03	3.28E-03	4.74E-03	3.14E-02	7.51E-03	4.51E-03
W_11	545484.3	5405866.49	Bamoos Lake (west)		4.69E-03	1.33E-03	2.13E-03	5.02E-04	2.31E-04	6.94E-01	1.39E-01	8.62E-02	1.16E+02	4.14E+01	1.91E+01	1.00E-05	1.63E-06	1.07E-06	8.69E-03	3.21E-03	4.70E-03	2.55E-02	6.21E-03	3.35E-03
W_12	546576.3	5407157.48	Bamoos Lake (north)		4.10E-03	1.31E-03	1.75E-03	3.57E-04	1.62E-04	8.07E-01	1.96E-01	1.08E-01	1.23E+02	4.31E+01	1.93E+01	7.70E-06	1.55E-06	8.95E-07	8.84E-03	3.27E-03	4.72E-03	2.10E-02	5.64E-03	3.39E-03
W_13	546777.3	5406831.49	Bamoos Lake (center)		4.19E-03	1.35E-03	1.94E-03	4.01E-04	1.82E-04	8.24E-01	2.18E-01	1.20E-01	1.23E+02	4.31E+01	1.95E+01	8.97E-06	1.69E-06	9.79E-07	8.86E-03	3.30E-03	4.74E-03	2.22E-02	6.35E-03	3.80E-03
W_14	554944.3	5408228.54	Page Lake (south)		3.73E-03	1.19E-03	6.29E-04	1.27E-04	6.40E-05	6.20E-01	1.48E-01	6.80E-02	1.23E+02	4.08E+01	1.87E+01	5.80E-06	9.09E-07	5.21E-07	8.60E-03	3.21E-03	4.67E-03	1.31E-02	3.97E-03	2.16E-03
W_15	555054.3	5408903.54	Page Lake (center)		3.58E-03	1.16E-03	4.98E-04	9.50E-05	5.30E-05	5.07E-01	1.10E-01	5.26E-02	1.20E+02	3.89E+01	1.84E+01	5.33E-06	7.82E-07	4.62E-07	8.47E-03	3.17E-03	4.65E-03	9.42E-03	3.12E-03	1.77E-03
W_16	555065.3	5409497.54	Page Lake (north)		3.41E-03	1.14E-03	4.63E-04	7.90E-05	4.70E-05	2.82E-01	7.76E-02	4.07E-02	1.09E+02	3.62E+01	1.82E+01	4.61E-06	7.26E-07	4.21E-07	8.21E-03	3.13E-03	4.64E-03	7.60E-03	2.49E-03	1.49E-03
W_17	556593.4	5402126.57	Peacock Lake (east)		4.10E-03	1.21E-03	1.18E-03	2.25E-04	9.90E-05	3.32E-01	8.72E-02	4.10E-02	1.12E+02	3.64E+01	1.82E+01	6.71E-06	1.67E-06	7.50E-07	8.26E-03	3.14E-03	4.64E-03	1.96E-02	4.71E-03	2.23E-03
W_18	556043.4	5401266.57	Peacock Lake (south)		4.27E-03	1.22E-03	1.67E-03	2.64E-04	1.00E-04	3.81E-01	7.55E-02	4.15E-02	1.12E+02	3.69E+01	1.82E+01	6.16E-06	1.89E-06	8.02E-07	8.32E-03	3.13E-03	4.64E-03	1.97E-02	5.10E-03	2.30E-03
W_19	556277.4	5402068.57	Peacock Lake (west)		4.16E-03	1.22E-03	1.40E-03	2.45E-04	1.05E-04	3.15E-01	8.84E-02	4.28E-02	1.12E+02	3.71E+01	1.82E+01	6.57E-06	1.70E-06	7.65E-07	8.24E-03	3.14E-03	4.64E-03	2.04E-02	4.93E-03	2.36E-03
W_2	547105.4	5399506.55	Shack Lake (center)		5.45E-03	1.68E-03	2.37E-03	3.87E-04	2.17E-04	6.19E-01	1.65E-01	1.30E-01	1.40E+02	4.06E+01	1.93E+01	2.40E-05	4.59E-06	2.70E-06	8.62E-03	3.23E-03	4.75E-03	2.97E-02	8.86E-03	6.43E-03
W_20	556444.4	5402419.57	Peacock Lake (north)		4.03E-03	1.22E-03	1.25E-03	2.37E-04	1.05E-04	3.61E-01	9.48E-02	4.37E-02	1.11E+02	3.70E+01	1.82E+01	6.68E-06	1.79E-06	7.62E-07	8.29E-03	3.15E-03	4.64E-03	1.77E-02	5.02E-03	2.36E-03
W_21	556424.4	5402099.57	Peacock Lake (center)		4.12E-03	1.22E-03	1.28E-03	2.34E-04	1.02E-04	3.26E-01	8.79E-02	4.21E-02	1.12E+02	3.67E+01	1.82E+01	6.76E-06	1.70E-06	7.63E-07	8.25E-03	3.14E-03	4.64E-03	1.99E-02	4.81E-03	2.30E-03
W_22	550202.4	5397448.58	Three Finger Lake (north)		5.25E-03	1.39E-03	1.79E-03	2.26E-04	1.19E-04	4.74E-01	8.17E-02	5.47E-02	1.27E+02	4.05E+01	1.83E+01	1.15E-05	3.43E-06	1.60E-06	8.48E-03	3.13E-03	4.66E-03	3.76E-02	5.73E-03	3.69E-03
W_23	550175.4	5396991.58	Three Finger Lake (center)		5.00E-03	1.34E-03	1.74E-03	2.01E-04	1.06E-04	4.31E-01	7.42E-02	4.89E-02	1.25E+02	4.02E+01	1.83E+01	1.20E-05	3.04E-06	1.46E-06	8.42E-03	3.12E-03	4.65E-03	3.32E-02	4.95E-03	3.12E-03
W_24	549830.4	5396525.58	Three Finger Lake (south)		4.62E-03	1.31E-03	1.77E-03	1.66E-04	9.10E-05	3.41E-01	7.10E-02	4.58E-02	1.27E+02	3.91E+01	1.82E+01	1.38E-05	2.47E-06	1.38E-06	8.29E-03	3.12E-03	4.65E-03	2.59E-02	4.54E-03	2.72E-03
W_25	546947.4	5396627.56	Penn Lake (north)		1.10E-02	1.98E-03	1.13E-03	1.43E-04	8.80E-05	6.93E-01	2.45E-01	1.44E-01	1.22E+02	3.75E+01	1.84E+01	8.18E-05	1.67E-05	7.80E-06	8.61E-03	3.30E-03	4.75E-03	1.34E-02	3.73E-03	2.88E-03
W_26	547059.4	5396125.56	Penn Lake (center)		8.85E-03	1.69E-03	9.53E-04	1.30E-04	8.00E-05	5.95E-01	1.98E-01	1.11E-01	1.29E+02	3.69E+01	1.83E+01	6.03E-05	1.08E-05	5.24E-06	8.52E-03	3.25E-03	4.72E-03	1.29E-02	3.25E-03	2.55E-03
W_27	546991.4	5395772.56	Penn Lake (south)		7.75E-03	1.59E-03	8.73E-04	1.22E-04	7.40E-05	6.09E-01	1.51E-01	9.37E-02	1.27E+02	3.66E+01	1.82E+01	4.96E-05	8.08E-06	4.37E-06	8.52E-03	3.20E-03	4.70E-03	1.20E-02	2.95E-03	2.33E-03
W_28	544637	5401700	Angler Creek at Model Property Boundary		4.56E-03	1.40E-03	1.83E-03	3.38E-04	1.32E-04	6.99E-01	1.41E-01	9.22E-02	1.17E+02	4.20E+01	1.88E+01	1.47E-05	2.59E-06	1.50E-06	8.71E-03	3.20E-03	4.70E-03	1.97E-02	5.91E-03	3.54E-03
W_29	551284	5407805	Pic River In-Flow to Model Property Boundary		4.24E-03	1.28E-03	9.87E-04	1.73E-04	9.20E-05	8.66E-01	1.84E-01	1.06E-01	1.32E+02	4.43E+01	1.91E+01	8.36E-06	1.40E-06	7.20E-07	8.92E-03	3.25E-03	4.72E-03	1.89E-02	5.27E-03	3.29E-03
W_3	546725.4	5399333.55	Shack Lake (southwest)		5.93E-03	1.67E-03	1.74E-03	3.51E-04	1.95E-04	6.02E-01	1.58E-01	1.21E-01	1.39E+02	4.01E+01	1.92E+01	2.94E-05	5.64E-06	3.17E-06	8.60E-03	3.23E-03	4.73E-03	2.64E-02	7.76E-03	5.54E-03
W_30	551654	5401167	Pic River Out-Flow from Model Property Boundary		5.54E-03	1.71E-03	2.61E-03	4.62E-04	2.38E-04	4.91E-01	1.62E-01	1.08E-01	1.22E+02	4.01E+01	1.93E+01	1.61E-05	4.94E-06	2.09E-06	8.46E-03	3.23E-03	4.72E-03	2.69E-02	1.29E-02	8.45E-03
W_4	545636.3	5403828.5	Hare Lake (east)		5.23E-03	1.52E-03	2.61E-03	4.03E-04	2.53E-04	7.74E-01	2.28E-01	1.30E-01	1.23E+02	4.41E+01	1.94E+01	1.40E-05	2.68E-06	1.59E-06	8.81E-03	3.31E-03	4.75E-03	2.65E-02	8.01E-03	4.81E-03
W_5	545048.3	5403556.5	Hare Lake (south)		4.84E-03	1.43E-03	2.81E-03	3.17E-04	1.92E-04	7.22E-01	1.91E-01	1.02E-01	1.19E+02	4.25E+01	1.91E+01	1.42E-05	2.40E-06	1.38E-06	8.74E-03	3.26E-03	4.72E-03	2.39E-02	6.77E-03	3.93E-03
W_6	543955.3	5403079.49	Hare Lake (west)		4.43E-03	1.31E-03	1.59E-03	2.47E-04	1.30E-04	5.34E-01	1.28E-01	6.63E-02	1.11E+02	4.05E+01	1.85E+01	1.08E-05	1.83E-06	1.20E-06	8.52E-03	3.19E-03	4.67E-03	1.78E-02	4.86E-03	2.70E-03
W_7	544603.3	5403943.49	Hare Lake (north)		4.12E-03	1.35E-03	1.77E-03	2.66E-04	1.71E-04	5.78E-01	1.52E-01	8.07E-02	1.14E+02	4.07E+01	1.88E+01	1.12E-05	1.95E-06	1.23E-06	8.56E-03	3.22E-03	4.69E-03	1.70E-02	5.46E-03	3.19E-03
W_8	544830.3	5403751.49	Hare Lake (center)		4.40E-03	1.38E-03	2.30E-03	2.89E-04	1.81E-04	6.54E-01	1.70E-01	9.00E-02	1.17E+02	4.16E+01	1.89E+01	1.31E-05	2.17E-06	1.31E-06	8.65E-03	3.24E-03	4.70E-03	1.89E-02	6.04E-03	3.52E-03
W_9	549326.3	5406971.51	Bamoos Lake (east)		5.58E-03	1.45E-03	1.38E-03	2.16E-04	1.37E-04	1.96E+00	4.31E-01	2.25E-01	1.48E+02	4.98E+01	2.05E+01	8.76E-06	1.82E-06	9.44E-07	1.02E-02	3.55E-03	4.86E-03	4.21E-02	8.64E-03	5.67E-03
Maximum of Special Receptors					**4.46E-02**	**1.26E-02**	**7.08E-03**	**1.17E-03**	**4.68E-04**	**1.60E+01**	**5.97E+00**	**4.41E+00**	**1.48E+02**	**6.52E+01**	**2.75E+01**	**4.08E-04**	**2.30E-04**	**1.12E-04**	**2.56E-02**	**9.65E-03**	**9.48E-03**	**2.10E-01**	**9.36E-02**	**7.12E-02**
Max % of Criteria					**22.3%**	**31.6%**	**0.0%**	-	-	-	-	-	**37.0%**	**32.6%**	-	**0.0%**	-	-	-	-	-	-	-	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by M

