



**Department of Environment and
Conservation**

**Industrial Effluent Compliance
2010 Annual Report**

Pollution Prevention Division

June 2011

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1) Executive Summary

The Newfoundland and Labrador Department of Environment and Conservation (NL ENVC) regulates industrial effluent under the *Environmental Control Water and Sewage Regulations CNR 65/03* (ECWSR). In April 2009, an amendment was made to the ECWSR that affected the mining, petroleum, and pulp and paper industrial sectors operating in the province. The amendment adopted specific limits from the corresponding federal regulations for each of these respective industrial sectors. Industries operating under a certificate of approval (CofA) from the Pollution Prevention Division have effluent streams identified and subsequent monitoring schedules developed to characterize the effluent. These schedules are designed to ensure that the effluent discharged from the industry meets regulatory requirements and is protective of the receiving environment.

Copies of the ECWSR, Metal Mining Effluent Regulations, the Pulp and Paper Effluent Regulations and the Petroleum Refinery Liquid Effluent Regulations can be obtained at:

www.assembly.nl.ca/Legislation/sr/Regulations/rc030065.htm

<http://www.canlii.org/en/ca/laws/regu/sor-2002-222/latest/sor-2002-222.html>

<http://www.canlii.org/en/ca/laws/regu/sor-92-269/latest/sor-92-269.html>

<http://www.canlii.org/en/ca/laws/regu/crc-c-828/latest/crc-c-828.html>

In 2010 there were more than 20 industries reporting effluent quality to the NL ENVC on a consistent basis. This report is designed to provide a brief summary of the effluent quality discharged at the major industries within the province of Newfoundland and Labrador. It is important to note that the summaries provided are for the discharge locations at each industry and for the parameters for which compliance can be ascertained only. Most industries conduct additional monitoring for general water quality characterization at discharge points as well as other locations in proximity to operations. Some industries operating in the province also participate in Environmental Effects Monitoring (EEM) programs. This report summarizes EEM activities completed in 2010.

It is important to note that this is the first full year that the 2009 amendments have been in effect. Therefore, this report reflects these amendments for the industries to which they apply.

Disclaimer:

- The data presented is based upon reports submitted to the NL ENVC by industry, as of April 30, 2010.
- The actual laboratory documentation is available upon request to verify analysis as required.
- Some of the tables in this report indicated zero values. These are actually non-detected values and the detection limits can be made available upon request. For ease of manipulation, zeros were utilized.
- Average pH values have been corrected to reflect the logarithmic nature of the parameter.
- Bioassays are total number of daphnia magna and rainbow trout tests completed. Some industries monitor only rainbow trout and others monitor both.

2) Metal Mines

a) Anaconda Mining Inc.

Current CofA Approval #: AA08-033500
Issue date: March 31, 2008
Expiration: March 31, 2013

Anaconda Mining Inc. has one discharge point located at the Polishing Pond outflow. The effluent monitoring program has several parameters that are measured for compliance; nine of these parameters have environmental limits. A monthly Acute Lethality Test (ALT) is also required as part of the CofA. In 2010, between 1 and 2 samples per month were taken for a yearly total of 15 samples. January was the only month in which no sampling was conducted. There were no exceedences for the year and all ALTs passed. See Table 1: Anaconda Mining Inc. 2010: Effluent Discharge Criteria Summary.

Environmental Effects Monitoring

The phase 1 study design was received and reviewed in 2010.

b) Crew Gold (Canada) Ltd.

Current CofA Approval #: AA08-045502
Issue date: April 1, 2008
Expiration: March 31, 2013

Crew Gold (Canada) Ltd. has one discharge point located at the Polishing Pond. The effluent monitoring program has several parameters that are measured for compliance; eight of these parameters have environmental limits. A monthly ALT is required as part of the CofA. In 2010, between 1 and 2 samples per month were taken for a yearly total of 12 samples. No sampling was conducted in January, February, March or December. All of the ALTs passed. There was one exceedence of TSS in June. It should be noted that ownership of the Crew Gold Nugget Pond mill was transferred to Rambler Metals and Mining Ltd. in 2010. See Table 2: Crew Gold (Canada) Ltd. 2010: Effluent Discharge Criteria Summary.

Environmental Effects Monitoring

No study designs or reports were received in 2010.

Table 1: Anaconda Mining Inc. 2010: Effluent Discharge Criteria Summary (All values in mg/L, unless otherwise specified)

Polishing Pond Discharge	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Year
													To Date
- Samples		1	1	2	2	2	1	1	2	1	1	1	15
- pH, Maximum (pH units)		7.63	7.64	7.79	7.96	7.94	7.99	8	8	7.92	8.01	7.65	8.01
- pH, Minimum (pH units)				7.55	7.78	7.90			7.99				7.55
- pH, Exceedence (<5.5, >9.0)		0	0	0	0	0	0	0	0	0	0	0	0
- As, Maximum		<0.002	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002
- As, Exceedence (>1)		0	0	0	0	0	0	0	0	0	0	0	0
- Cu, Maximum		0.007	0.008	0.0012	0.0092	0.0087	0.0064	0.0055	0.01	0.0206	0.0201	0.0203	0.0206
- Cu, Exceedence (>0.6)		0	0	0	0	0	0	0	0	0	0	0	0
- CN, Maximum			0.035	0.061									0.061
- CN, Exceedence (>2.0)			0	0									0
- Pb, Maximum		<0.0005	<0.0005	<0.0005	0.00051	0.00189	<0.0005	<0.0005	0.00082	<0.0005	0.00264	<0.0005	0.00264
- Pb, Exceedence (>0.4)		0	0	0	0	0	0	0	0	0	0	0	0
- Ni, Maximum		<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, Exceedence (>1)		0	0	0	0	0	0	0	0	0	0	0	0
- Zn, Maximum		0.007	0.009	0.0107	0.0096	0.0128	<0.005	<0.005	<0.005	<0.005	0.0077	0.008	0.0128
- Zn, Exceedence (>1)		0	0	0	0	0	0	0	0	0	0	0	0
- TSS, Maximum		2	1	4	10	11	2	<1	3	2	<2	<1	11
- TSS, Exceedence (>30)		0	0	0	0	0	0	0	0	0	0	0	0
- Ra-226, Maximum		<0.005	<0.005	<0.005	<0.005	<0.005	0.008	<0.005	<0.005	0.006	<0.005	<0.005	0.008
- Ra-226, Exceedence (>1.11 Bq/l)		0	0	0	0	0	0	0	0	0	0	0	0
- Ammonia, Maximum		2.6	3.4	3.4	3.3	2.1	1	0.46	0.37	0.44	2.3	3.7	3.7
- Cd, Maximum		<0.00003	<0.00003	<0.000017	0.000022	0.000023	<0.000017	<0.000017	0.000025	0.000023	0.000052	0.000047	0.000052
- Fe, Maximum		0.17	0.053	0.128	0.289	0.453	0.082	<0.05	0.093	<0.05	<0.05	<0.05	0.453
- Hg, Maximum		<0.000013	<0.00002	0.000015	0.000028	0.000021	<0.000013	<0.000013	0.000016	<0.000013	<0.000013	<0.000013	0.000028
- Nitrate, Maximum		2	2.9	1.9	2	3	3.5	2.4	2.6	2.3	2.2	1.9	3.5
- TDS, Maximum		314	397	327	385	349	367	310	355	290	389	470	470
- TPH, Maximum								<0.1	<0.1				<0.1
- ALT, Pass (RT)		1	1	1	1	1	1	1	1	1			9
- ALT, Fail (RT)													0
- ALT, Pass (DM)		1	1	1	1	1	1	1	1	1			9
- ALT, Fail (DM)													0

Table 2: Crew Gold (Canada) Ltd. 2010 Effluent Discharge Criteria Summary (All values in mg/L, unless otherwise specified)

Polishing Pond Composite	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Year
													To Date
- Samples				2	1	1	1	2	1	2	2		12
- pH, Maximum (pH units)				7.49	7.55	7.8	7.67	8.09	7.56	7.71	7.69		8.09
- pH, Minimum (pH units)				7.27				7.86		7.64	7.69		7.27
- pH, Exceedence (<5.5, >9.0)				0	0	0	0	0	0	0	0		0
- As, Maximum				0.002	0.007	0.013	0.013	0.013	0.005	0.009	0.006		0.013
- As, Exceedence (>1)				0	0	0	0	0	0	0	0		0
- Cu, Maximum				0.07	0.011	0.011	0.007	0.01	0.008	0.01	0.01		0.07
- Cu, Exceedence (>0.6)				0	0	0	0	0	0	0	0		0
- CN, Maximum				0.004	0.048	0.04	0.03	0.03	<0.005	<0.005	0.04		0.048
- CN, Exceedence (>2)				0	0	0	0	0	0	0	0		0
- Pb, Maximum				<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002		<0.002
- Pb, Exceedence (>0.4)				0	0	0	0	0	0	0	0		0
- Ni, Maximum				0.001	0.002	0.002	0.001	0.002	0.001	0.002	0.002		0.002
- Ni, Exceedence (>1)				0	0	0	0	0	0	0	0		0
- Zn, Maximum				0.009	0.003	0.003	0.001	0.011	<0.001	0.003	0.001		0.011
- Zn, Exceedence (>1)				0	0	0	0	0	0	0	0		0
- TSS, Maximum				<2	<2	48	<2	<2	2	3	5		48
- TSS, Exceedence (>30)				0	0	1	0	0	0	0	0		1
- Ammonia, Maximum				0.16	0.77	0.81	0.64	0.82	0.37	0.42	0.33		0.82
- Hg, Maximum				<0.00002	0.00002	<0.00002	<0.0001	0.00003	<0.00002	<0.00002	<0.00002		0.00003
- Nitrate, Maximum				0.4	4.8	4.1	3.8	4.8	4.1	4.3	5.1		5.1
- ALT, Pass (RT)				2	1	1	1	2	1	1	1		10
- ALT, Fail (RT)													0
- ALT, Pass (DM)				2	1	1	1	2	1	1	1		10
- ALT, Fail (DM)													0

c) Iron Ore Company of Canada (IOCC)

Current CofA Approval #: AA08-015498
 Issue date: January 14, 2008
 Expiration: January 14, 2013

The Iron Ore Company of Canada has five discharge points: FDP-MD5, FDP-TIA (Julienne Narrows), FDP-Hakim Culvert, PD-19 and PD-28. The effluent monitoring program for the FDP locations has several parameters that are measured for compliance; eight of these have environmental limits. PD-19 monitors only for TPH and PD-28 monitors for five parameters, two of which have environmental limits.

FDP-MD5: There was no discharge at this location between January and April. During the remainder of the year, a total of 33 samples were collected, there were no exceedences. A total of eight ALTs were conducted at this location, all passed.

FDP-TIA: A total of 53 samples were collected at this location with no exceedences, and 11 ALTs were conducted, all passed.

FDP-Hakim Culvert: A total of 53 samples were collected at this location, there were 4 exceedences of TSS. A total of 13 ALTs were conducted, one failed in November. IOCC is currently evaluating options to improve the water quality in the Hakim Culvert area.

PD-19: There was no discharge at this location in July. During the remainder of the year, 12 TPH samples were collected and all were below the detection limits.

PD-28: There was no discharge at this location January – March, August and December. During the remainder of the year, 7 samples were collected and there were no exceedences. See Table 3: Iron Ore Company of Canada 2010 Effluent Discharge Criteria Summary.

Environmental Effects Monitoring

The cycle 3 study design was received and reviewed in 2010.

d) Labrador Iron Mines

Current CofA Approval #: AA10-075531
 Issue date: July 21, 2010
 Expiration: July 21, 2011
 Approval #: AA10-095537
 Issue date: September 8, 2010
 Expiration: September 8, 2015

Labrador Iron Mines began construction activities for its mining operation in September 2010. There will be 3 discharge locations at this site: Ruth Pit Outlet, JPS-Out-1 and JPS-Out-2. JPS-Out-1 and JPS-Out-2 have not yet been construction, however, background samples were taken at these areas in November and showed no exceedences of the environmental limits. Ruth Pit Outlet has been monitored since September of this year, a total of 15 samples were collected with no exceedences and 3 ALTs were collected, all passed. See Table 4: Labrador Iron Mines 2010: Effluent Discharge Criteria Summary.

Environmental Effects Monitoring

No study designs or reports were received in 2010.

Table 3: Iron Ore Company of Canada 2010 Effluent Discharge Criteria Summary (Values in mg/L, unless otherwise specified)

MD-5	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Year
													To Date
- Samples					5	4	4	6	4	4	5	1	33
- pH, Maximum (pH units)					7.83	7.96	7.98	8.04	8.05	8.09	7.90	7.85	8.09
- pH, Minimum (pH units)					7.24	7.85	7.72	7.84	7.78	7.93	7.32		7.24
- pH, Exceedence (<5.5, >9.0)					0	0	0	0	0	0	0	0	0
- As, Maximum					<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.001
- As, Exceedence (>1)					0	0	0	0	0	0	0	0	0
- Cu, Maximum					<0.0020	<0.0020	0.0035	<0.0020	<0.0020	0.0029	0.0023	0.0039	0.0039
- Cu, Exceedence (>0.6)					0	0	0	0	0	0	0	0	0
- Pb, Maximum					0.00064	<0.00050	<0.0050	0.00056	<0.00050	<0.00050	<0.00050	<0.00050	0.00064
- Pb, Exceedence (>0.4)					0	0	0	0	0	0	0	0	0
- Ni, Maximum					<0.0020	<0.0020	<0.0020	0.0021	<0.0020	<0.0020	<0.0020	<0.0020	0.0021
- Ni, Exceedence (>1)					0	0	0	0	0	0	0	0	0
- Zn, Maximum					0.015	0.009	0.0078	0.011	0.0077	<0.0050	0.0067	0.0057	0.015
- Zn, Exceedence (>1)					0	0	0	0	0	0	0	0	0
- TSS, Maximum					13	5	4	17	7	4	4	4	17
- TSS, Exceedence (>30)					0	0	0	0	0	0	0	0	0
- Ra-226, Maximum						0.005		<0.005	<0.005	<0.005	<0.005	<0.005	0.005
- Ra-226, Exceedence (>1.11 bq/l)						0		0	0	0	0	0	0
- Ammonia, Maximum					0.32	0.19		0.21		0.12			0.32
- Cd, Maximum					0.000031	<0.000017		<0.000017		0.000019			0.000031
- Fe, Maximum					2.1	0.33		0.77		0.84			2.1
- Hg, Maximum					<0.000013	<0.000013		<0.000013		<0.000013			0
- Nitrate, Maximum					0.11	0.05		<0.05		0.07			0.11
- TDS, Maximum					150	66		100		130			150
- TPH, Maximum					0.2	<0.1		<0.1		<0.1			0.2
- ALT, Pass (RT)					1	1	1	1	1	1	1	1	8
- ALT, Fail (RT)													0
- ALT, Pass (DM)					1	1	1	1	1	1	1	1	8
- ALT, Fail (DM)													0

Table 3 Continued: Iron Ore Company of Canada 2010 Effluent Discharge Criteria Summary (Values in mg/L, unless otherwise specified)

