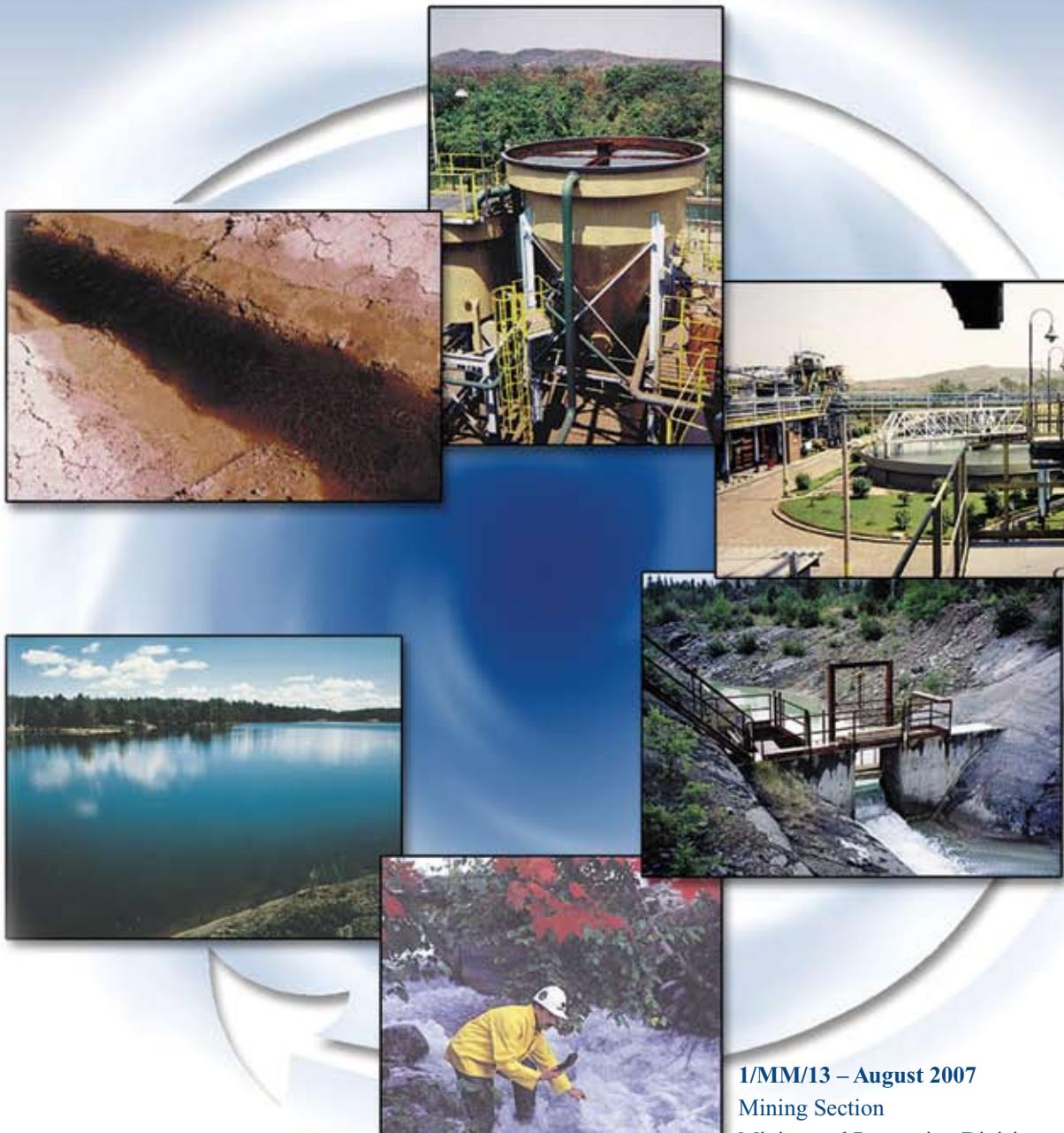


# Summary Review of PERFORMANCE OF METAL MINES

Subject to the *Metal Mining Effluent Regulations*  
in 2004



1/MM/13 – August 2007

Mining Section  
Mining and Processing Division  
Public and Resources Sectors Directorate  
Environmental Stewardship Branch  
Environment Canada



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# READERS' COMMENTS

**Comments and inquiries about the content of this summary review should be addressed to:**

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## **Note to the reader**

This summary review is available in Adobe Acrobat electronic format only and can be downloaded from Environment Canada's Green Lane at [www.ec.gc.ca/NOPP/branch/en/prod-pub.cfm?par\\_MenuID=8](http://www.ec.gc.ca/NOPP/branch/en/prod-pub.cfm?par_MenuID=8).

# REVIEW NOTICE

This performance summary of metal mines subject to the *Metal Mining Effluent Regulations* (MMER) has been reviewed by officials of the Mining Section, Environment Canada, and approved for public release. Approval does not necessarily signify that the contents reflect the views and policies of Environment Canada.

The data used in this summary review were provided to Environment Canada under section 22 of the MMER, which requires mines to submit annual reports to Environment Canada. The data were compiled by the Mining Section of Environment Canada and are presented as provided by the mines from their submitted annual reports. In some cases, quarterly reports were used by Environment Canada staff to complete missing information that was not properly reported by the owners or operators of some mines.

This summary has been compiled to inform the regulated community, other stakeholders, and the interested public on the performance of mines subject to the MMER in 2004. The material has been prepared for informational purposes only. For all purposes of interpreting and applying the law, users should consult the *Metal Mining Effluent Regulations*, as registered by the Clerk of the Privy Council and published in Part II of the *Canada Gazette*.

# ABSTRACT

This review summarizes the performance of Canadian metal mines with respect to selected standards prescribed by the *Metal Mining Effluent Regulations* (MMER), which were registered on June 6, 2002, and came fully into force on December 6, 2002.

This is the second annual summary of performance with respect to the MMER, and Environment Canada expects to publish such a summary review on mine performance with respect to the MMER every year. This report should be read in conjunction with the *Status Report on Water Pollution Prevention and Control under the Metal Mining Effluent Regulations in 2003* which includes an overview of the MMER and their application to the Canadian metal mines. This performance review of mines is limited in that it provides minimal assessment of the effluent quality data and does not include any overview of the main requirements of the Regulations. In addition to the detailed mine effluent quality data that are provided, the report includes various tables and graphs synthesizing the compliance data based on exceedances, jurisdictions, and mining subsectors. Summary tables are also provided on the same basis for both rainbow trout acute lethality and *Daphnia magna* monitoring tests. The electronic format of the report as well as additional information on the MMER and related guidance documents are available on Environment Canada's Green Lane at [www.ec.gc.ca/NOPP/branch/en/prod-pub.cfm?par\\_MenuID=8](http://www.ec.gc.ca/NOPP/branch/en/prod-pub.cfm?par_MenuID=8).

# RÉSUMÉ

La présente évaluation sommaire porte sur la performance des mines de métaux canadiennes et repose sur certaines normes prescrites par le *Règlement sur les effluents des mines de métaux* (REMM), lequel a été enregistré le 6 juin 2002 et est entré en vigueur dans son ensemble le 6 décembre 2002.

Elle constitue la deuxième évaluation sommaire annuelle de la performance d'après le REMM; Environnement Canada prévoit en publier une à tous les ans. Ce rapport doit être lu en se référant au *Rapport d'étape sur la prévention de la pollution et la dépollution de l'eau en vertu du Règlement sur les effluents des mines de métaux en 2003* puisqu'il donne un survol du *Règlement* et de son application aux mines canadiennes de métaux. La portée de la présente évaluation sommaire est limitée en ce sens qu'elle ne comporte qu'une très brève analyse des données sur la qualité des effluents et aucun survol des principales exigences figurant dans le REMM. Outre des données détaillées sur la qualité des effluents, le rapport susmentionné comprend divers tableaux et graphiques dans lesquels les données sur la conformité sont résumées, selon les dépassements, la province ou le territoire et le sous-secteur minier. Il comprend également des tableaux sommaires comparables à ceux de la présente évaluation, dans lesquels on présente des résultats d'essais de détermination de la létalité aiguë sur la truite arc-en-ciel et de suivi sur la *Daphnia magna*. La version électronique de cette évaluation, de même que de plus amples informations sur le REMM et des documents d'orientation connexes sont disponibles sur le site de la Voie verte d'Environnement Canada, à l'adresse : [www.ec.gc.ca/NOPP/division/FR/prod-pub.cfm?par\\_OrgID=1&par\\_Org=1](http://www.ec.gc.ca/NOPP/division/FR/prod-pub.cfm?par_OrgID=1&par_Org=1).

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# SUMMARY

This review summarizes the performance of Canadian metal mines with respect to selected standards prescribed by the *Metal Mining Effluent Regulations* (MMER), which came fully into force on December 6, 2002.

The MMER require sampling of effluent and the submission of quarterly and annual reports of results within specified time limits. The data used in this review were provided to Environment Canada under section 22 of the MMER, which requires mines to submit annual reports to Environment Canada. The format for these reports is specified in Schedule 6 of the MMER. The reports include:

- monthly mean concentrations for metals and total suspended solids (TSS);
- monthly pH range; and
- summary results of rainbow trout acute lethality tests and *Daphnia magna* monitoring tests.

The data were compiled by staff of the Mining Section of Environment Canada. Except where noted, data are generally presented as provided by the owners or operators of the mines from their submitted annual reports. Occasionally, quarterly reports were used to correct or complete missing information that was not properly reported by the owner or operator of a mine. For these facilities, a comment has been added in the appropriate summary tables presented in Appendix F to identify which missing information was not submitted as part of the annual report.

In 2004, 74 mining facilities operating in Canada were subject to the MMER. No metal mines were subject to the Regulations in Yukon, Alberta, Nova

Scotia, or Prince Edward Island. Those facilities subject to the MMER are listed in Table 1, and their locations are illustrated in Figure 1. Additional information on these facilities is provided in Appendix C.

Pursuant to sections 9 and 10 of the Regulations, 128 final discharge points (FDPs) were identified as being subject to the Regulations. The distribution of facilities and FDPs per jurisdiction is shown in Table 2. The number of FDPs per facility ranged from one to nine, as illustrated in Table 3. Reported data indicate that 60 FDPs had continuous discharge, 58 had intermittent discharge, and 10 did not have any discharge in 2004.

On December 6, 2002, Transitional Authorizations (TAs) were granted to 18 facilities (Table 4). The authorizations applied to 21 FDPs for which new limits were set for TSS or pH or allowing the deposit of acutely lethal effluents (reference Appendix A for details). These TAs expired on December 6, 2004. However, pursuant to section 35, extended TAs for TSS were granted to three facilities (reference Table 4). These extended authorizations applied to six FDPs and were valid until June 6, 2007. However, the MMER were amended on June 21, 2007 to re-issue these TAs, and they will now expire on December 6, 2008 (see Appendix B for details).

The tables presented in Appendix E summarize the effluent quality data for mines subject to the MMER in 2004. Table E1 summarizes the distribution of the non-compliant parameters for metals and pH, whereas Table E2 summarizes the results of rainbow trout (RT) acute lethality tests and *Daphnia magna* (DM) monitoring tests. Data for each individual FDP for mines subject to the MMER in 2004 are listed in Appendix F.

Overall, the metal mining sector achieved over 99% compliance with the prescribed limits for metals, cyanide, and pH. Only a few sporadic exceedances were reported for arsenic, copper, nickel, and zinc. Metal mines achieved 100% compliance with prescribed limits for cyanide, lead, and radium 226. Some mines were challenged to routinely meet TSS limits, and the overall compliance rate was 95.3% (Table 5).

With respect to rainbow trout acute lethality tests, the metal mining sector has achieved a non-acutely lethal effluent compliance rate of 97.1%. In 94.1% of *Daphnia magna* monitoring tests, the mortality rate was less than 50%. The MMER do not require effluents from metal mines to be non-acutely lethal to *Daphnia magna*. The addition of this species to the definition of acutely lethal effluent will be considered once sufficient data are available.

In 2004, 75 exceedances of the prescribed limits for metals and pH were reported (Tables 6 and 7). TSS exceedances account for 66.7%, metals for 21.3%, and pH for 12.0%. Fifty-six facilities complied with the maximum authorized monthly mean concentrations and pH at all times. Eighteen facilities reported at least one exceedance in 2004, and three facilities exceeded their TA limits at least once. Figure 2 shows the distribution, by jurisdiction, of all the facilities subject to the MMER in 2004, as well as the number of facilities for which exceedances were reported. The distribution of exceedances by jurisdiction is shown in Figure 3.

The distribution of exceedances that were reported in 2004 per jurisdiction is as follows:

- 53.3% occurred from facilities located in Newfoundland and Labrador;
- 16% occurred from facilities located in Quebec;
- 16% occurred from facilities located in British Columbia;

- 8% occurred from facilities located in Ontario;
- 2.7% occurred from facilities located in Saskatchewan;
- 2.7% occurred from facilities located in Nunavut; and
- 1.3% occurred from facilities located in Manitoba.

No exceedance was reported from mines located in New Brunswick or the Northwest Territories (Tables 8 and 9).

The distribution of exceedances by mining subsector is presented in Tables 10 and 11. The iron ore subsector accounted for 54.7% of all exceedances, the base metals subsector for 37.3%, and the precious metals subsector for 8.0%. No exceedances were reported from the uranium subsector.

In 2004, 22 tests from eight facilities were reported to be acutely lethal to rainbow trout (Table 12). Of those, 27.3% were from facilities located in Manitoba, 27.3% in Quebec, 18.2% in British Columbia, 13.6% in Ontario, 9.1% in Newfoundland and Labrador, and less than 5% in the Northwest Territories. None of the tests done in Nunavut, New Brunswick, or Saskatchewan was acutely lethal to rainbow trout. On a sectoral basis, 77.3% were from the base metals subsector, 9.1% from the iron ore subsector, and 13.6% from the precious metals subsector. The uranium subsector had no rainbow trout acute lethality test failures (Table 13).

In 2004, 45 tests from 17 facilities had a *Daphnia magna* mortality rate greater than 50% (Table 12). British Columbia and Quebec had the highest percentage (28.9% each) of tests in which *Daphnia magna* mortality was greater than 50%, followed by Manitoba (13.3%), New Brunswick and Newfoundland and Labrador (8.9% each); the other jurisdictions had less than 5%. On a sectoral basis, 77.8% were from the base metals subsector, 6.7% from the iron ore subsector, 13.3% from

the precious metals subsector, and 2.2% from the uranium subsector (Table 13).

These Regulations are enforced by Environment Canada in accordance with the provisions of the Compliance and Enforcement Policy for the Habitat Protection and Pollution Prevention Provisions of the *Fisheries Act*. Enforcement personnel administer the provisions and accompanying regulations with an emphasis on preventing harm to fish, fish habitat or human use of fish caused by physical alteration or pollution of waters frequented by fish.

In verifying compliance with these Regulations, inspectors abide by the Enforcement and Compliance Policy which sets out a range of possible responses to offenses, including warnings, inspector's directions, ticketing, ministerial orders, injunctions, prosecution and civil suits by the Crown for the recovery of costs. If an inspector confirms that an infraction has been committed, the inspector will select the appropriate response based on the following criteria: nature of the offense; effectiveness in achieving the desired result with the offender; and consistency.

## OVERALL COMPLIANCE ASSESSMENT FOR PRESCRIBED DELETERIOUS SUBSTANCES AND pH IN 2004

- Overall, the metal mining sector is achieving over 99% compliance with the prescribed limits for arsenic, copper, nickel, zinc, and pH; only a few sporadic exceedances were reported for those prescribed parameters.
- A 100% compliance rate was achieved by metal mines for cyanide, lead, and radium 226.
- Some mines appear to be challenged to routinely meet TSS limits, with the overall compliance rate being 95.3%.

## OVERALL ASSESSMENT OF RESULTS OF RAINBOW TROUT ACUTE LETHALITY AND *DAPHNIA MAGNA* MONITORING TESTS IN 2004

- Overall, the metal mining sector has achieved a compliance rate of 97.1% with respect to effluent that is non-acutely lethal to rainbow trout.
- In 94.1% of *Daphnia magna* monitoring tests, the mortality rate was less than 50%.

# COMPARISON OF PERFORMANCE OF METAL MINES IN 2003 AND 2004

- Compared with 2003, only one additional mine was subject to the MMER in 2004 (i.e., 74 facilities).
- In 2003, 119 FDPs were subject to the MMER, compared with 128 in 2004.
- The total number of exceedances decreased from 106 in 2003 to 75 in 2004.
- Metal mines achieved a 100% compliance rate for cyanide, lead, and radium 226 in 2004; the same compliance rate was limited to cyanide only in 2003.
- The overall compliance rate for TSS increased from 92.1% in 2003 to 95.3% in 2004. Although most TSS exceedances reported were sporadic, two facilities seem to have chronic exceedances for at least one of their effluents in 2004.
- In 2003, 95.0% of the samples tested were not acutely lethal to rainbow trout. In 2004, the compliance rate increased to 97.1%.
- Between 2003 and 2004, no improvement was observed in *Daphnia magna* monitoring tests. In 94.1% of the tests, the mortality rate was less than 50% for both years.

**Table 1: Mining Facilities Subject to the MMER in 2004**

Facility	Jurisdiction	Facility	Jurisdiction
1 Myra Falls Operations	British Columbia	38 Holloway Mine (formerly Holt McDermott Mine)	Ontario
2 Endako Mines	British Columbia	39 Kidd Mining Division	Ontario
3 Huckleberry Mine	British Columbia	40 Kidd Metallurgical Division	Ontario
4 Eskay Creek Mine	British Columbia	41 Montcalm Project	Ontario
5 Kemess South Mine	British Columbia	42 Macassa Mine	Ontario
6 Cluff Lake Project	Saskatchewan	43 McAlpine Mill	Ontario
7 Key Lake Operation	Saskatchewan	44 Lockerby Mine	Ontario
8 McArthur River Operation	Saskatchewan	45 Strathcona Tailings Treatment System	Ontario
9 Cigar Lake Project	Saskatchewan	46 Copper Cliff Complex	Ontario
10 McClean Lake Operation	Saskatchewan	47 Crean Hill Mine	Ontario
11 Rabbit Lake Operation	Saskatchewan	48 Garson Mine	Ontario
12 Seabee Mine	Saskatchewan	49 Haley Plant	Ontario
13 Konuto Lake Mine	Saskatchewan	50 Matagami (Mine) (Bell-Allard)	Quebec
14 Flin Flon Complex	Manitoba	51 Géant Dormant (Mine)	Quebec
15 Trout Lake Mine	Manitoba	52 Bouchard-Hébert (Mine)	Quebec
16 Chisel North Mine	Manitoba	53 Louvicourt (Mine)	Quebec
17 Snow Lake Mill	Manitoba	54 Laronde (Mine)	Quebec
18 Ruttan Mine	Manitoba	55 Mouska (Mine)	Quebec
19 Birchtree Mine	Manitoba	56 Doyon	Quebec
20 Thompson Mine and Mill	Manitoba	57 Kiena (Mine)	Quebec
21 New Britannia Mine	Manitoba	58 Malartic (Mill)	Quebec
22 Tanco Mine	Manitoba	59 Sigma	Quebec
23 Cantung Mine	Northwest Territories	60 Beaufor	Quebec
24 Con Mine	Northwest Territories	61 Camflo (Mill)	Quebec
25 Giant Mine	Northwest Territories	62 Croinor (Mine)	Quebec
26 Lupin Operations	Nunavut	63 Principale (Camchib)	Quebec
27 Polaris Mine	Nunavut	64 Joe Mann	Quebec
28 Nanisivik Mine	Nunavut	65 Copper Rand (Mine)	Quebec
29 Red Lake Mine	Ontario	66 Troilus	Quebec
30 Campbell Mine	Ontario	67 Raglan (Mine)	Quebec
31 Musselwhite Mine	Ontario	68 Niobec (Mine)	Quebec
32 Lac des Iles Mine	Ontario	69 Tio (Mine)	Quebec
33 Golden Giant Mine	Ontario	70 Mont-Wright (Mine)	Quebec
34 Williams Mine	Ontario	71 Wabush (Scully Mine)	Newfoundland and Labrador
35 Eagle River Mine	Ontario	72 Iron Ore Company of Canada – Carol Project	Newfoundland and Labrador
36 Eagle River Mill	Ontario	73 Nugget Pond Mine	Newfoundland and Labrador
37 Porcupine Joint Venture	Ontario	74 Brunswick #12	New Brunswick

Note: Numbers in the first column refer to the numbers in Figure 1.

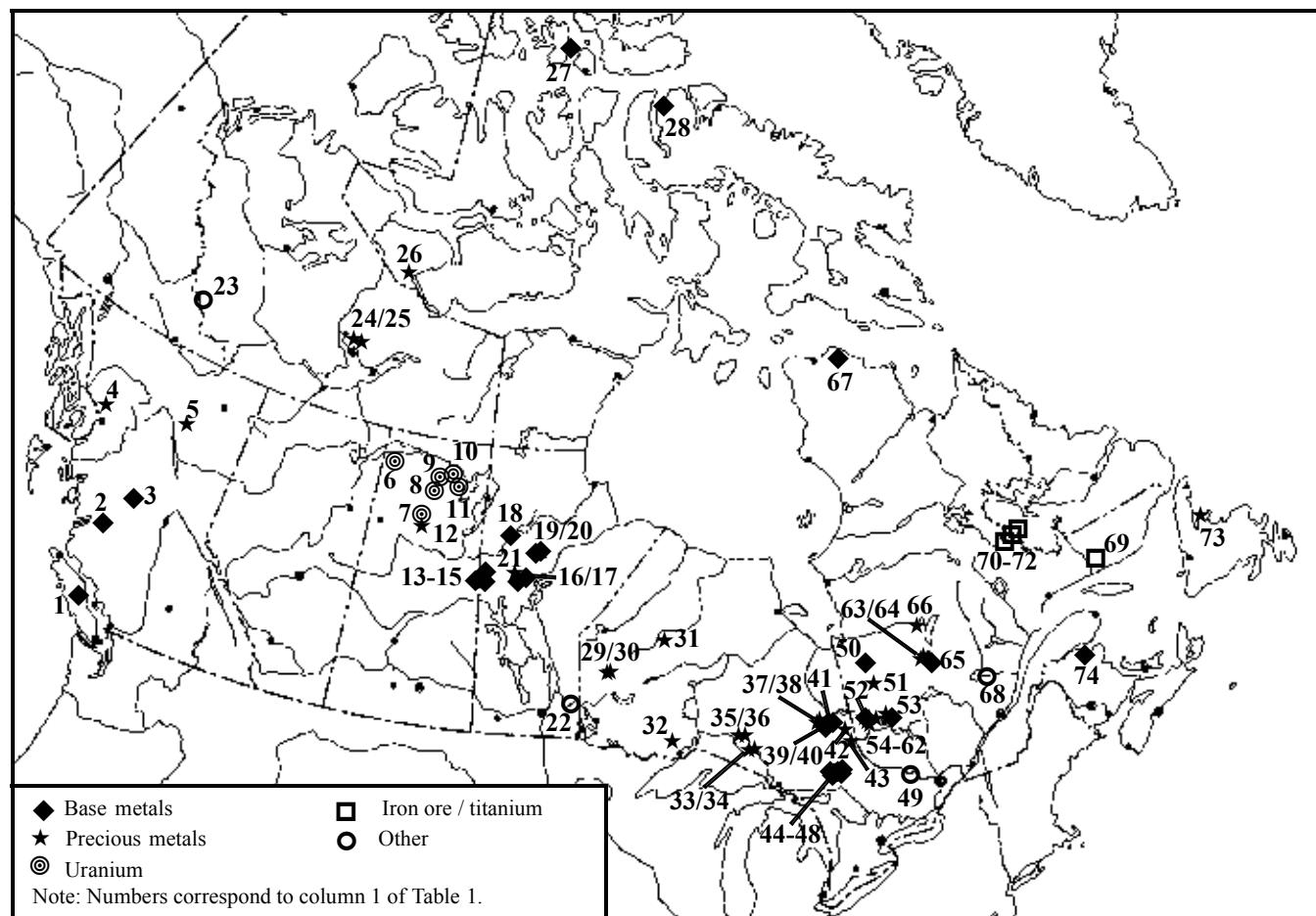
**Table 2: Distribution of Facilities and FDPs by Jurisdiction in 2004**

Jurisdiction	Number of Facilities	Number of FDPs
British Columbia	5	15
Saskatchewan	8	15
Manitoba	9	11
Northwest Territories	3	3
Nunavut	3	3
Ontario	21	29
Quebec	21	36
New Brunswick	1	1
Newfoundland and Labrador	3	15
<b>Total</b>	<b>74</b>	<b>128</b>

**Table 3: Distribution of FDPs per Facility in 2004**

Number of FDPs	Number of Facilities
1	52
2	8
3	7
4	2
5	2
6	2
9	1

**Figure 1: Location of Mining Facilities Subject to the MMER in 2004**



**Table 4: Summary of TAs Granted Pursuant to Section 35 of the MMER**

Substance/Parameter	From December 6, 2002, until December 6, 2004		From December 7, 2004, until December 6, 2008	
	Number of Facilities	Number of FDPs	Number of Facilities	Number of FDPs
TSS only	9	12	3	6
TSS and acute lethality	2	2	—	—
pH only	2	2	—	—
pH and acute lethality	2	2	—	—
Acute lethality only	3	3	—	—
<b>Total</b>	<b>18</b>	<b>21</b>	<b>3</b>	<b>6</b>

**Table 5: Compliance Summary for Prescribed Deleterious Substances and pH in 2004**

	As	Cu	CN	Pb	Ni	Zn	TSS	Ra-226	pH Low	pH High
Number of exceedances	3	4	0	0	8	1	50	0	3	6
Total number of months for which results were reported	986	999	287	999	991	999	1059	590	1059	1059
Compliance rate (%)	99.7	99.6	100	100	99.2	99.9	95.3	100	99.7	99.4

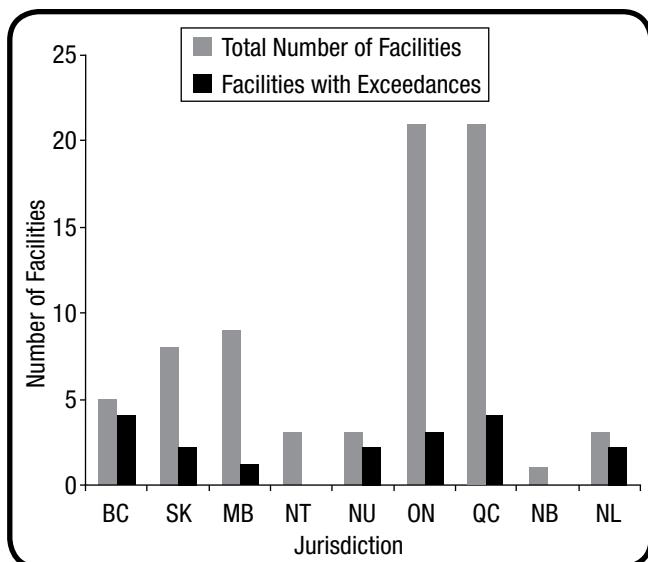
**Table 6: Performance Summary for Facilities without TAs in 2004**

Exceedances of Limits Prescribed in Schedule 4		
Substance/ Parameter	Number of Exceedances	Number of Facilities
Arsenic	3	1
Copper	4	2
Cyanide	—	—
Lead	—	—
Nickel	8	3
Zinc	1	1
TSS	45	10
Radium 226	—	—
pH	9	7
<b>Total</b>	<b>70</b>	<b>24</b>

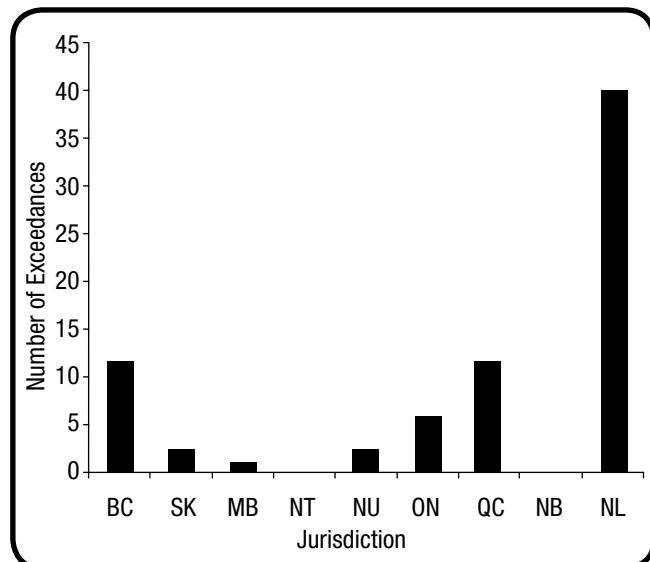
**Table 7: Performance Summary for Facilities with TAs in 2004**

Exceedances of Limits Prescribed in the TAs		
Substance/ Parameter	Number of Exceedances	Number of Facilities
Arsenic	—	—
Copper	—	—
Cyanide	—	—
Lead	—	—
Nickel	—	—
Zinc	—	—
TSS	5	3
Radium 226	—	—
pH	—	—
<b>Total</b>	<b>5</b>	<b>3</b>

**Figure 2: Distribution of Facilities by Jurisdiction for which Exceedances Were Reported in 2004: All Facilities**



**Figure 3: Distribution of Exceedances by Jurisdiction in 2004: All Facilities**



**Table 8: Distribution of Exceedances by Jurisdiction in 2004: Facilities without TAs**

Jurisdiction	As	Cu	Ni	Zn	TSS	pH	Total	Number of Facilities
British Columbia	–	2	–	–	10	–	<b>12</b>	4
Saskatchewan	–	–	–	–	–	1	<b>1</b>	1
Manitoba	–	–	–	–	1	–	<b>1</b>	1
Northwest Territories	–	–	–	–	–	–	<b>–</b>	–
Nunavut	–	–	–	–	1	1	<b>2</b>	2
Ontario	–	2	1	–	1	2	<b>6</b>	3
Quebec	–	–	7	–	4	1	<b>12</b>	4
New Brunswick	–	–	–	–	–	–	<b>–</b>	–
Newfoundland and Labrador	3	–	–	1	28	4	<b>36</b>	2
<b>Total</b>	<b>3</b>	<b>4</b>	<b>8</b>	<b>1</b>	<b>45</b>	<b>9</b>	<b>70</b>	<b>17</b>

**Table 9: Distribution of Exceedances by Jurisdiction in 2004: Facilities with TAs**

Jurisdiction	TSS	pH	Total	Number of Facilities
British Columbia	–	–	–	–
Saskatchewan	1	–	1	1
Manitoba	–	–	–	–
Northwest Territories	–	–	–	–
Nunavut	–	–	–	–
Ontario	–	–	–	–
Quebec	–	–	–	–
New Brunswick	–	–	–	–
Newfoundland and Labrador	4	–	4	2
<b>Total</b>	<b>5</b>	–	<b>5</b>	<b>3</b>

**Table 10: Distribution of Exceedances by Mining Subsector in 2004: Facilities without TAs**

Subsector	As	Cu	Ni	Zn	TSS	pH	Total	Number of Facilities
Base metals	–	4	8	–	12	3	27	10
Precious metals	–	–	–	–	4	2	6	4
Uranium	–	–	–	–	–	–	–	–
Iron	3	–	–	1	29	4	37	3
<b>Total</b>	<b>3</b>	<b>4</b>	<b>8</b>	<b>1</b>	<b>45</b>	<b>9</b>	<b>70</b>	<b>17</b>

**Table 11: Distribution of Exceedances by Mining Subsector in 2004: Facilities with TAs**

Subsector	TSS	Number of Facilities
Base metals	1	1
Precious metals	–	–
Uranium	–	–
Iron	4	2
<b>Total</b>	<b>5</b>	<b>3</b>

**Table 12: Performance Summary: Rainbow Trout Acute Lethality and *Daphnia magna* Monitoring Tests, by Jurisdiction in 2004**

Jurisdiction	Rainbow Trout Acute Lethality Tests			<i>Daphnia magna</i> Monitoring Tests		
	Total Number of Tests	>50% Mortality		Total Number of Tests	>50% Mortality	
		Number of Tests	Number of Facilities		Number of Tests	Number of Facilities
British Columbia	76	4	1	69	13	2
Saskatchewan	91	–	–	91	1	1
Manitoba	68	6	2	68	6	2
Northwest Territories	4	1	1	4	1	1
Nunavut	5	–	–	5	2	1
Ontario	184	3	2	183	1	1
Quebec	194	6	1	205	13	6
New Brunswick	13	–	–	13	4	1
Newfoundland and Labrador	130	2	1	129	4	2
<b>Total</b>	<b>765</b>	<b>22</b>	<b>8</b>	<b>767</b>	<b>45</b>	<b>17</b>

**Table 13: Performance Summary: Rainbow Trout Acute Lethality and *Daphnia magna* Monitoring Tests, by Mining Subsector in 2004**

Subsector	Rainbow Trout Acute Lethality Tests			<i>Daphnia magna</i> Monitoring Tests		
	Total Number of Tests	>50% Mortality		Total Number of Tests	>50% Mortality	
		Number of Tests	Number of Facilities		Number of Tests	Number of Facilities
Base metals	303	17	5	305	35	10
Precious metals	253	3	2	254	6	5
Uranium	81	–	–	81	1	1
Iron	128	2	1	127	3	1
<b>Total</b>	<b>765</b>	<b>22</b>	<b>8</b>	<b>767</b>	<b>45</b>	<b>17</b>

## REFERENCES

*Canada Gazette*, Department of Fisheries and Oceans Metal Mining Effluent Regulations, Part II, Queen's Printer for Canada, June 19, 2002.

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Environment Canada *Guidance Document for the Sampling and Analysis of Metal Mining Effluents*, Minerals and Metals Division, Environmental Protection Service, Environment Canada, EPS 2/MM/5, April 2001.

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Environment Canada *Status Report on Water Pollution Prevention and Control under the Metal Mining Effluent Regulations in 2003*, Natural Resources Division, Environmental Stewardship Branch, EPS 1/MM/12, November 2006.

## LIST OF ACRONYMS AND ABBREVIATIONS

As	arsenic	NMR	no measurement required
BC	British Columbia	NT	Northwest Territories
Bq/L	becquerel(s) per litre	NU	Nunavut
CN	cyanide	ON	Ontario
Cu	copper	Pb	lead
DM	<i>Daphnia magna</i>	QC	Quebec
FDP	final discharge point	Ra-226	Radium 226
m <sup>3</sup>	cubic metre(s)	RT	rainbow trout
MB	Manitoba	SK	Saskatchewan
MEQS	Monthly Effluent Quality Standard	TA	Transitional Authorization
mg/L	milligram(s) per litre	t/d	tonne(s) per day
MMER	<i>Metal Mining Effluent Regulations</i>	t/y	tonne(s) per year
NB	New Brunswick	TSS	total suspended solids
ND	no deposit	U <sub>3</sub> O <sub>8</sub>	uranium oxide
Ni	nickel	Zn	zinc
NL	Newfoundland and Labrador		

# APPENDIX A: TRANSITIONAL AUTHORIZATIONS GRANTED PURSUANT TO SECTION 35 OF THE *METAL MINING EFFLUENT REGULATIONS (MMER)*

(FROM DECEMBER 6, 2002, UNTIL DECEMBER 6, 2004)

Facility	Final Discharge Point	Province/Territory	TSS (mg/L)	pH High	Acute Lethality
Eskay Creek Mine	Es.D7 – Treatment Pond Discharge Point	British Columbia	20		
Myra Falls Operations	MF.11A – Runoff Myra Ponds Effluent	British Columbia		11	
Konuto Lake Mine	Surface Sump Discharge	Saskatchewan	25		
Seabee Mine	Final Discharge Point 1.2	Saskatchewan	25		
Chisel North Mine	Chisel North Mine Discharge	Manitoba		10.51	Yes
Flin Flon Complex	North Weir Discharge	Manitoba		11.32	
Tanco Mine	West Discharge (Compliance Point)	Manitoba	25		
Trout Lake Mine	Trout Lake	Manitoba		10.36	Yes
Con Mine	Surveillance Network Program Station 40-1	Northwest Territories			Yes
Doyon	Pond A – Final Effluent (D-203)	Quebec	23.8		
Géant Dormant (Mine)	GD-E02 Final Effluent – Lamellar Clarifier	Quebec			Yes
Laronde (Mine)	Final Effluent 3A	Quebec			Yes
Mont-Wright (Mine)	Point MS-2	Quebec	25		
Niobec (Mine)	Mine Water Effluent	Quebec	21		Yes
Tio (Mine)	Mine Water	Quebec	25		
Raglan (Mine)	DIR-UT	Quebec	18		
Iron Ore Company of Canada – Carol Project	Beaver Bay Discharge	Newfoundland and Labrador	2 200		
Iron Ore Company of Canada – Carol Project	Old Tailings Pumphouse Discharge	Newfoundland and Labrador	74 000		
Iron Ore Company of Canada – Carol Project	Ore Car Flume	Newfoundland and Labrador	74 000		
Iron Ore Company of Canada – Carol Project	Main Tailings Discharge	Newfoundland and Labrador	230 000		
Wabush (Scully Mine)	Tailings Discharge	Newfoundland and Labrador	608 000		

# APPENDIX B: EXTENDED TRANSITIONAL AUTHORIZATIONS GRANTED PURSUANT TO SECTION 35 OF THE *METAL MINING EFFLUENT REGULATIONS (MMER)*

(FROM DECEMBER 7, 2004, UNTIL DECEMBER 6, 2008)

Facility	Final Discharge Point	Province	Allowable TSS (mg/L)
Konuto Lake Mine	Surface Sump Discharge	Saskatchewan	25
Iron Ore Company of Canada – Carol Project	Beaver Bay Discharge	Newfoundland and Labrador	2 244
Iron Ore Company of Canada – Carol Project	Old Tailings Pumphouse Discharge	Newfoundland and Labrador	4 385
Iron Ore Company of Canada – Carol Project	Ore Car Flume	Newfoundland and Labrador	15 850
Iron Ore Company of Canada – Carol Project	Main Tailings Discharge	Newfoundland and Labrador	42 160
Wabush (Scully Mine)	Tailings Discharge	Newfoundland and Labrador	807 600

# APPENDIX C: MINING FACILITIES SUBJECT TO THE *METAL MINING EFFLUENT REGULATIONS (MMER)* IN 2004

	Facility	Operator	Province/Territory (Location)	Products	Production Capacity	Process
1	Myra Falls Operations	NVI Mining Limited	British Columbia (Vancouver Island)	Copper, zinc, gold, silver	4 000 t/d	Flotation
2	Endako Mines	Thompson Creek Mining Limited	British Columbia (west-central BC)	Molybdenum	27 000 t/d	Flotation
3	Huckleberry Mine	Huckleberry Mines Limited	British Columbia (central BC, southwest of Houston)	Copper, molybdenum, gold, silver	21 000 t/d	Flotation
4	Eskay Creek Mine	Barrick Gold Corporation	British Columbia (northwestern BC, east of Alaska Panhandle)	Gold, silver	300 t/d	Crushing only
5	Kemess South Mine	Northgate Minerals Corporation	British Columbia (north-central BC)	Gold, copper	49 000 t/d	Flotation
6	Cluff Lake Project	Cogema Resources Inc.	Saskatchewan (northwestern SK, south of Lake Athabasca)	Uranium	Closed	
7	Key Lake Operation	Cameco Corporation	Saskatchewan (northern SK)	Uranium	Mill only. Annual production capacity of 18 million pounds U <sub>3</sub> O <sub>8</sub>	Leaching and solvent extraction
8	McArthur River Operation	Cameco Corporation	Saskatchewan (northern SK)	Uranium	150 t/d	Crushing only. Processed at Key Lake
9	Cigar Lake Project	Cameco Corporation	Saskatchewan (northern SK)	Uranium	Mine under development	
10	McClean Lake Operation	Cogema Resources Inc.	Saskatchewan (northeastern SK, Wollaston Lake area)	Uranium	300 t/d	Leaching and solvent extraction
11	Rabbit Lake Operation	Cameco Corporation	Saskatchewan (northeastern SK, Wollaston Lake area)	Uranium	Annual production capacity of 12 million pounds U <sub>3</sub> O <sub>8</sub>	Leaching and solvent extraction
12	Seabee Mine	Claude Resources Inc.	Saskatchewan (northern SK)	Gold	800 t/d	Cyanidation
13	Konuto Lake Mine	Hudson Bay Mining and Smelting Co. Limited	Saskatchewan (east-central SK, near Flin Flon, MB)	Copper, zinc, gold, silver, selenium, tellurium	800 t/d	Mining only. Ore shipped to Flin Flon Mill
14	Flin Flon Complex	Hudson Bay Mining and Smelting Co. Limited	Manitoba (west-central MB, in Flin Flon)	Copper, lead, zinc	5 500 t/d	Flotation

## Appendix C: Mining Facilities Subject to the Metal Mining Effluent Regulations (MMER) in 2004 (cont'd)

Facility	Operator	Province/Territory (Location)		Products	Production Capacity	Process
15	Trout Lake Mine	Hudson Bay Mining and Smelting Co. Limited	Manitoba (west-central MB, near Flin Flon)	Copper, zinc, gold, silver	2 500 t/d	Flotation
16	Chisel North Mine	Hudson Bay Mining and Smelting Co. Limited	Manitoba (west-central MB, near Snow Lake)	Zinc	750 t/d	Mining only. Ore shipped to Stall/Snow Lake Mill
17	Snow Lake Mill	Hudson Bay Mining and Smelting Co. Limited	Manitoba (west-central MB, near Snow Lake)	Copper, zinc, selenium, tellurium, silver	3 600 t/d	Flotation
18	Ruttan Mine	Hudson Bay Mining and Smelting Co. Limited	Manitoba (northern MB, near Leaf Rapids)	Copper, zinc	Closed	
19	Birchtree Mine	Inco Limited	Manitoba (northern MB, near Thompson)	Nickel, copper	3 175 t/d	Mining only. Ore shipped to Thompson Complex
20	Thompson Mine and Mill	Inco Limited	Manitoba (northern MB, in Thompson)	Nickel, copper	12 000 t/d	Flotation
21	New Britannia Mine	Kinross Gold Corporation	Manitoba (west-central MB, near Snow Lake)	Gold	2 200 t/d	Cyanidation
22	Tanco Mine	Tantalum Mining Corporation of Canada Limited	Manitoba (southeastern MB, northeast of Winnipeg)	Tantalum, lithium, cesium, rubidium	Varies by commodity	Gravity, flotation, dry grinding, leach
23	Cantung Mine	North American Tungsten Corporation Limited	Northwest Territories (east of Yukon border)	Tungsten	3 000 t/d	Flotation
24	Con Mine	Miramar Mining Corporation	Northwest Territories (Yellowknife)	Gold	750 t/d	Cyanidation
25	Giant Mine	Miramar Mining Corporation	Northwest Territories (Yellowknife)	Gold	5 800 t/month	Mining only. Ore shipped to Con Mine
26	Lupin Operations	Kinross Gold Corporation	Nunavut (western NU, northeast of Yellowknife)	Gold		
27	Polaris Mine	Cominco Mining Partnership and Teck Cominco Metals Limited	Nunavut (Little Cornwallis Island)	Lead, zinc	Closed	
28	Nanisivik Mine	CanZinco Limited	Nunavut (northern Baffin Island)	Zinc, lead, silver	Closed	
29	Red Lake Mine	Goldcorp Inc.	Ontario (northwestern ON, Red Lake area)	Gold, silver	600 t/d	Gravity, cyanidation, flotation
30	Campbell Mine	Placer Dome (CLA) Limited	Ontario (northwestern ON, Red Lake area)	Gold	≥1 000 t/d	Cyanidation
31	Musselwhite Mine	Placer Dome Canada Limited	Ontario (northwestern ON)	Gold, silver	3 300 t/d	Cyanidation
32	Lac des Iles Mine	Lac des Iles Mines Limited	Ontario (northwestern ON, northwest of Thunder Bay)	Palladium, platinum, gold, copper, nickel, cobalt	15 000 t/d	Flotation

## Appendix C: Mining Facilities Subject to the Metal Mining Effluent Regulations (MMER) in 2004 (cont'd)

Facility	Operator	Province/Territory (Location)		Products	Production Capacity	Process
33	Golden Giant Mine	Newmont Canada Limited	Ontario (northern ON, east of Marathon)	Gold	3 000 t/d	Cyanidation
34	Williams Mine	Williams Operating Corporation	Ontario (northern ON, east of Marathon)	Gold, silver	10 000 t/d	Cyanidation, gravity
35	Eagle River Mine	River Gold Mines Limited	Ontario (northern ON, west of Wawa)	Gold, silver	850 t/d	Mining only. Ore shipped to River Gold Mill
36	Eagle River Mill (Mill, Mishi Pit, and Magnacon Mine)	River Gold Mines Limited	Ontario (northern ON, west of Wawa)	Gold, silver	1 000 t/d	Cyanidation
37	Porcupine Joint Venture (Dome Mine, Owl Creek Pit)	Placer Dome (CLA) Limited and Kinross Gold Corporation	Ontario (northeastern ON, Timmins area)			
38	Holloway Mine (formerly Holt McDermott Mine)	Barrick Gold Corporation / Newmont Canada Limited	Ontario (northeastern ON, Timmins area)	Gold, silver	2 500 t/d	Cyanidation
39	Kidd Mining Division	Falconbridge Limited	Ontario (northeastern ON, Timmins area)	Zinc, copper, cadmium, indium, cobalt, selenium, silver, palladium, platinum	10 000 t/d	Mining only. Ore shipped to Kidd Metallurgical Division
40	Kidd Metallurgical Division	Falconbridge Limited	Ontario (northeastern ON, Timmins area)	Zinc, copper, cadmium, indium, cobalt, selenium, silver, palladium, platinum	10 000 t/d	Flotation
41	Montcalm Project	Falconbridge Limited	Ontario (northeastern ON, Timmins area)	Nickel, copper, cobalt	Mine under development	
42	Macassa Mine	Kirkland Lake Gold Inc.	Ontario (northeastern ON, Kirkland Lake area)	Gold	1 450 t/d	Cyanidation
43	McAlpine Mill	SMC (Canada) Limited	Ontario (northeastern ON, Cobalt area)	Precious metals	200 t/d processes metallurgical wastes	Gravity and flotation
44	Lockerby Mine	Falconbridge Limited	Ontario (Sudbury area)	Copper, nickel, cobalt	≥700 t/d	Mining only. Ore shipped to Strathcona Mill
45	Strathcona Tailings Treatment System (includes Fraser, Strathcona Mine and Mill, Craig and Onaping Mines; also includes Inco's Coleman and McCreedy East Mines)	Falconbridge Limited	Ontario (Sudbury area)	Nickel, copper, cobalt, platinum, palladium	8 200 t/d	Flotation