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier

Table F-3 Special Receptor Predictions (ug/m3) - Operations, Cumulative (Project + Background)

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	PLATINUM (PT)			PM10 (see Note 1)			PM10 (see Note 2)	PM2.5 (See Note 1)			PM2.5 (See Note 2)		POTASSIUM (K)			PROPYLENE			PYRENE		
				Averaging Period	24	month	annual	24	month	annual	24	24	month	annual	24	annual	24	month	annual	24	month	annual	24	month	annual
				Criteria	0.2	-	-	-	-	-	50	-	-	-	27	8.8	1	-	-	4000	-	-	-	-	-
				Background Concentration (ug/m3)				2.28E+01	8.80E+00	1.27E+01	2.28E+01	1.23E+01	4.75E+00	6.80E+00	1.23E+01	6.80E+00	2.79E-01	1.08E-01	1.49E-01				1.34E-03	5.17E-04	8.01E-04
S_6	547000.4	5395035.56	Margaret Twomey Public School		9.06E-06	1.36E-06	5.66E-07	2.54E+01	9.43E+00	1.32E+01	2.43E+01	1.28E+01	4.86E+00	6.89E+00	1.26E+01	6.85E+00	2.85E-01	1.09E-01	1.50E-01	1.27E-03	1.89E-04	1.01E-04	1.36E-03	5.23E-04	8.05E-04
W_1	547291.4	5399860.55	Shack Lake (northeast)		4.54E-06	9.20E-07	5.97E-07	3.04E+01	1.12E+01	1.44E+01	2.68E+01	1.36E+01	5.16E+00	7.10E+00	1.32E+01	7.00E+00	2.98E-01	1.14E-01	1.53E-01	3.20E-03	7.41E-04	3.68E-04	1.38E-03	5.30E-04	8.11E-04
W_10	546975.3	5406486.49	Bamoos Lake (south)		1.45E-06	3.67E-07	2.42E-07	3.04E+01	1.06E+01	1.38E+01	2.81E+01	1.37E+01	5.08E+00	7.01E+00	1.34E+01	6.96E+00	2.97E-01	1.12E-01	1.52E-01	3.18E-03	5.49E-04	2.60E-04	1.39E-03	5.30E-04	8.08E-04
W_11	545484.3	5405866.49	Bamoos Lake (west)		2.13E-06	3.98E-07	2.57E-07	2.91E+01	1.03E+01	1.35E+01	2.71E+01	1.35E+01	5.03E+00	6.96E+00	1.32E+01	6.92E+00	2.94E-01	1.11E-01	1.51E-01	3.17E-03	7.16E-04	3.43E-04	1.38E-03	5.26E-04	8.06E-04
W_12	546576.3	5407157.48	Bamoos Lake (north)		1.66E-06	3.59E-07	2.21E-07	2.95E+01	1.02E+01	1.35E+01	2.75E+01	1.32E+01	5.02E+00	6.96E+00	1.30E+01	6.93E+00	2.91E-01	1.11E-01	1.51E-01	2.48E-03	5.33E-04	2.48E-04	1.39E-03	5.29E-04	8.08E-04
W_13	546777.3	5406831.49	Bamoos Lake (center)		1.91E-06	3.93E-07	2.43E-07	2.98E+01	1.04E+01	1.36E+01	2.77E+01	1.32E+01	5.05E+00	6.98E+00	1.30E+01	6.94E+00	2.92E-01	1.11E-01	1.51E-01	2.72E-03	5.81E-04	2.74E-04	1.39E-03	5.30E-04	8.08E-04
W_14	554944.3	5408228.54	Page Lake (south)		1.26E-06	2.26E-07	1.31E-07	2.78E+01	9.82E+00	1.32E+01	2.75E+01	1.30E+01	4.94E+00	6.90E+00	1.28E+01	6.89E+00	2.87E-01	1.10E-01	1.50E-01	9.86E-04	1.64E-04	9.20E-05	1.38E-03	5.26E-04	8.05E-04
W_15	555054.3	5408903.54	Page Lake (center)		1.16E-06	1.91E-07	1.14E-07	2.55E+01	9.60E+00	1.31E+01	2.49E+01	1.29E+01	4.90E+00	6.88E+00	1.27E+01	6.87E+00	2.84E-01	1.09E-01	1.50E-01	9.38E-04	1.33E-04	7.90E-05	1.37E-03	5.24E-04	8.04E-04
W_16	555065.3	5409497.54	Page Lake (north)		1.01E-06	1.74E-07	1.03E-07	2.51E+01	9.41E+00	1.31E+01	2.46E+01	1.27E+01	4.86E+00	6.87E+00	1.26E+01	6.85E+00	2.83E-01	1.09E-01	1.50E-01	8.21E-04	1.23E-04	7.20E-05	1.36E-03	5.22E-04	8.03E-04
W_17	556593.4	5402126.57	Peacock Lake (east)		1.49E-06	3.84E-07	1.79E-07	2.77E+01	9.89E+00	1.32E+01	2.66E+01	1.32E+01	4.94E+00	6.89E+00	1.31E+01	6.86E+00	2.90E-01	1.10E-01	1.50E-01	3.00E-03	3.11E-04	1.42E-04	1.36E-03	5.23E-04	8.04E-04
W_18	556043.4	5401266.57	Peacock Lake (south)		1.33E-06	4.43E-07	1.90E-07	2.77E+01	9.99E+00	1.32E+01	2.64E+01	1.32E+01	4.95E+00	6.89E+00	1.31E+01	6.87E+00	2.90E-01	1.11E-01	1.50E-01	2.97E-03	4.24E-04	1.43E-04	1.36E-03	5.22E-04	8.04E-04
W_19	556277.4	5402068.57	Peacock Lake (west)		1.46E-06	3.93E-07	1.83E-07	2.79E+01	9.93E+00	1.32E+01	2.67E+01	1.32E+01	4.94E+00	6.90E+00	1.31E+01	6.87E+00	2.91E-01	1.10E-01	1.50E-01	2.97E-03	3.14E-04	1.48E-04	1.36E-03	5.23E-04	8.04E-04
W_2	547105.4	5399506.55	Shack Lake (center)		5.05E-06	1.01E-06	6.24E-07	2.97E+01	1.08E+01	1.42E+01	2.65E+01	1.35E+01	5.10E+00	7.06E+00	1.31E+01	6.97E+00	2.96E-01	1.13E-01	1.53E-01	2.81E-03	6.24E-04	3.18E-04	1.38E-03	5.29E-04	8.10E-04
W_20	556444.4	5402419.57	Peacock Lake (north)		1.52E-06	4.14E-07	1.82E-07	2.73E+01	9.97E+00	1.32E+01	2.65E+01	1.31E+01	4.95E+00	6.90E+00	1.31E+01	6.87E+00	2.89E-01	1.11E-01	1.50E-01	2.95E-03	3.54E-04	1.52E-04	1.36E-03	5.23E-04	8.04E-04
W_21	556424.4	5402099.57	Peacock Lake (center)		1.50E-06	3.92E-07	1.82E-07	2.77E+01	9.91E+00	1.32E+01	2.66E+01	1.32E+01	4.94E+00	6.89E+00	1.31E+01	6.87E+00	2.90E-01	1.10E-01	1.50E-01	3.01E-03	3.16E-04	1.46E-04	1.36E-03	5.23E-04	8.04E-04
W_22	550202.4	5397448.58	Three Finger Lake (north)		2.42E-06	7.69E-07	3.69E-07	3.18E+01	1.01E+01	1.35E+01	2.82E+01	1.38E+01	4.95E+00	6.93E+00	1.33E+01	6.88E+00	3.00E-01	1.11E-01	1.51E-01	3.58E-03	3.42E-04	1.79E-04	1.37E-03	5.23E-04	8.05E-04
W_23	550175.4	5396991.58	Three Finger Lake (center)		2.52E-06	6.75E-07	3.35E-07	3.08E+01	9.92E+00	1.34E+01	2.78E+01	1.36E+01	4.93E+00	6.92E+00	1.32E+01	6.87E+00	2.98E-01	1.10E-01	1.51E-01	3.41E-03	3.09E-04	1.58E-04	1.37E-03	5.23E-04	8.04E-04
W_24	549830.4	5396525.58	Three Finger Lake (south)		2.90E-06	5.52E-07	3.15E-07	2.90E+01	9.83E+00	1.33E+01	2.62E+01	1.34E+01	4.92E+00	6.90E+00	1.31E+01	6.86E+00	2.94E-01	1.10E-01	1.51E-01	3.01E-03	2.87E-04	1.27E-04	1.36E-03	5.22E-04	8.04E-04
W_25	546947.4	5396627.56	Penn Lake (north)		1.71E-05	3.51E-06	1.66E-06	2.61E+01	9.77E+00	1.35E+01	2.47E+01	1.29E+01	4.94E+00	6.95E+00	1.27E+01	6.88E+00	2.87E-01	1.10E-01	1.51E-01	1.94E-03	2.07E-04	1.25E-04	1.40E-03	5.38E-04	8.13E-04
W_26	547059.4	5396125.56	Penn Lake (center)		1.26E-05	2.28E-06	1.12E-06	2.60E+01	9.63E+00	1.34E+01	2.44E+01	1.29E+01	4.91E+00	6.92E+00	1.27E+01	6.87E+00	2.86E-01	1.10E-01	1.50E-01	1.54E-03	1.97E-04	1.14E-04	1.39E-03	5.34E-04	8.10E-04
W_27	546991.4	5395772.56	Penn Lake (south)		1.04E-05	1.71E-06	9.34E-07	2.57E+01	9.55E+00	1.33E+01	2.43E+01	1.28E+01	4.89E+00	6.91E+00	1.27E+01	6.86E+00	2.86E-01	1.09E-01	1.50E-01	1.37E-03	1.86E-04	1.06E-04	1.39E-03	5.30E-04	8.08E-04
W_28	544637	5401700	Angler Creek at Model Property Boundary		3.11E-06	5.70E-07	3.44E-07	2.73E+01	1.01E+01	1.35E+01	2.55E+01	1.33E+01	5.02E+00	6.97E+00	1.31E+01	6.92E+00	2.90E-01	1.11E-01	1.51E-01	2.41E-03	4.63E-04	1.81E-04	1.38E-03	5.26E-04	8.07E-04
W_29	551284	5407805	Pic River In-Flow to Model Property Boundary		1.88E-06	3.46E-07	1.84E-07	2.81E+01	1.01E+01	1.35E+01	2.65E+01	1.33E+01	5.00E+00	6.95E+00	1.31E+01	6.91E+00	2.90E-01	1.11E-01	1.51E-01	1.80E-03	2.74E-04	1.38E-04	1.39E-03	5.28E-04	8.07E-04
W_3	546725.4	5399333.55	Shack Lake (southwest)		6.17E-06	1.23E-06	7.13E-07	2.89E+01	1.06E+01	1.40E+01	2.57E+01	1.33E+01	5.07E+00	7.03E+00	1.30E+01	6.95E+00	2.94E-01	1.12E-01	1.52E-01	2.61E-03	5.94E-04	2.92E-04	1.38E-03	5.28E-04	8.10E-04
W_30	551654	5401167	Pic River Out-Flow from Model Property Boundary		3.57E-06	1.16E-06	5.17E-07	2.88E+01	1.16E+01	1.46E+01	2.60E+01	1.33E+01	5.19E+00	7.10E+00	1.30E+01	6.98E+00	2.94E-01	1.15E-01	1.54E-01	3.46E-03	6.50E-04	3.15E-04	1.37E-03	5.28E-04	8.08E-04
W_4	545636.3	5403828.5	Hare Lake (east)		2.97E-06	5.99E-07	3.72E-07	3.00E+01	1.06E+01	1.38E+01	2.84E+01	1.35E+01	5.15E+00	7.04E+00	1.33E+01	6.99E+00	2.94E-01	1.12E-01	1.52E-01	3.33E-03	5.33E-04	3.18E-04	1.39E-03	5.31E-04	8.09E-04
W_5	545048.3	5403556.5	Hare Lake (south)		3.00E-06	5.34E-07	3.22E-07	2.94E+01	1.03E+01	1.36E+01	2.80E+01	1.34E+01	5.08E+00	6.99E+00	1.32E+01	6.95E+00	2.92E-01	1.11E-01	1.51E-01	2.98E-03	4.00E-04	2.48E-04	1.38E-03	5.29E-04	8.07E-04
W_6	543955.3	5403079.49	Hare Lake (west)		2.31E-06	4.06E-07	2.75E-07	2.81E+01	9.92E+00	1.33E+01	2.72E+01	1.32E+01	4.98E+00	6.92E+00	1.30E+01	6.89E+00	2.89E-01	1.10E-01	1.51E-01	2.59E-03	3.21E-04	1.76E-04	1.37E-03	5.25E-04	8.05E-04
W_7	544603.3	5403943.49	Hare Lake (north)		2.39E-06	4.36E-07	2.85E-07	2.69E+01	1.01E+01	1.34E+01	2.52E+01	1.32E+01	5.01E+00	6.95E+00	1.30E+01	6.91E+00	2.89E-01	1.11E-01	1.51E-01	2.55E-03	3.68E-04	2.29E-04	1.38E-03	5.27E-04	8.06E-04
W_8	544830.3	5403751.49	Hare Lake (center)		2.79E-06	4.84E-07	3.04E-07	2.77E+01	1.02E+01	1.35E+01	2.63E+01	1.33E+01	5.04E+00	6.97E+00	1.30E+01	6.93E+00	2.90E-01	1.11E-01	1.51E-01	2.43E-03	3.71E-04	2.38E-04	1.38E-03	5.28E-04	8.07E-04
W_9	549326.3	5406971.51	Bamoos Lake (east)		2.01E-06	4.54E-07	2.56E-07	3.82E+01	1.11E+01	1.41E+01	3.51E+01	1.42E+01	5.20E+00	7.08E+00	1.38E+01	7.02E+00	3.03E-01	1.13E-01	1.52E-01	2.32E-03	3.39E-04	1.86E-04	1.46E-03	5.43E-04	8.14E-04
Maximum of Special Receptors					**8.52E-05**	**4.81E-05**	**2.33E-05**	**6.36E+01**	**2.73E+01**	**2.67E+01**	**3.51E+01**	**1.68E+01**	**6.81E+00**	**8.36E+00**	**1.44E+01**	**7.16E+00**	**3.99E-01**	**1.61E-01**	**1.90E-01**	**6.07E-03**	**1.04E-03**	**5.20E-04**	**2.59E-03**	**9.72E-04**	**1.14E-03**
Max % of Criteria					**0.0%**	-	-	-	-	-	**70.3%**	-	-	-	**53.4%**	**81.4%**	**39.9%**	-	-	**0.0%**	-	-	-	-	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by M