													Year
FDP-TIA (Julienne Narrows)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	to Date
- Samples	4	4	5	4	5	4	4	6	4	4	5	4	53
- pH, Maximum (pH units)	7.67	7.76	7.83	7.84	7.89	7.85	7.94	8.11	7.91	7.95	7.85	7.84	8.11
- pH, Minimum (pH units)	7.51	7.46	7.56	7.56	7.41	7.79	7.80	7.83	7.78	7.84	7.64	7.60	7.41
- pH, Exceedence (<5.5, >9.0)	0	0	0	0	0	0	0	0	0	0	0	0	0
- As, Maximum	<0.002	<0.002	<0.002	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.002
- As, Exceedence (>1)	0	0	0	0	0	0	0	0	0	0	0	0	0
- Cu, Maximum	<0.002	<0.002	<0.002	<0.0020	<0.0020	<0.0020	0.002	0.003	<0.0020	<0.0020	<0.0020	0.0031	0.0031
- Cu, Exceedence (>1)	0	0	0	0	0	0	0	0	0	0	0	0	0
- Pb, Maximum	<0.0005	<0.0005	<0.0005	<0.00050	<0.00050	<0.00050	<0.0050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.0005
- Pb, Exceedence (>0.4)	0	0	0	0	0	0	0	0	0	0	0	0	0
- Ni, Maximum	<0.002	<0.002	<0.002	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.002
- Ni, Exceedence (>1)	0	0	0	0	0	0	0	0	0	0	0	0	0
- Zn, Maximum	0.005	<0.005	0.011	0.012	0.0085	0.013	0.0082	0.015	0.0075	<0.0050	0.0054	0.0071	0.015
- Zn, Exceedence (>1)	0	0	0	0	0	0	0	0	0	0	0	0	0
- TSS, Maximum	3	<2	<2	4	2	27	3	3	14	4	1	<2	27
- TSS, Exceedence (>30)	0	0	0	0	0	0	0	0	0	0	0	0	0
- Ra-226, Maximum	0.006			<0.005		0.005		0.007	0.006	<0.005	<0.005	<0.005	0.007
- Ra-226, Exceedence (>1.11 Bq/l)	0			0		0		0	0	0	0	0	0
- Ammonia, Maximum					0.12	0.13		0.08		<0.05			0.13
- Cd, Maximum					<0.000017	0.000049		0.000036		0.000021			0.000049
- Fe, Maximum					0.11	0.099		0.099		0.13			0.13
- Hg, Maximum					<0.000013	<0.000013		<0.000013		<0.000013			0
- Nitrate, Maximum					0.88	1.1		0.86		0.89			1.1
- TDS, Maximum					48	40		44		71			71
- TPH, Maximum					<0.1	<0.1		<0.1		<0.1			0
- ALT, Pass (RT)	1		1	1	1	1	1	1	1	1	1	1	11
- ALT, Fail (RT)													0
- ALT, Pass (DM)	1		1	1	1	1	1	1	1	1	1	1	11
- ALT, Fail (DM)													0

Table 3 Continued: Iron Ore Company of Canada 2010 Effluent Discharge Criteria Summary (Values in mg/L, unless otherwise specified)

FDP-Hakim Culvert	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Year to Date
- Samples	4	4	5	4	5	4	4	6	4	4	5	4	53
- pH, Maximum (pH units)	7.95	7.89	7.89	7.96	8.05	7.99	8.04	8.10	8.16	8.02	7.98	8.04	8.16
- pH, Minimum (pH units)	7.29	7.43	7.53	7.58	7.79	7.86	7.80	7.83	7.97	7.81	7.74	7.41	7.29
- pH, Exceedence (<5.5, >9.0)	0	0	0	0	0	0	0	0	0	0	0	0	0
- As, Maximum	<0.002	<0.002	<0.002	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.002
- As, Exceedence (>1)	0	0	0	0	0	0	0	0	0	0	0	0	0
- Cu, Maximum	<0.002	<0.002	<0.002	0.0022	0.0046	<0.0020	0.0029	<0.0020	<0.0020	<0.0020	0.003	0.0053	0.0053
- Cu, Exceedence (>0.6)	0	0	0	0	0	0	0	0	0	0	0	0	0
- Pb, Maximum	<0.0005	<0.0005	<0.0005	<0.00050	<0.00050	<0.00050	<0.0050	<0.00050	<0.00050	<0.00050	<0.00050	0.0005	0.0005
- Pb, Exceedence (>0.4)	0	0	0	0	0	0	0	0	0	0	0	0	0
- Ni, Maximum	<0.002	<0.002	<0.002	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.002
- Ni, Exceedence (>1)	0	0	0	0	0	0	0	0	0	0	0	0	0
- Zn, Maximum	<0.005	0.005	0.008	0.0092	0.012	0.0083	0.0062	0.0058	<0.0050	0.0058	0.0051	0.005	0.012
- Zn, Exceedence (>1)	0	0	0	0	0	0	0	0	0	0	0	0	0
- TSS, Maximum	<2	4	3	13	18	49	32	21	26	38	31	11	49
- TSS, Exceedence (>30)	0	0	0	0	0	1	1	0	0	1	1	0	4
- Ra-226, Maximum	0.01			0.01		0.005		<0.005	0.02	<0.005	<0.005	<0.005	0.02
- Ra-226, Exceedence (>1.11 Bq/l)	0			0		0		0	0	0	0	0	0
- Ammonia, Maximum					8.1	8.3		9.2		10	13	4.3	13
- Cd, Maximum					<0.000017	0.000029		<0.000017		<0.000017	0.000038		0.000038
- Fe, Maximum					0.14	1.5		1.6		3	2.3		3
- Hg, Maximum					<0.000013	<0.000013		<0.000013		<0.000013	<0.000013		0
- Nitrate, Maximum					20	21		19		24	27	16	27
- TDS, Maximum					240	74		190		300	361		361
- TPH, Maximum					<0.1	<0.1		<0.1		<0.1			0
- ALT, Pass (RT)	1		1	1	1	1	1	1	1	1	2	1	12
- ALT, Fail (RT)											1		1
- ALT, Pass (DM)	1		1	1	1	1	1	1	1	1	3	1	13

Table 3 Continued: Iron Ore Company of Canada 2010 Effluent Discharge Criteria Summary (Values in mg/L, unless otherwise specified)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Year to Date
PD 19 (Smallwood Pit)													
- Samples	1	1	1	1	1	1		2	1	1	1	1	12
- TPH, Maximum	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Year to Date
PD 28 (Humphrey West Pit)													
- Samples				1	1	1	1		1	1	1		7
- pH, Maximum (pH units)				7.93	8.11	8.27	8.16		8.29	8.27	7.53		8.29
- pH, Minimum (pH units)													
- pH, Exceedence (<5.5, >9.0)				0	0	0	0		0	0	0		0
- Fe, Maximum					0.62	0.13			0.069	0.065			0.62
- TDS, Maximum					280				290				290
- TPH, Maximum				<0.1	<0.1	<0.1	<0.1		<0.1	<0.1	<0.1		<0.1
- TSS, Maximum					6	1			1	1			6
- TSS, Exceedence (>30)					0	0			0	0			0

Table 4: Labrador Iron Mines 2010 Effluent Discharge Criteria Summary (Values in mg/L, unless otherwise specified)

Ruth Pit Outlet	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Year
													To Date
- Samples									3	4	6	2	15
- pH, Maximum (pH units)									8.04	8.02	7.98	8.05	8.05
- pH, Minimum (pH units)									7.97	7.63	7.74	7.75	7.63
- pH, Exceedence (<5.5, >9.0)									0	0	0	0	0
- As, Maximum									<0.001	<0.001	<0.001	<0.001	<0.02
- As, Exceedence (>1)									0	0	0	0	0
- Cu, Maximum									<0.001	<0.001	<0.001	<0.005	<0.005
- Cu, Exceedence (>0.6)									0	0	0	0	0
- Pb, Maximum									<0.001	<0.001	<0.001	<0.001	<0.001
- Pb, Exceedence (>0.4)									0	0	0	0	0
- Ni, Maximum									<0.002	<0.002	<0.002	<0.002	<0.002
- Ni, Exceedence (>1)									0	0	0	0	0
- Zn, Maximum									0.0317	0.0202	0.0065	<0.007	0.03170
- Zn, Exceedence (>1)									0	0	0	0	0
- TSS, Maximum									8.4	6.4	3.6	2	8.4
- TSS, Exceedence (>30)									0	0	0	0	0
- Ammonia, Maximum									0.054	<0.050	<0.050	0.02	0.054
- Cd, Maximum									<0.0001	<0.0001	<0.0001	<0.0003	<0.0003
- Fe, Maximum									<0.05	<0.05	<0.05	<0.06	<0.06
- Hg, Maximum									<0.00010	<0.00010		<0.00001	<0.0001
- Nitrate, Maximum									0.21	0.26	0.29	0.3	0.3
- TDS, Maximum									64	70	88	82	88
- ALT, Pass (RT)										1	1	1	3
- ALT, Fail (RT)													0

Table 4 Continued: Labrador Iron Mines 2010 Effluent Discharge Criteria Summary (Values in mg/L, unless otherwise specified)

JSP-Out-1	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Year To Date
- Samples											1		1
- pH, Maximum (pH units)											7.21		7.21
- pH, Minimum (pH units)													0
- pH, Exceedence (<5.5, >9.0)											0		0
- As, Maximum											<0.0010		<0.0010
- As, Exceedence (>1)											0		0
- Cu, Maximum											<0.0010		<0.0010
- Cu, Exceedence (>0.6)											0		0
- Pb, Maximum											<0.0010		<0.0010
- Pb, Exceedence (>0.4)											0		0
- Ni, Maximum											<0.0020		<0.0020
- Ni, Exceedence (>1)											0		0
- Zn, Maximum											0.0094		0.0094
- Zn, Exceedence (>1)											0		0
- TSS, Maximum											<3.0		<3.0
- TSS, Exceedence (>30)											0		0
- Ammonia, Maximum											<0.050		<0.050
- Cd, Maximum											<0.00010		<0.00010
- Fe, Maximum											<0.50		<0.50
- Nitrate, Maximum											0.22		0.22
- TDS, Maximum											46		46

Table 4 Continued: Labrador Iron Mines 2010 Effluent Discharge Criteria Summary (Values in mg/L, unless otherwise specified)

JSP-Out-2	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Year To Date
- Samples											1		1
- pH, Maximum (pH units)											7.95		7.95
- pH, Minimum (pH units)													0
- pH, Exceedence (<5.5, >9.0)											0		0
- As, Maximum											<0.0010		<0.0010
- As, Exceedence (>1)											0		0
- Cu, Maximum											<0.0010		<0.0010
- Cu, Exceedence (>0.6)											0		0
- Pb, Maximum											<0.0010		<0.0010
- Pb, Exceedence (>0.4)											0		0
- Ni, Maximum											<0.0020		<0.0020
- Ni, Exceedence (>1)											0		0
- Zn, Maximum											<0.0030		<0.0030
- Zn, Exceedence (>1)											0		0
- TSS, Maximum											<3.0		<3.0
- TSS, Exceedence (>30)											0		0
- Ammonia, Maximum											0.051		0.051
- Cd, Maximum											<0.00010		<0.00010
- Fe, Maximum											<0.050		<0.050
- Nitrate, Maximum											0.32		0.32
- TDS, Maximum											100		100

e) Rambler Metals and Mining Canada Ltd.

Current CofA Approval #: AA09-055517
 Issue date: May 14, 2009
 Expiration: May 14, 2014

Rambler has one discharge point that empties into South Brook Pond on the Baie Verte Peninsula. The effluent monitoring program consists of several parameters that are measured for compliance; eight of these have environmental limits. There was no discharge from this site in July. During the remainder of the year, 11 samples were collected and there were no exceedences. A total of 3 ALTs were conducted, they all passed. See Table 5: Rambler Metals and Mining Canada Ltd. 2010: Effluent Discharge Criteria Summary.

Environmental Effects Monitoring

There is currently no EEM program at this site.

f) Teck Resources Ltd.

Current CofA Approval #: AA10-115540
 Issue date: November 23, 2010
 Expiration: November 23, 2013
Previous CofA Approval #: AA05-115448B
 Issue Date: November 23, 2005
 Revised: March 6, 2007
 Expiration: November 23, 2010

Teck Resources Ltd. has one discharge point located at Dam C. The effluent monitoring program has several parameters that are measured for compliance; nine of these parameters have environmental limits. In 2010, between 1 and 5 samples per month were taken for a yearly total of 43 samples. A monthly rainbow trout ALT is required as part of the CofA, one Rainbow Trout ALT failed in March. There were no exceedences in 2010. See Table 6: Teck Resources Ltd. 2010: Effluent Discharge Criteria Summary.

Environmental Effects Monitoring

The phase 2 study design was received and reviewed in 2010.

Table 5: Rambler Metals and Mining Canada Ltd. 2010 Effluent Discharge Criteria Summary (Values in mg/L, unless otherwise specified)

Treated Mine Effluent	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Year To Date
- Samples	1	1	1	1	1	1		1	1	1	1	1	11
- pH, Maximum (pH units)			7.37					7.6				7.59	7.6
- pH, Minimum (pH units)													0
- pH, Exceedence (<5.5, >9.0)			0					0				0	0
- As, Maximum	<0.02	<0.02	<0.02	<0.005	<0.005	<0.01		<0.005			<0.01	<0.01	<0.02
- As, Exceedence (>1)	0	0	0	0	0	0		0			0	0	0
- Cu, Maximum	0.045	0.05	0.041	0.036	0.04	0.029		0.044	<0.02	<0.02	<0.02	0.074	0.074
- Cu, Exceedence (>0.6)	0	0	0	0	0	0		0	0	0	0	0	0
- CN, Maximum								<0.002					<0.002
- CN, Exceedence (>2)								0					0
- Pb, Maximum	<0.005	<0.005	<0.005	<0.0025	<0.0025	<0.005		<0.0025	<0.005	<0.005	<0.005	<0.005	<0.005
- Pb, Exceedence (>0.4)	0	0	0	0	0	0		0	0	0	0	0	0
- Ni, Maximum	<0.02	<0.02	<0.02		<0.01			<0.01	<0.02	<0.02	<0.02	<0.02	<0.02
- Ni, Exceedence (>1)	0	0	0		0			0	0	0	0	0	0
- Zn, Maximum	0.21	0.23	0.22	0.149	0.149	0.146		0.149	0.112	0.129	0.14	0.284	0.284
- Zn, Exceedence (>1)	0	0	0	0	0	0		0	0	0	0	0	0
- TSS, Maximum	17	8	2	7	5	<5		4	2	18	3	<2	18
- TSS, Exceedence (>30)	0	0	0	0	0	0		0	0	0	0	0	0
- Ammonia, Maximum			1.2					0.8				1.9	1.9
- Cd, Maximum			<0.003					0.00117				0.00162	0.00162
- Fe, Maximum			<0.5					<0.25				<0.5	<0.5
- Hg, Maximum			<0.000013					0.000014				<0.000013	0.000014
- Nitrate, Maximum			0.26					0.78				1.9	1.9
- TDS, Maximum			2530					2210				2130	2530
- TPH, Maximum			<0.1					<0.1				<0.1	<0.1
- ALT, Pass (RT)			1					1				1	3
- ALT, Fail (RT)													0

