

Michigan Department of Environmental Quality – Water Resources Division
WASTEWATER DISCHARGE PERMIT APPLICATION
 SECTION I – General Information

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Section I shall be completed by all permit applicants. Instructions for completing Section I, Pages 1 and 2, are on Page 2 of the Appendix. To submit additional information, see Page ii, Item 3.

Water Resources Division Use Only	Cashier Use Only: 6000-42203-9512-481000.00
Receipt #: <u>14-25498</u>	NP1 586982-14-1 03/03/14 60000 42203 9511 48100000 AY 2014 \$750
Permit ID #: <u>805814</u>	

PLEASE TYPE OR PRINT

1	NPDES PERMIT NUMBER MI0058649
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2. APPLICANT	Applicant Name Eagle Mine, LLC - Humboldt Mill		
	Address 4547 County Road 601		Address 2 or P.O. Box
	City Champion	State MI	ZIP Code 49814
	Telephone (with area code) 906 339-7000	FAX (with area code) 906 339-7005	Applicant Web Site Address www.eaglemine.com

3. FACILITY	Facility Name 1 Eagle Mine, LLC-Humboldt Mill		
	Facility Name 2		
	Facility Name 3		
	Street Address (Do not use a P.O. Box Number) 4547 County Road 601		
	City Champion	State MI	ZIP Code 49814
Telephone (with area code) 906 339-7000	FAX (with area code) 906 339-7005	Facility Web Site Address www.eaglemine.com	

4. CONTACTS	<input checked="" type="checkbox"/> Application Contact	First Name Kristen	Last Name Mariuzza
	<input checked="" type="checkbox"/> Facility Contact	Title Manager Environmental and Permitting	Business
	<input type="checkbox"/> Discharge Monitoring Reports	Address 1 4547 County Road 601	Address 2
	<input type="checkbox"/> Storm Water Billing	City Champion	State MI
	<input type="checkbox"/> Biosolids Billing	ZIP Code 49814	
	<input type="checkbox"/> NPDES Annual Billing	Telephone (with area code) 906 339-7075	Fax Number 906-339-7005
		e-mail address kristen.mariuzza@lundinmining.com	

4. CONTACTS	<input type="checkbox"/> Application Contact	First Name Heidi	Last Name Ross
	<input type="checkbox"/> Facility Contact	Title Accounts Payable	Business
	<input type="checkbox"/> Discharge Monitoring Reports	Address 1 4547 County Road 601	Address 2
	<input type="checkbox"/> Storm Water Billing	City Champion	State MI
	<input type="checkbox"/> Biosolids Billing	ZIP Code 49814	
	<input checked="" type="checkbox"/> NPDES Annual Billing	Telephone (with area code) 906 339-7025	Fax Number 906 339-7005
		e-mail address heidi.ross@lundinmining.com	

4. CONTACTS	<input type="checkbox"/> Application Contact	First Name Amanda	Last Name Zeidler
	<input type="checkbox"/> Facility Contact	Title Compliance Supervisor	Business
	<input checked="" type="checkbox"/> Discharge Monitoring Reports	Address 1 4547 County Road 601	Address 2
	<input type="checkbox"/> Storm Water Billing	City Champion	State MI
	<input type="checkbox"/> Biosolids Billing	ZIP Code 49814	
	<input type="checkbox"/> NPDES Annual Billing	Telephone (with area code) 906 339-7076	Fax Number 906 339-7005
		e-mail address amanda.zeidler@lundinmining.com	

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5. PERMIT ACTION REQUESTED (Check one box only). Instructions for this item are on Page 2 of the Appendix.

NEW USE. A proposed discharge.

EXISTING DISCHARGE that is currently unpermitted.

REISSUANCE of current permit.

MODIFICATION of current permit. Attach a description of the proposed modification.

Note: Applications for **New Use** discharges, **Existing Discharges** that are currently unpermitted, and for either **Reissuance** or **Modification** that include an increased loading of pollutants to the receiving water are required to submit a Rule 98 Demonstration with the Application. See Item 6.

6. **RULE 98 – ANTIDegradation REQUIREMENTS.** Instructions for this item are on Page 2 of the Appendix.

In accordance with Rule 323.1098 of the Michigan Water Quality Standards, the applicant is required to submit an Antidegradation Demonstration for any new or increased loading of pollutants to the surface waters of the state. An Antidegradation Demonstration must contain the information specified in Rule 1098, outlined on Pages 8-9 of the Appendix. For assistance in completing this item, contact the Permits Section.

Will this discharge be an increased loading of pollutants to the surface waters of the state? Yes, continue below. No.

Antidegradation Demonstration provided. Increased loading of pollutants is exempt from Antidegradation Demonstration as indicated below:

- A short-term (weeks to months) or temporary lowering of water quality
- Bypasses that are not prohibited by regulations set forth in 40 CFR 122.41(m)
- Response actions undertaken to alleviate a release of pollutants into the environment that may pose an imminent and substantial danger to the public health or welfare
- Discharges of pollutant quantities from the intake water at a facility if the intake and discharge are to the same body of water
- Increases in flow at a POTW if the increase is within the design flow of the facility, there is no increased loading of BCCs that are not specifically limited in the current permit, and there is no significant change expected in the characteristics of the wastewater collected
- Intermittent increased loading related to wet-weather conditions
- New or increased loading due to DEQ-approved controls related to wet-weather conditions
- Discharges authorized by Certificates of Coverage (COC) and Notices of Coverage
- Increased loadings within the authorized levels of a limit in an existing control document, except those loadings that result from actions by the permittee that would otherwise require submittal of an increased use request
- Increased loadings of a pollutant which do not involve Bioaccumulative Chemicals of Concern and which use less than 10 percent of the unused loading capacity that exists at the time of the request

7. **ADDITIONAL FACILITY LOCATION INFORMATION.** Instructions for this item are on Page 2 of the Appendix.

A	Local Unit of Government (LUG) Humboldt Township	LUG e-mail address						
B	County Marquette	Township Humboldt						
C.	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%; border: 1px solid black;">Town 47E</td> <td style="width: 15%; border: 1px solid black;">Range 29W</td> <td style="width: 15%; border: 1px solid black;">Section 2&11</td> <td style="width: 15%; border: 1px solid black;">¼ SW/SE &</td> <td style="width: 15%; border: 1px solid black;">¼, ¼</td> <td style="width: 20%; border: 1px solid black;">Private (French) Land Claim</td> </tr> </table>	Town 47E	Range 29W	Section 2&11	¼ SW/SE &	¼, ¼	Private (French) Land Claim	
Town 47E	Range 29W	Section 2&11	¼ SW/SE &	¼, ¼	Private (French) Land Claim			
D.	Latitude 46 deg 29'37"	Longitude 87 deg 53'49"						

8. **CERTIFIED OPERATOR**

Does the facility have a DEQ-certified operator? Yes No Instructions for this item are on Page 2 of the Appendix.

First Name Amanda	Last Name Zeidler
Certification Number I-11689	Certification Classification(s) ISWO
Address 1 4547 County Road 601	Address 2
City Champion	State MI
Zip Code 49814	
Telephone Number 906-339-7076	Fax Number 906-339-7005
e-mail address amanda.zeidler@lundinmining.com	

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9. OTHER ENVIRONMENTAL PERMITS
 Provide the information requested below for any other federal, state, or local environmental permits in effect or applied for at the time of submittal of this Application, including, but not limited to, permits issued under any of the following programs: Air Pollution Control, Hazardous Waste Management, Wetlands Protection, Soil Erosion and Sedimentation Control, and other NPDES permits. To submit additional information, see Page ii, Item 3.