## Appendix C: Mining Facilities Subject to the Metal Mining Effluent Regulations (MMER) in 2004 (cont'd)

Facility	Operator	Province/Territory (Location)		Products	Production Capacity	Process
46 Copper Cliff Complex (includes Clarabelle Mill, smelter, Copper Cliff North, Copper Cliff South, Creighton, Gertrude, Frood, and Stobie Mines)	Inco Limited	Ontario (Sudbury area)		Nickel, copper, cobalt, platinum	27 300 t/d for Clarabelle Mill	Flotation
47 Crean Hill Mine	Inco Limited	Ontario (Sudbury area)		Nickel, copper, cobalt, platinum	Closed	
48 Garson Mine	Inco Limited	Ontario (Sudbury area)		Nickel, copper, cobalt, platinum	2 400 t/d	Mining only. Ore shipped to Copper Cliff Complex – Clarabelle Mill
49 Haley Plant	Timminco Limited	Ontario (southeastern ON, west of Ottawa)		Magnesium, calcium, strontium	7 500 t/y magnesium, 900 t/y calcium	Calcining, reduction, refining, melting, casting, extruding
50 Matagami (Mine) (Bell-Allard)	Noranda Inc.	Quebec (northeastern QC, near Matagami)		Zinc, copper	2 000 t/d	Flotation
51 Géant Dormant (Mine)	Cambior Inc.	Quebec (northeastern QC, Abitibi region)		Gold, silver	900 t/d	Cyanidation
52 Bouchard-Hébert (Mine)	Ressources Breakwater Limitée	Quebec (northeastern QC, Abitibi region)		Zinc, copper, gold, silver	2 800 t/d	Flotation
53 Louvicourt (Mine)	Les Ressources Aur Inc.	Quebec (northeastern QC, Abitibi region)		Copper, zinc, silver, gold	4 000 t/d	Flotation
54 Laronde (Mine)	Mines Agnico-Eagle Limitée	Quebec (northeastern QC, Abitibi region)		Gold, silver, copper, zinc	5 000 t/d	Flotation, leaching, gravity concentration
55 Mouska (Mine)	Cambior Inc.	Quebec (northeastern QC, Abitibi region)		Gold	600 t/d	Mining only. Ore shipped to Doyon Mill
56 Doyon	Cambior Inc.	Quebec (northeastern QC, Abitibi region)		Gold	3 500 t/d	Cyanidation
57 Kiena (Mine)	Mines Mc Watters Inc. / Mines d'Or Wesdome Limitée	Quebec (northeastern QC, Abitibi region)		Gold, silver	2 000 t/d	Cyanidation
58 Malartic (Mill)	Mines Mc Watters Inc. / Ministère des Ressources naturelles et de la Faune du Québec	Quebec (northeastern QC, Abitibi region)		Copper, gold, silver	3 000 t/d	Gravity, flotation, cyanidation
59 Sigma	Mines Mc Watters Inc. / Century Mining Corporation	Quebec (northeastern QC, Abitibi region)		Gold	5 000 t/d	
60 Beaufor	Mines Richmont Inc.	Quebec (northeastern QC, Abitibi region)		Gold	820 t/d	Mining only. Ore shipped to Camflo
61 Camflo (Mill)	Mines Richmont Inc.	Quebec (northeastern QC, Abitibi region)		Gold	1 300 t/d (mill only)	Cyanidation
62 Croinor (Mine)	Exploration Malartic-Sud Inc.	Quebec (northeastern QC, Abitibi region)		Gold		Mining only. Ore shipped to Camflo

## Appendix C: Mining Facilities Subject to the Metal Mining Effluent Regulations (MMER) in 2004 (cont'd)

Facility		Operator	Province/Territory (Location)	Products	Production Capacity	Process
63	Principale (Camchib)	Ressources Meston Inc. (Ressources Campbell Inc.)	Quebec (northeastern QC, Chibougamau area)	Gold, copper	3 000 t/d (mill only)	Cyanidation
64	Joe Mann	Ressources Meston Inc. (Ressources Campbell Inc.)	Quebec (northeastern QC, Chibougamau area)	Gold, copper	1 000 t/d	Mining only. Ore shipped to Camchib
65	Copper Rand (Mine)	Ressources MSV Inc. (Ressources Campbell Inc.)	Quebec (northeastern QC, Chibougamau area)	Copper, gold, silver		Gravity, flotation
66	Troilus	Corporation minière Inmet	Quebec (northeastern QC, north of Chibougamau)	Gold, copper, silver	15 000 t/d	Gravity, flotation
67	Raglan (Mine)	Falconbridge Limited	Quebec (northern QC, west of Ungava Bay)	Nickel, copper, cobalt, platinum group metals, palladium	3 000 t/d	Flotation
68	Niobec (Mine)	Cambior Inc.	Quebec (central QC, Lac St. Jean region)	Niobium	3 500 t/d	Flotation, magnetic separation
69	Tio (Mine)	QIT-Fer et Titane Inc.	Quebec (eastern QC, north of Havre-Saint-Pierre)	Titanium, iron ore	8 000 t/d	Mining only. Ore processed at plant in Sorel, QC
70	Mont-Wright (Mine)	Compagnie minière Québec Cartier	Quebec (northeastern QC, near Wabush, NL)	Iron ore	125 000 t/d	Grinding and spiral separation
71	Wabush (Scully Mine)	Wabush Mines	Newfoundland and Labrador (western Labrador, Wabush, Labrador City area)	Iron ore	54 400 t/d	Grinding, spiral and high-tension separation
72	Iron Ore Company of Canada – Carol Project	Iron Ore Company of Canada	Newfoundland and Labrador (western Labrador, Wabush, Labrador City area)	Iron ore	140 000 t/d	Spirals and magnetic separators, flotation
73	Nugget Pond Mine	Richmont Mines Inc. – Newfoundland Division	Newfoundland and Labrador (north-central NL, northwest of Grand Falls)	Gold	350 t/d (mill only)	
74	Brunswick #12	Noranda Inc.	New Brunswick (northern NB, south of Bathurst)	Lead, zinc, copper, silver	10 000 t/d	Flotation

## APPENDIX D: MINING COMPANIES INCLUDED IN THE ASSESSMENT IN 2004

Barrick Gold Corporation	Mines Richmont Inc.
Cambior Inc.	Ministère des Ressources naturelles et de la Faune du Québec
Cameco Corporation	Miramar Mining Corporation
CanZinco Ltd.	Newmont Canada Ltd.
Century Mining Corporation	Noranda Inc.
Claude Resources Inc.	North American Tungsten Corporation Ltd.
Cogema Resources Inc.	Northgate Minerals Corporation
Cominco Mining Partnership	NVI Mining Ltd.
Compagnie minière Québec Cartier	Placer Dome Canada Ltd.
Corporation minière Inmet	Placer Dome (CLA) Ltd.
Exploration Malartic-Sud Inc.	QIT-Fer et Titane Inc.
Falconbridge Ltd.	Ressources Breakwater Ltée.
Goldcorp Inc.	Ressources Campbell Inc.
Huckleberry Mines Ltd.	Ressources Meston Inc.
Hudson Bay Mining and Smelting Co. Ltd.	Ressources MSV Inc.
Inco Ltd.	Richmont Mines Inc.
Iron Ore Company of Canada	River Gold Mines Ltd.
Kinross Gold Corporation	SMC (Canada) Ltd.
Kirkland Lake Gold Inc.	Tantalum Mining Corporation of Canada Ltd.
Lac des Iles Mines Ltd.	Teck Cominco Metals Ltd.
Les Ressources Aur Inc.	Thompson Creek Mining Ltd.
Mines Agnico-Eagle Ltée.	Timminco Ltd.
Mines d'Or Wesdome Ltée.	Wabush Mines
Mines McWatters Inc.	Williams Operating Corporation

# **APPENDIX E: PERFORMANCE SUMMARY OF MINE EFFLUENTS IN 2004**

## **Note to Readers**

The tables presented in this appendix summarize the effluent quality data for mines subject to the MMER in 2004. The summaries include site identification (i.e., mine/mill name and effluent discharge name) and number of months of discharge. Table E1 summarizes the distribution of the non-compliant parameters for metals and pH, whereas Table E2 summarizes the results of rainbow trout (RT) acute lethality tests and *Daphnia magna* (DM) monitoring tests. Metal exceedances represent the number of monthly mean concentrations that exceeded the prescribed limits for a given month, whereas pH exceedances represent the number of times that the monthly pH range was exceeded. The parameters included are arsenic (As), copper (Cu), cyanide (CN), lead (Pb), nickel (Ni), zinc (Zn), total suspended solids (TSS), total radium 226 (Ra-226), and pH.

**Table E1: Summary of Exceedances for Mines Subject to the MMER in 2004: Prescribed Parameters and pH**

Mine/Mill Name	Site Identification Effluent Discharge Name	Number of Discharge	As	Cu	CN	Pb	Ni	Zn	TSS	Ra-226	pH Low	pH High
		Months of Discharge	0.5 mg/L	0.3 mg/L	1.0 mg/L	0.2 mg/L	0.5 mg/L	0.5 mg/L	15 mg/L	0.37 Bq/L	6	9.5
Beaufor	Final Effluent	12									1	
Birchtree Mine	Birchtree Effluent Treatment Plant	12										
Bouchard-Hébert (Mine)	Polishing Pond – Final Effluent	9										
Brunswick #12	3333 Final Effluent	12										
Camflo (Mill)	Final Effluent	12										
Campbell Mine	WETOUT	7										
Cantung Mine	#4 Polishing Pond Effluent	0										
Chisel North Mine	Chisel North Mine Discharge	12										
Cigar Lake Project	Station 2.2	12										
Cluff Lake Project	B2 Settling Pond (TMA 6100s)	12										
Con Mine	Surveillance Network Program Station 40-1	4										
Copper Cliff Complex	Copper Cliff Wastewater Treatment Plant	12									1	
Copper Cliff Complex	Nolin Creek Spillway	0										
Copper Cliff Complex	Nolin Creek Wastewater Treatment Plant	12										
Copper Rand (Mine)	Point #2.1c	12										
Crean Hill Mine	Crean Hill Mine	12										
Croinor (Mine)	Final Effluent	3										
Doyon	Pond A – Final Effluent (D-203)	11										
Eagle River Mill	Eagle River Mill	7										
Eagle River Mine	FDP 1	12										
Endako Mines	En.A1 – Tailings Pond #1 South	12										
Endako Mines	En.H1 – Tailings Pond #2 Higginbotham	12									2	
Endako Mines	En.N1 – Tailings Pond #1 North	12										

Highlighted data indicate the number of times that the authorized limits set as per Transitional Authorizations (TA) were exceeded.

**Table E1: Summary of Exceedances for Mines Subject to the MMER in 2004: Prescribed Parameters and pH (cont'd)**

Mine/Mill Name	Site Identification Effluent Discharge Name	Number of Months of Discharge	As 0.5 mg/L	Cu 0.3 mg/L	CN 1.0 mg/L	Pb 0.2 mg/L	Ni 0.5 mg/L	Zn 0.5 mg/L	TSS 15 mg/L	Ra-226 0.37 Bq/L	pH Low 6	pH High 9.5
Endako Mines	En.S2 - Tailings Pond #2 South	12										
Endako Mines	En.SBC – Endako Pit	12										
Endako Mines	En.W2 – Denak West Pit	1										
Eskay Creek Mine	Es.D7 – Treatment Pond Discharge Point	12										
Eskay Creek Mine	Es.TM1 – Tom Mackay Discharge Point	12										
Eskay Creek Mine	Es.W20 – Albino Discharge Point	12										
Flin Flon Complex	North Weir Discharge	12										
Garson Mine	Garson Mine	12										
Géant Dormant (Mine)	GD-EO1 Final Effluent – Mine Water Pond	12										
Géant Dormant (Mine)	GD-EO2 Final Effluent – Lamellar Clarifier	4										
Giant Mine	Surveillance Network Program Station 43-1	2										
Golden Giant Mine	Effluent Treatment Plant Final Effluent	6										
Haley Plant	FDP 1	12										
Holloway Mine (formerly Holt McDermott Mine)	Final Discharge Point	3										
Huckleberry Mine	Hu.EZDD – East Zone Diversion Ditch	2										
Huckleberry Mine	Hu.SC3 – Sediment Control Structure 3	12										
Huckleberry Mine	Hu.SC4 – Sediment Control Structure 4	12										
Iron Ore Company of Canada – Carol Project	Beaver Bay Discharge	12										
											<b>2</b>	3

Highlighted data indicate the number of times that the authorized limits set as per Transitional Authorizations (TA) were exceeded.

**Table E1: Summary of Exceedances for Mines Subject to the MMER in 2004: Prescribed Parameters and pH (cont'd)**

Mine/Mill Name	Site Identification	Effluent Discharge Name	Number of Discharge	As	Cu	CN	Pb	Ni	Zn	TSS	Ra-226	pH Low	pH High
			Months of Discharge	0.5 mg/L	0.3 mg/L	1.0 mg/L	0.2 mg/L	0.5 mg/L	0.5 mg/L	15 mg/L	0.37 Bq/L	6	9.5
Iron Ore Company of Canada – Carol Project	Main Tailings Discharge		10	3								1	
Iron Ore Company of Canada – Carol Project	MD5		8										
Iron Ore Company of Canada – Carol Project	Old Tailings Pumphouse Discharge		10										
Iron Ore Company of Canada – Carol Project	Ore Car Flume		10										
Joe Mann	Point 10 Polishing Pond Effluent		12										
Kemess South Mine	KS.WQ14 – Runoff		12									1	
Kemess South Mine	KS.WQBXL – Sedimentation Pond Decant		5										
Key Lake Operation	Station 1.2 – Dewatering Discharge to Horsefly Lake		12										
Key Lake Operation	Station 1.4 – Mill Effluent to Wolf Lake		12										
Kidd Metallurgical Division	Final Effluent Monitoring Point		12										
Kidd Mining Division	Treatment Pond Final Effluent		11										
Kiena (Mine)	Final Effluent		5										
Konuto Lake Mine	Surface Sump Discharge		12										
Lac des Iles Mine	FDP 1		6									1	
Laronde (Mine)	Final Effluent 3A		11										
Lockerby Mine	#4 Pond Effluent		12										
Louvicourt (Mine)	Polishing Pond Final Effluent (PP-FE)		6										
Lupin Operations	Lupin Discharge Syphons SNP 925-10		0										

Highlighted data indicate the number of times that the authorized limits set as per Transitional Authorizations (TA) were exceeded.

**Table E1: Summary of Exceedances for Mines Subject to the MMER in 2004: Prescribed Parameters and pH (cont'd)**

Mine/Mill Name	Site Identification	Effluent Discharge Name	Number of Months of Discharge	As 0.5 mg/L	Cu 0.3 mg/L	CN 1.0 mg/L	Pb 0.2 mg/L	Ni 0.5 mg/L	Zn 0.5 mg/L	TSS 15 mg/L	Ra-226 0.37 Bq/L	pH Low 6	pH High 9.5
Macassa Mine	C Dam	Magnacon Mine	12										1
Magnacon Mine (part of Eagle River Mill)													
Malartic (Mill)	Final Effluent E1		1										
Matagami (Mine) (Bell-Allard)	Lake Watson Discharge		12										
McAlpine Mill	Polishing Pond		12										
McArthur River Operation	Mine Water Treatment Plant – #2 – 88HP Pump		0										
McArthur River Operation	Mine Water Treatment Plant – 88HP Pump		0										
McArthur River Operation	Station 2.1		12										
McArthur River Operation	Station 2.7		12										
McClean Lake Operation	CM01-B (JEB Water Treatment Plant)		12										
McClean Lake Operation	SC01 (SUE Water Treatment Plant Effluent)		7										
Mishi Pit (part of Eagle River Mill)	Mishi Pit		0										
Montcalm Project	Montcalm Final Effluent		9										
Mont-Wright (Mine)	Point HS-1		12										1
Mont-Wright (Mine)	Point MS-2		7										
Mouska (Mine)	Final Effluent		12										
Musselwhite Mine	FDP 1		6										
Myra Falls Operations	MF.11A – Runoff Myra Ponds Effluent		12										
Nanisivik Mine	159-4		4										2
New Britannia Mine	SWM03 (Birch Lake Outlet Embankment Decant Discharge)		3										1

Highlighted data indicate the number of times that the authorized limits set as per Transitional Authorizations (TA) were exceeded.

**Table E1: Summary of Exceedances for Mines Subject to the MMER in 2004: Prescribed Parameters and pH (cont'd)**

Mine/Mill Name	Site Identification	Effluent Discharge Name	Number of Months of Discharge	As	Cu	CN	Pb	Ni	Zn	TSS	Ra-226	pH Low	pH High
				0.5 mg/L	0.3 mg/L	1.0 mg/L	0.2 mg/L	0.5 mg/L	0.5 mg/L	15 mg/L	0.37 Bq/L	6	9.5
Niobec (Mine)	Tailings Pond Effluent		7										
Niobec (Mine)	Mine Water Effluent		7										
Niobec (Mine)	Final Effluent		5										
Nugget Pond Mine	Polishing Pond Effluent		9										
Polaris Mine	Garrow Lake Siphons		2									1	
Porcupine Joint Venture	Mine Effluent Treatment Plant – Dome Mine		4										
Porcupine Joint Venture	Mine Water Storage Pond – Dome Mine		12										
Porcupine Joint Venture	Owl Creek Discharge 1		3										
Porcupine Joint Venture	Owl Creek Discharge 2		6										
Principale (Camchib)	Point #20		1										
Rabbit Lake Operation	Station 2.3.3		12										
Raglan (Mine)	DIR-HSA		4										
Raglan (Mine)	DIR-UT		8									1	
Raglan (Mine)	DIR-Z3		3										
Red Lake Mine	G1		3										
Ruttan Mine	Brehault Lake Overflow Weir		5										
Seabee Mine	Final Discharge Point 1.2		12										
Seabee Mine	Final Discharge Point 1.3		12									1	
Seabee Mine	Final Discharge Point 1.5		0										
Sigma	Final Effluent EEF1		6										
Snow Lake Mill	Anderson Lake Discharge		7										
Strathcona Tailings Treatment System	Fecunis RR Bridge		12										
Tanco Mine	West Discharge (Compliance Point)		12										
Tanco Mine	East Discharge (Phreatic Flow)		3										

Highlighted data indicate the number of times that the authorized limits set as per Transitional Authorization (TA) were exceeded.

**Table E1: Summary of Exceedances for Mines Subject to the MMER in 2004: Prescribed Parameters and pH (cont'd)**

Mine/Mill Name	Site Identification	Effluent Discharge Name	Number of Months of Discharge	As 0.5 mg/L	Cu 0.3 mg/L	CN 1.0 mg/L	Pb 0.2 mg/L	Ni 0.5 mg/L	Zn 0.5 mg/L	TSS 15 mg/L	Ra-226 0.37 Bq/L	pH Low 6	pH High 9.5
Thompson Mine and Mill	Misery Weir		12										
Thompson Mine and Mill	Station B		12										
Tio (Mine)	Switch South		7										
Tio (Mine)	Mine Water		8										
Tio (Mine)	Lake 211.4		6										
Tio (Mine)	Grondin Lake		1										
Tio (Mine)	Resurgence Leo		5										
Troilus	BS-2		12										
Troilus	PR-1		12										
Troilus	PR-2		12										
Troilus	PR-5		12										
Troilus	PR-6		12										
Troilus	PR-7		5										
Trout Lake Mine	Trout Lake		11										
Wabush (Scully Mine)	East Pit No. 1 Dewatering		0										
Wabush (Scully Mine)	East Pit No. 2 Dewatering		12										
Wabush (Scully Mine)	Knoll Lake Inflow		12										
Wabush (Scully Mine)	Loadout Ditch Discharge		7										
Wabush (Scully Mine)	Shops East Discharge		11										
Wabush (Scully Mine)	Shops South Discharge		0										
Wabush (Scully Mine)	Tailings Discharge		9										
Wabush (Scully Mine)	Tailings Line Emergency Dump Basin 1		2										
Wabush (Scully Mine)	West Pit Extension Settling Basin		12										
Williams Mine	Polishing Pond Discharge CP 400		0										
Williams Mine	Treated Effluent CP 0201		6										
<b>Total Exceedances</b>				<b>3</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>1</b>	<b>50</b>	<b>0</b>	<b>3</b>	<b>6</b>

Highlighted data indicate the number of times that the authorized limits set as per Transitional Authorizations (TA) were exceeded.

**Table E2: Performance Summary for Mines Subject to the MMER in 2004: Rainbow Trout Acute Lethality and *Daphnia magna* Monitoring Tests**

Site Identification		Number of Months of Discharge	RT Total	RT Fail	DM Total	DM Fail
Mine/Mill Name	Effluent Discharge Name					
Beaufor	Final Effluent	12	6		6	
Birchtree Mine	Birchtree Effluent Treatment Plant	12	10		10	4
Bouchard-Hébert (Mine)	Polishing Pond – Final Effluent	9	10		10	1
Brunswick #12	3333 Final Effluent	12	13		13	4
Camflo (Mill)	Final Effluent	12	13		12	1
Campbell Mine	WETOUT	7	9		8	
Cantung Mine	#4 Polishing Pond Effluent	0				
Chisel North Mine	Chisel North Mine Discharge	12	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Cigar Lake Project	Station 2.2	12	12		12	
Cluff Lake Project	B2 Settling Pond (TMA 6100s)	12	11		11	
Con Mine	Surveillance Network Program Station 40-1	4	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Copper Cliff Complex	Copper Cliff Wastewater Treatment Plant	12	5		5	
Copper Cliff Complex	Nolin Creek Spillway	0				
Copper Cliff Complex	Nolin Creek Wastewater Treatment Plant	12	10		10	
Copper Rand (Mine)	Point #2.1c	12	5		18	3
Crean Hill Mine	Crean Hill Mine	12	5		5	
Croinor (Mine)	Final Effluent	3			1	
Doyon	Pond A – Final Effluent (D-203)	11	5		5	1
Eagle River Mill	Eagle River Mill	7	6		6	
Eagle River Mine	FDP 1	12	15	2	15	
Endako Mines	En.A1 – Tailings Pond #1 South	12	4		4	
Endako Mines	En.H1 – Tailings Pond #2 Higginbotham	12	4		4	
Endako Mines	En.N1 – Tailings Pond #1 North	12	8		8	
Endako Mines	En.S2 – Tailings Pond #2 South	12	4		4	
Endako Mines	En.SBC – Endako Pit	12	4		4	
Endako Mines	En.W2 – Denak West Pit	1				
Eskay Creek Mine	Es.D7 – Treatment Pond Discharge Point	12	4		4	
Eskay Creek Mine	Es.TM1 – Tom MacKay Discharge Point	12	4		4	
Eskay Creek Mine	Es.W20 – Albino Discharge Point	12	4		4	
Flin Flon Complex	North Weir Discharge	12	19	5	19	2
Garson Mine	Garson Mine	12	6		6	
Géant Dormant (Mine)	GD-E01 – Final Effluent – Mine Water Pond	12	4		4	
Géant Dormant (Mine)	GD-E02 – Final Effluent – Lamellar Clarifier	4	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Giant Mine	Surveillance Network Program Station 43-1	2	4	1	4	1

Highlighted boxes indicate that the mine had a Transitional Authorization (TA) for acute lethality.

**Table E2: Performance Summary for Mines Subject to the MMER in 2004: Rainbow Trout Acute Lethality and *Daphnia magna* Monitoring Tests (cont'd)**

Site Identification		Number of Months of Discharge	RT Total	RT Fail	DM Total	DM Fail
Mine/Mill Name	Effluent Discharge Name					
Golden Giant Mine	Effluent Treatment Plant Final Effluent	6	5		5	
Haley Plant	FDP 1	12	8		8	
Holloway Mine (formerly Holt McDermott Mine)	Final Discharge Point	3	3		3	
Huckleberry Mine	Hu.EZDD – East Zone Diversion Ditch	2	4	4	3	2
Huckleberry Mine	Hu.SC3 – Sediment Control Structure 3	12	7		4	1
Huckleberry Mine	Hu.SC4 – Sediment Control Structure 4	12	7		4	1
Iron Ore Company of Canada – Carol Project	Beaver Bay Discharge	12	10		10	
Iron Ore Company of Canada – Carol Project	Main Tailings Discharge	10	4		4	
Iron Ore Company of Canada – Carol Project	MD5	8	8		8	
Iron Ore Company of Canada – Carol Project	Old Tailings Pumphouse Discharge	10	10		10	
Iron Ore Company of Canada – Carol Project	Ore Car Flume	10	4		4	
Joe Mann	Point 10 Polishing Pond Effluent	12	4		4	
Kemess South Mine	KS.WQ14 – Runoff	12	6		6	
Kemess South Mine	KS.WQBLX – Sedimentation Pond Decant	5	4		4	
Key Lake Operation	Station 1.2 – Dewatering Discharge to Horsefly Lake	12	13		13	
Key Lake Operation	Station 1.4 – Mill Effluent to Wolf Lake	12	12		12	
Kidd Metallurgical Division	Final Effluent Monitoring Point	12	12		12	
Kidd Mining Division	Treatment Pond Final Effluent	11	10		10	
Kiena (Mine)	Final Effluent	5	5		5	
Konuto Lake Mine	Surface Sump Discharge	12				
Lac des Iles Mine	FDP 1	6	5		5	1
Laronde (Mine)	Final Effluent 3A	11				
Lockery Mine	#4 Pond Effluent	12	9		9	
Louvicourt (Mine)	Polishing Pond Final Effluent (PP-FE)	6	6		6	
Lupin Operations	Lupin Discharge Siphons SNP 925-10	0				
Macassa Mine	C Dam	12	12		12	
Magnacon Mine (part of Eagle River Mill)	Magnacon Mine	12	12		12	
Malartic (Mill)	Final Effluent E1	1	1		1	
Matagami (Mine) (Bell-Allard)	Lake Watson Discharge	12	4		4	

Highlighted boxes indicate that the mine had a Transitional Authorization (TA) for acute lethality.

**Table E2: Performance Summary for Mines Subject to the MMER in 2004: Rainbow Trout Acute Lethality and *Daphnia magna* Monitoring Tests (cont'd)**

Site Identification		Number of Months of Discharge	RT Total	RT Fail	DM Total	DM Fail
Mine/Mill Name	Effluent Discharge Name					
McAlpine Mill	Polishing Pond	12	4		4	
McArthur River Operation	Mine Water Treatment Plant – #2 – 88HP Pump	0				
McArthur River Operation	Mine Water Treatment Plant – 88HP Pump	0				
McArthur River Operation	Station 2.1	12	5		5	
McArthur River Operation	Station 2.7	12	10		10	1
McClean Lake Operation	CM01-B (JEB Water Treatment Plant)	12	7		7	
McClean Lake Operation	SC01 (SUE Water Treatment Plant Effluent)	7	7		7	
Mishi Pit (part of Eagle River Mill)	Mishi Pit	0				
Montcalm Project	Montcalm Final Effluent	9	8	1	8	
Mont-Wright (Mine)	Point HS-1	12	4		4	
Mont-Wright (Mine)	Point MS-2	7	4		4	
Mouska (Mine)	Final Effluent	12	4		4	
Musselwhite Mine	FDP 1	6	7		7	
Myra Falls Operations	MF.11A – Runoff Myra Ponds Effluent	12	12		12	9
Nanisivik Mine	159-4	4	2		2	2
New Britannia Mine	SWM03 (Birch Lake Outlet Embankment Decant Discharge)	3	3		3	
Niobec (Mine)	Tailings Pond Effluent	7	7		6	
Niobec (Mine)	Mine Water Effluent	7				
Niobec (Mine)	Final Effluent	5	5		5	
Nugget Pond Mine	Polishing Pond Effluent	9	10		10	1
Polaris Mine	Garrow Lake Siphons	2	3		3	
Porcupine Joint Venture	Mine Effluent Treatment Plant – Dome Mine	4	4		4	
Porcupine Joint Venture	Mine Water Storage Pond – Dome Mine	12	4		4	
Porcupine Joint Venture	Owl Creek Discharge 1	3	1		1	
Porcupine Joint Venture	Owl Creek Discharge 2	6	6		6	
Principale (Camchib)	Point #20	1			2	2
Rabbit Lake Operation	Station 2.3.3	12	4		4	
Raglan (Mine)	DIR-HSA	4	4		4	
Raglan (Mine)	DIR-UT	8	13	6	13	5
Raglan (Mine)	DIR-Z3	3	3		3	
Red Lake Mine	G1	3	3		3	
Ruttan Mine	Brehault Lake Overflow Weir	5	6		6	
Seabee Mine	Final Discharge Point 1.2	12	5		5	

Highlighted boxes indicate that the mine had a Transitional Authorization (TA) for acute lethality.

**Table E2: Performance Summary for Mines Subject to the MMER in 2004: Rainbow Trout Acute Lethality and *Daphnia magna* Monitoring Tests (cont'd)**

Site Identification		Number of Months of Discharge	RT Total	RT Fail	DM Total	DM Fail
Mine/Mill Name	Effluent Discharge Name					
Seabee Mine	Final Discharge Point 1.3	12	5		5	
Seabee Mine	Final Discharge Point 1.5	0				
Sigma	Final Effluent EFF1	6	5		5	
Snow Lake Mill	Anderson Lake Discharge	7	7		7	
Strathcona Tailings Treatment System	Fecunis RR Bridge	12	9		9	
Tanco Mine	West Discharge (Compliance Point)	12	4		4	
Tanco Mine	East Discharge (Phreatic Flow)	3	3	1	3	
Thompson Mine and Mill	Misery Weir	12	9		9	
Thompson Mine and Mill	Station B	12	7		7	
Tio (Mine)	Switch South	7	7		6	
Tio (Mine)	Mine Water	8	5		5	
Tio (Mine)	Lake 211.4	6	5		4	
Tio (Mine)	Grondin Lake	1				
Tio (Mine)	Resurgence Leo	5	5		4	
Troilus	BS-2	12	12		12	
Troilus	PR-1	12	11		11	
Troilus	PR-2	12	11		11	
Troilus	PR-5	12	11		11	
Troilus	PR-6	12	11		11	
Troilus	PR-7	5	4		4	
Trout Lake Mine	Trout Lake	11				
Wabush (Scully Mine)	East Pit No.1 Dewatering	0				
Wabush (Scully Mine)	East Pit No. 2 Dewatering	12	15		14	
Wabush (Scully Mine)	Knoll Lake Inflow	12	17	1	17	1
Wabush (Scully Mine)	Loadout Ditch Discharge	7	8	1	8	
Wabush (Scully Mine)	Shops East Discharge	11	16		16	
Wabush (Scully Mine)	Shops South Discharge	0				
Wabush (Scully Mine)	Tailings Discharge	9	10		12	
Wabush (Scully Mine)	Tailings Line Emergency Dump Basin 1	2				
Wabush (Scully Mine)	West Pit Extension Settling Basin	12	18		16	2
Williams Mine	Polishing Pond Discharge CP 400	0				
Williams Mine	Treated Effluent CP 0201	6	6		6	
<b>Summary</b>			<b>765</b>	<b>22</b>	<b>767</b>	<b>45</b>

Highlighted boxes indicate that the mine had a Transitional Authorization (TA) for acute lethality.

# APPENDIX F: EFFLUENT QUALITY DATA FOR MINES IN 2004

## Note to Readers

The tables presented in this appendix show the summary of the monthly monitoring results of each final discharge point (FDP) identified pursuant to sections 9 and 10 of the *Metal Mining Effluent Regulations* (MMER). Effluent results were provided to Environment Canada pursuant to section 22 of the MMER, which requires mines to submit annual reports to Environment Canada. The format for these reports is specified in Schedule 6 of the MMER. Data are presented as provided by the owners or operators of the mines except where comments indicate that some data were added, for completeness, based on quarterly reports.

Supporting information includes:

- Mine/Mill Name
- Mine/Mill Operator Name
- Mine/Mill Product(s)
- Mine/Mill Address
- Identification of Final Effluent Discharge Point
- Parameter Limits
- Monthly Mean Concentrations of the Deleterious Substances
- Monthly pH Range (Low and High)
- Monthly Effluent Volume
- Results of Rainbow Trout Acute Lethality Tests
- Results of *Daphnia magna* Monitoring Tests
- Comments (if applicable)

Highlighted data indicate that a Monthly Effluent Quality Standard (MEQS) is exceeded for a given month. A “Pass” for the rainbow trout acute lethality test and the *Daphnia magna* monitoring test indicates that the percentage of mortality was less than or equal to 50%. A “Fail” indicates that the percentage of mortality was greater than 50%. Tables are sorted in alphabetical order based on mine/mill name.

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	Beaufor												
Operator Name	Mines Richmont Inc.												
Product(s)	Gold												
Address	776, chemin Perron, Val-Sennerville, Quebec J0Y 2P0												
Effluent Discharge Point	Final Effluent												
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5	0.002	0.002	0.003	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.001	0.001
Cu (mg/L)	0.3	0.010	0.010	0.010	0.030	0.010	0.010	0.010	0.015	0.015	0.010	0.030	0.010
CN (mg/L)	1.0	NMR	NMR										
Pb (mg/L)	0.2	0.010	0.008	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Ni (mg/L)	0.5	0.010	0.030	0.020	0.010	0.020	0.010	0.020	0.010	0.025	0.020	0.010	0.040
Zn (mg/L)	0.5	0.018	0.010	0.026	0.010	0.014	0.010	0.010	0.016	0.016	0.010	0.013	0.044
TSS (mg/L)	15	2.050	3.400	4.160	3.750	2.640	0.400	3.450	4.040	3.400	3.550	6.400	5.700
Ra-226 (Bq/L)	0.37	NMR	0.007	NMR	NMR	0.006	NMR	NMR	NMR	0.003	NMR	NMR	0.007
pH low	≥6.0	7.4	7.4	7.7	7.8	7.7	7.8	7.7	7.7	7.7	7.6	7.9	7.7
pH high	≤9.5	7.8	7.8	7.8	8.0	8.2	8.1	8.1	7.9	7.9	7.8	8.0	7.9
Flow (m <sup>3</sup> /month)	—	16 294	12 215	11 383	26 352	21 874	18 144	13 169	7 410	15 552	20 423	14 429	9 895
Rainbow Trout	Pass	1	1	1	1	NMR	NMR	1	NMR	NMR	1	NMR	NMR
Acute Lethality Test	Fail	—	—	—	—	—	—	—	—	—	—	—	—
Daphnia magna	Pass	1	1	1	1	NMR	NMR	1	NMR	NMR	1	NMR	NMR
Monitoring Test	Fail	—	—	—	—	—	—	—	—	—	—	—	—

**Comments:** pH was provided as an average. pH range was obtained from the quarterly reports. The mine has been on reduced frequency testing for acute lethality since May 2004.

Notes: ND: No Deposit NMR: No Measurement Required

Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.  
A "Pass" for *Daphnia magna* monitoring test is not a requirement.

Pass: ≤50% Mortality

Fail: >50% Mortality

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	Birchtree Mine												
Operator Name	Inco Limited												
Product(s)	Nickel-Copper												
Address	P.O. Box 5000, Thompson, Manitoba R8N 1P3												
Effluent Discharge Point	Birchtree Effluent Treatment Plant												
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5	0.010	0.010	0.040	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010
Cu (mg/L)	0.3	0.010	0.010	0.050	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010
CN (mg/L)	1.0	0.005	0.025	NMR	NMR	0.006	NMR	NMR	NMR	0.012	NMR	NMR	0.008
Pb (mg/L)	0.2	0.010	0.010	0.020	0.020	0.010	0.010	0.010	0.010	0.010	0.010	0.018	0.010
Ni (mg/L)	0.5	0.170	0.110	0.180	0.080	0.080	0.170	0.120	0.140	0.190	0.315	0.238	0.312
Zn (mg/L)	0.5	0.030	0.080	0.080	0.060	0.030	0.040	0.080	0.030	0.050	0.113	0.068	0.030
TSS (mg/L)	15	2.000	1.000	2.000	1.000	5.000	9.000	10.000	9.000	9.000	15.900	4.500	8.400
Ra-226 (Bq/L)	0.37	0.050	NMR	NMR	NMR	0.090	NMR	NMR	NMR	0.090	NMR	NMR	0.070
pH low	≥6.0	7.0	7.1	7.2	7.4	7.2	7.2	7.0	6.8	7.4	6.9	6.9	6.9
pH high	≤9.5	7.4	7.4	7.6	8.0	8.0	7.8	7.7	7.4	7.3	7.6	7.4	7.3
Flow (m³/month)	-	22 496	21 043	24 829	28 367	26 758	24 879	29 192	24 109	25 773	27 838	24 563	24 794
Rainbow Trout	Pass	1	1	1	NMR	1	1	1	1	1	1	NMR	1
Acute Lethality Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-
Daphnia magna	Pass	-	1	1	NMR	-	1	1	-	1	1	NMR	-
Monitoring Test	Fail	1	-	-	-	1	-	-	1	-	-	-	1

**Comments:** The mine is on reduced frequency for acute lethality.

**Notes:** ND: No Deposit      NMR: No Measurement Required

Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.  
A "Pass" for *Daphnia magna* monitoring test is not a requirement.

Pass: ≤50% Mortality

Fail: >50% Mortality

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	Bouchard-Hébert (Mine)																						
Operator Name	Ressources Breakwater Ltée.																						
Product(s)	Zinc-Copper-Gold-Silver																						
Address	596 Rang des Ponts, Cléricey, Québec J0Z 1P0																						
Effluent Discharge Point	Polishing Pond – Final Effluent																						
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.										
As (mg/L)	0.5	ND	ND	0.004	0.009	0.002	0.002	0.001	0.006	0.002	0.002	0.002	0.011										
Cu (mg/L)	0.3	ND	ND	0.020	0.030	0.020	0.030	0.040	0.016	0.035	0.030	0.030	0.030										
CN (mg/L)	1.0	ND	ND	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR										
Pb (mg/L)	0.2	ND	ND	0.004	0.003	0.001	0.001	0.010	0.001	< 0.001	< 0.001	< 0.001	0.002										
Ni (mg/L)	0.5	ND	ND	0.035	0.050	0.040	0.030	0.050	0.059	0.053	0.070	0.070	0.040										
Zn (mg/L)	0.5	ND	ND	0.180	0.140	0.050	0.040	0.020	0.024	0.048	0.050	0.050	0.090										
TSS (mg/L)	15	ND	ND	5.000	4.600	3.800	5.200	2.900	2.400	6.300	8.400	8.400	2.400										
Ra-226 (Bq/L)	0.37	ND	ND	0.003	NMR	0.003	NMR	0.008	0.008	NMR	0.006	NMR	0.006										
pH low	≥6.0	ND	ND	7.0	7.2	7.3	6.5	7.3	7.5	7.2	7.1	7.1	6.7										
pH high	≤9.5	ND	ND	7.4	9.0	8.0	8.1	8.1	8.0	7.5	7.8	7.8	7.4										
Flow (m <sup>3</sup> /month)	–	ND	ND	90 395	144 750	148 930	281 566	232 642	167 480	163 444	202 960	67 710											
Rainbow Trout	Pass	ND	ND	ND	1	2	1	1	1	1	1	1	1										
Acute Lethality Test	Fail	–	–	–	–	–	–	–	–	–	–	–	–										
Daphnia magna	Pass	ND	ND	1	2	1	1	1	1	–	2	–	–										
Monitoring Test	Fail	–	–	–	–	–	–	–	–	1	–	–	–										
Comments:																							
Notes:	ND: No Deposit	NMR: No Measurement Required																					
	Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.																						
	A “Pass” for <i>Daphnia magna</i> monitoring test is not a requirement.																						
	Pass: ≤50% Mortality																						
	Fail: >50% Mortality																						

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	Brunswick #12												
Operator Name	Noranda Inc.												
Product(s)	Lead-Zinc-Copper-Silver												
Address	P.O. Box 3000, Bathurst, New Brunswick E2A 3Z8												
Effluent Discharge Point	3333 Final Effluent												
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5	0.003	0.001	0.002	0.002	0.003	0.005	0.004	0.005	0.005	0.003	0.003	0.002
Cu (mg/L)	0.3	0.005	0.003	0.002	0.004	0.004	0.009	0.009	0.013	0.009	0.007	0.006	0.004
CN (mg/L)	1.0	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR
Pb (mg/L)	0.2	0.001	0.000	0.004	0.005	0.001	0.005	0.001	0.001	0.002	0.002	0.001	0.002
Ni (mg/L)	0.5	0.004	0.002	0.002	0.003	0.005	0.012	0.010	0.006	0.007	0.003	0.003	0.003
Zn (mg/L)	0.5	0.171	0.088	0.147	0.252	0.076	0.159	0.061	0.071	0.056	0.064	0.048	0.086
TSS (mg/L)	15	3.500	4.600	3.240	4.750	2.500	6.000	5.350	4.600	9.200	3.200	2.920	2.525
Ra-226 (Bq/L)	0.37	NMR	0.005	NMR	NMR	0.005	NMR	NMR	NMR	0.005	NMR	NMR	0.010
pH low	≥6.0	8.8	8.7	8.8	8.8	8.6	8.8	6.8	8.6	8.3	8.7	8.9	
pH high	≤9.5	9.1	9.0	9.3	9.2	9.1	8.8	8.9	8.9	9.0	8.9	8.9	9.1
Flow (m³/month)	-	489 622	472 540	1 020 867	1 784 422	1 073 290	817 116	928 450	987 219	761 565	282 166	675 073	785 518
Rainbow Trout	Pass	1	1	1	1	1	1	1	1	2	1	1	1
Acute Lethality Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-
Daphnia magna	Pass	-	1	1	1	-	-	1	1	2	1	1	-
Monitoring Test	Fail	1	-	-	-	1	1	-	-	-	-	-	1
Comments:													
Notes:	ND: No Deposit	NMR: No Measurement Required											
		Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.											
		A "Pass" for <i>Daphnia magna</i> monitoring test is not a requirement.											
		Pass: ≤50% Mortality											
		Fail: >50% Mortality											

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	Camflo (Mill)												
Operator Name	Mines Richmont Inc.												
Product(s)	Gold												
Address	100 Road 17, P.O. Box 640, Malartic, Quebec J0Y 1Z0												
Effluent Discharge Point	Final Effluent												
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5	0.005	0.006	0.004	0.001	0.001	0.002	0.003	0.003	0.004	0.004	0.003	0.001
Cu (mg/L)	0.3	0.010	0.010	0.030	0.030	0.016	0.015	0.010	0.014	0.018	0.020	0.018	0.020
CN (mg/L)	1.0	0.052	0.047	0.030	0.018	0.005	0.017	0.028	0.047	0.064	0.060	0.029	0.034
Pb (mg/L)	0.2	0.004	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Ni (mg/L)	0.5	0.040	0.040	0.040	0.010	0.016	0.013	0.028	0.052	0.023	0.040	0.044	0.040
Zn (mg/L)	0.5	0.040	0.010	0.020	0.015	0.014	0.016	0.020	0.022	0.023	0.030	0.024	0.028
TSS (mg/L)	15	2.400	2.200	2.700	2.730	3.000	2.000	3.600	2.040	5.200	10.000	4.480	7.200
Ra-226 (Bq/L)	0.37	0.009	0.047	NMR	NMR	0.010	NMR	NMR	0.004	NMR	NMR	0.007	
pH low	≥6.0	6.8	6.6	6.9	7.1	7.3	7.5	7.2	7.4	7.4	7.6	7.3	7.1
pH high	≤9.5	7.1	7.2	7.4	7.4	7.8	7.7	7.7	8.1	7.7	7.7	7.9	7.8
Flow (m <sup>3</sup> /month)	-	6 274	2 923	6 473	103 475	117 314	51 516	91 066	31 337	15 336	19 311	23 643	64 607
Rainbow Trout	Pass	1	1	1	1	1	1	1	2	1	1	1	1
Acute Lethality Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-
Daphnia magna	Pass	1	1	1	-	1	1	1	1	1	1	1	1
Monitoring Test	Fail	-	-	-	1	-	-	-	-	-	-	-	-

**Comments:** pH was provided as an average. pH range was obtained from the quarterly reports.

**Notes:** ND: No Deposit      NMR: No Measurement Required  
**Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.**  
A "Pass" for *Daphnia magna* monitoring test is not a requirement.

Pass: ≤50% Mortality

Fail: >50% Mortality

**Metal Mining Effluent Regulations (MMER)**  
**2004 Effluent Compliance**

Mine/Mill Name	Campbell Mine												
Operator Name	Placer Dome (CLA) Limited												
Product(s)	Gold												
Address	P.O. Box 10, 10 Mine Road, Balmertown, Ontario P0V 1C0												
Effluent Discharge Point	WETOOUT												
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5	ND	ND	ND	0.014	0.013	0.015	0.012	0.010	0.008	0.009	0.009	ND
Cu (mg/L)	0.3	ND	ND	ND	0.017	0.014	0.016	0.012	0.011	0.013	0.011	0.011	ND
CN (mg/L)	1.0	ND	ND	ND	0.128	0.068	0.043	0.030	0.030	0.049	0.070	0.070	ND
Pb (mg/L)	0.2	ND	ND	ND	0.001	0.001	0.002	0.003	0.001	0.003	0.002	0.002	ND
Ni (mg/L)	0.5	ND	ND	ND	0.089	0.084	0.059	0.058	0.044	0.053	0.066	0.066	ND
Zn (mg/L)	0.5	ND	ND	ND	0.043	0.031	0.022	0.032	0.020	0.033	0.022	0.022	ND
TSS (mg/L)	15	ND	ND	ND	5.500	0.538	1.923	1.231	0.571	2.000	2.400	2.400	ND
Ra-226 (Bq/L)	0.37	ND	ND	ND	—	—	0.010	0.008	0.020	0.010	0.008	0.008	ND
pH low	≥6.0	ND	ND	ND	6.6	6.6	6.7	6.7	6.8	6.7	6.6	6.6	ND
pH high	≤9.5	ND	ND	ND	6.8	6.9	7.0	7.1	7.1	7.0	6.8	6.8	ND
Flow (m <sup>3</sup> /month)	—	ND	ND	ND	59 074	245 255	224 704	202 393	237 788	239 519	191 227	ND	
Rainbow Trout	Pass	ND	ND	ND	1	2	1	1	2	1	1	1	ND
Acute Lethality Test	Fail	—	—	—	—	—	—	—	—	—	—	—	—
Daphnia magna	Pass	ND	ND	ND	1	1	1	1	2	1	1	1	ND
Monitoring Test	Fail	—	—	—	—	—	—	—	—	—	—	—	—

**Comments:** No Radium 226 test results were provided for May and June. Effluent sampling for Radium 226 was not done.

Notes: ND: No Deposit      NMR: No Measurement Required

Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.  
A "Pass" for *Daphnia magna* monitoring test is not a requirement.

Pass: ≤50% Mortality

Fail: >50% Mortality

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	Cantung Mine																							
Operator Name	North American Tungsten Corporation Ltd.																							
Product(s)	Tungsten																							
Address	P.O. Box 856, Watson Lake, Yukon Y0A 1C0																							
Effluent Discharge Point	#4 Polishing Pond Effluent																							
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.											
As (mg/L)	0.5	-	-	-	-	-	-	-	-	-	-	-	-											
Cu (mg/L)	0.3	-	-	-	-	-	-	-	-	-	-	-	-											
CN (mg/L)	1.0	-	-	-	-	-	-	-	-	-	-	-	-											
Pb (mg/L)	0.2	-	-	-	-	-	-	-	-	-	-	-	-											
Ni (mg/L)	0.5	-	-	-	-	-	-	-	-	-	-	-	-											
Zn (mg/L)	0.5	-	-	-	-	-	-	-	-	-	-	-	-											
TSS (mg/L)	15	-	-	-	-	-	-	-	-	-	-	-	-											
Ra-226 (Bq/L)	0.37	-	-	-	-	-	-	-	-	-	-	-	-											
pH low	>6.0	-	-	-	-	-	-	-	-	-	-	-	-											
pH high	≤9.5	-	-	-	-	-	-	-	-	-	-	-	-											
Flow (m <sup>3</sup> /month)	-	-	-	-	-	-	-	-	-	-	-	-	-											
Rainbow Trout	Pass	-	-	-	-	-	-	-	-	-	-	-	-											
Acute Lethality Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-											
Daphnia magna	Pass	-	-	-	-	-	-	-	-	-	-	-	-											
Monitoring Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-											
Comments:	No annual report was provided since the mine was in bankruptcy protection during the year.																							
Notes:	ND: No Deposit	NMR: No Measurement Required											Pass: ≤50% Mortality											
	Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.												Fail: >50% Mortality											
	A "Pass" for <i>Daphnia magna</i> monitoring test is not a requirement.																							