Table 6: Teck Resources Ltd. 2010 Effluent Discharge Criteria Summary (Values in mg/L, unless otherwise specified)

DPM - Dam C	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.	Year to Date
- Samples	3	4	1	2	4	3	5	4	5	5	3	4	43
- pH, Maximum (pH units)	7.67	7.57	6.40	7.63	7.43	7.31	7.64	7.66	7.57	7.64	7.49	7.44	7.67
- pH, Minimum (pH units)	7.57	7.15		7.54	7.24	7.26	7.25	7.43	7.45	7.19	7.36	7.32	7.15
- pH, Exceedence (<5.5, >9.0)	0	0	0	0	0	0	0	0	0	0	0	0	0
- As, Maximum	<0.008	<0.008	<0.008	<0.008	0.008	0.006	0.007	0.007	0.008	0.011	0.029	0.008	0.029
- As, Exceedence (>1)	0	0	0	0	0	0	0	0	0	0	0	0	0
- Cu, Maximum	0.066	0.486	0.083	0.176	0.136	0.309	0.241	0.288	0.323	0.227	0.264	0.266	0.486
- Cu, Exceedence (>0.6)	0	0	0	0	0	0	0	0	0	0	0	0	0
- CN, Maximum	<0.002	<0.002	0.041	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.041
- CN, Exceedence (>2)	0	0	0	0	0	0	0	0	0	0	0	0	0
- Pb, Maximum	0.039	0.061	<0.005	0.016	0.032	0.057	0.042	0.063	0.103	0.032	0.051	0.055	0.103
- Pb, Exceedence (>0.4)	0	0	0	0	0	0	0	0	0	0	0	0	0
- Ni, Maximum	0.01	<0.01	<0.01	<0.01	0.003	0.004	0.003	0.003	0.003	0.002	0.003	0.006	0.01
- Ni, Exceedence (>1)	0	0	0	0	0	0	0	0	0	0	0	0	0
- Zn, Maximum	0.32	0.68	0.01	0.11	0.212	0.226	0.237	0.290	0.363	0.181	0.219	0.207	0.68
- Zn, Exceedence (>1)	0	0	0	0	0	0	0	0	0	0	0	0	0
- TSS, Maximum	2	8	<2	3	2	2	3	2	10	3	2	6	10
- TSS, Exceedence (>30)	0	0	0	0	0	0	0	0	0	0	0	0	0
- Ra-226, Maximum		0.02			0.03		0.02					0.009	0.03
- Ra-226, Exceedence (>1.11 Bq/l)					0		0					0	0
- Ammonia, Maximum	6.27	7.57	0.6	3.76	5.47	4.6	4.52	4.38	4.38	3.83	4.1	5.1	7.57
- Cd, Maximum	0.002	0.002	<0.002	<0.002	0.0021	0.0021	0.0020	0.0019	0.0023	0.0015	0.0014	0.0016	0.0023
- Fe, Maximum	0.11	1.44	0.03	0.4	0.11	0.173	0.116	0.13	0.162	0.107	0.106	0.193	1.44
- Hg, Maximum	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
- Nitrate, Maximum	1.89	1.75	3.62	0.74	1.64	1.7	1.94	1.6	1.49	1.47	1.37	1.13	3.62
- TDS, Maximum	717	789	131	454	640	634	740	843	808	783	803	786	843
- ALT, Pass (RT)	1	1		2	1	1	1	1	1	1	1	1	12
- ALT, Fail (RT)			1										1
- ALT, Pass (DM)	1	1		2	1	1	1	1		1	1	1	11
- ALT, Fail (DM)			1						1				2

g) Vale Inco Newfoundland and Labrador Ltd. (Voisey's Bay Mine/Mill Project Site)

Current CofA Approval #: AA09-015510
Issue date: January 1, 2009
Expiration: December 31, 2013

The Vale Inco Mine Site has one discharge point at the Waste Water Treatment Plant. The effluent monitoring program consists of several parameters; eight of these have environmental limits. A total of 54 samples were collected during the year, with one exceedence of pH in May and one exceedence of nickel in May. There has been an ongoing issue with ALT failures at the mine site, therefore, a large number of ALTs have been conducted. A total of 47 ALTs were conducted during the year, 6 of the Rainbow Trout ALTs failed, while 43 of the Daphnia Magna ALTs failed. Vale Inco is currently involved in an extensive review of effluent quality from the operation. New treatment infrastructure (hydrogen peroxide dosing plant) has been purchased and installed. Optimization of this plant is still ongoing in an attempt to prevent the intermittent toxicity issues that have been experienced at this facility. See Table 7: Vale Inco (Mine Site) 2010: Effluent Discharge Criteria Summary.

Environmental Effects Monitoring

There were no study designs or reports received in 2010.

h) Wabush Mines

Current CofA Approval #: AA06-055481B
Issue date: May 31, 2006
Revised: January 19, 2010
Expiration: May 31, 2011

Wabush Mines has 5 discharge points: Flora Lake, East Pit Dewatering East, Deep Wells, Knoll Lake and West Pit Settling Pond. The effluent monitoring program consists of several parameters, eight of which have environmental limits. There are ALT requirements at all of these locations with the exception of Deep Wells.

Flora Lake: A total of 51 samples were taken at this location with no exceedences, and 10 ALTs were conducted, all passed.

East Pit Dewatering East: There was no discharge from this site between May and December. During the remainder of the year, a total of 12 samples were taken with no exceedences, and 2 ALTs were conducted, both passed.

Deep Wells: A total of 46 samples were taken at this location with no exceedences.

Knoll Lake: A total of 51 samples were taken at this location. There were 16 TSS exceedences, 5 ALTs were conducted and all passed.

West Pit Settling Pond: A total of 49 samples were taken at this location, there were 4 exceedences of TSS during the year. There were 4 ALTs conducted, all passed.

See Table 8: Wabush Mines 2010: Effluent Discharge Criteria Summary.

Environmental Effects Monitoring

There were no study designs or reports received in 2010.

Table 7: Vale Inco (Mine Site) 2010 Effluent Discharge Criteria Summary (Values in mg/L, unless otherwise specified)

Treated Effluent Discharge	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Year To Date
- Samples	5	4	5	5	5	4	4	5	3	4	5	5	54
- pH, Maximum (pH units)	6.61	6.89	7.11	7.01	7.28	7.09	6.92	6.47	7.06	8.10	7.88	6.84	8.1
- pH, Minimum (pH units)	6.30	6.41	6.56	6.48	3.11	6.79	6.86	5.86	6.76	7.26	6.81	6.57	3.11
- pH, Exceedence (<5.5, >9.0)	0	0	0	0	1	0	0	0	0	0	0	0	1
- As, Maximum	<0.02	<0.02	<0.02	<0.005	<0.01	<0.001	<0.001	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02
- As, Exceedence (>1)	0	0	0	0	0	0	0	0	0	0	0	0	0
- Cu, Maximum	<0.02	<0.02	<0.02	<0.0010	0.018	0.0075	0.0041	0.0022	<0.02	<0.02	<0.02	<0.02	0.018
- Cu, Exceedence (>0.6)	0	0	0	0	0	0	0	0	0	0	0	0	0
- Pb, Maximum	<0.005	<0.005	<0.005	<0.0025	<0.005	<0.0005	<0.0005	0.0342	<0.005	<0.005	<0.005	<0.005	0.0342
- Pb, Exceedence (>0.4)	0	0	0	0	0	0	0	0	0	0	0	0	0
- Ni, Maximum	0.099	0.29	0.44	0.096	1.02	0.385	0.414	0.258	0.444	0.268	0.488	0.455	1.02
- Ni, Exceedence (>1)	0	0	0	0	1	0	0	0	0	0	0	0	1
- Zn, Maximum	<0.05	<0.05	<0.05	<0.025	0.027	0.0166	0.0064	<0.05	<0.05	<0.05	<0.05	<0.05	0.027
- Zn, Exceedence (>1)	0	0	0	0	0	0	0	0	0	0	0	0	0
- TSS, Maximum	2	2	2	13	14	12	3	2	2	3	3	4	14
- TSS, Exceedence (>30)	0	0	0	0	0	0	0	0	0	0	0	0	0
- Ra-226, Maximum (Bq/l)	0.005	0.005	0.006	0.01	0.01	<0.005	0.008	0.01	0.01	0.006	<0.005	0.006	0.01
- Ra-226, Exceedence (>1.11 Bq/l)	0	0	0	0	0	0	0	0	0	0	0	0	0
- Ammonia, Maximum	0.28	0.42	0.31	0.29	0.24	0.21	0.26	0.22	0.28	0.33	0.43	0.37	0.43
- Cd, Maximum	<0.003	<0.003	<0.003	<0.000085	<0.00017	0.000058	0.000052	0.000052	<0.00017	<0.00017	<0.00017	0.00018	0.00018
- Fe, Maximum	<0.5	<0.5	0.93	0.767	1.59	1.01	0.347	0.338	<0.5	0.582	0.674	0.8	1.59
- Hg, Maximum	0.000017	0.000015	0.000028	0.00002	0.000014	0.000021	0.000035	0.000014	<0.000013	0.000019	<0.000013	<0.000013	0.000183
- Nitrate, Maximum	0.31	0.33	0.32	0.34	1.7	0.6	0.30	0.31	0.23	0.24	0.25	0.25	1.7
- TDS, Maximum	1140	1170	1160	1430	978	979	874	1100	1030	1120	1220	1280	13481
- TPH, Maximum	0.3	0.5	0.2	0.2	0.2	0.3	0.7	0.2	0.1	0.2	0.3	0.2	0.7
- ALT, Pass (RT)	3	3	5	4	2	3	4	5	3	3	3	3	41
- ALT, Fail (RT)	0	0	0	0	3	1	0	0	0	0	2	0	6
- ALT, Pass (DM)	0	0	0	0	2	0	0	0	0	1	0	1	4
- ALT, Fail (DM)	3	3	5	4	3	4	4	5	3	2	5	2	43

Table 8: Wabush Mines 2010 Effluent Discharge Criteria Summary (Values in mg/L, unless otherwise specified)

	Year												
Flora Lake Discharge	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	To Date
- Samples	4	3	5	4	4	5	4	5	4	4	5	4	51
- pH, Maximum (pH units)	7.29	7.04	7.06	7.28	7.01	7.95	7.98	7.68	7.79	7.58	7.47	7.52	7.98
- pH, Minimum (pH units)	7.04	6.85	6.95	6.75	6.86	7.08	7.08	7.12	7.41	7.42	6.68	7.20	6.68
- pH, Exceedence (<5.5, >9.0)	0	0	0	0	0	0	0	0	0	0	0	0	0
- As, Maximum	<0.001	<0.001		<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	0.002
- As, Exceedence (>1)	0	0		0	0	0	0	0	0	0	0	0	0
- Cu, Maximum	<0.001	<0.001		0.001	<0.001	0.006	0.003	0.001	0.001	<0.001	0.001	<0.002	0.006
- Cu, Exceedence (>0.6)	0	0		0	0	0	0	0	0	0	0	0	0
- Pb, Maximum	<0.002	<0.002		<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.0005	0.0005
- Pb, Exceedence (>0.4)	0	0		0	0	0	0	0	0	0	0	0	0
- Ni, Maximum	0.001	<0.001		0.002	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	0.002
- Ni, Exceedence (>1)	0	0		0	0	0	0	0	0	0	0	0	0
- Zn, Maximum	<0.005	<0.005		0.019	0.008	0.015	0.005	0.007	<0.005	0.011	<0.005	<0.005	0.019
- Zn, Exceedence (>1)	0	0		0	0	0	0	0	0	0	0	0	0
- TSS, Maximum	3	4	5	12	22	20	8	4	6	7	15	9	22
- TSS, Exceedence (>30)	0	0	0	0	0	0	0	0	0	0	0	0	0
- Ra-226, Maximum	<0.01			<0.01						<0.01			<0.01
- Ra-226, Exceedence (>1.11 Bq/l)	0								0				0
- Ammonia, Maximum						<0.01	0.04	0.05	0.03				0.05
- Fe, Maximum						0.808	0.771	0.174	0.117				0.808
- Nitrate, Maximum						0.9	0.8	1	1				1
- TDS, Maximum						47	69						69
- ALT, Pass (RT)	1	1		1	1	1	1	2	1	1			10
- ALT, Fail (RT)													0
- ALT, Pass (DM)		1							1				2
- ALT, Fail (DM)													0

Table 8 Continued: Wabush Mines 2010 Effluent Discharge Criteria Summary (Values in mg/L, unless otherwise specified)

East Pit Dewatering East	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	To Date
- Samples	4	3	4	1									12
- pH, Maximum (pH units)	7.03	6.95	7.05	6.83									7.05
- pH, Minimum (pH units)	6.75	6.57	6.83										6.57
- pH, Exceedence (<5.5, >9.0)	0	0	0	0									0
- As, Maximum	<0.001	<0.001		<0.001									<0.001
- As, Exceedence (> 0.5)	0	0		0									0
- Cu, Maximum	<0.001	0.001		<0.001									0.001
- Cu, Exceedence (>0.6)	0	0		0									0
- Pb, Maximum	<0.002	<0.002		<0.002									<0.002
- Pb, Exceedence (>0.4)	0	0		0									0
- Ni, Maximum	<0.001	0.001		0.001									0.001
- Ni, Exceedence (>1)	0	0		0									0
- Zn, Maximum	0.006	0.007		0.007									0.007
- Zn, Exceedence (>1)	0	0		0									0
- TSS, Maximum	8	6	6	5									8
- TSS, Exceedence (>30)	0	0	0	0									0
- Ra-226, Maximum	<0.01			<0.01									<0.01
- Ra-226, Exceedence (>1.11 Bq/l)	0			0									0
- ALT, Pass (RT)	1			1									2
- ALT, Fail (RT)													0

Table 8 Continued: Wabush Mines 2010 Effluent Discharge Criteria Summary (Values in mg/L, unless otherwise specified)

