



MEADOWBANK DIVISION

Monitoring Program Summary Report

March 2012

Type A Water License 2AM-MEA0815

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SECTION 1 • BACKGROUND

As required under Part I, Item 25 of Type A Water License 2AM-MEA0815, this report documents the water management and monitoring activity at the mine site for the month. This activity includes: water usage and sewage treatment plant discharge water quality.

Additionally, a summary of the AEM internal spill reporting for the month is included.

SECTION 2 • WATER MANAGEMENT

2.1 WATER USAGE

Freshwater usage for March 2012 is summarized in Table 2.1 below. Freshwater usage for the month totals 89,844 m³. Please note that as of March 7th 2012, freshwater for use at the camp is being obtained from the freshwater storage tank near the mill (not directly from the lake via the freshwater intake barge as it was done in the past). The consumption of freshwater for the mine and mill operations (including production drills and dust control) and the camp was 89,782 m³. The consumption of reclaim water in the mill was 232,473 m³.

Table2-1: Freshwater Usage (m³)

	February
Camp	633
Freshwater Storage Tank	89,119
Emulsion Plant	132
Water Truck	0
Total	89,884

2.2 SEWAGE TREATMENT PLANTS

Four water samples were taken at the effluents of the sewage treatment plants (STP) in March.

The Seprotech STP results are shown in Table 2.2 below; the LJ-Mix STP results are shown in Table 2.3. The results of the discharge show the system was working well.

Table 2-2: Seprotech Effluent Results

Date	Units	5-Mar-12	12-Mar-12	19-Mar-12	26-Mar-12
Ammonia-Ammonium	mg N/L	2.8	7.0	3.5	2.9
Total Kjeldahl Nitrogen	mg N/L	7	11	8	7
BOD-5	mg/L	5	7	7	5
COD	mg/L	76	55	78	50
Total Suspended Solids	mg/L	41	17	25	32
Nitrate	mg N/L	25	24.8	22.7	21.9
Nitrite	mg N/L	0.04	0.02	0.02	0.02
Total Phosphorus	mg/L	10.4	10.6	11.0	11
pH *	units	4.80	4.10	4.40	4.70
Fecal Coliform	UFC/100 mL	108	28	116	92
Total Coliform	UFC/100 mL	<1000	300	4 400	1 000

Table 2-3: LJ-Mix Effluent Results

Date	Units	5-Mar-12	12-Mar-12	19-Mar-12	26-Mar-12
Ammonia-Ammonium	mg N/L	7.5	18.4	9.8	13.2
Total Kjeldahl Nitrogen	mg N/L	13	24	16	20
BOD-5	mg/L	6	15	9	9
COD	mg/L	62	85	95	96
Total Suspended Solids	mg/L	36	34	21	7
Nitrate	mg N/L	28.5	34.1	26	22.9
Nitrite	mg N/L	0.19	0.2	0.06	0.22
Total Phosphorus	mg/L	10.1	10.5	11.5	10.3
pH *	units	5.80	5.10	5.10	5.50
Fecal Coliform	UFC/100 mL	400	40	16	80
Total Coliform	UFC/100 mL	20,000	300	100	600

SECTION 3 • SPILL MANAGEMENT

AEM has developed a system of tracking spills on-site. Table 3.1 summarizes the AEM internal spill reports for the month. Eleven (11) spills occurred on site; one was reported to the GN spill hotline.

Table 3-1: Summary of AEM Internal Spill Reports

Date of Spill	Hazardous Material	Quantity	Location	Cause of spill	Clean-up action taken	Reported to Spill Hot Line
1-Mar-12	Oil	46 L	Fountain Tire	Failed component	Used rags to recover fluid and disposed of in hazmat waste drum in the shop	No
unreported	Anti-freeze	20 L	New transit laydown	Unknown	Scraped the contamination off the ground and took it to Hazmat	No
2-Mar-12	Hydraulic oil	7 L	Between Assay lab and Mill	Hydraulic Hose hit and broke	Shoveled the contaminated snow into a drum and took it to Hazmat	No
4-Mar-12	Copper Sulphate	2 kg	In front of process plant	Powder dropped on the ground while handling bag	Shovelled the copper into a pail and took it to the mill	No
6-Mar-12	Oil	20 L	Fountain Tire	Failed component	Contained the spill, picked up the contaminated snow, and took it to Hazmat	No
9-Mar-12	Hydraulic oil	40 L	Next to the cold storage	A seal broke while doing maintenance	Contained the spill, picked up the contaminated snow, and took it to Hazmat	No
26-Mar-12	Emulsifier oil	160 L	Emulsion Plant laydown	Sea can fell on ground while moving it	Scraped the contamination off the ground and placed it into drums, then took it to Hazmat	Yes
26-Mar-12	Oil	5 L	Km 62 AWPAP	Mechanical problem on grader 1	Removed the contamination off the ground and took it to Quarry	No

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27-Mar-12	Anti-freeze	20 L	Old Genset	Leak on radiator	Cleaned inside the genset with absorbent, took contaminated soil to Hazmat	No
27-Mar-12	Power steering oil	2 L	Pit supervisor parking	Leak on the line	Scraped the contamination off the ground and took it to Hazmat	No
29-Mar-12	Anti-freeze	20 L	Intersection AWPAP and EMR	Anti-freeze hose going to heater broke	Scraped the contamination off the ground and took it to Quarry 22	No