



MEADOWBANK DIVISION

## **Monitoring Program Summary Report**

**January 2012**

Type A Water License 2AM-MEA0815

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## **SECTION 1 • BACKGROUND**

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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 January 2012 is summarized in Table 2.1 below. Freshwater usage for the month totals 99,643 m<sup>3</sup>. The consumption of fresh water for mine and mill operations (including production drills and dust control) was 96,259 m<sup>3</sup> and the consumption of reclaim water in the mill was 238,931 m<sup>3</sup>.

**Table 2-1: Freshwater Usage (m<sup>3</sup>)**

	<b>January</b>
Camp	3,243
Mine & Mill Operations	96,259
Emulsion Plant	141
Water Truck	0
<b>Total</b>	<b>99,643</b>

### 2.2 SEWAGE TREATMENT PLANTS

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

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 Seprotech discharge show the system was working well.

**Table 2-2: Seprotech Effluent Results**

<b>Date</b>	<b>Units</b>	<b>3-Jan-12</b>	<b>9-Jan-12</b>	<b>16-Jan-12</b>	<b>23-Jan-12</b>	<b>30-Jan-12</b>
Ammonia-Ammonium	mg N/L	5.1	5.5	1.5	4.2	5.0
Total Kjeldahl Nitrogen	mg N/L	9	9	5	7	8
BOD-5	mg/L	<1	2	4	6	3
COD	mg/L	64	71	70	112	60
Total Suspended Solids	mg/L	9	18	<1	14	<1
Nitrate	mg N/L	25.9	23.8	26.4	26.8	26.6
Nitrite	mg N/L	0.05	0.94	0.27	0.07	0.06
Total Phosphorus	mg/L	11.0	9.6	13.7	10.6	10.1
pH *	units	4.80	5.20	4.80	4.90	4.70
Fecal Coliform	UFC/100 mL	32	48	430	40	36
Total Coliform	UFC/100 mL	100	<100	3,000	200	<1000

**Table 2-3: LJ-Mix Effluent Results**

<b>Date</b>	<b>Units</b>	<b>3-Jan-12</b>	<b>9-Jan-12</b>	<b>16-Jan-12</b>	<b>23-Jan-12</b>	<b>30-Jan-12</b>
Ammonia-Ammonium	mg N/L	13.5	10.7	13.5	8.8	13.7
Total Kjeldahl Nitrogen	mg N/L	19	14	21	15	20
BOD-5	mg/L	8	7	17	12	16
COD	mg/L	80	66	122	88	86
Total Suspended Solids	mg/L	20	11	8	22	36
Nitrate	mg N/L	29.1	28.1	14.1	21.7	18.6
Nitrite	mg N/L	8.3	0.62	22.4	5.8	12.0
Total Phosphorus	mg/L	12.8	9.3	15.6	10.4	10.6
pH *	units	6.60	4.90	5.60	5.60	5.50
Fecal Coliform	UFC/100 mL	100	16	44	56	68
Total Coliform	UFC/100 mL	1,000	30	<100	120	300

### 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. Three (3) spills occurred on site; none were 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
2012-01-04	Gasoline	5L	Old Warehouse	Leak from a tank	Contaminated soil taken to Hazmat area	No
2012-01-05	Glycol	25L	Between Mill and Assay lab	transportation of a genset	Contaminated snow taken to power plant pit. As snow is melting it is pumped in a Hazmat waste disposal container	No
2011-12-08	Windshield Washer fluid	80L	Refueling Station	Leak from dispensing hose	Contaminated soil taken to Hazmat area	No