



April 27, 2012

Tracking Number: 178998
Authorization Number: 5809

REGISTERED MAIL

SABLE RESOURCES LTD.
1290-625 HOWE STREET
VANCOUVER, BC
V6C 2T6

Dear Permittee:

Enclosed is Amended Permit 5809 issued under the provisions of the *Environmental Management Act*. Your attention is respectfully directed to the terms and conditions outlined in the permit. An annual fee will be determined according to the Permit Fees Regulation.

This permit does not authorize entry upon, crossing over, or use for any purpose of private or Crown lands or works, unless and except as authorized by the owner of such lands or works. The responsibility for obtaining such authority rests with the permittee. This permit is issued pursuant to the provisions of the *Environmental Management Act* to ensure compliance with Section 120(3) of that statute, which makes it an offence to discharge waste, from a prescribed industry or activity, without proper authorization. It is also the responsibility of the permittee to ensure that all activities conducted under this authorization are carried out with regard to the rights of third parties, and comply with other applicable legislation that may be in force.

This decision may be appealed to the Environmental Appeal Board in accordance with Part 8 of the *Environmental Management Act*. An appeal must be delivered within 30 days from the date that notice of this decision is given. For further information, please contact the Environmental Appeal Board at (250) 387-3464.

Administration of this permit will be carried out by staff from the Omineca and Peace Regions. Plans, data and reports pertinent to the permit are to be submitted to the Regional Manager, Environmental Protection, at Ministry of Environment, Regional Operations, Omineca and Peace Regions, 325 - 1011 Fourth Ave., Prince George BC V2L 3H9.

Yours truly,

Julie Orban P. Geo
Ministry of Environment

Environmental Protection
Division

325 - 1011 Fourth Ave.
Prince George BC V2L 3H9

Omineca and Peace Regions
Telephone: (250) 565-6135
Facsimile: (250) 565-6629

for Director, *Environmental Management Act*
Omineca and Peace Regions

Enclosure

cc: Environment Canada



**MINISTRY OF
ENVIRONMENT**

PERMIT

5809

Under the Provisions of the Environmental Management Act

SABLE RESOURCES LTD.

**1290-625 HOWE STREET
VANCOUVER, BC
V6C 2T6**

is authorised to discharge effluent from the Baker gold mine operation near Toadoggone Lake approximately 450 km north of Prince George, British Columbia, subject to the conditions listed below. Contravention of any of these conditions is a violation of the *Environmental Management Act* and may result in prosecution.

This permit supersedes and amends all previous versions of Permit PE-05809, issued under Part 2, Section 16 of the *Environmental Management Act*.

1. AUTHORISED DISCHARGES

1.1 This subsection applies to the discharge of mine process effluent and tailings to TSF#1 (Tailings Storage Facility No.1) for containment and exfiltration to ground. The site reference number for this discharge is E211459.

1.1.1 The maximum authorized rates of discharge are:

(i) Cyanidation Circuit Tailings including:

(a) 5 m³/day of treated cyanidation circuit barren bleed (after cyanide destruction), and

(b) 87.5 tonnes/week of cyanidation tailings solids (tailings solids originating from the cyanidation flotation concentrate after cyanided fluid removal using filter press)

(ii) 270 tonnes/day of flotation tailings (uncyanided) from the mill flotation operation. Alternately, this material may be discharged to TSF#2.

Date issued: July 14, 1980
Date amended: April 27, 2012
(most recent)

Julie Orban P. Geo
for Director, *Environmental Management Act*
Omineca and Peace Regions

1.1.2 The characteristics of the waste discharged into or contained within TSF#1 must not exceed the following limits:

Parameter	TSF#1 Supernatant	Combined Tailings (Cyanidation Circuit and Flotation Tailings) Discharged into TSF#1
pH	6.5 – 9.5	
Total Cyanide	5.0 mg/L	10 mg/L
Dissolved Copper	1.0 mg/L	
Dissolved Iron	0.5 mg/L	
Dissolved Lead	0.1 mg/L	
Dissolved Silver	0.3 mg/L	
Dissolved Zinc	1.0 mg/L	

1.1.3 The authorized works are a hydrogen peroxide cyanide destruction system, belt press cyanide removal system, tailings pipeline, tailings storage facility No.1 (TSF#1), and related appurtenances.