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier

Table F-3 Special Receptor Predictions (ug/m3) - Operations, Cumulative (Project + Background)

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	SCANDIUM (SC)			CRYSTALLINE SILICA			SILICON (SI)			SILVER (AG)			SO2				SODIUM (NA)		
				Averaging Period	24	month	annual	24	month	annual	24	month	annual	24	month	annual	1	24	month	annual	24	month	annual
				Criteria	-	-	-	5	-	-	27	-	-	1	-	-	100	-	-	10	-	-	-
				Background Concentration (ug/m3)													2.76E+00	5.79E+00	2.23E+00	2.48E+00			
S_6	547000.4	5395035.56	Margaret Twomey Public School		1.41E-05	3.21E-06	2.52E-06	1.19E+00	2.62E-01	2.04E-01	4.22E-02	6.35E-03	2.64E-03	5.26E-05	8.04E-06	3.46E-06	4.37E+00	5.86E+00	2.24E+00	2.48E+00	1.17E-02	2.70E-03	2.12E-03
W_1	547291.4	5399860.55	Shack Lake (northeast)		4.24E-05	1.31E-05	9.38E-06	3.48E+00	1.06E+00	7.57E-01	2.24E-02	4.70E-03	3.05E-03	2.68E-05	5.94E-06	4.15E-06	3.36E+00	5.83E+00	2.24E+00	2.49E+00	3.48E-02	1.08E-02	7.75E-03
W_10	546975.3	5406486.49	Bamoos Lake (south)		3.98E-05	9.68E-06	5.76E-06	3.46E+00	8.19E-01	4.91E-01	8.80E-03	1.94E-03	1.14E-03	1.14E-05	2.63E-06	1.85E-06	8.82E+00	6.06E+00	2.25E+00	2.49E+00	3.27E-02	8.05E-03	4.86E-03
W_11	545484.3	5405866.49	Bamoos Lake (west)		3.28E-05	7.87E-06	4.17E-06	2.84E+00	6.82E-01	3.53E-01	1.04E-02	2.03E-03	1.41E-03	1.28E-05	2.91E-06	1.81E-06	9.82E+00	6.10E+00	2.25E+00	2.49E+00	2.71E-02	6.65E-03	3.54E-03
W_12	546576.3	5407157.48	Bamoos Lake (north)		2.94E-05	7.37E-06	4.36E-06	3.13E+00	6.37E-01	3.76E-01	8.40E-03	1.76E-03	1.05E-03	1.02E-05	2.44E-06	1.63E-06	1.06E+01	6.13E+00	2.25E+00	2.49E+00	2.60E-02	6.24E-03	3.71E-03
W_13	546777.3	5406831.49	Bamoos Lake (center)		3.10E-05	8.29E-06	4.87E-06	3.27E+00	7.15E-01	4.20E-01	9.12E-03	1.95E-03	1.16E-03	1.14E-05	2.69E-06	1.80E-06	1.08E+01	6.14E+00	2.25E+00	2.49E+00	2.73E-02	7.00E-03	4.14E-03
W_14	554944.3	5408228.54	Page Lake (south)		1.91E-05	5.22E-06	2.81E-06	2.36E+00	4.60E-01	2.40E-01	5.70E-03	9.87E-04	5.62E-04	7.78E-06	1.72E-06	9.79E-07	1.23E+01	6.19E+00	2.25E+00	2.48E+00	1.75E-02	4.45E-03	2.37E-03
W_15	555054.3	5408903.54	Page Lake (center)		1.27E-05	4.09E-06	2.28E-06	1.19E+00	3.60E-01	1.94E-01	5.23E-03	8.66E-04	5.04E-04	7.21E-06	1.41E-06	8.41E-07	5.81E+00	5.92E+00	2.24E+00	2.48E+00	1.11E-02	3.48E-03	1.92E-03
W_16	555065.3	5409497.54	Page Lake (north)		1.04E-05	3.22E-06	1.92E-06	1.07E+00	2.75E-01	1.62E-01	4.53E-03	7.94E-04	4.62E-04	6.31E-06	1.25E-06	7.45E-07	5.51E+00	5.91E+00	2.24E+00	2.48E+00	9.10E-03	2.72E-03	1.61E-03
W_17	556593.4	5402126.57	Peacock Lake (east)		2.51E-05	6.05E-06	2.85E-06	2.26E+00	4.95E-01	2.33E-01	6.53E-03	1.73E-03	7.82E-04	9.54E-06	2.58E-06	1.25E-06	3.24E+00	5.81E+00	2.24E+00	2.48E+00	2.02E-02	4.99E-03	2.36E-03
W_18	556043.4	5401266.57	Peacock Lake (south)		2.52E-05	6.51E-06	2.94E-06	2.25E+00	5.40E-01	2.39E-01	5.99E-03	1.92E-03	8.34E-04	8.73E-06	3.05E-06	1.32E-06	7.93E+00	6.01E+00	2.24E+00	2.48E+00	2.05E-02	5.35E-03	2.43E-03
W_19	556277.4	5402068.57	Peacock Lake (west)		2.61E-05	6.32E-06	3.02E-06	2.34E+00	5.15E-01	2.46E-01	6.40E-03	1.76E-03	7.98E-04	9.27E-06	2.65E-06	1.29E-06	3.67E+00	5.83E+00	2.24E+00	2.48E+00	2.10E-02	5.21E-03	2.50E-03
W_2	547105.4	5399506.55	Shack Lake (center)		3.84E-05	1.12E-05	8.00E-06	3.12E+00	9.04E-01	6.47E-01	2.46E-02	5.04E-03	3.14E-03	2.97E-05	6.39E-06	4.21E-06	3.35E+00	5.82E+00	2.24E+00	2.49E+00	3.14E-02	9.20E-03	6.63E-03
W_20	556444.4	5402419.57	Peacock Lake (north)		2.26E-05	6.44E-06	3.01E-06	2.07E+00	5.31E-01	2.46E-01	6.46E-03	1.86E-03	7.95E-04	9.98E-06	2.79E-06	1.28E-06	3.64E+00	5.83E+00	2.24E+00	2.48E+00	1.83E-02	5.32E-03	2.50E-03
W_21	556424.4	5402099.57	Peacock Lake (center)		2.54E-05	6.17E-06	2.94E-06	2.29E+00	5.04E-01	2.40E-01	6.58E-03	1.76E-03	7.96E-04	9.56E-06	2.64E-06	1.28E-06	3.26E+00	5.82E+00	2.24E+00	2.48E+00	2.04E-02	5.09E-03	2.44E-03
W_22	550202.4	5397448.58	Three Finger Lake (north)		4.89E-05	7.35E-06	4.70E-06	4.19E+00	5.89E-01	3.72E-01	1.13E-02	3.37E-03	1.62E-03	1.43E-05	4.96E-06	2.48E-06	8.31E+00	6.03E+00	2.24E+00	2.48E+00	3.99E-02	6.00E-03	3.86E-03
W_23	550175.4	5396991.58	Three Finger Lake (center)		4.32E-05	6.38E-06	3.97E-06	3.76E+00	5.14E-01	3.16E-01	1.17E-02	3.01E-03	1.49E-03	1.48E-05	4.30E-06	2.23E-06	7.95E+00	6.02E+00	2.24E+00	2.48E+00	3.53E-02	5.23E-03	3.27E-03
W_24	549830.4	5396525.58	Three Finger Lake (south)		3.36E-05	5.85E-06	3.46E-06	2.85E+00	4.71E-01	2.74E-01	1.34E-02	2.48E-03	1.42E-03	1.69E-05	3.54E-06	2.08E-06	4.53E+00	5.88E+00	2.24E+00	2.48E+00	2.76E-02	4.80E-03	2.85E-03
W_25	546947.4	5396627.56	Penn Lake (north)		1.74E-05	4.71E-06	3.60E-06	1.44E+00	3.81E-01	2.91E-01	7.91E-02	1.63E-02	7.70E-03	9.89E-05	2.06E-05	9.85E-06	3.35E+00	5.82E+00	2.24E+00	2.49E+00	1.45E-02	4.04E-03	3.11E-03
W_26	547059.4	5396125.56	Penn Lake (center)		1.69E-05	4.12E-06	3.20E-06	1.41E+00	3.36E-01	2.59E-01	5.83E-02	1.06E-02	5.20E-03	7.29E-05	1.34E-05	6.71E-06	3.65E+00	5.84E+00	2.24E+00	2.49E+00	1.40E-02	3.50E-03	2.73E-03
W_27	546991.4	5395772.56	Penn Lake (south)		1.56E-05	3.75E-06	2.92E-06	1.32E+00	3.06E-01	2.36E-01	4.80E-02	7.95E-03	4.35E-03	6.00E-05	1.02E-05	5.62E-06	3.68E+00	5.84E+00	2.24E+00	2.48E+00	1.30E-02	3.17E-03	2.48E-03
W_28	544637	5401700	Angler Creek at Model Property Boundary		2.41E-05	6.94E-06	4.05E-06	1.98E+00	5.75E-01	3.38E-01	1.60E-02	3.43E-03	2.52E-03	1.84E-05	3.57E-06	2.30E-06	6.53E+00	5.95E+00	2.24E+00	2.49E+00	2.01E-02	5.87E-03	3.47E-03
W_29	551284	5407805	Pic River In-Flow to Model Property Boundary		2.57E-05	6.92E-06	4.29E-06	2.39E+00	6.01E-01	3.61E-01	7.74E-03	1.42E-03	7.51E-04	1.23E-05	2.55E-06	1.40E-06	4.77E+00	5.88E+00	2.24E+00	2.49E+00	2.21E-02	5.85E-03	3.60E-03
W_3	546725.4	5399333.55	Shack Lake (southwest)		3.40E-05	9.75E-06	6.87E-06	2.76E+00	7.95E-01	5.58E-01	2.96E-02	6.08E-03	3.59E-03	3.61E-05	7.62E-06	4.64E-06	3.52E+00	5.83E+00	2.24E+00	2.49E+00	2.79E-02	8.08E-03	5.72E-03
W_30	551654	5401167	Pic River Out-Flow from Model Property Boundary		3.45E-05	1.66E-05	1.08E-05	2.75E+00	1.30E+00	8.58E-01	1.58E-02	4.88E-03	2.07E-03	2.26E-05	7.89E-06	3.78E-06	4.95E+00	5.89E+00	2.24E+00	2.49E+00	2.79E-02	1.35E-02	8.82E-03
W_4	545636.3	5403828.5	Hare Lake (east)		3.20E-05	8.84E-06	5.15E-06	3.19E+00	7.57E-01	4.36E-01	1.69E-02	5.39E-03	3.72E-03	1.77E-05	3.86E-06	2.54E-06	8.58E+00	6.06E+00	2.25E+00	2.49E+00	2.83E-02	7.66E-03	4.49E-03
W_5	545048.3	5403556.5	Hare Lake (south)		2.89E-05	7.58E-06	4.34E-06	2.93E+00	6.45E-01	3.65E-01	1.56E-02	3.93E-03	2.83E-03	1.78E-05	3.42E-06	2.20E-06	8.79E+00	6.06E+00	2.25E+00	2.49E+00	2.56E-02	6.54E-03	3.75E-03
W_6	543955.3	5403079.49	Hare Lake (west)		2.33E-05	5.78E-06	3.17E-06	2.44E+00	4.89E-01	2.64E-01	1.20E-02	2.41E-03	1.80E-03	1.38E-05	2.58E-06	1.84E-06	8.84E+00	6.05E+00	2.25E+00	2.48E+00	2.05E-02	4.92E-03	2.70E-03
W_7	544603.3	5403943.49	Hare Lake (north)		2.06E-05	6.40E-06	3.70E-06	1.80E+00	5.43E-01	3.10E-01	1.20E-02	2.93E-03	2.06E-03	1.43E-05	2.80E-06	1.93E-06	3.67E+00	5.84E+00	2.24E+00	2.48E+00	1.77E-02	5.47E-03	3.16E-03
W_8	544830.3	5403751.49	Hare Lake (center)		2.26E-05	6.95E-06	4.00E-06	2.17E+00	5.91E-01	3.35E-01	1.41E-02	3.34E-03	2.38E-03	1.66E-05	3.11E-06	2.06E-06	6.14E+00	5.95E+00	2.25E+00	2.49E+00	1.97E-02	5.97E-03	3.43E-03
W_9	549326.3	5406971.51	Bamoos Lake (east)		6.13E-05	1.16E-05	7.48E-06	7.31E+00	1.03E+00	6.49E-01	8.45E-03	1.84E-03	9.83E-04	1.36E-05	3.37E-06	2.08E-06	2.31E+01	6.94E+00	2.27E+00	2.49E+00	5.54E-02	9.87E-03	6.33E-03
Maximum of Special Receptors					**2.72E-04**	**1.21E-04**	**9.19E-05**	**1.94E+01**	**8.75E+00**	**6.65E+00**	**3.95E-01**	**2.23E-01**	**1.08E-01**	**4.94E-04**	**2.79E-04**	**1.36E-04**	**2.31E+01**	**6.94E+00**	**2.41E+00**	**2.61E+00**	**2.15E-01**	**9.58E-02**	**7.29E-02**
Max % of Criteria					-	-	-	**388.1%**	-	-	**1.5%**	-	-	**0.0%**	-	-	**23.1%**	-	-	**26.1%**	-	-	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by N