Deep Well Discharge	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	To Date
- Samples	3	2	5	4	4	5	4	5	4	2	5	3	46
- pH, Maximum (pH units)	6.78	7.03	7.00	7.48	6.93	7.46	7.31	7.35	7.22	6.75	7.02	7.30	7.48
- pH, Minimum (pH units)	6.34	6.32	6.18	6.52	6.55	6.78	6.47	6.94	6.97	6.74	6.46	6.52	6.18
- pH, Exceedence (<5.5, >9.0)	0	0	0	0	0	0	0	0	0	0	0	0	0
- As, Maximum	<0.001	<0.001		<0.001	<0.001	<0.001	<0.001	<0.001	0.003	0.004	<0.001	<0.001	0.004
- As, Exceedence (>1)	0	0		0	0	0	0	0	0	0	0	0	0
- Cu, Maximum	<0.001	0.003		0.002	0.001	0.001	0.004	0.002	<0.001	0.002	0.001	0.001	0.004
- Cu, Exceedence (>0.6)	0	0		0	0	0	0	0	0	0	0	0	0
- Pb, Maximum	<0.002	<0.002		<0.002	<0.002	<0.002	<0.002	<0.001	<0.002	<0.002	<0.002	0.0007	0.0007
- Pb, Exceedence (>0.4)	0	0		0	0	0	0	0	0	0	0	0	0
- Ni, Maximum	<0.001	<0.001		<0.001	<0.001	0.001	<0.001	0.009	<0.001	<0.001	<0.001	0.009	0.009
- Ni, Exceedence (>1)	0	0		0	0	0	0	0	0	0	0	0	0
- Zn, Maximum	<0.005	0.01		0.007	<0.005	<0.005	0.025	0.012	<0.005	<0.005	<0.005	<0.005	0.025
- Zn, Exceedence(>1)	0	0		0	0	0	0	0	0	0	0	0	0
- TSS, Maximum	<2	<2	<2	<2	4	<2	17	<2	<2	<2	14	<10	17
- TSS, Exceedence (>30)	0	0	0	0	0	0	0	0	0	0	0	0	0
- Ra-226, Maximum	<0.01									<0.01			<0.01
- Ra-226, Exceedence (>1.11 Bq/l)	0									0			0
- Ammonia, Maximum						<0.01	0.03	0.02	<0.01				0.03
- Fe, Maximum						<0.005	0.035	<0.005	0.008				0.035
- Nitrate, Maximum						0.2	0.2	0.2	0.2				0.2
- TDS, Maximum						48	60	49	52				60

Table 8 Continued: Wabush Mines 2010 Effluent Discharge Criteria Summary (Values in mg/L, unless otherwise specified)

Knoll Lake	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	To Date
- Samples	4	3	5	4	4	5	4	5	4	4	5	4	51
- pH, Maximum (pH units)	6.88	6.85	7.21	7.40	7.11	7.67	7.63	7.35	7.40	7.35	7.56	7.34	7.67
- pH, Minimum (pH units)	6.75	6.69	6.79	6.80	6.88	7.07	7.02	6.80	6.98	6.84	6.98	6.83	6.69
- pH, Exceedence (<5.5, >9.0)	0	0	0	0	0	0	0	0	0	0	0	0	0
- As, Maximum	<0.001	<0.001		<0.001	<0.001	<0.001	0.002	<0.001	0.001	<0.001	<0.001	<0.001	0.002
- As, Exceedence (>1)	0	0		0	0	0	0	0	0	0	0	0	0
- Cu, Maximum	<0.001	0.002		0.001	<0.001	0.023	0.003	0.002	0.001	0.002	0.002	0.003	0.023
- Cu, Exceedence (>0.6)	0	0		0	0	0	0	0	0	0	0	0	0
- Pb, Maximum	<0.002	<0.002		<0.002	<0.002	0.012	<0.002	<0.002	<0.002	0.003	<0.002	0.0013	0.012
- Pb, Exceedence (>0.4)	0	0		0	0	0	0	0	0	0	0	0	0
- Ni, Maximum	0.001	0.002		0.001	0.002	0.002	0.004	0.001	<0.001	0.002	0.001	0.002	0.004
- Ni, Exceedence (>1)	0	0		0	0	0	0	0	0	0	0	0	0
- Zn, Maximum	0.006	0.013		0.008	0.012	0.126	0.022	0.007	0.007	0.013	0.008	0.015	0.126
- Zn, Exceedence (>1)	0	0		0	0	0	0	0	0	0	0	0	0
- TSS, Maximum	36	121	157	48	11	40	106	39	45	72	38	40	157
- TSS, Exceedence (>30)	1	3	1	2	0	1	3	1	1	1	1	1	16
- Ra-226, Maximum	<0.01			<0.01						<0.01			0
- Ra-226, Exceedence (>1.11 Bq/l)	0			0						0			0
- Ammonia, Maximum						1.26	0.56	0.34	1.91				1.91
- Fe, Maximum						0.079	11.8	1.41	0.301				11.8
- Nitrate, Maximum						3.8	2.2	2.2	4.8				4.8
- TDS, Maximum						55	66	58	72				72
- ALT, Pass (RT)	1		1	1			1			1			5
- ALT, Fail (RT)													0

Table 8 Continued: Wabush Mines 2010 Effluent Discharge Criteria Summary (Values in mg/L, unless otherwise specified)

West Pit Settling Pond	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	To Date
- Samples	4	2	5	4	4	5	4	5	4	4	5	3	49
- pH, Maximum	6.78	6.88	7.12	7.35	6.63	7.5	7.34	7.2	7.33	7.16	7.22	7.37	7.5
- pH, Minimum	6.45	6.45	6.72	6.63	6.54	6.88	6.83	6.75	6.78	6.78	6.92	6.74	6.45
- pH, Exceedence (<5.5, >9.0)	0	0	0	0	0	0	0	0	0	0	0	0	0
- As, Maximum	<0.001	<0.001		<0.001	<0.001	<0.001	<0.001	<0.001	0.003	<0.001	<0.001	<0.001	0.003
- As, Exceedence (>1)	0	0		0	0	0	0	0	0	0	0	0	0
- Cu, Maximum	<0.001	<0.001		<0.001	<0.001	0.001	0.002	0.002	<0.001	0.001	0.001	<0.002	0.002
- Cu, Exceedence (>0.6)	0	0		0	0	0	0	0	0	0	0	0	0
- Pb, Maximum	<0.002	<0.002		<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.0005	<0.002
- Pb, Exceedence (>0.4)	0	0		0	0	0	0	0	0	0	0	0	0
- Ni, Maximum	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, Exceedence (>1)	0	0		0	0	0	0	0	0	0	0	0	0
- Zn, Maximum	0.013	<0.005		<0.005	<0.005	0.005	0.006	<0.005	<0.005	0.009	0.005	<0.005	0.013
- Zn, Exceedence (>1)	0	0		0	0	0	0	0	0	0	0	0	0
- TSS, Maximum	7	<2	58	3	8	14	20	37	11	77	7	<10	77
- TSS, Exceedence (>30)	0	0	2	0	0	0	0	1	0	1	0	0	4
- Ra-226, Maximum				<0.01						<0.01			<0.01
- Ra-226, Exceedence (>1.11 Bq/l)				0						0			0
- Ammonia, Maximum						2.15	0.49	0.36	0.19				2.15
- Fe, Maximum						0.154	0.74	0.067	0.029				0.74
- Nitrate, Maximum						3.1	1.2	0.9	0.7				3.1
- TDS, Maximum						65	61	48	45				65
- ALT, Pass (RT)	1			1			1			1			4
- ALT, Fail (RT)													0

3) Petroleum Refining

a) North Atlantic Refining Ltd.

Current CofA Approval #: AA06-055480
 Issue date: May 11, 2006
 Expiration: December 31, 2010
 Extension: June 30, 2011

North Atlantic Refining Limited has one discharge point which releases effluent into Placentia Bay. The effluent monitoring program consists of 6 compliance parameters along with flow monitoring and ALT. The average flow for the month is determined by averaging the measurements taken three times per week. Daily loadings are calculated from the measured flow and concentration. A total of 155 samples were taken, TSS exceeded the daily limit on two occasions, once in September and once in December. The TSS exceedence in September was also above the never to exceed limit. These reported TSS exceedences were not considered to be a regulatory exceedence under the federal regulations due to the clause that allows the refinery to report volatile suspended solids (VSS) during high storm water flow events. A total of 12 ALTs were conducted, all passed successfully. See Table 9: North Atlantic Refining Ltd. 2010: Effluent Discharge Criteria Summary.

Environmental Effects Monitoring

The 2009 marine EEM report was received and reviewed.

4) Pulp and Paper

a) Grand Falls Mill (Previously Abitibi-Consolidated Company of Canada)

Current CofA Approval #: Memo written by Dan Michielsen
 Issue date: May 3, 2010
 Expiration: No expiration date established

This site is currently owned and monitored by the Province of Newfoundland and Labrador. The Grand Falls Mill has one compliance point, the combined sewer that is monitored weekly for pH and TPH. There have been no exceedences during the year between March and December. There was no monitoring schedule in place for January and February. See Table 10: Grand Falls Mill 2010: Effluent Discharge Criteria Summary.

Environmental Effects Monitoring

No study designs or reports were received in 2010.

Table 9: North Atlantic Refining Ltd. 2010 Effluent Discharge Criteria Summary

North Atlantic Refining Limited	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.	Year To Date
Samples Taken	13	12	13	13	12	13	13	14	13	13	13	13	155
Reference Crude Rate - (bbls / stream day)	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000
Average Flow (Cdn. gal / day)	1193846	1345000	1224615	1363846	1615833	3095384	295,622	361,140	468,528	318,352	223,417	162,648	11668231
pH (pH units)													
- Average	7.6	7.6	7.8	7.7	7.5	7.3	7.5	7.4	7.3	7.5	7.4	7.2	7.5
- Maximum	8.0	7.8	8.0	8.0	7.9	7.6	8.7	7.8	7.7	7.7	7.5	7.6	8.7
- Minimum	6.3	7.3	7.7	7.4	7.2	6.9	7.1	7.3	7.0	7.5	7.2	6.8	6.3
- Exceedances (< 5.5, > 9.0)	0	0	0	0	0	0	0	0	0	0	0	0	0
Oil & Grease (lbs)													
- Average (Month Limit < 300 lbs)	27.39	27.31	23.24	82.70	77.01	67.17	25.77	43.48	60.95	24.90	19.24	23.23	41.87
- Maximum (lbs)	71.62	71.98	143.31	238.00	156.70	207.53	64.22	135.12	335.77	88.11	46.90	46.19	335.77
- Daily Limit (550 lbs) *	0	0	0	0	0	0	0	0	0	0	0	0	0
- Never to Exceed 750 lbs	0	0	0	0	0	0	0	0	0	0	0	0	0
Phenol (lbs)													
- Average (Monthly Limit < 30 lbs)	0.28	0.39	0.24	0.45	0.52	0.69	0.23	0.55	0.73	0.34	0.25	0.39	0.42
- Maximum (lbs)	0.77	1.03	0.45	1.93	1.09	1.73	0.29	2.44	1.79	0.50	0.53	0.89	2.44
- Daily Limit (55 lbs)*	0	0	0	0	0	0	0	0	0	0	0	0	0
- Never to Exceed 75 lbs	0	0	0	0	0	0	0	0	0	0	0	0	0
Sulphide (lbs)													
- Average (Monthly Limit < 10 lbs)	0.36	0.40	0.37	0.50	0.55	0.54	0.45	0.50	0.62	0.67	0.31	0.58	0.49
- Maximum (lbs)	0.77	0.69	0.67	1.64	0.89	1.04	0.97	1.30	1.87	1.43	0.41	1.33	1.87
- Daily Limit (30 lbs)*	0	0	0	0	0	0	0	0	0	0	0	0	0
- Never to Exceed 50 lbs	0	0	0	0	0	0	0	0	0	0	0	0	0

* Not to be exceeded more than once per month.

Table 9 Continued: North Atlantic Refining Ltd. 2010 Effluent Discharge Criteria Summary

North Atlantic Refining Limited	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.	Year To Date
Samples Taken	13	12	13	13	12	13	13	14	13	13	13	13	155
Ammonia Nitrogen (lbs)													
- Average (Monthly Limit < 360 lbs)	6.84	7.80	7.52	26.08	57.60	32.80	19.73	31.70	51.19	15.21	13.73	24.47	24.6
- Maximum (lbs)	25.33	15.95	14.10	65.98	110.36	48.98	49.59	97.47	130.58	32.62	22.07	54.86	130.6
- Daily Limit (570 lbs)*	0	0	0	0	0	0	0	0	0	0	0	0	0
- Never to Exceed 720 lbs	0	0	0	0	0	0	0	0	0	0	0	0	0
TSS (lbs)													
- Average (Monthly Limit < 720 lbs)	148.54	164.40	142.98	221.88	319.82	279.09	305.28	414.35	904.28	344.71	133.03	421.86	316.69
- Maximum (lbs)	338.19	292.51	559.82	495.84	549.82	518.83	727.77	1139.64	8145.59	861.82	296.61	1379.56	8145.59
- Daily Limit (1200 lbs) *	0	0	0	0	0	0	0	0	1	0	0	1	2
- Never to Exceed 1500 lbs	0	0	0	0	0	0	0	0	1	0	0	0	1
pH at Outfall (pH units)													
- Samples	31	28	31	29	30	30	31	31	30	31	30	31	363
- Average	7.7	7.6	7.7	7.6	7.4	7.3	7.6	7.4	7.3	7.5	7.4	7.2	7.5
- Maximum	8.8	8.2	8.0	8.0	7.9	8.0	8.7	7.8	7.7	7.7	7.6	7.6	8.8
- Minimum	6.3	7.3	7.2	7.4	7.0	6.9	6.9	7.3	7.0	7.2	7.2	6.8	6.3
- Exceedances (< 5.5, > 9.0)	0	0	0	0	0	0	0	0	0	0	0	0	0
ALT, pass	1	1	1	1	1	1	1	1	1	1	1	1	12
ALT, fail	0	0	0	0	0	0	0	0	0	0	0	0	0

* Not to be exceeded more than once per month.

Table 10: Grand Falls Mill 2010 Effluent Discharge Criteria Summary

	TPH, Maximum	TPH, Exceedence (>15 mg/L)	pH, Maximum	pH, Minimum	pH, Exceedence (<5.5, >9.0)
	mg/L		pH units	pH units	
January					
February					
March	<0.1	0	7.86		0
April	<0.1	0	7.97		0
May	<0.1	0	7.78	7.53	0
June	<0.1	0	7.94	7.60	0
July	<0.1	0	7.90	7.64	0
August	<0.1	0	7.99	7.82	0
September	<0.1	0	7.95	6.83	0
October	<0.1	0	8.10	8.07	0
November	<0.1	0	8.35	8.28	0
December	<0.1	0	8.30	7.89	0
Year Totals	0	0	8.35	6.83	0

b) Corner Brook Pulp and Paper Ltd.

Current CofA Approval #: AA09-115522
 Issue date: November 10, 2009
 Expiration: July 7, 2013

Corner Brook Pulp and Paper has two discharge locations, the Secondary Clarifier (Effluent Treatment) and East Sewer. The effluent monitoring program consists of two parameters for compliance, TSS and BOD along with ALTs. TSS and flow are measured daily while BOD is measured three times per week. The total loadings are reported in tonnes/day and there were no exceedences of the limits. ALTs were conducted monthly and they all passed. See Table 11: Corner Brook Pulp and Paper 2010: Effluent Discharge Criteria Summary.

Environmental Effects Monitoring

The cycle 5 EEM report was received and reviewed.

5) Thermal Generation

a) Newfoundland and Labrador Thermal Generating Station

Current CofA Approval #: AA06-025458B
 Issue date: February 2, 2006
 Expiration: February 2, 2011

The Holyrood Thermal Generating Station (HTGS) has two discharge points, the continuous basin outfall and the periodic basin (batch reactor). The effluent monitoring program consists of 5 parameters for compliance along with ALT.