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	Chisel North Mine												
Operator Name	Hudson Bay Mining and Smelting Co. Ltd.												
Product(s)	Zinc												
Address	P.O. Box 1500, Flin Flon, Manitoba R8A 1N9												
Effluent Discharge Point	Chisel North Mine Discharge												
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5	0.006	0.001	0.003	0.002	0.002	0.003	0.001	0.001	0.002	0.002	0.002	0.004
Cu (mg/L)	0.3	0.016	0.018	0.005	0.024	0.021	0.007	0.006	0.007	0.011	0.008	0.006	0.018
CN (mg/L)	1.0	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR
Pb (mg/L)	0.2	0.034	0.011	0.005	0.012	0.007	0.004	0.014	0.015	0.004	0.023	0.009	0.011
Ni (mg/L)	0.5	0.004	0.004	0.002	0.004	0.003	0.002	0.002	0.003	0.003	0.001	0.002	0.003
Zn (mg/L)	0.5	0.190	0.324	0.182	0.415	0.141	0.364	0.225	0.211	0.185	0.356	0.325	0.392
TSS (mg/L)	15	2.000	1.000	2.000	4.000	6.000	3.000	4.000	3.000	2.000	2.000	2.000	1.000
Ra-226 (Bq/L)	0.37	0.100	0.220	0.290	0.160	0.240	0.140	0.170	0.190	0.190	0.090	0.080	0.070
pH low	≥6.0	9.6	9.6	9.8	9.7	9.2	9.3	9.3	9.1	9.2	9.4	8.9	8.5
pH high	≤10.51	9.7	9.9	10.3	10.0	9.7	9.5	9.6	9.5	9.3	9.9	9.9	9.0
Flow (m <sup>3</sup> /month)	-	67 550	54 931	100 526	104 760	106 639	104 940	102 500	106 377	100 400	105 189	104 171	109 287
Rainbow Trout	Pass	1	1	1	1	1	1	1	1	1	1	1	1
Acute Lethality Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-
Daphnia magna	Pass	1	1	1	1	1	1	1	1	1	1	1	1
Monitoring Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-

**Comments:** TA was granted for upper pH limit of 10.51 and acute lethality. TA expired on December 6, 2004.

**Notes:** ND: No Deposit      NMR: No Measurement Required

Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.  
A "Pass" for *Daphnia magna* monitoring test is not a requirement.

Pass: ≤50% Mortality

Fail: >50% Mortality

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	Cigar Lake Project																						
Operator Name	Cameco Corporation																						
Product(s)	Uranium																						
Address	2121 11 <sup>th</sup> Street West, Saskatoon, Saskatchewan S7M 1J3																						
Effluent Discharge Point	Station 2.2																						
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.										
As (mg/L)	0.5	0.008	0.005	0.005	0.009	0.002	0.003	0.002	0.001	0.001	0.006	0.006	0.003										
Cu (mg/L)	0.3	0.001	0.001	0.001	0.001	0.005	0.004	0.002	0.001	0.003	0.001	0.001	0.001										
CN (mg/L)	1.0	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR										
Pb (mg/L)	0.2	0.005	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.006										
Ni (mg/L)	0.5	0.007	0.005	0.003	0.004	0.003	0.010	0.007	0.004	0.003	0.005	0.004	0.006										
Zn (mg/L)	0.5	0.040	0.006	0.006	0.007	0.005	0.005	0.005	0.005	0.005	0.015	0.005	0.008										
TSS (mg/L)	15	1.100	1.000	1.000	1.300	1.000	0.800	1.200	1.800	2.500	1.500	1.600	2.000										
Ra-226 (Bq/L)	0.37	0.006	0.007	0.008	0.011	0.007	0.011	0.009	0.006	0.015	0.024	0.007	0.005										
pH low	≥6.0	7.2	7.2	7.3	7.4	7.5	7.4	7.1	6.0	7.3	7.1	7.0	6.6										
pH high	≤9.5	7.6	7.4	7.7	7.6	7.7	7.5	7.6	7.5	7.6	7.4	7.3	7.2										
Flow (m <sup>3</sup> /month)	—	12 762	11 921	11 801	12 077	12 553	17 226	16 704	12 681	8 716	16 156	17 487	18 779										
Rainbow Trout	Pass	1	1	1	1	1	1	1	1	1	1	1	1										
Acute Lethality Test	Fail	—	—	—	—	—	—	—	—	—	—	—	—										
Daphnia magna	Pass	1	1	1	1	1	1	1	1	1	1	1	1										
Monitoring Test	Fail	—	—	—	—	—	—	—	—	—	—	—	—										
Comments:																							
Notes:	ND: No Deposit	NMR: No Measurement Required																					
	Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.																						
	A "Pass" for <i>Daphnia magna</i> monitoring test is not a requirement.																						
	Pass: ≤50% Mortality																						
	Fail: >50% Mortality																						

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	Cluff Lake Project												
Operator Name	Cogema Resources Inc.												
Product(s)	Uranium												
Address	P.O. Box 9204, 817 – 45 <sup>th</sup> Street West, Saskatoon, Saskatchewan S7K 3X5												
Effluent Discharge Point	B2 Settling Pond (TMA 6100s)												
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5	0.002	0.002	0.002	0.001	0.001	0.002	0.002	0.003	0.002	0.002	0.002	0.001
Cu (mg/L)	0.3	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.002	0.002	< 0.001	< 0.001	< 0.001	< 0.001
CN (mg/L)	1.0	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR
Pb (mg/L)	0.2	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
Ni (mg/L)	0.5	0.018	0.013	0.008	0.008	0.012	0.009	0.013	0.027	0.050	0.029	0.007	
Zn (mg/L)	0.5	< 0.005	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005	0.011	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
TSS (mg/L)	15	2.000	3.000	4.000	2.000	2.000	2.000	1.000	4.000	3.000	5.000	2.000	3.000
Ra-226 (Bq/L)	0.37	0.007	0.007	0.010	0.007	< 0.005	0.007	0.018	0.007	0.011	0.009	0.012	0.005
pH low	≥6.0	7.3	7.3	7.4	7.3	7.2	7.4	7.8	7.6	7.5	7.4	7.6	8.0
pH high	≤9.5	7.7	7.9	8.1	7.9	7.6	7.7	8.3	7.7	7.6	7.5	8.1	8.5
Flow (m <sup>3</sup> /month)	-	93 927	86 405	75 345	63 046	65 246	63 049	44 203	102 445	131 666	86 093	129 089	109 379
Rainbow Trout	Pass	1	1	1	1	1	1	1	1	1	1	1	NMR
Acute Lethality Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-
Daphnia magna	Pass	1	1	1	1	1	1	1	1	1	1	1	NMR
Monitoring Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-
Comments:	Mine is on quarterly sampling starting in November 2004 for acute lethality testing.												
Notes:	ND: No Deposit	NMR: No Measurement Required											
		Pass: ≤50% Mortality											
		Fail: >50% Mortality											
		Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.											
		A "Pass" for <i>Daphnia magna</i> monitoring test is not a requirement.											

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	Con Mine												
Operator Name	Miramar Mining Corporation												
Product(s)	Gold												
Address	P.O. Box 2000, Yellowknife, Northwest Territories X1A 2M1												
Effluent Discharge Point	Surveillance Network Program Station 40-1												
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5	ND	ND	ND	ND	0.015	0.021	0.007	0.015	ND	ND	ND	ND
Cu (mg/L)	0.3	ND	ND	ND	ND	0.128	0.117	0.154	0.149	ND	ND	ND	ND
CN (mg/L)	1.0	ND	ND	ND	ND	0.248	0.301	0.470	0.451	ND	ND	ND	ND
Pb (mg/L)	0.2	ND	ND	ND	ND	< 0.050	0.004	0.002	< 0.010	ND	ND	ND	ND
Ni (mg/L)	0.5	ND	ND	ND	ND	0.079	0.069	0.141	0.140	ND	ND	ND	ND
Zn (mg/L)	0.5	ND	ND	ND	ND	ND	0.030	0.016	0.069	0.031	ND	ND	ND
TSS (mg/L)	15	ND	ND	ND	ND	ND	7.100	8.850	12.550	13.770	ND	ND	ND
Ra-226 (Bq/L)	0.37	ND	ND	ND	ND	0.013	0.020	0.017	0.015	ND	ND	ND	ND
pH low	≥6.0	ND	ND	ND	ND	8.0	8.4	7.5	8.2	ND	ND	ND	ND
pH high	≤9.5	ND	ND	ND	ND	8.9	9.1	8.9	8.8	ND	ND	ND	ND
Flow (m <sup>3</sup> /month)	-	ND	ND	ND	ND	ND	78 298	211 056	159 674	57 540	ND	ND	ND
Rainbow Trout	Pass	ND	ND	ND	ND	ND	1	-	-	-	ND	ND	ND
Acute Lethality Test	Fail	-	-	-	-	-	1	-	1	-	-	-	-
Daphnia magna	Pass	ND	ND	ND	ND	ND	-	-	-	-	ND	ND	ND
Monitoring Test	Fail	-	-	-	-	-	1	1	-	1	-	-	-
<b>Comments:</b>	TA, granted for acute lethality, expired on December 6, 2004. pH was not provided as a range. pH range was obtained from the quarterly reports. No sample was collected for acute lethality testing in August because of sampler error.												
<b>Notes:</b>	ND: No Deposit	NMR: No Measurement Required											Fail: >50% Mortality
	Highlighted data indicate that a monthly effluent quality standard was exceeded for that month. A "Pass" for <i>Daphnia magna</i> monitoring test is not a requirement.												

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	Copper Cliff Complex												
Operator Name	Inco Limited												
Product(s)	Nickel-Copper-Cobalt-Platinum												
Address	155 Balsam Street, Copper Cliff, Ontario P0M 1N0												
Effluent Discharge Point	Copper Cliff Wastewater Treatment Plant												
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5	0.002	0.003	0.002	0.001	0.001	0.002	0.002	0.001	0.002	0.002	0.005	0.004
Cu (mg/L)	0.3	0.194	0.081	0.066	0.114	0.151	0.176	0.147	0.190	0.169	0.278	0.372	0.424
CN (mg/L)	1.0	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR
Pb (mg/L)	0.2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.030	0.030	0.039
Ni (mg/L)	0.5	0.310	0.355	0.309	0.126	0.057	0.086	0.068	0.076	0.152	0.147	0.244	0.183
Zn (mg/L)	0.5	0.000	0.000	0.003	0.018	0.004	0.003	0.000	0.000	0.000	0.018	0.010	0.010
TSS (mg/L)	15	1.800	2.900	0.000	0.500	0.000	1.000	0.700	0.000	0.750	2.250	2.700	2.320
Ra-226 (Bq/L)	0.37	NMR	NMR	0.007	NMR	NMR	0.003	NMR	NMR	0.010	NMR	NMR	0.003
pH low	≥6.0	6.6	6.8	7.1	7.8	7.6	8.3	8.6	8.3	6.7	7.9	7.8	6.8
pH high	≤9.5	9.0	9.1	8.2	9.7	8.6	8.7	8.8	9.2	8.8	8.6	8.7	7.9
Flow (m³/month)	-	4 089 636	3 670 472	4 024 494	3 973 702	5 530 020	4 158 114	2 838 143	2 991 702	3 030 932	3 148 378	2 076 302	2 632 277
Rainbow Trout	Pass	NMR	NMR	2	NMR	NMR	1	NMR	NMR	1	NMR	NMR	1
Acute Lethality Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-
Daphnia magna	Pass	NMR	NMR	2	NMR	NMR	1	NMR	NMR	1	NMR	NMR	1
Monitoring Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-
<b>Comments:</b>	The mine is on reduced frequency testing for acute lethality.												
<b>Notes:</b>	ND: No Deposit	<b>NMR:</b> No Measurement Required											
		Pass: ≤50% Mortality											
		Fail: >50% Mortality											
		Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.											
		A "Pass" for <i>Daphnia magna</i> monitoring test is not a requirement.											

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	Copper Cliff Complex																						
Operator Name	Inco Limited																						
Product(s)	Nickel-Copper-Cobalt-Platinum																						
Address	155 Balsam Street, Copper Cliff, Ontario P0M 1N0																						
Effluent Discharge Point	Nolin Creek Spillway																						
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.										
As (mg/L)	0.5	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND										
Cu (mg/L)	0.3	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND										
CN (mg/L)	1.0	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND										
Pb (mg/L)	0.2	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND										
Ni (mg/L)	0.5	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND										
Zn (mg/L)	0.5	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND										
TSS (mg/L)	15	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND										
Ra-226 (Bq/L)	0.37	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND										
pH low	≥6.0	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND										
pH high	≤9.5	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND										
Flow (m <sup>3</sup> /month)	-	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND										
Rainbow Trout	Pass	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND										
Acute Lethality Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-										
Daphnia magna	Pass	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND										
Monitoring Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-										
Comments:	Environment Canada designated the Bypass Weir, now referred to as the Nolin Spillway, as a final discharge point on June 3, 2004.																						
Notes:	ND: No Deposit	NMR: No Measurement Required																					
	Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.																						
	A "Pass" for <i>Daphnia magna</i> monitoring test is not a requirement.																						

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	Copper Cliff Complex												
Operator Name	Inco Limited												
Product(s)	Nickel-Copper-Cobalt-Platinum												
Address	155 Balsam Street, Copper Cliff, Ontario P0M 1N0												
Effluent Discharge Point	Nolin Creek Wastewater Treatment Plant												
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5	0.000	0.000	0.000	0.000	0.001	0.001	0.000	0.000	0.002	0.002	0.002	0.002
Cu (mg/L)	0.3	0.100	0.086	0.112	0.063	0.056	0.025	0.067	0.006	0.008	0.008	0.041	0.067
CN (mg/L)	1.0	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR
Pb (mg/L)	0.2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.020	0.020	0.020	0.020
Ni (mg/L)	0.5	0.288	0.435	0.505	0.306	0.285	0.224	0.384	0.066	0.135	0.221	0.216	0.279
Zn (mg/L)	0.5	0.000	0.000	0.002	0.000	0.002	0.000	0.000	0.000	0.005	0.007	0.007	0.005
TSS (mg/L)	15	0.000	3.500	2.040	0.000	3.000	5.850	8.933	1.000	4.750	2.120	4.600	3.520
Ra-226 (Bq/L)	0.37	NMR	NMR	0.006	NMR	NMR	0.005	NMR	NMR	0.010	NMR	NMR	0.007
pH low	≥6.0	7.8	7.5	7.5	6.8	8.4	8.5	8.4	8.1	7.7	7.3	8.2	8.2
pH high	≤9.5	8.5	8.3	8.4	8.7	9.0	8.8	8.8	8.4	8.4	8.3	8.4	8.5
Flow (m³/month)	-	528 868	405 391	611 568	711 938	773 264	727 418	570 696	263 596	402 977	411 437	300 101	393 234
Rainbow Trout	Pass	1	1	2	1	2	1	NMR	NMR	1	NMR	NMR	1
Acute Lethality Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-
Daphnia magna	Pass	1	1	2	1	2	1	NMR	NMR	1	NMR	NMR	1
Monitoring Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-
Comments:	The mine is on reduced frequency testing for acute lethality since July 2004.												
Notes:	ND: No Deposit	NMR: No Measurement Required											
		Pass: ≤50% Mortality											
		Fail: >50% Mortality											
		Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.											
		A "Pass" for <i>Daphnia magna</i> monitoring test is not a requirement.											

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	Copper Rand (Mine)												
Operator Name	Ressources MSV Inc. (Ressources Campbell Inc.)												
Product(s)	Copper-Gold-Silver												
Address	P.O. Box 8000, Chibougamau, Quebec G8P 2L1												
Effluent Discharge Point	Point #2.1c												
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5	0.003	0.008	0.012	0.020	0.012	0.009	0.007	0.006	0.009	0.008	0.008	0.010
Cu (mg/L)	0.3	0.033	0.056	0.090	0.040	0.108	0.072	0.040	0.030	0.038	0.023	0.040	0.055
CN (mg/L)	1.0	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	0.008	0.011	0.014
Pb (mg/L)	0.2	< 0.003	< 0.003	0.001	< 0.001	0.001	0.003	0.002	< 0.001	< 0.001	< 0.001	< 0.001	0.001
Ni (mg/L)	0.5	0.012	0.015	0.035	0.030	0.020	0.020	< 0.010	0.020	0.010	0.020	0.020	0.020
Zn (mg/L)	0.5	0.013	0.021	0.020	0.020	0.010	0.020	0.020	0.080	0.030	0.010	0.030	0.050
TSS (mg/L)	15	1.000	1.300	3.000	5.500	2.800	2.200	1.200	3.700	1.900	2.600	2.200	1.900
Ra-226 (Bq/L)	0.37	< 0.010	NMR	NMR	0.006	NMR	NMR	0.004	NMR	NMR	0.004	NMR	NMR
pH low	≥ 6.0	7.5	7.4	7.4	7.6	7.1	8.0	7.6	8.2	8.3	8.1	8.2	8.6
pH high	≤ 9.5	7.7	7.6	7.6	7.9	8.0	8.2	8.1	8.3	8.4	8.4	8.7	8.8
Flow (m <sup>3</sup> /month)	-	138 295	203 663	65 643	353 592	653 641	332 797	304 780	205 523	99 953	174 340	207 929	213 522
Rainbow Trout	Pass	1	NMR	NMR	1	NMR	NMR	2	NMR	1	-	-	-
Acute Lethality Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-
Daphnia magna	Pass	1	1	-	1	1	2	4	1	1	1	1	1
Monitoring Test	Fail	-	-	1	-	2	-	-	-	-	-	-	-

**Comments:** The mine is on reduced frequency testing for acute lethality. No acute lethality test provided for the 4th quarter of 2004. Although the mine does not use cyanide, Environment Canada requested cyanide sampling due to an issue related to dam permeability between Copper Rand and Principale tailings ponds.

**Notes:** ND: No Deposit      NMR: No Measurement Required  
 Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.  
 A "Pass" for *Daphnia magna* monitoring test is not a requirement.

Pass: ≤ 50% Mortality	Fail: > 50% Mortality
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# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	Crean Hill Mine												
Operator Name	Inco Limited												
Product(s)	Nickel-Copper-Cobalt-Platinum												
Address	410 Crean Hill Road, Walden, Ontario P0M 1N0												
Effluent Discharge Point	Crean Hill Mine												
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5	0.000	0.000	0.000	0.000	0.001	<0.001	0.000	0.000	0.002	0.002	0.002	0.002
Cu (mg/L)	0.3	0.005	0.004	0.008	0.028	0.012	0.002	0.012	0.001	0.004	0.012	0.004	0.007
CN (mg/L)	1.0	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR
Pb (mg/L)	0.2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.030	0.030	0.030	0.030
Ni (mg/L)	0.5	0.126	0.126	0.195	0.119	0.187	0.082	0.128	0.051	0.064	0.131	0.245	0.201
Zn (mg/L)	0.5	0.000	0.004	0.005	0.023	0.000	0.000	0.004	0.011	0.010	0.014	0.011	
TSS (mg/L)	15	0.550	0.000	0.000	0.500	0.000	0.480	0.600	1.100	0.000	2.067	2.000	2.560
Ra-226 (Bq/L)	0.37	NMR	NMR	0.009	NMR	NMR	0.007	—	—	—	NMR	NMR	0.004
pH low	≥6.0	7.8	7.2	7.4	8.8	8.9	8.6	7.9	7.4	7.5	7.9	8.1	7.9
pH high	≤9.5	8.6	8.7	8.6	9.0	9.0	8.9	8.5	7.9	8.3	8.4	8.5	8.5
Flow (m <sup>3</sup> /month)	—	8 440	4 480	27 733	62 062	82 057	26 790	11 493	485	1 243	5 194	11 738	27 677
Rainbow Trout	Pass	1	1	1	NMR	NMR	1	—	—	—	NMR	1	NMR
Acute Lethality Test	Fail	—	—	—	—	—	—	—	—	—	—	—	—
Daphnia magna	Pass	1	1	1	NMR	NMR	1	—	—	—	NMR	1	NMR
Monitoring Test	Fail	—	—	—	—	—	—	—	—	—	—	—	—

**Comments:** The mine is on reduced frequency testing for acute lethality since April 2004. Acute lethality test results were not provided for the 3rd quarter of 2004 as well as Radium 226 test results for the third quarter of 2004. Scheduled acute lethality and Radium 226 samples on days when there was no flow. Explanation was obtained from the quarterly reports.

Notes: ND: No Deposit      NMR: No Measurement Required

Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.  
A "Pass" for *Daphnia magna* monitoring test is not a requirement.

Pass: ≤50% Mortality

Fail: >50% Mortality

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	Croinor (Mine)												
Operator Name	Exploration Malartic-Sud Inc.												
Product(s)	Gold												
Address	1745, chemin Sullivan, Val d'Or, Quebec J9P 1M8												
Effluent Discharge Point	Final Effluent												
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5	-	-	-	-	-	-	< 0.003	< 0.002	ND	ND	ND	
Cu (mg/L)	0.3	-	-	-	-	-	-	< 0.012	< 0.010	< 0.021	ND	ND	
CN (mg/L)	1.0	-	-	-	-	-	-	NMR	NMR	ND	ND	ND	
Pb (mg/L)	0.2	-	-	-	-	-	-	< 0.030	< 0.010	< 0.006	ND	ND	
Ni (mg/L)	0.5	-	-	-	-	-	-	< 0.013	< 0.017	< 0.018	ND	ND	
Zn (mg/L)	0.5	-	-	-	-	-	-	< 0.014	< 0.009	0.011	ND	ND	
TSS (mg/L)	15	-	-	-	-	-	-	< 2.625	< 1.644	< 1.020	ND	ND	
Ra-226 (Bq/L)	0.37	-	-	-	-	-	-	-	-	< 0.003	ND	ND	
pH low	≥6.0	-	-	-	-	-	-	7.0	7.2	7.2	ND	ND	
pH high	≤9.5	-	-	-	-	-	-	7.7	7.5	7.5	ND	ND	
Flow (m <sup>3</sup> /month)	-	-	-	-	-	-	-	17 981	19 726	17 981	ND	ND	
Rainbow Trout	Pass	-	-	-	-	-	-	-	-	ND	ND	ND	
Acute Lethality Test	Fail	-	-	-	-	-	-	-	-	-	-	-	
Daphnia magna	Pass	-	-	-	-	-	-	-	-	1	ND	ND	
Monitoring Test	Fail	-	-	-	-	-	-	-	-	-	-	-	

**Comments:** The mine became subject to the MMER in July 2004. Effluent monitoring with respect to the MMER started in September 2004. Effluent data for July and August were provided based on the provincial requirements. No acute lethality test results were provided for September. Effluent analysis for Radium 226 started in September 2004. pH values were not provided as a range. A "Pass" for *Daphnia magna* monitoring test is not a requirement.

**Notes:** ND: No Deposit      NMR: No Measurement Required

Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.  
A "Pass" for *Daphnia magna* monitoring test is not a requirement.

Pass: ≤50% Mortality

Fail: >50% Mortality

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	Doyon												
Operator Name	Cambior Inc.												
Product(s)	Gold												
Address	P.O. Box 970, Rouyn-Noranda, Quebec J9X 5C8												
Effluent Discharge Point	Pond A – Final Effluent (D-203)												
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5	0.003	0.004	0.002	0.004	0.005	0.001	0.001	0.001	0.001	ND	0.002	< 0.001
Cu (mg/L)	0.3	0.030	0.040	0.040	0.040	0.050	0.030	0.060	0.060	0.040	ND	0.070	0.140
CN (mg/L)	1.0	0.015	0.032	0.053	0.013	0.014	0.011	0.008	0.013	0.013	ND	0.011	0.137
Pb (mg/L)	0.2	0.010	0.006	0.005	0.001	0.001	0.001	0.001	0.001	0.001	ND	< 0.001	< 0.001
Ni (mg/L)	0.5	0.060	0.070	0.050	0.040	0.050	0.060	0.080	0.070	0.040	ND	0.060	0.080
Zn (mg/L)	0.5	0.020	0.010	0.010	0.040	0.030	0.010	0.020	0.020	0.050	ND	0.060	0.110
TSS (mg/L)	23.8	2.700	4.800	3.100	7.600	2.400	2.400	6.800	5.200	4.300	ND	10.900	9.400
Ra-226 (Bq/L)	0.37	NMR	NMR	0.013	NMR	NMR	0.010	NMR	NMR	0.007	ND	NMR	0.016
pH low	≥6.0	6.8	6.8	6.6	6.6	6.7	6.6	7.5	7.5	7.4	ND	7.4	6.7
pH high	≤9.5	7.0	7.0	8.0	7.6	7.3	7.5	8.7	8.0	7.5	ND	8.6	6.7
Flow (m <sup>3</sup> /month)	–	174 755	101 058	240 933	585 321	716 277	429 767	456 824	872 298	216 985	ND	191 170	157 080
Rainbow Trout	Pass	1	1	NMR	NMR	NMR	1	NMR	NMR	1	ND	NMR	1
Acute Lethality Test	Fail	–	–	–	–	–	–	–	–	–	–	–	–
Daphnia magna	Pass	1	1	NMR	NMR	NMR	1	NMR	NMR	1	ND	NMR	–
Monitoring Test	Fail	–	–	–	–	–	–	–	–	–	–	–	1

**Comments:** TA was granted for TSS limit of 23.8 mg/L. TA expired on December 6, 2004. pH was not provided as a range. pH range was obtained from the quarterly reports. The mine is on reduced frequency testing for acute lethality.

Notes: ND: No Deposit      NMR: No Measurement Required

Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.  
A "Pass" for *Daphnia magna* monitoring test is not a requirement.

Pass: ≤50% Mortality      Fail: >50% Mortality

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name		Eagle River Mill											
Operator Name		River Gold Mines Ltd.											
Product(s)		Gold											
Address		127 Mission Rd., P.O. Box 1520, Wawa, Ontario P0S 1K0											
Effluent Discharge Point		Eagle River Mill											
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5	ND	ND	ND	0.004	0.010	0.004	0.004	0.009	0.003	0.004	0.004	ND
Cu (mg/L)	0.3	ND	ND	ND	0.054	0.038	0.013	0.019	0.023	0.029	0.052	ND	ND
CN (mg/L)	1.0	ND	ND	ND	0.061	0.064	0.030	0.029	0.038	0.022	0.049	ND	ND
Pb (mg/L)	0.2	ND	ND	ND	< 0.001	< 0.001	0.000	< 0.001	0.002	0.001	0.001	0.001	ND
Ni (mg/L)	0.5	ND	ND	ND	0.010	0.009	0.006	0.026	0.007	0.008	0.015	0.015	ND
Zn (mg/L)	0.5	ND	ND	ND	0.006	0.004	0.002	0.005	0.022	0.005	0.003	0.003	ND
TSS (mg/L)	15	ND	ND	ND	1.667	2.000	2.250	0.000	0.000	2.000	2.000	2.000	ND
Ra-226 (Bq/L)	0.37	ND	ND	ND	NMR	0.000	NMR	NMR	0.000	0.010	NMR	NMR	ND
pH low	≥6.0	ND	ND	ND	7.0	7.5	6.7	7.1	7.2	7.4	7.6	7.6	ND
pH high	≤9.5	ND	ND	ND	7.3	7.9	7.4	7.6	7.7	7.6	7.6	7.6	ND
Flow (m <sup>3</sup> /month)	—	ND	ND	ND	175	210	217	62	94	62	16	16	ND
Rainbow Trout		Pass	ND	ND	ND	1	1	1	1	1	—	—	ND
Acute Lethality Test		Fail	—	—	—	—	—	—	—	—	—	—	—
<i>Daphnia magna</i>		Pass	ND	ND	ND	1	1	1	1	1	—	—	ND
Monitoring Test		Fail	—	—	—	—	—	—	—	—	—	—	—

**Comments:** Acute lethality test results were not provided for November; acute lethality test was scheduled on day of no flow. The mine is on reduced frequency for Radium 226. Explanation was obtained from the quarterly reports.

Notes: ND: No Deposit      NMR: No Measurement Required

Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.  
A "Pass" for *Daphnia magna* monitoring test is not a requirement.

Pass: ≤50% Mortality      Fail: >50% Mortality

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	Eagle River Mine												
Operator Name	River Gold Mines Ltd.												
Product(s)	Gold												
Address	127 Mission Rd., P.O. Box 1520, Wawa, Ontario P0S 1K0												
Effluent Discharge Point	FDP 1												
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5 < 0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001
Cu (mg/L)	0.3 0.003	0.001	0.001	0.003	0.001	0.001	0.001	0.001	0.003	0.003	0.005	0.003	0.004
CN (mg/L)	1.0 NMR	NMR	NMR	NMR	NMR	0.000	NMR	NMR	NMR	NMR	NMR	NMR	NMR
Pb (mg/L)	0.2 0.000	0.000	< 0.001	< 0.001	0.000	0.001	< 0.001	0.001	0.001	0.001	0.006	0.002	0.002
Ni (mg/L)	0.5 0.000	0.001	0.000	0.000	0.000	0.001	0.001	0.001	0.003	0.000	0.005	0.005	0.005
Zn (mg/L)	0.5 0.011	0.009	0.011	0.010	0.004	0.006	0.007	0.006	0.006	0.012	0.011	0.008	0.009
TSS (mg/L)	15 11.000	9.000	9.020	11.750	6.000	4.000	6.250	5.200	2.500	7.500	10.000	10.600	
Ra-226 (Bq/L)	0.37 0.000	0.000	NMR	NMR	0.000	NMR	NMR	0.000	NMR	0.010	NMR	NMR	NMR
pH low	≥6.0 7.0	6.9	7.0	7.0	7.1	7.2	7.1	6.8	6.9	6.7	6.9	6.5	
pH high	≤9.5 7.1	7.0	7.1	7.4	7.4	7.7	7.5	7.5	7.4	7.5	7.1	7.6	
Flow (m³/month)	- 5 518	4 082	10 180	11 085	12 152	6 690	4 728	26 945	24 720	25 699	24 458	16 006	
Rainbow Trout	Pass 1	-	2	1	1	1	1	1	1	2	1	1	
Acute Lethality Test	Fail -	1	-	-	-	-	-	1	-	-	-	-	
Daphnia magna	Pass 1	1	2	1	1	1	1	1	2	2	1	1	
Monitoring Test	Fail -	-	-	-	-	-	-	-	-	-	-	-	

**Comments:** The mine is on reduced frequency for Radium 226 and the facility does not use cyanide. Explanations were obtained from the quarterly reports.

**Notes:** ND: No Deposit      NMR: No Measurement Required  
**Pass:** ≤50% Mortality      **Fail:** >50% Mortality  
 Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.  
 A "Pass" for *Daphnia magna* monitoring test is not a requirement.

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	Endako Mines																						
Operator Name	Thompson Creek Mining Ltd.																						
Product(s)	Molybdenum																						
Address	Bag 4001, Fraser Lake, British Columbia V0J 1S0																						
Effluent Discharge Point	En.A1 – Tailings Pond #1 South																						
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.										
As (mg/L)	0.5	NMR	0.001	NMR	NMR	0.001	NMR	NMR	0.001	NMR	NMR	0.001	NMR										
Cu (mg/L)	0.3	NMR	0.001	NMR	NMR	0.001	NMR	NMR	0.001	NMR	NMR	0.004	NMR										
CN (mg/L)	1.0	NMR	0.022	NMR	NMR	0.012	NMR	NMR	0.014	NMR	NMR	0.022	NMR										
Pb (mg/L)	0.2	NMR	0.001	NMR	NMR	0.001	NMR	NMR	0.001	NMR	NMR	0.001	NMR										
Ni (mg/L)	0.5	NMR	0.005	NMR	NMR	0.005	NMR	NMR	0.005	NMR	NMR	0.005	NMR										
Zn (mg/L)	0.5	NMR	0.005	NMR	NMR	0.005	NMR	NMR	0.005	NMR	NMR	0.005	NMR										
TSS (mg/L)	15	5.400	4.750	3.420	4.100	3.680	3.825	3.000	3.000	4.350	3.075	3.340	6.975										
Ra-226 (Bq/L)	0.37	NMR	0.010	NMR	NMR	0.005	NMR	NMR	0.010	NMR	NMR	0.020	NMR										
pH low	≥6.0	8.0	8.0	8.0	8.0	8.0	7.9	8.0	8.0	7.9	8.0	7.6	7.7										
pH high	≤9.5	8.0	8.0	8.1	8.1	8.0	8.1	8.1	8.1	8.1	8.1	8.1	8.2										
Flow (m <sup>3</sup> /month)	–	56 970	85 905	95 046	96 292	98 227	95 055	102 618	112 747	106 522	106 386	109 885	104 846										
Rainbow Trout	Pass	NMR	1	NMR	NMR	1	NMR	NMR	1	NMR	NMR	1	NMR										
Acute Lethality Test	Fail	–	–	–	–	–	–	–	–	–	–	–	–										
Daphnia magna	Pass	NMR	1	NMR	NMR	1	NMR	NMR	1	NMR	NMR	1	NMR										
Monitoring Test	Fail	–	–	–	–	–	–	–	–	–	–	–	–										
Comments:	The mine is on reduced frequency testing for As, Cu, CN, Pb, Ni, Zn, Radium 226, and acute lethality.																						
Notes:	No Deposit	NMR: No Measurement Required																					
	Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.																						
	A "Pass" for <i>Daphnia magna</i> monitoring test is not a requirement.																						
	Pass: ≤50% Mortality																						
	Fail: >50% Mortality																						

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	Endako Mines												
Operator Name	Thompson Creek Mining Ltd.												
Product(s)	Molybdenum												
Address	Bag 4001, Fraser Lake, British Columbia V0J 1S0												
Effluent Discharge Point	En.H1 – Tailings Pond #2 Higginbotham												
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5	NMR	0.001	NMR	NMR	0.001	NMR	NMR	0.001	NMR	NMR	0.001	NMR
Cu (mg/L)	0.3	NMR	0.001	NMR	NMR	0.001	NMR	NMR	0.001	NMR	NMR	0.004	NMR
CN (mg/L)	1.0	NMR	0.068	NMR	NMR	0.058	NMR	NMR	0.074	NMR	NMR	0.066	NMR
Pb (mg/L)	0.2	NMR	0.001	NMR	NMR	0.001	NMR	NMR	0.001	NMR	NMR	0.001	NMR
Ni (mg/L)	0.5	NMR	0.005	NMR	NMR	0.005	NMR	NMR	0.005	NMR	NMR	0.005	NMR
Zn (mg/L)	0.5	NMR	0.005	NMR	NMR	0.005	NMR	NMR	0.005	NMR	NMR	0.005	NMR
TSS (mg/L)	15	6.650	6.900	6.080	29.225	13.860	8.550	9.800	117.060	13.275	12.850	5.620	5.600
Ra-226 (Bq/L)	0.37	NMR	0.010	NMR	NMR	0.020	NMR	NMR	0.010	NMR	NMR	0.010	NMR
pH low	≥6.0	8.0	8.0	7.8	8.0	7.9	7.9	7.9	8.0	7.8	7.8	8.0	7.7
pH high	≤9.5	8.1	8.0	8.1	8.2	8.1	8.1	8.1	8.0	8.1	8.1	8.0	8.2
Flow (m <sup>3</sup> /month)	-	82 328	74 308	82 317	73 470	75 807	73 635	73 803	74 505	73 958	62 237	62 143	59 491
Rainbow Trout	Pass	NMR	1	NMR	NMR	1	NMR	NMR	1	NMR	NMR	1	NMR
Acute Lethality Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-
Daphnia magna	Pass	NMR	1	NMR	NMR	1	NMR	NMR	1	NMR	NMR	1	NMR
Monitoring Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-
Comments:	The mine is on reduced frequency testing for As, Cu, CN, Pb, Ni, Zn, Radium 226, and acute lethality.												
Notes:	ND: No Deposit	NMR: No Measurement Required											
		Pass: ≤50% Mortality											
		Fail: >50% Mortality											
		Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.											
		A "Pass" for <i>Daphnia magna</i> monitoring test is not a requirement.											

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	Endako Mines												
Operator Name	Thompson Creek Mining Ltd.												
Product(s)	Molybdenum												
Address	Bag 4001, Fraser Lake, British Columbia V0J 1S0												
Effluent Discharge Point	En.N1 – Tailings Pond #1 North												
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5	–	0.001	–	0.001	–	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Cu (mg/L)	0.3	–	0.001	–	0.001	–	0.002	0.002	0.001	0.001	0.002	0.001	0.001
CN (mg/L)	1.0	–	0.026	–	0.007	–	0.009	0.012	0.009	0.015	0.020	0.025	
Pb (mg/L)	0.2	–	0.001	–	0.001	–	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Ni (mg/L)	0.5	–	0.005	–	0.005	–	0.005	0.005	0.005	0.005	0.005	0.005	0.005
Zn (mg/L)	0.5	–	0.005	–	0.005	–	0.005	0.005	0.005	0.005	0.005	0.005	0.005
TSS (mg/L)	15	3,600	3,000	3,000	3,380	3,000	3,000	3,460	3,000	4,825	3,000	3,125	
Ra-226 (Bq/L)	0.37	–	0.010	–	0.005	–	0.005	0.005	0.007	0.005	0.005	0.005	NMR
pH low	≥6.0	8.0	8.0	8.0	8.1	8.0	7.9	8.0	8.0	8.0	7.9	7.9	
pH high	≤9.5	8.1	8.0	8.1	8.1	8.1	8.2	8.1	8.2	8.2	8.2	8.2	
Flow (m <sup>3</sup> /month)	–	17,649	23,841	55,521	56,618	52,285	42,292	44,718	45,403	47,648	50,943	54,928	48,292
Rainbow Trout	Pass	–	1	–	–	1	–	1	1	1	1	1	1
Acute Lethality Test	Fail	–	–	–	–	–	–	–	–	–	–	–	–
Daphnia magna	Pass	–	1	–	–	1	–	1	1	1	1	1	1
Monitoring Test	Fail	–	–	–	–	–	–	–	–	–	–	–	–

**Comments:** For the missing values for the months of January, March, April, and June, the mine inadvertently misinterpreted the requirements of the regulations with respect to reduced frequency of testing. Upon being corrected by the enforcement officer, the mine reinstated normal testing frequency in July 2004.

**Notes:** ND: No Deposit      NMR: No Measurement Required  
**Highly highlighted data indicate that a monthly effluent quality standard was exceeded for that month.**  
A "Pass" for *Daphnia magna* monitoring test is not a requirement.

Pass: ≤50% Mortality      Fail: >50% Mortality

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	Endako Mines												
Operator Name	Thompson Creek Mining Ltd.												
Product(s)	Molybdenum												
Address	Bag 4001, Fraser Lake, British Columbia V0J 1S0												
Effluent Discharge Point	En.S2 – Tailings Pond #2 South												
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5	NMR	0.001	NMR	NMR	0.001	NMR	NMR	0.001	NMR	NMR	0.001	NMR
Cu (mg/L)	0.3	NMR	0.001	NMR	NMR	0.001	NMR	NMR	0.001	NMR	NMR	0.004	NMR
CN (mg/L)	1.0	NMR	0.071	NMR	NMR	0.006	NMR	NMR	0.010	NMR	NMR	0.060	NMR
Pb (mg/L)	0.2	NMR	0.001	NMR	NMR	0.001	NMR	NMR	0.001	NMR	NMR	0.001	NMR
Ni (mg/L)	0.5	NMR	0.005	NMR	NMR	0.005	NMR	NMR	0.005	NMR	NMR	0.005	NMR
Zn (mg/L)	0.5	NMR	0.005	NMR	NMR	0.005	NMR	NMR	0.005	NMR	NMR	0.020	NMR
TSS (mg/L)	15	3.400	3.033	3.240	3.025	3.000	3.000	3.000	3.200	3.900	3.000	3.000	3.000
Ra-226 (Bq/L)	0.37	NMR	0.010	NMR	NMR	0.005	NMR	NMR	0.005	NMR	NMR	0.005	NMR
pH low	≥6.0	8.0	8.0	7.9	7.7	8.0	7.9	7.9	7.9	8.0	8.0	7.9	7.8
pH high	≤9.5	8.1	8.1	8.2	8.1	8.0	8.0	8.1	8.0	8.2	8.1	8.1	8.2
Flow (m <sup>3</sup> /month)	-	67 549	67 203	80 544	77 498	65 075	59 685	57 366	59 483	66 090	65 138	67 889	63 285
Rainbow Trout	Pass	NMR	1	NMR	NMR	1	NMR	NMR	1	NMR	NMR	1	NMR
Acute Lethality Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-
Daphnia magna	Pass	NMR	1	NMR	NMR	1	NMR	NMR	1	NMR	NMR	1	NMR
Monitoring Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-
Comments:	The mine is on reduced frequency testing for As, Cu, CN, Pb, Ni, Zn, Radium 226, and acute lethality.												
Notes:	ND: No Deposit	NMR: No Measurement Required											Pass: ≤50% Mortality
		Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.											Fail: >50% Mortality
		A "Pass" for <i>Daphnia magna</i> monitoring test is not a requirement.											

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	Endako Mines												
Operator Name	Thompson Creek Mining Ltd.												
Product(s)	Molybdenum												
Address	Bag 4001, Fraser Lake, British Columbia V0J 1S0												
Effluent Discharge Point	En.SBC – Endako Pit												
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5	NMR	0.001	NMR	0.001	NMR	NMR	0.001	NMR	NMR	0.001	NMR	NMR
Cu (mg/L)	0.3	NMR	0.003	NMR	0.002	NMR	NMR	0.001	NMR	NMR	0.004	NMR	NMR
CN (mg/L)	1.0	-	0.006	-	0.005	-	-	0.008	-	-	0.005	0.005	0.005
Pb (mg/L)	0.2	NMR	0.001	NMR	0.001	NMR	NMR	0.001	NMR	NMR	0.001	NMR	NMR
Ni (mg/L)	0.5	NMR	0.005	NMR	0.005	NMR	NMR	0.005	NMR	NMR	0.005	NMR	NMR
Zn (mg/L)	0.5	NMR	0.005	NMR	0.005	NMR	NMR	0.005	NMR	NMR	0.020	NMR	NMR
TSS (mg/L)	15	4.375	3.425	5.040	3.575	3.000	3.400	3.000	3.680	4.025	3.000	3.000	3.000
Ra-226 (Bq/L)	0.37	NMR	0.010	NMR	0.005	NMR	NMR	0.005	NMR	NMR	0.005	NMR	NMR
pH low	≥6.0	7.9	8.0	8.0	8.0	8.0	8.0	8.0	7.9	7.8	8.0	8.0	7.9
pH high	≤9.5	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.2	8.1	8.1	8.2
Flow (m <sup>3</sup> /month)	-	27 846	20 010	56 414	82 388	58 770	52 080	55 846	60 679	66 840	66 225	105 441	123 556
Rainbow Trout	Pass	NMR	1	NMR	NMR	1	NMR	NMR	1	NMR	NMR	1	NMR
Acute Lethality Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-
Daphnia magna	Pass	NMR	1	NMR	NMR	1	NMR	NMR	1	NMR	NMR	1	NMR
Monitoring Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-

**Comments:** The mine is on reduced frequency testing for As, Cu, Pb, Ni, Zn, Radium 226, and acute lethality. CN values were not provided for the months of January, March, April, June, July, September, and October. The mine inadvertently misinterpreted the requirements of the Regulations with respect to reduced frequency of testing. Upon being corrected by the enforcement officer, the mine reinstated normal testing frequency on November 15, 2004.

**Notes:** ND: No Deposit      NMR: No Measurement Required  
**Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.**  
A "Pass" for *Daphnia magna* monitoring test is not a requirement.

Pass: ≤50% Mortality

Fail: >50% Mortality

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	Endako Mines												
Operator Name	Thompson Creek Mining Ltd.												
Product(s)	Molybdenum												
Address	Bag 4001, Fraser Lake, British Columbia V0J 1S0												
Effluent Discharge Point	En.W2 – Denak West Pit												
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cu (mg/L)	0.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
CN (mg/L)	1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pb (mg/L)	0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ni (mg/L)	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zn (mg/L)	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TSS (mg/L)	15	ND	ND	ND	ND	3,000	ND	ND	ND	ND	ND	ND	ND
Ra-226 (Bq/L)	0.37	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
pH low	≥6.0	ND	ND	ND	ND	7.9	ND	ND	ND	ND	ND	ND	ND
pH high	≤9.5	ND	ND	ND	ND	8.1	ND	ND	ND	ND	ND	ND	ND
Flow (m <sup>3</sup> /month)	–	ND	ND	ND	ND	18,888	ND	ND	ND	ND	ND	ND	ND
Rainbow Trout	Pass	ND	ND	ND	–	ND	ND	ND	ND	ND	ND	ND	ND
Acute Lethality Test	Fail	–	–	–	–	–	–	–	–	–	–	–	–
Daphnia magna	Pass	ND	ND	ND	–	ND	ND	ND	ND	ND	ND	ND	ND
Monitoring Test	Fail	–	–	–	–	–	–	–	–	–	–	–	–

**Comments:** Partial data were provided for April. The mine reported discharge of effluent during 12 days in April.

**Notes:** ND: No Deposit      NMR: No Measurement Required

**Pass:** ≤50% Mortality      **Fail:** >50% Mortality

Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.  
A “Pass” for *Daphnia magna* monitoring test is not a requirement.