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier

Table F-3 Special Receptor Predictions (ug/m3) - Operations, Cumulative (Project + Background)

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	SODIUM CARBOXYMETHYL CELLULOSE			STRONTIUM (SR)			THALLIUM (TL)			TITANIUM (TI)			TOC			TOC (METHANE)		
				Averaging Period	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual	24	month	annual
				Criteria	120	-	-	120	-	-	0.5	-	-	120	-	-	-	-	-	37330	-	-
				Background Concentration (ug/m3)				4.36E-03	1.68E-03	1.89E-03				1.89E-02	7.29E-03	8.99E-03						
S_6	547000.4	5395035.56	Margaret Twomey Public School		2.85E-04	5.40E-05	3.42E-05	5.07E-03	1.84E-03	2.02E-03	8.20E-05	2.08E-05	1.61E-05	2.61E-02	9.00E-03	1.04E-02	4.37E-02	1.01E-02	7.84E-03	4.27E-02	6.37E-03	3.41E-03
W_1	547291.4	5399860.55	Shack Lake (northeast)		1.25E-03	2.30E-04	1.36E-04	6.48E-03	2.34E-03	2.36E-03	2.47E-04	7.77E-05	5.61E-05	4.11E-02	1.43E-02	1.41E-02	1.74E-01	4.23E-02	3.17E-02	1.08E-01	2.50E-02	1.24E-02
W_10	546975.3	5406486.49	Bamoos Lake (south)		1.09E-03	2.27E-04	1.05E-04	6.36E-03	2.17E-03	2.18E-03	2.33E-04	5.64E-05	3.41E-05	4.03E-02	1.24E-02	1.20E-02	1.29E-01	3.07E-02	1.73E-02	1.07E-01	1.85E-02	8.78E-03
W_11	545484.3	5405866.49	Bamoos Lake (west)		1.12E-03	2.34E-04	1.07E-04	6.00E-03	2.08E-03	2.10E-03	1.91E-04	4.67E-05	2.52E-05	3.64E-02	1.15E-02	1.12E-02	1.88E-01	3.52E-02	1.53E-02	1.07E-01	2.42E-02	1.16E-02
W_12	546576.3	5407157.48	Bamoos Lake (north)		7.32E-04	1.52E-04	7.21E-05	5.85E-03	2.05E-03	2.11E-03	1.74E-04	4.34E-05	2.60E-05	3.15E-02	1.10E-02	1.12E-02	9.77E-02	2.18E-02	1.26E-02	8.37E-02	1.80E-02	8.37E-03
W_13	546777.3	5406831.49	Bamoos Lake (center)		8.16E-04	1.70E-04	8.12E-05	5.93E-03	2.10E-03	2.14E-03	1.83E-04	4.87E-05	2.90E-05	3.24E-02	1.15E-02	1.15E-02	1.06E-01	2.46E-02	1.42E-02	9.19E-02	1.96E-02	9.27E-03
W_14	554944.3	5408228.54	Page Lake (south)		2.42E-04	6.00E-05	3.12E-05	5.34E-03	1.95E-03	2.03E-03	1.15E-04	3.09E-05	1.66E-05	2.72E-02	9.89E-03	1.04E-02	3.73E-02	1.27E-02	7.24E-03	3.33E-02	5.54E-03	3.11E-03
W_15	555054.3	5408903.54	Page Lake (center)		1.71E-04	4.50E-05	2.56E-05	5.01E-03	1.89E-03	2.01E-03	7.60E-05	2.42E-05	1.36E-05	2.49E-02	9.34E-03	1.02E-02	3.19E-02	1.06E-02	6.16E-03	3.17E-02	4.49E-03	2.68E-03
W_16	555065.3	5409497.54	Page Lake (north)		1.50E-04	3.70E-05	2.24E-05	4.89E-03	1.85E-03	1.99E-03	6.20E-05	1.91E-05	1.14E-05	2.37E-02	8.94E-03	9.99E-03	3.07E-02	9.01E-03	5.49E-03	2.77E-02	4.14E-03	2.42E-03
W_17	556593.4	5402126.57	Peacock Lake (east)		5.48E-04	1.00E-04	4.76E-05	5.60E-03	1.99E-03	2.03E-03	1.46E-04	3.58E-05	1.69E-05	3.22E-02	1.05E-02	1.05E-02	5.66E-02	1.82E-02	9.54E-03	1.01E-01	1.05E-02	4.81E-03
W_18	556043.4	5401266.57	Peacock Lake (south)		6.92E-04	1.16E-04	4.83E-05	5.62E-03	2.01E-03	2.04E-03	1.48E-04	3.86E-05	1.74E-05	3.23E-02	1.07E-02	1.05E-02	6.73E-02	1.69E-02	9.72E-03	1.00E-01	1.43E-02	4.83E-03
W_19	556277.4	5402068.57	Peacock Lake (west)		5.59E-04	1.08E-04	5.06E-05	5.65E-03	2.00E-03	2.04E-03	1.52E-04	3.74E-05	1.79E-05	3.27E-02	1.06E-02	1.06E-02	6.15E-02	1.93E-02	1.02E-02	1.00E-01	1.06E-02	4.99E-03
W_2	547105.4	5399506.55	Shack Lake (center)		1.09E-03	1.93E-04	1.15E-04	6.27E-03	2.24E-03	2.30E-03	2.23E-04	6.63E-05	4.83E-05	3.90E-02	1.33E-02	1.33E-02	1.50E-01	3.55E-02	2.67E-02	9.49E-02	2.11E-02	1.08E-02
W_20	556444.4	5402419.57	Peacock Lake (north)		6.00E-04	1.09E-04	5.08E-05	5.48E-03	2.01E-03	2.04E-03	1.32E-04	3.81E-05	1.78E-05	3.09E-02	1.07E-02	1.06E-02	6.25E-02	1.87E-02	1.01E-02	9.96E-02	1.20E-02	5.13E-03
W_21	556424.4	5402099.57	Peacock Lake (center)		5.54E-04	1.04E-04	4.91E-05	5.62E-03	1.99E-03	2.04E-03	1.48E-04	3.65E-05	1.74E-05	3.24E-02	1.05E-02	1.05E-02	5.90E-02	1.88E-02	9.86E-03	1.02E-01	1.07E-02	4.94E-03
W_22	550202.4	5397448.58	Three Finger Lake (north)		6.86E-04	1.06E-04	5.94E-05	6.78E-03	2.05E-03	2.13E-03	2.83E-04	4.29E-05	2.80E-05	4.43E-02	1.12E-02	1.15E-02	9.65E-02	1.99E-02	1.29E-02	1.21E-01	1.15E-02	6.04E-03
W_23	550175.4	5396991.58	Three Finger Lake (center)		6.68E-04	9.60E-05	5.33E-05	6.50E-03	2.00E-03	2.09E-03	2.50E-04	3.74E-05	2.37E-05	4.13E-02	1.06E-02	1.11E-02	8.89E-02	1.80E-02	1.15E-02	1.15E-01	1.04E-02	5.35E-03
W_24	549830.4	5396525.58	Three Finger Lake (south)		7.48E-04	8.10E-05	4.79E-05	6.03E-03	1.97E-03	2.06E-03	1.95E-04	3.44E-05	2.07E-05	3.64E-02	1.04E-02	1.08E-02	8.70E-02	1.61E-02	1.07E-02	1.02E-01	9.71E-03	4.28E-03
W_25	546947.4	5396627.56	Penn Lake (north)		4.39E-04	6.80E-05	4.49E-05	5.23E-03	1.92E-03	2.08E-03	1.04E-04	3.40E-05	2.53E-05	2.79E-02	9.85E-03	1.10E-02	5.32E-02	1.32E-02	1.06E-02	6.57E-02	7.01E-03	4.23E-03
W_26	547059.4	5396125.56	Penn Lake (center)		3.71E-04	6.30E-05	4.06E-05	5.20E-03	1.89E-03	2.05E-03	9.90E-05	2.77E-05	2.15E-05	2.76E-02	9.51E-03	1.07E-02	4.91E-02	1.19E-02	9.53E-03	5.19E-02	6.65E-03	3.84E-03
W_27	546991.4	5395772.56	Penn Lake (south)		3.39E-04	5.80E-05	3.77E-05	5.14E-03	1.87E-03	2.04E-03	9.10E-05	2.49E-05	1.94E-05	2.69E-02	9.30E-03	1.06E-02	4.55E-02	1.11E-02	8.82E-03	4.64E-02	6.29E-03	3.59E-03
W_28	544637	5401700	Angler Creek at Model Property Boundary		8.05E-04	1.59E-04	6.81E-05	5.59E-03	2.04E-03	2.10E-03	1.45E-04	4.27E-05	2.57E-05	3.21E-02	1.12E-02	1.13E-02	1.01E-01	2.58E-02	1.41E-02	8.15E-02	1.56E-02	6.10E-03
W_29	551284	5407805	Pic River In-Flow to Model Property Boundary		3.69E-04	7.60E-05	4.37E-05	5.65E-03	2.03E-03	2.11E-03	1.52E-04	4.10E-05	2.53E-05	3.09E-02	1.07E-02	1.12E-02	7.09E-02	1.56E-02	1.02E-02	6.08E-02	9.24E-03	4.67E-03
W_3	546725.4	5399333.55	Shack Lake (southwest)		8.39E-04	1.75E-04	1.03E-04	6.06E-03	2.17E-03	2.24E-03	1.98E-04	5.84E-05	4.20E-05	3.67E-02	1.25E-02	1.27E-02	1.26E-01	3.28E-02	2.37E-02	8.81E-02	2.01E-02	9.85E-03
W_30	551654	5401167	Pic River Out-Flow from Model Property Boundary		1.06E-03	2.17E-04	1.16E-04	6.07E-03	2.51E-03	2.43E-03	2.04E-04	9.82E-05	6.35E-05	3.72E-02	1.61E-02	1.47E-02	1.12E-01	3.80E-02	2.55E-02	1.17E-01	2.19E-02	1.07E-02
W_4	545636.3	5403828.5	Hare Lake (east)		1.18E-03	2.10E-04	1.25E-04	6.05E-03	2.16E-03	2.17E-03	2.01E-04	5.61E-05	3.36E-05	3.54E-02	1.24E-02	1.21E-02	1.15E-01	3.40E-02	2.04E-02	1.12E-01	1.80E-02	1.07E-02
W_5	545048.3	5403556.5	Hare Lake (south)		1.12E-03	1.51E-04	9.47E-05	5.89E-03	2.09E-03	2.12E-03	1.82E-04	4.78E-05	2.79E-05	3.36E-02	1.17E-02	1.15E-02	1.07E-01	2.61E-02	1.65E-02	1.01E-01	1.35E-02	8.37E-03
W_6	543955.3	5403079.49	Hare Lake (west)		7.29E-04	1.15E-04	6.35E-05	5.56E-03	1.98E-03	2.06E-03	1.42E-04	3.55E-05	1.98E-05	3.04E-02	1.05E-02	1.08E-02	7.46E-02	2.01E-02	1.17E-02	8.76E-02	1.08E-02	5.93E-03
W_7	544603.3	5403943.49	Hare Lake (north)		7.83E-04	1.30E-04	8.28E-05	5.43E-03	2.02E-03	2.09E-03	1.26E-04	3.95E-05	2.32E-05	2.99E-02	1.09E-02	1.11E-02	8.48E-02	2.21E-02	1.39E-02	8.61E-02	1.24E-02	7.75E-03
W_8	544830.3	5403751.49	Hare Lake (center)		8.88E-04	1.34E-04	8.85E-05	5.55E-03	2.05E-03	2.10E-03	1.41E-04	4.33E-05	2.53E-05	3.11E-02	1.12E-02	1.13E-02	9.48E-02	2.35E-02	1.51E-02	8.19E-02	1.25E-02	8.05E-03
W_9	549326.3	5406971.51	Bamoos Lake (east)		5.80E-04	1.10E-04	7.08E-05	7.47E-03	2.26E-03	2.27E-03	3.66E-04	6.83E-05	4.41E-05	4.27E-02	1.28E-02	1.27E-02	7.02E-02	2.18E-02	1.62E-02	7.85E-02	1.14E-02	6.27E-03
Maximum of Special Receptors					**2.96E-03**	**5.07E-04**	**2.37E-04**	**1.76E-02**	**7.58E-03**	**6.38E-03**	**1.55E-03**	**6.92E-04**	**5.27E-04**	**1.61E-01**	**7.04E-02**	**5.70E-02**	**3.94E-01**	**8.33E-02**	**5.41E-02**	**2.05E-01**	**3.52E-02**	**1.76E-02**
Max % of Criteria					**0.0%**	-	-	**0.0%**	-	-	**0.3%**	-	-	**0.1%**	-	-	-	-	-	**0.0%**	-	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by M