Continuous Basin: There was no discharge during the months of July and August. 38 samples were collected during the year and there were no exceedences. There were 8 ALTs conducted, one failed in June.

Periodic Basin: 40 samples were collected during the year and there were no exceedences. There were 26 ALTs conducted, all passed. See Table 12: Newfoundland and Labrador Hydro 2010: Effluent Discharge Criteria Summary.

Environmental Effects Monitoring

The 2008-2009 EEM report was received and reviewed.

Table 11: Corner Brook Pulp and Paper 2010 Effluent Discharge Criteria Summary

Date Month	Average Production Tonne/Day	Average TSS Discharge		Total Monthly TSS Discharge Tonnes	TSS Concentration		Average BOD Discharge	
		Tonne/Day	kg / FMT		East Sewer mg/L	Effluent Treatment mg/L	Tonne/Day	kg / FMT
Jan-10	712.0	1.2	1.7	37.4	5.22	22.16	0.2	0.3
Feb-10	701.0	0.8	1.1	23.7	4.67	13.95	0.2	0.3
Mar-10	719.0	1.4	1.9	43.3	4.00	25.7	0.4	0.6
Apr-10	710.0	2.6	3.7	79.2	5.13	49.87	0.6	0.8
May-10	726.0	1.3	1.8	42.4	6.27	23.53	0.4	0.6
Jun-10	637.0	3.0	4.7	89.9	5.31	54.94	0.5	0.8
Jul-10	741.0	1.6	2.2	49.8	5.26	25.18	0.4	0.5
Aug-10	716.0	1.4	2.0	43.5	4.79	20.60	0.6	0.8
Sep-10	724.0	1.1	1.5	32.6	4.88	17.67	0.2	0.3
Oct-10	693.0	1.8	2.6	56.7	5.00	29.00	0.4	0.6
Nov-10	628.0	2.4	3.8	67.8	4.00	41.00	1.1	1.8
Dec-10	713.0	1.4	2.0	43.9	5.00	23.00	0.4	0.6

Table 11 Continued: Corner Brook Pulp and Paper 2010 Effluent Discharge Criteria

Date Month	Total Monthly BOD Discharge Tonnes	BOD Concentration		Toxicity				Federal Limits	
		East Sewer mg/L	Effluent Treatment mg/L	96 Hr LC50		48 Hr LC50		Monthly Average	
				East Sewer	Effluent Treatment	East Sewer	Effluent Treatment	TSS (Tonnes/Day)	BOD (Tonnes/Day)
Jan-10	2.7	1.64	3.77	Pass	Pass	Pass	Pass	10.4	6.9
Feb-10	2.1	1.54	2.64	Pass	Pass	Pass	Pass	10.4	6.9
Mar-10	5.1	2.42	6.42	Pass	Pass	Pass	Pass	10.4	6.9
Apr-10	7.3	2.53	10.08	Pass	Pass	Pass	Pass	10.4	6.9
May-10	4.6	2.74	6.24	Pass	Pass	Pass	Pass	10.4	6.9
Jun-10	7.4	0.58	10.71	Pass	Pass	Pass	Pass	10.4	6.9
Jul-10	4.9	0.28	6.38	Pass	Pass	Pass	Pass	10.4	6.9
Aug-10	8.4	1.37	9.87	Pass	Pass	Pass	Pass	10.4	6.9
Sep-10	3.3	0.00	4.53	Pass	Pass	Pass	Pass	10.4	6.9
Oct-10	4.6	1.00	7.00	Pass	Pass	Pass	Pass	10.4	6.9
Nov-10	14.2	1.00	19.00	Pass	Pass	Pass	Pass	10.4	6.9
Dec-10	5.7	2.00	7.00	Pass	Pass	Pass	Pass	10.4	6.9

Table 12: Holyrood Thermal Generating Station 2010 Effluent Discharge Criteria Summary (Values in mg/L, unless otherwise specified)

CONTINUOUS BASIN													Year
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	to Date
- Samples	4	3	5	5	3	1			1	5	7	4	38
- pH Maximum (pH units)	7.0	7.2	7.1	6.9	6.8	6.6			6.7	6.8	7	7.1	7.2
- pH Minimum (pH units)	6.8	6.6	6.7	6.7	6.5					6.6	6.5	6.8	6.5
- pH Exceedence (<5.5, >9.0)	0	0	0	0	0	0			0	0	0	0	0
- Fe Maximum	0.06	0.1	0.16	0.05	0.06	0.03				0.29	0.15	0.14	0.29
- Fe Exceedence (>10 mg/L)	0	0	0	0	0	0				0	0	0	0
- Ni Maximum	0.05	0.01	0.007	0.04	0.004	0.003				0.06	0.01	0.01	0.06
- Ni Exceedence (>0.5 mg/L)	0	0	0	0	0	0				0	0	0	0
- V Maximum	0.06	0.04	0.04	0.04	0.07	0.05				0.08	0.06	0.05	0.1
- V Exceedence (>2.0 mg/L)	0	0	0	0	0	0				0	0	0	0
- TSS Maximum	8.80	0.8	0.8	2.1	2	0.3				0.9	0.6	1.8	8.8
- TSS Exceedence (>30 mg/L)	0	0	0	0	0	0				0	0	0	0
- ALT, Pass (RT)	1	1	1	1						1	1	1	7
- ALT, Fail (RT)						1							1

Table 12 Continued: Holyrood Thermal Generating Station 2010 Effluent Discharge Criteria Summary (Values in mg/L, unless otherwise specified)

PERIODIC BASIN (WWTP)													Year
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	to Date
- Samples	3	3	3	4	3	5	1	1	7	1	2	7	40
- pH Maximum (pH units)	8.5	8.8	8.7	8.5	8.7	8.8	8.5	8.5	8.5	8.9	8.7	8.7	8.9
- pH Minimum (pH units)	8.4	8.4	8.5	8.4	8.4	8.5			8.5		8.7	8.4	8.4
- pH Exceedence (<5.5, >9.0)	0	0	0	0	0	0	0	0	0	0	0	0	0
- Fe Maximum	0.15	0.03	0.03	0.13	0.03	0.31	0.18	0.01	0.21	0.01	0.03	0.35	0.4
- Fe Exceedence (>10 mg/L)	0	0	0	0	0	0	0	0	0	0	0	0	0
- Ni Maximum	0.09	0.07	0.06	0.04	0.10	0.05	0.03	0.03	0.07	0.03	0.05	0.12	0.1
- Ni Exceedence (>0.5 mg/L)	0	0	0	0	0	0	0	0	0	0	0	0	0
- V Maximum	0.06	0.10	0.06	0.13	0.10	0.06	0.01	0.02	0.07	0.12	0.17	0.33	0.3
- V Exceedence (>2.0 mg/L)	0	0	0	0	0	0	0	0	0	0	0	0	0
- TSS Maximum	2.7	3	2.7	1.7	2	2.1	1.9	2.2	1.7	2.8	2.1	2.2	3.0
- TSS Exceedence (>30 mg/L)	0	0	0	0	0	0	0	0	0	0	0	0	0
- ALT, Pass (RT)	1	2	3	3	3	4		1	2	1	1	5	26
- ALT, Fail (RT)													

6) Other

a) Atlantic Minerals Ltd.

Current CofA Approval #: AA09-0355515
 Issue date: March 31, 2009
 Expiration: March 30, 2014

Atlantic Minerals Ltd. has 2 discharge points located at Duck Pond and Dolomite Quarry #2. The effluent monitoring program has several parameters that are measured for compliance; seven of these parameters have environmental limits. Two samples were collected at Duck Pond in 2010 and sampling is expected to begin at Dolomite Quarry #2 in 2011. There were no exceedences during the year. See Table 13: Atlantic Minerals Ltd. 2010: Effluent Discharge Criteria Summary.

Environmental Effects Monitoring

There is no EEM program at this site.

b) Beaver Brook Antimony Mine Inc.

Current CofA Approval #: AA08-035501
 Issue date: March 19, 2008
 Expiration: March 19, 2013

Beaver Brook has one discharge point located at Site 16. The effluent monitoring program for discharge criteria compliance consists of eight parameters and ALT analysis. During the year, there were a total of 46 samples collected; there was one exceedence of TSS in December. A total of 10 ALTs were conducted for the year, they all passed. See Table 14: Beaver Brook 2010: Effluent Discharge Criteria Summary.

Environmental Effects Monitoring

There is no EEM program at this site.

c) Newfoundland Transshipment Terminal

Current CofA Approval #: AA08-035499
 Issue date: March 13, 2008
 Expiration: March 12, 2013

Newfoundland Transshipment Terminal has 9 discharge points: Tank No.1 – Sump No.1, Tank No.2 – Sump No.2, Tank No.3 – Sump No.3, Tank No.4 – Sump No.4, Tank No.5 – Sump No.5, Tank No.6 – Sump No.6, Support Tank/Sump7, Containment Pond, and Oily Water Tank Separator. The effluent monitoring program for discharge criteria compliance consists of 3 parameters, with ALT analysis at Containment Pond. There were no exceedences of the allowable discharge criteria, and there were no ALT failures at Containment Pond. See Table 15: NTT 2010: Effluent Discharge Criteria Summary.

Environmental Effects Monitoring

No study designs or reports were received in 2010.

Table 13: Atlantic Minerals Ltd. 2010 Effluent Discharge Criteria Summary (Values in mg/L, unless otherwise specified)

Duck Pond (DL-HC Quarry)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Year To Date
- Samples								1			1		2
- pH, Maximum (pH units)								8.36			7.85		8.36
- pH, Minimum (pH units)													0.00
- pH, Exceedence (<5.5, >9.0)								0			0		0
- As, Maximum								<0.001			<0.001		<0.001
- As, Exceedence (>1)								0			0		0
- Cu, Maximum								0.0031			<0.002		0.0031
- Cu, Exceedence (> 0.6)								0			0		0
- Pb, Maximum								0.00143			0.00148		0.00148
- Pb, Exceedence (>0.4)								0			0		0
- Ni, Maximum								<0.002			<0.002		<0.002
- Ni, Exceedence (>1)								0			0		0
- Zn, Maximum								0.0168			0.0065		0.0168
- Zn, Exceedence (>1)								0			0		0
- TSS, Maximum								1			4		4
- TSS, Exceedence (>30)								0			0		0
- Ammonia, Maximum								<0.05			0.16		0.16
- Fe, Maximum								0.083			0.08		0.083
- Nitrate, Maximum								0.41			0.42		0.42
- TDS, Maximum								143			136		143

Table 14: Beaver Brook 2010 Effluent Discharge Criteria Summary (Values in mg/L, unless otherwise specified)

Site 16	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Year
													To Date
- Samples	5	4	4	5	4	4	4	6	3	1	5	1	46
- pH, Maximum (pH units)	8.2	8.1	8.1	8.2	8.2	8.20	8.3	8.3	8.5	8	8.2	8	8.5
- pH, Minimum (pH units)	8.1	8	8	7.4	8	8.00	8.2	8.1	8.1		8.1		7.4
- pH, Exceedence (<5.5, >9.0)	0	0	0	0	0	0	0	0	0	0	0	0	0
- As, Maximum	0.123	0.109	0.106	0.1	0.082	0.071	0.059	0.058	0.038	0.023	0.029	0.017	0.123
- As, Exceedence (>1)	0	0	0	0	0	0	0	0	0	0	0	0	0
- Cu, Maximum	<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
- Cu, Exceedence (>0.6)	0	0	0	0	0	0	0	0	0	0	0	0	0
- Pb, Maximum	0.001	0.0006	<0.0005	0.0012	0.001	0.0015	0.0108	0.0014	0.0021	0.0007	0.0028	0.0129	0.0129
- Pb, Exceedence (>0.4)	0	0	0	0	0	0	0	0	0	0	0	0	0
- Ni, Maximum	0.03	0.022	0.028	0.025	0.027	0.019	0.023	0.028	0.022	0.014	0.025	0.019	0.03
- Ni, Exceedence (>1)	0	0	0	0	0	0	0	0	0	0	0	0	0
- Zn, Maximum	0.008	0.009	0.013	0.155	0.125	0.276	0.393	0.227	0.04	<0.005	0.009	0.01	0.393
- Zn, Exceedence (>1)	0	0	0	0	0	0	0	0	0	0	0	0	0
- TSS, Maximum	15	9	8	30	22	17	12	15	9	16	7	33	33
- TSS, Exceedence (>30)	0	0	0	0	0	0	0	0	0	0	0	1	1
- Ra-226, Maximum	0.02	<0.1	<0.01	0.01	<0.01	0.01	<0.01	0.02	0.03	<0.01	0.01	0.02	0.03
- Ra-226, Exceedence (>1.11 Bq/l)	0	0	0	0	0	0	0	0	0	0	0	0	0
- ALT, Pass (RT)	1	1	1	1	1	1	1	1	1		1		10
- ALT, Fail (RT)													

Table 15: NTT 2010 Effluent Discharge Criteria Summary (Values in mg/L, unless otherwise specified)

Tank No. 1- Sump No. 1	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Year To Date
Number of Samples	1			1			1			1			4
TSS													
- Average (mg/l)	1.6			2.8			1.8			1.8			2
- Maximum (mg/l)	1.6			2.8			1.8			1.8			2.8
- Prov. Violations (> 30 mg/l)	0			0			0			0			0
pH													
- Average (pH units)	7.5			8			7.8			7.6			7.73
- Maximum (pH units)	7.5			8			7.8			7.6			8
- Prov. Violations (< 5.5, > 9.0)	0			0			0			0			0
Fats/Oils/Grease													
- Average (mg/l)	6.6			0.9			1			0.8			2.33
- Maximum (mg/l)	6.6			0.9			1			0.8			6.6
- Prov. Violations (> 15 mg/l)	0			0			0			0			0

Tank No. 2- Sump No. 2	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Year To Date
Number of Samples	1			1			1			1			4
TSS													
- Average (mg/l)	2.2			2			<1.6			1.6			1.93
- Maximum (mg/l)	2.2			2			<1.6			1.6			2.2
- Prov. Violations (> 30 mg/l)	0			0			0			0			0
pH													
- Average (pH units)	7.5			7.9			7.9			7.8			7.78
- Maximum (pH units)	7.5			7.9			7.9			7.8			7.9
- Prov. Violations (< 5.5, > 9.0)	0			0			0			0			0
Fats/Oils/Grease													
- Average (mg/l)	6.7			2.5			1.4			3			3.4
- Maximum (mg/l)	6.7			2.5			1.4			3			6.7
- Prov. Violations (> 15 mg/l)	0			0			0			0			0

Table 15 Continued: NTT 2010 Effluent Discharge Criteria Summary (Values in mg/L, unless otherwise specified)

Tank No. 3- Sump No. 3	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Year To Date
Number of Samples	1			1			1			1			4
TSS													
- Average (mg/l)	2.2			<1.6			2.5			2			2.23
- Maximum (mg/l)	2.2			<1.6			2.5			2			2.5
- Prov. Violations (> 30 mg/l)	0			0			0			0			0
pH													
- Average	7.8			8			7.9			7.8			7.88
- Maximum	7.8			8			7.9			7.8			8
- Prov. Violations (< 5.5, > 9.0)	0			0			0			0			0
Fats/Oils/Grease													
- Average (mg/l)	8.7			4.6			2.8			2.7			4.7
- Maximum (mg/l)	8.7			4.6			2.8			2.7			8.7
- Prov. Violations (> 15 mg/l)	0			0			0			0			0