1.1.4 The location of the facilities from which the discharge originates and the point of discharge is District Lot 7809, Pin 001056526, Cassiar Land District, UTM coordinates: 613746 E, 6350046 N.

1.2 This subsection applies to the discharge of uncyanided flotation tailings to TSF#2 (Tailings Storage Facility No.2) for containment and exfiltration to ground. This discharge is authorized as an alternative to TSF#1. The site reference number for this discharge is E211460.

1.2.1 The maximum authorized rate of discharge is 250 tonnes/day of flotation tailings (uncyanided) from the mill flotation operation. The total flotation tailings discharge to TSF#1 or TSF#2 must not exceed 250 tonnes/day.

1.2.2 The characteristics of the TSF#2 supernatant must not exceed the following limits:

Parameter	TSF#2 Supernatant
pH	6.5 – 9.5
Total Cyanide	1.0 mg/L
Dissolved Copper	1.0 mg/L

Date issued: July 14, 1980
Date amended: April 27, 2012
(most recent)



Julie Orban P. Geo
for Director, *Environmental Management Act*
Omineca and Peace Regions

Dissolved Iron	0.5 mg/L
Dissolved Lead	0.1 mg/L
Dissolved Silver	0.3 mg/L
Dissolved Zinc	1.0 mg/L

- 1.2.3** The authorized works are a tailings pipeline, tailings storage facility No.2 (TSF#2), and related appurtenances.
- 1.2.4** The location of the facilities from which the discharges originate and the location of the point of discharge is the same location as set out in subsection 1.1.4.

2. GENERAL REQUIREMENTS

2.1 Bypasses

The discharge of effluent which has bypassed the designated treatment works is prohibited unless the approval of the Director is obtained and confirmed in writing.

2.2 Maintenance of Works and Emergency Procedures

- 2.2.1** The permittee must inspect the pollution control works regularly and maintain them in good working order.
- 2.2.2** In the event of an emergency or condition beyond the control of the permittee which prevents continuing operation of the approved method of pollution control, the permittee must notify the Director within 60 hours of the occurrence and take immediate appropriate remedial action.
- 2.2.3** Releases to the environment not authorized by this permit must be reported to the Provincial Emergency Program (PEP) at 1-800-663-3456 as required by the Spill Reporting Regulation.
- 2.2.4** The permittee must submit written documentation of any malfunction or emergency that occurs at the site to the Regional Environmental Protection Office within 14 days of the incident. The written report must include the cause of the incident, corrective action taken, and measures to prevent future incidents.

Date issued: July 14, 1980
Date amended: April 27, 2012
(most recent)



Julie Orban P. Geo
for Director, *Environmental Management Act*
Omineca and Peace Regions

2.3 Tailings Storage Facility Requirements

- 2.3.1 Surface runoff water must be directed away from the tailings storage facilities (TSF#1 & TSF#2), and seepage collection areas. Surface water diversionary works must be installed and maintained to the satisfaction of the Director.
- 2.3.2 The Director may require as further instructed in writing that seepage water surfacing near the base of the tailing storage facilities be contained and pumped back into TSF#1 or TSF#2.
- 2.3.3 A minimum of 1.0 metre pond freeboard (the distance between the supernatant fluid surface and the lowest elevation height of the pond berm), must be maintained in TSF#1 and TSF#2.

2.4 Cyanide Management Plan

A Cyanide Management Plan acceptable to the Director must be submitted by August 1, 2012. The plan must describe the details of the cyanide destruction procedures, including cyanide transportation, storage, handling, use, and destruction. The cyanide must be managed in accordance with the accepted plan. Plan updates must be provided as further instructed in writing by the Director and any revisions to the plan must be acceptable to the Director.

2.5 Tailings Transfer and Storage Facility Management Plan

A Tailings Transfer and Storage Facility Management Plan acceptable to the Director must be submitted by August 1, 2012. The plan must describe the inspection, maintenance and operating procedures for the tailings pipeline and storage facilities (TSF#1 & TSF#2). The facilities must be managed in accordance with the accepted plan. Plan updates must be provided as further instructed in writing by the Director and any revisions to the plan must be acceptable to the Director.

