

2005 Annual Report



January 2006

Flambeau Mining Company
N4100 Hwy 27
Ladysmith, WI 54848

Flambeau Mining Company
N4100 Highway 27
Ladysmith, WI 54848
(715) 532-6690
FAX (715) 532-6885



January 31, 2006

Mr. Lawrence J. Lynch
Mine Reclamation Unit
Bureau of Solid and Hazardous Waste Management
101 South Webster Street, GEF II
Madison, WI 53707

Dear Mr. Lynch:

The Flambeau Mining Company (Flambeau) is submitting one copy of the attached 2005 Annual Report pursuant to Part 1-8 of the Flambeau Mine Permit (Docket No. IH-89-14). An additional fourteen copies of the report will be submitted separately. This submittal also addresses other requirements of the Mining Permit and associated approvals.

If you have any comments or questions regarding this submittal, please contact me at (715)532-6690 Ext. 2 or murphyj@kennecott.com.

Sincerely,

A handwritten signature in black ink that reads "Jana E. Murphy". The signature is written in a cursive, flowing style.

Jana E. Murphy
Environmental & Reclamation Manager

Distribution

<u>No. of Copies</u>	<u>Sent to</u>
15	Mr. Lawrence J. Lynch Mine Reclamation Unit Bureau of Solid and Hazardous Waste Management 101 South Webster Street, GEF II Madison, WI 53707
15	Jana E. Murphy Environmental & Reclamation Manager Flambeau Mining Company N4100 Hwy 27 Ladysmith, WI 54848
1	Randy Tatur, Chairperson Rusk County Board of Supervisors 311 East Miner Avenue Ladysmith, WI 54848
1	Tom Riegel, Chairperson Town of Grant N2937 Highway 27 Ladysmith, WI 54848
1	Al Christianson, Administrator City of Ladysmith P. O. Box 431 Ladysmith, WI 54848
1	Mark Steward Rusk County Zoning 311 East Miner Avenue Ladysmith, WI 54848
1	James B. Hutchison, P.E. Project Engineer Foth & Van Dyke Associates 2737 South Ridge Road Green Bay, WI 54307

**FLAMBEAU MINING COMPANY
2005 ANNUAL REPORT**

Table of Contents

1	PURPOSE AND NEED	1
2	2005 SUMMARY	3
2.1	Introduction	3
2.2	Groundwater Quality Assessments	4
2.3	Notice of Completion/Certificate of Completion.....	4
2.4	Industrial Outlot.....	5
2.4.1	Reuse of Industrial Outlot Facilities	5
2.4.2	Rail Spur Reclamation	8
2.4.3	Intermittent Stream C.....	10
2.5	Community Involvement	12
2.6	Water Management.....	13
2.6.1	Precipitation Runoff	13
2.6.2	River Water Withdrawal	14
2.7	2005 Milestones.....	15
2.8	Modifications & Deviations	15
2.9	Construction Reports	16
2.10	Incident Log	16
2.11	Drill Holes	16
3	RECLAMATION ACTIVITIES	17
4	SITE MONITORING	20
4.1	Groundwater Quality Sampling and Analysis	20
4.1.1	Backfilled Pit Water Quality Assessment	20
4.1.2	Trend Analysis	22
4.2	Surface Water	27
4.2.1	Macroinvertebrates/Fish	30
4.2.2	Surface Water Quality	32
4.2.3	Wetland Surface Flows.....	33

4.3	Surface Subsidence	36
4.4	Aerial Photography (Color and Infrared)	36
	REFERENCES	38
	SUBMITTALS	39

TABLES

Table 1-1	Location Information Key	2
Table 2-1	2005 River Water Withdrawal.....	15
Table 2-2	2005 Milestones	15
Table 3-1	Performance Standards & Reclaimed Flambeau Site Status (2000-2005).....	19
Table 4-1	2005 Surface Water Quality Data	32
Table 4-2	Surface Water Quality Results from Wetland 1, 8.5-Acre, Wetland & 1.7-Acre Biofilter,.....	34
Table 4-3	Wetland 1 Staff Gauge Readings	35

FIGURES

Figure 4-1	Groundwater Potentiometric Surface Contour Map	28
Figure 4-2	Mine Pit Cross Section A-A'	29
Figure 4-3	Surface Water Monitoring Site Locations	31

APPENDICES

Appendix A	Backfilled Pit Water Quality Assessment
Appendix B	Groundwater Quality & Elevation/Surface Water Quality/Trends
Appendix C	Fish Sampling

1 Purpose and Need

This report serves to document the work that was done at the Flambeau Mine site in 2005 and to satisfy the requirements of the Mining Permit (MP).

Mining Permit, Part 1, Condition 8:

In accordance with sec. 144.89, Stats., Flambeau shall submit a report annually to the Department summarizing the activities which took place on the mining site during the year and shall include other additional information specified in this permit and associated plan approvals.

Mining Permit, Part 2, Condition 4:

The annual report required under sec. 144.89, Stats., shall include discussion of all modifications received during the previous year and shall include an inventory of all modifications received subsequent to permit issuance. The annual report shall also discuss deviations from the approved Mining Plan as a result of final engineering refinements of subsequent plan approvals if these deviations do not require modifications, under Part 2, Conditions 2 and 3.

Mining Permit, Part 2, Condition 6:

Flambeau shall keep a log of all incidents, such as spills, pond overflows and embankment failure or leakage, reported to its environmental compliance staff. This log shall, at all reasonable times, be available for inspection by any duly authorized Department employee. A summary of incidents subject to various Department reporting requirements shall be included in the annual report required under sec. 144.89, Stats.

Mining Permit, Part 2, Condition 7 (Excerpt):

The annual report required under sec. 144.89, Stats, shall include a summary of all exploration drilling activities conducted on the mining site during the previous year.

Mining Permit, Part 4, Condition 9:

Monitoring data and results shall be submitted to the Department within 30 days after completion of the required analyses. The annual report required in this permit shall summarize the year's monitoring activities and any observed trends in the monitoring data.

Water Withdrawal Approval, Condition 1 (Excerpt):

Flambeau Mining Company shall maintain records which document the withdrawal. At a minimum, such information shall include the dates and duration of withdrawal, approximate pumping rate and approximate volume of water withdrawn. Monthly summaries shall be submitted to the department for those months in which a withdrawal occurs. This information shall be available for department review in a separate file at the Flambeau Mining Company office and shall also be summarized in the annual report submitted as a condition of the mining permit.

The location of the information which fulfills the requirements of the above conditions is referenced in Table 1-1.

TABLE 1-1

Location Information Key

Condition No.	Location of Information
MP, Part 1-8	Section 2 and 3
WWA, Condition 1	Section 2.6.2
MP, Part 2-4	Section 2.8
MP, Part 2-6	Section 2.10
MP, Part 2-7	Section 2.11
MP, Part 4-9	Section 4 and Appendix A, B and C