

MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY

AUTHORIZATION TO DISCHARGE UNDER THE MONTANA POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the Montana Water Quality Act, Title 75, Chapter 5, Montana Code Annotated (MCA) and the Federal Water Pollution Control Act (the “Clean Water Act”), 33 U.S.C. § 1251 *et seq.*,

Montanore Minerals Corporation

is authorized to discharge from its **Libby Exploration Project – Libby Creek Adit**

located at **Section 15 Township 27 Range 31W**

to receiving waters named **Ground Water and Libby Creek**

in accordance with discharge point(s), effluent limits, monitoring requirements, and other conditions set forth herein. Authorization for discharge is limited to those outfalls specifically listed in the permit.

This permit shall become effective: *[effective date]*

This permit and the authorization to discharge shall expire at midnight, *[5 years after effective date of permit]*

FOR THE MONTANA DEPARTMENT OF
ENVIRONMENTAL QUALITY

DRAFT

Tatiana Davila, Chief
Water Protection Bureau

Issuance Date: *Date of issuance*

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I. EFFLUENT LIMITATIONS, MONITORING REQUIREMENTS & OTHER CONDITIONS

A. Description of Discharge Points and Mixing Zone

The authorization to discharge provided under this permit is limited to those outfalls specially designated below as discharge locations. Discharges at any location not authorized under an MPDES permit is a violation of the Montana Water Quality Act and could subject the person(s) responsible for such discharge to penalties under the Act. Knowingly discharging from an unauthorized location or failing to report an unauthorized discharge within a reasonable time from first learning of an unauthorized discharge could subject such person to criminal penalties as provided under Section 75-5-632 of the Montana Water Quality Act.

Below is a description of the discharge locations authorized by this permit and any associated mixing zones.

Table 1. Discharge Locations				
Outfall	Latitude	Longitude	Receiving Water	Mixing Zone
001	48.102222° N	115.571667° W	Ground Water to Libby Creek	Source specific ground water and surface water mixing zone are granted for chronic and human health conditions. The maximum extent of ground water mixing zone is from the point of discharge to ground water (percolation pond) until reaching Libby Creek. The maximum extent from where the effluent mixed with ground water first enters Libby Creek and extending downstream about 3,400 feet to monitoring station LB-300, located at 48.10671° N latitude, 115.55967° W longitude.
003	48.101389° N	115.570000° W	Libby Creek	None
004	48.100310° N	115.576232° W	Libby Creek	None
005	48.100403° N	115.575875° W	Libby Creek	None
006	48.09888° N	115.57694° W	Libby Creek	None
007	48.09972° N	115.57611° W	Libby Creek	None
008	48.10055° N	115.57444° W	Libby Creek	None
009	48.10111° N	115.57250° W	Libby Creek	None
010	48.10194° N	115.57083° W	Libby Creek	None
011	48.10333° N	115.56861° W	Libby Creek	None

B. Effluent Limitations

Upon the effective date of the permit and lasting through the permit term, the quality of effluent discharged through Outfall 001 shall, as a minimum, meet the limitations as set forth below:

- There shall be no discharge of floating solids or visible foam other than in trace amounts.
- There shall be no discharge which causes visible oil sheen in the receiving stream.
- There shall be no discharge that settles to form objectionable sludge deposits or emulsions beneath the surface of the water or upon adjoining shorelines.
- The discharge of any process wastewater is prohibited.
- All final effluent limits are effective upon issuance of the permit, unless interim limits are given.

Outfall 001 and Outfall 003

Table 1. Final Effluent Limits - Outfall 001				
Parameter	Units	Maximum Daily Limit ⁽¹⁾	Average Monthly Limit ⁽¹⁾	Basis
pH	SU	Within the range of 6.0 to 9.0		NSPS - TBEL
TSS	mg/L	30	20	NSPS - TBEL
Oil & Grease	mg/L	10	-	Narrative
Ammonia	mg/L	4.30	2.14	WQBEL
Nitrate+ Nitrite	mg/L	4.39	4.39	WQBEL
Total Nitrogen	mg/L	-	0.09 ⁽²⁾⁽³⁾	WQBEL
	lb/d	-	0.54 ⁽²⁾	WQBEL
Total Phosphorus	mg/L	-	0.0041 ⁽²⁾	WQBEL
	lb/d	-	0.025 ⁽²⁾	WQBEL
Aluminum, Dissolved	µg/L	21.4	10.7	WQBEL
Antimony, Total Recoverable	µg/L	1.6	1.6	WQBEL
Arsenic, Total Recoverable	µg/L	0.50 ⁽³⁾	0.25 ⁽³⁾	WQBEL
Beryllium, Total Recoverable	µg/L	0.054 ⁽³⁾	0.054 ⁽³⁾	WQBEL
Cadmium, Total Recoverable	µg/L	0.064	0.032	WQBEL
Copper, Total Recoverable	µg/L	0.71 ⁽³⁾	0.36 ⁽³⁾	WQBEL
Lead, Total Recoverable	µg/L	0.133 ⁽³⁾	0.066 ⁽³⁾	WQBEL
Mercury, Total Recoverable	µg/L	0.0032 ⁽³⁾	0.0016 ⁽³⁾	WQBEL
Selenium, Total Recoverable	µg/L	1.2	0.61 ⁽³⁾	WQBEL
Silver, Total Recoverable	µg/L	0.056 ⁽³⁾	0.028 ⁽³⁾	WQBEL
Zinc, Total Recoverable	µg/L	5.6 ⁽³⁾	2.8 ⁽³⁾	WQBEL
<p>(1) See Definitions section at the end of the MPDES permit for explanation of terms. (2) Final nutrient limits will become effective (<i>4 Years 11 Months from Permit Effective Date</i>). See Table 3 Interim Limits. (3) Analysis of effluent with non-detect results less than the RRVs is considered to be in compliance with the limit.</p>				