Issuing Agency	Permit or COC Number	Permit Type
MDEQ	PTI-405-08A	MI Air Permit to Install
MDEQ	MP012010	Mining Permit
MDEQ	08-25-0104-P	Inland Lakes and Streams
Please see attached listing of other facility permits		

10. WATER FLOW DIAGRAM AND NARRATIVE DESCRIPTION
 Provide a flow diagram (using 8½" x 11" paper if possible) and a narrative description that explains the diagram. The diagram should show the wastewater flow through the facility (from intake through discharge), including all processes, treatment units, including any lagoons or ponds (lagoon / pond construction and liner information should be included) used for wastewater treatment or storage (identify treatment units that operate intermittently), and bypass piping. Show all operations contributing wastewater and the locations of flow meters, chemical feeds, and monitoring and discharge points. The water balance shall show the daily average flow rates at the intake and discharge points, and approximate daily flow rates between treatment units, including influent and treatment rates. Use actual measurements whenever available, otherwise use the best estimate. Show all significant losses of water to products, atmosphere, and discharge. In addition, provide a flow diagram for any storm water discharges from secondary structures that are required by state or federal law and for storm water runoff from any Site of Environmental Contamination, pursuant to Part 201 of the Michigan Act. **Do not send blueprints. Provide black-and-white reproducible diagrams.**

Municipal Facilities – Include a narrative that briefly describes the history of the wastewater treatment facility and collection system, including the initial construction, facility improvements, future plans for upgrade, location of all constructed emergency overflows, and other pertinent information.

Industrial and Commercial Facilities – The diagram shall include all operations contributing wastewater, including process and production areas, sanitary flows, cooling water, and storm water runoff. **Include a narrative** that provides a brief description of the nature of the business and the manufacturing processes.

ATTACH THIS INFORMATION TO THIS APPLICATION. PLEASE DO NOT BIND THIS INFORMATION. Comments: Please see attached 11x17 figure. A water treatment process flow diagram is included in Attachment D to the application.

11. MAP OF FACILITY AND DISCHARGE LOCATION
 Provide a detailed black-and-white reproducible map on 8½" x 11" paper showing the location of the existing or proposed facility, wastewater and biosolids treatment system(s), water intakes, wastewater monitoring, and wastewater discharge points into receiving waters (including bypasses). Include the exact location of the water intakes, wastewater monitoring and discharge point(s) and, if applicable, all areas through which the discharge flows (e.g., wetlands, open drains, storm sewers) between the discharge point and the receiving water. If the discharge is to a storm sewer, label the storm sewer and show its flow path to the receiving water. Also include the location of any water supply intakes or wells and groundwater monitoring wells. This map shall be a United States Geological Survey quadrangle (7.5 minute series) or other map of comparable detail, scale, and quality (which shows surface water bodies, roads, bathing beaches, and other pertinent landmarks). **It is preferred that the minimum area this map shall encompass be approximately one (1) mile beyond the property boundaries.**

ATTACH THIS INFORMATION TO THIS APPLICATION. Comments: See attached Figure 000-CI-158 and well location map.

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12. CONTRACT LABORATORIES THAT PROVIDE ANALYTICAL SUPPORT
 Provide the name and address of each contract laboratory or consulting firm that performed any analyses submitted as part of this Application. To submit additional information, see Page ii, Item 3.

Laboratory Name Trimatrix Laboratories			Laboratory Name		
Street Address 5560 Corporate Exchange Ct			Street Address		
City Grand Rapids	State MI	ZIP Code 49512	City	State	ZIP Code
Telephone (with area code) 616-846-9528	Fax (with area code) 616-292-4635		Telephone (with area code)	Fax (with area code)	
Analysis Performed All			Analysis Performed		
Laboratory Name			Laboratory Name		
Street Address			Street Address		
City	State	ZIP Code	City	State	ZIP Code
Telephone (with area code)	Fax (with area code)		Telephone (with area code)	Fax (with area code)	
Analysis Performed			Analysis Performed		

13. LIST ADJACENT PROPERTY OWNERS
 List the names and mailing addresses of all property owners for all properties adjacent to the facility, treatment systems, and discharge locations. For vacant lots or empty buildings, supply the owner's mailing address – NOT the lot or building property address. To submit additional information, see Page ii, Item 3.

Name	Address	City	State	ZIP Code
Jeff & Joyce Ogea	3891 County Rd FA	Champion	MI	49814
Thomas & James Kampu	4612 Daniel Drive	Crystal Lake	IL	60014
Holli Forest Products	2002 Prairie Ave	Ishpeming	MI	49849
Christopher & Holly Ray	2299 County Rd 601	Champion	MI	49814
O'Dovero Properties	110 Airport Rd.	Negaunee	MI	49866
A Lindberg & Sons	599 Washington Street	Ishpeming	MI	49849
Humboldt Stone	599 Washington Street	Ishpeming	MI	49849

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14. APPLICATION CERTIFICATION

Rule 323.2114(1-4), promulgated under the Michigan Act, requires that this Application must be signed as follows:

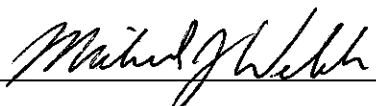
- A. For an organization, company, corporation, or authority, by a principal executive office, vice president, or higher
- B. For a partnership, by a general partner
- C. For a sole proprietor, by the proprietor
- D. For a municipal, state, or other public facility, by a principal executive officer or ranking elected official (e.g., mayor, village president, city or village manager, or clerk)

Note: If the signatory is not listed above, but is authorized to sign the Application, please provide documentation of that authorization.

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for having knowledge of violations."

The last Application for this facility was submitted on: December 15 2008

I understand that my signature constitutes a legal agreement to comply with the requirements of the NPDES Permit. I certify under penalty of law that I possess full authority on behalf of the legal owner/permittee to sign and submit this Application.

Print Name MICHAEL WELCH Title GENERAL MANAGER, EAGLE MINE LLC
 Signature  Date FEBRUARY 12, 2014

This completes Section I. Publicly-Owned Treatment Works discharging sanitary and industrial wastewater to the surface waters, and privately-owned treatment works discharging sanitary wastewater to the surface waters should complete Section II. Privately-owned treatment works include, but are not limited to, Mobile Home Parks, Campgrounds, Condominiums, Hotels and Motels, and Nursing Homes. All other applicants should complete Section III. If assistance is needed to complete this Application, contact the Permits Section.

Permit Application Submittal Checklist

Please confirm the following before submitting the Application:

- 1. Section I has been completed, including all diagrams, maps, and the treatment process narrative.
- 2. The Application has been signed as required above in Section I.14.A.-D. or a copy of the letter authorizing the signatory to sign the letter has been included, as appropriate.
- 3. Section II or Section III has been completed, including any additional information or submissions.
- 4. Section IV has been completed by any facility that discharges storm water.
- 5. Section V has been completed by any facility that is a Concentrated Animal Feeding Operation.
- 6. Section VI has been completed by any facility that has Cooling Water Intake Structures.
- 7. A check or money order for the appropriate application fee has been made out to the "State of Michigan" and has been included with the Application submittal.
- 8. E-mail addresses have been provided.

