

Permit No. MI0058649

## FACT SHEET

PERMITTEE/FACILITY NAME: Eagle Mine, LLC / Humboldt Mill

COUNTY: MARQUETTE

### DESCRIPTION OF EXISTING WASTEWATER TREATMENT FACILITIES

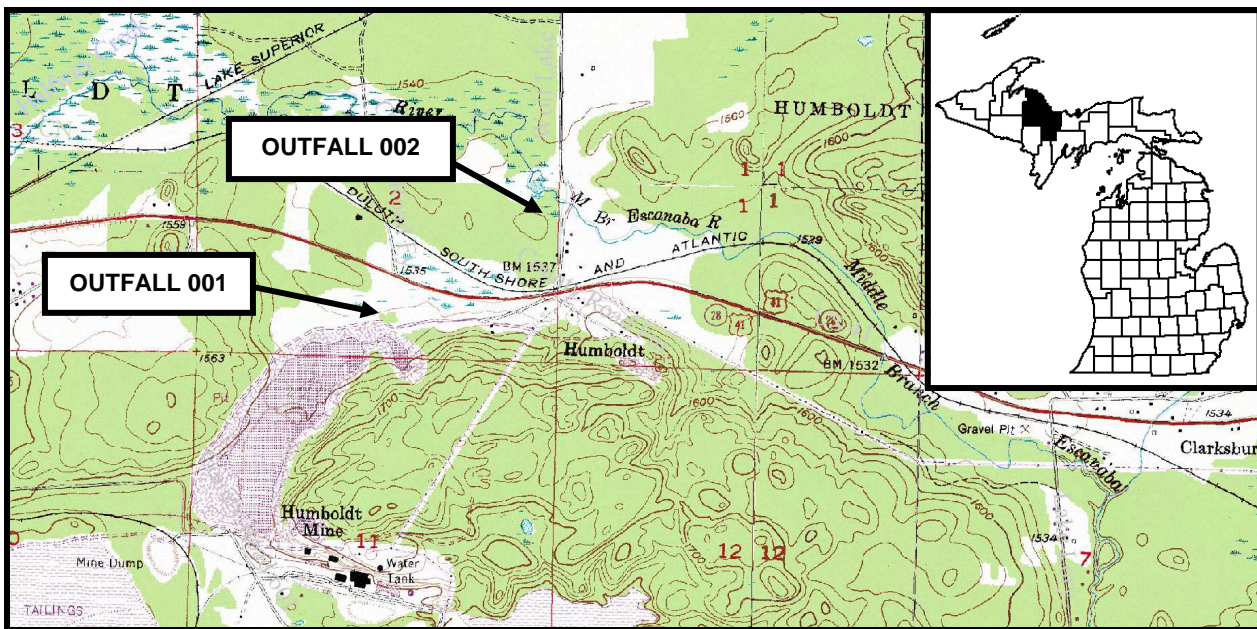
The tailings and process wastewater generated from the milling operations are routed to, and treated in, the Humboldt Tailings Disposal Facility (HTDF). Small volumes of laboratory wastewater and water treatment backwash are also sent to the HTDF for treatment. The displaced water from the HTDF will be treated, if necessary, by a treatment plant consisting of chemical precipitation, filtration, and sludge handling processes. The effluent from the HTDF, treated or not treated, is discharged through a pipeline to the wetland contiguous to the Middle Branch Escanaba River at Outfall 001 and/or at Outfall 002.

### MAP OF DISCHARGE LOCATION

Facility Public Land Survey System Coordinates:

NE1/4, SW1/4, Section 11, T47N, R29W

Humboldt Township, **MARQUETTE COUNTY**



### RECEIVING WATER

The wetland contiguous to the Middle Branch Escanaba River is protected for agricultural uses, navigation, industrial water supply, public water supply in areas with designated public water supply intakes, warm-water fish, other indigenous aquatic life and wildlife, partial body contact recreation, total body contact recreation (May through October), and fish consumption. The receiving stream flows used to develop effluent limitations are a 95 percent exceedance flow of 0.0 cfs, a harmonic mean flow of 0.0 cfs, and a 90-day, 10-year low flow of 0.0 cfs.

### MIXING ZONE

There is no mixing zone for this discharge because the quality of the discharge itself is equal to or better than Water Quality Standards.