Table 3. Interim Nutrient Effluent Limits - Outfall 001				
Parameter	Units	Average Monthly Limit ⁽¹⁾	Compliance Deadline	Basis
Total Nitrogen	mg/L	0.26 ⁽²⁾	Effective Immediately	Cap at Current - Outfall 001 Maximum Observed
	lb/d	0.94		
	mg/L	0.21 ⁽²⁾	2 Years from Permit Effective Date	Cap at Current - Outfall 001 Long Term Average Observed
	lb/d	0.73		
Total Phosphorus	mg/L	0.0240	Effective Immediately	Cap at Current - Outfall 001 Maximum Observed
	lb/d	0.080		
	mg/L	0.0078	2 Years from Permit Effective Date	Cap at Current - Outfall 001 Long Term Average Observed
	lb/d	0.026		

(1) See Definitions section at the end of the MPDES permit for explanation of terms.
(2) Analysis of effluent with non-detect results less than the RRVs is considered to be in compliance with the limit.

Table 4. Final Effluent Limits - Outfall 003				
Parameter	Units	Maximum Daily Limit ⁽¹⁾	Average Monthly Limit ⁽¹⁾	Basis
pH	SU	Within the range of 6.0 to 9.0		NSPS - TBEL
TSS	mg/L	30	20	NSPS - TBEL
Oil & Grease	mg/L	10	-	Narrative
Ammonia	mg/L	1.32	0.66	WQBEL
Nitrate+ Nitrite	mg/L	1.5	1.5	WQBEL
Total Nitrogen	mg/L	-	0.09 ⁽²⁾⁽³⁾	WQBEL
	lb/d	-	0.54 ⁽²⁾	WQBEL
Total Phosphorus	mg/L	-	0.0041 ⁽²⁾	WQBEL
	lb/d	-	0.025 ⁽²⁾	WQBEL
Aluminum, Dissolved	µg/L	21.4	10.7	WQBEL
Antimony, Total Recoverable	µg/L	0.84	0.84	WQBEL
Arsenic, Total Recoverable	µg/L	0.5 ⁽³⁾	0.25 ⁽³⁾	WQBEL
Beryllium, Total Recoverable	µg/L	0.054 ⁽³⁾	0.054 ⁽³⁾	WQBEL
Cadmium, Total Recoverable	µg/L	0.064	0.032	WQBEL
Copper, Total Recoverable	µg/L	0.71 ⁽³⁾	0.36 ⁽³⁾	WQBEL
Iron, Total Recoverable	µg/L	184	92	WQBEL
Lead, Total Recoverable	µg/L	0.133 ⁽³⁾	0.066 ⁽³⁾	WQBEL
Mercury, Total Recoverable	µg/L	0.0032 ⁽³⁾	0.0016 ⁽³⁾	WQBEL
Nickel, Total Recoverable	µg/L	3.9	2.0	WQBEL
Selenium, Total Recoverable	µg/L	1.2	0.61 ⁽³⁾	WQBEL
Silver, Total Recoverable	µg/L	0.056 ⁽³⁾	0.028 ⁽³⁾	WQBEL
Thallium, Total Recoverable	µg/L	0.036 ⁽³⁾	0.036 ⁽³⁾	WQBEL
Zinc, Total Recoverable	µg/L	5.6 ⁽³⁾	2.8 ⁽³⁾	WQBEL

(1) See Definitions section at the end of the MPDES permit for explanation of terms.
(2) Nutrients limits are applicable during the summer months, of July 1st through September 30th.
(3) Analysis of effluent with non-detect results less than the RRVs is considered to be in compliance with the limit.

Storm Water Outfalls 004 – 011

The discharge of any mine drainage is prohibited at Outfalls 004 – 011.

Outfalls 004 – 011 are subject to the BMP requirements for storm water discharges (See Special Conditions Section 6.7). The Permittee must develop, implement, and maintain a Storm Water Pollution Prevention Plan (SWPPP) identifying all BMPs selected for storm water control and submit the SWPPP for DEQ review.