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	Eskay Creek Mine												
Operator Name	Barrick Gold Corporation												
Product(s)	Gold-Silver												
Address	P.O. Box 3908, Smithers, British Columbia V0J 2N0												
Effluent Discharge Point	Es.D7 – Treatment Pond Discharge Point												
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5	0.003	0.001	0.001	0.004	0.002	0.002	0.001	0.001	0.001	0.002	0.002	0.002
Cu (mg/L)	0.3	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010
CN (mg/L)	1.0	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR
Pb (mg/L)	0.2	0.042	0.031	0.039	0.034	0.067	0.062	0.030	0.031	0.033	0.030	0.030	0.030
Ni (mg/L)	0.5	0.021	0.025	0.014	0.010	0.011	0.011	0.013	0.015	0.012	0.015	0.015	0.017
Zn (mg/L)	0.5	0.024	0.014	0.015	0.019	0.019	0.048	0.040	0.006	0.011	0.014	0.029	0.023
TSS (mg/L)	20	6.175	6.000	5.040	5.450	7.280	4.800	5.475	4.120	6.050	5.950	6.040	7.475
Ra-226 (Bq/L)	0.37	NMR	NMR	0.030	NMR	0.007	NMR	NMR	0.010	NMR	NMR	NMR	0.010
pH low	≥6.0	7.6	7.8	7.5	7.4	7.0	6.8	7.8	7.1	7.2	7.0	7.4	7.1
pH high	≤9.5	7.7	7.9	7.9	7.7	7.7	7.7	8.3	7.7	7.6	7.7	9.4	7.6
Flow (m <sup>3</sup> /month)	–	75 516	60 378	57 207	57 285	150 424	220 118	64 953	93 905	82 042	139 143	76 539	77 326
Rainbow Trout	Pass	NMR	1	NMR	NMR	1	NMR	NMR	1	NMR	NMR	NMR	1
Acute Lethality Test	Fail	–	–	–	–	–	–	–	–	–	–	–	–
Daphnia magna	Pass	NMR	1	NMR	NMR	1	NMR	NMR	1	NMR	NMR	NMR	1
Monitoring Test	Fail	–	–	–	–	–	–	–	–	–	–	–	–
Comments:	TA was granted for TSS limit of 20 mg/L TA expired on December 6, 2004. The mine is on reduced frequency testing for acute lethality.												
Notes:	NMR: No Measurement Required ND: No Deposit Highlighted data indicate that a monthly effluent quality standard was exceeded for that month. A “Pass” for <i>Daphnia magna</i> monitoring test is not a requirement.												
	Pass: ≤50% Mortality Fail: >50% Mortality												

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	Eskay Creek Mine												
Operator Name	Barrick Gold Corporation												
Product(s)	Gold-Silver												
Address	P.O. Box 3908, Smithers, British Columbia V0J 2N0												
Effluent Discharge Point	Es.TM1 – Tom MacKay Discharge Point												
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5	0.003	0.003	0.003	0.003	0.001	< 0.001	0.001	0.002	0.003	0.006	0.005	0.005
Cu (mg/L)	0.3	0.002	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
CN (mg/L)	1.0	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR
Pb (mg/L)	0.2	0.011	0.004	0.003	0.003	0.002	0.001	0.004	0.002	0.013	0.010	0.010	0.005
Ni (mg/L)	0.5	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Zn (mg/L)	0.5	0.006	0.008	0.007	0.008	0.009	0.009	0.005	0.006	0.007	0.009	0.007	0.007
TSS (mg/L)	15	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.750	3.125	3.880	3.000
Ra-226 (Bq/L)	0.37	NMR	NMR	0.005	NMR	0.006	NMR	NMR	0.005	NMR	NMR	NMR	0.005
pH low	≥6.0	7.5	7.5	7.4	7.4	7.2	7.0	7.1	7.4	7.1	7.2	7.1	6.7
pH high	≤9.5	8.3	7.6	7.6	7.6	8.2	8.2	8.0	7.8	7.5	7.7	7.7	7.9
Flow (m <sup>3</sup> /month)	–	292 539	210 025	265 323	324 578	1 752 529	3 573 075	1 727 630	390 079	901 110	1 156 064	485 948	582 953
Rainbow Trout	Pass	NMR	1	NMR	NMR	1	NMR	NMR	1	NMR	NMR	NMR	1
Acute Lethality Test	Fail	–	–	–	–	–	–	–	–	–	–	–	–
Daphnia magna	Pass	NMR	1	NMR	NMR	1	NMR	NMR	1	NMR	NMR	NMR	1
Monitoring Test	Fail	–	–	–	–	–	–	–	–	–	–	–	–
Comments:	The mine is on reduced frequency testing for acute lethality.												
Notes:	ND: No Deposit	NMR: No Measurement Required											
		Pass: ≤50% Mortality											
		Fail: >50% Mortality											

Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.  
A "Pass" for *Daphnia magna* monitoring test is not a requirement.

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name		Eskay Creek Mine											
Operator Name		Barrick Gold Corporation											
Product(s)		Gold-Silver											
Address		P.O. Box 3908, Smithers, British Columbia V0J 2N0											
Effluent Discharge Point		Es.W20 – Albino Discharge Point											
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5	0.015	0.014	0.015	0.011	0.006	0.009	0.020	0.029	0.030	0.030	0.026	
Cu (mg/L)	0.3	0.002	0.001	0.001	0.002	0.007	0.001	0.001	0.001	0.001	0.001	0.001	0.001
CN (mg/L)	1.0	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR
Pb (mg/L)	0.2	0.004	0.003	0.002	0.008	0.014	0.011	0.002	0.005	0.006	0.005	0.005	0.004
Ni (mg/L)	0.5	0.001	0.001	0.001	0.002	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Zn (mg/L)	0.5	0.005	0.006	0.007	0.010	0.010	0.008	0.007	0.005	0.005	0.005	0.005	0.007
TSS (mg/L)	15	3.000	3.000	3.000	3.380	3.375	3.000	3.000	3.000	3.000	3.000	3.000	3.000
Ra-226 (Bq/L)	0.37	NMR	NMR	0.006	NMR	0.005	NMR	NMR	0.010	NMR	NMR	NMR	0.010
pH low	≥6.0	7.6	7.6	7.6	7.5	7.5	7.3	7.8	7.1	7.6	7.2	7.3	7.3
pH high	≤9.5	8.3	7.7	7.9	7.9	7.9	7.9	8.3	7.7	8.2	7.7	7.8	7.7
Flow (m <sup>3</sup> /month)	–	23 568	60 378	24 056	38 355	212 666	369 368	64 953	93 905	59 610	71 647	35 096	46 336
Rainbow Trout	Pass	NMR	1	NMR	NMR	1	NMR	NMR	1	NMR	NMR	NMR	1
Acute Lethality Test	Fail	–	–	–	–	–	–	–	–	–	–	–	–
Daphnia magna	Pass	NMR	1	NMR	NMR	1	NMR	NMR	1	NMR	NMR	NMR	1
Monitoring Test	Fail	–	–	–	–	–	–	–	–	–	–	–	–
<b>Comments:</b>		The mine is on reduced frequency testing for acute lethality.											
Notes: ND: No Deposit		NMR: No Measurement Required											
Highly highlighted data indicate that a monthly effluent quality standard was exceeded for that month.		Pass: ≤50% Mortality											
A "Pass" for <i>Daphnia magna</i> monitoring test is not a requirement.		Fail: >50% Mortality											

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	Flin Flon Complex												
Operator Name	Hudson Bay Mining and Smelting Co. Ltd.												
Product(s)	Copper-Lead-Zinc												
Address	P.O. Box 1500, Flin Flon, Manitoba R8A 1N9												
Effluent Discharge Point	North Weir Discharge												
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5	0.008	0.005	0.007	0.005	0.004	0.003	0.002	0.003	0.002	0.005	0.005	0.006
Cu (mg/L)	0.3	0.005	0.026	0.021	0.128	0.047	0.011	0.009	0.010	0.008	0.002	0.019	0.007
CN (mg/L)	1.0	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR
Pb (mg/L)	0.2	0.008	0.005	0.004	0.005	0.006	0.004	0.011	0.020	0.009	0.006	0.007	0.010
Ni (mg/L)	0.5	0.001	0.004	0.001	0.004	0.002	0.001	0.001	0.001	0.002	0.002	0.002	0.001
Zn (mg/L)	0.5	0.034	0.095	0.093	0.154	0.304	0.187	0.098	0.104	0.210	0.080	0.116	0.063
TSS (mg/L)	15	4.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	3.000	3.000	2.000	2.000
Ra-226 (Bq/L)	0.37	NMR	NMR	0.020	NMR	NMR	0.020	NMR	0.030	0.020	NMR	NMR	0.020
pH low	≥6.0	10.4	9.3	9.1	8.9	8.3	8.9	8.8	9.4	9.6	9.5	8.8	8.7
pH high	≤11.32	11.3	10.7	9.6	10.8	10.0	9.7	10.6	10.6	10.1	10.2	10.5	8.8
Flow (m <sup>3</sup> /month)	-	753 300	704 700	869 400	1 339 000	1 927 200	1 274 400	1 184 200	1 316 800	1 401 100	1 231 700	1 171 700	1 157 500
Rainbow Trout	Pass	-	1	2	1	2	1	1	1	2	1	1	1
Acute Lethality Test	Fail	2	1	-	1	-	-	1	-	-	-	-	-
Daphnia magna	Pass	2	1	2	2	1	1	2	2	1	1	1	1
Monitoring Test	Fail	-	1	-	-	1	-	-	-	-	-	-	-

**Comments:** TA was granted for upper pH limit of 11.32. TA expired on December 6, 2004.

**Notes:** ND: No Deposit      NMR: No Measurement Required

Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.  
A "Pass" for *Daphnia magna* monitoring test is not a requirement.

Pass: ≤50% Mortality

Fail: >50% Mortality

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	Garson Mine																						
Operator Name	Inco Limited																						
Product(s)	Nickel-Copper-Cobalt-Platinum																						
Address	60 Mine Road, Garson, Ontario P0M 1N0																						
Effluent Discharge Point	Garson Mine																						
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.										
As (mg/L)	0.5	0.000	0.000	< 0.001	0.000	0.001	< 0.001	0.000	0.000	0.000	0.002	0.002	0.002										
Cu (mg/L)	0.3	0.003	0.000	0.004	0.015	0.000	0.001	0.002	0.000	0.004	0.031	0.003	0.003										
CN (mg/L)	1.0	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR										
Pb (mg/L)	0.2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.030	0.030	0.030										
Ni (mg/L)	0.5	0.021	0.032	0.113	0.068	0.032	0.040	0.053	0.033	0.039	0.063	0.085	0.066										
Zn (mg/L)	0.5	0.000	0.000	0.000	0.018	0.000	0.000	0.000	0.000	0.000	0.022	0.010	0.010										
TSS (mg/L)	15	0.750	0.000	1.000	2.150	1.050	3.000	1.700	0.550	1.840	2.000	2.000	2.000										
Ra-226 (Bq/L)	0.37	NMR	0.010	NMR	NMR	0.011	NMR	NMR	NMR	0.305	0.173	0.163	0.030										
pH low	≥6.0	7.1	7.3	7.2	8.1	7.9	8.5	8.4	7.8	8.4	7.6	6.8	6.8										
pH high	≤9.5	8.4	8.5	7.7	8.5	8.7	8.8	8.7	8.8	9.4	8.9	8.0	8.6										
Flow (m <sup>3</sup> /month)	—	52 359	55 129	125 798	112 312	102 292	126 894	65 055	55 428	93 032	109 014	127 957	93 973										
Rainbow Trout	Pass	1	1	1	NMR	NMR	1	NMR	NMR	1	NMR	NMR	1										
Acute Lethality Test	Fail	—	—	—	—	—	—	—	—	—	—	—	—										
Daphnia magna	Pass	1	1	1	NMR	NMR	1	NMR	NMR	1	NMR	NMR	1										
Monitoring Test	Fail	—	—	—	—	—	—	—	—	—	—	—	—										
Comments:	The mine is on reduced frequency testing for acute lethality.																						
Notes:	ND: No Deposit	NMR: No Measurement Required																					
	Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.																						
	A "Pass" for <i>Daphnia magna</i> monitoring test is not a requirement.																						
	Pass: ≤50% Mortality																						
	Fail: >50% Mortality																						

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	Géant Dormant (Mine)												
Operator Name	Cambior Inc.												
Product(s)	Gold												
Address	1075, 3e Avenue Est, P.O. Box 9999, Val d'Or, Quebec J9P 6M1												
Effluent Discharge Point	GD-E01 Final Effluent – Mine Water Pond												
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5	0.003	NMR	NMR	NMR	0.001	NMR	NMR	0.003	NMR	NMR	NMR	0.001
Cu (mg/L)	0.3	0.013	0.010	0.010	0.010	0.038	0.016	0.013	0.014	0.025	0.013	0.016	0.013
CN (mg/L)	1.0	0.012	NMR	NMR	NMR	0.015	NMR	NMR	0.005	NMR	NMR	NMR	0.071
Pb (mg/L)	0.2	0.010	0.010	0.005	0.001	0.002	0.003	0.002	0.001	0.001	0.001	0.001	0.001
Ni (mg/L)	0.5	0.013	NMR	NMR	NMR	0.003	NMR	NMR	0.010	NMR	NMR	NMR	0.010
Zn (mg/L)	0.5	0.183	0.105	0.078	0.040	0.045	0.046	0.004	0.082	0.070	0.078	0.094	0.103
TSS (mg/L)	15	5.600	5.900	3.680	2.750	1.700	0.880	3.100	3.840	5.600	5.075	2.720	1.000
Ra-226 (Bq/L)	0.37	NMR	NMR	0.009	NMR	NMR	0.007	NMR	NMR	0.002	NMR	NMR	0.005
pH low	≥6.0	7.2	7.3	7.5	7.7	7.8	7.4	7.7	7.3	7.4	7.6	7.4	7.4
pH high	≤9.5	7.7	7.7	7.9	8.0	8.0	7.9	7.9	8.1	7.8	8.3	8.2	7.9
Flow (m³/month)	–	81 133	75 168	76 781	73 440	47 475	69 725	71 201	87 048	69 984	84 816	74 736	76 781
Rainbow Trout	Pass	1	NMR	NMR	NMR	1	NMR	NMR	1	NMR	NMR	NMR	1
Acute Lethality Test	Fail	–	–	–	–	–	–	–	–	–	–	–	–
Daphnia magna	Pass	1	NMR	NMR	NMR	1	NMR	NMR	1	NMR	NMR	NMR	1
Monitoring Test	Fail	–	–	–	–	–	–	–	–	–	–	–	–

**Comments:** pH was not provided as a range. pH range was obtained from the quarterly reports. The mine is on reduced frequency testing for acute lethality.

Notes: ND: No Deposit      NMR: No Measurement Required

Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.  
A "Pass" for *Daphnia magna* monitoring test is not a requirement.

Pass: ≤50% Mortality      Fail: >50% Mortality

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	Géant Dormant (Mine)																						
Operator Name	Cambior Inc.																						
Product(s)	Gold																						
Address	1075, 3e Avenue Est, P.O. Box 9999, Val d'Or, Quebec J9P 6M1																						
Effluent Discharge Point	GD-E02 Final Effluent – Lamellar Clarifier																						
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.										
As (mg/L)	0.5	ND	ND	ND	ND	ND	ND	0.001	0.001	0.001	0.001	ND	ND										
Cu (mg/L)	0.3	ND	ND	ND	ND	ND	ND	0.067	0.026	0.075	0.155	ND	ND										
CN (mg/L)	1.0	ND	ND	ND	ND	ND	ND	0.014	0.018	0.035	0.050	ND	ND										
Pb (mg/L)	0.2	ND	ND	ND	ND	ND	ND	0.001	0.001	0.001	0.001	ND	ND										
Ni (mg/L)	0.5	ND	ND	ND	ND	ND	ND	0.037	0.036	0.020	0.040	ND	ND										
Zn (mg/L)	0.5	ND	ND	ND	ND	ND	ND	0.010	0.034	0.013	0.035	ND	ND										
TSS (mg/L)	15	ND	ND	ND	ND	ND	ND	5.733	6.480	4.050	5.650	ND	ND										
Ra-226 (Bq/L)	0.37	ND	ND	ND	ND	ND	ND	0.002	NMR	NMR	0.003	ND	ND										
pH low	≥6.0	ND	ND	ND	ND	ND	ND	7.4	7.1	7.3	7.4	ND	ND										
pH high	≤9.5	ND	ND	ND	ND	ND	ND	7.6	7.7	7.7	8.0	ND	ND										
Flow (m <sup>3</sup> /month)	–	ND	ND	ND	ND	ND	ND	93 528	144 805	131 660	75 010	ND	ND										
Rainbow Trout	Pass	ND	ND	ND	ND	ND	ND	2	4	1	2	ND	ND										
Acute Lethality Test	Fail	–	–	–	–	–	–	1	–	–	1	–	–										
Daphnia magna	Pass	ND	ND	ND	ND	ND	ND	1	3	1	2	ND	ND										
Monitoring Test	Fail	–	–	–	–	–	–	2	1	–	1	–	–										
<b>Comments:</b>	TA, granted for acute lethality, expired on December 6, 2004. pH was not provided as a range. pH range was obtained from the quarterly reports.																						
<b>Notes:</b>	ND: No Deposit	NMR: No Measurement Required																					
	Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.																						
	A "Pass" for <i>Daphnia magna</i> monitoring test is not a requirement.																						
	Pass: ≤50% Mortality																						
	Fail: >50% Mortality																						

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	Giant Mine												
Operator Name	Miramar Mining Corporation												
Product(s)	Gold												
Address	Giant Minesite, Box 2951 Yellowknife, Northwest Territories X1A 2R2												
<b>Effluent Discharge Point</b> Surveillance Network Program Station 43-1													
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5	ND	ND	ND	ND	ND	ND	0.378	0.321	ND	ND	ND	ND
Cu (mg/L)	0.3	ND	ND	ND	ND	ND	ND	0.020	0.020	ND	ND	ND	ND
CN (mg/L)	1.0	ND	ND	ND	ND	ND	ND	0.020	0.016	ND	ND	ND	ND
Pb (mg/L)	0.2	ND	ND	ND	ND	ND	ND	0.001	< 0.001	ND	ND	ND	ND
Ni (mg/L)	0.5	ND	ND	ND	ND	ND	ND	0.055	0.063	ND	ND	ND	ND
Zn (mg/L)	0.5	ND	ND	ND	ND	ND	ND	0.008	0.025	ND	ND	ND	ND
TSS (mg/L)	15	ND	ND	ND	ND	ND	ND	2.075	2.900	ND	ND	ND	ND
Ra-226 (Bq/L)	0.37	ND	ND	ND	ND	ND	ND	0.011	0.009	ND	ND	ND	ND
pH low	≥6.0	ND	ND	ND	ND	ND	ND	7.9	8.0	ND	ND	ND	ND
pH high	≤9.5	ND	ND	ND	ND	ND	ND	8.3	8.2	ND	ND	ND	ND
Flow (m <sup>3</sup> /month)	-	ND	ND	ND	ND	ND	ND	175 399	161 733	ND	ND	ND	ND
Rainbow Trout	Pass	ND	ND	ND	ND	ND	ND	1	2	ND	ND	ND	ND
Acute Lethality Test	Fail	-	-	-	-	-	-	■ 1	-	-	-	-	-
Daphnia magna	Pass	ND	ND	ND	ND	ND	ND	1	2	ND	ND	ND	ND
Monitoring Test	Fail	-	-	-	-	-	-	1	-	-	-	-	-
<b>Comments:</b>													
Notes:	ND: No Deposit	NMR: No Measurement Required	Pass: ≤50% Mortality	Fail: >50% Mortality									
Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.		A "Pass" for <i>Daphnia magna</i> monitoring test is not a requirement.											

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

<b>Mine/Mill Name</b>	Golden Giant Mine												
<b>Operator Name</b>	Newmont Canada Ltd.												
<b>Product(s)</b>	Gold												
<b>Address</b>	Yellow Brick Road, Hwy. 17, P.O. Box 40, Marathon, Ontario P0T 2E0												
<b>Effluent Discharge Point</b>	Effluent Treatment Plant Final Effluent												
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5	ND	ND	ND	ND	< 0.002	< 0.002	< 0.002	< 0.002	0.009	0.009	0.002	ND
Cu (mg/L)	0.3	ND	ND	ND	ND	0.007	< 0.005	< 0.006	< 0.005	0.059	0.059	0.083	ND
CN (mg/L)	1.0	ND	ND	ND	ND	0.026	0.016	0.024	0.014	0.228	0.228	0.267	ND
Pb (mg/L)	0.2	ND	ND	ND	ND	< 0.005	< 0.005	< 0.005	< 0.005	0.005	0.005	0.005	ND
Ni (mg/L)	0.5	ND	ND	ND	ND	0.190	0.180	0.144	0.130	0.148	0.130	0.130	ND
Zn (mg/L)	0.5	ND	ND	ND	ND	< 0.010	< 0.010	< 0.010	< 0.010	0.010	0.010	0.010	ND
TSS (mg/L)	15	ND	ND	ND	ND	ND	1.330	< 1.250	1.200	< 1.250	1.500	1.000	ND
Ra-226 (Bq/L)	0.37	ND	ND	ND	ND	< 0.010	< 0.010	< 0.010	< 0.010	0.010	0.010	NMR	ND
pH low	≥6.0	ND	ND	ND	ND	ND	7.0	7.0	6.9	7.0	6.9	6.9	ND
pH high	≤9.5	ND	ND	ND	ND	ND	7.3	7.2	7.2	7.3	7.2	6.9	ND
Flow (m <sup>3</sup> /month)	-	ND	ND	ND	ND	ND	103 646	214 508	189 814	196 197	209 922	1 011	ND
<b>Rainbow Trout</b>	Pass	ND	ND	ND	ND	ND	1	1	1	1	1	-	ND
<b>Acute Lethality Test</b>	Fail	-	-	-	-	-	-	-	-	-	-	-	-
<i>Daphnia magna</i>	Pass	ND	ND	ND	ND	ND	1	1	1	1	1	-	ND
<b>Monitoring Test</b>	Fail	-	-	-	-	-	-	-	-	-	-	-	-

**Comments:** Data for Q1, Q2, and Q3 were reviewed from the quarterly reports external to RISS. No acute lethality test results were provided for November 2004 – no effluent was discharged after November 1.

**Notes:** ND: No Deposit      NMR: No Measurement Required

Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.  
A "Pass" for *Daphnia magna* monitoring test is not a requirement.

Pass: ≤50% Mortality      Fail: >50% Mortality

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	Haley Plant													
Operator Name	Timminco Ltd.													
Product(s)	Magnesium-Calcium-Strontium													
Address	962 Magnesium Road, Haley Station, Ontario K0J 1Y0													
Effluent Discharge Point	FDP 1													
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.	
As (mg/L)	0.5	< 0.001	< 0.003	< 0.001	< 0.001	NMR	< 0.001	NMR	NMR	< 0.001	NMR	NMR	0.001	
Cu (mg/L)	0.3	0.001	0.002	0.001	0.002	NMR	0.002	NMR	NMR	0.002	NMR	NMR	0.001	
CN (mg/L)	1.0	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	
Pb (mg/L)	0.2	< 0.001	< 0.001	< 0.001	< 0.001	NMR	< 0.001	NMR	NMR	< 0.001	NMR	NMR	0.001	
Ni (mg/L)	0.5	< 0.005	< 0.005	< 0.005	< 0.005	NMR	< 0.005	NMR	NMR	< 0.005	NMR	NMR	0.005	
Zn (mg/L)	0.5	< 0.010	< 0.010	< 0.010	< 0.010	NMR	< 0.010	NMR	NMR	< 0.010	NMR	NMR	0.010	
TSS (mg/L)	15	< 2.000	< 2.000	< 2.000	< 2.250	< 2.000	< 2.200	< 4.000	< 2.400	< 2.000	2.000	2.000	2.000	
Ra-226 (Bq/L)	0.37	NMR	NMR	0.010	NMR	NMR	< 0.010	NMR	NMR	< 0.010	0.010	NMR	NMR	
pH low	≥6.0	7.5	7.6	7.3	7.5	7.3	7.3	7.1	7.0	7.1	7.0	7.4	7.4	
pH high	≤9.5	7.7	7.7	8.3	7.6	7.8	8.2	7.3	7.3	7.3	7.0	8.1	7.4	
Flow (m³/month)	-	24 358	39 078	63 761	22 388	58 505	89 440	78 872	52 458	33 570	31 612	39 906	11 167	
Rainbow Trout	Pass	1	1	1	1	1	1	NMR	NMR	1	NMR	1	NMR	
Acute Lethality Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-	
Daphnia magna	Pass	1	1	1	1	1	1	NMR	NMR	1	NMR	1	NMR	
Monitoring Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Comments:</b>	The mine is on reduced frequency testing for As, Cu, Pb, Ni, Zn, Radium 226 and acute lethality. Annual report was updated from the quarterly reports.													
Notes:	ND: No Deposit	<b>NMR:</b> No Measurement Required											Pass: ≤50% Mortality	
		Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.											Fail: >50% Mortality	
		A "Pass" for <i>Daphnia magna</i> monitoring test is not a requirement.												

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	Holloway Mine (formerly Holt-McDermott Mine)												
Operator Name	Barrick Gold Corporation / Newmont Canada Limited												
Product(s)	Gold												
Address	Hwy. 101E, P.O. Box 279, Matheson, Ontario P0K 1N0												
Effluent Discharge Point	Final Discharge Point												
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5	ND	ND	ND	ND	ND	ND	ND	ND	0.003	0.004	0.002	ND
Cu (mg/L)	0.3	ND	ND	ND	ND	ND	ND	ND	ND	0.055	0.043	0.045	ND
CN (mg/L)	1.0	ND	ND	ND	ND	ND	ND	ND	ND	0.032	0.029	0.034	ND
Pb (mg/L)	0.2	ND	ND	ND	ND	ND	ND	ND	ND	0.000	0.000	0.000	ND
Ni (mg/L)	0.5	ND	ND	ND	ND	ND	ND	ND	ND	0.027	0.017	0.023	ND
Zn (mg/L)	0.5	ND	ND	ND	ND	ND	ND	ND	ND	0.009	0.006	0.008	ND
TSS (mg/L)	15	ND	ND	ND	ND	ND	ND	ND	ND	1.000	0.000	0.000	ND
Ra-226 (Bq/L)	0.37	ND	ND	ND	ND	ND	ND	ND	ND	0.000	0.000	NMR	ND
pH low	≥6.0	ND	ND	ND	ND	ND	ND	ND	ND	7.2	7.1	7.4	ND
pH high	≤9.5	ND	ND	ND	ND	ND	ND	ND	ND	7.2	7.8	7.8	ND
Flow (m <sup>3</sup> /month)	—	ND	ND	ND	ND	ND	ND	ND	ND	676 501	1 313 494	543 446	ND
Rainbow Trout	Pass	ND	ND	ND	ND	ND	ND	ND	ND	1	1	1	ND
Acute Lethality Test	Fail	—	—	—	—	—	—	—	—	—	—	—	—
Daphnia magna	Pass	ND	ND	ND	ND	ND	ND	ND	ND	1	1	1	ND
Monitoring Test	Fail	—	—	—	—	—	—	—	—	—	—	—	—

**Comments:** The ownership of Holt-McDermott Mine (Barrick Gold Corporation) was transferred to Newmont Canada Limited on October 8, 2004. The new name of the mine is Holloway Mine.

Notes: ND: No Deposit NMR: No Measurement Required

Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.  
A "Pass" for *Daphnia magna* monitoring test is not a requirement.

Pass: ≤50% Mortality Fail: >50% Mortality

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	Huckleberry Mine												
Operator Name	Huckleberry Mines Ltd.												
Product(s)	Copper-Molybdenum-Gold-Silver												
Address	P.O. Box 3000, Houston, British Columbia V0J 1Z0												
Effluent Discharge Point	Hu.EZDD – East Zone Diversion Ditch												
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.001
Cu (mg/L)	0.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.744
CN (mg/L)	1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NMR
Pb (mg/L)	0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.001
Ni (mg/L)	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.154
Zn (mg/L)	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.113
TSS (mg/L)	15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.195
Ra-226 (Bq/L)	0.37	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	17.575
pH low	≥6.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	6.1
pH high	≤9.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	7.3
Flow (m³/month)	–	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	–
Rainbow Trout	Pass	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1 703
Acute Lethality Test	Fail	–	–	–	–	–	–	–	–	–	–	–	2
Daphnia magna	Pass	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1 –
Monitoring Test	Fail	–	–	–	–	–	–	–	–	–	–	–	1 1
Comments:	FDP now routed to FDP Hu.SC4.												
Notes:	ND: No Deposit	NMR: No Measurement Required											Pass: ≤50% Mortality
		Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.											Fail: >50% Mortality
		A "Pass" for <i>Daphnia magna</i> monitoring test is not a requirement.											

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	Huckleberry Mine												
Operator Name	Huckleberry Mines Ltd.												
Product(s)	Copper-Molybdenum-Gold-Silver												
Address	P.O. Box 3000, Houston, British Columbia V0J 1Z0												
Effluent Discharge Point	Hu.SC3 – Sediment Control Structure 3												
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.001
Cu (mg/L)	0.3	0.087	0.090	0.094	0.078	0.050	0.040	0.038	0.033	0.034	0.043	0.063	0.067
CN (mg/L)	1.0	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR
Pb (mg/L)	0.2	0.001	0.023	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.003	0.002	0.001
Ni (mg/L)	0.5	0.044	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.009	0.005
Zn (mg/L)	0.5	0.011	0.013	0.012	0.009	0.005	0.005	0.005	0.005	0.005	0.007	0.008	0.009
TSS (mg/L)	15	3.000	3.000	3.260	3.000	3.060	3.725	3.000	3.000	3.000	3.000	3.120	3.000
Ra-226 (Bq/l)	0.37	NMR	NMR	0.006	NMR	0.005	NMR	0.005	NMR	NMR	NMR	0.006	NMR
pH low	≥6.0	7.9	7.9	7.8	7.9	7.9	7.7	7.5	7.5	7.7	7.3	7.6	7.8
pH high	≤9.5	8.0	8.0	8.0	7.9	8.0	8.0	7.9	7.9	7.9	8.0	7.9	7.9
Flow (m <sup>3</sup> /month)	–	13 268	12 796	18 569	32 440	19 127	11 992	16 903	12 747	15 180	19 964	29 083	26 189
Rainbow Trout	Pass	NMR	1	NMR	NMR	1	NMR	1	NMR	NMR	1	1	2
Acute Lethality Test	Fail	–	–	–	–	–	–	–	–	–	–	–	–
<i>Daphnia magna</i>	Pass	NMR	–	NMR	NMR	1	NMR	1	NMR	NMR	1	–	–
Monitoring Test	Fail	–	1	–	–	–	–	–	–	–	–	–	–
Comments:	The mine is on reduced frequency testing for acute lethality.												
Notes:	No Deposit	NMR: No Measurement Required											
		Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.											
		A "Pass" for <i>Daphnia magna</i> monitoring test is not a requirement.											
		Pass: ≤50% Mortality											
		Fail: >50% Mortality											

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	Huckleberry Mine												
Operator Name	Huckleberry Mines Ltd.												
Product(s)	Copper-Molybdenum-Gold-Silver												
Address	P.O. Box 3000, Houston, British Columbia V0J 1Z0												
Effluent Discharge Point	Hu.SC4 – Sediment Control Structure 4												
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5	0.001	0.002	0.002	0.003	0.003	0.003	0.005	0.005	0.003	0.001	0.002	0.002
Cu (mg/L)	0.3	0.010	0.022	0.081	0.044	0.037	0.041	0.045	0.049	0.040	0.029	0.047	0.052
CN (mg/L)	1.0	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR
Pb (mg/L)	0.2	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.003	0.002	0.002
Ni (mg/L)	0.5	0.005	0.010	0.012	0.006	0.006	0.006	0.006	0.006	0.005	0.007	0.013	0.008
Zn (mg/L)	0.5	0.005	0.007	0.018	0.011	0.008	0.012	0.011	0.014	0.010	0.008	0.014	0.012
TSS (mg/L)	15	3.175	7.600	31.540	18.667	6.500	3.975	8.250	10.975	6.525	9.700	20.640	18.517
Ra-226 (Bq/L)	0.37	NMR	NMR	0.005	NMR	0.006	NMR	0.005	NMR	NMR	NMR	0.005	NMR
pH low	≥6.0	7.9	7.8	7.8	7.9	7.9	7.8	7.8	7.9	7.8	7.8	7.5	7.0
pH high	≤9.5	7.9	7.9	8.0	7.9	8.0	8.0	7.9	8.2	8.1	8.0	8.1	8.0
Flow (m³/month)	-	56 831	75 864	36 127	32 720	192 839	207 562	111 197	164 370	119 858	172 149	93 750	52 380
Rainbow Trout	Pass	NMR	1	NMR	NMR	1	NMR	1	NMR	NMR	1	1	2
Acute Lethality Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-
Daphnia magna	Pass	NMR	1	NMR	NMR	1	NMR	-	NMR	NMR	1	-	-
Monitoring Test	Fail	-	-	-	-	-	-	1	-	-	-	-	-
Comments:	The mine is on reduced frequency testing for acute lethality.												
Notes:	ND: No Deposit	NMR: No Measurement Required											
		Pass: ≤50% Mortality											
		Fail: >50% Mortality											
		Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.											
		A "Pass" for <i>Daphnia magna</i> monitoring test is not a requirement.											

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

<b>Mine/Mill Name</b>	Iron Ore Company of Canada – Carol Project												
<b>Operator Name</b>	Iron Ore Company of Canada												
<b>Product(s)</b>	Iron												
<b>Address</b>	2 Avalon Dr., Labrador City, Newfoundland and Labrador A2V 2Y6												
<b>Effluent Discharge Point</b>	Beaver Bay Discharge												
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5	0.009	0.007	0.005	0.012	0.023	0.019	0.016	0.005	0.004	0.037	0.019	0.008
Cu (mg/L)	0.3	0.007	0.003	0.004	0.012	0.015	0.009	0.010	0.007	0.004	0.016	0.011	0.008
CN (mg/L)	1.0	NMR	NMR	NMR	NMR	NMR	NMR						
Pb (mg/L)	0.2	0.004	0.004	0.002	0.003	0.012	0.003	0.004	0.001	0.001	0.003	0.003	0.002
Ni (mg/L)	0.5	0.009	0.004	0.004	0.010	0.017	0.012	0.011	0.005	0.004	0.011	0.009	0.008
Zn (mg/L)	0.5	0.028	0.022	0.010	0.021	0.041	0.019	0.031	0.010	0.008	0.038	0.022	0.015
TSS (mg/L)	2 200	1 973.500	796.750	1 639.400	762.500	2 244.400	1 277.500	1 411.500	283.400	84.750	5 886.750	1 510.000	366.250
Ra-226 (Bq/L)	0.37	NMR	NMR	0.010	NMR	0.010	NMR	0.010	0.010	0.010	NMR	NMR	NMR
pH low	≥6.0	7.8	8.0	7.5	6.6	8.5	9.0	8.1	7.9	7.3	8.3	7.8	7.2
pH high	≤9.5	9.1	9.3	9.9	8.1	9.7	9.7	9.1	8.7	8.0	9.3	9.3	9.2
Flow (m <sup>3</sup> /month)	–	1 571 537	1 471 018	1 582 773	1 516 432	1 687 646	1 281 398	1 126 540	910 712	813 795	1 292 841	1 141 912	1 368 479
<b>Rainbow Trout</b>	<b>Pass</b>	1	1	1	1	1	1	1	1	1	1	1	NMR
<b>Acute Lethality Test</b>	<b>Fail</b>	–	–	–	–	–	–	–	–	–	–	–	–
<i>Daphnia magna</i>	<b>Pass</b>	1	1	1	1	1	1	1	1	1	1	1	NMR
<b>Monitoring Test</b>	<b>Fail</b>	–	–	–	–	–	–	–	–	–	–	–	–
<b>Comments:</b>	TA was granted for TSS limit of 2200 mg/L. Extended TA was granted for TSS limit of 2244 mg/L. TA will expire on December 6, 2008. The mine is on reduced frequency testing for acute lethality.												
<b>Notes:</b>	<b>ND: No Deposit</b> <b>NMR: No Measurement Required</b> <b>Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.</b> A "Pass" for <i>Daphnia magna</i> monitoring test is not a requirement.												
	<b>Pass: ≤50% Mortality</b> <b>Fail: &gt;50% Mortality</b>												

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	Iron Ore Company of Canada – Carol Project												
Operator Name	Iron Ore Company of Canada												
Product(s)	Iron												
Address	2 Avalon Dr., Labrador City, Newfoundland and Labrador A2V 2Y6												
Effluent Discharge Point	Main Tailings Discharge												
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5	0.043	0.042	0.180	0.298	0.542	0.213	0.275	ND	ND	0.493	0.720	0.755
Cu (mg/L)	0.3	0.078	0.052	0.067	0.057	0.202	0.090	0.108	ND	ND	0.078	0.240	0.208
CN (mg/L)	1.0	NMR	ND	ND	NMR	NMR	NMR						
Pb (mg/L)	0.2	0.024	0.019	0.029	0.014	0.031	0.005	0.025	ND	ND	0.019	0.029	0.039
Ni (mg/L)	0.5	0.131	0.068	0.135	0.090	0.252	0.120	0.175	ND	ND	0.078	0.180	0.200
Zn (mg/L)	0.5	0.220	0.167	0.195	0.185	0.592	0.240	0.495	ND	ND	0.290	0.440	0.450
TSS (mg/L)	230 000	27 589.000	32 875.000	25 720.000	30 675.000	42 160.000	31 070.000	27 250.000	ND	ND	39 950.000	66 160.000	70 150.000
Ra-226 (Bq/L)	0.37	NMR	NMR	0.010	NMR	0.020	0.010	0.040	ND	ND	0.010	NMR	NMR
pH low	≥6.0	8.0	7.7	7.9	7.6	7.9	8.2	8.4	ND	ND	8.3	8.0	8.2
pH high	≤9.5	8.4	8.3	8.4	8.2	8.4	8.6	8.6	ND	ND	8.6	8.9	8.8
Flow (m <sup>3</sup> /month)	-	6 286 118	5 884 042	6 331 105	6 065 730	6 718 097	4 593 636	4 637 178	ND	ND	6 156 384	5 437 676	6 516 569
Rainbow Trout	Pass	NMR	1	NMR	1	NMR	NMR	1	ND	ND	1	NMR	NMR
Acute Lethality Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-
Daphnia magna	Pass	NMR	1	NMR	1	NMR	NMR	1	ND	ND	1	NMR	NMR
Monitoring Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-

**Comments:** TA was granted for TSS limit of 230 000 mg/L. Extended TA was granted for TSS limit of 42 160 mg/L. TA will expire on December 6, 2008.  
There was no discharge in August and September because of a strike. The mine is on reduced frequency testing for acute lethality.

**Notes:** ND: No Deposit      NMR: No Measurement Required  
Pass: ≤50% Mortality      Fail: >50% Mortality  
Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.  
A "Pass" for *Daphnia magna* monitoring test is not a requirement.

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	Iron Ore Company of Canada – Carol Project												
Operator Name	Iron Ore Company of Canada												
Product(s)	Iron												
Address	2 Avalon Dr., Labrador City, Newfoundland and Labrador A2V 2Y6												
Effluent Discharge Point	MD5												
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5	–	–	–	–	0.001	0.001	0.007	0.001	0.001	0.001	0.001	0.001
Cu (mg/L)	0.3	–	–	–	–	0.002	0.001	0.001	0.002	0.001	0.002	0.001	0.001
CN (mg/L)	1.0	–	–	–	–	NMR							
Pb (mg/L)	0.2	–	–	–	–	< 0.001	< 0.001	0.002	< 0.001	0.001	< 0.001	< 0.001	< 0.001
Ni (mg/L)	0.5	–	–	–	–	0.001	0.001	0.001	0.001	0.002	0.002	0.002	0.002
Zn (mg/L)	0.5	–	–	–	–	0.005	0.002	0.002	0.002	0.003	0.002	0.002	0.008
TSS (mg/L)	15	–	–	–	–	5.000	5.250	5.000	6.600	5.250	5.750	5.600	7.750
Ra-226 (Bq/L)	0.37	–	–	–	–	0.010	–	0.010	0.010	0.010	0.010	0.010	NMR
pH low	≥6.0	–	–	–	–	7.6	7.8	7.8	7.4	7.3	7.5	7.4	7.1
pH high	≤9.5	–	–	–	–	7.9	8.3	8.4	8.6	8.0	7.8	7.7	7.7
Flow (m <sup>3</sup> /month)	–	–	–	–	–	54 944	154 988	187 434	215 338	160 005	155 672	186 973	141 746
Rainbow Trout	Pass	–	–	–	–	1	1	1	1	1	1	1	1
Acute Lethality Test	Fail	–	–	–	–	–	–	–	–	–	–	–	–
Daphnia magna	Pass	–	–	–	–	1	1	1	1	1	1	1	1
Monitoring Test	Fail	–	–	–	–	–	–	–	–	–	–	–	–
Comments:	No data were provided for January, February, March, and April. Effluent was frozen. Annual report was completed from the quarterly reports.												
Notes:	ND: No Deposit	NMR: No Measurement Required											
		Pass: ≤50% Mortality											
		Fail: >50% Mortality											
		Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.											
		A "Pass" for <i>Daphnia magna</i> monitoring test is not a requirement.											

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	Iron Ore Company of Canada – Carol Project													
Operator Name	Iron Ore Company of Canada													
Product(s)	Iron													
Address	2 Avalon Dr., Labrador City, Newfoundland and Labrador A2V 2Y6													
Effluent Discharge Point	Old Tailings Pumphouse Discharge													
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.	
As (mg/L)	0.5	0.004	0.014	0.005	0.003	0.018	0.001	0.003	ND	ND	0.019	0.039	0.096	
Cu (mg/L)	0.3	0.004	0.007	0.005	0.001	0.006	0.002	0.002	ND	ND	0.008	0.014	0.033	
CN (mg/L)	1.0	NMR	NMR	NMR	NMR	NMR	NMR	NMR	ND	ND	NMR	NMR	NMR	
Pb (mg/L)	0.2	0.002	0.003	0.001	< 0.001	0.001	< 0.001	< 0.001	ND	ND	0.001	0.003	0.006	
Ni (mg/L)	0.5	0.008	0.009	0.004	0.004	0.003	0.002	0.002	ND	ND	0.007	0.014	0.030	
Zn (mg/L)	0.5	0.018	0.026	0.012	0.003	0.014	0.004	0.004	0.005	ND	ND	0.019	0.028	0.043
TSS (mg/L)	74 000	1 598.500	4 385.250	2 373.200	247.500	927.000	25.750	175.500	ND	ND	1 964.250	3 003.800	3 219.750	
Ra-226 (Bq/L)	0.37	NMR	NMR	0.010	NMR	0.010	0.010	0.010	ND	ND	0.010	NMR	NMR	
pH low	≥6.0	7.5	7.6	6.9	7.7	7.8	7.9	8.2	ND	ND	7.7	7.7	7.2	
pH high	≤9.5	8.4	8.2	8.1	8.2	8.1	8.3	8.4	ND	ND	8.4	8.3	8.9	
Flow (m <sup>3</sup> /month)	-	446 640	312 562	346 803	340 545	321 321	405 682	219 716	ND	ND	357 481	346 271	289 922	
Rainbow Trout	Pass	1	1	1	1	1	1	1	ND	ND	1	1	1	
Acute Lethality Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-	
Daphnia magna	Pass	1	1	1	1	1	1	1	ND	ND	1	1	1	
Monitoring Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-	

**Comments:** TA was granted for TSS limit of 74 000 mg/L. Extended TA was granted for TSS limit of 4 385 mg/L. TA will expire on December 6, 2008.  
There was no discharge in August and September because of a strike.

**Notes:** ND: No Deposit      NMR: No Measurement Required

Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.  
A "Pass" for *Daphnia magna* monitoring test is not a requirement.

Pass: ≤50% Mortality

Fail: >50% Mortality

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

<b>Mine/Mill Name</b>	Iron Ore Company of Canada – Carol Project												
<b>Operator Name</b>	Iron Ore Company of Canada												
<b>Product(s)</b>	Iron												
<b>Address</b>	2 Avalon Dr., Labrador City, Newfoundland and Labrador A2V 2Y6												
<b>Effluent Discharge Point</b>	Ore Car Flume												
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5	0.029	0.032	0.015	0.007	0.067	0.008	0.120	ND	ND	0.205	0.193	0.217
Cu (mg/L)	0.3	0.032	0.021	0.009	0.002	0.023	0.005	0.070	ND	ND	0.033	0.049	0.057
CN (mg/L)	1.0	NMR	NMR	NMR	NMR	NMR	NMR	ND	ND	NMR	NMR	NMR	NMR
Pb (mg/L)	0.2	0.010	0.024	0.002	0.001	0.001	0.001	0.013	ND	ND	0.007	0.008	0.014
Ni (mg/L)	0.5	0.048	0.025	0.008	0.004	0.006	0.005	0.070	ND	ND	0.038	0.053	0.060
Zn (mg/L)	0.5	0.089	0.052	0.032	0.008	0.012	0.008	0.220	ND	ND	0.090	0.100	0.120
TSS (mg/L)	74 000	14 327.500	11 915.000	5 710.400	279.250	583.800	610.000	7 035.000	ND	ND	13 575.000	16 268.000	18 525.000
Ra-226 (Bq/L)	0.37	NMR	NMR	0.010	NMR	0.010	0.010	0.010	ND	ND	0.010	NMR	NMR
pH low	≥6.0	8.2	7.5	7.7	7.5	8.0	8.3	8.5	ND	ND	8.2	7.9	8.3
pH high	≤9.5	8.4	8.3	8.4	8.0	8.2	8.6	8.8	ND	ND	8.9	8.6	8.9
Flow (m <sup>3</sup> /month)	–	2 977 612	2 604 700	2 890 043	2 837 850	2 746 371	3 057 786	1 831 030	ND	ND	3 249 827	3 147 921	2 635 658
<b>Rainbow Trout</b>	<b>Pass</b>	<b>NMR</b>	<b>1</b>	<b>NMR</b>	<b>1</b>	<b>NMR</b>	<b>NMR</b>	<b>1</b>	<b>ND</b>	<b>ND</b>	<b>1</b>	<b>NMR</b>	<b>NMR</b>
<b>Acute Lethality Test</b>	<b>Fail</b>	–	–	–	–	–	–	–	–	–	–	–	–
<i>Daphnia magna</i>	<b>Pass</b>	<b>NMR</b>	<b>1</b>	<b>NMR</b>	<b>1</b>	<b>NMR</b>	<b>NMR</b>	<b>1</b>	<b>ND</b>	<b>ND</b>	<b>1</b>	<b>NMR</b>	<b>NMR</b>
<b>Monitoring Test</b>	<b>Fail</b>	–	–	–	–	–	–	–	–	–	–	–	–
<b>Comments:</b>	TA was granted for TSS limit of 74 000 mg/L. Extended TA was granted for TSS limit of 15 850 mg/L. TA will expire on December 6, 2008. There was no discharge in August and September because of a strike. The mine is on reduced frequency testing for acute lethality.												
<b>Notes:</b>	<b>ND: No Deposit</b>	<b>NMR: No Measurement Required</b>											
		<b>Pass: ≤50% Mortality</b>											
		<b>Fail: &gt;50% Mortality</b>											
		<b>Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.</b>											
		<b>A "Pass" for <i>Daphnia magna</i> monitoring test is not a requirement.</b>											

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	Joe Mann												
Operator Name	Ressources Meston Inc. (Ressources Campbell Inc.)												
Product(s)	Gold-Copper												
Address	P.O. Box 8000, Chibougamau, Quebec G8P 2L1												
Effluent Discharge Point	Point 10 Polishing Pond Effluent												
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5 < 0.001	< 0.001	0.001	0.003	0.002	0.001	0.001	0.001	< 0.001	0.001	0.001	0.001	0.001
Cu (mg/L)	0.3 0.009	0.008	0.009	0.020	0.020	0.020	0.010	0.010	0.020	0.010	0.010	0.010	0.010
CN (mg/L)	1.0 NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR
Pb (mg/L)	0.2 < 0.003	< 0.003	< 0.003	< 0.001	< 0.001	< 0.001	0.002	< 0.001	< 0.001	0.001	< 0.001	< 0.001	< 0.001
Ni (mg/L)	0.5 0.002	0.001	0.001	0.010	< 0.010	0.020	0.010	0.010	< 0.010	0.030	0.010	0.010	0.020
Zn (mg/L)	0.5 0.012	0.013	0.009	0.020	< 0.010	0.010	0.010	0.010	0.020	0.020	0.030	0.030	0.020
TSS (mg/L)	15 < 1.000	< 1.000	< 1.000	1.600	0.300	13.000	1.000	3.700	3.000	2.500	1.000	1.000	1.000
Ra-226 (Bq/L)	0.37 0.010	NMR	NMR	0.007	NMR	NMR	0.004	NMR	NMR	0.002	NMR	NMR	NMR
pH low	≥6.0 7.6	7.7	7.4	7.7	7.5	7.2	7.3	8.3	8.2	8.2	8.0	8.0	7.6
pH high	≤9.5 7.8	7.9	7.8	7.9	7.9	8.2	8.1	8.4	8.4	8.4	8.2	8.2	8.0
Flow (m³/month)	- 109 321	112 973	105 043	104 692	239 073	136 179	200 768	102 404	103 765	95 641	79 488	91 332	
Rainbow Trout	Pass 1	NMR	NMR	NMR	1	NMR	1	NMR	1	-	-	-	-
Acute Lethality Test	Fail -	-	-	-	-	-	-	-	-	-	-	-	-
Daphnia magna	Pass 1	NMR	NMR	NMR	1	NMR	1	NMR	1	-	-	-	-
Monitoring Test	Fail -	-	-	-	-	-	-	-	-	-	-	-	-

**Comments:** The mine is on reduced frequency testing for acute lethality. No acute lethality test results were provided for the 4th quarter of 2004. The test was done on September 27, 2004, instead of October 1, 2004.