Tank No. 4- Sump No. 4	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Year To Date
Number of Samples	1			1			1			1			4
TSS													
- Average (mg/l)	2.5			1.7			1.6			2.6			2.1
- Maximum (mg/l)	2.5			1.7			1.6			2.6			2.6
- Prov. Violations (> 30 mg/l)	0			0			0			0			0
pH													
- Average	7.7			7.9			7.6			7.4			7.65
- Maximum	7.7			7.9			7.6			7.4			7.9
- Prov. Violations (< 5.5, > 9.0)	0			0			0			0			0
Fats/Oils/Grease													
- Average (mg/l)	9.4			9.8			4.2			4.2			6.9
- Maximum (mg/l)	9.4			9.8			4.2			4.2			9.8
- Prov. Violations (> 15 mg/l)	0			0			0			0			0

Table 15 Continued: NTT 2010 Effluent Discharge Criteria Summary (Values in mg/L, unless otherwise specified)

Tank No. 5- Sump No. 5	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Year To Date
Number of Samples	1			1			1			1			4
TSS													
- Average (mg/l)	1.8			1.7			2.1			<1.6			1.87
- Maximum (mg/l)	1.8			1.7			2.1			<1.6			2.1
- Prov. Violations (> 30 mg/l)	0			0			0			0			0
pH													
- Average (pH units)	7.6			7.5			7.4			7.3			7.45
- Maximum (pH units)	7.6			7.5			7.4			7.3			7.6
- Prov. Violations (< 5.5, > 9.0)	0			0			0			0			0
Fats/Oils/Grease													
- Average (mg/l)	5.1			4			0.8			8.8			4.68
- Maximum (mg/l)	5.1			4			0.8			8.8			8.8
- Prov. Violations (> 15 mg/l)	0			0			0			0			0

Tank No. 6- Sump No. 6	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Year To Date
Number of Samples	1			1			1			1			4
TSS													
- Average (mg/l)	1.9			<1.6			2.8			2.2			2.3
- Maximum (mg/l)	1.9			<1.6			2.8			2.2			2.8
- Prov. Violations (> 30 mg/l)	0			0			0			0			0
pH													
- Average (pH units)	7.4			7.4			7.4			7.4			7.4
- Maximum (pH units)	7.4			7.4			7.4			7.4			7.4
- Prov. Violations (< 5.5, > 9.0)	0			0			0			0			0
Fats/Oils/Grease													
- Average (mg/l)	5.3			2.5			2.3			5.5			3.9
- Maximum (mg/l)	5.3			2.5			2.3			5.5			5.5
- Prov. Violations (> 15 mg/l)	0			0			0			0			0

Table 15 Continued: NTT 2010 Effluent Discharge Criteria Summary (Values in mg/L, unless otherwise specified)

Support Tank /Sump 7	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Year To Date
Number of Samples	1			1			1			1			4
TSS													
- Average (mg/l)	1.7			<1.6			<1.6			3.4			2.55
- Maximum (mg/l)	1.7			<1.6			<1.6			3.4			3.4
- Prov. Violations (> 30 mg/l)	0			0			0			0			0
pH													
- Average (pH units)	7.9			8			7.5			7.8			7.8
- Maximum (pH units)	7.9			8			7.5			7.8			8
- Prov. Violations (< 5.5, > 9.0)	0			0			0			0			0
Fats/Oils/Grease													
- Average (mg/l)	5.7			2.5			2.7			1.3			3.05
- Maximum (mg/l)	5.7			2.5			2.7			1.3			5.7
- Prov. Violations (> 15 mg/l)	0			0			0			0			0

Containment Pond	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Year To Date
Number of Samples				2				1			1		4
TSS													
- Average (mg/l)				<1.6				<1.6			1.6		1.6
- Maximum (mg/l)				<1.6				<1.6			1.6		1.6
- Prov. Violations (> 30 mg/l)				0				0			0		0
pH													
- Average (pH units)				6.7				6.7			6.8		6.73
- Maximum (pH units)				6.7				6.7			6.8		6.8
- Prov. Violations (< 5.5, > 9.0)				0				0			0		0
Fats/Oils/Grease													
- Average (mg/l)				9.4				12.3			10.1		10.6
- Maximum (mg/l)				9.4				12.3			10.1		12.3
- Prov. Violations (> 15 mg/l)				0				0			0		0
- ALT, Pass (RT)				1				1			1		3
- ALT, Fail (RT)													

Table 15 Continued: NTT 2010 Effluent Discharge Criteria Summary (Values in mg/L, unless otherwise specified)

Oily Water Tank Separator	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Year To Date
Number of Samples		1				1			1			1	4
(Discharged to Containment Pond)													
TSS													
- Average (mg/l)		<1.6				1.9			2			<1.6	1.95
- Maximum (mg/l)		<1.6				1.9			2			<1.6	2
- Prov. Violations (> 30 mg/l)		0				0			0			0	0
pH													
- Average (pH units)		6.9				6.7			6.7			6.6	6.73
- Maximum (pH units)		6.9				6.7			6.7			6.6	6.9
- Prov. Violations (< 5.5, > 9.0)		0				0			0			0	0
Fats/Oils/Grease													
- Average (mg/l)		9.3				8.4			10.2			7	8.73
- Maximum (mg/l)		9.3				8.4			10.2			7	10.2
- Prov. Violations (> 15 mg/l)		0				0			0			0	0
TDS													
- Average (mg/l)		882				1240			456			296	718.50
- Maximum (mg/l)		882				1240			456			296	1240
- Prov. Violations (> 36000 mg/l)		0				0			0			0	0

d) Vale Inco Newfoundland and Labrador Ltd. (Argentia Hydrometallurgical Demonstration Plant)

<u>Current CofA</u>	Approval #:	AA10-055525
	Issue date:	May 1, 2010
	Expiration:	April 30, 2014
<u>Previous CofA</u>	Approval #:	AA09-055516
	Issue Date:	May 1, 2009
	Expiration:	April 30, 2010

Vale Inco Argentia Hydrometallurgical Demonstration Plant, has one discharge point at the polishing pond. The effluent monitoring program for discharge criteria compliance consists of 14 parameters and ALT. There was discharge during January, July, October and December. A total of 4 samples were taken with 1 TDS exceedence recorded in January. All ALTs passed. See Table 16: Vale Inco (Argentia) 2010: Effluent Discharge Criteria Summary.

Environmental Effects Monitoring

There is no EEM program at this site.

e) Vale Inco Newfoundland and Labrador Ltd. (Long Harbour Hydrometallurgical Plant)

<u>Current CofA</u>	Approval #:	AA10-035524
	Issue date:	March 24, 2010
	Expiration:	March 31, 2011
	Approval #:	AA10-075533
	Issue date:	July 31, 2010
	Expiration:	December 31, 2011
<u>Previous CofA</u>	Approval #:	AA09-065520
	Issue Date:	June 18, 2009
	Expiration:	June 30, 2010
	Approval #:	AA09-054413
	Issue Date:	April 1, 2009
	Expiration:	December 31, 2009
	Extension:	July 31, 2010

Vale Inco, Long Harbour Hydrometallurgical Plant has 10 active discharge points: D2, D3, D5, D11-D13, D15, D17-D19. The effluent monitoring program consists of several parameters, all of which have regulatory environmental limits.

D2: A total of 54 samples were taken at this location, there were 10 exceedences of TSS, 9 exceedences of ammonia and 31 exceedences of nitrate.

D3: A total of 55 samples were taken at this location, there were 29 exceedences of TSS.

D5: A total of 24 samples were taken at this location, there was 1 exceedence of TSS, 2 exceedences of nitrate and pH was outside the limits 3 times during the year.

D11: There was no discharge from this location in June. A total of 44 samples were taken, there were 10 exceedences of TSS, 5 exceedences of ammonia, 24 exceedences of nitrate and pH was outside the limits 25 times during the year.

D12: A total of 51 samples were taken at this location, there were 9 exceedences of TSS, 13 exceedences of ammonia and 31 exceedences of nitrate.

D13: A total of 31 samples were taken at this location, there were 5 exceedences of TSS, and pH was outside the limits 1 time during the year.

D15: A total of 25 samples were taken at this location, there were 2 exceedences of TSS.

D17: There was no discharge at this location in December. A total of 32 samples were taken, there were 15 exceedences of TSS, and 1 exceedence of ammonia.

D18: A total of 22 samples were taken at this location, there were 2 exceedences of TSS.

D19: A total of 40 samples were taken at this location, there were 3 exceedences of TSS, 15 exceedences of ammonia and 25 exceedences of nitrate.

See Table 17: Vale Inco (Long Harbour) 2010: Effluent Discharge Criteria Summary.

Environmental Effects Monitoring

There is no EEM program at this site.

7) Exploration/Small Mining Ventures

a) Tenacity Gold Mining Co. Ltd. (Stog'er Tight)

<u>Current CofA</u>	Approval #:	AA10-075526
	Issue date:	July 19, 2010
	Expiration:	July 19, 2012

CofA was issued in 2010 for this project. No effluent data was reported to NL ENVC.

b) Tenacity Gold Mining Co. Ltd. (Deer Cove)

<u>Current CofA</u>	Approval #:	AA10-075527
	Issue date:	July 19, 2010
	Expiration:	July 19, 2012

CofA was issued in 2010 for this project. No effluent data was reported to NL ENVC.

c) Golden Promise

<u>Current CofA</u>	Approval #:	AA10-105539
	Issue date:	October 28, 2010
	Expiration:	October 28, 2011

CofA was issued in 2010 for this project. No effluent data was reported to NL ENVC.

Table 16: Vale Inco (Argentina) 2010 Effluent Discharge Criteria Summary (Values in mg/L, unless otherwise specified)

Polish Pond Discharge	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Year to Date
- Samples	1						1			1		1	4
- pH, Maximum	7.2						7.28			7.26		7.16	7.28
- pH, Exceedence (<5.5, >9.0)	0						0			0		0	0
- As, Maximum	<0.02						<0.001			<0.01		<0.001	<0.02
- As, Exceedence (>0.5)	0						0			0		0	0
- Cd, Maximum	<0.003						<0.00002			<0.00017		<0.000022	<0.003
- Cd, Exceedence (>0.05)	0						0			0		0	0
- Cu, Maximum	<0.02						<0.002			<0.02		0.0025	0.0025
- Cu, Exceedence (>0.3)	0						0			0		0	0
- Fe, Maximum	<0.5						<0.05			<0.5		<0.05	<0.5
- Fe, Exceedence (> 10)	0						0			0		0	0
- Pb, Maximum	<0.005						<0.0005			<0.005		<0.0005	<0.005
- Pb, Exceedence (>0.2)	0						0			0		0	0
- Hg, Maximum	<0.000013						<0.000013			<0.000013		<0.000013	<0.000013
- Hg, Exceedence (>0.005)	0						0			0		0	0
- Ni, Maximum	0.21						0.13			0.146		0.239	0.239
- Ni, Exceedence (>0.5)	0						0			0		0	0
- Zn, Maximum	<0.05						<0.005			<0.05		0.0067	0.0067
- Zn, Exceedence (>0.5)	0						0			0		0	0
- Ammonia, Maximum	<0.05						<0.05			<0.05		<0.05	<0.05
- Ammonia, Exceedence (>2)	0						0			0		0	0
- Nitrate, Maximum	<0.05						<0.05			<0.05		<0.05	<0.05
- Nitrate, Exceedence (>10)	0						0			0		0	0
- TDS, Maximum	1070						757			657		877	1070
- TDS, Exceedence (>1000)	1						0			0		0	1

Table 16 Continued: Vale Inco (Argentina) 2010 Effluent Discharge Criteria Summary (Values in mg/L, unless otherwise specified)

Polish Pond Discharge	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Year to Date
- TPH, Maximum	<0.1						<0.1			<0.1		<0.1	<0.1
- TPH, Exceedence (>15)	0						0			0		0	0
- TSS, Maximum	1						4			<2		<1	4
- TSS, Exceedence (>30)	0						0			0		0	0
- ALT, Pass (RT)	1						1			1		1	4
- ALT, Fail (RT)													0

Table 17: Vale Inco (Long Harbour) 2010 Effluent Discharge Criteria Summary (Values in mg/L, unless otherwise specified)

D2 - Plant Site Diversion Ditch North Discharge													Year
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	To Date
- Samples	4	4	5	5	4	5	5	4	5	4	4	5	54
- pH, Maximum	7.13	7.13	7.38	7.54	7.48	7.62	7.58	7.66	7.66	7.61	7.84	7.86	7.86
- pH, Minimum	6.49	6.97	6.32	6.93	7.38	6.86	6.68	7.03	7.02	7.11	7.38	6.8	6.32
- pH, Exceedence (<5.5, >9.0)	0	0	0	0	0	0	0	0	0	0	0	0	0
- As, Maximum	0.015	0.015	0.005	0.0022	0.0018	0.0095	0.0025	0.0026	0.0021	0.0027	0.0026	0.0019	0.015
- As, Exceedence (>0.5)	0	0	0	0	0	0	0	0	0	0	0	0	0
- Cu, Maximum	0.029	0.021	0.011	0.0076	0.0124	0.0199	0.0106	0.0109	0.0069	0.0079	0.0096	0.0057	0.029
- Cu, Exceedence (>0.3)	0	0	0	0	0	0	0	0	0	0	0	0	0
- Pb, Maximum	0.059	0.047	0.026	0.0118	0.0108	0.0273	0.0135	0.0139	0.0105	0.00843	0.0077	0.00557	0.059
- Pb, Exceedence (>0.2)	0	0	0	0	0	0	0	0	0	0	0	0	0
- Ni, Maximum	0.003	0.003	<0.002	<0.002	0.0023	0.003	0.0023	0.002	<0.002	<0.002	<0.0002	<0.002	0.0032
- Ni, Exceedence (>0.5)	0	0	0	0	0	0	0	0	0	0	0	0	0
- Zn, Maximum	0.073	0.082	0.079	0.081	0.0872	0.103	0.128	0.175	0.188	0.213	0.105	0.0717	0.213
- Zn, Exceedence (>0.5)	0	0	0	0	0	0	0	0	0	0	0	0	0
- TSS, Maximum	86	42	56	15	15	92	32	13	27	24	12	19	92
- TSS, Exceedence (>30)	4	3	1	0	0	1	1	0	0	0	0	0	10
- Ammonia, Maximum	0.93	1.6	2	6.4	4.7	3.6	0.87	<0.05	0.08	<0.05	0.05	<0.05	6.4
- Ammonia, Exceedence (>2)	0	0	0	4	3	2	0	0	0	0	0	0	9
- Cd, Maximum	<0.0003	0.0005	0.0005	0.001	0.000798	0.00128	0.0013	0.00108	0.00113	0.000876	0.000436	0.000215	0.0013
- Fe, Maximum	3.7	2.2	1.4	0.632	0.556	3.68	0.696	0.706	1.01	0.756	0.554	0.666	3.7
- Hg, Maximum	0.000018	<0.000013	0.000016	<0.000013	0.000022	0.000019	0.00002	0.000022	<0.000013	<0.000013	0.000015	<0.000013	0.000022
- Nitrate, Maximum	2.5	3.9	6.4	33	34	59	47	38	42	23	22	15	59
- Nitrate, Exceedence (>10)	0	0	0	4	4	4	3	3	5	2	3	3	31