The Permittee must re-evaluate the SWPPP and adjust or add BMPs when, based on monitoring results, turbidity in the discharge at any Outfall 004 – 011 exceeds the upstream turbidity of the associated receiving water during each discharge event.

Twice a year, during a precipitation event that causes a discharge, the Permittee must conduct additional monitoring for 004 – 011 (Table 10). During the same storm events, monitoring must also occur on Libby Creek upstream of all outfalls.

When any parameter monitored exceeds the upstream parameter concentration, the Permittee must re-evaluate the SWPPP and adjust or add BMPs before the next storm event if possible or within a maximum timeframe of 14 days of receiving the monitoring results. If it is infeasible to adjust or add BMPs within 14 days, the Permittee may request additional time from DEQ. The request must be in writing, outline the reasons why the 14-day timeframe is infeasible, and may not exceed a total of 45 days. The extension request must be approved by DEQ in writing. The Permittee must notify DEQ, in writing, of the amended SWPPP and resulting BMP changes.

C. Monitoring Requirements

As a minimum, upon the effective date of this permit, the following constituents must be monitored at the frequency and with the type of measurement indicated; samples or measurements shall be representative of the volume and nature of the monitored discharge. Reporting frequency shall be monthly, and each facility must submit the results electronically on their NetDMR for each month by the 28th of the following month. If no discharge occurs during the entire monitoring period, it shall be stated on the Discharge Monitoring Report that no discharge or overflow occurred.

Samples shall be collected, preserved, and analyzed in accordance with approved procedures listed in 40 CFR Part 136, unless otherwise specified.

Laboratory analytical results reported as less than detection must achieve the required reporting values (RRVs) in Circular DEQ-7 (June 2019) or as otherwise specified by DEQ.

The authorization to discharge is limited to the following designated outfalls. The Permittee must monitor the effluent to demonstrate compliance with the effluent limitations and other requirements of this permit at the locations specified in Table 5 below.

Table 5. Outfall Monitoring Locations		
Outfall Designation	Monitoring Location Designation	Monitoring Description
001	001A	At the end of pipe, after all treatment processes, prior to discharge into the percolation pond.
003	003A	At the end of pipe, after all treatment processes, prior to discharge into Libby Creek.
004 - 011	004A – 011A	At the point of discharge from the outfall.

Outfall 001 and Outfall 003 Effluent Monitoring

All monitoring results for Outfall 001 and Outfall 003, except WET, shall be reported to DEQ monthly. WET testing results shall be reported quarterly. Storm water monitoring shall be reported either quarterly or semi-annually (see below). The Permittee must comply with reporting requirements as specified in ARM 17.30.1342 which are included in the permit.

In addition to the monitoring in Table 6, the Permittee must complete and submit Parts V and VI of U.S EPA Form 2C within 6 months of commencing the discharge from Outfall 001. Analytical results are required for all parameters listed in Part V-A, B, and C, including all GC/MS fractions in Table 2C-2. Part D must also be completed as required by the Form 2C instructions.

Table 6. Effluent Monitoring Requirements for Outfall 001 and Outfall 003					
Parameter ⁽¹⁾	Units ⁽²⁾	Sample Type ⁽³⁾	Minimum Frequency ⁽⁴⁾	Reporting Requirement	RRV ⁽⁵⁾
Flow Rate	mgd	Instantaneous	Continuous	Daily Maximum Monthly Average	± 10% actual flow
Flow Duration	days	Calculated	Continuous	Number of Days	0.5
Temperature	° C	Instantaneous	1/Week	Daily Maximum Monthly Average	0.1
pH	SU	Instantaneous	1/Week	Daily Minimum Daily Maximum	0.1
Total Suspended Solids (TSS)	mg/L	Composite	1/Week	Daily Maximum Monthly Average	5
Oil & Grease	mg/L	Grab	1/Month	Daily Maximum Monthly Average	1
	Presence	Observation	1/Week ⁽⁶⁾	Daily Maximum Monthly Average	-
Ammonia	mg/L	Composite	1/Week	Daily Maximum Monthly Average	0.07
Nitrate+ Nitrite	mg/L	Composite	1/Week	Daily Maximum Monthly Average	0.02
Kjeldahl Nitrogen, as N ⁽⁷⁾	mg/L	Composite	1/Week	Daily Maximum Monthly Average	0.225
Total Nitrogen ⁽⁷⁾⁽⁸⁾	mg/L	Calculated	1/Week	Daily Maximum Monthly Average	0.245
	lb/d	Calculated	1/Week	Daily Maximum Monthly Average	-
Total Phosphorus ⁽⁷⁾	mg/L	Composite	1/Week	Daily Maximum Monthly Average	0.003