Notes: ND: No Deposit      NMR: No Measurement Required

Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.  
A "Pass" for *Daphnia magna* monitoring test is not a requirement.

Pass: ≤50% Mortality

Fail: >50% Mortality

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name		Kemess South Mine											
Operator Name		Northgate Minerals Corporation											
Product(s)		Gold-Copper											
Address		P.O. Box 3519, Smithers, British Columbia V0J 2N0											
Effluent Discharge Point		KS.WQ14 – Runoff											
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5	0.001	NMR	0.001	0.002	< 0.001	NMR	< 0.001	NMR	0.001	NMR	< 0.001	NMR
Cu (mg/L)	0.3	0.002	NMR	0.010	0.002	NMR	0.003	NMR	0.001	NMR	0.001	NMR	NMR
CN (mg/L)	1.0	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR
Pb (mg/L)	0.2	< 0.001	NMR	< 0.001	0.001	< 0.001	NMR	< 0.001	NMR	0.001	NMR	< 0.001	NMR
Ni (mg/L)	0.5	0.001	NMR	0.001	0.004	0.001	NMR	0.001	NMR	0.001	NMR	0.001	NMR
Zn (mg/L)	0.5	0.001	NMR	0.002	0.009	0.001	NMR	0.002	NMR	0.005	NMR	0.010	NMR
TSS (mg/L)	15	3.000	3.250	3.000	20.500	5.680	4.200	4.325	4.000	3.200	3.175	3.000	2.800
Ra-226 (Bq/L)	0.37	NMR	0.005	NMR	NMR	0.010	NMR	NMR	NMR	0.006	NMR	NMR	NMR
pH low	≥6.0	7.9	8.2	8.3	8.1	8.0	8.0	8.2	8.2	8.1	7.5	8.0	7.7
pH high	≤9.5	8.3	8.3	8.4	8.2	8.3	8.3	8.3	8.3	8.4	8.5	8.4	8.3
Flow (m <sup>3</sup> /month)	–	31 581	22 200	16 833	177 885	152 365	78 978	100 719	48 569	40 665	34 468	21 150	12 268
Rainbow Trout	Pass	NMR	NMR	1	NMR	2	NMR	1	NMR	1	NMR	NMR	1
Acute Lethality Test	Fail	–	–	–	–	–	–	–	–	–	–	–	–
Daphnia magna	Pass	NMR	NMR	1	NMR	2	NMR	1	NMR	1	NMR	NMR	1
Monitoring Test	Fail	–	–	–	–	–	–	–	–	–	–	–	–

**Comments:** Acute lethality test results were corrected from the quarterly reports. Flow measurements for October, November, and December were corrected from the quarterly report.

**Notes:** ND: No Deposit      NMR: No Measurement Required  
 Pass: ≤50% Mortality      Fail: >50% Mortality

Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.  
 A "Pass" for *Daphnia magna* monitoring test is not a requirement.

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	Kemess South Mine												
Operator Name	Northgate Minerals Corporation												
Product(s)	Gold-Copper												
Address	P.O. Box 3519, Smithers, British Columbia V0J 2N0												
Effluent Discharge Point	KS.W.QBXL - Sedimentation Pond Decant												
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5	ND	ND	ND	< 0.001	< 0.001	0.001	0.001	0.001	ND	ND	ND	ND
Cu (mg/L)	0.3	ND	ND	ND	0.002	0.003	0.002	0.003	0.002	ND	ND	ND	ND
CN (mg/L)	1.0	ND	ND	ND	NMR	NMR	NMR	NMR	NMR	ND	ND	ND	ND
Pb (mg/L)	0.2	ND	ND	ND	< 0.001	< 0.001	< 0.001	< 0.001	0.001	0.001	ND	ND	ND
Ni (mg/L)	0.5	ND	ND	ND	0.001	0.001	0.001	0.001	0.001	ND	ND	ND	ND
Zn (mg/L)	0.5	ND	ND	ND	0.001	0.002	0.001	0.006	0.001	ND	ND	ND	ND
TSS (mg/L)	15	ND	ND	ND	4.150	5.450	3.200	3.700	3.000	ND	ND	ND	ND
Ra-226 (Bq/L)	0.37	ND	ND	ND	0.013	0.005	0.007	-	-	ND	ND	ND	ND
pH low	≥6.0	ND	ND	ND	8.1	7.9	7.7	8.1	8.2	ND	ND	ND	ND
pH high	≤9.5	ND	ND	ND	8.1	8.1	8.2	8.2	8.2	ND	ND	ND	ND
Flow (m <sup>3</sup> /month)	-	ND	ND	ND	2 331	25 498	3 144	2 038	432	ND	ND	ND	ND
Rainbow Trout	Pass	ND	ND	ND	1	2	-	1	-	ND	ND	ND	ND
Acute Lethality Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-
Daphnia magna	Pass	ND	ND	ND	1	2	-	1	-	ND	ND	ND	ND
Monitoring Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-

**Comments:** No acute lethality test results were provided for June and August. No explanation was provided. No Radium 226 test results were provided for July and August.

Notes: ND: No Deposit      NMR: No Measurement Required

Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.  
A "Pass" for *Daphnia magna* monitoring test is not a requirement.

Pass: ≤50% Mortality      Fail: >50% Mortality

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	Key Lake Operation																						
Operator Name	Cameco Corporation																						
Product(s)	Uranium																						
Address	2121 11 <sup>th</sup> Street West, Saskatoon, Saskatchewan S7M 1J3																						
Effluent Discharge Point	Station 1.2 – Dewatering Discharge to Horsefly Lake																						
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.										
As (mg/L)	0.5	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.001	< 0.001	< 0.001	< 0.001										
Cu (mg/L)	0.3	< 0.005	0.006	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005										
CN (mg/L)	1.0	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR										
Pb (mg/L)	0.2	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010										
Ni (mg/L)	0.5	0.036	0.035	0.024	0.028	0.032	0.018	0.027	0.028	0.022	0.022	0.026	0.031										
Zn (mg/L)	0.5	< 0.005	0.006	< 0.005	< 0.005	< 0.005	0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005										
TSS (mg/L)	15	0.200	1.000	0.300	0.900	0.600	0.300	0.300	0.200	0.200	0.100	0.100	0.100										
Ra-226 (Bq/L)	0.37	< 0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.020										
pH low	≥6.0	6.2	6.6	6.1	6.5	6.6	6.7	7.1	7.1	6.3	6.4	6.8	6.9										
pH high	≤9.5	6.6	7.1	6.9	6.9	7.0	7.0	7.4	7.3	7.2	7.1	7.2	7.0										
Flow (m <sup>3</sup> /month)	–	15 425	17 949	49 166	65 088	74 166	129 331	135 958	152 574	214 955	224 920	214 796	196 499										
Rainbow Trout	Pass	1	1	1	1	1	1	1	1	2	1	1	1										
Acute Lethality Test	Fail	–	–	–	–	–	–	–	–	–	–	–	–										
Daphnia magna	Pass	1	1	1	1	1	1	1	2	1	1	1	1										
Monitoring Test	Fail	–	–	–	–	–	–	–	–	–	–	–	–										
Comments:																							
Notes:	ND: No Deposit	NMR: No Measurement Required																					
	Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.																						
	A “Pass” for <i>Daphnia magna</i> monitoring test is not a requirement.																						

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	Key Lake Operation																						
Operator Name	Cameco Corporation																						
Product(s)	Uranium																						
Address	2121 11 <sup>th</sup> Street West, Saskatoon, Saskatchewan S7M 1J3																						
Effluent Discharge Point	Station 1.4 – Mill Effluent to Wolf Lake																						
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.										
As (mg/L)	0.5	0.011	0.010	0.007	0.009	0.009	0.011	0.010	0.014	0.008	0.009	0.008	0.006										
Cu (mg/L)	0.3	0.010	0.007	0.007	0.006	0.005	0.006	< 0.005	0.005	0.013	0.007	0.006	0.006										
CN (mg/L)	1.0	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR										
Pb (mg/L)	0.2	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	0.010	0.010	0.010	0.010										
Ni (mg/L)	0.5	0.052	0.033	0.024	0.029	0.013	0.069	0.036	0.021	0.033	0.041	0.064	0.050										
Zn (mg/L)	0.5	0.009	0.006	0.005	0.005	0.005	0.005	0.005	0.005	0.006	0.008	0.008	0.009										
TSS (mg/L)	15	2.200	1.200	2.200	1.800	1.600	5.100	2.600	4.000	2.100	2.900	5.500	1.600										
Ra-226 (Bq/L)	0.37	0.020	0.040	0.060	0.040	0.060	0.060	0.050	0.090	0.080	0.100	0.130	0.070										
pH low	≥6.0	6.1	6.1	6.2	6.2	6.1	6.1	6.2	6.2	6.2	6.1	6.1	6.3										
pH high	≤9.5	6.5	6.6	6.6	6.6	6.5	6.6	6.7	6.8	6.8	6.7	6.6	6.9										
Flow (m <sup>3</sup> /month)	-	147 236	120 180	82 793	137 392	65 471	29 497	77 867	52 465	147 092	125 751	75 073	124 314										
Rainbow Trout	Pass	1	1	1	1	1	1	1	1	1	1	1	1										
Acute Lethality Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-										
Daphnia magna	Pass	1	1	1	1	1	1	1	1	1	1	1	1										
Monitoring Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-										
Comments:																							
Notes:	ND: No Deposit	NMR: No Measurement Required																					
	Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.																						
	A "Pass" for <i>Daphnia magna</i> monitoring test is not a requirement.																						
	Pass: ≤50% Mortality																						
	Fail: >50% Mortality																						

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	Kidd Metallurgical Division																						
Operator Name	Falconbridge Ltd.																						
Product(s)	Zinc-Copper-Silver-Lead-Cadmium																						
Address	P.O. Box 2002, Highway 101 East, Timmins, Ontario P4N 7K1																						
Effluent Discharge Point	Final Effluent Monitoring Point																						
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.										
As (mg/L)	0.5	0.000	0.000	< 0.001	< 0.001	0.001	0.000	< 0.001	0.000	< 0.001	0.000	< 0.001	< 0.001										
Cu (mg/L)	0.3	0.005	0.011	0.012	0.006	0.008	0.008	0.007	0.003	0.005	0.011	0.006	0.009										
CN (mg/L)	1.0	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR										
Pb (mg/L)	0.2	0.000	0.001	< 0.001	0.001	0.002	0.002	0.000	0.001	0.001	0.002	< 0.001	< 0.001										
Ni (mg/L)	0.5	0.002	0.005	0.001	0.001	0.002	0.001	0.001	0.001	0.002	0.002	< 0.001	0.001										
Zn (mg/L)	0.5	0.124	0.111	0.081	0.046	0.099	0.047	0.035	0.018	0.046	0.103	0.096	0.111										
TSS (mg/L)	15	7.000	4.500	1.800	1.500	1.800	2.000	1.000	0.800	1.250	1.250	1.600	1.000										
Ra-226 (Bq/L)	0.37	NMR	0.000	NMR	NMR	0.000	NMR	NMR	0.000	NMR	NMR	0.000	NMR										
pH low	≥6.0	7.7	7.6	6.9	6.6	6.9	8.4	8.2	6.4	6.8	7.2	7.2	7.4										
pH high	≤9.5	8.2	7.9	7.9	8.2	8.9	8.6	8.6	8.8	7.3	8.3	8.4	7.6										
Flow (m <sup>3</sup> /month)	-	901 945	735 535	1 282 718	2 821 725	1 407 834	1 050 000	1 085 388	1 515 466	1 057 942	1 376 245	1 762 440	823 360										
Rainbow Trout	Pass	1	1	1	1	1	1	1	1	1	1	1	1										
Acute Lethality Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-										
Daphnia magna	Pass	1	1	1	1	1	1	1	1	1	1	1	1										
Monitoring Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-										
Comments:																							
Notes:	ND: No Deposit	NMR: No Measurement Required																					
	Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.																						
	A "Pass" for <i>Daphnia magna</i> monitoring test is not a requirement.																						

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	Kidd Mining Division												
Operator Name	Falconbridge Ltd.												
Product(s)	Zinc-Copper-Silver-Lead-Cadmium												
Address	Hwy. 655, P.O. Bag 2002, Timmins, Ontario P4N 7K1												
Effluent Discharge Point	Treatment Pond Final Effluent												
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5	ND	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001
Cu (mg/L)	0.3	ND	0.011	0.018	0.005	0.009	0.017	0.012	0.005	0.017	0.008	0.017	0.014
CN (mg/L)	1.0	ND	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR
Pb (mg/L)	0.2	ND	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.002	0.002
Ni (mg/L)	0.5	ND	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.002	0.002
Zn (mg/L)	0.5	ND	0.039	0.080	0.116	0.087	0.102	0.205	0.185	0.149	0.125	0.254	0.180
TSS (mg/L)	15	ND	0.000	0.000	3.500	0.000	0.000	0.000	0.000	0.000	1.250	1.000	1.000
Ra-226 (Bq/L)	0.37	ND	0.010	NMR	NMR	NMR	0.000	NMR	NMR	0.010	NMR	NMR	NMR
pH low	≥6.0	ND	7.2	7.0	6.6	7.6	7.6	7.3	6.7	7.3	7.4	7.3	7.7
pH high	≤9.5	ND	7.6	7.9	8.9	8.0	7.9	7.7	7.7	7.8	7.7	7.7	7.9
Flow (m³/month)	-	ND	98 775	427 819	1 294 500	519 227	257 034	189 022	162 200	255 138	215 224	422 600	199 036
Rainbow Trout	Pass	ND	1	1	1	-	1	1	1	1	1	1	1
Acute Lethality Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-
Daphnia magna	Pass	ND	1	1	1	-	1	1	1	1	1	1	1
Monitoring Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-

**Comments:** No acute lethality test results were provided for May. The test was missed. Explanation was obtained from the quarterly reports.

**Notes:** ND: No Deposit      NMR: No Measurement Required  
**Pass:** ≤50% Mortality      **Fail:** >50% Mortality  
 Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.  
 A "Pass" for *Daphnia magna* monitoring test is not a requirement.

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	Kiena (Mine)																							
Operator Name	Mines McWatters Inc / Mines d'Or Wesdome Limitée																							
Product(s)	Gold																							
Address	950, chemin Kienawiskik, C.P. 268, Val d'Or, Quebec J9P 4P3																							
Effluent Discharge Point	Final Effluent																							
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.											
As (mg/L)	0.5	ND	ND	< 0.003	ND	ND	< 0.001	ND	0.001	< 0.001	< 0.002	ND	ND											
Cu (mg/L)	0.3	ND	ND	0.036	ND	ND	0.028	ND	0.031	0.014	0.017	ND	ND											
CN (mg/L)	1.0	ND	ND	< 0.005	ND	ND	< 0.011	ND	0.012	0.009	0.007	ND	ND											
Pb (mg/L)	0.2	ND	ND	< 0.001	ND	ND	< 0.001	ND	< 0.001	< 0.001	< 0.001	ND	ND											
Ni (mg/L)	0.5	ND	ND	< 0.021	ND	ND	< 0.014	ND	< 0.036	0.043	0.045	ND	ND											
Zn (mg/L)	0.5	ND	ND	< 0.031	ND	ND	< 0.001	ND	< 0.019	< 0.009	< 0.018	ND	ND											
TSS (mg/L)	15	ND	ND	8.000	ND	ND	4.600	ND	< 2.200	< 4.150	6.300	ND	ND											
Ra-226 (Bq/L)	0.37	ND	ND	0.009	ND	ND	< 0.004	ND	< 0.002	0.002	< 0.003	ND	ND											
pH low	≥6.0	ND	ND	6.9	ND	ND	7.6	ND	7.5	7.8	7.7	ND	ND											
pH high	≤9.5	ND	ND	7.5	ND	ND	8.2	ND	7.8	8.1	7.7	ND	ND											
Flow (m <sup>3</sup> /month)	-	ND	ND	107 395	ND	ND	320 767	ND	42 432	57 920	54 043	ND	ND											
Rainbow Trout	Pass	ND	ND	ND	1	ND	ND	1	ND	1	1	1	ND											
Acute Lethality Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-											
Daphnia magna	Pass	ND	ND	1	ND	ND	1	ND	1	1	1	ND	ND											
Monitoring Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-											
Comments:	The ownership of Kiena Mine (Mines McWatters Inc.) was transferred to Mines d'Or Wesdome Limitée on January 1, 2004.																							
Notes:	ND: No Deposit	NMR: No Measurement Required																						
	Highly highlighted data indicate that a monthly effluent quality standard was exceeded for that month.																							
	A "Pass" for <i>Daphnia magna</i> monitoring test is not a requirement.																							
	Pass: ≤50% Mortality																							
	Fail: >50% Mortality																							

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	Konuto Lake Mine												
Operator Name	Hudson Bay Mining and Smelting Co. Ltd.												
Product(s)	Copper-Zinc												
Address	P.O. Box 1500, Flin Flon, Manitoba R8A 1N9												
Effluent Discharge Point	Surface Sump Discharge												
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5	0.002	0.005	0.003	0.002	0.003	0.003	0.002	0.001	0.002	0.002	0.002	0.003
Cu (mg/L)	0.3	0.053	0.060	0.064	0.082	0.048	0.048	0.026	0.021	0.064	0.056	0.053	0.100
CN (mg/L)	1.0	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR
Pb (mg/L)	0.2	0.024	0.007	0.011	0.019	0.005	0.004	0.013	0.021	0.008	0.018	0.021	0.005
Ni (mg/L)	0.5	0.007	0.003	0.008	0.003	0.003	0.008	0.004	0.004	0.004	0.005	0.004	0.007
Zn (mg/L)	0.5	0.076	0.412	0.242	0.134	0.090	0.170	0.166	0.308	0.266	0.195	0.283	0.350
TSS (mg/L)	25	2.000	7.000	6.000	6.000	29.000	23.000	5.000	3.000	8.000	13.000	10.000	16.000
Ra-226 (Bq/L)	0.37	NMR	NMR	0.010	NMR	NMR	0.010	NMR	NMR	0.010	0.010	NMR	0.020
pH low	≥6.0	7.2	7.5	7.2	7.7	8.8	7.5	7.5	6.7	7.0	7.1	6.7	7.3
pH high	≤9.5	8.2	7.5	7.5	8.1	9.1	8.8	7.7	8.3	7.8	7.4	7.6	7.5
Flow (m <sup>3</sup> /month)	-	3 600	243	4 689	5 739	4 137	3 854	9 335	5 409	13 476	8 029	7 185	9 399
Rainbow Trout	Pass	1	-	1	1	1	1	1	2	1	1	1	1
Acute Lethality Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-
Daphnia magna	Pass	1	-	1	1	1	1	1	2	1	1	1	1
Monitoring Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-

**Comments:** TA was granted for TSS limit of 25 mg/L and acute lethality. TA for acute lethality expired on December 6, 2004. Extended TA was granted for TSS limit of 25 mg/L TA will expire on December 6, 2008. No acute lethality test results were provided for February 2004.

Notes: ND: No Deposit NMR: No Measurement Required

Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.  
A "Pass" for *Daphnia magna* monitoring test is not a requirement.

Pass: ≤50% Mortality

Fail: >50% Mortality

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name		Lac des Iles Mine												
Operator Name		Lac des Iles Mines Ltd.												
Product(s)		Palladium-Platinum-Gold-Copper-Nickel												
Address		P.O. Box 10547, Thunder Bay, Ontario P7B 6T9												
Effluent Discharge Point		FDP 1												
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.	
As (mg/L)	0.5	ND	ND	ND	0.001	0.001	0.001	0.001	0.001	ND	0.002	0.001	ND	
Cu (mg/L)	0.3	ND	ND	ND	0.002	0.005	0.004	0.001	ND	0.003	0.010	ND	ND	
CN (mg/L)	1.0	ND	ND	ND	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	ND	
Pb (mg/L)	0.2	ND	ND	ND	< 0.001	< 0.001	< 0.001	< 0.001	ND	< 0.001	< 0.001	< 0.001	ND	
Ni (mg/L)	0.5	ND	ND	ND	0.012	0.014	0.025	0.012	ND	0.018	0.026	0.026	ND	
Zn (mg/L)	0.5	ND	ND	ND	0.011	0.025	0.015	0.010	ND	0.009	0.108	ND	ND	
TSS (mg/L)	15	ND	ND	ND	ND	19.875	7.000	5.000	3.800	ND	4.750	3.250	ND	
Ra-226 (Bq/L)	0.37	ND	ND	ND	0.010	0.010	—	—	ND	NMR	NMR	NMR	ND	
pH low	≥6.0	ND	ND	ND	7.5	7.4	7.1	7.4	ND	7.5	7.2	7.2	ND	
pH high	≤9.5	ND	ND	ND	8.1	7.9	8.0	7.8	ND	7.6	7.8	7.8	ND	
Flow (m <sup>3</sup> /month)	—	ND	ND	ND	55.389	166.014	114.126	56.854	ND	19.825	24.965	ND	ND	
Rainbow Trout		Pass	ND	ND	ND	1	1	1	ND	1	—	—	ND	
Acute Lethality Test		Fail	—	—	—	—	—	—	—	—	—	—	—	
<i>Daphnia magna</i>		Pass	ND	ND	ND	1	1	—	ND	1	—	—	ND	
Monitoring Test		Fail	—	—	—	—	—	—	1	—	—	—	—	
Comments:		No acute lethality test results were provided for November. No Radium 226 test results were provided for 3rd and 4th quarters of 2004. No explanation was provided.												
Notes:		No Deposit	NMR: No Measurement Required											
		Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.												
		A "Pass" for <i>Daphnia magna</i> monitoring test is not a requirement.												
		Pass: ≤50% Mortality												
		Fail: >50% Mortality												

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	Laronde (Mine)												
Operator Name	Mines Agnico-Eagle Ltée.												
Product(s)	Gold-Silver-Copper-Zinc												
Address	20 Road 395, Cadillac, Quebec J0Y 1C0												
Effluent Discharge Point	Final Effluent 3A												
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5	ND	0.005	0.004	0.005	0.009	0.006	0.007	0.005	0.004	0.009	0.013	0.003
Cu (mg/L)	0.3	ND	0.075	0.074	0.075	0.060	0.059	0.060	0.057	0.058	0.085	0.069	0.091
CN (mg/L)	1.0	ND	0.011	0.010	0.036	0.022	0.022	0.010	0.023	0.037	0.041	0.022	0.019
Pb (mg/L)	0.2	ND	0.020	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	0.021	0.008	< 0.010	0.001
Ni (mg/L)	0.5	ND	0.075	0.066	0.065	0.065	0.066	0.065	0.060	0.090	0.065	0.062	0.065
Zn (mg/L)	0.5	ND	0.190	0.112	0.103	0.095	0.065	0.109	0.052	0.090	0.155	0.140	0.123
TSS (mg/L)	15	ND	4.600	5.200	7.900	6.800	10.200	10.800	10.700	12.400	13.500	9.600	5.100
Ra-226 (Bq/L)	0.37	ND	0.010	NMR	NMR	0.014	0.012	NMR	NMR	NMR	0.015	NMR	
pH low	≥6.0	ND	7.8	8.0	7.8	7.7	8.1	7.7	7.6	6.8	7.2	7.2	7.3
pH high	≤9.5	ND	8.1	8.1	8.1	8.9	8.4	8.3	8.1	8.9	7.9	8.1	7.5
Flow (m³/month)	-	ND	29 232	79 459	100 440	103 738	57 888	397 296	357 120	372 600	305 784	266 112	82 584
Rainbow Trout	Pass	ND	1	1	1	3	1	-	-	-	-	-	2
Acute Lethality Test	Fail	-	-	-	-	-	-	2	2	2	2	2	-
Daphnia magna	Pass	ND	1	1	1	3	1	2	-	-	-	1	2
Monitoring Test	Fail	-	-	-	-	-	-	2	2	2	1	1	-

**Comments:** TA, granted for acute lethality, expired on December 6, 2004. pH was not provided as a range. pH range was obtained from the quarterly reports.

**Notes:** ND: No Deposit      NMR: No Measurement Required  
**Pass:** ≤50% Mortality      **Fail:** >50% Mortality  
 Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.  
 A "Pass" for *Daphnia magna* monitoring test is not a requirement.

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	Lockerby Mine																						
Operator Name	Falconbridge Ltd.																						
Product(s)	Copper-Nickel-Cobalt																						
Address	N1-2, Lot 2, Concession 5, PCL 454, SWS Denison Twp., Whitefish, Ontario P0M 3E0																						
Effluent Discharge Point	#4 Pond Effluent																						
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.										
As (mg/L)	0.5	0.002	0.002	0.001	< 0.001	0.001	0.001	0.003	0.003	0.002	0.003	0.003	0.003										
Cu (mg/L)	0.3	0.002	0.004	0.017	0.004	0.004	0.005	0.005	0.004	0.004	0.003	0.001	0.003										
CN (mg/L)	1.0	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR										
Pb (mg/L)	0.2	0.001	0.001	< 0.001	< 0.001	0.001	0.001	0.001	0.001	0.002	0.001	0.001	0.001										
Ni (mg/L)	0.5	0.159	0.117	0.232	0.177	0.123	0.063	0.046	0.084	0.105	0.088	0.068	0.049										
Zn (mg/L)	0.5	0.011	0.010	0.016	0.023	0.013	0.012	0.009	0.010	0.008	0.012	0.017	0.007										
TSS (mg/L)	15	0.700	3.025	0.800	0.750	0.475	1.360	0.850	0.560	0.250	0.250	0.500	0.500										
Ra-226 (Bq/L)	0.37	NMR	0.050	NMR	NMR	0.020	NMR	NMR	0.030	NMR	0.020	NMR	NMR										
pH low	≥6.0	7.0	7.0	6.9	7.2	7.2	7.0	7.3	7.2	7.3	7.3	7.0	7.1										
pH high	≤9.5	7.3	7.4	7.3	7.3	7.4	7.4	7.5	7.3	7.5	7.5	7.5	7.2										
Flow (m <sup>3</sup> /month)	—	36 880	33 002	46 552	66 849	83 471	74 068	79 930	62 430	57 478	56 783	45 400	48 317										
Rainbow Trout	Pass	1	1	1	1	1	1	1	1	NMR	1	NMR	NMR										
Acute Lethality Test	Fail	—	—	—	—	—	—	—	—	—	—	—	—										
Daphnia magna	Pass	1	1	1	1	1	1	1	1	NMR	1	NMR	NMR										
Monitoring Test	Fail	—	—	—	—	—	—	—	—	—	—	—	—										
Comments:	The mine is on reduced frequency testing for acute lethality.																						
Notes:	ND: No Deposit	NMR: No Measurement Required																					
	Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.																						
	A "Pass" for <i>Daphnia magna</i> monitoring test is not a requirement.																						
	Pass: ≤50% Mortality																						
	Fail: >50% Mortality																						

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	Louvicourt (Mine)												
Operator Name	Les Ressources Aur Inc.												
Product(s)	Copper-Zinc-Silver-Gold												
Address	5999, 3 <sup>rd</sup> Avenue East, P.O. Box 2117, Val d'Or, Quebec J9P 6V2												
Effluent Discharge Point	Polishing Pond Final Effluent (PP-FE)												
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5	ND	ND	ND	ND	ND	ND	ND	ND	0.002	0.002	0.002	ND
Cu (mg/L)	0.3	ND	ND	ND	ND	ND	ND	ND	ND	0.003	0.002	0.011	ND
CN (mg/L)	1.0	ND	ND	ND	ND	ND	ND	ND	NMR	NMR	NMR	NMR	ND
Pb (mg/L)	0.2	ND	ND	ND	ND	ND	ND	ND	< 0.001	< 0.001	0.001	0.002	ND
Ni (mg/L)	0.5	ND	ND	ND	ND	ND	ND	ND	ND	0.005	0.003	0.004	ND
Zn (mg/L)	0.5	ND	ND	ND	ND	ND	ND	ND	ND	0.007	0.005	0.013	ND
TSS (mg/L)	15	ND	ND	ND	ND	ND	ND	ND	ND	3.300	3.600	2.200	ND
Ra-226 (Bq/L)	0.37	ND	ND	ND	ND	ND	ND	ND	ND	0.005	0.003	0.045	ND
pH low	≥6.0	ND	ND	ND	ND	ND	ND	ND	ND	6.8	7.1	7.2	ND
pH high	≤9.5	ND	ND	ND	ND	ND	ND	ND	ND	7.2	7.1	7.7	ND
Flow (m <sup>3</sup> /month)	-	ND	ND	ND	ND	ND	ND	ND	ND	272 603	90 042	666 241	726 828
Rainbow Trout	Pass	ND	ND	ND	ND	ND	ND	ND	ND	1	1	1	ND
Acute Lethality Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-
Daphnia magna	Pass	ND	ND	ND	ND	ND	ND	ND	ND	1	1	1	ND
Monitoring Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-

**Comments:** pH was not provided as a range. pH range was obtained from the quarterly reports.

**Notes:** ND: No Deposit      NMR: No Measurement Required

Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.  
A "Pass" for *Daphnia magna* monitoring test is not a requirement.

Pass: ≤50% Mortality

Fail: >50% Mortality

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	Lupin Operations												
Operator Name	Kinross Gold Corporation												
Product(s)	Gold												
Address	9818 Edmonton International Airport, Edmonton, Alberta T5J 2T2												
Effluent Discharge Point	Lupin Discharge Siphons SNP 925-10	January	February	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
Parameters	Limits												
As (mg/L)	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Cu (mg/L)	0.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
CN (mg/L)	1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Pb (mg/L)	0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Ni (mg/L)	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Zn (mg/L)	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
TSS (mg/L)	15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Ra-226 (Bq/L)	0.37	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
pH low	≥6.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
pH high	≤9.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Flow (m <sup>3</sup> /month)	—	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Rainbow Trout	Pass	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Acute Lethality Test	Fail	—	—	—	—	—	—	—	—	—	—	—	
Daphnia magna	Pass	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Monitoring Test	Fail	—	—	—	—	—	—	—	—	—	—	—	
<b>Comments:</b>													
Notes: ND: No Deposit    NMR: No Measurement Required													
Highly highlighted data indicate that a monthly effluent quality standard was exceeded for that month.													
A "Pass" for <i>Daphnia magna</i> monitoring test is not a requirement.													
Pass: ≤50% Mortality    Fail: >50% Mortality													

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	Macassa Mine												
Operator Name	Kirkland Lake Gold Inc.												
Product(s)	Gold												
Address	P.O. Box 370, Kirkland Lake, Ontario P2N 3J1												
Effluent Discharge Point	C Dam												
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5	0.000	0.000	0.000	0.001	0.000	0.000	0.001	0.001	0.001	0.002	0.002	0.002
Cu (mg/L)	0.3	0.005	0.001	0.007	0.094	0.063	0.012	0.015	0.011	0.010	0.007	0.014	0.010
CN (mg/L)	1.0	0.008	0.011	0.015	0.078	0.062	0.014	0.022	0.027	0.020	0.020	0.056	0.024
Pb (mg/L)	0.2	0.008	0.000	0.000	0.003	0.000	0.002	0.000	0.000	0.000	0.005	0.005	0.005
Ni (mg/L)	0.5	0.000	0.000	0.002	0.008	0.039	0.005	0.003	0.000	0.000	0.010	0.015	0.011
Zn (mg/L)	0.5	0.003	0.008	0.006	0.011	0.009	0.003	0.009	0.003	0.003	0.007	0.007	0.014
TSS (mg/L)	15	3.231	4.000	3.115	1.769	3.615	0.615	0.846	0.429	1.615	3.000	3.000	4.000
Ra-226 (Bq/L)	0.37	0.000	0.000	0.000	0.000	0.000	0.000	NMR	NMR	0.000	NMR	0.010	NMR
pH low	≥6.0	2.7	7.4	7.3	7.4	7.4	7.7	7.2	8.1	8.0	8.1	8.1	7.9
pH high	≤9.5	8.2	8.3	8.4	8.3	8.3	8.5	8.3	8.4	8.3	8.2	8.2	8.3
Flow (m³/month)	-	155 803	159 931	163 324	325 821	486 650	269 384	370 779	373 890	238 303	178 497	210 064	137 515
Rainbow Trout	Pass	1	1	1	1	1	1	1	1	1	1	1	1
Acute Lethality Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-
Daphnia magna	Pass	1	1	1	1	1	1	1	1	1	1	1	1
Monitoring Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-
Comments:													
Notes:	ND: No Deposit	NMR: No Measurement Required											
		Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.											
		A "Pass" for <i>Daphnia magna</i> monitoring test is not a requirement.											
		Pass: ≤50% Mortality											
		Fail: >50% Mortality											

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name		Magnacon Mine (part of Eagle River Mill)											
Operator Name		River Gold Mines Ltd.											
Product(s)		Gold											
Address		127 Mission Rd., P.O. Box 1520, Wawa, Ontario P0S 1K0											
Effluent Discharge Point		Magnacon Mine											
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5	0.002	0.001	0.002	0.002	0.001	0.001	0.003	0.001	0.003	0.001	0.001	0.004
Cu (mg/L)	0.3	0.002	0.001	0.005	0.002	< 0.001	0.002	0.004	0.003	0.003	0.005	0.004	0.002
CN (mg/L)	1.0	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR
Pb (mg/L)	0.2	0.000	0.000	< 0.001	0.000	0.000	0.000	0.001	< 0.001	0.006	0.006	0.006	0.002
Ni (mg/L)	0.5	0.000	0.000	0.000	0.000	0.000	0.000	0.257	0.010	0.000	0.005	0.003	0.001
Zn (mg/L)	0.5	< 0.001	0.002	0.002	0.001	0.003	0.005	0.007	0.006	0.006	0.006	0.023	0.002
TSS (mg/L)	15	3.000	2.000	0.400	0.500	0.000	0.500	0.000	0.000	0.000	2.000	2.000	2.000
Ra-226 (Bq/L)	0.37	0.000	0.000	0.000	0.000	0.000	NMR	NMR	0.000	NMR	0.010	NMR	NMR
pH low	≥6.0	7.6	6.8	7.4	7.4	7.2	7.0	6.8	6.8	6.9	7.4	7.4	7.1
pH high	≤9.5	7.7	7.7	7.7	7.6	7.6	7.3	7.7	7.0	7.8	7.6	7.6	8.1
Flow (m <sup>3</sup> /month)	—	30 504	28 536	34 038	55 208	48 236	34 605	24 924	31 818	30 075	36 355	38 235	11 284
Rainbow Trout		Pass	1	1	1	1	1	1	1	1	1	1	1
Acute Lethality Test		Fail	—	—	—	—	—	—	—	—	—	—	—
<i>Daphnia magna</i>		Pass	1	1	1	1	1	1	1	1	1	1	1
Monitoring Test		Fail	—	—	—	—	—	—	—	—	—	—	—

**Comments:** Cyanide is not used in the process. The mine is on reduced frequency for Radium 226. Explanation was obtained from the quarterly reports.

**Notes:** ND: No Deposit      NMR: No Measurement Required  
**Acute Lethality Test**: Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.  
**Daphnia magna**: A "Pass" for *Daphnia magna* monitoring test is not a requirement.

Pass: ≤50% Mortality

Pass: >50% Mortality

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	Malartic (Mill)												
Operator Name	Mines McWatters Inc. / Ministère des Ressources naturelles et de la Faune du Québec												
Product(s)	Gold												
Address	400 Lamaque Boulevard, Val d'Or, Quebec J9P 3L4												
Effluent Discharge Point	Final Effluent E1												
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5	ND	ND	ND	ND	ND	< 0.001	-	-	-	-	-	-
Cu (mg/L)	0.3	ND	ND	ND	ND	ND	0.014	-	-	-	-	-	-
CN (mg/L)	1.0	ND	ND	ND	ND	ND	< 0.002	-	-	-	-	-	-
Pb (mg/L)	0.2	ND	ND	ND	ND	ND	< 0.001	-	-	-	-	-	-
Ni (mg/L)	0.5	ND	ND	ND	ND	ND	0.016	-	-	-	-	-	-
Zn (mg/L)	0.5	ND	ND	ND	ND	ND	0.004	-	-	-	-	-	-
TSS (mg/L)	15	ND	ND	ND	ND	ND	3.720	-	-	-	-	-	-
Ra-226 (Bq/L)	0.37	ND	ND	ND	ND	ND	0.006	-	-	-	-	-	-
pH low	≥6.0	ND	ND	ND	ND	ND	7.5	-	-	-	-	-	-
pH high	≤9.5	ND	ND	ND	ND	ND	8.0	-	-	-	-	-	-
Flow (m³/month)	-	ND	ND	ND	ND	ND	910 014	-	-	-	-	-	-
Rainbow Trout	Pass	ND	ND	ND	ND	ND	1	-	-	-	-	-	-
Acute Lethality Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-
Daphnia magna	Pass	ND	ND	ND	ND	ND	1	-	-	-	-	-	-
Monitoring Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-

**Comments:** The first and second quarterly reports were submitted. The mine was in bankruptcy protection after July 2004. The ownership of "Usine Malartic" was transferred from Mines McWatters Inc. to Ministère des Ressources naturelles et de la Faune du Québec on November 1, 2004.

**Notes:** ND: No Deposit      NMR: No Measurement Required  
**Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.**  
A "Pass" for *Daphnia magna* monitoring test is not a requirement.

Pass: ≤50% Mortality

Fail: >50% Mortality

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name		Matagami (Mine) (Bell Allard)											
Operator Name		Noranda Inc.											
Product(s)		Zinc-Copper											
Address		500 Industriel Boulevard, Matagami, Quebec J0Y 2A0											
Effluent Discharge Point		Lake Watson Discharge											
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5	0.002	0.006	< 0.001	0.002	0.001	< 0.001	0.002	0.001	< 0.001	0.001	0.001	< 0.001
Cu (mg/L)	0.3	0.015	0.010	0.008	0.014	0.005	0.015	0.012	0.006	0.014	0.008	0.005	0.018
CN (mg/L)	1.0	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR
Pb (mg/L)	0.2	0.001	0.002	< 0.001	< 0.001	0.002	0.002	< 0.001	< 0.001	< 0.001	0.002	< 0.001	< 0.001
Ni (mg/L)	0.5	0.023	0.024	0.014	0.010	0.016	0.022	0.025	0.022	0.020	0.012	0.021	0.021
Zn (mg/L)	0.5	0.020	0.005	0.008	0.320	0.159	0.036	0.043	0.018	0.021	0.078	0.061	0.027
TSS (mg/L)	15	2.600	3.000	1.900	3.300	3.500	3.000	2.100	1.300	3.400	4.000	2.000	2.900
Ra-226 (Bq/L)	0.37	0.010	NMR	NMR	< 0.005	NMR	0.003	NMR	NMR	< 0.002	NMR	NMR	NMR
pH low	≥6.0	8.4	7.4	7.7	8.5	8.1	8.3	8.2	8.3	8.2	8.3	7.9	7.7
pH high	≤9.5	9.4	9.2	9.1	9.5	9.5	9.3	9.2	8.9	9.0	8.9	9.1	9.4
Flow (m³/month)	-	541 162	550 575	646 446	1 257 956	982 608	565 335	920 014	614 992	756 994	724 239	493 784	494 765
Rainbow Trout	Pass	1	NMR	NMR	NMR	1	NMR	1	NMR	NMR	1	NMR	NMR
Acute Lethality Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-
Daphnia magna	Pass	1	NMR	NMR	NMR	1	NMR	1	NMR	NMR	1	NMR	NMR
Monitoring Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-

**Comments:** pH was not provided as a range. pH range was provided from the quarterly reports. The mine is on reduced frequency testing for acute lethality.

**Notes:** ND: No Deposit      NMR: No Measurement Required  
 Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.  
 A "Pass" for *Daphnia magna* monitoring test is not a requirement.

Pass: ≤50% Mortality      Fail: >50% Mortality

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	McAlpine Mill												
Operator Name	SMC (Canada) Ltd.												
Product(s)	Gold-Silver-Platinum-Palladium												
Address	Lot 4, Concession 4, P.O. Box 710, Coleman Road, Cobalt, Ontario P0J 1C0												
Effluent Discharge Point	Polishing Pond												
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5	0.125	0.240	0.302	0.123	0.250	0.153	0.345	0.380	0.325	0.298	0.336	0.203
Cu (mg/L)	0.3	0.007	0.006	0.005	0.006	0.009	0.008	0.007	0.005	0.005	0.006	0.006	0.006
CN (mg/L)	1.0	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR
Pb (mg/L)	0.2	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.026	0.020
Ni (mg/L)	0.5	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020
Zn (mg/L)	0.5	0.010	0.010	0.010	0.014	0.013	0.020	0.010	0.010	0.010	0.013	0.016	0.010
TSS (mg/L)	15	2.000	2.000	2.800	2.750	4.200	2.500	2.500	2.600	3.500	3.500	3.000	4.000
Ra-226 (Bq/L)	0.37	NMR	NMR	0.010	NMR	0.010	NMR	NMR	NMR	0.010	NMR	NMR	0.010
pH low	≥6.0	7.9	7.9	7.5	7.5	8.4	8.3	8.5	8.6	8.5	8.5	8.4	7.7
pH high	≤9.5	8.0	8.5	8.8	8.6	8.6	8.6	8.8	8.8	8.6	8.8	8.7	8.4
Flow (m³/month)	-	28 938	12 774	73 501	208 890	187 221	21 705	117 382	28 923	22 672	10 411	20 226	30 672
Rainbow Trout	Pass	NMR	NMR	1	NMR	1	NMR	NMR	1	NMR	NMR	NMR	1
Acute Lethality Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-
Daphnia magna	Pass	NMR	NMR	1	NMR	1	NMR	NMR	1	NMR	NMR	NMR	1
Monitoring Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-

**Comments:** The mine is on reduced frequency testing for acute lethality. Cyanide is not used in the process. The mine is on reduced frequency for Radium 226. Explanation was provided from the quarterly reports.

Notes: ND: No Deposit      NMR: No Measurement Required  
 Pass: ≤50% Mortality      Fail: >50% Mortality  
 Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.  
 A "Pass" for *Daphnia magna* monitoring test is not a requirement.

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name		McArthur River Operation																							
Operator Name		Cameco Corporation																							
Product(s)		Uranium																							
Address		2121 11 <sup>th</sup> Street West, Saskatoon, Saskatchewan S7M 1J3																							
Effluent Discharge Point		Mine Water Treatment Plant – #2 88HP Pump																							
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.												
As (mg/L)	0.5	-	-	-	-	-	-	-	-	-	-	-	-												
Cu (mg/L)	0.3	-	-	-	-	-	-	-	-	-	-	-	-												
CN (mg/L)	1.0	-	-	-	-	-	-	-	-	-	-	-	-												
Pb (mg/L)	0.2	-	-	-	-	-	-	-	-	-	-	-	-												
Ni (mg/L)	0.5	-	-	-	-	-	-	-	-	-	-	-	-												
Zn (mg/L)	0.5	-	-	-	-	-	-	-	-	-	-	-	-												
TSS (mg/L)	15	-	-	-	-	-	-	-	-	-	-	-	-												
Ra-226 (Bq/L)	0.37	-	-	-	-	-	-	-	-	-	-	-	-												
pH low	≥6.0	-	-	-	-	-	-	-	-	-	-	-	-												
pH high	≤9.5	-	-	-	-	-	-	-	-	-	-	-	-												
Flow (m <sup>3</sup> /month)	-	-	-	-	-	-	-	-	-	-	-	-	-												
Rainbow Trout	Pass	-	-	-	-	-	-	-	-	-	-	-	-												
Acute Lethality Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-												
Daphnia magna	Pass	-	-	-	-	-	-	-	-	-	-	-	-												
Monitoring Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-												
Comments:	FDP has been routed to FDP Station 2.1.																								
Notes:	ND: No Deposit	NMR: No Measurement Required																							
	Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.																								
	A "Pass" for <i>Daphnia magna</i> monitoring test is not a requirement.																								
	Pass: ≤50% Mortality																								
	Fail: >50% Mortality																								

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name		McArthur River Operation											
Operator Name		Cameco Corporation											
Product(s)		Uranium											
Address		2121 11 <sup>th</sup> Street West, Saskatoon, Saskatchewan S7M 1J3											
Effluent Discharge Point		Mine Water Treatment Plant – 88HP Pump											
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5	-	-	-	-	-	-	-	-	-	-	-	-
Cu (mg/L)	0.3	-	-	-	-	-	-	-	-	-	-	-	-
CN (mg/L)	1.0	-	-	-	-	-	-	-	-	-	-	-	-
Pb (mg/L)	0.2	-	-	-	-	-	-	-	-	-	-	-	-
Ni (mg/L)	0.5	-	-	-	-	-	-	-	-	-	-	-	-
Zn (mg/L)	0.5	-	-	-	-	-	-	-	-	-	-	-	-
TSS (mg/L)	15	-	-	-	-	-	-	-	-	-	-	-	-
Ra-226 (Bq/L)	0.37	-	-	-	-	-	-	-	-	-	-	-	-
pH low	≥6.0	-	-	-	-	-	-	-	-	-	-	-	-
pH high	≤9.5	-	-	-	-	-	-	-	-	-	-	-	-
Flow (m <sup>3</sup> /month)	-	-	-	-	-	-	-	-	-	-	-	-	-
Rainbow Trout	Pass	-	-	-	-	-	-	-	-	-	-	-	-
Acute Lethality Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-
Daphnia magna	Pass	-	-	-	-	-	-	-	-	-	-	-	-
Monitoring Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-

**Comments:** FDP has been routed to FDP Station 2.1.

Notes:	ND: No Deposit	NMR: No Measurement Required	Pass: ≤50% Mortality	Fail: >50% Mortality
				Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.
				A "Pass" for <i>Daphnia magna</i> monitoring test is not a requirement.