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WASTEWATER DISCHARGE PERMIT APPLICATION
SECTION III – Industrial and Commercial Wastewater

Section III is to be completed by all facilities classified as Industrial or Commercial facilities. Industrial and Commercial facilities include, but are not limited to, facilities that discharge or propose to discharge a wastewater generated by a production process, a service provided, or through a remediation project. Municipal and public facilities are not required to complete Section III (unless requesting authorization for discharges other than sanitary wastewater).

A. Facility Information

PLEASE TYPE OR PRINT

FACILITY NAME Eagle Mine, LLC-Humboldt Mill	NPDES PERMIT NUMBER MI0058649
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1. BUSINESS INFORMATION

A. Provide up to four Standard Industrial Classification (SIC) or North American Industry Classification System (NAICS) codes, in order of economic importance, which best describe the major products or services provided by this facility

1. 1061	2. 1021	3.	4.
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B. Indicate if this facility is a primary industry (refer to Table 1 of the Appendix to determine if this facility is a primary industry).

- Yes. This facility is a primary industry. Indicate the primary industry as identified in Table 1 of the Appendix: _____
- No. This facility is not a primary industry.

2. WATER SUPPLY AND DISCHARGE TYPE

A. Identify all water sources entering the facility and treatment systems, and provide average flows. The volume may be estimated from water supply meter readings, pump capacities, etc. Provide the name of the source where appropriate (i.e., Grand River, Lake Michigan, City of, Millpond). To submit additional information, see Page ii, Item 3.

	Name and Location of Source	Average Volume or Flow Rate	Units
Municipal Supply			
Surface Water Intake	Humboldt Tailings Disposal Facility	1000	gpm
Private Well			
Other: _____			

B. Identify water discharged by the facility and treatment systems, and provide average flows. If water is first used for one purpose and then is subsequently used for another purpose, indicate the type and amount of the last use. For example, if water is initially used for noncontact cooling water and then for process water, indicate the amount of process water. The amount of water from sources should approximate the amount of water usage. If the amounts are different, provide an explanation.

	Average Flow Rate	Units		Average Flow Rate	Units
Process Wastewater			Sanitary Wastewater		
Contact Cooling Water			Regulated Storm Water		
Noncontact Cooling Water			High Pressure Test Water		
Groundwater Cleanup			Other: <u>Treated Surface Water</u>	1000	gpm

Note: For A. and B. above, indicate units as MGD (million gallons per day), MGY (million gallons per year), GPD (gallons per day), or other appropriate unit.

Michigan Department of Environmental Quality – Water Resources Division
WASTEWATER DISCHARGE PERMIT APPLICATION
 SECTION III – Industrial and Commercial Wastewater

B. Outfall Information

Complete a separate Section III.B. – Outfall Information (Pages 19 – 24) for each outfall at the facility. Make copies of this blank section of the Application as necessary for additional outfalls.

PLEASE TYPE OR PRINT

FACILITY NAME Eagle Mine, LLC. - Humboldt Mill	NPDES PERMIT NUMBER MI0058649	OUTFALL NUMBER 001
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1. OUTFALL INFORMATION. Instructions for this item are on Page 3 of the Appendix.

A.	Receiving Water Wetland EE	Hydrologic Unit Code 04030110
B.	County Marquette	Township Humboldt
C.	Town 47E	Range 29W
	Section 2 & 11	¼ SW/SE, NW
		¼, ¼
		Private (French) Land Claim
D.	Latitude 46 deg 29' 37"	Longitude 87 deg 53' 49"

E. Type of Wastewater Discharged (check all that apply to this outfall):

- Contact Cooling Groundwater Cleanup Hydrostatic Pressure Test Noncontact Cooling Water
 Process Wastewater Sanitary Wastewater Storm Water - not regulated Storm Water - regulated
 Storm water subject to effluent guidelines (indicate under which category): _____
 Others (see Table 8 – Other Common Types of Wastewater on Page 17 in the Appendix) Treated Surface Water

F. The Maximum Design Flow Rate for this outfall is: 1.4 MGD

G. What is the Maximum Authorized Daily Discharge Flow for this outfall for the next five years?
 Seasonal Dischargers _____ MGY (Continue with Item H.)
 Continuous Dischargers 1.4 MGD (Continue with Item I.)

H. Seasonal Discharge:

List the discharge periods (by month) and the volume discharged in the space provided below.

From	Through	Actual Discharge Volume (MGD)	Annual Total
		Actual Discharge Volume (MGD)	
		Actual Discharge Volume (MGD)	
		Actual Discharge Volume (MGD)	
		Actual Discharge Volume (MGD)	

I. Continuous Discharge:

How often is there a discharge from this outfall (on average)? 24 Hours/Day 365 Days/Year

Batch dischargers are required to provide the following additional information:

Is there effluent flow equalization? Yes No

Batch Peak Flow Rate: _____ Number of batches discharged per day: _____

	Minimum	Average	Maximum
Batch Volume (gallons)			
Batch Duration (minutes)			

Michigan Department of Environmental Quality – Water Resources Division
WASTEWATER DISCHARGE PERMIT APPLICATION
 SECTION III – Industrial and Commercial Wastewater

B. Outfall Information

PLEASE TYPE OR PRINT

FACILITY NAME Eagle Mine, LLC - Humboldt Mill	NPDES PERMIT NUMBER MI0058649	OUTFALL NUMBER 001
<p>2. PROCESS STREAMS CONTRIBUTING TO OUTFALL DISCHARGE</p> <p>Federal regulations require that different industries report different information, depending on the type of facility. The information below is used to determine the applicable federal regulations for this facility. An abbreviated list is on Page 11 in the 'Summary of Information to be reported by Industry Type' section of the Appendix. Applicants are required to provide the name and the SIC or the NAICS code for each process at the facility. Facilities with production-based limits must report an estimated annual production rate for the next five (5) years or the life of the permit. If the wastestream is not regulated under federal categorical standards, the applicant is required to report all pollutants which have the reasonable potential to be present in the discharge. To submit additional information, see Page ii, Item 3.</p>		
<p>PROCESS INFORMATION</p> <p>A. Name of the process contributing to the discharge: <u>Ore processing tailings disposal</u></p> <p>B. SIC or NAICS code: <u>1061 (Ferroalloy ores), 1021 (Copper Ores)</u></p> <p>C. Describe the process and provide measures of production: Nickel and copper ore will be processed on-site and tailings will be disposed in a subaqueous environment of the HTDF. The HTDF discharge will be contained with a cut off wall and surface water will be treated with the WTP as necessary.</p>		
<p>PROCESS INFORMATION</p> <p>A. Name of the process contributing to the discharge: _____</p> <p>B. SIC or NAICS code: _____</p> <p>C. Describe the process and provide measures of production:</p>		
<p>PROCESS INFORMATION</p> <p>A. Name of the process contributing to the discharge: _____</p> <p>B. SIC or NAICS code: _____</p> <p>C. Describe the process and provide measures of production:</p>		
<p>PROCESS INFORMATION</p> <p>A. Name of the process contributing to the discharge: _____</p> <p>B. SIC or NAICS code: _____</p> <p>C. Describe the process and provide measures of production:</p>		
<p>PROCESS INFORMATION</p> <p>A. Name of the process contributing to the discharge: _____</p> <p>B. SIC or NAICS code: _____</p> <p>C. Describe the process and provide measures of production:</p>		