	lb/d	Calculated	1/Week	Daily Maximum Monthly Average	-
Aluminum, dissolved	µg/L	Composite	1/Week	Daily Maximum Monthly Average	9
Antimony, Total Recoverable	µg/L	Composite	1/Week	Daily Maximum Monthly Average	0.5
Arsenic, Total Recoverable	µg/L	Composite	1/Week	Daily Maximum Monthly Average	1
Barium, Total Recoverable	µg/L	Composite	1/Quarter	Daily Maximum Monthly Average	3
Beryllium, Total Recoverable	µg/L	Composite	1/Week	Daily Maximum Monthly Average	0.8
Cadmium, Total Recoverable	µg/L	Composite	1/Week	Daily Maximum Monthly Average	0.03
Chromium, Total Recoverable	µg/L	Composite	1/Quarter	Daily Maximum Monthly Average	10
Copper, Total Recoverable	µg/L	Composite	1/Week	Daily Maximum Monthly Average	2
Iron, Total Recoverable	µg/L	Composite	1/Month	Daily Maximum Monthly Average	20
Lead, Total Recoverable	µg/L	Composite	1/Week	Daily Maximum Monthly Average	0.3
Manganese, Total Recoverable	µg/L	Composite	1/Quarter	Daily Maximum Monthly Average	-
Mercury, Total Recoverable	µg/L	Composite	1/Week	Daily Maximum Monthly Average	0.005
Nickel, Total Recoverable	µg/L	Composite	1/Quarter	Daily Maximum Monthly Average	2
Selenium, Total Recoverable	µg/L	Composite	1/Week	Daily Maximum Monthly Average	1
Silver, Total Recoverable	µg/L	Composite	1/Week	Daily Maximum Monthly Average	0.2
Strontium, Total Recoverable	µg/L	Composite	1/Quarter	Daily Maximum Monthly Average	20
Thallium, Total Recoverable	µg/L	Composite	1/Week	Daily Maximum Monthly Average	0.2
Uranium, Total Recoverable	µg/L	Composite	1/Quarter	Daily Maximum Monthly Average	0.2
Zinc, Total Recoverable	µg/L	Composite	1/Week	Daily Maximum Monthly Average	8
Whole Effluent Toxicity LC50, Statre 48 Hr Acute, <i>Ceriodaphnia dubia</i> ⁽⁹⁾	Percent Effluent	Composite	1/Quarter ⁽¹¹⁾	Pass/Fail	Per Method 2002.0
Whole Effluent Toxicity, LC 50, 96 -Hr Acute – <i>Pimephales promelas</i> ⁽⁹⁾	Percent Effluent	Composite	1/Quarter ⁽¹¹⁾	Pass/Fail	Per Method 2000.0
Whole Effluent Toxicity IC ₂₅ , 3 Brood Chronic, <i>Ceriodaphnia dubia</i> ⁽¹⁰⁾	Percent Effluent	Composite	1/Quarter ⁽¹¹⁾	Pass/Fail	Per Method 1002.0

Whole Effluent Toxicity, IC ₂₅ , 7-day Chronic – <i>Pimephales promelas</i> ⁽¹⁰⁾	Percent Effluent	Composite	1/Quarter ⁽¹¹⁾	Pass/Fail	Per Method 1000.0
<p>(1) All parameters are effluent unless otherwise noted. (2) See narrative discussion in Part I.D of the permit for additional details on calculating load and percent removal. (3) See Definition section at end of permit for explanation of terms. (4) Monitoring only required during periods of discharge. (5) Required Reporting Value (6) A sample must also be taken any time the visual presence of oil is observed. (7) Monitoring for Nutrients for Outfall 003 required during the summer months, of July 1st through September 30th. Monitoring for Nutrients for Outfall 001 is year-long. (8) Calculated as the sum of nitrate + nitrite and total Kjeldahl nitrogen concentrations. (9) Acute WET testing at Outfall 001 only. (10) Chronic WET testing at Outfall 003 only. (11) If the results for four consecutive quarters of testing indicate no toxicity, the permittee may request a reduction to semi-annual two-species chronic toxicity testing.</p>					

Instream Monitoring for Libby Creek

Upstream and downstream monitoring for Libby Creek is shown in Tables 7 and 8. The reporting period for this monitoring is monthly or quarterly.

Table 7. Ambient (Upstream) Monitoring Requirements for Libby Creek					
Parameter	Units	Sample Type ⁽¹⁾	Minimum Frequency	Reporting Requirement	RRV ⁽²⁾
Flow Rate	mgd	Instantaneous	1/Month	Value	± 10% actual flow
Temperature	° C	Instantaneous	1/Month	Value	0.1
pH	SU	Instantaneous	1/Month	Value	0.1
Total Suspended Solids (TSS)	mg/L	Grab	1/Quarter	Value	5
Oil & Grease	mg/L	Grab	1/Quarter	Value	1
Ammonia	mg/L	Grab	1/Quarter	Value	0.07
Nitrate+ Nitrite	mg/L	Grab	1/Quarter	Value	0.02
Kjeldahl Nitrogen, as N ⁽³⁾	mg/L	Grab	1/Quarter	Value	0.225
Total Nitrogen ⁽³⁾⁽⁴⁾	mg/L	Calculated or Grab	1/Quarter	Value	0.245
Total Phosphorus ⁽³⁾	mg/L	Grab	1/Quarter	Value	0.003
Total Hardness, as CaCO ₃	mg/L	Grab	1/Month	Value	2
Aluminum, dissolved	µg/L	Grab	1/Quarter	Value	9
Antimony, Total Recoverable	µg/L	Grab	1/Quarter	Value	0.5
Arsenic, Total Recoverable	µg/L	Grab	1/Quarter	Value	1
Barium, Total Recoverable	µg/L	Grab	1/Quarter	Value	3
Beryllium, Total Recoverable	µg/L	Grab	1/Quarter	Value	0.8
Cadmium, Total Recoverable	µg/L	Grab	1/Quarter	Value	0.03
Chromium, Total Recoverable	µg/L	Grab	1/Quarter	Value	10