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier

Table F-3 Special Receptor Predictions (ug/m3) - Operations, Cumulative (Project + Background)

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	TOLUENE			TSP (See Note 1)			TSP (See Note 2)		TUNGSTEN (W)			URANIUM (U)			VANADIUM (V)			XYLENES			
				Averaging Period	24	month	annual	24	month	annual	24	annual	24	month	annual	24	month	annual	24	month	annual	10-Min	24	month	annual
				Criteria	2000	-	-	-	-	-	120	60	5	-	-	0.15	-	0.03	2	-	-	3000	730	-	-
				Background Concentration (ug/m3)	2.81E+00	1.08E+00	1.53E+00	4.41E+01	1.70E+01	2.44E+01	4.41E+01	2.44E+01							3.14E-03	1.21E-03	8.86E-04	8.28E+00	2.06E+00	7.94E-01	1.08E+00
S_6	547000.4	5395035.56	Margaret Twomey Public School		2.81E+00	1.08E+00	1.53E+00	5.23E+01	1.90E+01	2.60E+01	4.76E+01	2.50E+01	4.29E-04	1.00E-04	7.80E-05	8.30E-05	2.32E-05	1.74E-05	4.44E-03	1.52E-03	1.13E-03	8.28E+00	2.06E+00	7.94E-01	1.08E+00
W_1	547291.4	5399860.55	Shack Lake (northeast)		2.81E+00	1.08E+00	1.53E+00	6.87E+01	2.48E+01	3.01E+01	5.38E+01	2.66E+01	1.32E-03	4.11E-04	2.93E-04	2.49E-04	7.86E-05	5.68E-05	7.10E-03	2.47E-03	1.80E-03	8.29E+00	2.06E+00	7.94E-01	1.08E+00
W_10	546975.3	5406486.49	Bamoos Lake (south)		2.81E+00	1.08E+00	1.53E+00	6.75E+01	2.26E+01	2.78E+01	5.90E+01	2.62E+01	1.23E-03	2.94E-04	1.73E-04	2.35E-04	5.68E-05	3.40E-05	6.92E-03	2.12E-03	1.43E-03	8.29E+00	2.06E+00	7.94E-01	1.08E+00
W_11	545484.3	5405866.49	Bamoos Lake (west)		2.81E+00	1.08E+00	1.53E+00	6.32E+01	2.17E+01	2.69E+01	5.53E+01	2.56E+01	1.00E-03	2.36E-04	1.25E-04	1.94E-04	4.67E-05	2.51E-05	6.21E-03	1.96E-03	1.29E-03	8.28E+00	2.06E+00	7.94E-01	1.08E+00
W_12	546576.3	5407157.48	Bamoos Lake (north)		2.81E+00	1.08E+00	1.53E+00	6.07E+01	2.13E+01	2.70E+01	5.50E+01	2.57E+01	8.50E-04	2.21E-04	1.30E-04	1.67E-04	4.31E-05	2.59E-05	5.65E-03	1.89E-03	1.29E-03	8.28E+00	2.06E+00	7.94E-01	1.08E+00
W_13	546777.3	5406831.49	Bamoos Lake (center)		2.81E+00	1.08E+00	1.53E+00	6.15E+01	2.18E+01	2.73E+01	5.54E+01	2.58E+01	8.96E-04	2.49E-04	1.45E-04	1.76E-04	4.84E-05	2.89E-05	5.79E-03	1.97E-03	1.34E-03	8.28E+00	2.06E+00	7.94E-01	1.08E+00
W_14	554944.3	5408228.54	Page Lake (south)		2.81E+00	1.08E+00	1.53E+00	5.48E+01	2.00E+01	2.60E+01	5.31E+01	2.53E+01	5.36E-04	1.55E-04	8.50E-05	1.08E-04	3.07E-05	1.67E-05	4.70E-03	1.69E-03	1.15E-03	8.28E+00	2.06E+00	7.94E-01	1.08E+00
W_15	555054.3	5408903.54	Page Lake (center)		2.81E+00	1.08E+00	1.53E+00	5.15E+01	1.94E+01	2.57E+01	4.82E+01	2.51E+01	3.65E-04	1.22E-04	6.90E-05	7.50E-05	2.41E-05	1.36E-05	4.27E-03	1.59E-03	1.10E-03	8.28E+00	2.06E+00	7.94E-01	1.08E+00
W_16	555065.3	5409497.54	Page Lake (north)		2.81E+00	1.08E+00	1.53E+00	5.01E+01	1.89E+01	2.55E+01	4.79E+01	2.50E+01	3.03E-04	9.70E-05	5.90E-05	6.00E-05	1.91E-05	1.15E-05	4.05E-03	1.51E-03	1.07E-03	8.28E+00	2.06E+00	7.94E-01	1.08E+00
W_17	556593.4	5402126.57	Peacock Lake (east)		2.81E+00	1.08E+00	1.53E+00	5.86E+01	2.06E+01	2.61E+01	5.46E+01	2.51E+01	8.06E-04	1.88E-04	8.80E-05	1.49E-04	3.65E-05	1.72E-05	5.51E-03	1.78E-03	1.16E-03	8.28E+00	2.06E+00	7.94E-01	1.08E+00
W_18	556043.4	5401266.57	Peacock Lake (south)		2.81E+00	1.08E+00	1.53E+00	5.89E+01	2.09E+01	2.61E+01	5.40E+01	2.52E+01	7.97E-04	2.04E-04	9.10E-05	1.51E-04	3.96E-05	1.78E-05	5.52E-03	1.83E-03	1.16E-03	8.28E+00	2.06E+00	7.94E-01	1.08E+00
W_19	556277.4	5402068.57	Peacock Lake (west)		2.81E+00	1.08E+00	1.53E+00	5.93E+01	2.07E+01	2.62E+01	5.48E+01	2.51E+01	8.40E-04	1.97E-04	9.30E-05	1.55E-04	3.81E-05	1.82E-05	5.61E-03	1.81E-03	1.17E-03	8.28E+00	2.06E+00	7.94E-01	1.08E+00
W_2	547105.4	5399506.55	Shack Lake (center)		2.81E+00	1.08E+00	1.53E+00	6.64E+01	2.37E+01	2.93E+01	5.30E+01	2.62E+01	1.20E-03	3.49E-04	2.50E-04	2.25E-04	6.73E-05	4.91E-05	6.72E-03	2.28E-03	1.66E-03	8.29E+00	2.06E+00	7.94E-01	1.08E+00
W_20	556444.4	5402419.57	Peacock Lake (north)		2.81E+00	1.08E+00	1.53E+00	5.73E+01	2.08E+01	2.61E+01	5.42E+01	2.52E+01	7.23E-04	2.00E-04	9.30E-05	1.35E-04	3.88E-05	1.82E-05	5.28E-03	1.82E-03	1.17E-03	8.28E+00	2.06E+00	7.94E-01	1.08E+00
W_21	556424.4	5402099.57	Peacock Lake (center)		2.81E+00	1.08E+00	1.53E+00	5.89E+01	2.06E+01	2.61E+01	5.46E+01	2.51E+01	8.17E-04	1.92E-04	9.10E-05	1.51E-04	3.72E-05	1.78E-05	5.54E-03	1.79E-03	1.16E-03	8.28E+00	2.06E+00	7.94E-01	1.08E+00
W_22	550202.4	5397448.58	Three Finger Lake (north)		2.81E+00	1.08E+00	1.53E+00	7.21E+01	2.13E+01	2.72E+01	5.73E+01	2.53E+01	1.54E-03	2.31E-04	1.48E-04	2.86E-04	4.42E-05	2.89E-05	7.67E-03	1.90E-03	1.33E-03	8.29E+00	2.06E+00	7.94E-01	1.08E+00
W_23	550175.4	5396991.58	Three Finger Lake (center)		2.81E+00	1.08E+00	1.53E+00	6.89E+01	2.07E+01	2.67E+01	5.62E+01	2.52E+01	1.35E-03	2.00E-04	1.24E-04	2.53E-04	3.81E-05	2.45E-05	7.14E-03	1.81E-03	1.26E-03	8.28E+00	2.06E+00	7.94E-01	1.08E+00
W_24	549830.4	5396525.58	Three Finger Lake (south)		2.81E+00	1.08E+00	1.53E+00	6.35E+01	2.04E+01	2.64E+01	5.30E+01	2.51E+01	1.04E-03	1.83E-04	1.08E-04	1.98E-04	3.51E-05	2.15E-05	6.25E-03	1.76E-03	1.21E-03	8.28E+00	2.06E+00	7.94E-01	1.08E+00
W_25	546947.4	5396627.56	Penn Lake (north)		2.81E+00	1.08E+00	1.53E+00	5.46E+01	2.02E+01	2.69E+01	4.88E+01	2.53E+01	5.32E-04	1.47E-04	1.13E-04	1.13E-04	4.33E-05	2.96E-05	4.75E-03	1.66E-03	1.23E-03	8.28E+00	2.06E+00	7.94E-01	1.08E+00
W_26	547059.4	5396125.56	Penn Lake (center)		2.81E+00	1.08E+00	1.53E+00	5.40E+01	1.97E+01	2.65E+01	4.81E+01	2.51E+01	5.15E-04	1.28E-04	1.00E-04	1.00E-04	3.32E-05	2.44E-05	4.70E-03	1.60E-03	1.19E-03	8.28E+00	2.06E+00	7.94E-01	1.08E+00
W_27	546991.4	5395772.56	Penn Lake (south)		2.81E+00	1.08E+00	1.53E+00	5.33E+01	1.94E+01	2.63E+01	4.78E+01	2.51E+01	4.76E-04	1.16E-04	9.10E-05	9.20E-05	2.93E-05	2.18E-05	4.58E-03	1.57E-03	1.17E-03	8.28E+00	2.06E+00	7.94E-01	1.08E+00
W_28	544637	5401700	Angler Creek at Model Property Boundary		2.81E+00	1.08E+00	1.53E+00	5.90E+01	2.15E+01	2.71E+01	5.17E+01	2.56E+01	7.40E-04	2.13E-04	1.24E-04	1.43E-04	4.16E-05	2.50E-05	5.52E-03	1.93E-03	1.32E-03	8.28E+00	2.06E+00	7.94E-01	1.08E+00
W_29	551284	5407805	Pic River In-Flow to Model Property Boundary		2.81E+00	1.08E+00	1.53E+00	5.87E+01	2.10E+01	2.68E+01	5.22E+01	2.56E+01	7.67E-04	2.09E-04	1.31E-04	1.51E-04	4.11E-05	2.54E-05	5.40E-03	1.84E-03	1.28E-03	8.28E+00	2.06E+00	7.94E-01	1.08E+00