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	McArthur River Operation																						
Operator Name	Cameco Corporation																						
Product(s)	Uranium																						
Address	2121 11 <sup>th</sup> Street West, Saskatoon, Saskatchewan S7M 1J3																						
Effluent Discharge Point	Station 2.1																						
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.										
As (mg/L)	0.5	0.001	0.002	0.001	0.001	0.001	0.003	0.004	0.004	0.003	0.005	0.005	0.007										
Cu (mg/L)	0.3	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001										
CN (mg/L)	1.0	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR										
Pb (mg/L)	0.2	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002										
Ni (mg/L)	0.5	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.001	0.002										
Zn (mg/L)	0.5	0.005	0.005	0.005	0.006	0.005	0.008	0.007	0.007	0.008	0.008	0.010	0.010										
TSS (mg/L)	15	1.000	1.100	1.000	1.000	1.200	1.100	1.000	1.700	1.000	1.500	1.500	1.200										
Ra-226 (Bq/L)	0.37	0.060	0.060	0.040	0.030	0.020	0.030	0.050	0.050	0.070	0.070	0.090	0.080										
pH low	≥6.0	6.7	6.8	7.0	6.9	6.7	7.0	6.7	6.7	6.6	6.8	6.8	6.9										
pH high	≤9.5	7.8	7.5	7.3	7.4	7.4	7.3	7.2	7.4	7.3	7.1	7.3	7.6										
Flow (m <sup>3</sup> /month)	—	409 172	343 848	411 554	343 116	322 240	184 861	150 168	150 720	133 707	148 348	129 618	139 360										
Rainbow Trout	Pass	1	1	NMR	NMR	1	NMR	NMR	1	NMR	NMR	1	NMR										
Acute Lethality Test	Fail	—	—	—	—	—	—	—	—	—	—	—	—										
Daphnia magna	Pass	1	1	NMR	NMR	1	NMR	NMR	1	NMR	NMR	1	NMR										
Monitoring Test	Fail	—	—	—	—	—	—	—	—	—	—	—	—										
Comments:	The mine is on reduced frequency testing for acute lethality.																						
Notes:	ND: No Deposit	NMR: No Measurement Required																					
	Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.																						
	A "Pass" for <i>Daphnia magna</i> monitoring test is not a requirement.																						
	Pass: ≤50% Mortality																						
	Fail: >50% Mortality																						

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

<b>Mine/Mill Name</b>	McArthur River Operation												
<b>Operator Name</b>	Cameco Corporation												
<b>Product(s)</b>	Uranium												
<b>Address</b>	2121 11 <sup>th</sup> Street West, Saskatoon, Saskatchewan S7M 1J3												
<b>Effluent Discharge Point</b>	Station 2.7												
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5 < 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Cu (mg/L)	0.3 0.001	0.002	0.001	0.007	0.006	0.009	0.001	0.001	0.001	0.001	0.001	0.002	0.001
CN (mg/L)	1.0 NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR
Pb (mg/L)	0.2 0.002	0.002	0.003	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
Ni (mg/L)	0.5 0.001	0.002	0.003	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Zn (mg/L)	0.5 0.018	0.022	0.020	0.014	0.012	0.012	0.007	0.008	0.013	0.038	0.053	0.030	
TSS (mg/L)	15 1.000	1.000	1.000	2.000	1.000	1.700	1.200	1.000	1.000	1.200	1.200	1.000	
Ra-226 (Bq/L)	0.37 0.040	0.030	0.040	0.040	0.040	0.030	0.050	0.050	0.040	0.043	0.042	0.050	
pH low	≥6.0 6.9	6.6	6.8	6.9	7.0	7.1	7.3	7.2	7.0	6.7	6.7	6.8	
pH high	≤9.5 7.0	7.0	7.3	7.1	7.2	7.4	7.4	7.3	7.4	7.1	7.0	6.9	
Flow (m <sup>3</sup> /month)	- 45 084	43 895	53 577	44 875	56 940	47 821	52 889	66 074	52 615	48 001	49 095	45 433	
<b>Rainbow Trout</b>	<b>Pass</b>	<b>1</b>	<b>NMR</b>	<b>1</b>	<b>1</b>	<b>NMR</b>							
<b>Acute Lethality Test</b>	<b>Fail</b>	-	-	-	-	-	-	-	-	-	-	-	-
<b>Daphnia magna</b>	<b>Pass</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>-</b>	<b>1</b>	<b>1</b>	<b>NMR</b>	<b>1</b>	<b>1</b>	<b>NMR</b>
<b>Monitoring Test</b>	<b>Fail</b>	-	-	-	-	-	-	1	-	-	-	-	-
<b>Comments:</b>	The mine has been on reduced frequency testing for acute lethality since August 2004.												
<b>Notes:</b>	ND: No Deposit      NMR: No Measurement Required Highlighted data indicate that a monthly effluent quality standard was exceeded for that month. A "Pass" for <i>Daphnia magna</i> monitoring test is not a requirement.												
	Pass: ≤50% Mortality      Fail: >50% Mortality												

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	McClean Lake Operation																						
Operator Name	Cogema Resources Inc.																						
Product(s)	Uranium																						
Address	P.O. Box 9204, 817 – 45 <sup>th</sup> Street West, Saskatoon, Saskatchewan S7K 3X5																						
Effluent Discharge Point	CM01-B (JEB Water Treatment Plant)																						
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.										
As (mg/L)	0.5	0.016	0.017	0.016	0.020	0.019	0.017	0.019	0.022	0.021	0.028	0.020	0.015										
Cu (mg/L)	0.3	0.001	0.002	0.002	0.002	0.001	0.002	0.001	0.001	0.001	0.002	0.001	0.001										
CN (mg/L)	1.0	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR										
Pb (mg/L)	0.2	< 0.001	< 0.001	< 0.001	0.001	< 0.001	0.001	0.001	0.001	0.002	0.001	0.001	< 0.001										
Ni (mg/L)	0.5	0.047	0.038	0.043	0.025	0.020	0.024	0.020	0.025	0.027	0.030	0.026	0.024										
Zn (mg/L)	0.5	0.006	0.004	0.003	0.002	0.001	0.001	0.001	0.002	0.001	0.001	0.001	0.001										
TSS (mg/L)	15	1.575	1.370	1.350	1.492	1.424	1.508	1.400	1.683	2.016	1.848	2.000	1.291										
Ra-226 (Bq/L)	0.37	0.010	0.007	0.007	0.006	0.007	0.008	0.007	0.007	0.011	0.010	0.008	0.008										
pH low	≥6.0	7.0	7.1	7.2	6.9	7.1	6.8	7.2	7.0	6.7	6.7	7.0	7.0										
pH high	≤9.5	8.0	8.2	8.1	8.3	8.2	8.2	8.1	7.8	8.1	8.0	8.4	7.9										
Flow (m <sup>3</sup> /month)	–	104 670	122 028	134 611	134 805	133 300	143 387	134 471	136 631	134 530	143 684	124 446	112 700										
Rainbow Trout	Pass	1	1	1	1	1	NMR	NMR	NMR	1	NMR	NMR	1										
Acute Lethality Test	Fail	–	–	–	–	–	–	–	–	–	–	–	–										
Daphnia magna	Pass	1	1	1	1	1	NMR	NMR	NMR	1	NMR	NMR	1										
Monitoring Test	Fail	–	–	–	–	–	–	–	–	–	–	–	–										
Comments:	The mine is on reduced frequency testing for acute lethality.																						
Notes:	ND: No Deposit	NMR: No Measurement Required																					
	Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.																						
	A "Pass" for <i>Daphnia magna</i> monitoring test is not a requirement.																						
	Pass: ≤50% Mortality																						
	Fail: >50% Mortality																						

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	McClean Lake Operation																						
Operator Name	Cogema Resources Inc.																						
Product(s)	Uranium																						
Address	P.O. Box 9204, 817 – 45 <sup>th</sup> Street West, Saskatoon, Saskatchewan S7K 3X5																						
Effluent Discharge Point	SC01 (SUE Water Treatment Plant Effluent)																						
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.										
As (mg/L)	0.5	ND	ND	ND	ND	ND	0.013	0.008	0.007	0.004	0.013	0.005	0.003										
Cu (mg/L)	0.3	ND	ND	ND	ND	ND	0.001	0.001	0.001	0.002	0.001	0.001	0.001										
CN (mg/L)	1.0	ND	ND	ND	ND	ND	NMR																
Pb (mg/L)	0.2	ND	ND	ND	ND	ND	< 0.001	0.001	0.002	0.001	0.004	0.003	0.001										
Ni (mg/L)	0.5	ND	ND	ND	ND	ND	0.007	0.037	0.043	0.045	0.066	0.065	0.065										
Zn (mg/L)	0.5	ND	ND	ND	ND	ND	0.001	0.001	0.001	0.005	0.004	0.004	0.004										
TSS (mg/L)	15	ND	ND	ND	ND	ND	1.059	2.121	2.667	1.576	3.450	2.383	2.081										
Ra-226 (Bq/L)	0.37	ND	ND	ND	ND	ND	0.015	0.043	0.042	0.049	0.058	0.038	0.024										
pH low	≥6.0	ND	ND	ND	ND	ND	7.0	7.4	7.4	7.1	7.1	7.0	6.9										
pH high	≤9.5	ND	ND	ND	ND	ND	8.6	8.0	7.7	7.7	7.7	7.5	7.5										
Flow (m <sup>3</sup> /month)	–	ND	ND	ND	ND	ND	33 013	109 265	141 822	167 128	148 473	196 416	183 457										
Rainbow Trout	Pass	ND	ND	ND	ND	ND	1	1	1	1	1	1	1										
Acute Lethality Test	Fail	–	–	–	–	–	–	–	–	–	–	–	–										
Daphnia magna	Pass	ND	ND	ND	ND	ND	1	1	1	1	1	1	1										
Monitoring Test	Fail	–	–	–	–	–	–	–	–	–	–	–	–										
Comments:																							
Notes:	ND: No Deposit	NMR: No Measurement Required																					
	Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.																						
	A "Pass" for <i>Daphnia magna</i> monitoring test is not a requirement.																						
	Pass: ≤50% Mortality																						
	Fail: >50% Mortality																						

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	Mishi Pit (part of Eagle River Mill)																					
Operator Name	River Gold Mines Ltd.																					
Product(s)	Gold																					
Address	127 Mission Rd., P.O. Box 1520, Wawa, Ontario P0S 1K0																					
Effluent Discharge Point	Mishi Pit	Mishi Pit																				
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.									
As (mg/L)	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND									
Cu (mg/L)	0.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND									
CN (mg/L)	1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND									
Pb (mg/L)	0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND									
Ni (mg/L)	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND									
Zn (mg/L)	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND									
TSS (mg/L)	15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND									
Ra-226 (Bq/L)	0.37	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND									
pH low	≥6.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND									
pH high	≤9.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND									
Flow (m <sup>3</sup> /month)	—	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND									
Rainbow Trout	Pass	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND									
Acute Lethality Test	Fail	—	—	—	—	—	—	—	—	—	—	—	—									
Daphnia magna	Pass	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND									
Monitoring Test	Fail	—	—	—	—	—	—	—	—	—	—	—	—									
Comments:																						
Notes:	ND: No Deposit	NMR: No Measurement Required																				
	Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.																					
	A "Pass" for <i>Daphnia magna</i> monitoring test is not a requirement.																					
	Pass: ≤50% Mortality																					
	Fail: >50% Mortality																					

**Metal Mining Effluent Regulations (MMER)**  
**2004 Effluent Compliance**

Mine/Mill Name		Montcalm Project												
Operator Name	Falconbridge Ltd.													
Product(s)	Nickel-Copper-Cobalt													
Address	c/o P.O. Box 2002, Hwy. 655 North, Timmins, Ontario P4N 7K1													
Effluent Discharge Point		Montcalm Final Effluent												
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.	
As (mg/L)	0.5	0.005	0.005	0.005	0.005	0.003	0.003	0.005	0.001	0.001	ND	ND	ND	
Cu (mg/L)	0.3	0.003	0.014	0.006	0.003	0.004	0.003	0.003	0.002	0.003	ND	ND	ND	
CN (mg/L)	1.0	< 0.001	NMR	NMR	ND	ND	ND							
Pb (mg/L)	0.2	0.002	0.003	0.002	0.002	0.002	0.002	0.002	0.003	0.002	ND	ND	ND	
Ni (mg/L)	0.5	0.169	0.338	0.087	0.079	0.080	0.095	0.091	0.095	0.107	ND	ND	ND	
Zn (mg/L)	0.5	0.088	0.020	0.014	0.003	0.004	0.004	0.006	0.005	0.003	ND	ND	ND	
TSS (mg/L)	15	5.000	9.417	7.214	7.615	3.000	3.077	3.538	2.750	6.400	ND	ND	ND	
Ra-226 (Bq/L)	0.37	0.010	0.010	0.010	0.010	NMR	NMR	NMR	NMR	0.010	ND	ND	ND	
pH low	≥6.0	6.9	6.2	7.0	6.9	6.7	6.8	6.9	7.0	6.9	ND	ND	ND	
pH high	≤9.5	8.7	8.1	8.7	8.4	7.8	7.9	7.6	7.3	7.0	ND	ND	ND	
Flow (m³/month)	-	69 268	63 688	55 857	56 714	49 070	33 117	28 327	6 583	9 785	ND	ND	ND	
Rainbow Trout	Pass	1	1	1	1	1	1	1	-	-	ND	ND	ND	
Acute Lethality Test	Fail	-	-	-	-	-	-	-	1	-	-	-	-	
Daphnia magna	Pass	1	1	1	1	1	1	1	-	1	ND	ND	ND	
Monitoring Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-	

**Comments:** No acute lethality test results were provided for September. Acute lethality test was scheduled on day of no discharge. Explanation was obtained from the quarterly reports.

Notes: ND: No Deposit      NMR: No Measurement Required

Highly highlighted data indicate that a monthly effluent quality standard was exceeded for that month.  
A "Pass" for *Daphnia magna* monitoring test is not a requirement.

Pass: ≤50% Mortality

Fail: >50% Mortality

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	Mont-Wright (Mine)																						
Operator Name	Compagnie minière Québec Cartier																						
Product(s)	Iron																						
Address	P.O. Box 1817, Mont-Wright, Quebec G0G 1J0																						
Effluent Discharge Point	Point HS-1																						
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.										
As (mg/L)	0.5	NMR	0.001	NMR	NMR	0.001	NMR	NMR	0.001	0.001	NMR	NMR	NMR										
Cu (mg/L)	0.3	NMR	0.007	NMR	NMR	0.003	NMR	NMR	0.003	0.001	NMR	NMR	NMR										
CN (mg/L)	1.0	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR										
Pb (mg/L)	0.2	NMR	0.003	NMR	NMR	0.003	NMR	NMR	0.003	0.003	NMR	NMR	NMR										
Ni (mg/L)	0.5	NMR	0.016	NMR	NMR	0.011	NMR	NMR	NMR	0.022	0.010	NMR	NMR										
Zn (mg/L)	0.5	NMR	0.013	NMR	NMR	0.011	NMR	NMR	NMR	0.004	0.009	NMR	NMR										
TSS (mg/L)	15	1.000	2.000	6.300	21200	14.800	14.000	6.500	9.400	6.800	2.300	1.000											
Ra-226 (Bq/L)	0.37	NMR	0.010	NMR	0.010	NMR	NMR	NMR	NMR	0.010	0.010	NMR	NMR										
pH low	≥6.0	6.6	6.6	6.6	6.7	6.6	6.7	6.9	7.0	7.2	7.2	7.2	7.1										
pH high	≤9.5	6.7	6.7	6.7	6.8	7.0	6.9	7.2	7.3	7.7	7.4	7.3	7.2										
Flow (m <sup>3</sup> /month)	—	1 190 400	1 078 800	1 130 880	4 680 000	15 341 280	26 406 000	12 369 000	10 323 000	9 561 600	1 804 200	1 278 000	1 488 000										
Rainbow Trout	Pass	NMR	1	NMR	NMR	1	NMR	NMR	NMR	1	1	NMR	NMR										
Acute Lethality Test	Fail	—	—	—	—	—	—	—	—	—	—	—	—										
Daphnia magna	Pass	NMR	1	NMR	NMR	1	NMR	NMR	NMR	1	1	NMR	NMR										
Monitoring Test	Fail	—	—	—	—	—	—	—	—	—	—	—	—										
Comments:	The mine is on reduced frequency testing for acute lethality.																						
Notes:	ND: No Deposit	NMR: No Measurement Required																					
	Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.																						
	A "Pass" for <i>Daphnia magna</i> monitoring test is not a requirement.																						
	Pass: ≤50% Mortality																						
	Fail: >50% Mortality																						

**Metal Mining Effluent Regulations (MMER)**  
**2004 Effluent Compliance**

Mine/Mill Name	Mont-Wright (Mine)												
Operator Name	Compagnie minière Québec Cartier												
Product(s)	Iron												
Address	P.O. Box 1817, Mont-Wright, Quebec G0G 1J0												
Effluent Discharge Point	Point MS-2												
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5	ND	ND	ND	ND	0.001	NMR	NMR	0.001	0.001	NMR	NMR	ND
Cu (mg/L)	0.3	ND	ND	ND	ND	0.005	NMR	NMR	0.002	0.001	NMR	NMR	ND
CN (mg/L)	1.0	ND	ND	ND	ND	NMR	NMR	NMR	NMR	NMR	NMR	NMR	ND
Pb (mg/L)	0.2	ND	ND	ND	ND	0.003	NMR	NMR	0.003	0.003	NMR	NMR	ND
Ni (mg/L)	0.5	ND	ND	ND	ND	0.011	NMR	NMR	0.029	0.020	NMR	NMR	ND
Zn (mg/L)	0.5	ND	ND	ND	ND	0.011	NMR	NMR	0.009	0.010	NMR	NMR	ND
TSS (mg/L)	25	ND	ND	ND	ND	5.700	7.000	5.500	5.750	5.000	3.800	3.500	ND
Ra-226 (Bq/L)	0.37	ND	ND	ND	ND	0.010	NMR	NMR	0.010	0.010	NMR	NMR	ND
pH low	≥6.0	ND	ND	ND	ND	6.0	6.0	6.2	6.8	6.8	6.7	6.7	ND
pH high	≤9.5	ND	ND	ND	ND	6.2	6.5	6.7	6.9	6.9	6.9	6.8	ND
Flow (m <sup>3</sup> /month)	-	ND	ND	ND	ND	93 120	221 400	102 300	74 214	69 552	53 568	198 720	ND
Rainbow Trout	Pass	ND	ND	ND	ND	1	-	-	-	1	1	1	ND
Acute Lethality Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-
Daphnia magna	Pass	ND	ND	ND	ND	1	-	-	-	1	1	1	ND
Monitoring Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-

**Comments:** TA, granted for TSS limit of 25 mg/L, expired on December 6, 2004. No acute lethality test results were provided for June, July, and August.  
The mine misinterpreted the Regulations with respect to the reduced frequency requirements for acute lethality.

Notes: ND: No Deposit      NMR: No Measurement Required

Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.  
A "Pass" for *Daphnia magna* monitoring test is not a requirement.

Pass: ≤50% Mortality

Fail: >50% Mortality

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	Mouska (Mine)												
Operator Name	Cambior Inc.												
Product(s)	Gold												
Address	1075, 3 <sup>rd</sup> Avenue Est, P.O. Box 9999, Val d'Or, Quebec J9P 6M1												
Effluent Discharge Point	Final Effluent												
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5	< 0.002	0.001	< 0.001	0.002	0.002	< 0.001	< 0.001	0.001	< 0.001	0.002	0.001	< 0.001
Cu (mg/L)	0.3	0.020	0.020	0.010	0.020	0.030	0.010	0.010	0.010	0.010	0.020	0.030	0.020
CN (mg/L)	1.0	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR
Pb (mg/L)	0.2	0.010	< 0.010	< 0.001	0.013	< 0.001	0.001	< 0.001	0.001	0.002	< 0.001	< 0.001	< 0.001
Ni (mg/L)	0.5	0.010	< 0.010	0.010	0.010	0.020	0.020	0.020	0.030	0.010	0.020	0.020	0.020
Zn (mg/L)	0.5	0.020	0.040	0.010	0.040	0.030	0.010	0.020	< 0.010	0.010	0.020	0.030	0.060
TSS (mg/L)	15	4.000	3.000	1.600	0.900	2.700	5.200	8.100	4.200	1.500	3.400	6.000	1.100
Ra-226 (Bq/L)	0.37	NMR	0.005	NMR	NMR	< 0.005	NMR	NMR	< 0.002	NMR	NMR	NMR	0.007
pH low	≥6.0	7.2	7.4	7.0	7.7	7.9	7.6	7.5	7.5	7.9	7.9	7.6	7.4
pH high	≤9.5	8.0	7.8	7.8	8.0	8.1	8.1	7.9	8.3	8.1	8.0	8.0	7.7
Flow (m <sup>3</sup> /month)	—	64 728	58 882	64 728	60 347	64 117	60 489	74 702	63 910	68 302	74 702	63 910	69 396
Rainbow Trout	Pass	NMR	NMR	1	NMR	NMR	1	NMR	NMR	1	NMR	NMR	1
Acute Lethality Test	Fail	—	—	—	—	—	—	—	—	—	—	—	—
Daphnia magna	Pass	NMR	NMR	1	NMR	NMR	1	NMR	NMR	1	NMR	NMR	1
Monitoring Test	Fail	—	—	—	—	—	—	—	—	—	—	—	—

**Comments:** pH was not provided as a range. pH range was obtained from the quarterly reports. The mine is on reduced frequency testing for acute lethality.

**Notes:** ND: No Deposit      NMR: No Measurement Required  
 Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.  
 A "Pass" for *Daphnia magna* monitoring test is not a requirement.

Pass: ≤50% Mortality      Fail: >50% Mortality

**Metal Mining Effluent Regulations (MMER)**  
**2004 Effluent Compliance**

Mine/Mill Name		Musselwhite Mine											
Operator Name		Placer Dome Canada Limited											
Product(s)		Gold											
Address		P.O. Box 7500, Thunder Bay, Ontario P7B 6S8											
Effluent Discharge Point		FDP 1											
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5	ND	ND	ND	ND	ND	ND	ND	0.002	0.003	0.002	0.002	0.003
Cu (mg/L)	0.3	ND	ND	ND	ND	ND	ND	ND	0.002	0.002	0.004	0.005	0.006
CN (mg/L)	1.0	ND	ND	ND	ND	ND	ND	ND	0.024	0.018	0.017	0.015	0.023
Pb (mg/L)	0.2	ND	ND	ND	ND	ND	ND	ND	0.001	0.001	0.001	0.001	0.001
Ni (mg/L)	0.5	ND	ND	ND	ND	ND	ND	ND	0.005	0.005	0.005	0.005	0.005
Zn (mg/L)	0.5	ND	ND	ND	ND	ND	ND	ND	0.010	0.010	0.010	0.010	0.010
TSS (mg/L)	15	ND	ND	ND	ND	ND	ND	ND	3.000	3.000	3.008	3.177	3.000
Ra-226 (Bq/L)	0.37	ND	ND	ND	ND	ND	ND	ND	0.005	0.007	0.009	0.008	0.008
pH low	≥6.0	ND	ND	ND	ND	ND	ND	ND	7.0	7.4	7.3	7.1	7.2
pH high	≤9.5	ND	ND	ND	ND	ND	ND	ND	7.8	7.9	8.5	7.8	7.6
Flow (m <sup>3</sup> /month)	-	ND	ND	ND	ND	ND	ND	ND	401 399	451 289	274 937	621 194	589 645
Rainbow Trout	Pass	ND	ND	ND	ND	ND	ND	ND	2	1	1	1	1
Acute Lethality Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-
Daphnia magna	Pass	ND	ND	ND	ND	ND	ND	ND	2	1	1	1	1
Monitoring Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-

**Comments:** April flow was provided from the quarterly report.

**Notes:** ND: No Deposit      NMR: No Measurement Required

Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.  
A "Pass" for *Daphnia magna* monitoring test is not a requirement.

Pass: ≤50% Mortality

Fail: >50% Mortality

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	Myra Falls Operations												
Operator Name	NVI Mining Limited												
Product(s)	Copper-Zinc-Lead-Silver												
Address	P.O. Box 8000, Campbell River, British Columbia V9W 5E2												
Effluent Discharge Point	MF.11A – Runoff Myra Ponds Effluent												
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5	0.001	0.001	0.041	0.001	0.001	0.051	0.001	0.001	0.041	0.001	0.001	0.041
Cu (mg/L)	0.3	0.034	0.009	0.011	0.008	0.020	0.006	0.014	0.003	0.010	0.011	0.035	0.041
CN (mg/L)	1.0	NMR	0.005	NMR	0.012	NMR	NMR	NMR	0.005	NMR	NMR	NMR	0.005
Pb (mg/L)	0.2	0.006	0.001	0.011	0.002	0.014	0.023	0.010	0.012	0.003	0.002	0.002	0.013
Ni (mg/L)	0.5	0.001	0.001	0.011	0.001	0.014	0.014	0.001	0.011	0.011	0.001	0.001	0.011
Zn (mg/L)	0.5	0.327	0.060	0.156	0.070	0.176	0.051	0.127	0.034	0.145	0.090	0.329	0.420
TSS (mg/L)	15	21.475	12.250	11.420	11.425	8.260	7.275	20.625	6.200	6.600	7.925	8.050	7.100
Ra-226 (Bq/L)	0.37	NMR	0.005	NMR	NMR	0.005	NMR	NMR	0.020	NMR	NMR	NMR	0.005
pH low	≥6.0	9.8	9.9	10.1	10.3	9.5	9.3	9.7	10.2	8.1	9.4	9.2	8.5
pH high	≤11	11.0	10.8	10.9	11.0	11.0	10.4	10.9	10.4	10.2	9.8	10.8	9.4
Flow (m <sup>3</sup> /month)	–	1 634 756	1 173 938	1 497 102	1 338 688	1 318 156	1 096 617	930 811	902 760	904 134	1 025 927	1 166 443	1 275 351
Rainbow Trout	Pass	1	1	1	1	1	1	1	1	1	1	1	1
Acute Lethality Test	Fail	–	–	–	–	–	–	–	–	–	–	–	–
Daphnia magna	Pass	–	–	–	1	–	–	1	1	–	–	–	–
Monitoring Test	Fail	1	1	1	–	1	1	–	–	1	1	1	1

**Comments:** TA, granted for upper pH limit of 11, expired on December 6, 2004. Acute lethality test results from April to December as well as corrected values for various parameters were provided from the quarterly reports. The mine does not use cyanide but provided voluntary values.

**Notes:** ND: No Deposit      NMR: No Measurement Required

Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.  
A "Pass" for *Daphnia magna* monitoring test is not a requirement.

Pass: ≤50% Mortality

Fail: >50% Mortality

**Metal Mining Effluent Regulations (MMER)**  
**2004 Effluent Compliance**

Mine/Mill Name		Nanisivik Mine																							
Operator Name	CanZinco Ltd.																								
Product(s)	Zinc-Lead-Silver																								
Address	P.O. Box 225, Nanisivik, Nunavut X0A 0X0																								
Effluent Discharge Point	159-4																								
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.												
As (mg/L)	0.5	ND	ND	ND	ND	ND	< 0.001	0.001	0.002	ND	ND	ND	ND												
Cu (mg/L)	0.3	ND	ND	ND	ND	ND	0.022	0.015	0.016	0.031	ND	ND	ND												
CN (mg/L)	1.0	ND	ND	ND	ND	ND	NMR	NMR	NMR	ND	ND	ND	ND												
Pb (mg/L)	0.2	ND	ND	ND	ND	ND	0.021	0.016	0.014	0.001	ND	ND	ND												
Ni (mg/L)	0.5	ND	ND	ND	ND	ND	0.015	0.012	0.010	0.017	ND	ND	ND												
Zn (mg/L)	0.5	ND	ND	ND	ND	ND	0.494	0.330	0.290	0.270	ND	ND	ND												
TSS (mg/L)	15	ND	ND	ND	ND	ND	0.830	0.600	1.150	1.100	ND	ND	ND												
Ra-226 (Bq/L)	0.37	ND	ND	ND	ND	ND	< 0.010	0.030	0.025	0.050	ND	ND	ND												
pH low	≥6.0	ND	ND	ND	ND	ND	7.5	7.5	7.7	8.1	ND	ND	ND												
pH high	≤9.5	ND	ND	ND	ND	ND	8.0	8.1	7.9	9.5	ND	ND	ND												
Flow (m <sup>3</sup> /month)	-	ND	ND	ND	ND	ND	66 057	187 006	51 283	245 535	ND	ND	ND												
Rainbow Trout	Pass	ND	ND	ND	ND	ND	-	1	-	1	ND	ND	ND												
Acute Lethality Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-												
Daphnia magna	Pass	ND	ND	ND	ND	ND	-	-	-	-	ND	ND	ND												
Monitoring Test	Fail	-	-	-	-	-	-	1	-	1	-	-	-												

**Comments:** No acute lethality test results were provided for June and August. No explanation was provided.

**Notes:** ND: No Deposit      NMR: No Measurement Required

Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.  
A "Pass" for *Daphnia magna* monitoring test is not a requirement.

Pass: ≤50% Mortality

Fail: >50% Mortality

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name		New Britannia Mine											
Operator Name		Kinross Gold Corporation											
Product(s)		Gold											
Address		P.O. Box 451, 114 Cedar Ave., Snow Lake, Manitoba R0B 1M0											
Effluent Discharge Point		SWM03 (Birch Lake Outlet Embankment Decant Discharge)											
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5	ND	ND	ND	ND	ND	ND	ND	0.198	0.123	0.102	ND	ND
Cu (mg/L)	0.3	ND	ND	ND	ND	ND	ND	ND	0.104	0.079	0.104	ND	ND
CN (mg/L)	1.0	ND	ND	ND	ND	ND	ND	ND	0.068	0.250	0.065	ND	ND
Pb (mg/L)	0.2	ND	ND	ND	ND	ND	ND	ND	< 0.002	< 0.001	0.005	ND	ND
Ni (mg/L)	0.5	ND	ND	ND	ND	ND	ND	ND	0.068	0.086	0.096	ND	ND
Zn (mg/L)	0.5	ND	ND	ND	ND	ND	ND	ND	0.023	0.013	0.025	ND	ND
TSS (mg/L)	15	ND	ND	ND	ND	ND	ND	ND	10.700	< 6.750	< 7.000	ND	ND
Ra-226 (Bq/L)	0.37	ND	ND	ND	ND	ND	ND	ND	0.120	0.260	0.250	ND	ND
pH low	≥6.0	ND	ND	ND	ND	ND	ND	ND	6.9	7.1	7.2	ND	ND
pH high	≤9.5	ND	ND	ND	ND	ND	ND	ND	7.2	7.3	7.3	ND	ND
Flow (m <sup>3</sup> /month)	—	ND	ND	ND	ND	ND	ND	ND	307 534	420 428	188 555	ND	ND
Rainbow Trout	Pass	ND	ND	ND	ND	ND	ND	ND	1	1	1	ND	ND
Acute Lethality Test	Fail	—	—	—	—	—	—	—	—	—	—	—	—
Daphnia magna	Pass	ND	ND	ND	ND	ND	ND	ND	1	1	1	ND	ND
Monitoring Test	Fail	—	—	—	—	—	—	—	—	—	—	—	—
<b>Comments:</b>													
Notes: ND: No Deposit		NMR: No Measurement Required											
Acute lethality test results indicate that a monthly effluent quality standard was exceeded for that month.		Pass: ≤50% Mortality											
A "Pass" for <i>Daphnia magna</i> monitoring test is not a requirement.		Fail: >50% Mortality											

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	Niobec (Mine)												
Operator Name	Cambior Inc.												
Product(s)	Niobium												
Address	3400 chemin du Columbius, St-Honoré de Chicoutimi, Quebec G0V 1L0												
Effluent Discharge Point	Tailings Pond Effluent												
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5	0.002	NMR	< 0.002	< 0.002	NMR	< 0.002	0.004	-	-	-	-	-
Cu (mg/L)	0.3	0.007	0.008	0.008	0.010	< 0.006	0.007	< 0.006	-	-	-	-	-
CN (mg/L)	1.0	NMR	NMR	NMR	NMR	NMR	NMR	NMR	-	-	-	-	-
Pb (mg/L)	0.2	0.007	< 0.006	0.006	0.010	0.009	0.007	0.006	-	-	-	-	-
Ni (mg/L)	0.5	0.038	0.032	0.032	0.030	0.038	0.019	0.020	-	-	-	-	-
Zn (mg/L)	0.5	0.020	0.030	0.030	0.020	0.020	0.010	0.010	-	-	-	-	-
TSS (mg/L)	15	6.000	4.000	7.000	15.000	10.000	12.000	5.000	-	-	-	-	-
Ra-226 (Bq/L)	0.37	0.052	0.053	0.059	0.040	0.051	0.052	0.073	-	-	-	-	-
pH low	≥6.0	7.3	7.5	7.3	7.4	7.7	7.8	7.2	-	-	-	-	-
pH high	≤9.5	7.7	7.6	7.6	7.8	8.0	8.2	8.0	-	-	-	-	-
Flow (m <sup>3</sup> /month)	-	9 903	8 242	9 327	14 598	9 570	9 732	8 930	-	-	-	-	-
Rainbow Trout	Pass	1	1	1	1	1	1	1	-	-	-	-	-
Acute Lethality Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-
Daphnia magna	Pass	-	1	1	1	1	1	1	-	-	-	-	-
Monitoring Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-

**Comments:** pH was not provided as a range. pH range was obtained from the quarterly reports. Daphnia magna test was not done in January since the sample was lost. Beginning in August, “Effluent du parc à résidus” and “Effluent de l’eau de mine” were combined. The combined effluent is called “Effluent final.”

Notes: ND: No Deposit      NMR: No Measurement Required

Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.  
A “Pass” for *Daphnia magna* monitoring test is not a requirement.

Pass: ≤50% Mortality

Fail: >50% Mortality

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name		Niobec (Mine)											
Operator Name		Cambior Inc.											
Product(s)		Niobium											
Address		3400 chemin du Columbius, St-Honoré de Chicoutimi, Quebec G0V 1L0											
Effluent Discharge Point		Mine Water Effluent											
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5	< 0.002	< 0.002	0.003	< 0.002	0.002	0.002	< 0.002	< 0.002	-	-	-	-
Cu (mg/L)	0.3	0.007	0.009	0.008	< 0.006	< 0.008	0.013	0.012	-	-	-	-	-
CN (mg/L)	1.0	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	-	-	-	-
Pb (mg/L)	0.2	0.006	< 0.006	0.006	0.008	0.008	0.007	< 0.006	-	-	-	-	-
Ni (mg/L)	0.5	0.036	0.032	0.036	0.035	0.052	0.026	0.014	-	-	-	-	-
Zn (mg/L)	0.5	0.050	0.050	0.060	0.050	0.060	0.040	0.040	-	-	-	-	-
TSS (mg/L)	21	21.000	16.000	12.000	12.000	14.000	8.000	13.000	-	-	-	-	-
Ra-226 (Bq/L)	0.37	0.130	0.170	0.090	0.160	0.180	0.220	0.240	-	-	-	-	-
pH low	≥6.0	7.2	7.3	7.2	7.4	7.2	7.7	7.5	-	-	-	-	-
pH high	≤9.5	7.5	7.5	7.8	7.8	7.8	7.9	7.9	-	-	-	-	-
Flow (m <sup>3</sup> /month)	-	1 684	1 983	1 860	1 893	1 881	2 141	3 129	-	-	-	-	-
Rainbow Trout	Pass	1	1	1	-	1	1	1	-	-	-	-	-
Acute Lethality Test	Fail	-	-	-	1	-	-	-	-	-	-	-	-
Daphnia magna	Pass	-	-	-	-	-	-	-	-	-	-	-	-
Monitoring Test	Fail	-	1	1	1	1	1	1	-	-	-	-	-

**Comments:** TA was granted for TSS limit of 21 mg/L and for acute lethality. TA expired on December 6, 2004. pH was not provided as a range. pH range was obtained from the quarterly reports. *Daphnia magna* monitoring test was not done in January since the sample was lost. Beginning in August, "Effluent du parc à résidus" and "Effluent de l'eau de mine" were combined. The combined effluent is called "Effluent final."

**Notes:** ND: No Deposit      NMR: No Measurement Required  
 Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.  
 A "Pass" for *Daphnia magna* monitoring test is not a requirement.

Pass: ≤50% Mortality

Fail: >50% Mortality

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	Niobec (Mine)												
Operator Name	Cambior Inc.												
Product(s)	Niobium												
Address	3400 chemin du Columbius, St-Honoré de Chicoutimi, Québec, G0V 1L0												
Effluent Discharge Point	Final Effluent												
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5	-	-	-	-	-	-	-	-	NMR	< 0.002	-	< 0.002
Cu (mg/L)	0.3	-	-	-	-	-	-	-	0.008	0.007	0.010	0.006	< 0.006
CN (mg/L)	1.0	-	-	-	-	-	-	-	-	NMR	NMR	NMR	NMR
Pb (mg/L)	0.2	-	-	-	-	-	-	-	< 0.006	0.006	0.010	0.008	0.009
Ni (mg/L)	0.5	-	-	-	-	-	-	-	0.011	0.016	0.015	0.021	0.021
Zn (mg/L)	0.5	-	-	-	-	-	-	-	0.010	0.020	0.020	0.010	0.020
TSS (mg/L)	15	-	-	-	-	-	-	-	8.000	6.000	8.000	9.000	14.000
Ra-226 (Bq/L)	0.37	-	-	-	-	-	-	-	0.160	0.053	0.052	0.063	0.049
pH low	≥6.0	-	-	-	-	-	-	-	7.8	7.7	7.7	7.7	7.2
pH high	≤9.5	-	-	-	-	-	-	-	8.2	8.2	7.9	7.9	8.0
Flow (m³/month)	-	-	-	-	-	-	-	-	6 745	7 013	5 918	6 288	5 699
Rainbow Trout	Pass	-	-	-	-	-	-	-	1	1	1	1	1
Acute Lethality Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-
Daphnia magna	Pass	-	-	-	-	-	-	-	1	1	1	1	1
Monitoring Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-

**Comments:** pH was not provided as a range. pH range was obtained from the quarterly reports. Beginning in August, “Effluent du parc à résidus” and “Effluent de l’eau de mine” were combined. The combined effluent is called “Effluent final.”

Notes: ND: No Deposit NMR: No Measurement Required

Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.  
A “Pass” for *Daphnia magna* monitoring test is not a requirement.

Pass: ≤50% Mortality

Fail: >50% Mortality

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	Nugget Pond Mine																						
Operator Name	Richmont Mines Inc. – Newfoundland Division																						
Product(s)	Gold																						
Address	P.O. Box 580, Baie Verte, Newfoundland and Labrador A0K 1B0																						
Effluent Discharge Point	Polishing Pond Effluent																						
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.										
As (mg/L)	0.5	0.001	ND	0.001	0.001	0.001	0.001	0.001	0.001	0.001	ND	0.001	ND										
Cu (mg/L)	0.3	0.017	ND	0.020	0.013	0.010	0.010	0.013	0.013	0.010	ND	0.010	ND										
CN (mg/L)	1.0	0.021	ND	0.023	0.016	0.011	0.019	0.017	0.015	0.011	ND	0.010	ND										
Pb (mg/L)	0.2	0.010	ND	0.010	0.010	0.010	0.010	0.010	0.010	0.010	ND	0.010	ND										
Ni (mg/L)	0.5	0.010	ND	0.010	0.010	0.010	0.010	0.010	0.010	0.010	ND	0.010	ND										
Zn (mg/L)	0.5	0.010	ND	0.010	0.010	0.010	0.010	0.015	0.010	0.010	ND	0.010	ND										
TSS (mg/L)	15	2.000	ND	2.000	3.000	2.000	2.000	2.000	2.000	2.000	ND	2.000	ND										
Ra-226 (Bq/L)	0.37	NMR	ND	0.010	0.010	NMR	NMR	0.010	0.010	0.010	ND	0.010	ND										
pH low	≥6.0	7.2	ND	7.3	6.8	6.6	6.9	7.1	6.9	7.1	6.8	6.8	ND										
pH high	≤9.5	7.3	ND	7.4	7.1	7.5	7.1	7.1	7.2	7.1	ND	6.8	ND										
Flow (m <sup>3</sup> /month)	–	266 250	ND	177 500	621 250	532 500	177 500	177 500	266 250	177 500	ND	177 500	ND										
Rainbow Trout	Pass	1	ND	1	2	1	1	1	1	1	ND	1	ND										
Acute Lethality Test	Fail	–	–	–	–	–	–	–	–	–	–	–	–										
Daphnia magna	Pass	1	ND	1	2	1	1	1	–	1	ND	1	ND										
Monitoring Test	Fail	–	–	–	–	–	–	–	1	–	–	–	–										
Comments:																							
Notes:	ND: No Deposit	NMR: No Measurement Required																					
	Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.																						
	A “Pass” for <i>Daphnia magna</i> monitoring test is not a requirement.																						
	Pass: ≤50% Mortality																						
	Fail: >50% Mortality																						

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	Polaris Mine												
Operator Name	Cominco Mining Partnership and Teck Cominco Metals Ltd.												
Product(s)	Lead-Zinc												
Address	610 Knighton Road, Bag 2000, Kimberley, British Columbia V1A 3E1												
Effluent Discharge Point	Garrow Lake Siphons												
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5	ND	ND	ND	ND	ND	ND	ND	< 0.001	ND	ND	ND	ND
Cu (mg/L)	0.3	ND	ND	ND	ND	ND	ND	ND	0.001	ND	ND	ND	ND
CN (mg/L)	1.0	ND	ND	ND	ND	ND	ND	ND	0.005	ND	ND	ND	ND
Pb (mg/L)	0.2	ND	ND	ND	ND	ND	ND	ND	0.002	ND	ND	ND	ND
Ni (mg/L)	0.5	ND	ND	ND	ND	ND	ND	ND	0.002	ND	ND	ND	ND
Zn (mg/L)	0.5	ND	ND	ND	ND	ND	ND	ND	0.098	0.051	ND	ND	ND
TSS (mg/L)	15	ND	ND	ND	ND	ND	ND	ND	32.000	6.100	ND	ND	ND
Ra-226 (Bq/L)	0.37	ND	ND	ND	ND	ND	ND	ND	0.009	0.007	ND	ND	ND
pH low	≥6.0	ND	ND	ND	ND	ND	ND	ND	7.9	7.8	ND	ND	ND
pH high	≤9.5	ND	ND	ND	ND	ND	ND	ND	8.1	8.0	ND	ND	ND
Flow (m <sup>3</sup> /month)	-	ND	ND	ND	ND	ND	ND	ND	4 066 913	324 551	ND	ND	ND
Rainbow Trout	Pass	ND	ND	ND	ND	ND	ND	ND	2	1	ND	ND	ND
Acute Lethality Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-
Daphnia magna	Pass	ND	ND	ND	ND	ND	ND	ND	2	1	ND	ND	ND
Monitoring Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-
Comments:													
Notes:	ND: No Deposit	NMR: No Measurement Required											Pass: ≤50% Mortality
		Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.											Fail: >50% Mortality
		A "Pass" for <i>Daphnia magna</i> monitoring test is not a requirement.											

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name		Porcupine Joint Venture											
Operator Name		Placer Dome (CLA) Limited and Kimross Gold Corporation											
Product(s)		Gold											
Address		1 Gold Mine Road, P.O. Box 70, South Porcupine, Ontario P0N 1H0											
Effluent Discharge Point		Mine Effluent Treatment Plant – Dome Mine											
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5	ND	ND	ND	ND	ND	ND	0.000	0.011	0.009	0.010	ND	ND
Cu (mg/L)	0.3	ND	ND	ND	ND	ND	ND	0.090	0.136	0.051	0.069	ND	ND
CN (mg/L)	1.0	ND	ND	ND	ND	ND	ND	0.076	0.147	0.024	0.022	ND	ND
Pb (mg/L)	0.2	ND	ND	ND	ND	ND	ND	0.000	0.000	0.000	0.000	ND	ND
Ni (mg/L)	0.5	ND	ND	ND	ND	ND	ND	0.033	0.042	0.047	0.092	ND	ND
Zn (mg/L)	0.5	ND	ND	ND	ND	ND	ND	0.007	0.053	0.002	0.003	ND	ND
TSS (mg/L)	15	ND	ND	ND	ND	ND	ND	3.992	3.208	4.250	3.544	ND	ND
Ra-226 (Bq/L)	0.37	ND	ND	ND	ND	ND	ND	0.000	0.000	0.000	0.000	ND	ND
pH low	≥6.0	ND	ND	ND	ND	ND	ND	6.7	7.1	6.8	6.5	ND	ND
pH high	≤9.5	ND	ND	ND	ND	ND	ND	8.1	7.8	8.2	7.5	ND	ND
Flow (m <sup>3</sup> /month)	–	ND	ND	ND	ND	ND	ND	827 376	651 758	928 950	629 933	ND	ND
Rainbow Trout	Pass	ND	ND	ND	ND	ND	ND	1	1	1	1	ND	ND
Acute Lethality Test	Fail	–	–	–	–	–	–	–	–	–	–	–	–
Daphnia magna	Pass	ND	ND	ND	ND	ND	ND	1	1	1	1	ND	ND
Monitoring Test	Fail	–	–	–	–	–	–	–	–	–	–	–	–
Comments:	Data, obtained from the annual report, were submitted on paper.												
Notes:	ND: No Deposit	NMR: No Measurement Required											
		Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.											
		A “Pass” for <i>Daphnia magna</i> monitoring test is not a requirement.											
		Pass: ≤50% Mortality											
		Fail: >50% Mortality											

## ***Metal Mining Effluent Regulations (MMER)***

### 2004 Effluent Compliance

Mine/Mill Name		Porcupine Joint Venture											
Operator Name	Placer Dome (CLA) Limited and Kinross Gold Corporation												
Product(s)	Gold												
Address	1 Gold Mine Road, P.O. Box 70, South Porcupine, Ontario P0N 1H0												
Effluent Discharge Point	Mine Water Storage Pond – Dome Mine												
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5	0.008	0.011	0.012	0.017	0.019	0.015	0.024	0.023	0.011	0.021	0.022	0.013
Cu (mg/L)	0.3	0.012	0.000	0.006	0.011	0.006	0.000	0.006	0.000	0.006	0.000	0.000	0.006
CN (mg/L)	1.0	0.007	0.006	0.015	0.006	0.012	0.007	0.009	0.009	0.010	0.000	0.008	0.007
Pb (mg/L)	0.2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.024
Ni (mg/L)	0.5	0.027	0.024	0.026	0.033	0.035	0.028	0.028	0.027	0.022	0.030	0.027	0.022
Zn (mg/L)	0.5	0.012	0.013	0.012	0.012	0.013	0.011	0.013	0.013	0.013	0.083	0.009	0.011
TSS (mg/L)	15	4.800	5.540	6.033	8.290	4.469	3.510	4.008	6.323	5.347	4.491	6.162	5.936
Ra-226 (Bq/L)	0.37	0.000	NMR	NMR	0.000	NMR	NMR	NMR	0.000	0.000	NMR	NMR	0.000
pH low	≥6.0	7.6	7.7	7.7	7.6	7.7	7.6	7.7	7.5	7.6	7.0	7.7	7.6
pH high	≤9.5	8.1	7.9	7.8	7.9	7.9	8.0	8.1	7.9	8.1	7.9	8.1	8.0
Flow (m³/month)	–	44 679	50 736	72 335	56 648	50 834	53 228	1 909	55 521	80 557	61 210	74 880	56 736
Rainbow Trout	Pass	1	NMR	NMR	1	NMR	NMR	NMR	1	NMR	NMR	1	NMR
Acute Lethality Test	Fail	–	–	–	–	–	–	–	–	–	–	–	–
Daphnia magna	Pass	1	NMR	NMR	1	NMR	NMR	NMR	1	NMR	NMR	1	NMR
Monitoring Test	Fail	–	–	–	–	–	–	–	–	–	–	–	–
<b>Comments:</b>	Data, obtained from the annual report, were submitted on paper. The mine is on reduced frequency testing for acute lethality.												
Notes:	ND: No Deposit	NMR: No Measurement Required											
		Pass: ≤50% Mortality											
		Fail: >50% Mortality											
		Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.											
		A "Pass" for <i>Daphnia magna</i> monitoring test is not a requirement.											