3. MONITORING REQUIREMENTS

The permittee must perform the sampling and monitoring as outlined below. The Director may alter the monitoring requirements based on results submitted as well as any other information obtained by Environmental Protection in connection with the discharges.

Date issued: July 14, 1980
Date amended: April 27, 2012
(most recent)



Julie Orban P. Geo
for Director, *Environmental Management Act*
Omineca and Peace Regions

3.1 Groundwater Monitoring

Groundwater monitoring and reporting must be conducted as further instructed in writing by the Director.

3.2 Mill Feed Monitoring

The Permit must record the daily mill feed rates (in tonnes ore) and source(s) of ore, and report the results on a monthly basis with the monthly monitoring report required in Section 4.3 below.

3.3 Discharge and Surface Water Quality Monitoring

- 3.3.1** Subject to subsections 3.3.2 and 3.3.3 below, the authorized discharges and surface water monitoring sites must be monitored as specified in attached Appendix B.
- 3.3.2** Sampling and monitoring is not required during production curtailments up to and including six consecutive months in duration. During production curtailments in excess of six consecutive months, monitoring must be conducted a minimum of twice per year.
- 3.3.3** Sampling and monitoring is not required at the receiving environment sites (5809-1, 5809-2, 5809-3, 5809-4, 5809-9) when conditions prevent safe access. A written explanation describing the failure to collect samples due to safety concerns must be provided with the monthly report.

3.4 Flow Measurements

The permittee must install and maintain suitable flow measuring device(s) to the satisfaction of the Director, and record the receiving water flow rates as specified in Table 1, Appendix B. This flow measurement regime must be initiated when 2012 operations begin. All aspects of flow measurements must be to the satisfaction of the Director.

3.5 Environmental Effects Monitoring

- 3.5.1** Environmental Effects Monitoring must be conducted every three years, beginning in 2012, or as otherwise instructed in writing by the Director.
- 3.5.2** Environmental effects monitoring must include both chemical residue and biological health components.

Date issued: July 14, 1980
Date amended: April 27, 2012
(most recent)



Julie Orban P. Geo
for Director, *Environmental Management Act*
Omineca and Peace Regions

- 3.5.3** A Terms of Reference describing the monitoring plan must be submitted to the Regional Environmental Protection Office for approval by June 30th in the year the monitoring is to occur.
- 3.5.4** The data and analysis of results must be compiled and reported to the Regional Environmental Protection office by March 31st of the year following each program.
- 3.5.5** All aspects of the program must be to the satisfaction of the Director.

3.6 Sampling and Analytical Procedures

Sampling must be carried out in accordance with procedures described in the latest version of "British Columbia Field Sampling Manual: 2003 - For Continuous Monitoring and the Collection of Air, Air-Emission, Water, Wastewater, Soil, Sediment and Biological Samples", or by suitable alternative procedures as authorised by the Director.

Analyses must be carried out in accordance with procedures described in the latest version of "British Columbia Environmental Laboratory Manual - for the Analysis of Water, Wastewater, Sediment, Biological Materials and Discrete Ambient Air Samples", or by suitable alternative procedures as authorised by the Director.

A copy of the above manuals may be purchased from Queen's Printer Publications Centre, P.O. Box 9452, Stn. Prov. Govt. Victoria, British Columbia, V8W 9V7 (1-800-663-6105 or (250) 387-4609). A copy of the manual is also available for inspection at all Environmental Protection offices.

3.7 Quality Assurance

In order to monitor the quality of effluent and receiving water data, the permittee is required to conduct an ongoing data quality program as follows:

- 3.7.1** Obtain laboratory precision, accuracy and blank quality criteria for each laboratory analysed parameter from the Permittee's analytical laboratory(ies). These criteria must be kept available and current.
- 3.7.2** For these parameters, in both effluent and receiving environment samples, the permittee must obtain from the analytical laboratory(ies) the precision and accuracy data for each sample set submitted.
- 3.7.3** The permittee shall obtain from the laboratory(ies) an evaluation of the data acceptability from each sample set, based on these criteria.

