



MEADOWBANK DIVISION

## **Monitoring Program Summary Report**

**January 2013**

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 includes water usage, Portage Attenuation Pond discharge water quality and sewage treatment plant discharge water quality (to onsite storm water management pond).

In addition, a summary of spills/actions for the month is included.

## SECTION 2 • WATER MANAGEMENT

### 2.1 WATER USAGE

Freshwater usage for January 2013 is summarized in Table 2.1 below. Total freshwater used for the month was 68,708 m<sup>3</sup>. The total amount of reclaim water used in the mill for January was 268,611 m<sup>3</sup>. The total freshwater used to date is 68,708 m<sup>3</sup>.

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

	January
Freshwater Storage Tank	68,558
Emulsion Plant	150
Water Truck	0
<b>Total</b>	<b>68,708</b>
<b>Year to date total</b>	<b>68,708</b>

### 2.2 SEWAGE TREATMENT PLANTS

Four (4) effluent wastewater samples were taken from the onsite sewage treatment plants (STP's) in January.

The Seprotech STP results are shown in Table 2.2.1 below; the LJ-Mix STP results are shown in Table 2.2.2. The results of the discharge show the system was working well. The effluent is discharged to the onsite storm water pond and is not discharged to the natural environment.

**Table 2.2.1: Seprotech Effluent Results**

Parameters	Units	7-Jan-13	14-Jan-13	21-Jan-13	28-Jan-13
Ammonia	mg N/L	0.18	0.19	0.08	0.10
Ammonia-Ammonium	mg N/L	19.3	20.4	19.3	15.6
Total Kjeldahl Nitrogen	mg N/L	21	27	28	20
BOD-5	mg/L	7	13	10	11
COD	mg/L	85	65	84	76
Total Suspended Solids	mg/L	8	15	30	17
Nitrate	mg N/L	15.7	17.5	14.4	15.5
Nitrite	mg N/L	0.29	0.70	0.68	0.99
Total Phosphorus**	mg/L	7.7			
pH *	units	6.9	6.9	6.5	6.6
Fecal Coliform	UFC/100 mL	20	20	24	60
Total Coliform	UFC/100 mL	300	600	300	400

\*Parameter measured by STP operators

\*\* Parameter not required anymore

**Table 2.2.2: LJ-Mix Effluent Results**

Parameters	Units	7-Jan-13	14-Jan-13	21-Jan-13	28-Jan-13
Ammonia	mg N/L	1.5	<0.05	0.05	<0.05
Ammonia-Ammonium	mg N/L	32.7	9.5	20.5	4.3
Total Kjeldahl Nitrogen	mg N/L	62	14	27	8
BOD-5	mg/L	17	6	9	8
COD	mg/L	94	61	103	70
Total Suspended Solids	mg/L	38	12	31	16
Nitrate	mg N/L	13.6	24.9	16.9	21.3
Nitrite	mg N/L	1.00	0.28	0.62	0.01
Total Phosphorus**	mg/L	8.2			
pH *	units	6.4	6.4	6.0	5.9
Fecal Coliform	UFC/100 mL	800	<10	1,200	36
Total Coliform	UFC/100 mL	<1000	100	7,000	1,200

\*Parameter measured by STP operators

\*\* Parameter not required anymore

## 2.3 ATTENUATION POND EFFLUENT

For the month of January there is no effluent from the attenuation pond ST-9.

## 2.4 ST-6 NON CONTACT WATER

In January, the cold temperature did not allow the water to circulate at the North Cell Diversion Water Ditch (ST-6); there was no effluent.

## SECTION 3 • SPILL MANAGEMENT

AEM has developed a system of tracking spills on-site. Table 3.1 summarizes the AEM spill reports for the month. Nine (9) spills occurred on site and none (0) were reported to the GN spill hotline since they were all under a 100 L. AEM conducted the activities of containment and clean-up.

**Table 3-1: Summary of AEM Internal Spill Reports**

Date of spill	Hazardous material	Quantity (L)	Location	Cause of spill	Clean-up action taken	Reported to spill Hotline
01/14/2013	Compressor oil	20	Pattern 5116418	Spill from compressor area. Most probably busted hose.	Drill was shut down immediately and spill pads were laid down on spill.	No
01/12/2013	Hydraulic oil	10	HAZMAT Area	Hydraulic filter was lose when equipment was picked up from the Maintenance shop	Notified Site Service supervisor than began to place absorbant pads on the ground to absorb the leaking oil	No
01/09/2013	Hydraulic oil	60	Waste Dump	Hydraulic Hose Broke	Upon noticing the spill, the Haul Truck was stopped. Spill was contained and absorbant pads were placed on the spill. Hose was fixed and contaminated soil was cleaned up.	No
01/23/2013	Hydraulic oil	20	Incinerator	Hyster was losing hydraulic fluid from wheel bearing.	Was cleaned by SS but was never reported	No
01/26/2013	Hydraulic oil	15	Vault marginal pad	Hydraulic cylinder of the excavator broke	When noticing that the hydraulic cylinder of the excavator broke, the operator stopped the equipment. the mechanic contained the spill with a plastic bucket and absorbing towels. they replaced the cylinder on site. They picked up and disposed following AEM procedure. Cotaminated material was brought to CSP.	No
01/14/2013	Hydraulic oil	20	Shop Yard	Broken Hydraulic Hose causing T04 Oil to spill onto ground.	Site Service picked up contaminated soil	No
01/22/2013	Anti-freeze	20	AWPR, MB tank farm, MB gatehouse	Lower rad hose cracked and was leaking. Most of the spill was at the MB tank farm when pumping of fuel.	None. Repaired on site.	No
01/09/2013	Hydraulic oil	40	Top Parking on South Pit Ramp	Hydraulic Hose broke	Upon noticing the spill, the drill was stopped and the hose was replaced. Absorbant pads were placed on the spill.	No
01/16/2013	Engine oil	10	Pattern 5116418 entrance ramp	A rock hit the engine oil pan	Engine was turned off.	No