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name		Porcupine Joint Venture											
Operator Name		Placer Dome (CLIA) Limited and Kinross Gold Corporation											
Product(s)		Gold											
Address		1 Gold Mine Road, P.O. Box 70, South Porcupine, Ontario P0N 1H0											
Effluent Discharge Point		Owl Creek Discharge 1											
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5	ND	ND	0.183	ND	ND	ND	0.192	0.152	ND	ND	ND	ND
Cu (mg/L)	0.3	ND	ND	0.024	ND	ND	ND	0.005	0.016	ND	ND	ND	ND
CN (mg/L)	1.0	ND	ND	0.000	ND	ND	ND	0.000	0.002	ND	ND	ND	ND
Pb (mg/L)	0.2	ND	ND	0.000	ND	ND	ND	0.000	0.011	ND	ND	ND	ND
Ni (mg/L)	0.5	ND	ND	0.109	ND	ND	ND	0.107	0.085	ND	ND	ND	ND
Zn (mg/L)	0.5	ND	ND	0.029	ND	ND	ND	0.007	0.010	ND	ND	ND	ND
TSS (mg/L)	15	ND	ND	0.000	ND	ND	ND	6.100	4.500	ND	ND	ND	ND
Ra-226 (Bq/L)	0.37	ND	ND	—	ND	ND	ND	—	—	ND	ND	ND	ND
pH low	≥6.0	ND	ND	7.5	ND	ND	ND	8.2	7.0	ND	ND	ND	ND
pH high	≤9.5	ND	ND	7.5	ND	ND	ND	8.2	8.4	ND	ND	ND	ND
Flow (m <sup>3</sup> /month)	—	ND	ND	3 412	ND	ND	ND	1 398	57 561	ND	ND	ND	ND
Rainbow Trout	Pass	ND	ND	ND	—	ND	ND	—	1	ND	ND	ND	ND
Acute Lethality Test	Fail	—	—	—	—	—	—	—	—	—	—	—	—
Daphnia magna	Pass	ND	ND	—	ND	ND	ND	—	1	ND	ND	ND	ND
Monitoring Test	Fail	—	—	—	—	—	—	—	—	—	—	—	—

**Comments:** No acute lethality test results were provided for April and August. No Radium 226 results were provided. Data were obtained from the quarterly reports.

**Notes:** ND: No Deposit      NMR: No Measurement Required  
**Highlighted** data indicate that a monthly effluent quality standard was exceeded for that month.  
A "Pass" for *Daphnia magna* monitoring test is not a requirement.

Pass: ≤50% Mortality      Fail: >50% Mortality

## **Metal Mining Effluent Regulations (MMER)**

### 2004 Effluent Compliance

Mine/Mill Name		Porcupine Joint Venture											
Operator Name		Placer Dome (CLA) Limited and Kinross Gold Corporation											
Product(s)		Gold											
Address		1 Gold Mine Road, P.O. Box 70, South Porcupine, Ontario P0N 1H0											
Effluent Discharge Point		Owl Creek Discharge 2											
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5	ND	ND	ND	0.194	0.294	ND	ND	0.189	0.155	0.139	0.134	ND
Cu (mg/L)	0.3	ND	ND	ND	0.031	0.064	ND	ND	0.008	0.047	0.009	0.010	ND
CN (mg/L)	1.0	ND	ND	ND	0.000	0.000	ND	ND	0.000	0.006	0.000	0.000	ND
Pb (mg/L)	0.2	ND	ND	ND	0.000	0.000	ND	ND	0.000	0.034	0.000	0.000	ND
Ni (mg/L)	0.5	ND	ND	ND	0.124	0.024	ND	ND	0.101	0.087	0.097	0.104	ND
Zn (mg/L)	0.5	ND	ND	ND	0.035	0.054	ND	ND	0.010	0.009	0.018	0.030	ND
TSS (mg/L)	15	ND	ND	ND	5.400	6.600	ND	ND	6.100	3.640	2.200	3.340	ND
Ra-226 (Bq/L)	0.37	ND	ND	ND	0.000	NMR	ND	ND	0.000	0.000	0.000	NMR	ND
pH low	≥6.0	ND	ND	ND	7.5	7.8	ND	ND	8.0	7.0	7.8	7.4	ND
pH high	≤9.5	ND	ND	ND	7.9	7.8	ND	ND	8.2	8.1	8.2	8.1	ND
Flow (m <sup>3</sup> /month)	-	ND	ND	ND	237 444	56 035	ND	ND	64 204	164 070	61 632	97 440	ND
Rainbow Trout	Pass	ND	ND	ND	1	1	ND	ND	1	1	1	1	ND
Acute Lethality Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-
Daphnia magna	Pass	ND	ND	ND	1	1	ND	ND	1	1	1	1	ND
Monitoring Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-

**Comments:** Data, obtained from the annual report, were submitted on paper.

**Notes:** ND: No Deposit      NMR: No Measurement Required

Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.  
A "Pass" for *Daphnia magna* monitoring test is not a requirement.

Pass: ≤50% Mortality

Fail: >50% Mortality

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	Principale (Camchib)												
Operator Name	Ressources Meston Inc. (Ressources Campbell Inc.)												
Product(s)	Gold-Copper												
Address	P.O. Box 8000, Chibougamau, Quebec G8P 2L1												
Effluent Discharge Point	Point #20												
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5	ND	ND	ND	ND	ND	ND	ND	ND	0.030	ND	ND	ND
Cu (mg/L)	0.3	ND	ND	ND	ND	ND	ND	ND	ND	0.140	ND	ND	ND
CN (mg/L)	1.0	ND	ND	ND	ND	ND	ND	ND	ND	0.048	ND	ND	ND
Pb (mg/L)	0.2	ND	ND	ND	ND	ND	ND	ND	ND	<0.001	ND	ND	ND
Ni (mg/L)	0.5	ND	ND	ND	ND	ND	ND	ND	ND	0.020	ND	ND	ND
Zn (mg/L)	0.5	ND	ND	ND	ND	ND	ND	ND	ND	0.020	ND	ND	ND
TSS (mg/L)	15	ND	ND	ND	ND	ND	ND	ND	ND	8.000	ND	ND	ND
Ra-226 (Bq/L)	0.37	ND	ND	ND	ND	ND	ND	ND	ND	-	ND	ND	ND
pH low	≥6.0	ND	ND	ND	ND	ND	ND	ND	ND	7.7	ND	ND	ND
pH high	≤9.5	ND	ND	ND	ND	ND	ND	ND	ND	7.8	ND	ND	ND
Flow (m <sup>3</sup> /month)	-	ND	ND	ND	ND	ND	ND	ND	ND	48 953	ND	ND	ND
Rainbow Trout	Pass	ND	ND	ND	ND	ND	ND	ND	ND	-	ND	ND	ND
Acute Lethality Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-
Daphnia magna	Pass	ND	ND	ND	ND	ND	ND	ND	ND	-	ND	ND	ND
Monitoring Test	Fail	-	-	-	-	-	-	-	-	2	-	-	-
Comments:	No Radium 226 test result was provided for September. No acute lethality test results were provided for September.												
Notes:	ND: No Deposit      NMR: No Measurement Required												
	Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.												
	A "Pass" for <i>Daphnia magna</i> monitoring test is not a requirement.												
	Pass: ≤50% Mortality      Fail: >50% Mortality												

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

<b>Mine/Mill Name</b>	Rabbit Lake Operation													
<b>Operator Name</b>	Cameco Corporation													
<b>Product(s)</b>	Uranium													
<b>Address</b>	2121 11 <sup>th</sup> Street West, Saskatoon, Saskatchewan S7M 1J3													
<b>Effluent Discharge Point</b>	Station 2.3.3													
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.	
As (mg/L)	0.5	0.010	0.006	0.007	0.011	0.012	0.013	0.015	0.007	0.006	0.012	0.014	0.017	
Cu (mg/L)	0.3	0.002	0.001	0.001	0.003	0.003	0.002	0.002	0.002	0.001	0.002	0.002	0.001	
CN (mg/L)	1.0	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	
Pb (mg/L)	0.2	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	
Ni (mg/L)	0.5	0.024	0.013	0.013	0.012	0.013	0.019	0.014	0.016	0.020	0.017	0.019	0.041	
Zn (mg/L)	0.5	< 0.005	< 0.005	< 0.005	0.011	0.009	0.006	0.008	0.008	< 0.005	< 0.005	< 0.005	< 0.005	
TSS (mg/L)	15	1.250	< 1.000	1.200	< 1.000	1.200	1.250	2.000	1.400	2.250	1.750	1.400	1.250	
Ra-226 (Bq/L)	0.37	0.042	0.020	0.018	0.017	0.011	0.009	0.007	0.007	0.007	0.010	0.019	0.020	
pH low	≥6.0	7.0	7.0	7.3	7.2	7.3	7.1	7.0	7.0	7.1	7.1	7.1	7.1	
pH high	≤9.5	7.2	7.1	7.3	7.4	7.5	7.4	7.4	7.2	7.2	7.3	7.4	7.3	
Flow (m <sup>3</sup> /month)	-	339 285	280 750	261 068	278 226	344 620	368 661	347 175	353 012	256 472	265 812	263 434	282 385	
<b>Rainbow Trout</b>	<b>Pass</b>	<b>1</b>	<b>NMR</b>	<b>NMR</b>	<b>1</b>	<b>NMR</b>	<b>NMR</b>	<b>1</b>	<b>NMR</b>	<b>1</b>	<b>NMR</b>	<b>NMR</b>	<b>NMR</b>	
<b>Acute Lethality Test</b>	<b>Fail</b>	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Daphnia magna</b>	<b>Pass</b>	<b>1</b>	<b>NMR</b>	<b>NMR</b>	<b>1</b>	<b>NMR</b>	<b>NMR</b>	<b>1</b>	<b>NMR</b>	<b>1</b>	<b>NMR</b>	<b>NMR</b>	<b>NMR</b>	
<b>Monitoring Test</b>	<b>Fail</b>	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Comments:</b>	The mine is on reduced frequency testing for acute lethality. pH was not provided as a range. pH range was obtained from the quarterly reports.													
<b>Notes:</b>	No Deposit	<b>NMR:</b> No Measurement Required												
		Pass: ≤50% Mortality												
		Fail: >50% Mortality												

Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.  
A "Pass" for *Daphnia magna* monitoring test is not a requirement.

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	Raglan (Mine)													
Operator Name	Falconbridge Ltd.													
Product(s)	Nickel-Copper													
Address	120, Avenue de l'Aéroport, Rouyn-Noranda, Quebec J9X 5B7													
Effluent Discharge Point	DIR-HSA													
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.	
As (mg/L)	0.5	ND	ND	ND	< 0.005	0.007	0.005	< 0.003	ND	ND	ND	ND	ND	
Cu (mg/L)	0.3	ND	ND	ND	0.032	0.022	0.026	0.016	ND	ND	ND	ND	ND	
CN (mg/L)	1.0	ND	ND	ND	ND	NMR	NMR	NMR	ND	ND	ND	ND	ND	
Pb (mg/L)	0.2	ND	ND	ND	ND	0.005	0.007	0.005	< 0.005	ND	ND	ND	ND	
Ni (mg/L)	0.5	ND	ND	ND	ND	0.240	0.230	0.260	0.310	ND	ND	ND	ND	
Zn (mg/L)	0.5	ND	ND	ND	ND	0.002	0.003	0.003	0.004	ND	ND	ND	ND	
TSS (mg/L)	15	ND	ND	ND	ND	< 3.000	3.000	< 3.000	< 3.000	ND	ND	ND	ND	
Ra-226 (Bq/L)	0.37	ND	ND	ND	ND	NMR	< 0.010	NMR	NMR	ND	ND	ND	ND	
pH low	≥6.0	ND	ND	ND	ND	6.6	6.7	6.3	7.0	ND	ND	ND	ND	
pH high	≤9.5	ND	ND	ND	ND	6.6	7.0	7.1	7.0	ND	ND	ND	ND	
Flow (m <sup>3</sup> /month)	—	ND	ND	ND	ND	54 336	64 023	195 929	76 587	ND	ND	ND	ND	
Rainbow Trout	Pass	ND	ND	ND	ND	—	2	2	—	ND	ND	ND	ND	
Acute Lethality Test	Fail	—	—	—	—	—	—	—	—	—	—	—	—	
<i>Daphnia magna</i>	Pass	ND	ND	ND	ND	—	2	2	—	ND	ND	ND	ND	
Monitoring Test	Fail	—	—	—	—	—	—	—	—	—	—	—	—	
Comments:	No acute lethality test results were provided for June and September.													
Notes:	ND: No Deposit	NMR: No Measurement Required											Pass: ≤50% Mortality	
		Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.											Fail: >50% Mortality	
		A "Pass" for <i>Daphnia magna</i> monitoring test is not a requirement.												

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	Raglan (Mine)												
Operator Name	Falconbridge Ltd.												
Product(s)	Nickel-Copper												
Address	120, Avenue de l'Aéroport, Rouyn-Noranda, Quebec J9X 5B7												
Effluent Discharge Point	DIR-UT												
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5	0.002	ND	ND	0.003	0.008	0.001	< 0.002	0.001	0.001	0.001	0.001	ND
Cu (mg/L)	0.3	0.010	ND	ND	0.011	0.006	0.004	0.002	0.004	0.002	0.005	0.005	ND
CN (mg/L)	1.0	NMR	ND	ND	NMR	ND							
Pb (mg/L)	0.2	< 0.001	ND	ND	< 0.001	0.001	< 0.001	< 0.001	< 0.001	0.001	< 0.001	< 0.001	ND
Ni (mg/L)	0.5	0.285	ND	ND	0.175	0.388	0.240	0.206	0.067	0.183	0.280	0.280	ND
Zn (mg/L)	0.5	0.004	ND	ND	0.006	0.005	0.004	0.004	0.001	0.003	0.002	0.002	ND
TSS (mg/L)	18	4.900	ND	ND	4.000	5.000	10.000	12.000	3.000	4.000	4.000	4.000	ND
Ra-226 (Bq/L)	0.37	< 0.010	ND	ND	< 0.010	NMR	< 0.010	NMR	NMR	< 0.010	NMR	NMR	ND
pH low	≥6.0	7.1	ND	ND	6.1	■■■■■	8.0	7.6	7.2	7.0	7.0	7.0	ND
pH high	≤9.5	7.1	ND	ND	6.6	7.5	9.3	8.1	7.9	7.2	7.0	7.0	ND
Flow (m <sup>3</sup> /month)	-	50 406	ND	ND	70 068	102 605	58 944	89 143	135 721	100 272	137	137	ND
Rainbow Trout	Pass	1	ND	ND	ND	-	-	1	1	1	2	1	ND
Acute Lethality Test	Fail	-	-	-	-	■■■■■	■■■■■	■■■■■	■■■■■	-	-	-	-
Daphnia magna	Pass	1	ND	ND	ND	1	-	2	1	1	1	1	ND
Monitoring Test	Fail	-	-	-	-	1	1	-	1	1	-	-	-
Comments:	TA, granted for TSS limit of 18 mg/L, expired on December 6, 2004.												
Notes:	ND: No Deposit	NMR: No Measurement Required	Pass: ≤50% Mortality										Fail: >50% Mortality
Highlighted data indicate that a monthly effluent quality standard was exceeded for that month. A "Pass" for <i>Daphnia magna</i> monitoring test is not a requirement.													

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	Raglan (Mine)												
Operator Name	Falconbridge Ltd.												
Product(s)	Nickel-Copper												
Address	120, Avenue de l'Aéroport, Rouyn-Noranda, Quebec J9X 5B7												
Effluent Discharge Point	DIR-Z3												
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5	ND	ND	ND	ND	ND	ND	ND	ND	0.010	< 0.003	0.006	ND
Cu (mg/L)	0.3	ND	ND	ND	ND	ND	ND	ND	ND	0.009	0.010	0.013	ND
CN (mg/L)	1.0	ND	ND	ND	ND	ND	ND	ND	ND	NMR	NMR	NMR	ND
Pb (mg/L)	0.2	ND	ND	ND	ND	ND	ND	ND	ND	< 0.010	< 0.001	0.003	ND
Ni (mg/L)	0.5	ND	ND	ND	ND	ND	ND	ND	ND	0.710	0.358	0.318	ND
Zn (mg/L)	0.5	ND	ND	ND	ND	ND	ND	ND	ND	< 0.017	< 0.017	0.059	ND
TSS (mg/L)	15	ND	ND	ND	ND	ND	ND	ND	ND	3,000	13,000	14,900	ND
Ra-226 (Bq/L)	0.37	ND	ND	ND	ND	ND	ND	ND	ND	< 0.010	NMR	NMR	ND
pH low	≥6.0	ND	ND	ND	ND	ND	ND	ND	ND	7.3	7.6	7.6	ND
pH high	≤9.5	ND	ND	ND	ND	ND	ND	ND	ND	7.5	7.9	7.8	ND
Flow (m <sup>3</sup> /month)	-	ND	ND	ND	ND	ND	ND	ND	ND	7,922	39,494	33,193	ND
Rainbow Trout	Pass	ND	ND	ND	ND	ND	ND	ND	ND	1	1	1	ND
Acute Lethality Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-
Daphnia magna	Pass	ND	ND	ND	ND	ND	ND	ND	ND	1	1	1	ND
Monitoring Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-
Comments:													
Notes:	ND: No Deposit	NMR: No Measurement Required	Pass: ≤50% Mortality	Fail: >50% Mortality									

Notes: ND: No Deposit      NMR: No Measurement Required  
 Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.  
 A "Pass" for *Daphnia magna* monitoring test is not a requirement.

**Metal Mining Effluent Regulations (MMER)**  
**2004 Effluent Compliance**

Mine/Mill Name	Red Lake Mine												
Operator Name	Goldcorp Inc.												
Product(s)	Gold												
Address	17 Mine Road, Balmertown, Ontario P0V 1C0												
Effluent Discharge Point	G1												
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5	ND	ND	ND	ND	0.105	ND	ND	ND	0.276	0.385	ND	ND
Cu (mg/L)	0.3	ND	ND	ND	ND	0.012	ND	ND	ND	0.010	0.015	ND	ND
CN (mg/L)	1.0	ND	ND	ND	ND	0.043	ND	ND	ND	0.039	0.028	ND	ND
Pb (mg/L)	0.2	ND	ND	ND	ND	0.000	ND	ND	ND	0.005	0.004	ND	ND
Ni (mg/L)	0.5	ND	ND	ND	ND	0.015	ND	ND	ND	0.015	0.020	ND	ND
Zn (mg/L)	0.5	ND	ND	ND	ND	0.000	ND	ND	ND	0.005	0.011	ND	ND
TSS (mg/L)	15	ND	ND	ND	ND	5.000	ND	ND	ND	4.600	6.500	ND	ND
Ra-226 (Bq/L)	0.37	ND	ND	ND	ND	0.000	ND	ND	ND	0.010	0.010	ND	ND
pH low	≥6.0	ND	ND	ND	ND	7.4	ND	ND	ND	7.2	7.1	ND	ND
pH high	≤9.5	ND	ND	ND	ND	7.9	ND	ND	ND	7.5	8.1	ND	ND
Flow (m <sup>3</sup> /month)	-	ND	ND	ND	ND	1 096 347	ND	ND	ND	1 065 214	569 388	ND	ND
Rainbow Trout	Pass	ND	ND	ND	ND	1	ND	ND	ND	1	1	ND	ND
Acute Lethality Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-
Daphnia magna	Pass	ND	ND	ND	ND	1	ND	ND	ND	1	1	ND	ND
Monitoring Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-
Comments:													
Notes:	ND: No Deposit	NMR: No Measurement Required											
		Pass: ≤50% Mortality											
		Fail: >50% Mortality											
		Highlighted data indicate that a monthly effluent quality standard was exceeded for that month. A "Pass" for <i>Daphnia magna</i> monitoring test is not a requirement.											

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	Ruttan Mine												
Operator Name	Hudson Bay Mining and Smelting Co. Ltd.												
Product(s)	Copper-Zinc												
Address	P.O. Box 1500, Flin Flon, Manitoba R8A 1N9												
Effluent Discharge Point	Breault Lake Overflow Weir												
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5	ND	ND	ND	ND	0.001	0.001	0.001	0.001	0.001	0.001	ND	ND
Cu (mg/L)	0.3	ND	ND	ND	ND	0.008	0.005	0.004	0.013	0.004	0.004	ND	ND
CN (mg/L)	1.0	ND	ND	ND	ND	NMR	NMR	NMR	NMR	NMR	NMR	ND	ND
Pb (mg/L)	0.2	ND	ND	ND	ND	0.001	0.001	0.001	0.001	0.001	0.001	ND	ND
Ni (mg/L)	0.5	ND	ND	ND	ND	0.002	0.005	0.022	0.004	0.006	0.006	ND	ND
Zn (mg/L)	0.5	ND	ND	ND	ND	0.010	0.098	0.040	0.030	0.040	0.040	ND	ND
TSS (mg/L)	15	ND	ND	ND	ND	3.000	2.000	2.000	9.000	2.000	ND	ND	ND
Ra-226 (Bq/L)	0.37	ND	ND	ND	ND	0.009	0.010	—	0.010	0.005	ND	ND	ND
pH low	≥6.0	ND	ND	ND	ND	7.9	7.6	8.0	7.7	7.7	ND	ND	ND
pH high	≤9.5	ND	ND	ND	ND	7.9	7.9	8.1	8.5	7.9	ND	ND	ND
Flow (m <sup>3</sup> /month)	—	ND	ND	ND	ND	ND	817 000	844 233	844 233	817 000	817 000	ND	ND
Rainbow Trout	Pass	ND	ND	ND	ND	ND	1	1	2	1	1	ND	ND
Acute Lethality Test	Fail	—	—	—	—	—	—	—	—	—	—	—	—
Daphnia magna	Pass	ND	ND	ND	ND	ND	1	1	2	1	1	ND	ND
Monitoring Test	Fail	—	—	—	—	—	—	—	—	—	—	—	—
<b>Comments:</b>	Ruttan Mine shut down in June 2002. Mine discharge to Breault Lake ceased in October 2002. Accessing Breault Weir was very difficult due to construction of road to sampling location.												
Notes:	ND: No Deposit	NMR: No Measurement Required	Pass: ≤50% Mortality	Fail: >50% Mortality									
	Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.												
	A "Pass" for <i>Daphnia magna</i> monitoring test is not a requirement.												

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	Seabee Mine												
Operator Name	Claude Resources Inc.												
Product(s)	Gold												
Address	P.O. Box 1230, LaRonge, Saskatchewan S0J 1L0												
Effluent Discharge Point	Final Discharge Point 1.2												
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5 < 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Cu (mg/L)	0.3 0.008	0.008	0.005	0.007	0.006	0.008	0.008	0.009	0.009	0.007	0.004	0.004	0.006
CN (mg/L)	1.0 NMR	0.027	0.020	0.007	0.012	0.006	0.011	0.014	0.009	0.011	0.018	0.018	0.015
Pb (mg/L)	0.2 0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	< 0.002
Ni (mg/L)	0.5 0.014	0.010	0.019	0.016	0.014	0.016	0.013	0.011	0.013	0.012	0.011	0.011	0.014
Zn (mg/L)	0.5 0.012	0.008	0.010	0.010	0.008	0.010	0.008	0.008	0.007	0.007	0.006	0.008	0.010
TSS (mg/L)	25 6.000	9.000	5.000	6.000	4.000	3.000	3.000	5.000	2.000	3.000	5.000	5.000	5.000
Ra-226 (Bq/L)	0.37 NMR	< 0.010	0.010	0.005	NMR	—	—	—	—	< 0.005	NMR	NMR	NMR
pH low	≥ 6.0 7.3	7.4	7.3	7.2	7.1	7.0	7.0	6.6	6.9	6.9	7.1	7.1	7.5
pH high	≤ 9.5 7.3	7.6	7.5	7.3	7.3	7.2	7.2	7.3	7.0	7.0	7.2	7.5	7.6
Flow (m³/month)	— 99 634	92 232	98 735	86 380	86 552	82 980	102 641	106 857	104 160	102 827	94 920	106 702	
Rainbow Trout	Pass NMR	1	1	NMR	NMR	1	NMR	NMR	1	NMR	NMR	NMR	1
Acute Lethality Test	Fail —	—	—	—	—	—	—	—	—	—	—	—	—
Daphnia magna	Pass NMR	1	1	NMR	NMR	1	NMR	NMR	1	NMR	NMR	NMR	1
Monitoring Test	Fail —	—	—	—	—	—	—	—	—	—	—	—	—
<b>Comments:</b>	TA was granted for TSS limit of 25 mg/L TA expired on December 6, 2004. No Radium 226 test results were provided for the 3 <sup>rd</sup> quarter of 2004.												
Notes:	ND: No Deposit	NMR: No Measurement Required											
		Pass: ≤ 50% Mortality											
		Fail: > 50% Mortality											
		Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.											
		A "Pass" for <i>Daphnia magna</i> monitoring test is not a requirement.											

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	Seabee Mine																						
Operator Name	Claude Resources Inc.																						
Product(s)	Gold																						
Address	P.O. Box 1230, LaRonge, Saskatchewan S0J 1L0																						
Effluent Discharge Point	Final Discharge Point 1.3																						
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.										
As (mg/L)	0.5	NMR < 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001										
Cu (mg/L)	0.3	NMR 0.008	0.010	0.009	0.009	0.010	0.013	0.010	0.008	0.008	0.007	0.007	0.009										
CN (mg/L)	1.0	NMR 0.005	0.004	0.001	0.002	0.016	0.015	0.002	0.005	0.005	0.008	0.008	0.002										
Pb (mg/L)	0.2	NMR 0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	< 0.002										
Ni (mg/L)	0.5	NMR 0.007	0.004	0.004	0.004	0.005	0.007	0.005	0.004	0.004	0.003	0.003	0.003										
Zn (mg/L)	0.5	NMR 0.008	0.005	0.005	0.005	0.005	0.005	0.013	0.005	< 0.005	0.005	0.005	< 0.005										
TSS (mg/L)	15	1.000	2.000	3.000	5.000	1.000	1.000	1.000	2.000	< 1.000	1.000	< 1.000	< 1.000										
Ra-226 (Bq/L)	0.37	NMR < 0.010	0.010	0.005	NMR	-	-	-	-	< 0.005	NMR	NMR	NMR										
pH low	≥6.0	7.8	7.8	8.0	7.9	8.0	8.1	8.1	8.0	8.0	8.2	7.8	7.7										
pH high	≤9.5	7.8	7.9	8.1	9.5	8.4	8.7	8.3	8.2	8.3	8.3	8.1	7.9										
Flow (m <sup>3</sup> /month)	-	14 570	13 020	13 330	14 160	16 616	15 960	14 694	14 012	12 660	14 570	12 630	13 454										
Rainbow Trout	Pass	NMR 1	1	NMR	NMR	1	NMR	NMR	1	NMR	NMR	NMR	1										
Acute Lethality Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-										
Daphnia magna	Pass	NMR 1	1	NMR	NMR	1	NMR	NMR	1	NMR	NMR	NMR	1										
Monitoring Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-										
Comments:	No Radium 226 test results were provided for the 3 <sup>rd</sup> quarter of 2004.																						
Notes:	ND: No Deposit	NMR: No Measurement Required																					
	Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.																						
	A "Pass" for <i>Daphnia magna</i> monitoring test is not a requirement.																						

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	Seabee Mine												
Operator Name	Claude Resources Inc.												
Product(s)	Gold												
Address	P.O. Box 1230, LaRonge, Saskatchewan, S0J 1L0												
Effluent Discharge Point	Final Discharge Point 1.5												
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cu (mg/L)	0.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
CN (mg/L)	1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pb (mg/L)	0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ni (mg/L)	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zn (mg/L)	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TSS (mg/L)	15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ra-226 (Bq/L)	0.37	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
pH low	≥6.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
pH high	≤9.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Flow (m <sup>3</sup> /month)	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Rainbow Trout	Pass	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acute Lethality Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-
Daphnia magna	Pass	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Monitoring Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-
Comments:													
Notes:	ND: No Deposit	NMR: No Measurement Required											
		Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.											
		A "Pass" for <i>Daphnia magna</i> monitoring test is not a requirement.											
		Pass: ≤50% Mortality											
		Fail: >50% Mortality											

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	Sigma													
Operator Name	Mines McWatters Inc / Century Mining Corporation													
Product(s)	Gold													
Address	300 3 <sup>rd</sup> Avenue East, P.O. Box 100, Val d'Or, Quebec J9P 4N8													
Effluent Discharge Point	Effluent final EFF1													
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.	
As (mg/L)	0.5	ND	ND	ND	0.001	0.001	0.002	0.002	ND	0.002	0.001	0.001	ND	
Cu (mg/L)	0.3	ND	ND	ND	0.016	0.023	0.025	0.005	ND	0.013	0.004	ND	ND	
CN (mg/L)	1.0	ND	ND	ND	0.010	0.005	0.006	0.012	ND	0.010	0.0125	ND	ND	
Pb (mg/L)	0.2	ND	ND	ND	0.001	0.001	0.001	0.001	ND	0.001	0.001	0.001	ND	
Ni (mg/L)	0.5	ND	ND	ND	0.020	0.020	0.020	0.012	ND	0.032	0.022	ND	ND	
Zn (mg/L)	0.5	ND	ND	ND	0.008	0.003	0.011	0.001	ND	0.009	0.001	ND	ND	
TSS (mg/L)	15	ND	ND	ND	0.400	4.440	4.267	2.400	ND	3.600	4.000	ND	ND	
Ra-226 (Bq/L)	0.37	ND	ND	ND	0.005	0.005	0.004	0.003	ND	0.002	0.003	ND	ND	
pH low	≥6.0	ND	ND	ND	7.8	7.6	7.6	7.9	ND	7.5	7.8	ND	ND	
pH high	≤9.5	ND	ND	ND	8.0	8.0	7.9	8.0	ND	7.8	7.9	ND	ND	
Flow (m <sup>3</sup> /month)	-	ND	ND	ND	285 489	229 174	247 973	210 239	ND	116 254	51 146	ND	ND	
Rainbow Trout	Pass	ND	ND	ND	1	1	1	1	ND	1	-	-	ND	
Acute Lethality Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-	
<i>Daphnia magna</i>	Pass	ND	ND	ND	1	1	1	1	ND	1	-	-	ND	
Monitoring Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Comments:</b>	No acute lethality test results were provided for November. No effluent was discharged after November 12, 2004. The ownership of Sigma (Mines McWatters Inc.) was transferred to Century Mining Corporation on September 16, 2004.													
<b>Notes:</b>	ND: No Deposit	<b>NMR:</b> No Measurement Required												
		Fail: >50% Mortality												
		Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.												
		A "Pass" for <i>Daphnia magna</i> monitoring test is not a requirement.												

**Metal Mining Effluent Regulations (MMER)**  
**2004 Effluent Compliance**

Mine/Mill Name		Snow Lake Mill																							
Operator Name	Hudson Bay Mining and Smelting Co. Ltd.																								
Product(s)	Zinc																								
Address	P.O. Box 1500, Flin Flon, Manitoba, R8A 1N9																								
Effluent Discharge Point	Anderson Lake Discharge																								
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.												
As (mg/L)	0.5	ND	ND	ND	ND	ND	0.005	0.003	0.004	0.001	0.006	0.004	0.005												
Cu (mg/L)	0.3	ND	ND	ND	ND	ND	0.023	0.010	0.010	0.094	0.007	0.010	0.021												
CN (mg/L)	1.0	ND	ND	ND	ND	ND	NMR	NMR	NMR	NMR	NMR	NMR	NMR												
Pb (mg/L)	0.2	ND	ND	ND	ND	ND	0.006	0.006	0.006	0.017	0.019	0.018	0.012												
Ni (mg/L)	0.5	ND	ND	ND	ND	ND	0.003	0.001	0.005	0.016	0.001	0.001	0.002												
Zn (mg/L)	0.5	ND	ND	ND	ND	ND	0.290	0.188	0.175	0.270	0.132	0.137	0.239												
TSS (mg/L)	15	ND	ND	ND	ND	ND	3.000	2.000	3.000	5.000	2.000	1.000	1.000												
Ra-226 (Bq/L)	0.37	ND	ND	ND	ND	ND	0.010	0.009	0.007	0.008	0.010	0.010	0.008												
pH low	≥6.0	ND	ND	ND	ND	ND	8.3	8.6	8.4	8.4	8.2	8.0	7.3												
pH high	≤9.5	ND	ND	ND	ND	ND	8.7	8.9	9.1	8.4	8.4	8.4	8.1												
Flow (m <sup>3</sup> /month)	-	ND	ND	ND	ND	ND	453 523	117 600	586 423	37 794	195 269	188 968	195 267												
Rainbow Trout	Pass	ND	ND	ND	ND	ND	1	1	2	-	1	1	1												
Acute Lethality Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-												
Daphnia magna	Pass	ND	ND	ND	ND	ND	1	1	2	-	1	1	1												
Monitoring Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-												
Comments:	No acute lethality test results were provided for September.																								
Notes:	ND: No Deposit	NMR: No Measurement Required																							
		Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.																							
		A "Pass" for <i>Daphnia magna</i> monitoring test is not a requirement.																							
		Pass: ≤50% Mortality																							
		Fail: >50% Mortality																							

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	Strathcona Tailings Treatment System												
Operator Name	Falconbridge Ltd.												
Product(s)	Nickel-Copper-Cobalt-Platinum-Palladium												
Address	Onaping, Ontario P0M 2R0												
Effluent Discharge Point	Fecunis RR Bridge												
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5	0.001	0.002	0.001	0.001	< 0.001	0.001	0.002	0.002	0.002	0.003	0.003	0.003
Cu (mg/L)	0.3	0.005	0.008	0.038	0.017	0.009	0.006	0.007	0.005	0.011	0.005	0.003	0.003
CN (mg/L)	1.0	0.001	0.001	0.001	0.002	0.001	0.002	0.001	0.001	0.001	0.001	0.001	0.001
Pb (mg/L)	0.2	0.001	0.001	< 0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.003	0.001	0.001
Ni (mg/L)	0.5	0.091	0.057	0.116	0.104	0.050	0.037	0.049	0.041	0.042	0.037	0.049	0.046
Zn (mg/L)	0.5	0.008	0.006	0.019	0.031	0.012	0.013	0.008	0.013	0.013	0.013	0.017	0.010
TSS (mg/L)	15	0.825	1.875	1.160	0.500	0.675	1.080	0.775	0.875	0.720	0.700	1.495	0.832
Ra-226 (Bq/L)	0.37	0.010	NMR	0.010	NMR	NMR	0.010	NMR	NMR	0.010	NMR	NMR	NMR
pH low	≥6.0	7.4	7.7	7.4	7.2	7.4	7.4	7.5	7.2	7.2	7.2	7.2	7.3
pH high	≤9.5	8.0	8.2	7.8	7.3	7.4	7.6	7.8	7.6	7.5	7.6	7.8	7.7
Flow (m <sup>3</sup> /month)	-	1 147 032	1 051 277	1 949 333	3 117 611	2 567 936	1 376 569	1 789 010	1 558 339	1 300 536	1 262 033	2 570 085	3 027 627
Rainbow Trout	Pass	1	1	1	1	1	1	1	1	1	NMR	1	NMR
Acute Lethality Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-
<i>Daphnia magna</i>	Pass	1	1	1	1	1	1	1	1	1	NMR	1	NMR
Monitoring Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-
Comments:	The mine is on reduced frequency testing for acute lethality.												
Notes:	ND: No Deposit      NMR: No Measurement Required												
	Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.												
	A "Pass" for <i>Daphnia magna</i> monitoring test is not a requirement.												
	Pass: ≤50% Mortality      Fail: >50% Mortality												

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	Tanco Mine												
Operator Name	Tantalum Mining Corporation of Canada Limited												
Product(s)	Lithium-Cesium-Rubidium												
Address	P.O. Box 2000, Lac du Bonnet, Manitoba R0E 1A0												
Effluent Discharge Point	West Discharge (Compliance Point)												
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5	0.005	0.005	0.005	0.007	0.007	0.007	0.005	0.005	0.005	0.004	0.004	0.004
Cu (mg/L)	0.3	0.001	0.001	0.001	0.002	0.002	0.002	0.001	0.001	0.001	0.002	0.002	0.002
CN (mg/L)	1.0	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR
Pb (mg/L)	0.2	< 0.001	< 0.001	< 0.001	0.001	0.001	0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Ni (mg/L)	0.5	0.010	0.010	0.010	0.014	0.014	0.014	0.005	0.005	0.005	0.011	0.011	0.011
Zn (mg/L)	0.5	0.010	0.010	0.009	0.009	0.009	0.009	0.003	0.003	0.003	0.009	0.009	0.009
TSS (mg/L)	25	5,000	6,000	7,000	15,000	< 11,000	9,000	11,000	11,000	< 9,000	10,000	12,000	5,000
Ra-226 (Bq/L)	0.37	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
pH low	≥ 6.0	7.0	7.0	6.0	6.8	7.3	7.7	8.5	8.1	7.3	7.5	7.6	7.0
pH high	≤ 9.5	7.3	7.2	7.1	7.1	9.1	9.1	9.0	9.1	7.7	8.2	8.2	7.4
Flow (m <sup>3</sup> /month)	-	181,241	188,609	196,453	287,640	288,106	225,216	274,210	381,623	1,507,608	484,336	145,734	144,607
Rainbow Trout	Pass	NMR	NMR	1	NMR	NMR	1	NMR	NMR	1	NMR	NMR	1
Acute Lethality Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-
Daphnia magna	Pass	NMR	NMR	1	NMR	NMR	1	NMR	NMR	1	NMR	NMR	1
Monitoring Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-
<b>Comments:</b>	TA was granted for TSS limit of 25 mg/L. TA expired on December 6, 2004. The mine is on reduced frequency for acute lethality.												
<b>Notes:</b>	ND: No Deposit	<b>NMR: No Measurement Required</b>											
		Pass: ≤ 50% Mortality											
		Fail: > 50% Mortality											

Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.  
A "Pass" for *Daphnia magna* monitoring test is not a requirement.

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	Tanco Mine												
Operator Name	Tantalum Mining Corporation of Canada Limited												
Product(s)	Lithium-Cesium-Rubidium												
Address	P.O. Box 2000, Lac du Bonnet, Manitoba R0E 1A0												
Effluent Discharge Point	East Discharge (Phreatic Flow)												
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5	ND	ND	ND	0.005	0.005	0.004	-	-	-	-	-	-
Cu (mg/L)	0.3	ND	ND	ND	< 0.001	< 0.001	< 0.001	-	-	-	-	-	-
CN (mg/L)	1.0	ND	ND	ND	NMR	NMR	NMR	-	-	-	-	-	-
Pb (mg/L)	0.2	ND	ND	ND	< 0.001	< 0.001	< 0.001	-	-	-	-	-	-
Ni (mg/L)	0.5	ND	ND	ND	0.001	0.002	0.001	-	-	-	-	-	-
Zn (mg/L)	0.5	ND	ND	ND	0.004	0.004	0.004	-	-	-	-	-	-
TSS (mg/L)	15	ND	ND	ND	7.000	9.000	5.000	-	-	-	-	-	-
Ra-226 (Bq/L)	0.37	ND	ND	ND	0.030	< 0.010	-	-	-	-	-	-	-
pH low	≥ 6.0	ND	ND	ND	7.4	7.2	8.2	-	-	-	-	-	-
pH high	≤ 9.5	ND	ND	ND	7.8	8.3	9.1	-	-	-	-	-	-
Flow (m <sup>3</sup> /month)	-	ND	ND	ND	2 270	6 952	2 992	-	-	-	-	-	-
Rainbow Trout	Pass	ND	ND	ND	1	1	-	-	-	-	-	-	-
Acute Lethality Test	Fail	-	-	-	-	-	■ 1	-	-	-	-	-	-
Daphnia magna	Pass	ND	ND	ND	1	2	-	-	-	-	-	-	-
Monitoring Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-

**Comments:** No Radium 226 test result was provided for June 2004. Remedial measures for failure of acute lethality test were completed on June 8, 2004.  
This flow was diverted to the Tailings Management Area.

**Notes:** ND: No Deposit      NMR: No Measurement Required

Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.  
A "Pass" for *Daphnia magna* monitoring test is not a requirement.

Pass: ≤ 50% Mortality      Fail: > 50% Mortality

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name		Thompson Mine and Mill												
Operator Name		Inco Limited												
Product(s)		Nickel-Copper												
Address		P.O. Box 5000, Thompson, Manitoba R8N 1P3												
Effluent Discharge Point		Misery Weir												
Parameters		Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010
Cu (mg/L)	0.3	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010
CN (mg/L)	1.0	0.002	0.002	0.002	NMR	NMR	0.002	NMR	NMR	0.002	NMR	NMR	NMR	0.002
Pb (mg/L)	0.2	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.013	0.010
Ni (mg/L)	0.5	0.260	0.260	0.230	0.190	0.140	0.150	0.140	0.160	0.150	0.173	0.175	0.160	
Zn (mg/L)	0.5	0.040	0.060	0.080	0.030	0.020	0.030	0.060	0.020	0.010	0.298	0.075	0.020	
TSS (mg/L)	15	2,000	2,000	2,000	5,000	5,000	5,000	3,000	6,000	2,500	3,250	2,500		
Ra-226 (Bq/L)	0.37	0.005	NMR	NMR	NMR	0.007	NMR	NMR	0.030	NMR	NMR	NMR	0.009	
pH low	≥6.0	7.4	7.2	7.4	7.1	7.6	8.0	8.1	8.0	7.9	7.9	7.5	7.6	
pH high	≤9.5	7.8	7.7	7.7	7.7	8.5	8.6	8.5	8.1	8.2	8.2	8.3	7.8	
Flow (m³/month)	-	2,297,620	2,220,868	2,352,454	2,403,872	2,643,648	2,714,590	2,084,126	1,902,107	2,869,454	3,251,518	3,297,457	3,353,146	
Rainbow Trout	Pass	1	1	1	NMR	1	1	1	1	1	1	1	NMR	NMR
Acute Lethality Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-	-
Daphnia magna	Pass	1	1	1	NMR	1	1	1	1	1	1	1	NMR	NMR
Monitoring Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Comments:</b>		The mine is on reduced frequency testing for acute lethality.												
Notes:	ND: No Deposit	NMR: No Measurement Required												Pass: ≤50% Mortality
		Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.												Fail: >50% Mortality
		A "Pass" for <i>Daphnia magna</i> monitoring test is not a requirement.												

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

<b>Mine/Mill Name</b>	Thompson Mine and Mill												
<b>Operator Name</b>	Inco Limited												
<b>Product(s)</b>	Nickel-Copper												
<b>Address</b>	P.O. Box 5000, Thompson, Manitoba R8N 1P3												
<b>Effluent Discharge Point</b>	Station B												
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010
Cu (mg/L)	0.3	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010
CN (mg/L)	1.0	0.002	0.003	NMR	NMR	0.002	NMR	NMR	NMR	0.002	NMR	NMR	0.011
Pb (mg/L)	0.2	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010
Ni (mg/L)	0.5	0.280	0.240	0.230	0.310	0.420	0.250	0.120	0.130	0.150	0.260	0.270	0.216
Zn (mg/L)	0.5	0.040	0.070	0.040	0.050	0.030	0.220	0.040	0.010	0.030	0.305	0.183	0.066
TSS (mg/L)	15	2.000	3.000	4.000	7.000	4.000	3.000	2.000	4.000	4.000	2.000	2.000	2.200
Ra-226 (Bq/L)	0.37	0.005	NMR	NMR	NMR	0.005	NMR	NMR	NMR	0.010	NMR	NMR	0.005
pH low	≥6.0	6.8	6.5	6.5	6.9	7.0	7.6	8.6	8.4	7.9	7.9	6.6	6.3
pH high	≤9.5	7.1	7.0	7.0	7.3	7.9	8.8	9.3	9.3	8.4	8.5	8.0	7.0
Flow (m <sup>3</sup> /month)	-	830 304	851 904	1 419 552	1 451 520	970 920	1 218 240	676 296	749 952	948 672	1 352 592	1 172 880	1 098 144
<b>Rainbow Trout</b>													
Pass	1	1	1	NMR	NMR	1	1	NMR	1	1	NMR	NMR	
Acute Lethality Test	Fail	-	-	-	-	-	-	-	-	-	-	-	
Daphnia magna	Pass	1	1	1	NMR	NMR	1	1	NMR	1	1	NMR	
Monitoring Test	Fail	-	-	-	-	-	-	-	-	-	-	-	
<b>Comments:</b>	The mine is on reduced frequency testing for acute lethality.												
<b>Notes:</b>	ND: No Deposit      NMR: No Measurement Required												
	Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.												
	A "Pass" for <i>Daphnia magna</i> monitoring test is not a requirement.												
	Pass: ≤50% Mortality      Fail: >50% Mortality												

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name		Tio (Mine)												
Operator Name		QIT-Fer et Titane Inc.												
Product(s)		Iron-Titanium												
Address		951 De l'Escale Boulevard, Havre St-Pierre, Quebec G0G 1P0												
Effluent Discharge Point		Switch South												
Parameters		Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5	-	-	-	-	0.001	0.001	0.001	0.001	0.001	0.001	0.001	-	-
Cu (mg/L)	0.3	-	-	-	-	0.059	0.110	0.029	0.028	0.029	0.012	0.045	-	-
CN (mg/L)	1.0	-	-	-	-	NMR	NMR	NMR	NMR	NMR	NMR	NMR	-	-
Pb (mg/L)	0.2	-	-	-	-	0.002	0.002	0.002	0.002	0.002	0.002	0.002	-	-
Ni (mg/L)	0.5	-	-	-	-	0.279	0.492	0.426	0.330	0.340	0.260	0.280	-	-
Zn (mg/L)	0.5	-	-	-	-	0.060	0.073	0.034	0.034	0.026	0.018	0.032	-	-
TSS (mg/L)	15	-	-	-	-	11.250	6.000	1.750	3.000	1.600	1.500	4.500	-	-
Ra-226 (Bq/L)	0.37	-	-	-	-	0.005	0.005	0.006	0.005	0.018	0.005	0.005	-	-
pH low	≥6.0	-	-	-	-	6.9	6.6	7.2	6.8	6.4	7.0	7.1	-	-
pH high	≤9.5	-	-	-	-	9.0	7.5	7.6	7.2	7.5	7.5	7.4	-	-
Flow (m³/month)	-	-	-	-	-	477 756	388 089	143 712	23 270	16 315	15 714	74 218	-	-
Rainbow Trout	Pass	-	-	-	-	1	1	1	1	1	1	1	-	-
Acute Lethality Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-	-
Daphnia magna	Pass	-	-	-	-	1	1	-	1	1	1	1	-	-
Monitoring Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-	-
Comments:	Analytical results for November and December were not provided since access to the site was impossible.													
Notes:	ND: No Deposit	NMR: No Measurement Required												
		Pass: ≤50% Mortality												
		Fail: >50% Mortality												

Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.  
A "Pass" for *Daphnia magna* monitoring test is not a requirement.