Date issued: July 14, 1980
Date amended: April 27, 2012
(most recent)



Julie Orban P. Geo
for Director, *Environmental Management Act*
Omineca and Peace Regions

- 3.7.4** Duplicate sampling must be used to assess the combined field and laboratory precision.
- 3.7.5** The precision criteria (expressed as percent standard deviation) for each of the duplicate samples must be no greater than twice the laboratory precision criterion.
- 3.7.6** A duplicate sample must be collected with each regularly scheduled sample-set. The permittee must take each duplicate sample in the same way, and as close to the same time as possible.
- 3.7.7** Duplicates must be submitted to the laboratory(ies); one identified as the regular sample and one as a blind sample identified by a fictitious site and time.
- 3.7.8** The sites from which duplicate samples are taken must be locations where concentrations of the main parameter(s) are expected to be detected (to enable calculation of the relative standard deviation).
- 3.7.9** A duplicate and blind field blank sample for all regular parameter analysis must be collected with each regularly scheduled sample-set, in accordance with the newest version of the British Columbia Field Sampling Manual.

3.8 Analytical Detection Limits

The method detection limits for all parameters analyzed must be as outlined in Table 2. Analytical Method Detection Limits, attached in Appendix C.

4. REPORTING REQUIREMENTS

The permittee must submit the monitoring reports as outlined below. The Director may alter the reporting requirements as specified further in writing.

4.1 Noncompliance Reporting

The permittee must immediately notify the Regional Environmental Protection Office, Prince George, by email or facsimile (250-565-6629) of any noncompliance with the requirements of this Permit, and take appropriate remedial action.

Date issued: July 14, 1980
Date amended: April 27, 2012
(most recent)



Julie Orban P. Geo
for Director, *Environmental Management Act*
Omineca and Peace Regions

The permittee must submit written documentation of the noncompliance to the Regional Environmental Protection Office within 14 days of the incident. The report must include the details of circumstances for the noncompliance, corrective action taken, and measures taken to prevent future noncompliance.

4.2 Monthly Reporting

- 4.2.1** All test results collected under Section 3 must be submitted to the Regional Environmental Protection office on a monthly basis within 30 days of the end of the month in which the samples were collected. Failure to monitor due to production curtailments or safety issues at the receiving environment stations must be reported to the Regional Environmental Protection Office.
- 4.2.2** The data submissions must be tabulated to the satisfaction of the Director, and include the laboratory results and quality assurance information.
- 4.2.3** The monitoring reports must highlight any permit limit or water quality guideline/objectives exceedances, and include a discussion of measures taken by the permittee in response to the exceedances.
- 4.2.4** All aspects of data reporting must be to the satisfaction of the Director.

4.3 Annual Water Quality Monitoring Report

The permittee must provide an Annual Water Quality Monitoring Report to the Regional Environmental Protection office by March 31st of each year for the previous year of data collection. All aspects of the report submission must be to the satisfaction of the Director.

The annual report must include:

