

Flambeau Mining Company
N4100 Highway 27
Ladysmith, WI 54848
(715) 532-6690
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**Kennecott
Minerals**

August 10, 1998

Mr. Lawrence J. Lynch
Mine Reclamation Unit
Wisconsin Department of Natural Resources
101 South Webster Street, GEF II
Madison, WI 53707

Dear Mr. Lynch:

RE: Temporary Basin Water Characterization
Flambeau Mining Company

The Flambeau Mining Company (Flambeau) is providing the results of analyses performed on the water collected from the temporary basin pursuant to your letter dated March 20, 1998. In the March 20, 1998 letter, the Department requested characterization of the water collected in the temporary basin prior to pumping water to the gravel pit as the primary option. Previous to submitting the attached results, Flambeau pumped water collected in the temporary basin to the Water Treatment Plant (WTP) as the primary option, and pumped to the south gravel pit only when deemed necessary based upon temporary basin inflows exceeding the pumping rates to the WTP.

The temporary basin was sampled on March 30, 1998 and May 30, 1998. The first sample was filtered using a 0.45 μm filter. Upon receipt of the March 30, 1998 analyses, it was determined that the use of 0.45 μm filter was inappropriate when dissolved iron concentrations are being determined in this water. The colloidal nature of the water required that a 0.20 μm filter be used to more accurately determine the dissolved iron concentrations. The sample collected on May 30, 1998 was filtered with a 0.20 μm filter and analyzed for dissolved iron.

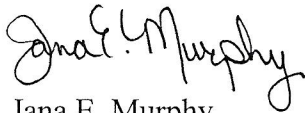
Based upon the attached water analyses, stormwater collected and pumped to the south gravel pit will have minimal impact to the groundwater. With the submittal of the attached results, Flambeau will pump as necessary to the south gravel pit as the primary option. As stated in the March 20, 1998 Department letter, *"Once all permanent water management structures and facilities are in place and pumping is no longer necessary, discharges through outfall 002 will cease to be covered*

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under the WPDES permit. At that time, stormwater management will fall under the regulatory authority of the Mining Permit and its associated plans.” During late August 1998, Flambeau will complete earthwork, temporary seeding, and installation of erosion control. At that time, Flambeau will provide notice to the Department that water management structures are in place, pumping has ceased, and that it's Flambeau's understanding that stormwater management falls under the regulatory authority of the Mining Permit and its associated plans.

If you should have any questions regarding this submittal, please contact me at 715-532-6690 Ext. 717.

Sincerely,



Jana E. Murphy
Environmental & Reclamation Manager

Attachments

cc: Al Christianson, City of Ladysmith
Jim Hansen, WDNR
Jim Hutchison, Foth & Van Dyke
Ken Markart, WDNR
Tom Portle, WDNR
Thure Osuldsen, Rusk Co. Chairperson
Tom Riegel, Town of Grant
Rusk Co. Zoning

NORTHERN LAKE SERVICE, INC.
Analytical Laboratory and Environmental Services
400 North Lake Avenue - Crandon, WI 54520
Tel:(715)478-2777 Fax:(715)478-3060

WIS. LAB CERT. NO. 721026460

ANALYTICAL REPORT

PAGE: 1 NLS PROJECT# 40191
NLS CUST# 11750

Client: Flambeau Mining Company
Attn: Richard Dachel
N4100 Highway 27
Ladysmith, WI 54848

Project Description: Groundwater

Sample ID: 0330G-Basin #1 NLS#: 164066
COC Description: 0330G-Basin #1
Additional Comments: Noncompliance #7
Collected: 03/30/98 Received: 03/31/98 Reported: 04/07/98

Parameter	Result	Units	LOD	LOQ	Method	Analyzed	Lab
Alkalinity, tot. as CaCO ₃ (filtered)	16	mg/L	2.1	7.4	EPA 310.1	04/06/98	721026460
Copper, dis. as Cu by ICP	19	ug/L	0.54	1.9	SW846 6010	04/06/98	721026460
Hardness, tot. as CaCO ₃ (calc/filt)	23	mg/L	2.0	2.0	SW846 6010	04/06/98	721026460
Iron, dis. as Fe by ICP	0.32	mg/L	0.0010	0.0035	SW846 6010	04/06/98	721026460
Manganese, dis. as Mn by ICP	140	ug/L	0.18	0.61	SW846 6010	04/06/98	721026460
pH, lab	7.6	s.u.	1.0		SW846 9045	03/31/98	721026460
Solids, tot. dis. (TDS)	45	mg/L	2.0		EPA 160.1	04/01/98	721026460
Sulfate, as SO ₄ (filtered)	8.7	mg/L	5.0	5.0	SW846 9036	04/07/98	721026460

Values in brackets represent results greater than the LOD but less than the LOQ and are within a region of "Less-Certain Quantitation".
Results greater than the LOQ are considered to be in the region of "Certain Quantitation".

LOD = Limit of Detection
DWB = Dry Weight Basis

LOQ = Limit of Quantitation
NA = Not Applicable

ND = Not Detected
%DWB = (mg/kg DWB)/10000

Steven R. Cuyler

Reviewed by:

Authorized by:

R. T. Krueger
Laboratory Manager

NORTHERN LAKE SERVICE, INC.
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WIS. LAB CERT. NO. 721026460

ANALYTICAL REPORT

PAGE: 1 NLS PROJECT# 41550
NLS CUST# 11750

Client: Flambeau Mining Company
 Attn: Richard Dachel
 N4100 Highway 27
 Ladysmith, WI 54848

Project Description: Iron on SW

Sample ID: 0530GB #1 NLS#: 170173
Ref. Line 1 of COC 21537 Description: 0530GB #1
Collected: 05/30/98 Received: 06/09/98 Reported: 06/19/98

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>LOD</u>	<u>LOQ</u>	<u>Method</u>	<u>Analyzed Lab</u>
Iron, dis. as Fe by ICP	0.18	mg/L	0.010	0.035	EPA 200.7	06/18/98 721026460

Values in brackets represent results greater than the LOD but less than the LOQ and are within a region of "Less-Certain Quantitation".
Results greater than the LOQ are considered to be in the region of "Certain Quantitation".

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DWB = Dry Weight Basis

LOQ = Limit of Quantitation
NA = Not Applicable

ND = Not Detected
%DWB = (mg/kg DWB)/10000



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Laboratory Manager