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	Tio (Mine)													
Operator Name	QIT-Fer et Titan Inc.													
Product(s)	Iron-Titanium													
Address	951 De l'Escale Boulevard, Havre St-Pierre, Quebec G0G 1P0													
Effluent Discharge Point	Mine Water													
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.	
As (mg/L)	0.5	ND	ND	0.001	0.001	0.001	ND	0.001	0.001	0.001	0.001	0.001	ND	
Cu (mg/L)	0.3	ND	ND	0.010	0.003	0.006	0.003	ND	0.006	0.048	0.007	0.008	ND	
CN (mg/L)	1.0	ND	ND	NMR	NMR	NMR	ND	NMR	NMR	NMR	NMR	NMR	ND	
Pb (mg/L)	0.2	ND	ND	0.002	0.003	0.002	0.002	ND	0.002	0.004	0.002	0.002	ND	
Ni (mg/L)	0.5	ND	ND	0.407	0.270	0.380	0.430	ND	0.380	0.300	0.340	0.230	ND	
Zn (mg/L)	0.5	ND	ND	0.006	0.005	0.006	0.008	ND	0.007	0.007	0.007	0.005	ND	
TSS (mg/L)	25	ND	ND	2.170	2.000	4.500	1.000	ND	1.000	3.500	7.250	1.500	ND	
Ra-226 (Bq/L)	0.37	ND	ND	0.005	0.004	0.005	0.005	ND	0.005	0.005	0.005	0.005	ND	
pH low	≥6.0	ND	ND	7.6	7.7	7.6	7.7	ND	7.4	7.5	7.6	7.3	ND	
pH high	≤9.5	ND	ND	7.7	7.7	7.8	7.8	ND	7.6	7.6	7.6	7.4	ND	
Flow (m <sup>3</sup> /month)	-	ND	ND	134 691	256 814	251 389	111 574	ND	244 872	43 200	176 784	48 816	ND	
Rainbow Trout	Pass	ND	ND	1	1	1	1	ND	-	-	-	-	1	
Acute Lethality Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-	
Daphnia magna	Pass	ND	ND	1	1	1	1	ND	-	-	-	-	1	
Monitoring Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Comments:</b>	TA was granted for TSS limit of 25 mg/L. TA expired on December 6, 2004. No acute lethality test results were provided for August, September, and October. On June 2004, the "Mine Water" final discharge point was moved further and called Lake 211.4. The "Mine Water" effluent is no longer considered as a final discharge point.													
<b>Notes:</b>	No Deposit	NMR: No Measurement Required Highlighted data indicate that a monthly effluent quality standard was exceeded for that month. A "Pass" for <i>Daphnia magna</i> monitoring test is not a requirement.												
		Pass: ≤50% Mortality Fail: >50% Mortality												

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	Tio (Mine)												
Operator Name	QIT-Fer et Titane Inc.												
Product(s)	Iron-Titanium												
Address	951 De l'Escale Boulevard, Havre St-Pierre, Quebec G0G 1P0												
Effluent Discharge Point	Lake 211.4												
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5	-	-	-	-	-	-	0.001	0.001	0.001	0.001	0.001	-
Cu (mg/L)	0.3	-	-	-	-	-	-	0.004	0.008	0.005	0.006	0.005	-
CN (mg/L)	1.0	-	-	-	-	-	-	NMR	NMR	NMR	NMR	NMR	-
Pb (mg/L)	0.2	-	-	-	-	-	-	0.002	0.002	0.002	0.002	0.002	-
Ni (mg/L)	0.5	-	-	-	-	-	-	0.414	0.395	0.338	0.323	0.330	0.370
Zn (mg/L)	0.5	-	-	-	-	-	-	0.010	0.009	0.009	0.012	0.011	0.016
TSS (mg/L)	15	-	-	-	-	-	-	0.760	1.000	1.000	3.250	1.250	0.500
Ra-226 (Bq/L)	0.37	-	-	-	-	-	-	0.005	0.005	0.005	0.019	0.005	-
pH low	≥6.0	-	-	-	-	-	-	7.6	7.2	7.2	7.1	7.2	7.3
pH high	≤9.5	-	-	-	-	-	-	7.6	7.4	7.7	7.6	7.5	7.3
Flow (m <sup>3</sup> /month)	-	-	-	-	-	-	-	146 455	66 006	107 712	61 603	275 089	2 177
Rainbow Trout	Pass	-	-	-	-	-	-	1	1	1	1	-	-
Acute Lethality Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-
Daphnia magna	Pass	-	-	-	-	-	-	1	1	1	1	-	-
Monitoring Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-

**Comments:** Monitoring of this new final discharge point started in June 2004. *Daphnia magna* test result was not provided for June. No acute lethality test results were provided in November, because the mine stopped monitoring this effluent early on November arguing safety concerns related to access problems (section 25).

Notes: ND: No Deposit      NMR: No Measurement Required

Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.  
A "Pass" for *Daphnia magna* monitoring test is not a requirement.

Pass: ≤50% Mortality

Fail: >50% Mortality

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	Tio (Mine)	Grondin Lake											
Operator Name	QIT-Fer et Titane Inc.	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
Product(s)	Iron-Titanium	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Address	951 De l'Escale Boulevard, Havre St-Pierre, Quebec G0G 1P0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NMR	ND
Effluent Discharge Point		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Parameters	Limits	As (mg/L)	Cu (mg/L)	CN (mg/L)	Pb (mg/L)	Ni (mg/L)	Zn (mg/L)	TSS (mg/L)	Ra-226 (Bq/L)	pH low	pH high	Flow (m <sup>3</sup> /month)	Rainbow Trout
As (mg/L)	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cu (mg/L)	0.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
CN (mg/L)	1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NMR	ND
Pb (mg/L)	0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.002	ND
Ni (mg/L)	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zn (mg/L)	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TSS (mg/L)	15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ra-226 (Bq/L)	0.37	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
pH low	≥6.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
pH high	≤9.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Flow (m <sup>3</sup> /month)	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	7,000	ND
Rainbow Trout	Pass	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	55 104	ND
Acute Lethality Test	Fail	-	-	-	-	-	-	-	-	-	-	-	ND
Daphnia magna	Pass	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-	ND
Monitoring Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-
Comments:	Acute lethality test results were not provided for November since no effluent was discharged on the selected sampling day.												
Notes:	ND: No Deposit	NMR: No Measurement Required											
		Pass: ≤50% Mortality											
		Fail: >50% Mortality											
		Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.											
		A "Pass" for <i>Daphnia magna</i> monitoring test is not a requirement.											

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name		Tio (Mine)												
Operator Name		QIT-Fer et Titane Inc.												
Product(s)		Iron-Titanium												
Address		951 De l'Escale Boulevard, Havre St-Pierre, Quebec G0G 1P0												
Effluent Discharge Point		Resurgence Leo												
Parameters		Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5	-	-	-	-	-	-	-	0.001	0.001	0.001	0.001	-	-
Cu (mg/L)	0.3	-	-	-	-	-	-	-	0.042	0.051	0.047	0.051	0.060	-
CN (mg/L)	1.0	-	-	-	-	-	-	-	NMR	NMR	NMR	NMR	NMR	-
Pb (mg/L)	0.2	-	-	-	-	-	-	-	0.002	0.004	0.002	0.002	0.002	-
Ni (mg/L)	0.5	-	-	-	-	-	-	-	0.760	0.630	0.820	0.970	0.980	-
Zn (mg/L)	0.5	-	-	-	-	-	-	-	0.077	0.093	0.094	0.101	0.103	-
TSS (mg/L)	15	-	-	-	-	-	-	-	1.000	0.880	1.000	0.750	0.630	-
Ra-226 (Bq/L)	0.37	-	-	-	-	-	-	-	0.005	0.005	0.005	0.005	0.005	-
pH low	≥6.0	-	-	-	-	-	-	-	7.2	6.9	6.4	6.9	6.8	-
pH high	≤9.5	-	-	-	-	-	-	-	7.3	7.1	7.6	7.2	7.1	-
Flow (m <sup>3</sup> /month)	-	-	-	-	-	-	-	-	103 680	52 099	70 157	65 457	98 759	-
Rainbow Trout	Pass	-	-	-	-	-	-	1	1	1	1	1	-	-
Acute Lethality Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-	-
Daphnia magna	Pass	-	-	-	-	-	-	1	1	1	1	1	-	-
Monitoring Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-	-

**Comments:** Monitoring of this new final discharge point started in June 2004. *Daphnia magna* test results not provided for June. Analytical results for November and December not provided since access to the site was impossible. The failure to respect the maximum authorized monthly mean concentration for June to October 2004 and failure to provide *Daphnia magna* tests have been reported in a warning letter on January 7, 2005.

Notes: ND: No Deposit      NMR: No Measurement Required

Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.  
A "Pass" for *Daphnia magna* monitoring test is not a requirement.

Pass: ≤50% Mortality

Fail: >50% Mortality

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	Troilus													
Operator Name	Corporation minière Inmet													
Product(s)	Gold-Copper													
Address	P.O. Box 8700, Chibougamau, Quebec G8P 2Y6													
Effluent Discharge Point	BS-2	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5	0.003	0.003	0.002	0.002	0.002	0.002	0.002	0.002	0.001	0.001	0.002	0.002	0.002
Cu (mg/L)	0.3	0.010	0.006	0.009	0.017	0.017	0.009	0.010	0.005	0.008	0.004	0.010	0.010	0.009
CN (mg/L)	1.0	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR
Pb (mg/L)	0.2	0.003	0.015	0.012	0.003	0.004	0.004	0.003	0.003	0.003	0.003	0.003	0.003	0.003
Ni (mg/L)	0.5	0.028	0.012	0.019	0.019	0.020	0.015	0.015	0.017	0.017	0.017	0.014	0.022	0.018
Zn (mg/L)	0.5	0.024	0.011	0.014	0.012	0.026	0.020	0.024	0.026	0.020	0.025	0.026	0.026	0.019
TSS (mg/L)	15	3.000	2.000	5.600	16.500	17.400	5.750	6.250	1.000	9.750	4.750	5.600	1.750	
Ra-226 (Bq/L)	0.37	NMR	NMR	0.010	NMR	NMR	0.020	NMR	NMR	0.030	NMR	0.020	0.030	
pH low	≥6.0	7.5	7.7	7.6	7.1	7.1	7.7	7.5	7.5	6.8	7.5	7.5	7.0	
pH high	≤9.5	7.7	7.8	7.7	7.7	7.9	7.9	7.8	7.9	7.8	7.7	7.7	7.5	
Flow (m <sup>3</sup> /month)	-	137 640	131 370	272 304	343 800	468 720	248 400	300 390	223 386	476 100	465 000	254 448	166 842	
Rainbow Trout	Pass	1	-	1	2	1	1	1	1	1	1	1	1	
Acute Lethality Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-	
Daphnia magna	Pass	1	-	1	2	1	1	1	1	1	1	1	1	
Monitoring Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-	
Comments:	No acute lethality test results were provided for February. No explanation was provided.													
Notes:	ND: No Deposit	NMR: No Measurement Required												
	Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.													
	A "Pass" for <i>Daphnia magna</i> monitoring test is not a requirement.													
	Pass: ≤50% Mortality												Fail: >50% Mortality	

**Metal Mining Effluent Regulations (MMER)**  
**2004 Effluent Compliance**

Mine/Mill Name		Troilus												
Operator Name		Corporation minière Inmet												
Product(s)		Gold-Copper												
Address		P.O. Box 8700, Chibougamau, Quebec G8P 2Y6												
Effluent Discharge Point		PR-1												
Parameters		Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.001	0.001	0.001	0.001	0.001
Cu (mg/L)	0.3	0.005	0.002	0.010	0.003	0.004	0.004	0.005	0.002	0.002	0.002	0.002	0.004	0.004
CN (mg/L)	1.0	0.010	0.010	0.030	0.010	0.010	0.015	0.023	0.010	0.010	0.010	0.010	0.005	0.005
Pb (mg/L)	0.2	0.003	0.003	0.050	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
Ni (mg/L)	0.5	0.008	0.004	0.020	0.007	0.007	0.023	0.005	0.005	0.007	0.001	0.004	0.006	0.006
Zn (mg/L)	0.5	0.013	0.015	0.020	0.015	0.016	0.013	0.010	0.010	0.011	0.019	0.019	0.019	0.013
TSS (mg/L)	15	3.750	4.000	4.000	7.500	7.600	5.000	5.750	2.250	2.000	1.750	1.800	2.000	2.000
Ra-226 (Bq/L)	0.37	NMR	NMR	0.010	NMR	NMR	0.010	NMR	NMR	0.040	NMR	0.010	0.010	0.010
pH low	≥6.0	6.4	6.7	6.4	6.2	6.5	7.1	6.7	6.3	6.3	6.6	6.7	6.2	6.2
pH high	≤9.5	6.7	6.7	6.4	6.7	7.0	7.3	7.2	7.7	7.5	7.2	7.1	7.2	7.2
Flow (m <sup>3</sup> /month)	-	150 660	35 280	7 440	503 820	685 968	519 300	818 400	534 192	285 300	53 940	61 416	144 708	
Rainbow Trout	Pass	1	1	1	1	1	1	1	1	1	1	1	1	NMR
Acute Lethality Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-	-
Daphnia magna	Pass	1	1	1	1	1	1	1	1	1	1	1	1	NMR
Monitoring Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Comments:</b>		The mine is on reduced frequency testing for acute lethality.												
Notes:	ND: No Deposit	NMR: No Measurement Required												Pass: ≤50% Mortality
		Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.												Fail: >50% Mortality
		A "Pass" for <i>Daphnia magna</i> monitoring test is not a requirement.												

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	Troilus												
Operator Name	Corporation minière Inmet												
Product(s)	Gold-Copper												
Address	P.O. Box 8700, Chibougamau, Quebec G8P 2Y6												
Effluent Discharge Point	PR-2												
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Cu (mg/L)	0.3	0.002	0.004	0.004	0.001	0.003	0.002	0.003	0.002	0.001	0.002	0.001	0.007
CN (mg/L)	1.0	0.010	0.010	0.010	0.012	0.020	0.013	0.010	0.010	0.010	0.005	0.005	0.005
Pb (mg/L)	0.2	0.003	0.015	0.013	0.003	0.003	0.003	0.003	0.003	0.003	0.002	0.002	0.003
Ni (mg/L)	0.5	0.050	0.008	0.005	0.002	0.002	0.004	0.002	0.002	0.001	0.002	0.002	0.002
Zn (mg/L)	0.5	0.010	0.013	0.009	0.009	0.011	0.007	0.009	0.014	0.013	0.013	0.012	0.013
TSS (mg/L)	15	2.250	1.750	2.600	1.750	2.400	3.250	3.000	2.500	2.000	2.000	1.600	2.250
Ra-226 (Bq/L)	0.37	0.020	0.015	0.016	0.020	0.015	0.010	NMR	NMR	0.020	NMR	0.010	0.020
pH low	≥6.0	6.4	6.4	6.5	6.2	6.8	7.0	6.7	6.4	6.3	6.6	6.7	6.0
pH high	≤9.5	6.6	6.6	6.9	6.8	7.0	7.3	7.1	7.5	7.0	7.0	7.0	6.7
Flow (m <sup>3</sup> /month)	-	37 200	29 580	38 688	37 800	30 504	30 600	30 876	60 989	61 974	72 224	72 562	71 312
Rainbow Trout	Pass	1	1	1	1	1	1	1	1	1	1	1	NMR
Acute Lethality Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-
<i>Daphnia magna</i>	Pass	1	1	1	1	1	1	1	1	1	1	1	NMR
Monitoring Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-
Comments:	The mine is on reduced frequency testing for acute lethality.												
Notes:	ND: No Deposit      NMR: No Measurement Required												
	Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.												
	A "Pass" for <i>Daphnia magna</i> monitoring test is not a requirement.												
	Pass: ≤50% Mortality      Fail: >50% Mortality												

**Metal Mining Effluent Regulations (MMER)**  
**2004 Effluent Compliance**

Mine/Mill Name		Troilus											
Operator Name		Corporation minière Inmet											
Product(s)		Gold-Copper											
Address		P.O. Box 8700, Chibougamau, Quebec G8P 2Y6											
Effluent Discharge Point		PR-5											
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Cu (mg/L)	0.3	0.006	0.004	0.004	0.002	0.003	0.003	0.004	0.002	0.001	0.003	0.002	0.005
CN (mg/L)	1.0	0.010	0.010	0.010	0.012	0.013	0.010	0.010	0.010	0.058	0.010	0.005	0.005
Pb (mg/L)	0.2	0.005	0.015	0.012	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
Ni (mg/L)	0.5	0.004	0.006	0.005	0.001	0.002	0.004	0.001	0.001	0.004	0.002	0.005	0.002
Zn (mg/L)	0.5	0.014	0.015	0.014	0.011	0.030	0.008	0.008	0.007	0.008	0.013	0.011	0.012
TSS (mg/L)	15	4.750	2.500	3.400	2.250	2.200	1.750	3.250	1.500	1.250	3.250	3.400	3.000
Ra-226 (Bq/L)	0.37	0.020	0.015	0.012	0.010	0.015	0.010	NMR	NMR	0.010	NMR	0.020	0.010
pH low	≥6.0	6.6	6.7	6.7	6.2	6.6	6.9	6.8	6.5	6.5	6.7	6.6	6.2
pH high	≤9.5	6.9	7.1	7.0	7.0	7.0	7.4	7.0	7.3	6.9	6.9	6.8	6.6
Flow (m <sup>3</sup> /month)	-	10 230	9 570	17 856	18 900	4 315	1 980	4 092	13 652	20 574	15 810	13 522	13 466
Rainbow Trout	Pass	1	1	1	1	1	1	1	1	1	1	1	NMR
Acute Lethality Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-
Daphnia magna	Pass	1	1	1	1	1	1	1	1	1	1	1	NMR
Monitoring Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-
Comments:	The mine is on reduced frequency testing for acute lethality.												
Notes:	ND: No Deposit	NMR: No Measurement Required											
		Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.											
		A "Pass" for <i>Daphnia magna</i> monitoring test is not a requirement.											
		Pass: ≤50% Mortality											
		Fail: >50% Mortality											

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	Troilus												
Operator Name	Corporation minière Inmet												
Product(s)	Gold-Copper												
Address	P.O. Box 8700, Chibougamau, Quebec G8P 2Y6												
Effluent Discharge Point	PR-6												
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5	0.001	0.001	0.001	0.001	0.001	0.002	0.001	0.001	0.001	0.001	0.001	0.001
Cu (mg/L)	0.3	0.001	0.003	0.006	0.012	0.002	0.003	0.001	0.009	0.001	0.001	0.001	0.002
CN (mg/L)	1.0	0.013	0.010	0.012	0.008	0.012	0.018	0.010	0.010	0.010	0.010	0.005	0.005
Pb (mg/L)	0.2	0.004	0.015	0.012	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
Ni (mg/L)	0.5	0.001	0.011	0.005	0.004	0.001	0.002	0.002	0.006	0.001	0.001	0.001	0.001
Zn (mg/L)	0.5	0.013	0.015	0.014	0.019	0.023	0.009	0.013	0.009	0.010	0.009	0.010	0.012
TSS (mg/L)	15	2.000	2.000	2.400	66.000	5.800	2.000	4.500	2.000	2.250	3.000	2.600	4.000
Ra-226 (Bq/L)	0.37	0.013	0.010	0.012	0.010	0.010	0.010	NMR	NMR	0.020	NMR	0.010	0.010
pH low	≥6.0	6.8	6.7	6.7	6.3	6.9	6.8	6.9	6.6	6.5	6.7	6.6	6.4
pH high	≤9.5	7.2	8.0	7.0	7.1	7.6	7.4	7.2	7.1	6.8	6.8	6.8	6.6
Flow (m <sup>3</sup> /month)	-	16 740	12 180	17 856	17 100	7 738	6 840	5 487	3 813	3 060	5 115	4 118	5 245
Rainbow Trout	Pass	1	1	1	1	1	1	1	1	1	1	1	NMR
Acute Lethality Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-
Daphnia magna	Pass	1	1	1	1	1	1	1	1	1	1	1	NMR
Monitoring Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-
Comments:	The mine is on reduced frequency testing for acute lethality.												
Notes:	ND: No Deposit      NMR: No Measurement Required Highlighted data indicate that a monthly effluent quality standard was exceeded for that month. A "Pass" for <i>Daphnia magna</i> monitoring test is not a requirement.												
	Pass: ≤50% Mortality      Fail: >50% Mortality												

**Metal Mining Effluent Regulations (MMER)**  
**2004 Effluent Compliance**

Mine/Mill Name		Troilus												
Operator Name		Corporation minière Inmet												
Product(s)		Gold-Copper												
Address		P.O. Box 8700, Chibougamau, Quebec G8P 2Y6												
Effluent Discharge Point		PR-7												
Parameters		Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5	-	-	-	-	-	-	-	-	0.001	0.001	0.001	0.001	
Cu (mg/L)	0.3	-	-	-	-	-	-	-	-	0.001	0.002	0.003	0.002	
CN (mg/L)	1.0	-	-	-	-	-	-	-	-	0.010	0.010	0.005	0.005	
Pb (mg/L)	0.2	-	-	-	-	-	-	-	-	0.003	0.003	0.003	0.003	
Ni (mg/L)	0.5	-	-	-	-	-	-	-	-	0.001	0.002	0.004	0.007	
Zn (mg/L)	0.5	-	-	-	-	-	-	-	-	0.005	0.007	0.008	0.007	
TSS (mg/L)	15	-	-	-	-	-	-	-	-	6.000	11.250	2.750	5.200	
Ra-226 (Bq/L)	0.37	-	-	-	-	-	-	-	-	-	0.010	0.030	0.057	
pH low	≥6.0	-	-	-	-	-	-	-	-	6.3	6.2	6.4	6.3	
pH high	≤9.5	-	-	-	-	-	-	-	-	6.3	6.5	6.5	6.4	
Flow (m <sup>3</sup> /month)	-	-	-	-	-	-	-	-	-	2 232	3 870	7 068	8 813	
Rainbow Trout	Pass	-	-	-	-	-	-	-	-	1	1	1	1	
Acute Lethality Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-	
Daphnia magna	Pass	-	-	-	-	-	-	-	-	1	1	1	1	
Monitoring Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-	

**Comments:** No acute lethality test and Radium 226 results were provided for August. No explanation was provided. FDP was identified by Environment Canada in September 2004. Full effluent monitoring started in September 2004.

Notes: ND: No Deposit      NMR: No Measurement Required

Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.  
A "Pass" for *Daphnia magna* monitoring test is not a requirement.

Pass: ≤50% Mortality

Fail: >50% Mortality

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	Trout Lake Mine												
Operator Name	Hudson Bay Mining and Smelting Co. Ltd.												
Product(s)	Copper-Zinc-Gold-Silver												
Address	P.O. Box 1500, Flin Flon, Manitoba, R8A 1N9												
Effluent Discharge Point	Trout Lake												
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5	0.001	0.002	0.003	0.002	0.006	ND	0.003	0.002	0.002	0.002	0.003	0.002
Cu (mg/L)	0.3	0.017	0.037	0.037	0.028	0.076	ND	0.021	0.018	0.015	0.015	0.035	0.023
CN (mg/L)	1.0	NMR	NMR	NMR	NMR	NMR	ND	NMR	NMR	NMR	NMR	NMR	NMR
Pb (mg/L)	0.2	0.004	0.004	0.008	0.004	0.004	ND	0.004	0.024	0.014	0.012	0.022	0.015
Ni (mg/L)	0.5	0.004	0.003	0.002	0.002	0.001	ND	0.001	0.007	0.002	0.006	0.003	0.003
Zn (mg/L)	0.5	0.231	0.162	0.223	0.088	0.260	ND	0.118	0.084	0.114	0.035	0.103	0.281
TSS (mg/L)	15	7.000	4.000	3.000	5.000	8.000	ND	5.000	2.000	1.000	1.000	3.000	1.000
Ra-226 (Bq/L)	0.37	0.220	0.190	0.180	0.110	0.110	ND	0.130	0.090	0.080	0.060	0.010	0.120
pH low	≥6.0	9.1	9.4	9.5	8.7	9.4	ND	9.2	8.3	8.9	8.9	8.9	8.1
pH high	≤10.36	9.8	9.8	9.9	9.8	9.4	ND	9.3	9.3	9.2	9.2	9.1	8.3
Flow (m <sup>3</sup> /month)	—	29 100	27 000	31 400	29 800	800	ND	29 500	31 700	30 000	30 200	29 800	32 100
Rainbow Trout	Pass	1	1	—	—	—	ND	1	2	1	1	1	1
Acute Lethality Test	Fail	—	—	1	2	—	—	—	—	—	—	—	—
Daphnia magna	Pass	—	—	—	—	—	ND	—	—	—	—	—	—
Monitoring Test	Fail	1	1	1	2	—	—	1	2	1	1	1	1

**Comments:** TA was granted for upper pH limit of 10.36 and for acute lethality. TA expired on December 6, 2004. No acute lethality test results were provided for May 2004.

**Notes:** ND: No Deposit      NMR: No Measurement Required

Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.  
A "Pass" for *Daphnia magna* monitoring test is not a requirement.

Pass: ≤50% Mortality      Fail: >50% Mortality

**Metal Mining Effluent Regulations (MMER)**  
**2004 Effluent Compliance**

Mine/Mill Name	Wabush (Scully Mine)												
Operator Name	Wabush Mines												
Product(s)	Iron												
Address	Scully Mine, P.O. Box 3000, Wabush, Newfoundland and Labrador A0R 1B0												
Effluent Discharge Point	East Pit No.1 Dewatering												
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5	-	-	-	-	-	-	-	-	-	-	-	-
Cu (mg/L)	0.3	-	-	-	-	-	-	-	-	-	-	-	-
CN (mg/L)	1.0	-	-	-	-	-	-	-	-	-	-	-	-
Pb (mg/L)	0.2	-	-	-	-	-	-	-	-	-	-	-	-
Ni (mg/L)	0.5	-	-	-	-	-	-	-	-	-	-	-	-
Zn (mg/L)	0.5	-	-	-	-	-	-	-	-	-	-	-	-
TSS (mg/L)	15	-	-	-	-	-	-	-	-	-	-	-	-
Ra-226 (Bq/L)	0.37	-	-	-	-	-	-	-	-	-	-	-	-
pH low	≥6.0	-	-	-	-	-	-	-	-	-	-	-	-
pH high	≤9.5	-	-	-	-	-	-	-	-	-	-	-	-
Flow (m <sup>3</sup> /month)	-	-	-	-	-	-	-	-	-	-	-	-	-
Rainbow Trout	Pass	-	-	-	-	-	-	-	-	-	-	-	-
Acute Lethality Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-
Daphnia magna	Pass	-	-	-	-	-	-	-	-	-	-	-	-
Monitoring Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-

**Comments:** East Pit No. 1 Dewatering discharge has been routed to East Pit No. 2 Dewatering discharge for treatment.

**Notes:** ND: No Deposit      NMR: No Measurement Required  
**Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.**  
A "Pass" for *Daphnia magna* monitoring test is not a requirement.

Pass: ≤50% Mortality

Fail: >50% Mortality

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	Wabush (Scully Mine)												
Operator Name	Wabush Mines												
Product(s)	Iron												
Address	Scully Mine, P.O. Box 3000, Wabush, Newfoundland and Labrador A0R 1B0												
Effluent Discharge Point	East Pit No. 2 Dewatering												
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5	0.001	0.001	0.001	0.001	0.003	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Cu (mg/L)	0.3	0.001	0.004	0.005	0.005	0.019	0.005	0.005	0.005	0.005	0.005	0.005	0.005
CN (mg/L)	1.0	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR
Pb (mg/L)	0.2	0.008	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010
Ni (mg/L)	0.5	0.001	0.004	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005
Zn (mg/L)	0.5	0.007	0.007	0.008	0.015	0.005	0.006	0.010	0.008	0.018	0.014	0.030	0.014
TSS (mg/L)	15	2.667	3.750	3.000	4.200	6.500	4.000	3.250	2.750	6.400	6.500	4.250	3.000
Ra-226 (Bq/L)	0.37	0.010	NMR	0.010	NMR	0.010	0.010	NMR	0.010	0.010	0.010	NMR	NMR
pH low	≥6.0	6.4	6.3	6.7	6.4	6.5	6.4	6.6	6.9	6.8	6.7	6.5	6.7
pH high	≤9.5	6.8	6.6	7.1	7.0	6.9	7.2	6.8	7.1	7.5	7.1	6.8	7.0
Flow (m <sup>3</sup> /month)	—	697 779	557 220	1 051 388	980 556	1 189 028	1 165 980	1 103 336	865 008	789 792	795 808	871 734	1 025 604
Rainbow Trout	Pass	1	2	2	1	1	2	2	1	1	1	1	NMR
Acute Lethality Test	Fail	—	—	—	—	—	—	—	—	—	—	—	—
Daphnia magna	Pass	1	2	2	1	1	2	2	1	—	1	1	NMR
Monitoring Test	Fail	—	—	—	—	—	—	—	—	—	—	—	—

**Comments:** The mine is on reduced frequency testing for acute lethality.

**Notes:** ND: No Deposit      NMR: No Measurement Required

Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.  
A "Pass" for *Daphnia magna* monitoring test is not a requirement.

Pass: ≤50% Mortality

Fail: >50% Mortality

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	Wabush (Scully Mine)																						
Operator Name	Wabush Mines																						
Product(s)	Iron																						
Address	Scully Mine, P.O. Box 3000, Wabush, Newfoundland and Labrador A0R 1B0																						
Effluent Discharge Point	Knoll Lake Inflow																						
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.										
As (mg/L)	0.5	0.001	0.001	0.001	0.001	0.003	0.003	0.001	0.001	0.001	0.001	0.001	0.001										
Cu (mg/L)	0.3	0.001	0.004	0.005	0.005	0.022	0.005	0.028	0.005	0.005	0.005	0.005	0.007										
CN (mg/L)	1.0	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR										
Pb (mg/L)	0.2	0.001	0.008	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010										
Ni (mg/L)	0.5	0.001	0.004	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005										
Zn (mg/L)	0.5	0.009	0.011	0.020	0.017	0.006	0.007	0.008	0.010	0.036	0.011	0.032	0.015										
TSS (mg/L)	15	2499.250	545.000	226.750	158.000	545.250	232.400	88.250	83.500	150.200	31.500	237.800	1678.250										
Ra-226 (Bq/L)	0.37	0.010	NMR	NMR	0.010	NMR	0.010	NMR	0.010	NMR	0.010	NMR	NMR										
pH low	≥6.0	6.7	6.8	6.9	6.4	6.5	6.5	6.4	6.8	6.6	6.8	6.9	6.9										
pH high	≤9.5	7.2	7.0	7.1	7.2	7.1	7.0	6.9	7.1	7.7	7.2	7.1	7.2										
Flow (m³/month)	-	474 494	480 160	748 588	805 716	886 244	-	603 648	517 984	501 402	592 425	598 284	612 204										
Rainbow Trout	Pass	2	2	2	1	1	2	2	1	1	1	1	-										
Acute Lethality Test	Fail	-	-	-	-	-	-	-	-	-	-	-	1										
Daphnia magna	Pass	2	2	2	1	1	2	2	1	1	1	1	-										
Monitoring Test	Fail	-	-	-	-	-	-	-	-	-	-	-	1										
Comments:	Flow measurement was not provided for June.																						
Notes:	ND: No Deposit	NMR: No Measurement Required																					
	Highlighted data indicate that a monthly effluent quality standard was exceeded for that month. A "Pass" for <i>Daphnia magna</i> monitoring test is not a requirement.																						
	Pass: ≤50% Mortality																						
	Fail: >50% Mortality																						

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	Wabush (Scully Mine)												
Operator Name	Wabush Mines												
Product(s)	Iron												
Address	Scully Mine, P.O. Box 3000, Wabush, Newfoundland and Labrador A0R 1B0												
Effluent Discharge Point	Loadout Ditch Discharge												
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5	ND	ND	ND	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	ND
Cu (mg/L)	0.3	ND	ND	ND	0.005	0.021	0.005	0.005	0.005	0.008	0.013	ND	ND
CN (mg/L)	1.0	ND	ND	ND	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	ND
Pb (mg/L)	0.2	ND	ND	ND	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	ND
Ni (mg/L)	0.5	ND	ND	ND	0.012	0.007	0.005	0.005	0.005	0.006	0.005	0.005	ND
Zn (mg/L)	0.5	ND	ND	ND	0.024	0.024	0.015	0.015	0.049	0.014	0.064	ND	ND
TSS (mg/L)	15	ND	ND	ND	ND	106,000	189,800	21,750	21,750	5,400	7,000	9,000	ND
Ra-226 (Bq/L)	0.37	ND	ND	ND	NMR	0.010	0.010	NMR	0.010	0.010	NMR	NMR	ND
pH low	≥6.0	ND	ND	ND	5.1	6.4	6.6	7.0	6.5	6.9	7.1	7.1	ND
pH high	≤9.5	ND	ND	ND	7.2	7.1	7.1	7.3	7.7	7.4	7.1	7.1	ND
Flow (m <sup>3</sup> /month)	-	ND	ND	ND	20,940	-	15,655	18,530	6,552	-	-	-	ND
Rainbow Trout	Pass	ND	ND	ND	ND	1	1	2	1	1	1	1	ND
Acute Lethality Test	Fail	-	-	-	-	■	■	-	-	-	-	-	-
Daphnia magna	Pass	ND	ND	ND	1	2	2	1	1	1	1	-	ND
Monitoring Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-

**Comments:** Flow measurements were not provided for June, October, and November. Acute lethality test results were not provided for November.

**Notes:** ND: No Deposit      NMR: No Measurement Required  
**Highly highlighted data indicate that a monthly effluent quality standard was exceeded for that month.**  
A "Pass" for *Daphnia magna* monitoring test is not a requirement.

Pass: ≤50% Mortality

Fail: >50% Mortality

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	Wabush (Scully Mine)																						
Operator Name	Wabush Mines																						
Product(s)	Iron																						
Address	Scully Mine, P.O. Box 3000, Wabush, Newfoundland and Labrador A0R 1B0																						
Effluent Discharge Point	Shops East Discharge																						
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.										
As (mg/L)	0.5	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	ND										
Cu (mg/L)	0.3	0.010	0.004	0.007	0.021	0.009	0.029	0.005	0.005	0.005	0.006	0.007	ND										
CN (mg/L)	1.0	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	ND										
Pb (mg/L)	0.2	0.001	0.008	0.010	0.018	0.010	0.010	0.010	0.010	0.016	0.010	0.010	ND										
Ni (mg/L)	0.5	0.001	0.004	0.005	0.017	0.005	0.007	0.005	0.005	0.005	0.005	0.005	ND										
Zn (mg/L)	0.5	0.031	0.038	0.064	0.095	0.048	0.094	0.049	0.039	0.039	0.066	0.056	0.031										
TSS (mg/L)	15	26.250	28.750	14.750	55.5200	238.0000	384.6000	74.000	12.250	19.800	4.250	267.000	ND										
Ra-226 (Bq/L)	0.37	0.010	NMR	0.010	NMR	0.010	NMR	0.010	NMR	0.010	0.010	NMR	ND										
pH low	≥6.0	6.7	6.6	6.8	6.9	7.0	6.4	6.9	7.2	7.0	6.9	6.9	ND										
pH high	≤9.5	7.3	7.0	7.2	7.3	7.3	7.8	7.2	7.3	7.7	7.3	7.0	ND										
Flow (m³/month)	-	4 030	3 770	4 030	2 747	2 423	2 171	3 449	3 449	3 930	2 263	2 040	ND										
Rainbow Trout	Pass	2	2	2	1	1	2	2	1	1	1	1	ND										
Acute Lethality Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-										
Daphnia magna	Pass	2	2	2	1	1	2	2	1	1	1	1	ND										
Monitoring Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-										
Comments:																							
Notes:	ND: No Deposit	NMR: No Measurement Required																					
	Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.																						
	A "Pass" for <i>Daphnia magna</i> monitoring test is not a requirement.																						
	Pass: ≤50% Mortality																						
	Fail: >50% Mortality																						

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	Wabush (Scully Mine)												
Operator Name	Wabush Mines												
Product(s)	Iron												
Address	Scully Mine, P.O. Box 3000, Wabush, Newfoundland and Labrador A0R 1B0												
Effluent Discharge Point	Shops South Discharge												
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5	-	-	-	-	-	-	-	-	-	-	-	-
Cu (mg/L)	0.3	-	-	-	-	-	-	-	-	-	-	-	-
CN (mg/L)	1.0	-	-	-	-	-	-	-	-	-	-	-	-
Pb (mg/L)	0.2	-	-	-	-	-	-	-	-	-	-	-	-
Ni (mg/L)	0.5	-	-	-	-	-	-	-	-	-	-	-	-
Zn (mg/L)	0.5	-	-	-	-	-	-	-	-	-	-	-	-
TSS (mg/L)	15	-	-	-	-	-	-	-	-	-	-	-	-
Ra-226 (Bq/L)	0.37	-	-	-	-	-	-	-	-	-	-	-	-
pH low	>6.0	-	-	-	-	-	-	-	-	-	-	-	-
pH high	≤9.5	-	-	-	-	-	-	-	-	-	-	-	-
Flow (m <sup>3</sup> /month)	-	-	-	-	-	-	-	-	-	-	-	-	-
Rainbow Trout	Pass	-	-	-	-	-	-	-	-	-	-	-	-
Acute Lethality Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-
Daphnia magna	Pass	-	-	-	-	-	-	-	-	-	-	-	-
Monitoring Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-
Comments:	Shops South Discharge has been routed to Loadout Ditch Discharge for treatment.												
Notes:	ND: No Deposit	NMR: No Measurement Required											Pass: ≤50% Mortality
		Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.											Fail: >50% Mortality
		A "Pass" for <i>Daphnia magna</i> monitoring test is not a requirement.											

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	Wabush (Scully Mine)												
Operator Name	Wabush Mines												
Product(s)	Iron												
Address	Scully Mine, P.O. Box 3000, Wabush, Newfoundland and Labrador A0R 1B0												
Effluent Discharge Point	Tailings Discharge												
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5	0.001	0.001	0.001	0.001	0.001	ND	ND	ND	ND	0.001	0.001	0.001
Cu (mg/L)	0.3	0.054	0.003	0.005	0.026	0.005	0.043	ND	ND	ND	0.005	0.084	0.010
CN (mg/L)	1.0	NMR	NMR	NMR	NMR	NMR	ND	ND	ND	NMR	NMR	NMR	NMR
Pb (mg/L)	0.2	0.015	0.008	0.010	0.048	0.010	0.025	ND	ND	ND	0.010	0.048	0.020
Ni (mg/L)	0.5	0.057	0.004	0.005	0.032	0.005	0.028	ND	ND	ND	0.005	0.071	0.010
Zn (mg/L)	0.5	0.281	0.004	0.005	0.168	0.013	0.110	ND	ND	ND	0.019	0.365	0.073
TSS (mg/L)	608 000	565 380.000	590 200.000	605 700.000	[645 480.000]	807 600.000	357 500.000	ND	ND	ND	588 467.000	542 629.000	577 125.000
Ra-226 (Bq/L)	0.37	0.010	NMR	NMR	0.010	NMR	0.010	ND	ND	ND	0.010	NMR	NMR
pH low	≥6.0	6.7	6.5	6.6	6.2	6.3	6.6	ND	ND	ND	6.4	6.6	6.3
pH high	≤9.5	7.1	6.6	6.8	7.0	6.7	7.1	ND	ND	ND	7.1	6.9	7.2
Flow (m <sup>3</sup> /month)	-	1 216 614	1 333 079	1 412 461	1 386 978	1 388 327	996 494	ND	ND	ND	881 386	1 338 978	1 267 381
Rainbow Trout	Pass	2	1	2	1	1	2	ND	ND	ND	-	-	1
Acute Lethality Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-
Daphnia magna	Pass	2	2	2	1	1	2	ND	ND	ND	-	1	1
Monitoring Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-

**Comments:** TA was granted for TSS limit of 608 000 mg/L. Extended TA was granted for TSS limit of 807 600 mg/L. TA will expire on December 6, 2008.

No acute lethality test results were provided for October and November.

**Notes:** ND: No Deposit      NMR: No Measurement Required

Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.  
A "Pass" for *Daphnia magna* monitoring test is not a requirement.

Pass: ≤50% Mortality

Fail: >50% Mortality

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	Wabush (Scully Mine)												
Operator Name	Wabush Mines												
Product(s)	Iron												
Address	Scully Mine, P.O. Box 3000, Wabush, Newfoundland and Labrador A0R 1B0												
Effluent Discharge Point	Tailings Line Emergency Dump Basin 1												
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5	ND	ND	ND	0.001	ND	ND	ND	ND	ND	ND	ND	0.001
Cu (mg/L)	0.3	ND	ND	ND	0.006	ND	ND	ND	ND	ND	ND	ND	0.005
CN (mg/L)	1.0	ND	ND	ND	NMR	ND	ND	ND	ND	ND	ND	ND	NMR
Pb (mg/L)	0.2	ND	ND	ND	0.010	ND	ND	ND	ND	ND	ND	ND	0.010
Ni (mg/L)	0.5	ND	ND	ND	0.008	ND	ND	ND	ND	ND	ND	ND	0.005
Zn (mg/L)	0.5	ND	ND	ND	0.011	ND	ND	ND	ND	ND	ND	ND	0.013
TSS (mg/L)	15	ND	ND	ND	ND	2035.000	ND	ND	ND	ND	ND	ND	1 620.000
Ra-226 (Bq/L)	0.37	ND	ND	ND	NMR	ND	ND	ND	ND	ND	ND	ND	0.010
pH low	≥6.0	ND	ND	ND	6.7	ND	ND	ND	ND	ND	ND	ND	7.0
pH high	≤9.5	ND	ND	ND	7.3	ND	ND	ND	ND	ND	ND	ND	7.0
Flow (m <sup>3</sup> /month)	—	ND	ND	ND	—	ND	ND	ND	ND	ND	ND	ND	3
Rainbow Trout	Pass	ND	ND	ND	ND	—	ND	ND	ND	ND	ND	ND	—
Acute Lethality Test	Fail	—	—	—	—	—	—	—	—	—	—	—	—
Daphnia magna	Pass	ND	ND	ND	—	ND	ND	ND	ND	ND	ND	ND	—
Monitoring Test	Fail	—	—	—	—	—	—	—	—	—	—	—	—

**Comments:** No acute lethality test results were provided for May and December. No flow measurement was provided for May.

**Notes:** ND: No Deposit      NMR: No Measurement Required

**Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.**  
A "Pass" for *Daphnia magna* monitoring test is not a requirement.

Pass: ≤50% Mortality      Fail: >50% Mortality

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	Wabush (Scully Mine)												
Operator Name	Wabush Mines												
Product(s)	Iron												
Address	Scully Mine, P.O. Box 3000, Wabush, Newfoundland and Labrador A0R 1B0												
Effluent Discharge Point	West Pit Extension Settling Basin												
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5	0.001	0.001	0.001	0.001	0.003	0.003	0.001	0.001	0.001	0.001	0.001	0.001
Cu (mg/L)	0.3	0.001	0.004	0.005	0.005	0.018	0.005	0.005	0.005	0.005	0.016	0.005	0.005
CN (mg/L)	1.0	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR	NMR
Pb (mg/L)	0.2	0.001	0.008	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010
Ni (mg/L)	0.5	0.001	0.004	0.005	0.005	0.005	0.005	0.005	0.005	0.006	0.005	0.005	0.005
Zn (mg/L)	0.5	0.036	0.010	0.007	0.010	0.008	0.011	0.012	0.005	0.030	0.006	0.032	0.014
TSS (mg/L)	15	2.750	4.250	16.500	10.600	20.000	9.600	2.750	2.000	2.000	7.500	6.600	7.750
Ra-226 (Bq/L)	0.37	0.010	NMR	NMR	0.010	NMR	0.010	NMR	0.010	NMR	0.010	NMR	NMR
pH low	≥6.0	6.3	6.4	6.5	6.3	6.6	6.7	6.4	6.7	6.6	6.6	6.5	6.9
pH high	≤9.5	6.9	6.7	6.7	6.9	7.0	7.2	6.9	6.8	7.5	7.1	6.9	7.0
Flow (m <sup>3</sup> /month)	-	1 066 818	963 953	947 267	503 406	387 601	347 322	325 461	363 824	421 830	473 494	373 350	449 934
Rainbow Trout	Pass	2	2	2	1	1	2	2	1	1	1	2	1
Acute Lethality Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-
Daphnia magna	Pass	2	2	2	1	1	2	2	1	-	-	-	1
Monitoring Test	Fail	-	-	-	-	-	-	-	-	-	1	1	-

**Comments:** No *Daphnia magna* monitoring test results were provided for September.

**Notes:** ND: No Deposit      NMR: No Measurement Required

Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.  
A "Pass" for *Daphnia magna* monitoring test is not a requirement.

Pass: ≤50% Mortality

Fail: >50% Mortality

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name		Williams Mine																							
Operator Name		Williams Operating Corporation																							
Product(s)		Gold																							
Address		P.O. Box 500, Marathon, Ontario P0T 2E0																							
Effluent Discharge Point		Polishing Pond Discharge CP 400																							
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.												
As (mg/L)	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND												
Cu (mg/L)	0.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND												
CN (mg/L)	1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND												
Pb (mg/L)	0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND												
Ni (mg/L)	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND												
Zn (mg/L)	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND												
TSS (mg/L)	15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND												
Ra-226 (Bq/L)	0.37	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND												
pH low	≥6.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND												
pH high	≤9.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND												
Flow (m <sup>3</sup> /month)	—	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND												
Rainbow Trout	Pass	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND												
Acute Lethality Test	Fail	—	—	—	—	—	—	—	—	—	—	—	—												
Daphnia magna	Pass	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND												
Monitoring Test	Fail	—	—	—	—	—	—	—	—	—	—	—	—												
Comments:	No discharge in 2004.																								
Notes:	ND: No Deposit	NMR: No Measurement Required																							
	Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.																								
	A "Pass" for <i>Daphnia magna</i> monitoring test is not a requirement.																								
	Pass: ≤50% Mortality																								
	Fail: >50% Mortality																								

# Metal Mining Effluent Regulations (MMER)

## 2004 Effluent Compliance

Mine/Mill Name	Williams Mine												
Operator Name	Williams Operating Corporation												
Product(s)	Gold												
Address	P.O. Box 500, Marathon, Ontario P0T 2E0												
Effluent Discharge Point	Treated Effluent CP 0201												
Parameters	Limits	Jan.	Feb.	March	April	May	June	July	August	Sep.	Oct.	Nov.	Dec.
As (mg/L)	0.5	ND	ND	ND	ND	ND	0.000	0.000	0.000	0.000	0.004	0.004	ND
Cu (mg/L)	0.3	ND	ND	ND	ND	ND	0.028	0.018	0.015	0.036	0.016	0.020	ND
CN (mg/L)	1.0	ND	ND	ND	ND	ND	0.027	0.018	0.021	0.013	0.022	0.036	ND
Pb (mg/L)	0.2	ND	ND	ND	ND	ND	0.000	0.000	0.000	0.000	0.015	0.015	ND
Ni (mg/L)	0.5	ND	ND	ND	ND	ND	0.091	0.124	0.109	0.123	0.130	0.124	ND
Zn (mg/L)	0.5	ND	ND	ND	ND	ND	0.017	0.021	0.015	0.014	0.016	0.019	ND
TSS (mg/L)	15	ND	ND	ND	ND	ND	0.000	0.000	0.000	0.000	2.200	2.200	ND
Ra-226 (Bq/L)	0.37	ND	ND	ND	ND	ND	0.010	-	0.006	0.003	0.005	NMR	ND
pH low	≥6.0	ND	ND	ND	ND	ND	7.5	7.4	7.5	7.6	7.5	7.5	ND
pH high	≤9.5	ND	ND	ND	ND	ND	7.8	7.8	7.6	7.7	7.7	7.5	ND
Flow (m <sup>3</sup> /month)	-	ND	ND	ND	ND	ND	355 882	435 500	424 824	425 380	436 625	56 653	ND
Rainbow Trout	Pass	ND	ND	ND	ND	ND	1	1	1	1	1	1	ND
Acute Lethality Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-
Daphnia magna	Pass	ND	ND	ND	ND	ND	1	1	1	1	1	1	ND
Monitoring Test	Fail	-	-	-	-	-	-	-	-	-	-	-	-

**Comments:** The annual report was updated from the quarterly reports.

**Notes:** ND: No Deposit      NMR: No Measurement Required

Highlighted data indicate that a monthly effluent quality standard was exceeded for that month.  
A "Pass" for *Daphnia magna* monitoring test is not a requirement.

Pass: ≤50% Mortality

Fail: >50% Mortality