Table 17 Continued: Vale Inco (Long Harbour) 2010 Effluent Discharge Criteria Summary (Values in mg/L, unless otherwise specified)

D3 - Plant Site Diversion													Year
Ditch South Discharge	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.	To Date
- Samples	4	4	5	6	5	7	5	2	4	4	4	5	55
- pH, Maximum	7.10	7.13	7.30	7.63	7.57	7.89	7.68	7.60	7.52	7.68	7.72	7.72	7.89
- pH, Minimum	5.70	6.37	6.23	6.99	7.32	6.63	6.55	6.54	6.76	6.98	7.08	6.87	5.70
- pH, Exceedence (<5.5, >9.0)	0	0	0	0	0	0	0	0	0	0	0	0	0
- As, Maximum	0.009	0.006	0.012	0.0203	0.0052	0.0139	0.0172	0.0051	0.0178	0.0032	0.0051	0.00102	0.0203
- As, Exceedence (>0.5)	0	0	0	0	0	0	0	0	0	0	0	0	0
- Cu, Maximum	0.021	0.006	0.033	0.0448	0.0132	0.0349	0.0415	0.0152	0.0314	0.0094	0.0142	0.0137	0.0448
- Cu, Exceedence (>0.3)	0	0	0	0	0	0	0	0	0	0	0	0	0
- Pb, Maximum	0.058	0.012	0.091	0.175	0.0306	0.108	0.137	0.0364	0.0892	0.0185	0.0225	0.0318	0.175
- Pb, Exceedence (>0.2)	0	0	0	0	0	0	0	0	0	0	0	0	0
- Ni, Maximum	0.004	<0.002	0.006	0.0072	<0.002	0.0054	0.0054	0.0021	0.0037	0.0021	<0.0002	0.0024	0.0072
- Ni, Exceedence (>0.5)	0	0	0	0	0	0	0	0	0	0	0	0	0
- Zn, Maximum	0.045	0.061	0.072	0.103	0.0325	0.0795	0.102	0.0495	0.0826	0.0263	0.0329	0.0295	0.103
- Zn, Exceedence (>0.5)	0	0	0	0	0	0	0	0	0	0	0	0	0
- TSS, Maximum	280	110	250	2400	87	270	360	4	110	42	38	120	2400
- TSS, Exceedence (>30)	3	3	3	4	1	2	2	0	4	1	1	5	29
- Ammonia, Maximum	0.48	0.15	0.29	0.84	0.06	0.11	0.75	0.16	0.57	<0.05	<0.05	0.46	0.84
- Ammonia, Exceedence (>2)	0	0	0	0	0	0	0	0	0	0	0	0	0
- Cd, Maximum	<0.0003	<0.0003	<0.0003	0.000568	0.000109	0.000437	0.000596	0.000424	0.000936	0.000252	0.000159	0.000167	0.000936
- Fe, Maximum	4.1	1.1	5.7	8.74	1.75	5.42	4.76	2.12	3.35	1.48	1.9	2.1	8.74
- Hg, Maximum	0.000027	<0.000013	0.000015	0.000024	0.000026	0.000032	0.000029	0.000032	0.000018	<0.000013	0.000017	0.000017	0.000032
- Nitrate, Maximum	1.7	1.7	0.73	2.5	0.64	0.90	3.6	2.6	7.1	2.1	2.80	3.2	7.1
- Nitrate, Exceedence (>10)	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 17 Continued: Vale Inco (Long Harbour) 2010 Effluent Discharge Criteria Summary (Values in mg/L, unless otherwise specified)

D5 - Laydown Pad Storm Pond Discharge													Year
	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.	To Date
- Samples	1	1	1	1	1	1	4	4	5	3	1	1	24
- pH, Maximum	5.80	6.25	6.15	5.82	6.16	6.01	6.78	7.09	6.94	7.04	7.14	6.87	7.14
- pH, Minimum							5.04	5.24	5.04	6.50			5.04
- pH, Exceedence (<5.5, >9.0)	0	0	0	0	0	0	1	1	1	0	0	0	3
- As, Maximum	<0.002	<0.002	<0.002	<0.001	0.0017	0.0014	<0.001	0.001	0.0011	<0.001	<0.001	<0.001	0.0017
- As, Exceedence (>0.5)	0	0	0	0	0	0	0	0	0	0	0	0	0
- Cu, Maximum	<0.002	<0.002	0.003	0.0036	0.0145	0.0063	0.0025	0.0046	0.0051	0.0031	<0.002	0.0062	0.0145
- Cu, Exceedence (>0.3)	0	0	0	0	0	0	0	0	0	0	0	0	0
- Pb, Maximum	0.0013	0.0006	0.0021	0.00218	0.00901	0.00607	0.00168	0.00284	0.00383	0.00197	<0.0005	0.00371	0.00901
- Pb, Exceedence (>0.2)	0	0	0	0	0	0	0	0	0	0	0	0	0
- Ni, Maximum	<0.002	<0.002	<0.002	<0.002	0.0034	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.0034
- Ni, Exceedence (>0.5)	0	0	0	0	0	0	0	0	0	0	0	0	0
- Zn, Maximum	0.007	0.007	0.007	0.0092	0.0218	0.0132	0.0128	0.0175	0.0294	0.0092	<0.005	0.0012	0.0294
- Zn, Exceedence (>0.5)	0	0	0	0	0	0	0	0	0	0	0	0	0
- TSS, Maximum	5	2	8	8	28	26	8	75	11	5	<1	12	75
- TSS, Exceedence (>30)	0	0	0	0	0	0	0	1	0	0	0	0	1
- Ammonia, Maximum	<0.05	0.06	<0.05	<0.05	0.72	1.4	0.11	0.41	2.4	<0.05	<0.05	<0.05	2.4
- Ammonia, Exceedence (>2)	0	0	0	0	0	0	0	0	0	0	0	0	0
- Cd, Maximum	<0.0003	<0.0003	<0.003	0.00002	0.000064	0.000039	0.000042	0.000061	0.000186	0.000049	<0.000017	0.000037	0.000186
- Fe, Maximum	0.94	0.65	0.92	1.35	3.79	2.34	0.881	1.78	1.85	0.742	0.311	1.66	3.79
- Hg, Maximum	0.00002	<0.000013	<0.000013	0.000016	0.000031	0.000026	0.000016	0.000022	0.000018	<0.000013	0.000017	<0.000013	0.000031
- Nitrate, Maximum	0.19	0.14	0.25	0.23	0.0038	1.7	2.3	5.7	37	9.5	1.40	1.1	37
- Nitrate, Exceedence (>10)	0	0	0	0	0	0	0	0	2	0	0	0	2

Table 17 Continued: Vale Inco (Long Harbour) 2010 Effluent Discharge Criteria Summary (Values in mg/L, unless otherwise specified)

D11 - Quarry 2 Discharge													Year
	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.	To Date
- Samples	4	4	4	5	2		4	4	5	4	4	4	44
- pH, Maximum	5.82	5.74	5.59	5.34	5.37		5.96	5.70	5.54	5.71	6.05	6.48	6.48
- pH, Minimum	5.19	5.47	5.29	5.04	5.30		4.91	4.96	4.80	5.31	5.43	5.58	4.8
- pH, Exceedence (<5.5, >9.0)	3	1	2	5	2		3	2	3	3	1	0	25
- As, Maximum	<0.002	<0.002	<0.002	0.0017	0.0022		0.0011	0.0024	<0.001	0.0039	<0.001	0.0012	0.0039
- As, Exceedence (>0.5)	0	0	0	0	0		0	0	0	0	0	0	0
- Cu, Maximum	0.005	0.005	0.016	0.0057	0.0119		0.0068	0.0139	0.0049	0.0216	0.12	0.0067	0.12
- Cu, Exceedence (>0.3)	0	0	0	0	0		0	0	0	0	0	0	0
- Pb, Maximum	0.0037	0.0044	0.012	0.008	0.00981		0.00504	0.0138	0.0033	0.0168	0.00399	0.00591	0.0168
- Pb, Exceedence (>0.2)	0	0	0	0	0		0	0	0	0	0	0	0
- Ni, Maximum	<0.002	<0.002	0.004	<0.002	0.0031		<0.002	0.004	0.0034	0.0074	0.0033	<0.002	0.0074
- Ni, Exceedence (>0.5)	0	0	0	0	0		0	0	0	0	0	0	0
- Zn, Maximum	0.017	0.014	0.032	0.0203	0.0275		0.0192	0.0356	0.0565	0.0455	0.0179	0.0209	0.0565
- Zn, Exceedence (>0.5)	0	0	0	0	0		0	0	0	0	0	0	0
- TSS, Maximum	24	10	82	31	44		54	250	66	38	18	35	250
- TSS, Exceedence (>30)	0	0	2	1	1		1	2	1	1	0	1	10
- Ammonia, Maximum	2	1.1	2.4	3	1		0.23	1.2	6.9	0.87	0.06	0.13	6.9
- Ammonia, Exceedence (>2)	1	0	1	3	0		0	0	0	0	0	0	5
- Cd, Maximum	<0.0003	<0.0003	<0.0003	0.000114	0.000111		0.00123	0.000238	0.000393	0.000246	0.000164	0.000139	0.00123
- Fe, Maximum	1.6	1.7	6.3	2.12	3.91		1.73	5.06	1.63	7.63	1.61	2.27	7.63
- Hg, Maximum	0.000013	0.000013	0.000017	0.000015	0.000031		0.000020	0.000026	<0.000013	0.000021	0.000016	<0.000013	0.000031
- Nitrate, Maximum	7.4	6.5	12	17	8.9		14	26	49	36	28	20	49
- Nitrate, Exceedence (>10)	0	0	1	4	0		2	3	4	3	4	3	24

Table 17 Continued: Vale Inco (Long Harbour) 2010 Effluent Discharge Criteria Summary (Values in mg/L, unless otherwise specified)

D12 - Plant Site Runoff													Year
	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.	To Date
- Samples	4	4	4	5	4	5	4	4	5	4	4	4	51
- pH, Maximum	7.09	7.08	7.46	7.43	7.50	7.48	7.42	7.55	7.62	7.57	7.67	7.73	7.73
- pH, Minimum	6.44	6.66	6.51	6.37	7.22	6.62	6.88	6.77	6.68	7.09	7.07	7.00	6.37
- pH, Exceedence (<5.5, >9.0)	0	0	0	0	0	0	0	0	0	0	0	0	0
- As, Maximum	0.015	0.013	0.007	0.032	0.029	0.0122	0.0024	0.0023	0.0028	0.0028	0.0024	0.0019	0.032
- As, Exceedence (>0.5)	0	0	0	0	0	0	0	0	0	0	0	0	0
- Cu, Maximum	0.033	0.022	0.015	0.0081	0.0103	0.0137	0.0103	0.011	0.0073	0.0082	0.0074	0.0059	0.033
- Cu, Exceedence (>0.3)	0	0	0	0	0	0	0	0	0	0	0	0	0
- Pb, Maximum	0.074	0.048	0.032	0.0187	0.0149	0.0192	0.0144	0.0135	0.00947	0.00832	0.00677	0.00683	0.074
- Pb, Exceedence (>0.2)	0	0	0	0	0	0	0	0	0	0	0	0	0
- Ni, Maximum	0.003	0.003	0.002	<0.002	<0.002	0.0028	0.0037	0.0033	0.0037	<0.002	<0.002	<0.002	0.0037
- Ni, Exceedence (>0.5)	0	0	0	0	0	0	0	0	0	0	0	0	0
- Zn, Maximum	0.079	0.076	0.056	0.102	0.0875	0.0145	0.2	0.205	0.275	0.155	0.0845	0.128	0.275
- Zn, Exceedence (>0.5)	0	0	0	0	0	0	0	0	0	0	0	0	0
- TSS, Maximum	170	36	51	13	23	79	18	10	24	22	19	8	170
- TSS, Exceedence (>30)	3	2	3	0	0	1	0	0	0	0	0	0	9
- Ammonia, Maximum	1.3	2.1	2.2	7.6	5.8	3.7	2.2	<0.05	0.1	<0.05	0.1	0.09	7.6
- Ammonia, Exceedence (>2)	0	1	1	4	3	3	1	0	0	0	0	0	13
- Cd, Maximum	0.0004	0.0005	0.0004	0.0012	0.00112	0.00164	0.00239	0.00201	0.00269	0.000923	0.000804	0.000166	0.00269
- Fe, Maximum	3.6	2.1	1.8	0.438	0.604	2.27	0.81	0.74	0.503	7.45	0.354	0.67	7.45
- Hg, Maximum	0.000028	<0.000013	<0.000013	0.000014	0.000027	0.000024	0.000016	0.000024	<0.000013	<0.000013	0.000015	<0.000013	0.000028
- Nitrate, Maximum	3	4.1	5.9	36	39	50	59	54	54	25	29.00	20	59
- Nitrate, Exceedence (>10)	0	0	0	4	4	4	3	3	5	2	4	2	31

Table 17 Continued: Vale Inco (Long Harbour) 2010 Effluent Discharge Criteria Summary (Values in mg/L, unless otherwise specified)