Copper, Total Recoverable	µg/L	Grab	1/Quarter	Value	2
Iron, Total Recoverable	µg/L	Grab	1/Quarter	Value	20
Lead, Total Recoverable	µg/L	Grab	1/Quarter	Value	0.3
Manganese, Total Recoverable	µg/L	Grab	1/Quarter	Value	-
Mercury, Total Recoverable	µg/L	Grab	1/Quarter	Value	0.005
Nickel, Total Recoverable	µg/L	Grab	1/Quarter	Value	2
Selenium, Total Recoverable	µg/L	Grab	1/Quarter	Value	1
Silver, Total Recoverable	µg/L	Grab	1/Quarter	Value	0.2
Strontium, Total Recoverable	µg/L	Grab	1/Quarter	Value	20
Thallium, Total Recoverable	µg/L	Grab	1/Quarter	Value	0.2
Uranium, Total Recoverable	µg/L	Grab	1/Quarter	Value	0.2
Zinc, Total Recoverable	µg/L	Grab	1/Quarter	Value	8

- (1) See Definition section at end of permit for explanation of terms.
(2) Required Reporting Value. See Circular DEQ-7 for minimum RRVs.
(3) Monitoring for Nutrients required during the summer months, of July 1st through September 30th.
(4) Total nitrogen can be calculated as the sum of nitrate + nitrite and total Kjeldahl nitrogen concentration or using the persulfate method. MMC must report results from the same method for the entire permit duration.

Parameter	Units	Sample Type (1)	Minimum Frequency	Reporting Requirement	RRV
Temperature	° C	Instantaneous	1/ Month	Value	0.1
Manganese, Total Recoverable	µg/L	Grab	1/Quarter	Value	-

(1) See Definition section at end of permit for explanation of terms.

Storm Water Outfalls 004 – 011 Monitoring

The reporting period for storm water monitoring in Table 9 is quarterly, based on calendar quarters. Effluent monitoring must be completed for storm events that result in actual discharge within thirty minutes of initial discharge. Upstream monitoring must occur within the same day of the storm event. If more than one storm event occurs during the monitoring period, report the average of all samples analyzed and the maximum for each parameter. Attach bench sheets for each monitored storm event to the DMR.

Upstream monitoring samples in Tables 9 and 10 must be collected during the same storm event as the corresponding discharge samples.

Table 9. Storm Water Monitoring Requirements for Outfalls 004 – 011 and Upstream in Libby Creek					
Parameter	Units	Sample Type (1)	Minimum Frequency	Reporting Requirement	RRV (2)
Flow Rate	mgd	Estimate	1/Discharge	Maximum Daily	-
pH	SU	Instantaneous	1/Discharge	Maximum Daily	0.1
Total Suspended Solids (TSS)	mg/L	Grab	1/Discharge	Maximum Daily	1
Turbidity	NTU	Grab	1/Discharge	Maximum Daily	0.5
(1) See Definition section at end of permit for explanation of terms.					
(2) Required Reporting Value. See Circular DEQ-7 for minimum RRVs.					

The reporting period for storm water monitoring in Table 10 is semi-annual; January through June and July through December. One storm event must be monitored in each monitoring period. Attach bench sheets for the monitored storm event to the NetDMR.