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B. Outfall Information

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FACILITY NAME Eagle Mine, LLC - Humboldt Mill	NPDES PERMIT NUMBER MI0058649	OUTFALL NUMBER 001
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Submitted via DMRs or e-DMRs	Waiver Request and the Rationale Behind the Request	Parameter	Maximum Monthly Concentration	Maximum Daily Concentration	Units	Number of Analyses	Sample Type
<input type="checkbox"/>		Biochemical Oxygen Demand – five day (BOD ₅)	<2.0		mg/l	1	<input checked="" type="checkbox"/> Grab <input type="checkbox"/> 24-Hr Comp
<input type="checkbox"/>		Chemical Oxygen Demand (COD)	<5.0		mg/l	1	<input checked="" type="checkbox"/> Grab <input type="checkbox"/> 24-Hr Comp
<input type="checkbox"/>		Total Organic Carbon (TOC)	3.5		mg/l	2	<input checked="" type="checkbox"/> Grab <input type="checkbox"/> 24-Hr Comp
<input type="checkbox"/>		Ammonia Nitrogen (as N)	<0.050		mg/l	2	<input checked="" type="checkbox"/> Grab <input type="checkbox"/> 24-Hr Comp
<input type="checkbox"/>		Total Suspended Solids	<10		mg/l	2	<input checked="" type="checkbox"/> Grab <input type="checkbox"/> 24-Hr Comp
<input type="checkbox"/>	Waiver Request Not Required	Total Dissolved Solids			mg/l		<input type="checkbox"/> Grab <input type="checkbox"/> 24-Hr Comp
<input type="checkbox"/>	Waiver Request Not Required	Total Phosphorus (as P)	0.017		mg/l	1	<input checked="" type="checkbox"/> Grab <input type="checkbox"/> 24-Hr Comp
<input type="checkbox"/>	Waiver Request Not Required	Fecal Coliform Bacteria (report geometric means)	21 J	Maximum 7-day	counts/100ml	1	Grab
<input type="checkbox"/>	Waiver Request Not Required	<i>Escherichia coli</i> (report geometric means)	NS	Maximum 7-day	counts/100 ml		Grab
<input type="checkbox"/>	Waiver Request Not Required	Total Residual Chlorine	0.12		<input checked="" type="checkbox"/> mg/l <input type="checkbox"/> µg/l	2	Grab
<input type="checkbox"/>	Waiver Request Not Required	Dissolved Oxygen	Do Not Use	Minimum Daily	mg/l		Grab
<input type="checkbox"/>		pH (report maximum and minimum of individual samples)	Minimum 6.7	Maximum 6.7	standard units	1	Grab
<input type="checkbox"/>		Temperature, Summer	50	80	<input checked="" type="checkbox"/> °F <input type="checkbox"/> °C		Grab
<input type="checkbox"/>		Temperature, Winter	32	50	<input checked="" type="checkbox"/> °F <input type="checkbox"/> °C		Grab
<input type="checkbox"/>	Waiver Request Not Required	Oil & Grease	<5.0		mg/l	1	Grab

3. EFFLUENT CHARACTERISTICS - CONVENTIONAL POLLUTANTS. Instructions for this item are on Page 4 of the Appendix.
 Check this box if additional information is included as an attachment. To submit additional information, see Page ii, Item 3. Use Fecal Coliform Bacteria as an indicator of disinfection. Use *Escherichia coli* as an indicator of disinfection. Use *Escherichia coli* or Fecal Coliform Bacteria as an indicator that effluent has been disinfected. The DEQ will use the indicator selected below in the permit issued based on this Application.

Please Note: Rule 323.1062 allows the use of either *Escherichia coli* or Fecal Coliform Bacteria as an indicator that effluent has been disinfected. The DEQ will use the indicator selected below in the permit issued based on this Application.

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 SECTION III – Industrial and Commercial Wastewater

B. Outfall Information

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Note: For questions on this page, Tables 1 – 5 are found in the Appendix.

4. PRIMARY INDUSTRY PRIORITY POLLUTANT INFORMATION

Existing primary industries that discharge process wastewater are required to submit the results of at least one permittee-collected effluent analysis for selected organic pollutants identified in Table 2 (as determined from Table 1, Testing Requirements for Organic Toxic Pollutants by Industrial Category), and all of the pollutants identified in Table 3. Existing primary industries are required to also provide the results of at least one permittee-collected effluent analysis for any other chemical listed in Table 2 known or believed to be present in the facility's effluent.

In addition, submit the results of all other effluent analyses performed within the last three years for any chemical listed in Tables 2 and 3.

New primary industries that propose to discharge process wastewater are required to provide an estimated effluent concentration for any chemical listed in Tables 2 and 3 expected to be present in the facility's effluent.

5. DIOXIN AND FURAN CONGENER INFORMATION

Existing industries that use or manufacture 2,3,5-trichlorophenoxy acetic acid (2,4,5-T); 2-(2,3,5-trichlorophenoxy) propanoic acid, (Silvex, 2,3,5-TP); 2-(2,4,5-trichlorophenoxy) ethyl 2,2-dichloropropionate (Erbon); 0,0-dimethyl 0-(2,4,5-trichlorophenyl) phosphorothionate (Ronnel); 2,4,5-trichlorophenol (TCP); or hexachlorophrene (HCP), or knows or has reason to believe that 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) is present in the facility's effluent, are required to submit the results of at least one effluent analysis for the dioxin and furan congeners listed in Table 6. All effluent analyses for dioxin and furan congeners shall be conducted using USEPA Method 1613.

In addition, submit the results of all other effluent analyses performed within the last three years for any dioxin and furan congener listed in Table 6.

New industries that expect to use or manufacture 2,3,5-trichlorophenoxy acetic acid (2,4,5-T); 2-(2,3,5-trichlorophenoxy) propanoic acid (Silvex, 2,3,5-TP); 2-(2,4,5-trichlorophenoxy) ethyl 2,2-dichloropropionate (Erbon); 0,0-dimethyl 0-(2,4,5-trichlorophenyl) phosphorothionate (Ronnel); 2,4,5-trichlorophenol (TCP); or hexachlorophrene (HCP), or knows or has reason to believe that 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) is present in the facility's effluent, shall provide estimated effluent concentrations for the dioxin and furan congeners listed in Table 6.

6. OTHER INDUSTRY PRIORITY POLLUTANT INFORMATION

Existing secondary industries or existing primary industries that discharge nonprocess wastewater are required to submit the results of at least one effluent analysis for any chemical listed in Tables 2 and 3 known or believed to be present in the facility's effluent.

In addition, submit the results of all other effluent analyses performed within the last three years for any chemical listed in Tables 2 and 3.

New secondary industries or new primary industries that propose to discharge nonprocess wastewater are required to provide an estimated effluent concentration for any chemical listed in Tables 2 and 3 expected to be present in the facility's effluent.

7. ADDITIONAL TOXIC AND OTHER POLLUTANT INFORMATION

All existing industries, regardless of discharge type, are required to provide the results of at least one analysis for any chemical listed in Table 4 known or believed to be present in the facility's effluent, and a measured or estimated effluent concentration for any chemical listed in Table 5 known or believed to be present in the facility's effluent. In addition, submit the results of any effluent analysis performed within the last three years for any chemical listed in Tables 4 and 5.

New industries, regardless of discharge type, are required to provide an estimated effluent concentration for any chemical listed in Tables 4 and 5 expected to be present in the facility's effluent.