W_3	546725.4	5399333.55	Shack Lake (southwest)		2.81E+00	1.08E+00	1.53E+00	6.39E+01	2.29E+01	2.87E+01	5.14E+01	2.61E+01	1.06E-03	3.03E-04	2.14E-04	1.99E-04	5.95E-05	4.31E-05	6.32E-03	2.15E-03	1.56E-03	8.29E+00	2.06E+00	7.94E-01	1.08E+00
W_30	551654	5401167	Pic River Out-Flow from Model Property Boundary		2.81E+00	1.08E+00	1.53E+00	6.42E+01	2.67E+01	3.07E+01	5.26E+01	2.65E+01	1.11E-03	5.26E-04	3.44E-04	2.12E-04	1.01E-04	6.48E-05	6.39E-03	2.77E-03	1.91E-03	8.29E+00	2.06E+00	7.94E-01	1.08E+00
W_4	545636.3	5403828.5	Hare Lake (east)		2.81E+00	1.08E+00	1.53E+00	6.48E+01	2.31E+01	2.80E+01	5.72E+01	2.63E+01	9.52E-04	2.68E-04	1.57E-04	1.91E-04	5.27E-05	3.15E-05	6.34E-03	2.19E-03	1.47E-03	8.29E+00	2.06E+00	7.94E-01	1.08E+00
W_5	545048.3	5403556.5	Hare Lake (south)		2.81E+00	1.08E+00	1.53E+00	6.27E+01	2.21E+01	2.74E+01	5.60E+01	2.59E+01	8.57E-04	2.30E-04	1.33E-04	1.71E-04	4.49E-05	2.66E-05	6.02E-03	2.03E-03	1.36E-03	8.28E+00	2.06E+00	7.94E-01	1.08E+00
W_6	543955.3	5403079.49	Hare Lake (west)		2.81E+00	1.08E+00	1.53E+00	5.81E+01	2.07E+01	2.64E+01	5.31E+01	2.53E+01	6.87E-04	1.76E-04	9.70E-05	1.36E-04	3.45E-05	1.96E-05	5.28E-03	1.80E-03	1.21E-03	8.28E+00	2.06E+00	7.94E-01	1.08E+00
W_7	544603.3	5403943.49	Hare Lake (north)		2.81E+00	1.08E+00	1.53E+00	5.70E+01	2.11E+01	2.68E+01	5.06E+01	2.55E+01	6.16E-04	1.94E-04	1.13E-04	1.21E-04	3.79E-05	2.27E-05	5.19E-03	1.87E-03	1.27E-03	8.28E+00	2.06E+00	7.94E-01	1.08E+00
W_8	544830.3	5403751.49	Hare Lake (center)		2.81E+00	1.08E+00	1.53E+00	5.86E+01	2.16E+01	2.70E+01	5.26E+01	2.57E+01	6.79E-04	2.11E-04	1.22E-04	1.35E-04	4.11E-05	2.45E-05	5.43E-03	1.94E-03	1.31E-03	8.28E+00	2.06E+00	7.94E-01	1.08E+00
W_9	549326.3	5406971.51	Bamoos Lake (east)		2.81E+00	1.08E+00	1.53E+00	7.83E+01	2.36E+01	2.87E+01	7.17E+01	2.66E+01	1.74E-03	3.53E-04	2.26E-04	3.46E-04	6.71E-05	4.38E-05	8.16E-03	2.25E-03	1.57E-03	8.28E+00	2.06E+00	7.94E-01	1.08E+00
Maximum of Special Receptors					**2.81E+00**	**1.08E+00**	**1.53E+00**	**1.98E+02**	**8.57E+01**	**7.68E+01**	**7.17E+01**	**2.82E+01**	**8.92E-03**	**3.95E-03**	**3.01E-03**	**1.58E-03**	**7.01E-04**	**5.35E-04**	**2.86E-02**	**1.25E-02**	**9.51E-03**	**8.29E+00**	**2.06E+00**	**7.95E-01**	**1.08E+00**
Max % of Criteria					**0.1%**	-	-	-	-	-	**59.7%**	**47.1%**	**0.2%**	-	-	**1.1%**	-	**1.8%**	**1.4%**	-	-	**0.3%**	**0.3%**	-	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by M

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier

Table F-3 Special Receptor Predictions (ug/m3) - Operations, Cumulative (Project + Background)

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	ZINC (ZN)			DUSTFALL (g/m2)		
				Averaging Period	24	month	annual	24	month	annual
				Criteria	120	-	-		7	
				Background Concentration (ug/m3)	3.35E-02	1.29E-02	1.55E-02		1.44E+00	
S_6	547000.4	5395035.56	Margaret Twomey Public School		3.45E-02	1.31E-02	1.56E-02	9.76E-03	1.53E+00	6.26E-01
W_1	547291.4	5399860.55	Shack Lake (northeast)		3.49E-02	1.34E-02	1.58E-02	2.74E-02	1.81E+00	2.80E+00
W_10	546975.3	5406486.49	Bamoos Lake (south)		3.48E-02	1.32E-02	1.57E-02	2.09E-02	1.59E+00	1.29E+00
W_11	545484.3	5405866.49	Bamoos Lake (west)		3.46E-02	1.32E-02	1.57E-02	1.13E-02	1.54E+00	7.92E-01
W_12	546576.3	5407157.48	Bamoos Lake (north)		3.44E-02	1.32E-02	1.57E-02	1.09E-02	1.53E+00	7.77E-01
W_13	546777.3	5406831.49	Bamoos Lake (center)		3.45E-02	1.32E-02	1.57E-02	1.18E-02	1.54E+00	8.96E-01
W_14	554944.3	5408228.54	Page Lake (south)		3.41E-02	1.31E-02	1.56E-02	8.39E-03	1.54E+00	7.12E-01
W_15	555054.3	5408903.54	Page Lake (center)		3.39E-02	1.31E-02	1.56E-02	7.50E-03	1.52E+00	5.77E-01
W_16	555065.3	5409497.54	Page Lake (north)		3.39E-02	1.30E-02	1.56E-02	7.10E-03	1.51E+00	4.89E-01
W_17	556593.4	5402126.57	Peacock Lake (east)		3.43E-02	1.31E-02	1.56E-02	9.07E-03	1.52E+00	5.82E-01
W_18	556043.4	5401266.57	Peacock Lake (south)		3.44E-02	1.32E-02	1.56E-02	9.06E-03	1.51E+00	5.76E-01
W_19	556277.4	5402068.57	Peacock Lake (west)		3.44E-02	1.32E-02	1.56E-02	1.00E-02	1.52E+00	6.23E-01
W_2	547105.4	5399506.55	Shack Lake (center)		3.48E-02	1.33E-02	1.58E-02	2.34E-02	1.76E+00	2.37E+00
W_20	556444.4	5402419.57	Peacock Lake (north)		3.43E-02	1.32E-02	1.56E-02	8.95E-03	1.53E+00	6.29E-01
W_21	556424.4	5402099.57	Peacock Lake (center)		3.44E-02	1.31E-02	1.56E-02	9.49E-03	1.52E+00	6.04E-01
W_22	550202.4	5397448.58	Three Finger Lake (north)		3.51E-02	1.32E-02	1.57E-02	2.19E-02	1.62E+00	1.12E+00
W_23	550175.4	5396991.58	Three Finger Lake (center)		3.49E-02	1.32E-02	1.57E-02	1.88E-02	1.60E+00	9.22E-01
W_24	549830.4	5396525.58	Three Finger Lake (south)		3.46E-02	1.31E-02	1.56E-02	1.89E-02	1.58E+00	7.97E-01
W_25	546947.4	5396627.56	Penn Lake (north)		3.52E-02	1.34E-02	1.58E-02	1.46E-02	1.61E+00	1.23E+00
W_26	547059.4	5396125.56	Penn Lake (center)		3.48E-02	1.33E-02	1.57E-02	1.33E-02	1.58E+00	9.81E-01
W_27	546991.4	5395772.56	Penn Lake (south)		3.46E-02	1.32E-02	1.57E-02	1.21E-02	1.56E+00	8.49E-01
W_28	544637	5401700	Angler Creek at Model Property Boundary		3.44E-02	1.32E-02	1.57E-02	2.09E-02	1.63E+00	1.24E+00
W_29	551284	5407805	Pic River In-Flow to Model Property Boundary		3.44E-02	1.32E-02	1.56E-02	2.45E-02	1.63E+00	1.43E+00
W_3	546725.4	5399333.55	Shack Lake (southwest)		3.46E-02	1.33E-02	1.58E-02	2.14E-02	1.71E+00	2.05E+00
W_30	551654	5401167	Pic River Out-Flow from Model Property Boundary		3.48E-02	1.35E-02	1.59E-02	3.01E-02	1.80E+00	3.47E+00
W_4	545636.3	5403828.5	Hare Lake (east)		3.47E-02	1.33E-02	1.57E-02	1.63E-02	1.64E+00	1.62E+00
W_5	545048.3	5403556.5	Hare Lake (south)		3.46E-02	1.32E-02	1.57E-02	1.51E-02	1.60E+00	1.26E+00
W_6	543955.3	5403079.49	Hare Lake (west)		3.43E-02	1.31E-02	1.56E-02	1.10E-02	1.56E+00	8.14E-01
W_7	544603.3	5403943.49	Hare Lake (north)		3.42E-02	1.32E-02	1.56E-02	1.17E-02	1.56E+00	9.42E-01
W_8	544830.3	5403751.49	Hare Lake (center)		3.43E-02	1.32E-02	1.57E-02	1.31E-02	1.58E+00	1.08E+00
W_9	549326.3	5406971.51	Bamoos Lake (east)		3.55E-02	1.33E-02	1.58E-02	2.34E-02	1.64E+00	1.64E+00
Maximum of Special Receptors					**4.21E-02**	**1.78E-02**	**1.84E-02**	**1.85E-01**	**5.12E+00**	**3.68E+01**
Max % of Criteria					**0.0%**	-	-	-	**73.1%**	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by M