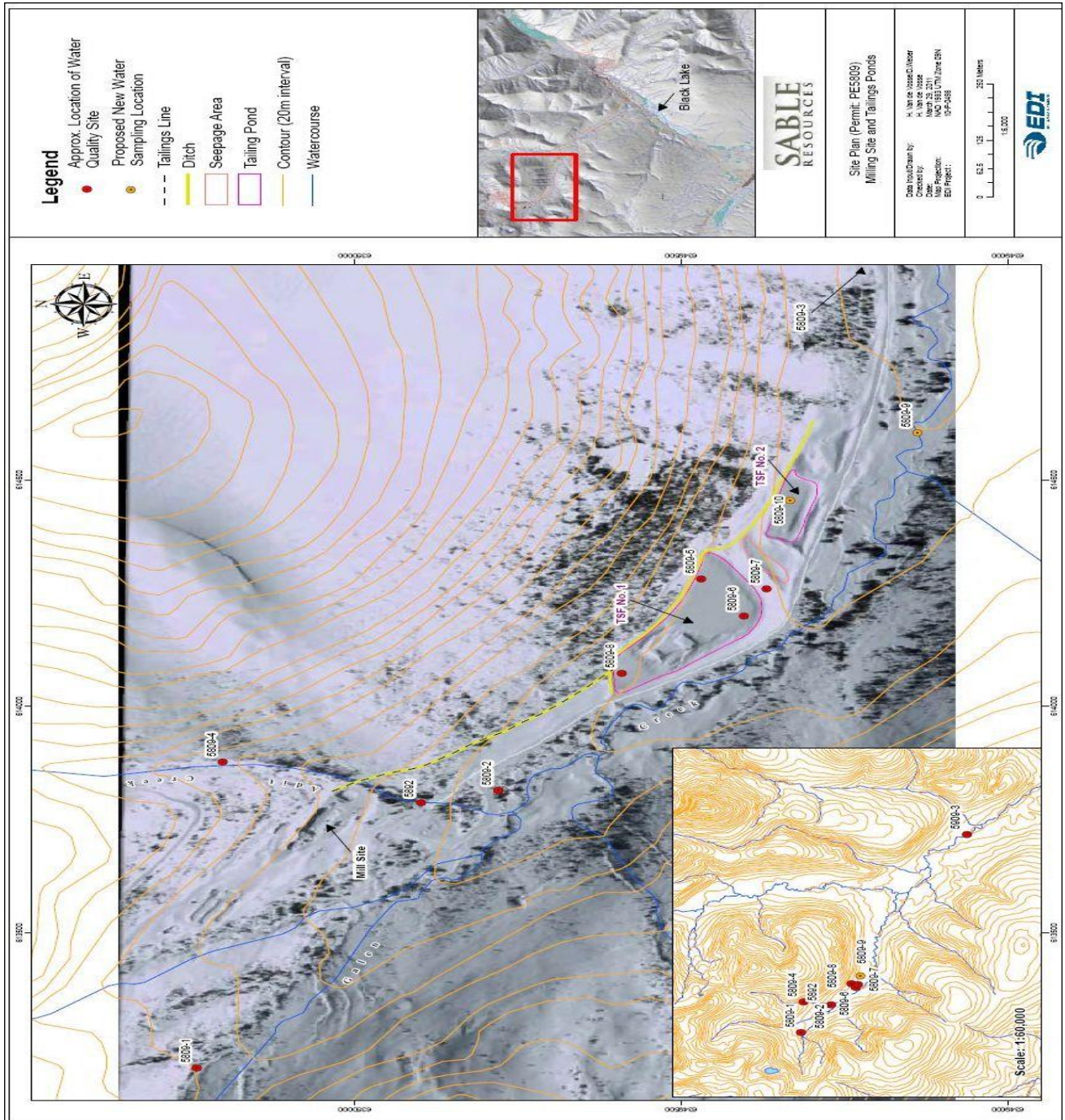
- a) summary tables of all discharge and receiving environment monitoring data,
- b) comparison of results with discharge limits, water quality objectives/guidelines, and quality assurance information,
- c) interpretation of all water quality and receiving environment data, and an explanation for any missing results; and
- d) discussion of action taken in response to permit limit or water quality guideline/objectives exceedances.

Date issued: July 14, 1980
Date amended: April 27, 2012
(most recent)



Julie Orban P. Geo
for Director, *Environmental Management Act*
Omineca and Peace Regions

APPENDIX A
SITE PLAN



Date issued: July 14, 1980
Date amended: April 27, 2012
(most recent)

Julie Orban

Julie Orban P. Geo
for Director, *Environmental Management Act*
Omineca and Peace Regions