8. INJURIOUS CHEMICALS NOT PREVIOUSLY REPORTED

New or existing industries, regardless of discharge type, are required to provide a measured or estimated effluent concentration for any toxic or otherwise injurious chemicals known or believed to be present in the facility's effluent that have not been previously identified in this Application. Quantitative effluent data for these chemicals that is less than five years old shall be reported.

NOTE: All effluent data submitted in response to questions 4, 5, 6, 7, and 8 above should be recorded on Page 23. To submit additional information, see Page ii, Item 3. If the effluent concentrations are estimated, place an "E" in the "Analytical Method" column. The following fields shall be completed for each data row: Parameter, CAS No., Concentration(s), Sample Type, and Analytical Method. For analytical test requirements, see Page ii, Item 5. Tables 1, 2, and 3 can be found in the Appendix.

If Alternate Test Procedures have been approved for any parameter listed above (Items 4. through 8.), see Page ii, Item 5. for additional instructions.

Michigan Department of Environmental Quality – Water Resources Division
WASTEWATER DISCHARGE PERMIT APPLICATION
 SECTION III – Industrial and Commercial Wastewater

B. Outfall Information

PLEASE TYPE OR PRINT

FACILITY NAME Eagle Mine, LLC - Humboldt Mill		NPDES PERMIT NUMBER MI0058649				OUTFALL NUMBER 001		
Submitted via DMRs or e-DMRs	PARAMETER	SAMPLE DATE → CAS No.	4/22/11	7/31/13			Sample Type	Analytical Method
			Conc (µg/l)	Conc (µg/l)	Conc (µg/l)	Conc (µg/l)		
<input type="checkbox"/>	Aluminum		<50	<50				
<input type="checkbox"/>	Antimony		5.9	5.6				
<input type="checkbox"/>	Arsenic		<1.0	<1.0				
<input type="checkbox"/>	Barium		<10	9.5				
<input type="checkbox"/>	Beryllium		<1.0	<1.0				
<input type="checkbox"/>	Boron		77	90				
<input type="checkbox"/>	Cadmium		<0.40	<0.20				
<input type="checkbox"/>	Calcium		0.053	NS				
<input type="checkbox"/>	Total Chromium		<1.0	<10				
<input type="checkbox"/>	Cobalt		<10	2.0				
<input type="checkbox"/>	Copper		2.4	1.5				
<input type="checkbox"/>	Iron		240	<100				
<input type="checkbox"/>	Lead		<1.0	<1.0				
<input type="checkbox"/>	Lithium		<10	NS				
<input type="checkbox"/>	Magnesium		0.026	0.024				
<input type="checkbox"/>	Manganese		67	23				
<input type="checkbox"/>	Mercury (inorganic, ng/L)		<0.500	<0.50				
<input type="checkbox"/>	Molybdenum		10	10				
<input type="checkbox"/>	Nickel		16	11				
<input type="checkbox"/>	Potassium		0.0085	NS				
<input type="checkbox"/>	Selenium		<4.0	<1.0				
<input type="checkbox"/>	Silver		<0.40	<0.50				
<input type="checkbox"/>	Sodium		0.013	NS				
<input type="checkbox"/>	Thallium		<1.0	<1.0				
<input type="checkbox"/>	Tin		NS	<0.00050				
<input type="checkbox"/>	Titanium		NS	<6.0				
<input type="checkbox"/>	Vanadium		<1.0	NS				

Michigan Department of Environmental Quality – Water Resources Division
WASTEWATER DISCHARGE PERMIT APPLICATION
 SECTION III – Industrial and Commercial Wastewater

B. Outfall Information

PLEASE TYPE OR PRINT

FACILITY NAME Eagle Mine, LLC - Humboldt MI	NPDES PERMIT NUMBER MI0058649	OUTFALL NUMBER 001
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9. WATER TREATMENT ADDITIVES

Water treatment additives include any material that is added to water used at the facility or to wastewater generated by the facility to condition or treat the water.

Approvals of water treatment additives are authorized by the DEQ under separate correspondence. The issuance of an NPDES permit does not constitute approval of the water treatment additives that are included in this Application.

A. Are there water treatment additives in the discharge from this facility?

- Yes.
- No. Proceed to Item 10.

B. Have these water treatment additives been previously approved?

- Yes. Submit a list of the previously-approved water treatment additives and the date on which they were approved. The information listed in Item C., Items 1. – 8. shall be updated if it has changed since the previous approval.
- No. Continue with Item C.

C. Submit a list of water treatment additives that are or may be discharged from the facility. Applicants are required to submit the information listed below for each additive.

1. The water treatment additive Material Safety Data Sheet
2. The proposed water treatment additive discharge concentration
3. The discharge frequency (i.e., number of hours per day, week)
4. The outfall from which the water treatment additive is to be discharged
5. The type of removal treatment, if any, that the water treatment additive receives prior to discharge
6. The water treatment additive function (i.e., microbicide, flocculant)
7. A 48-hour LC50 or EC50 for a North American freshwater planktonic crustacean (either *Ceriodaphnia* sp., *Daphnia* sp., or *Simocephalus* sp.)
8. The results of a toxicity test for one other North American freshwater aquatic species (other than a planktonic crustacean) that meets a minimum requirement of Rule 323.1057(2)(a) of the Water Quality Standards. Examples of tests that would meet this requirement include a 96-hour LC50 for rainbow trout, bluegill, or fathead minnow.

The required toxicity information (described in Items 7. and 8. above) is currently available in the Water Resource Division's files for the water treatment additives listed on the DEQ's Internet page. To access that information, go to <http://www.michigan.gov/deq>, click on Site Map, at the bottom of the right column under **Water Quality Monitoring**, click on Assessment of Michigan Waters. Under the **Information** heading, click on the Water Treatment Additive List. If you intend to use one of the water treatment additives on this list, only the information in Items 1. through 6. above needs to be submitted to the Water Resources Division. **Note:** The availability of toxicity information for a water treatment additive does not constitute approval to discharge the water treatment additive. Comments:

10. WHOLE EFFLUENT TOXICITY (WET) TESTS

Have any acute or chronic WET tests been conducted on any discharges or receiving water(s) in relation to facility discharges within the last three (3) years? If yes, identify the tests and summarize the results on a separate sheet, unless the test has been submitted to the DEQ in the last three (3) years. For assistance with WET testing, see "Whole Effluent Toxicity Test Guidance and Requirements" on Page 17 in the Appendix. Comments: NO

This completes Section III. Return the completed Application (Sections I, III, IV, VI [if applicable], and any attachments) to one of the addresses on Page ii of this Application. If assistance is needed to complete this Application, contact the Permits Section.

Michigan Department of Environmental Quality – Water Resources Division
WASTEWATER DISCHARGE PERMIT APPLICATION
 SECTION III – Industrial and Commercial Wastewater

B. Outfall Information

Complete a separate Section III.B. – Outfall Information (Pages 19 – 24) for each outfall at the facility. Make copies of this blank section of the Application as necessary for additional outfalls.

PLEASE TYPE OR PRINT

FACILITY NAME Eagle Mine, LLC. - Humboldt Mill	NPDES PERMIT NUMBER MI0058649	OUTFALL NUMBER 002
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1. OUTFALL INFORMATION. Instructions for this item are on Page 3 of the Appendix.