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier

Table F-4 Fence Line Receptor Predictions (ug/m3) - Operations, Cumulative (Project + Background)

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	1,3-BUTADIENE			ACENAPHTHENE			ACENAPHTHYLENE		
				Averaging Period	24	month	annual	24	month	annual	24	month	annual
				Criteria	10	-	2	-	-	-	-	-	-
				Background Concentration (ug/m3)	1.09E-01	4.21E-02	7.32E-02	1.81E-03	6.98E-04	9.10E-04	1.79E-03	6.91E-04	1.06E-03
Maximum of Fence Line Receptors					1.13E-01	4.33E-02	7.42E-02	2.09E-03	7.85E-04	9.81E-04	2.25E-03	8.31E-04	1.18E-03
Max % of Criteria					1.1%	-	3.7%	-	-	-	-	-	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by MECP Guideline A-10, Section 7.4.1 for facilities with a fugitive dust BMP. These model predictions were used for comparison to

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier 3 assumption).

Table F-4 Fence Line Receptor Predictions (ug/m3) - Operations, Cumulative (Proje

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	ACETALDEHYDE					ACROLEIN			
				Averaging Period	0.5	1	24	month	annual	1	24	month	annual
				Criteria	500	-	500	-	-	4.5	0.4	-	-
				Background Concentration (ug/m3)	1.18E+01	9.74E+00	4.00E+00	1.54E+00	1.60E+00	1.22E-01	5.00E-02	1.93E-02	2.30E-02
Maximum of Fence Line Receptors					1.38E+01	1.14E+01	4.37E+00	1.65E+00	1.69E+00	3.57E-01	1.04E-01	3.54E-02	3.61E-02
Max % of Criteria					2.8%	-	0.9%	-	-	7.9%	25.9%	-	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by Ithe applicable critiera.

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier

Table F-4 Fence Line Receptor Predictions (ug/m3) - Operations, Cumulative (Proje

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	ALDEHYDES			ALUMINUM (AL)			ANTHRACENE		
				Averaging Period	24	month	annual	24	month	annual	24	month	annual
				Criteria	-	-	-	12	-	-	-	-	-
				Background Concentration (ug/m3)	0.00E+00	0.00E+00	0.00E+00	5.88E-01	2.27E-01	2.84E-01	4.49E-04	1.73E-04	2.51E-04
Maximum of Fence Line Receptors					2.02E-01	4.16E-02	2.14E-02	3.81E+00	1.47E+00	1.23E+00	6.33E-04	2.28E-04	2.96E-04
Max % of Criteria					-	-	-	31.8%	-	-	-	-	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by I

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier

Table F-4 Fence Line Receptor Predictions (ug/m3) - Operations, Cumulative (Proje

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	ANTIMONY (SB)			ARSENIC (AS)			BARIUM (BA)		
				Averaging Period	24	month	annual	24	month	annual	24	month	annual
				Criteria	25	-	-	0.3	-	-	10	-	-
				Background Concentration (ug/m3)	2.71E-02	1.05E-02	9.39E-03	0.00E+00	0.00E+00	0.00E+00	3.99E-02	1.54E-02	1.92E-02
Maximum of Fence Line Receptors					2.77E-02	1.07E-02	9.57E-03	1.40E-03	8.47E-04	5.24E-04	5.23E-02	2.02E-02	2.28E-02
Max % of Criteria					0.1%	-	-	0.5%	-	-	0.5%	-	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by I

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier

Table F-4 Fence Line Receptor Predictions (ug/m3) - Operations, Cumulative (Proje

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	BENZENE			BENZO(A)ANTHRACENE			BENZO(A)PYRENE		
				Averaging Period	24	month	annual	24	month	annual	24	month	annual
				Criteria	2.3	-	0.45	-	-	-	0.00005	-	0.00001
				Background Concentration (ug/m3)	1.44E+00	5.56E-01	9.02E-01	2.14E-04	8.26E-05	1.07E-04	2.06E-04	7.95E-05	1.03E-04
Maximum of Fence Line Receptors					1.51E+00	5.76E-01	9.19E-01	2.22E-04	8.57E-05	1.09E-04	2.09E-04	8.05E-05	1.04E-04
Max % of Criteria					65.6%	-	204.2%	-	-	-	417.2%	-	1037.5%

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by I

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier

Table F-4 Fence Line Receptor Predictions (ug/m3) - Operations, Cumulative (Proje

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	BENZO(B)FLUORANTHENE			BENZO(G,H,I)PERYLENE			BENZO(K)FLUORANTHENE		
				Averaging Period	24	month	annual	24	month	annual	24	month	annual
				Criteria	-	-	-	-	-	-	-	-	-
				Background Concentration (ug/m3)	3.19E-04	1.23E-04	2.07E-04	2.80E-04	1.08E-04	1.32E-04	1.04E-04	4.03E-05	6.07E-05
Maximum of Fence Line Receptors					3.23E-04	1.24E-04	2.08E-04	3.08E-04	1.14E-04	1.35E-04	1.06E-04	4.07E-05	6.10E-05
Max % of Criteria					-	-	-	-	-	-	-	-	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by I

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier

Table F-4 Fence Line Receptor Predictions (ug/m3) - Operations, Cumulative (Proje

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	BERYLLIUM (BE)			BISMUTH (BI)			BORON (B)		
				Averaging Period	24	month	annual	24	month	annual	24	month	annual
				Criteria	0.01	-	-	2.5	-	-	120	-	-
				Background Concentration (ug/m3)	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Maximum of Fence Line Receptors					1.50E-04	5.76E-05	4.38E-05	4.65E-03	2.81E-03	1.73E-03	2.75E-03	1.06E-03	8.05E-04
Max % of Criteria					1.5%	-	-	0.2%	-	-	0.0%	-	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by I

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier

Table F-4 Fence Line Receptor Predictions (ug/m3) - Operations, Cumulative (Proje

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	BROMINE (BR)			CADMIUM (CD)			CALCIUM (CA)		
				Averaging Period	24	month	annual	24	month	annual	24	month	annual
				Criteria	20	-	-	0.025	-	0.005	-	-	-
				Background Concentration (ug/m3)	0.00E+00	0.00E+00	0.00E+00	1.20E-02	4.63E-03	3.62E-03	1.74E+00	6.71E-01	7.62E-01
Maximum of Fence Line Receptors					1.96E-02	3.87E-03	1.89E-03	1.29E-02	5.19E-03	3.97E-03	5.09E+00	1.96E+00	1.74E+00
Max % of Criteria					0.1%	-	-	51.7%	-	79.4%	-	-	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by I

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier

Table F-4 Fence Line Receptor Predictions (ug/m3) - Operations, Cumulative (Proje

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	CAO			CH4			CHROMIUM (CR)		
				Averaging Period	24	month	annual	24	month	annual	24	month	annual
				Criteria	10	-	-	37330	-	-	0.5	-	-
				Background Concentration (ug/m3)	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.46E-03	5.63E-04	6.76E-04
Maximum of Fence Line Receptors					3.25E-01	6.39E-02	3.09E-02	4.39E-01	1.42E-01	1.14E-01	2.59E-02	9.95E-03	7.82E-03
Max % of Criteria					3.3%	-	-	0.0%	-	-	5.2%	-	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by I

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier

Table F-4 Fence Line Receptor Predictions (ug/m3) - Operations, Cumulative (Proje

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	CHRYSENE			CO					
				Averaging Period	24	month	annual	0.5	1	8	24	month	annual
				Criteria	-	-	-	-	36200	15700	-	-	-
				Background Concentration (ug/m3)	2.65E-04	1.02E-04	1.57E-04	1.17E+03	9.65E+02	9.65E+02	9.65E+02	3.72E+02	5.91E+02
Maximum of Fence Line Receptors					2.72E-04	1.05E-04	1.59E-04	2.32E+03	1.92E+03	1.16E+03	1.04E+03	3.97E+02	6.11E+02
Max % of Criteria					-	-	-	-	5.3%	7.4%	-	-	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by I

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier

Table F-4 Fence Line Receptor Predictions (ug/m3) - Operations, Cumulative (Proje

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	COBALT (CO)			COPPER (CU)			DIBENZ(A,H)PERYLENE		
				Averaging Period	24	month	annual	24	month	annual	24	month	annual
				Criteria	0.1	-	-	50	-	-	-	-	-
				Background Concentration (ug/m3)	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Maximum of Fence Line Receptors					2.01E-02	1.21E-02	7.51E-03	1.10E+01	6.62E+00	4.08E+00	1.13E-06	2.33E-07	1.20E-07
Max % of Criteria					20.1%	-	-	21.9%	-	-	-	-	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by I

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier

Table F-4 Fence Line Receptor Predictions (ug/m3) - Operations, Cumulative (Proje

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	FLUORANTHENE			FLUORENE			FORMALDEHYDE		
				Averaging Period	24	month	annual	24	month	annual	24	month	annual
				Criteria	-	-	-	-	-	-	65	-	-
				Background Concentration (ug/m3)	1.91E-03	7.37E-04	1.06E-03	2.91E-03	1.12E-03	1.62E-03	5.40E+00	2.08E+00	1.90E+00
Maximum of Fence Line Receptors					2.19E-03	8.22E-04	1.13E-03	4.01E-03	1.45E-03	1.89E-03	6.57E+00	2.43E+00	2.18E+00
Max % of Criteria					-	-	-	-	-	-	10.1%	-	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by I

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier

Table F-4 Fence Line Receptor Predictions (ug/m3) - Operations, Cumulative (Proje

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	GALLIUM (GA)			GOLD (AU)			HYDROCHLORIC ACID (HCL)		
				Averaging Period	24	month	annual	24	month	annual	24	month	annual
				Criteria	-	-	-	1.25	-	-	20	-	-
				Background Concentration (ug/m3)	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Maximum of Fence Line Receptors					1.15E+01	6.97E+00	4.30E+00	2.46E-04	1.49E-04	9.17E-05	7.35E-03	1.47E-03	7.28E-04
Max % of Criteria					-	-	-	0.0%	-	-	0.0%	-	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by I

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier

Table F-4 Fence Line Receptor Predictions (ug/m3) - Operations, Cumulative (Proje

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	HYDROFLUORIC ACID (HF)			INDENO(1,2,3-CD)PYRENE			IRON (FE)		
				Averaging Period	24	month	annual	24	month	annual	24	month	annual
				Criteria	0.86	0.34	-	-	-	-	-	-	-
				Background Concentration (ug/m3)	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.85E-01	1.49E-01	1.91E-01
Maximum of Fence Line Receptors					9.42E-03	1.86E-03	9.10E-04	1.35E-06	2.78E-07	1.44E-07	1.51E+01	8.11E+00	5.14E+00
Max % of Criteria					1.1%	0.5%	-	-	-	-	-	-	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by I

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier

Table F-4 Fence Line Receptor Predictions (ug/m3) - Operations, Cumulative (Proje