EXISTING EFFLUENT QUALITY: (from DMR data from August 2014 to September 2014)

<u>Parameter</u>	<u>Minimum Daily</u>	<u>Maximum Monthly</u>	<u>Maximum 7-day</u>	<u>Maximum Daily</u>	<u>Units</u>
<u>Outfall 001: Treated Process Wastewater</u>					
<u>Intermediate</u>					
Total Suspended Solids	---	0	---	0	mg/l
Total Dissolved Solids	---	360	---	360	mg/l
Total Copper	---	1.9	---	2.2	ug/l
Total Nickel	---	8.8	---	11	ug/l
Total Selenium	---	0.6	---	1.2	ug/l
Total Mercury	---	0	---	0	ng/l
Total Sulfate	---	120	---	120	mg/l
<u>Discharge</u>					
Flow	---	0.72	---	0.82	MGD
BOD <sub>5</sub>	---	0	---	0	mg/l
Total Suspended Solids	---	0	---	0	mg/l
Ammonia Nitrogen (as N)	---	0	---	0	mg/l
Total Phosphorus (as P)	---	0.068	---	---	lbs/day
	---	0.01	---	---	mg/l
Total Dissolved Solids	---	360	---	470	mg/l
Total Arsenic	---	0	---	---	lbs/day
	---	0	---	---	ug/l
Total Cadmium	---	0	---	---	lbs/day
	---	0	---	---	ug/l
Total Cobalt	---	0.009	---	---	lbs/day
	---	1.4	---	---	ug/l
Total Copper	---	0	---	---	lbs/day
	---	0	---	---	ug/l
Total Lead	---	0	---	---	lbs/day
	---	0	---	---	ug/l
Total Manganese	---	0.1114	---	---	lbs/day
	---	20	---	---	ug/l
Total Nickel	---	0.003	---	---	lbs/day
	---	0.53	---	---	ug/l
Total Selenium	---	0.0111	---	---	lbs/day
	---	2.0	---	---	ug/l
Total Zinc	---	0	---	---	lbs/day
	---	0	---	---	ug/l
Total Mercury	---	0	---	---	lbs/day
	---	0	---	---	ng/l
Total Antimony	---	4.2	---	4.4	ug/l
Total Barium	---	6.1	---	6.4	ug/l
Total Boron	---	67	---	67	ug/l
Total Chromium	---	0	---	0	ug/l
Total Fluoride	---	160	---	160	ug/l
Total Lithium	---	0	---	0	ug/l
Total Molybdenum	---	0	---	0	ug/l
Total Strontium	---	180	---	180	ug/l

<u>Parameter</u>	<u>Minimum</u> <u>Daily</u>	<u>Maximum</u> <u>Monthly</u>	<u>Maximum</u> <u>7-day</u>	<u>Maximum</u> <u>Daily</u>	<u>Units</u>
Total Sulfate	---	135	---	150	mg/l
Acute Toxicity	---	---	---	0	TU <sub>A</sub>
Chronic Toxicity	---	0	---	---	TU <sub>C</sub>
pH	7.3	---	---	8.8	S.U.
Dissolved Oxygen	4.1	---	---	---	mg/l

PROPOSED EFFLUENT LIMITATIONS: (see draft permit)

BASIS FOR PROPOSED EFFLUENT LIMITATIONS: (see Basis for Decision Memo)

#### ADDITIONAL INFORMATION

The Department proposes that the applicant's Antidegradation Demonstration, based on information required by Subrule (4) of R323.1098, shows that lowering of water quality is necessary to support the identified important social and economic development in the area. This is solely for purposes of satisfying state water quality regulations and is not intended to supplant local requirements, including land use or zoning laws. It is not, and should not be construed as, a finding by the Department that the proposed development meets local requirements or ordinances.

#### REGISTER OF INTERESTED PERSONS

Any person interested in a particular application, or group of applications, may leave his/her name, address, and telephone number as part of the file for an application. The list of names will be maintained as a means for persons with an interest in an application to contact others with similar interests.

#### PUBLIC COMMENT

Comments or objections to the draft permit received between December 12, 2014, and January 16, 2015, will be considered in the final decision to issue the permit.

A Public Hearing with the Permit Decision Maker will be held to provide an opportunity for the public to present evidence and views on the draft permit. The Public Hearing will be held on Tuesday, January 13, 2015, at the Westwood High School Auditorium, 300 Westwood Drive, Ishpeming, Michigan 49849. There will be a brief presentation beginning at 6:00 p.m., followed by a question-and-answer session. The hearing will begin no later than 7:00 p.m., but may begin earlier. The hearing will end at 9 p.m. and the building vacated by 10 p.m. All interested parties are invited to attend.

The Department will also consider comments made at the hearing when making its final determinations on the permit. Further information regarding the draft permit or the public hearing may be obtained by contacting Alvin Lam, Permits Section, Water Resources Division, Department of Environmental Quality, P.O. Box 30458, Lansing, Michigan 48909, telephone: 517-284-5597, e-mail: lama@michigan.gov.