Table 10. Storm Water Monitoring Requirements for Outfalls 004 - 011 and Upstream in Libby Creek					
Parameter	Units	Sample Type (1)	Minimum Frequency	Reporting Requirement	RRV (2)
Flow Rate	mgd	Estimate	Twice/Year	Maximum Daily	-
Nitrate+ Nitrite	mg/L	Grab	Twice/Year	Maximum Daily	0.02
Total Hardness, as CaCO ₃	mg/L	Grab	Twice/Year	Maximum Daily	2
Chemical Oxygen Demand (COD)	mg/L	Grab	Twice/Year	Maximum Daily	0.07
Antimony, Total Recoverable	µg/L	Grab	Twice/Year	Maximum Daily	0.5
Arsenic, Total Recoverable	µg/L	Grab	Twice/Year	Maximum Daily	1
Beryllium, Total Recoverable	µg/L	Grab	Twice/Year	Maximum Daily	0.8
Cadmium, Total Recoverable	µg/L	Grab	Twice/Year	Maximum Daily	0.03
Copper, Total Recoverable	µg/L	Grab	Twice/Year	Maximum Daily	2
Iron, Total Recoverable	µg/L	Grab	Twice/Year	Maximum Daily	20
Lead, Total Recoverable	µg/L	Grab	Twice/Year	Maximum Daily	0.3
Mercury, Total Recoverable	µg/L	Grab	Twice/Year	Maximum Daily	0.005
Nickel, Total Recoverable	µg/L	Grab	Twice/Year	Maximum Daily	2
Selenium, Total Recoverable	µg/L	Grab	Twice/Year	Maximum Daily	1
Silver, Total Recoverable	µg/L	Grab	Twice/Year	Maximum Daily	0.2
Zinc, Total Recoverable	µg/L	Grab	Twice/Year	Maximum Daily	8
(1) See Definition section at end of permit for explanation of terms.					
(2) Required Reporting Value. See Circular DEQ-7 for minimum RRVs.					

D. Reporting Requirements

Load Calculations

Effluent limitations or monitoring requirements that are expressed in terms of load (lb/day) must be based on total mass of the discharge in accordance with the definition of daily discharge in Part V of this permit. The total mass shall be calculated using the following equations:

$$\begin{array}{ccccccc} \text{Monthly} & & \text{Average} & & \text{Average Discharge} & & \text{Conversion} \\ \text{Average Load} & = & \text{Monthly Flow} & \times & \text{Concentration} & \times & \text{Factor} \\ \left(\frac{\text{lb}}{\text{day}}\right) & & (\text{mgd}) & & \left(\frac{\text{mg}}{\text{L}}\right) & & \left(8.34 \frac{\text{lb} \cdot \text{L}}{\text{Mgal} \cdot \text{mg}}\right) \end{array}$$

$$\begin{array}{ccccccc} \text{Maximum} & & \text{Highest Daily} & & \text{Maximum Discharge} & & \text{Conversion} \\ \text{Daily Load} & = & \text{Flow} & \times & \text{Concentration} & \times & \text{Factor} \\ \left(\frac{\text{lb}}{\text{day}}\right) & & (\text{mgd}) & & \left(\frac{\text{mg}}{\text{L}}\right) & & \left(8.34 \frac{\text{lb} \cdot \text{L}}{\text{Mgal} \cdot \text{mg}}\right) \end{array}$$

Composite Samples

Composite samples shall, as a minimum, be composed of four (4) or more discrete aliquots (samples). The time between the collection of the first sample and the last sample shall not be less than six (6) hours nor more than 24 hours. The aggregate sample will reflect the average quality of the water or wastewater in the compositing or sample period. Composite samples may be composed of constant volume aliquots collected at regular intervals (simple composite) or flow proportioned.

Reporting of Non-quantified Analytical Results

Compliance with numeric effluent limitations in this permit shall be determined as specified below. At minimum, analytical methods used by the permittee for compliance purposes, must achieve the required reporting value (RRV) specified in this permit. For analytical results which are not quantified, compliance is determined as follows.

(a) *Single values (i.e., instantaneous or a maximum daily limitations for which compliance is determined using a single sample)*: For concentration-based limitations, a result of “less than” the RRV is considered in compliance. The discharge also would be considered in compliance with any mass-loading limitation derived from the same concentration-based limitation. The permittee must report the analytical reporting value (RRV) achieved and reported by the laboratory with a less than (“<”) symbol preceding the value. For mass-load limitations, the load should be calculated as given in Section I.D using the reported analytical value and reported with a less than (“<”) symbol preceding the value. If the permittee has not used a method that meets the specified RRV, the result is considered invalid.

(b) *Average values (i.e., average limitations that are based on multiple samples within a given time period)*: For a result of “less than” the RRV, the permittee should calculate the average using the RRV to determine an average concentration or mass discharge and report the average on the Discharge Monitoring Report form with a less than (“<”) symbol. If required, the permittee must also report individual values in addition to the average following the procedures listed above for single values.

E. Whole Effluent Toxicity Testing

Whole effluent toxicity (WET) has not been assessed for the Facility discharge. No mixing zone for acute or chronic toxicity is authorized by the permit. Quarterly acute WET testing is required for Outfall 001 and chronic WET testing is required for Outfall 003 to characterize the effluent.

Quality Assurance. Quality assurance, instructions, and other recommendations and requirements are found in Sections 4 of the *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms* (EPA 821-R-02-012) and the *Short-term Methods for Estimating the Chronic Toxicity of Effluents to Receiving Waters of Freshwater Organisms* (EPA-821-R-02-013). If either the reference toxicant or effluent toxicity tests do not meet the acceptability criteria in the test method manual, then the permittee must resample and retest within 14 days.

Reporting of Test Results. The quarterly results from the laboratory shall be reported along with the Discharge Monitoring Report (DMR) form submitted for the end of the reporting calendar quarter (e.g., whole effluent results for the reporting quarter ending March 31 shall be reported with the March DMR due April 28th with the remaining quarterly reports submitted with the June, September, and December DMR's).