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	IRON SULFIDE			LANTHANUM (LA)			LANTHANUM CHLORIDE (LACL3)		
				Averaging Period	24	month	annual	24	month	annual	24	month	annual
				Criteria	-	-	-	-	-	-	**2.5**	-	-
				Background Concentration (ug/m3)	**0.00E+00**	**0.00E+00**	**0.00E+00**	**0.00E+00**	**0.00E+00**	**0.00E+00**	**0.00E+00**	**0.00E+00**	**0.00E+00**
Maximum of Fence Line Receptors					2.73E+01	5.61E+00	3.66E+00	4.44E-03	1.71E-03	1.30E-03	1.05E-01	2.20E-02	1.11E-02
Max % of Criteria					-	-	-	-	-	-	**4.2%**	-	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by I

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier

Table F-4 Fence Line Receptor Predictions (ug/m3) - Operations, Cumulative (Proje

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	LEAD (PB)			MAGNESIUM (MG)			MANGANESE (MN)		
				Averaging Period	24	month	annual	24	month	annual	24	month	annual
				Criteria	0.5	0.2	-	72	-	-	0.4	-	-
				Background Concentration (ug/m3)	5.74E-03	2.21E-03	3.01E-03	0.00E+00	0.00E+00	0.00E+00	1.42E-02	5.48E-03	7.71E-03
Maximum of Fence Line Receptors					1.55E-02	8.14E-03	6.67E-03	3.85E+00	1.48E+00	1.13E+00	1.55E-01	5.97E-02	4.89E-02
Max % of Criteria					3.1%	4.1%	-	5.4%	-	-	38.8%	-	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by I

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier

Table F-4 Fence Line Receptor Predictions (ug/m3) - Operations, Cumulative (Proje

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	MERCURY (HG)			MOLYBDENUM (MO)			N2O		
				Averaging Period	24	month	annual	24	month	annual	24	month	annual
				Criteria	2	-	-	120	-	-	9000	-	-
				Background Concentration (ug/m3)	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Maximum of Fence Line Receptors					2.76E-04	1.06E-04	8.07E-05	8.89E-04	5.37E-04	3.32E-04	1.59E+00	4.79E-01	3.82E-01
Max % of Criteria					0.0%	-	-	0.0%	-	-	0.0%	-	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by I

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier

Table F-4 Fence Line Receptor Predictions (ug/m3) - Operations, Cumulative (Proje

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	NAPHTHALENE				NICKEL (NI)		NITRIC ACID (HNO3)		
				Averaging Period	10-min	24	month	annual	24	annual	24	month	annual
				Criteria	50	22.5	-	-	0.2	0.04	35	-	-
				Background Concentration (ug/m3)	2.37E+00	2.39E-01	9.22E-02	9.64E-02	2.60E-03	1.00E-03	0.00E+00	0.00E+00	0.00E+00
Maximum of Fence Line Receptors					2.37E+00	2.39E-01	9.23E-02	9.64E-02	2.85E-01	1.15E-01	9.14E-03	1.80E-03	8.84E-04
Max % of Criteria					4.7%	1.1%	-	-	142.3%	287.5%	0.0%	-	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by I

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier

Table F-4 Fence Line Receptor Predictions (ug/m3) - Operations, Cumulative (Proje

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	NON-METHANE HYDROCARBONS			NO2 (See Note 3)			PALLADIUM (PD)		
				Averaging Period	24	month	annual	1	24	annual	24	month	annual
				Criteria	-	-	-	400	200	-	10	-	-
				Background Concentration (ug/m3)	0.00E+00	0.00E+00	0.00E+00	6.34E+01	3.17E+01	1.74E+01	0.00E+00	0.00E+00	0.00E+00
Maximum of Fence Line Receptors					4.12E+00	1.23E+00	1.00E+00	1.55E+02	6.93E+01	2.84E+01	2.45E-03	1.48E-03	9.13E-04
Max % of Criteria					-	-	-	38.7%	34.6%	-	0.0%	-	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by I

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier

Table F-4 Fence Line Receptor Predictions (ug/m3) - Operations, Cumulative (Proje

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	PHENANTHRENE			PHOSPHOROUS (P)			PLATINUM (PT)		
				Averaging Period	24	month	annual	24	month	annual	24	month	annual
				Criteria	-	-	-	-	-	-	0.2	-	-
				Background Concentration (ug/m3)	7.86E-03	3.03E-03	4.59E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Maximum of Fence Line Receptors					1.28E-02	4.50E-03	5.79E-03	3.75E-01	1.44E-01	1.10E-01	5.12E-04	3.09E-04	1.91E-04
Max % of Criteria					-	-	-	-	-	-	0.3%	-	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by I

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier

Table F-4 Fence Line Receptor Predictions (ug/m3) - Operations, Cumulative (Proje

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	PM10 (see Note 1)			PM10 (see Note 2)	PM2.5 (See Note 1)			PM2.5 (See Note 2)	
				Averaging Period	24	month	annual	24	24	month	annual	24	annual
				Criteria	-	-	-	50	-	-	-	27	8.8
				Background Concentration (ug/m3)	2.28E+01	8.80E+00	1.27E+01	2.28E+01	1.23E+01	4.75E+00	6.80E+00	1.23E+01	6.80E+00
Maximum of Fence Line Receptors					9.71E+01	3.70E+01	3.41E+01	4.52E+01	2.07E+01	7.85E+00	9.14E+00	1.74E+01	8.20E+00
Max % of Criteria					-	-	-	90.3%	-	-	-	64.4%	93.2%

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by I

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier

Table F-4 Fence Line Receptor Predictions (ug/m3) - Operations, Cumulative (Proje

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	POTASSIUM (K)			PROPYLENE			PYRENE		
				Averaging Period	24	month	annual	24	month	annual	24	month	annual
				Criteria	1	-	-	4000	-	-	-	-	-
				Background Concentration (ug/m3)	2.79E-01	1.08E-01	1.49E-01	0.00E+00	0.00E+00	0.00E+00	1.34E-03	5.17E-04	8.01E-04
Maximum of Fence Line Receptors					4.92E-01	1.89E-01	2.11E-01	9.13E-03	1.88E-03	9.68E-04	1.58E-03	5.89E-04	8.59E-04
Max % of Criteria					49.2%	-	-	0.0%	-	-	-	-	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by I

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier

Table F-4 Fence Line Receptor Predictions (ug/m3) - Operations, Cumulative (Proje

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	SCANDIUM (SC)			SILICA			SILICON (SI)		
				Averaging Period	24	month	annual	24	month	annual	24	month	annual
				Criteria	-	-	-	5	-	-	27	-	-
				Background Concentration (ug/m3)	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Maximum of Fence Line Receptors					4.83E-04	1.85E-04	1.41E-04	3.52E+01	1.34E+01	1.02E+01	2.38E+00	1.43E+00	8.85E-01
Max % of Criteria					-	-	-	704.9%	-	-	8.8%	-	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by I

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier

Table F-4 Fence Line Receptor Predictions (ug/m3) - Operations, Cumulative (Proje

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	SILVER (AG)			SO2			
				Averaging Period	24	month	annual	1	24	month	annual
				Criteria	1	-	-	100	-	-	10
				Background Concentration (ug/m3)	0.00E+00	0.00E+00	0.00E+00	2.76E+00	5.79E+00	2.23E+00	2.48E+00
Maximum of Fence Line Receptors					2.97E-03	1.79E-03	1.11E-03	2.45E+01	7.02E+00	2.31E+00	2.52E+00
Max % of Criteria					0.3%	-	-	24.5%	-	-	25.2%

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by I

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier

Table F-4 Fence Line Receptor Predictions (ug/m3) - Operations, Cumulative (Proje

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	SODIUM (NA)			SODIUM CARBOXYMETHYL CELLULOSE			STRONTIUM (SR)		
				Averaging Period	24	month	annual	24	month	annual	24	month	annual
				Criteria	-	-	-	120	-	-	120	-	-
				Background Concentration (ug/m3)	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.36E-03	1.68E-03	1.89E-03
Maximum of Fence Line Receptors					3.83E-01	1.47E-01	1.12E-01	5.35E-03	8.91E-04	4.65E-04	2.80E-02	1.08E-02	8.79E-03
Max % of Criteria					-	-	-	0.0%	-	-	0.0%	-	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by I

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier

Table F-4 Fence Line Receptor Predictions (ug/m3) - Operations, Cumulative (Proje

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	THALLIUM (TL)			TITANIUM (TI)			TOC		
				Averaging Period	24	month	annual	24	month	annual	24	month	annual
				Criteria	0.5	-	-	120	-	-	-	-	-
				Background Concentration (ug/m3)	0.00E+00	0.00E+00	0.00E+00	1.89E-02	7.29E-03	8.99E-03	0.00E+00	0.00E+00	0.00E+00
Maximum of Fence Line Receptors					2.77E-03	1.07E-03	8.11E-04	2.72E-01	1.04E-01	8.29E-02	8.10E-01	1.67E-01	1.10E-01
Max % of Criteria					0.6%	-	-	0.2%	-	-	-	-	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by I

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier

Table F-4 Fence Line Receptor Predictions (ug/m3) - Operations, Cumulative (Proje

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	TOC (METHANE)			TOLUENE			TSP (See Note 1)		
				Averaging Period	24	month	annual	24	month	annual	24	month	annual
				Criteria	37330	-	-	2000	-	-	-	-	-
				Background Concentration (ug/m3)	0.00E+00	0.00E+00	0.00E+00	2.81E+00	1.08E+00	1.53E+00	4.41E+01	1.70E+01	2.44E+01
Maximum of Fence Line Receptors					3.08E-01	6.34E-02	3.27E-02	2.81E+00	1.08E+00	1.53E+00	3.19E+02	1.23E+02	1.05E+02
Max % of Criteria					0.0%	-	-	0.1%	-	-	-	-	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by I

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier

Table F-4 Fence Line Receptor Predictions (ug/m3) - Operations, Cumulative (Proje

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	TSP (See Note 2)		TUNGSTEN (W)			URANIUM (U)		
				Averaging Period	24	annual	24	month	annual	24	month	annual
				Criteria	120	60	5	-	-	0.15	-	0.03
				Background Concentration (ug/m3)	4.41E+01	2.44E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Maximum of Fence Line Receptors					1.03E+02	4.37E+01	1.59E-02	6.11E-03	4.65E-03	2.82E-03	1.70E-03	1.06E-03
Max % of Criteria					86.1%	72.8%	0.3%	-	-	1.9%	-	3.5%

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by I

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier

Table F-4 Fence Line Receptor Predictions (ug/m3) - Operations, Cumulative (Proje

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	VANADIUM (V)			XYLENES				ZINC (ZN)		
				Averaging Period	24	month	annual	10-Min	24	month	annual	24	month	annual
				Criteria	2	-	-	3000	730	-	-	120	-	-
				Background Concentration (ug/m3)	3.14E-03	1.21E-03	8.86E-04	8.28E+00	2.06E+00	7.94E-01	1.08E+00	3.35E-02	1.29E-02	1.55E-02
Maximum of Fence Line Receptors					4.85E-02	1.87E-02	1.42E-02	8.29E+00	2.06E+00	7.95E-01	1.08E+00	8.48E-02	4.39E-02	3.46E-02
Max % of Criteria					2.4%	-	-	0.3%	0.3%	-	-	0.1%	-	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by I

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier

Table F-4 Fence Line Receptor Predictions (ug/m3) - Operations, Cumulative (Proje

Receptor ID	UTM Easting (m)	UTM Northing (m)	Receptor Description	Contaminant	DUSTFALL (g/m2)		
				Averaging Period	24	month	annual
				Criteria	0	7	0
				Background Concentration (ug/m3)	0.00E+00	1.44E+00	0.00E+00
Maximum of Fence Line Receptors					4.90E-01	1.02E+01	8.27E+01
Max % of Criteria					-	145.7%	-

Notes:

1 Model predictions for particulates including all emissions sources

2 Model predictions for particulates excluding roads and stockpile wind erosion as allowed by I

3 Nitrogen Dioxide predictions including the OLM for estimating conversion of NO to NO2 (Tier