D13 - USM Site 2 Discharge													Year
	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.	To Date
- Samples	4	1	1	2	3	5	2	4	5	2	1	1	31
- pH, Maximum	6.39	6.21	6.36	6.69	6.81	6.71	6.63	6.64	6.37	6.58	6.59	5.99	6.81
- pH, Minimum	5.85			6.24	6.53	5.87	5.74	5.34	5.39	6.17			5.34
- pH, Exceedence (<5.5, >9.0)	0	0	0	0	0	0	0	1	0	0	0	0	1
- As, Maximum	<0.002	<0.002	<0.002	<0.001	0.0031	0.0018	0.0019	0.0061	0.0052	0.0024	<0.001	<0.001	0.0061
- As, Exceedence (>0.5)	0	0	0	0	0	0	0	0	0	0	0	0	0
- Cu, Maximum	0.004	<0.002	<0.002	<0.002	0.0214	0.0034	0.0028	0.0043	0.0024	0.0054	<0.002	0.0038	0.0214
- Cu, Exceedence (>0.3)	0	0	0	0	0	0	0	0	0	0	0	0	0
- Pb, Maximum	0.0035	<0.0005	0.0006	0.00139	0.0157	0.00229	0.00159	0.00258	0.00158	0.00407	<0.0005	0.0014	0.0157
- Pb, Exceedence (>0.2)	0	0	0	0	0	0	0	0	0	0	0	0	0
- Ni, Maximum	<0.002	<0.002	<0.002	<0.002	0.0057	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.0057
- Ni, Exceedence (>0.5)	0	0	0	0	0	0	0	0	0	0	0	0	0
- Zn, Maximum	0.024	0.009	0.009	0.008	0.0372	0.0109	0.0121	0.0198	0.0156	0.0849	0.0063	0.0144	0.0849
- Zn, Exceedence (>0.5)	0	0	0	0	0	0	0	0	0	0	0	0	0
- TSS, Maximum	22	5	7	10	280	32	10	110	57	18	3	8	280
- TSS, Exceedence (>30)	0	0	0	0	1	1	0	1	2	0	0	0	5
- Ammonia, Maximum	0.3	0.01	0.06	0.1	0.13	0.1	0.16	0.36	0.53	0.25	0.29	0.06	0.53
- Ammonia, Exceedence (>2)	0	0	0	0	0	0	0	0	0	0	0	0	0
- Cd, Maximum	<0.0003	<0.0003	<0.0003	<0.0017	0.000119	0.000029	0.000048	0.000105	0.000057	0.00103	<0.000017	0.000033	0.00103
- Fe, Maximum	3.5	2.1	1.6	2.01	7.71	3.83	3.56	16.1	21.7	2.22	3.83	1.11	21.7
- Hg, Maximum	0.00002	<0.000013	<0.000013	<0.000013	0.000023	0.000018	0.000023	0.000034	0.000024	0.000016	0.000021	<0.000013	0.000034
- Nitrate, Maximum	0.35	0.09	0.14	0.6	0.37	0.25	0.39	0.16	1.0	0.51	<0.05	0.83	1.0
- Nitrate, Exceedence (>10)	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 17 Continued: Vale Inco (Long Harbour) 2010 Effluent Discharge Criteria Summary (Values in mg/L, unless otherwise specified)

D15 - USM Site #1 Southwest Discharge													Year
	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.	To Date
- Samples	3	1	3	5	1	2	2	1	3	2	1	1	25
- pH, Maximum	6.91	6.88	7.02	7.14	7.05	7.17	7.47	6.21	7.16	7.41	7.24	6.54	7.47
- pH, Minimum	6.66		5.93	6.38		6.64	6.52		6.59	6.80			5.93
- pH, Exceedence (<5.5, >9.0)	0	0	0	0	0	0	0	0	0	0	0	0	0
- As, Maximum	<0.002	<0.002	<0.002	<0.002	<0.001	<0.001	0.0012	<0.001	<0.001	<0.001	<0.001	<0.001	0.0012
- As, Exceedence (>0.5)	0	0	0	0	0	0	0	0	0	0	0	0	0
- Cu, Maximum	0.002	0.004	0.003	0.0041	0.0077	0.0074	0.0064	0.0036	0.0048	0.0044	0.0063	0.0078	0.0078
- Cu, Exceedence (>0.3)	0	0	0	0	0	0	0	0	0	0	0	0	0
- Pb, Maximum	<0.0005	0.0009	0.001	0.00072	0.0018	0.00151	0.00532	<0.0005	0.00051	<0.0005	0.00099	0.00114	0.00532
- Pb, Exceedence (>0.2)	0	0	0	0	0	0	0	0	0	0	0	0	0
- Ni, Maximum	<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, Exceedence (>0.5)	0	0	0	0	0	0	0	0	0	0	0	0	0
- Zn, Maximum	0.017	0.041	0.011	0.0075	0.012	0.0152	0.0094	0.0132	0.0076	0.0065	0.0091	0.0088	0.041
- Zn, Exceedence (>0.5)	0	0	0	0	0	0	0	0	0	0	0	0	0
- TSS, Maximum	13	38	35	8	7	6	20	<2	10	<2	7	5	38
- TSS, Exceedence (>30)	0	1	1	0	0	0	0	0	0	0	0	0	2
- Ammonia, Maximum	<0.05	0.09	0.11	0.05	0.05	0.09	0.06	0.1	0.06	<0.05	<0.05	<0.05	0.11
- Ammonia, Exceedence (>2)	0	0	0	0	0	0	0	0	0	0	0	0	0
- Cd, Maximum	<0.0003	<0.0003	<0.003	0.000106	0.000091	0.000086	0.000118	0.00007	0.000078	0.000281	0.00343	0.000072	0.00343
- Fe, Maximum	0.19	0.55	0.69	0.522	0.865	0.923	0.755	0.343	0.338	0.141	0.293	0.643	0.923
- Hg, Maximum	0.000017	<0.000013	0.000026	0.000015	<0.000013	0.000024	0.000016	0.000028	0.000017	<0.000013	0.000014	<0.000013	0.000028
- Nitrate, Maximum	0.17	0.23	2.2	1.2	1.4	1.3	1.7	0.92	3.2	0.65	0.07	1.3	3.2
- Nitrate, Exceedence (>10)	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 17 Continued: Vale Inco (Long Harbour) 2010 Effluent Discharge Criteria Summary (Values in mg/L, unless otherwise specified)

D17 - Discharge from P25 to Forgotten Pond	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.	Year To Date
- Samples	4	4	4	5	4	3	1	1	3	2	1		32
- pH, Maximum	7.09	7.22	7.39	7.53	7.23	7.20	6.68	6.72	7.29	7.32	7.16		7.53
- pH, Minimum	5.79	6.66	6.76	6.49	6.89	6.78			6.67	7.04			5.79
- pH, Exceedence (<5.5, >9.0)	0	0	0	0	0	0	0	0	0	0	0		0
- As, Maximum	0.012	0.029	0.031	0.0191	0.0069	0.0038	0.0029	0.0017	0.0014	<0.001	0.0026		0.031
- As, Exceedence (>0.5)	0	0	0	0	0	0	0	0	0	0	0		0
- Cu, Maximum	0.026	0.046	0.11	0.0386	0.0165	0.0106	0.086	0.0058	0.0042	0.0033	0.0055		0.11
- Cu, Exceedence (>0.3)	0	0	0	0	0	0	0	0	0	0	0		0
- Pb, Maximum	0.075	0.19	0.39	0.122	0.0482	0.0178	0.0128	0.0044	0.00352	0.0019	0.012		0.39
- Pb, Exceedence (>0.2)	0	0	0	0	0	0	0	0	0	0	0		0
- Ni, Maximum	0.004	0.008	0.016	0.006	0.0029	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002		0.016
- Ni, Exceedence (>0.5)	0	0	0	0	0	0	0	0	0	0	0		0
- Zn, Maximum	0.061	0.24	0.22	0.0872	0.0388	0.0187	0.0161	0.0107	0.011	0.058	0.0144		0.24
- Zn, Exceedence (>0.5)	0	0	0	0	0	0	0	0	0	0	0		0
- TSS, Maximum	530	820	1400	550	41	17	14	6	5	14	19		1400
- TSS, Exceedence (>30)	3	4	4	3	1	0	0	0	0	0	0		15
- Ammonia, Maximum	0.47	3.9	1.8	0.85	0.07	<0.05	0.07	<0.05	<0.05	<0.05	<0.05		3.9
- Ammonia, Exceedence (>2)	0	1	0	0	0	0	0	0	0	0	0		1
- Cd, Maximum	0.0004	0.0017	0.0015	0.000633	0.000124	0.000069	0.000068	0.000054	0.000238	0.000018	0.000035		0.0017
- Fe, Maximum	5.5	8.4	19	8.85	3.32	1.36	1.18	0.925	0.962	0.436	1.95		19
- Hg, Maximum	0.000037	<0.000013	0.00002	0.000018	0.000016	0.000016	0.000025	0.000035	0.00002	<0.000013	0.000200		0.0002
- Nitrate, Maximum	1.5	6.7	3.4	2.6	1.7	1.8	1.2	0.71	3.9	1.4	0.35		6.7
- Nitrate, Exceedence (>10)	0	0	0	0	0	0	0	0	0	0	0		0

Table 17 Continued: Vale Inco (Long Harbour) 2010 Effluent Discharge Criteria Summary (Values in mg/L, unless otherwise specified)

D18 - EPCM Discharge													Year
	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.	To Date
- Samples	3	3	2	1	1	2	2	1	3	2	1	1	22
- pH, Maximum	6.93	6.71	6.75	6.82	6.74	6.95	7.23	6.05	7.09	6.86	7.20	6.13	7.23
- pH, Minimum	6.05	6.45	6.23			6.34	6.08		6.45	6.40			6.05
- pH, Exceedence (<5.5, >9.0)	0	0	0	0	0	0	0	0	0	0	0	0	0
- As, Maximum	0.003	<0.002	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	0.0014	<0.001	<0.001	<0.001	0.003
- As, Exceedence (>0.5)	0	0	0	0	0	0	0	0	0	0	0	0	0
- Cu, Maximum	0.014	0.003	0.003	<0.02	0.045	0.033	0.034	0.0024	0.004	<0.002	0.0021	0.0032	0.045
- Cu, Exceedence (>0.3)	0	0	0	0	0	0	0	0	0	0	0	0	0
- Pb, Maximum	0.01	0.0028	0.0009	0.0007	0.0013	0.00163	0.00151	0.00099	0.00208	0.00111	0.00177	0.0087	0.01
- Pb, Exceedence (>0.2)	0	0	0	0	0	0	0	0	0	0	0	0	0
- Ni, Maximum	0.003	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.003
- Ni, Exceedence (>0.5)	0	0	0	0	0	0	0	0	0	0	0	0	0
- Zn, Maximum	0.024	0.055	0.017	0.0303	0.0186	0.0279	0.0631	0.0158	0.218	0.0296	0.0487	0.0133	0.218
- Zn, Exceedence (>0.5)	0	0	0	0	0	0	0	0	0	0	0	0	0
- TSS, Maximum	54	11	6	<2	18	24	24	9	18	7	1	8	54
- TSS, Exceedence (>30)	2	0	0	0	0	0	0	0	0	0	0	0	2
- Ammonia, Maximum	0.2	0.11	0.08	0.05	0.06	<0.05	<0.05	<0.05	0.06	<0.05	<0.05	<0.05	0.2
- Ammonia, Exceedence (>2)	0	0	0	0	0	0	0	0	0	0	0	0	0
- Cd, Maximum	<0.0003	<0.0003	<0.0003	<0.000017	0.000017	0.000028	0.000031	0.0028	0.000056	0.000033	<0.000017	0.000023	0.0028
- Fe, Maximum	2.9	0.62	0.36	0.238	0.828	0.783	0.902	0.68	0.989	0.533	0.226	0.537	2.9
- Hg, Maximum	0.000018	<0.000013	<0.000013	<0.000013	<0.000013	0.000016	0.000025	0.000033	0.000017	<0.000013	0.000017	<0.000013	0.000033
- Nitrate, Maximum	0.48	0.71	<0.05	<0.05	0.06	0.07	<0.05	0.06	0.08	0.1	0.05	<0.05	0.71
- Nitrate, Exceedence (>10)	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 17 Continued: Vale Inco (Long Harbour) 2010 Effluent Discharge Criteria Summary (Values in mg/L, unless otherwise specified)

D19 - Quarry 3 Discharge	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.	Year To Date
- Samples	4	1	2	3	4	5	4	3	4	3	3	4	40
- pH, Maximum	7.16	7.18	7.56	7.62	7.61	7.70	7.52	7.71	7.76	7.76	7.63	7.89	7.89
- pH, Minimum	6.85		6.92	7.16	7.50	7.25	7.27	6.61	7.01	7.30	7.44	7.20	6.61
- pH, Exceedence (<5.5, >9.0)	0	0	0	0	0	0	0	0	0	0	0	0	0
- As, Maximum	0.015	0.008	0.002	0.014	<0.000001	0.0022	<0.001	0.0017	0.0013	0.0027	0.0014	0.0019	0.015
- As, Exceedence (>0.5)	0	0	0	0	0	0	0	0	0	0	0	0	0
- Cu, Maximum	0.006	0.004	0.004	0.007	0.032	0.005	0.037	0.0056	0.0078	0.0081	0.0061	0.0077	0.037
- Cu, Exceedence (>0.3)	0	0	0	0	0	0	0	0	0	0	0	0	0
- Pb, Maximum	0.0043	0.008	0.0011	0.00129	0.00116	0.00495	0.00075	0.00158	0.00294	0.00977	0.00279	0.00843	0.00977
- Pb, Exceedence (>0.2)	0	0	0	0	0	0	0	0	0	0	0	0	0
- Ni, Maximum	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.0022	<0.002	0.005	<0.002	<0.002	0.005
- Ni, Exceedence (>0.5)	0	0	0	0	0	0	0	0	0	0	0	0	0
- Zn, Maximum	0.016	0.014	0.007	0.0126	0.0129	0.0212	0.0226	0.05	0.0143	0.0222	0.0112	0.0117	0.05
- Zn, Exceedence (>0.5)	0	0	0	0	0	0	0	0	0	0	0	0	0
- TSS, Maximum	22	5	8	17	8	51	6	10	11	250	11	22	250
- TSS, Exceedence (>30)	0	0	0	0	0	1	0	0	0	2	0	0	3
- Ammonia, Maximum	0.67	0.46	1.3	4.7	4.1	2.5	1.6	6.6	6	4.6	0.17	1.2	6.6
- Ammonia, Exceedence (>2)	0	0	0	3	4	2	0	1	3	2	0	0	15
- Cd, Maximum	<0.0003	<0.0003	<0.0003	0.000172	0.000136	0.000121	0.000227	0.000496	0.000458	0.000215	0.000123	0.000077	0.000496
- Fe, Maximum	1	1.9	0.92	0.73	0.193	1.53	0.424	0.691	0.52	2.03	0.726	0.979	2.03
- Hg, Maximum	0.00002	<0.000013	<0.000013	<0.000013	0.000025	0.000013	0.000017	0.000028	<0.000013	<0.000013	0.000017	0.000015	0.000028
- Nitrate, Maximum	1.7	<0.05	1.6	35	26	66	79	100	92	37	12.00	19	100
- Nitrate, Exceedence (>10)	0	0	0	3	4	5	4	2	4	1	1	1	25

8) Conclusion

The NL ENVC regulates effluent discharged from the industrial sectors of the province. As can be concluded from this short summary report, the nature of these industries and the types of effluent generated are very different and specific; no two industries can be viewed exactly the same. Differences within the industrial facilities and the receiving environment make this a dynamic field that has to be constantly monitored.

The industries operating within Newfoundland and Labrador are diligent in working with the NL ENVC to achieve the mutual goals of environmental sustainability and protection.

Additional effluent monitoring and water quality monitoring data from the industrial sector is available upon request.

For further information related to industrial effluent quality and monitoring, please contact:

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Appendix A: Abbreviations and Acronyms

ALT – Acute Lethality Test

BOD – Biological Oxygen Demand

CofA – Certificate of Approval

ECWSR – Environmental Control Water and Sewer Regulations

HTGS – Holyrood Thermal Generating Station

IOCC – Iron Ore Company of Canada

MMER – Metal Mining Effluent Regulations

NL ENVC – Newfoundland and Labrador Department of Environment and Conservation

TDS – Total Dissolved Solids

TIA – Tailings Impoundment Area

TIE – Toxicity Identification Evaluation

TPH – Total Petroleum Hydrocarbons

TSS – Total Suspended Solids