A.	Receiving Water Middle Branch Escanaba River	Hydrologic Unit Code 04030110						
B.	County Marquette	Township Humboldt						
C.	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%;">Town 47E</td> <td style="width: 25%;">Range 29W</td> <td style="width: 25%;">Section 1</td> <td style="width: 25%;">¼ NW, SW</td> </tr> </table>	Town 47E	Range 29W	Section 1	¼ NW, SW	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">¼, ¼</td> <td style="width: 50%;">Private (French) Land Claim</td> </tr> </table>	¼, ¼	Private (French) Land Claim
Town 47E	Range 29W	Section 1	¼ NW, SW					
¼, ¼	Private (French) Land Claim							
D.	Latitude 46 deg 29' 56.87"	Longitude 87 deg 53'11.14"						

E. Type of Wastewater Discharged (check all that apply to this outfall):

- | | | | |
|---|--|--|---|
| <input type="checkbox"/> Contact Cooling | <input type="checkbox"/> Groundwater Cleanup | <input type="checkbox"/> Hydrostatic Pressure Test | <input type="checkbox"/> Noncontact Cooling Water |
| <input type="checkbox"/> Process Wastewater | <input type="checkbox"/> Sanitary Wastewater | <input type="checkbox"/> Storm Water - not regulated | <input type="checkbox"/> Storm Water - regulated |
| <input type="checkbox"/> Storm water subject to effluent guidelines (indicate under which category): _____ | | | |
| <input checked="" type="checkbox"/> Others (see Table B – Other Common Types of Wastewater on Page 17 in the Appendix) <u>Treated Surface Water</u> | | | |

F. The Maximum Design Flow Rate for this outfall is: 1.4 MGD

G. What is the Maximum Authorized Daily Discharge Flow for this outfall for the next five years?
 Seasonal Dischargers _____ MGY (Continue with Item H.)
 Continuous Dischargers 1.4 MGD (Continue with Item I.)

H. Seasonal Discharge:

List the discharge periods (by month) and the volume discharged in the space provided below.

From	Through	Actual Discharge Volume (MGD)	Annual Total
		Actual Discharge Volume (MGD)	
		Actual Discharge Volume (MGD)	
		Actual Discharge Volume (MGD)	
		Actual Discharge Volume (MGD)	

I. Continuous Discharge:

How often is there a discharge from this outfall (on average)? 24 Hours/Day 365 Days/Year

Batch dischargers are required to provide the following additional information:

Is there effluent flow equalization? Yes No

Batch Peak Flow Rate: _____ Number of batches discharged per day: _____

	Minimum	Average	Maximum
Batch Volume (gallons)			
Batch Duration (minutes)			

Michigan Department of Environmental Quality – Water Resources Division
WASTEWATER DISCHARGE PERMIT APPLICATION
 SECTION III – Industrial and Commercial Wastewater

B. Outfall Information

PLEASE TYPE OR PRINT

FACILITY NAME Eagle Mine, LLC - Humboldt Mill	NPDES PERMIT NUMBER MI0058649	OUTFALL NUMBER 002
2. PROCESS STREAMS CONTRIBUTING TO OUTFALL DISCHARGE Federal regulations require that different industries report different information, depending on the type of facility. The information below is used to determine the applicable federal regulations for this facility. An abbreviated list is on Page 11 in the 'Summary of Information to be reported by Industry Type' section of the Appendix. Applicants are required to provide the name and the SIC or the NAICS code for each process at the facility. Facilities with production-based limits must report an estimated annual production rate for the next five (5) years or the life of the permit. If the wastestream is not regulated under federal categorical standards, the applicant is required to report all pollutants which have the reasonable potential to be present in the discharge. To submit additional information, see Page ii, Item 3.		
PROCESS INFORMATION A. Name of the process contributing to the discharge: <u>Ore processing tailings disposal</u> B. SIC or NAICS code: <u>1061 (Ferrous alloy ores), 1021 (Copper Ores)</u> C. Describe the process and provide measures of production: Nickel and copper ore will be processed on-site and tailings will be disposed in a subaqueous environment of the HTDF. The HTDF discharge will be contained with a cut off wall and surface water will be treated with the WTP as necessary.		
PROCESS INFORMATION A. Name of the process contributing to the discharge: _____ B. SIC or NAICS code: _____ C. Describe the process and provide measures of production:		
PROCESS INFORMATION A. Name of the process contributing to the discharge: _____ B. SIC or NAICS code: _____ C. Describe the process and provide measures of production:		
PROCESS INFORMATION A. Name of the process contributing to the discharge: _____ B. SIC or NAICS code: _____ C. Describe the process and provide measures of production:		
PROCESS INFORMATION A. Name of the process contributing to the discharge: _____ B. SIC or NAICS code: _____ C. Describe the process and provide measures of production:		

Michigan Department of Environmental Quality – Water Resources Division
WASTEWATER DISCHARGE PERMIT APPLICATION
 SECTION III – Industrial and Commercial Wastewater

B. Outfall Information

PLEASE TYPE OR PRINT

FACILITY NAME Eagle Mine, LLC - Humboldt Mill	NPDES PERMIT NUMBER MI0058649	OUTFALL NUMBER 002
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3. EFFLUENT CHARACTERISTICS - CONVENTIONAL POLLUTANTS. Instructions for this item are on Page 4 of the Appendix.

Check this box if additional information is included as an attachment. To submit additional information, see Page ii, Item 3.

Please Note: Rule 323.1062 allows the use of either *Escherichia coli* or Fecal Coliform Bacteria as an indicator that effluent has been disinfected. The DEQ will use the indicator selected below in the permit issued based on this Application. Use *Escherichia coli* as an indicator of disinfection. Use Fecal Coliform Bacteria as an indicator of disinfection.

Submitted via DMRs or e-DMRs	Waiver Request and the Rationale Behind the Request	Parameter	Maximum Monthly Concentration	Maximum Daily Concentration	Units	Number of Analyses	Sample Type
<input type="checkbox"/>		Biochemical Oxygen Demand – five day (BOD ₅)	<2.0		mg/l	1	<input checked="" type="checkbox"/> Grab <input type="checkbox"/> 24-Hr Comp
<input type="checkbox"/>		Chemical Oxygen Demand (COD)	<5.0		mg/l	1	<input checked="" type="checkbox"/> Grab <input type="checkbox"/> 24-Hr Comp
<input type="checkbox"/>		Total Organic Carbon (TOC)	3.5		mg/l	2	<input checked="" type="checkbox"/> Grab <input type="checkbox"/> 24-Hr Comp
<input type="checkbox"/>		Ammonia Nitrogen (as N)	<0.050		mg/l	2	<input checked="" type="checkbox"/> Grab <input type="checkbox"/> 24-Hr Comp
<input type="checkbox"/>		Total Suspended Solids	<10		mg/l	2	<input checked="" type="checkbox"/> Grab <input type="checkbox"/> 24-Hr Comp
<input type="checkbox"/>	Waiver Request Not Required	Total Dissolved Solids			mg/l		<input type="checkbox"/> Grab <input type="checkbox"/> 24-Hr Comp
<input type="checkbox"/>	Waiver Request Not Required	Total Phosphorus (as P)	0.017		mg/l	1	<input checked="" type="checkbox"/> Grab <input type="checkbox"/> 24-Hr Comp
<input type="checkbox"/>	Waiver Request Not Required	Fecal Coliform Bacteria (report geometric means)	21 J	Maximum 7-day	counts/100ml	1	Grab
<input type="checkbox"/>	Waiver Request Not Required	<i>Escherichia coli</i> (report geometric means)	NS	Maximum 7-day	counts/100 ml		Grab
<input type="checkbox"/>	Waiver Request Not Required	Total Residual Chlorine	0.12		<input checked="" type="checkbox"/> mg/l <input type="checkbox"/> µg/l	2	Grab
<input type="checkbox"/>	Waiver Request Not Required	Dissolved Oxygen	Do Not Use	Minimum Daily	mg/l		Grab
<input type="checkbox"/>		pH (report maximum and minimum of individual samples)	Minimum 6.7	Maximum 6.7	standard units	1	Grab
<input type="checkbox"/>		Temperature, Summer	50	80	<input checked="" type="checkbox"/> °F <input type="checkbox"/> °C		Grab
<input type="checkbox"/>		Temperature, Winter	32	50	<input checked="" type="checkbox"/> °F <input type="checkbox"/> °C		Grab
<input type="checkbox"/>	Waiver Request Not Required	Oil & Grease	<5.0		mg/l	1	Grab