The permittee shall submit a laboratory report for all toxicity testing as an attachment to the DMR for the month in which the toxicity test was conducted. The format for the laboratory report shall be consistent with the latest revision of *EPA Region VIII NPDES Whole Effluent Toxics Control Program, 1997: Acute Whole Effluent Reporting Form* and shall include all chemical and physical data as specified. In addition, the report shall include a copy of all results for effluent parameters monitored concurrently with the toxicity tests and progress reports on any TRE/TIE investigations required by this permit.

Notification. The permittee shall notify the DEQ (Water Protection Bureau) in writing within 14 days of a failing a repeat WET test. This notification shall describe the steps the permittee has taken or will take to investigate, identify, and correct the causes of toxicity; the status of actions required by this permit; and schedule for actions not yet completed; or reasons no action has been taken.

If the results for four consecutive quarters of testing indicate no toxicity, the permittee may request a reduction to semi-annual two-species acute and/or chronic toxicity testing. DEQ may approve or deny the request based on test results and other available information without an additional public notice. If the request is approved, the test procedures are to be the same as specified above for the test species.

Outfall 001

The Permittee must collect samples of treated wastewater and conduct a two-species acute WET test on *Ceriodaphnia dubia* and *Pimephales promelas*. All WET tests must follow the requirements for acute testing based on EPA methods 2002.0 (*Ceriodaphnia dubia*) and 2000.0 (*Pimephales promelas*). Starting in the first calendar quarter following the effective date of the permit, the permittee shall conduct an acute static replacement toxicity test on a composite sample of the effluent in accordance with the Table 6. Testing will employ two species and will consist of five effluent concentrations (100, 50, 25, 12.5, and 6.25 percent effluent) and a control. Dilution water and the control shall consist of the receiving water. Samples shall be collected on a two-day progression; i.e., if the first quarterly sample is on a Monday, the second quarter sample shall be on a Wednesday, etc. Saturdays, Sundays and Holidays will be skipped in the progression.

The static renewal WET tests shall be conducted in general accordance with the procedures set out in the latest revision of *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms* (EPA 821-R-02-012) and the *EPA Region VIII NPDES Whole Effluent Toxics Control Program, 1997*. The permittee shall conduct an acute 48-hour static renewal toxicity test using *Ceriodaphnia dubia* and an acute 96-hour static renewal toxicity test using fathead minnows (*Pimephales promelas*). Test solutions must be renewed every 24 hours. The control of pH in the WET test utilizing CO₂ enriched atmospheres is allowed to prevent rising pH drift. The target pH selected must represent the pH value of the receiving water at the time of sample collection.

Acute toxicity occurs when 50 percent or more mortality is observed for either test species at any effluent concentration. If more than 10 percent control mortality occurs, the test is considered invalid and shall be repeated until satisfactory control survival is achieved, unless a specific individual exception is granted by DEQ. This exception may be granted if less than 10 percent mortality was observed at the dilutions containing high effluent concentrations.

Outfall 003

The Permittee must collect samples of treated wastewater and conduct a two-species chronic WET test on *Ceriodaphnia dubia* and *Pimephales promelas*. The test must include effluent concentrations of 100, 75, 50, 25, and 12.5 % effluent, plus a control. Moderately hard reconstituted water (see test methods) may be used for effluent dilutions and the control. The static renewal toxicity tests shall be conducted in general accordance with the procedures set out in the latest revision of *Short-term Methods for Estimating the Chronic Toxicity of Effluents to Receiving Waters of Freshwater Organisms* (EPA-821-R-02-013) and the *EPA Region VIII NPDES Whole Effluent Toxics Control Program, 1997*. The permittee shall conduct a three-brood (seven-day) survival and reproduction static renewal toxicity test using *Ceriodaphnia dubia* (test method 1002.0) and a seven-day growth and survival static renewal toxicity test using *Pimephales promelas* (test method 1000.0). Chronic toxicity occurs when the inhibition concentration to 25% of the test population (IC₂₅) is less than or equal to the 100% effluent concentration. Control survival and growth or reproduction must meet the requirements specified in the method. An IC₂₅ less than 100% effluent shows the discharge exhibits reasonable potential to cause chronic toxicity and the permit may be reopened to include a WET limit.

If chronic toxicity occurs in a routine test, an additional test shall be conducted within 14 days of the date of the initial sample. Should chronic toxicity occur in the second test, testing shall occur once a month until further notified by DEQ. If testing cannot be conducted within 14 days of the date of the initial sample, DEQ will automatically find RP and give the Permittee a limit. In all cases, the results of all toxicity tests must be submitted to DEQ in accordance with Part I and 2 of this permit.

Permit Modifications

If necessary, this permit may be reopened and modified (following proper administrative procedures) to include the appropriate effluent limitations and compliance schedules in accordance with the provisions of ARM 17.30.1361. Specific causes for reopening and modifying this permit include those described below.