APPENDIX B

Table 1. Water Quality Monitoring Requirements

	site number:	5809-11	5809-6	5809-12	5809-8	5809-10	5809-4	5809-1	5809-2	5809-9	5809-3	5809-7
PARAMETERS												
Cyanide	Total	every third week (1)	every third week (1)	one sample per batch every third week	composite sample every third week(2)			M		M	Q	M
	WAD [Weak Acid Dissociable Cn]	every third week (1)	every third week (1)	one sample per batch every third week	composite sample every third week(2)			M		M	Q	M
Nutrients	Ammonia	Q						Q	Q	Q	Q	
	Nitrate	Q						Q	Q	Q	Q	
	Nitrite	Q						Q	Q	Q	Q	
	Total Phosphorus							Q	Q	Q	Q	
	Ortho Phosphorus							Q	Q	Q	Q	
Anions	Chloride						M	M	M	M	M	
	Sulphate						M	M	M	M	M	M
Bacteriology	E. Coli							M	M	M	M	
	BOD - 5 day total							M	M	M	M	
Physical	pH	M	M				M	M	M	M	M	M
	Specific Conductance	M	M				M	M	M	M	M	M
	Total Alkalinity	M	M				M	M	M	M	M	M
	Total Hardness	M	M				M	M	M	M	M	M
	Total Suspended Solids						M	M	M	M	M	M
Metals	Total Metals (CPMS Scan)	M	M		composite sample every third week(2)		M	M	M	M	M	M
	Dissolved Metals (CPMS Scan)	M	M				M	M	M	M	M	M
Field Parameters	Flow	W/M		volume and date of batch release			W/M	W/M	W/M	W/M	W/M	W/M
	Dissolved Oxygen						W/M	W/M	W/M	W/M	W/M	W/M
	pH	W/M	W/M			W/M	W/M	W/M	W/M	W/M	W/M	W/M
	specific conductance	W/M	W/M			W/M	W/M	W/M	W/M	W/M	W/M	W/M
	Temperature	W/M	W/M			W/M	W/M	W/M	W/M	W/M	W/M	W/M
	Turbidity						W/M	W/M	W/M	W/M	W/M	W/M

Abbreviations: W = Weekly, M = Monthly, Q = Quarterly, W/M = weekly sampling except during ice cover conditions, then monthly.

(1) Sample every third week, preferably following a barren bleed batch discharge.

(2) Collect a composite of batch cyanidation tailings solids every third week until three data sets have been collected, analysed and reported.

(3) Sample as indicated when tailings are discharged to TSF2 anytime during the period. If tailings are not discharged to TSF2 then reduce to quarterly.

Date issued: July 14, 1980
Date amended: April 27, 2012
(most recent)



Julie Orban P. Geo
for Director, Environmental Management Act
Omineca and Peace Regions

APPENDIX C

Table 2. Analytical Method Detection Limits

PARAMETER	MDL	UNIT
Aluminum	1	ug/L
Antimony	0.1	ug/L
Arsenic	0.2	ug/L
Barium	0.1	ug/L
Beryllium	0.1	ug/L
Bismuth	0.5	ug/L
Boron	10	ug/L
Cadmium	0.01	ug/L
Calcium	50	ug/L
Chromium	0.5	ug/L
Cobalt	0.1	ug/L
Copper	0.2	ug/L
Iron	10	ug/L
Lead	0.01	ug/L
Lithium	0.5	ug/L
Magnesium	100	mg/L
Manganese	0.2	ug/L
Mercury	0.01	ug/L
Molybdenum	0.1	ug/L
Nickel	0.5	ug/L
Phosphorus	0.1	ug/L
Potassium	100	ug/L
Selenium	0.3	ug/L
Silicon	50	ug/L
Silver	0.01	ug/L
Sodium	100	ug/L
Strontium	0.2	ug/L
Thallium	0.002	ug/L
Tin	0.2	ug/L
Titanium	10	ug/L
Uranium	0.01	ug/L
Vanadium	1	ug/L
	1	ug/L

PARAMETER	MDL	UNIT
Alkalinity	1	mg/L
Hardness	1	mg/L
pH	0.01	pH unit
Turbidity	0.01	NTU
Sp. Conductance	2	uS/cm
Dissolved Oxygen	1	mg/L
TSS	2	mg/L
Ammonia	0.02	mg/L
Nitrate	0.005	mg/L
Nitrite	0.005	mg/L
Chloride	500	ug/L
Sulphate	500	ug/L
BOD - 5 day	5	mg/L
Fecal Coliform	1	MPN/100ml
Cyanide (WAD)	0.005	mg/L

Date issued: July 14, 1980
Date amended: April 27, 2012
(most recent)



Julie Orban P. Geo
for Director, *Environmental Management Act*
Omineca and Peace Regions