Michigan Department of Environmental Quality – Water Resources Division
WASTEWATER DISCHARGE PERMIT APPLICATION
 SECTION III – Industrial and Commercial Wastewater

B. Outfall Information

PLEASE TYPE OR PRINT

FACILITY NAME Eagle Mine, LLC - Humboldt Mill			NPDES PERMIT NUMBER MI0058649				OUTFALL NUMBER 002	
Submitted via DMRs or e-DMRs	SAMPLE DATE →		4/22/11	7/31/13			Sample Type	Analytical Method
	PARAMETER	CAS No.	Conc. (µg/l)	Conc. (µg/l)	Conc. (µg/l)	Conc. (µg/l)		
<input type="checkbox"/>	Aluminum		<50	<50				
<input type="checkbox"/>	Antimony		5.9	5.6				
<input type="checkbox"/>	Arsenic		<1.0	<1.0				
<input type="checkbox"/>	Barium		<10	9.5				
<input type="checkbox"/>	Beryllium		<1.0	<1.0				
<input type="checkbox"/>	Boron		77	90				
<input type="checkbox"/>	Cadmium		<0.40	<0.20				
<input type="checkbox"/>	Calcium		0.053	NS				
<input type="checkbox"/>	Total Chromium		<1.0	<10				
<input type="checkbox"/>	Cobalt		<10	2.0				
<input type="checkbox"/>	Copper		2.4	1.5				
<input type="checkbox"/>	Iron		240	<100				
<input type="checkbox"/>	Lead		<1.0	<1.0				
<input type="checkbox"/>	Lithium		<10	NS				
<input type="checkbox"/>	Magnesium		0.026	0.024				
<input type="checkbox"/>	Manganese		67	23				
<input type="checkbox"/>	Mercury (inorganic, ng/L)		<0.500	<0.50				
<input type="checkbox"/>	Molybdenum		10	10				
<input type="checkbox"/>	Nickel		16	11				
<input type="checkbox"/>	Potassium		0.0085	NS				
<input type="checkbox"/>	Selenium		<4.0	<1.0				
<input type="checkbox"/>	Silver		<0.40	<0.50				
<input type="checkbox"/>	Sodium		0.013	NS				
<input type="checkbox"/>	Thallium		<1.0	<1.0				
<input type="checkbox"/>	Tin		NS	<0.00050				
<input type="checkbox"/>	Titanium		NS	<6.0				
<input type="checkbox"/>	Vanadium		<1.0	NS				

Michigan Department of Environmental Quality – Water Resources Division
WASTEWATER DISCHARGE PERMIT APPLICATION
SECTION III – Industrial and Commercial Wastewater

B. Outfall Information

PLEASE TYPE OR PRINT

FACILITY NAME Eagle Mine LLC, Humboldt Mill	NPDES PERMIT NUMBER MI0058649	OUTFALL NUMBER 002
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Note: For questions on this page, Tables 1 – 5 are found in the Appendix.

4. PRIMARY INDUSTRY PRIORITY POLLUTANT INFORMATION

Existing primary industries that discharge process wastewater are required to submit the results of at least one permittee-collected effluent analysis for selected organic pollutants identified in Table 2 (as determined from Table 1, Testing Requirements for Organic Toxic Pollutants by Industrial Category), and all of the pollutants identified in Table 3. Existing primary industries are required to also provide the results of at least one permittee-collected effluent analysis for any other chemical listed in Table 2 known or believed to be present in the facility's effluent.

In addition, submit the results of all other effluent analyses performed within the last three years for any chemical listed in Tables 2 and 3.

New primary industries that propose to discharge process wastewater are required to provide an estimated effluent concentration for any chemical listed in Tables 2 and 3 expected to be present in the facility's effluent.

5. DIOXIN AND FURAN CONGENER INFORMATION

Existing industries that use or manufacture 2,3,5-trichlorophenoxy acetic acid (2,4,5-T); 2-(2,3,5-trichlorophenoxy) propanoic acid, (Silvex, 2,3,5-TP); 2-(2,4,5-trichlorophenoxy) ethyl 2,2-dichloropropionate (Erbon); 0,0-dimethyl 0-(2,4,5-trichlorophenyl) phosphorothionate (Ronnel); 2,4,5-trichlorophenol (TCP); or hexachlorophrene (HCP), or knows or has reason to believe that 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) is present in the facility's effluent, are required to submit the results of at least one effluent analysis for the dioxin and furan congeners listed in Table 6. All effluent analyses for dioxin and furan congeners shall be conducted using USEPA Method 1613.

In addition, submit the results of all other effluent analyses performed within the last three years for any dioxin and furan congener listed in Table 6.

New industries that expect to use or manufacture 2,3,5-trichlorophenoxy acetic acid (2,4,5-T); 2-(2,3,5-trichlorophenoxy) propanoic acid (Silvex, 2,3,5-TP); 2-(2,4,5-trichlorophenoxy) ethyl 2,2-dichloropropionate (Erbon); 0,0-dimethyl 0-(2,4,5-trichlorophenyl) phosphorothionate (Ronnel); 2,4,5-trichlorophenol (TCP); or hexachlorophrene (HCP), or knows or has reason to believe that 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) is present in the facility's effluent, shall provide estimated effluent concentrations for the dioxin and furan congeners listed in Table 6.

6. OTHER INDUSTRY PRIORITY POLLUTANT INFORMATION

Existing secondary industries or existing primary industries that discharge nonprocess wastewater are required to submit the results of at least one effluent analysis for any chemical listed in Tables 2 and 3 known or believed to be present in the facility's effluent.

In addition, submit the results of all other effluent analyses performed within the last three years for any chemical listed in Tables 2 and 3.

New secondary industries or new primary industries that propose to discharge nonprocess wastewater are required to provide an estimated effluent concentration for any chemical listed in Tables 2 and 3 expected to be present in the facility's effluent.

7. ADDITIONAL TOXIC AND OTHER POLLUTANT INFORMATION

All existing industries, regardless of discharge type, are required to provide the results of at least one analysis for any chemical listed in Table 4 known or believed to be present in the facility's effluent, and a measured or estimated effluent concentration for any chemical listed in Table 5 known or believed to be present in the facility's effluent. In addition, submit the results of any effluent analysis performed within the last three years for any chemical listed in Tables 4 and 5.

New industries, regardless of discharge type, are required to provide an estimated effluent concentration for any chemical listed in Tables 4 and 5 expected to be present in the facility's effluent.

8. INJURIOUS CHEMICALS NOT PREVIOUSLY REPORTED

New or existing industries, regardless of discharge type, are required to provide a measured or estimated effluent concentration for any toxic or otherwise injurious chemicals known or believed to be present in the facility's effluent that have not been previously identified in this Application. Quantitative effluent data for these chemicals that is less than five years old shall be reported.

NOTE: All effluent data submitted in response to questions 4, 5, 6, 7, and 8 above should be recorded on Page 23. To submit additional information, see Page ii, Item 3. If the effluent concentrations are estimated, place an "E" in the "Analytical Method" column. The following fields shall be completed for each data row: Parameter, CAS No., Concentration(s), Sample Type, and Analytical Method. For analytical test requirements, see Page ii, Item 5. Tables 1, 2, and 3 can be found in the Appendix.

If Alternate Test Procedures have been approved for any parameter listed above (Items 4. through 8.), see Page ii, Item 5. for additional instructions.

Michigan Department of Environmental Quality – Water Resources Division
WASTEWATER DISCHARGE PERMIT APPLICATION
 SECTION III – Industrial and Commercial Wastewater

B. Outfall Information

PLEASE TYPE OR PRINT

FACILITY NAME Eagle Mine, LLC - Humboldt MI	NPDES PERMIT NUMBER MI0058649	OUTFALL NUMBER 002
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9. WATER TREATMENT ADDITIVES

Water treatment additives include any material that is added to water used at the facility or to wastewater generated by the facility to condition or treat the water.

Approvals of water treatment additives are authorized by the DEQ under separate correspondence. The issuance of an NPDES permit does not constitute approval of the water treatment additives that are included in this Application.

A. Are there water treatment additives in the discharge from this facility?

- Yes.
- No. Proceed to Item 10.

B. Have these water treatment additives been previously approved?

- Yes. Submit a list of the previously-approved water treatment additives and the date on which they were approved. The information listed in Item C., Items 1. – 8. shall be updated if it has changed since the previous approval.
- No. Continue with Item C.

C. Submit a list of water treatment additives that are or may be discharged from the facility. Applicants are required to submit the information listed below for each additive.

1. The water treatment additive Material Safety Data Sheet
2. The proposed water treatment additive discharge concentration
3. The discharge frequency (i.e., number of hours per day, week)
4. The outfall from which the water treatment additive is to be discharged
5. The type of removal treatment, if any, that the water treatment additive receives prior to discharge
6. The water treatment additive function (i.e., microbiocide, flocculant)
7. A 48-hour LC50 or EC50 for a North American freshwater planktonic crustacean (either *Ceriodaphnia* sp., *Daphnia* sp., or *Simocephalus* sp.)
8. The results of a toxicity test for one other North American freshwater aquatic species (other than a planktonic crustacean) that meets a minimum requirement of Rule 323.1057(2)(a) of the Water Quality Standards. Examples of tests that would meet this requirement include a 96-hour LC50 for rainbow trout, bluegill, or fathead minnow.

The required toxicity information (described in Items 7. and 8. above) is currently available in the Water Resource Division's files for the water treatment additives listed on the DEQ's Internet page. To access that information, go to <http://www.michigan.gov/deq>, click on Site Map, at the bottom of the right column under **Water Quality Monitoring**, click on Assessment of Michigan Waters. Under the **Information** heading, click on the Water Treatment Additive List. If you intend to use one of the water treatment additives on this list, only the information in Items 1. through 6. above needs to be submitted to the Water Resources Division. **Note:** The availability of toxicity information for a water treatment additive does not constitute approval to discharge the water treatment additive. Comments:

10. WHOLE EFFLUENT TOXICITY (WET) TESTS

Have any acute or chronic WET tests been conducted on any discharges or receiving water(s) in relation to facility discharges within the last three (3) years? If yes, identify the tests and summarize the results on a separate sheet, unless the test has been submitted to the DEQ in the last three (3) years. For assistance with WET testing, see "Whole Effluent Toxicity Test Guidance and Requirements" on Page 17 in the Appendix. Comments: NO

This completes Section III. Return the completed Application (Sections I, III, IV, VI [if applicable], and any attachments) to one of the addresses on Page ii of this Application. If assistance is needed to complete this Application, contact the Permits Section.

Michigan Department of Environmental Quality – Water Resources Division
WASTEWATER DISCHARGE PERMIT APPLICATION
SECTION IV – Storm Water

PLEASE TYPE OR PRINT

FACILITY NAME Eagle Mine, LLC - Humboldt Mill	NPDES PERMIT NUMBER MI0058649
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1. STORM WATER DISCHARGES

Facilities must complete Section IV if they are engaged in a regulated "industrial activity" as defined in 40 CFR 122.26(b)(14). See the DEQ Industrial Storm Water website (<http://www.michigan.gov/deqstormwater>) then click on Industrial Program) for a complete list of regulated industrial activities. **Complete the following questions:**

A. Is the storm water runoff from this facility discharged to the surface waters of the state either directly or through another conveyance (ie. municipal separate storm sewer system)? Note: If storm water is discharged to a municipal combined storm sewer system, a municipal wastewater treatment system, or a privately-owned activated sludge treatment system, check the "No" box.

- Yes. Continue to next question.
- No. **STOP: The rest of Section IV does not need to be completed. No storm water authorization required.**

B. Are there any industrial activities or materials exposed to storm water runoff at this facility? Storm water discharge requirements may be excluded from an NPDES Permit if there are no industrial activities or materials exposed to storm water runoff. To qualify, the applicant shall certify that the facility has met all the eligibility requirements to claim a condition of "no exposure." These requirements are found in the No Exposure Certification (NEC) Form in the Appendix or on the DEQ Industrial Storm Water website.

- Yes. Complete the remainder of Section IV.
- No. **STOP: The rest of Section IV does not need to be completed. Complete the NEC Form and submit it with this Application.**

C. Has the facility developed a SWPPP according to the requirements of the NPDES permit?

- Yes.
- No. **Note: The applicant must complete this program element to receive storm water discharge authorization.**

D. Has the facility performed an investigation to ensure there are no unauthorized discharges to the storm sewer system or the surface waters of the state?

- Yes.
- No. **Note: The applicant must complete this program element to receive storm water discharge authorization.**

E. Has the facility implemented the non-structural controls described in the SWPPP?

- Yes.
- No. **Note: The applicant must complete this program element to receive storm water discharge authorization.**

F. Have all the structural controls described in the SWPPP been constructed and put into operation?

- Yes.
- No. **Note: The applicant must complete this program element to receive storm water discharge authorization.**

G. Does this facility have a certified industrial storm water operator who has supervision over the facility's storm water treatment and control measures described in the SWPPP?

- Yes.

<u>Dave Tornberg</u>	<u>11809</u>
Storm Water Operator Name	Certification Number
- No. **Note: The applicant must complete this program element to receive storm water discharge authorization.**

H. Is storm water discharged to the surface waters of the state or a municipal separate storm sewer system from (SKIP to next question if none apply):

- Secondary containment structures that are required by state or federal law. On a separate page, provide a list of the materials that are stored in this area.
- Areas identified on Michigan's list of Sites of Environmental Contamination, pursuant to the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, Part 201 (formerly 307).
- A facility that the DEQ has determined that the storm water discharge is a significant contributor of pollutants to surface waters of the state.

I. The storm water from this facility discharges to the following receiving water(s): Black River, Middle Branch Escanaba River

Applicants should provide any sample data taken of the storm water discharge as an attachment. To submit additional information, see Page ii, Item 3.