- **Toxic Pollutants:** This permit may be reopened and modified if a toxic standard or prohibition is established under Clean Water Act section 307(a) for a toxic pollutant that is present in the

discharge and such standard or prohibition is more stringent than any limitation for such pollutant in this permit.

- **TIE/TRE Results:** Based on the results of whole effluent toxicity testing and a toxicity identification evaluation (TIE) / toxicity reduction evaluation (TRE) conducted by the permittee, this permit may be reopened and modified to incorporate any additional WET or parameter-specific numeric limitations, a modified compliance schedule for WET limitations, if judged necessary by the DEQ, or a modified whole effluent toxicity protocol.

II. MONITORING, RECORDING AND REPORTING REQUIREMENTS

A. Representative Sampling

Samples taken in compliance with the monitoring requirements established under Part I of the permit shall be collected from the effluent stream prior to discharge into the receiving waters. Samples and measurements shall be representative of the volume and nature of the monitored discharge. Sludge samples shall be collected at a location representative of the quality of sludge immediately prior to use-disposal practice.

B. Monitoring Procedures

Monitoring must be conducted according to test procedures approved under Part 136, Title 40 of the Code of Federal Regulations, unless other test procedures have been specified in this permit. All flow-measuring and flow-recording devices used in obtaining data submitted in self-monitoring reports must indicate values within 10 percent of the actual flow being measured.

C. Penalties for Tampering

The Montana Water Quality Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate, any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than \$25,000, or by imprisonment for not more than six months, or by both.

D. Reporting of Monitoring Results

Monitoring results must be reported within a Discharge Monitoring Report (DMR). Monitoring results must be submitted electronically (NetDMR web-based application) no later than the 28th day of the month following the end of the monitoring period. If no discharge occurs during the entire reporting period, "No Discharge" must be reported within the respective DMR. All other reports must be signed and certified in accordance with Part IV.G 'Signatory Requirements' of this permit and submitted to DEQ at the following address:

Montana Department of Environmental Quality
Water Protection Bureau
PO Box 200901
Helena, Montana 59620-0901

E. Compliance Schedule

Reports of compliance or noncompliance with, or any progress reports on interim and final requirements contained in any Compliance Schedule of this permit must be submitted no later than 14 days following each schedule date unless otherwise specified in the permit.

F. Additional Monitoring by the Permittee

If the permittee monitors any pollutant more frequently than required by this permit, using approved analytical methods as specified in this permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the Discharge Monitoring Report. Such increased frequency shall also be indicated.

G. Records Contents

Records of monitoring information shall include:

1. The date, exact place, and time of sampling or measurements;
2. The initials or name(s) of the individual(s) who performed the sampling or measurements;
3. The date(s) analyses were performed;
4. The time analyses were initiated;
5. The initials or name(s) of individual(s) who performed the analyses;
6. References and written procedures, when available, for the analytical techniques or methods used; and
7. The results of such analyses, including the bench sheets, instrument readouts, computer disks or tapes, etc., used to determine these results.

H. Retention of Records

The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least three years from the date of the sample, measurement, report or application. This period may be extended by request of DEQ at any time. Data collected on site, copies of Discharge Monitoring Reports, and a copy of this MPDES permit must be maintained on site during the duration of activity at the permitted location.

I. Twenty-Four Hour Notice of Noncompliance Reporting

1. The permittee shall report any serious incident of noncompliance affecting the environment as soon as possible, but no later than twenty-four (24) hours from the time the permittee first became aware of the circumstances. The report shall be made to the Water Protection Bureau at (406) 444-5546 or the Office of Disaster and Emergency Services at (406) 841-3911. The following examples are considered serious incidents:
 - a. Any noncompliance which may seriously endanger health or the environment;
 - b. Any unanticipated bypass which exceeds any effluent limitation in the permit (See Part III.G of this permit, "Bypass of Treatment Facilities"); or
 - c. Any upset which exceeds any effluent limitation in the permit (See Part III.H of this permit, "Upset Conditions").
2. A written submission shall also be provided within five days of the time that the permittee becomes aware of the circumstances. The written submission shall contain:
 - a. A description of the noncompliance and its cause;
 - b. The period of noncompliance, including exact dates and times;
 - c. The estimated time noncompliance is expected to continue if it has not been corrected; and

- d. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.
3. DEQ may waive the written report on a case-by-case basis if the oral report has been received within 24 hours by the Water Protection Bureau, by phone, (406) 444-5546.
4. Reports shall be submitted to the addresses in Part II.D of this permit, "Reporting of Monitoring Results."

J. Other Noncompliance Reporting

Instances of noncompliance not required to be reported within 24 hours shall be reported at the time that monitoring reports for Part II.D of this permit are submitted. The reports shall contain the information listed in Part II.I.2 of this permit.

K. Inspection and Entry

The permittee shall allow the head of DEQ or the Regional Administrator, or an authorized representative upon the presentation of credentials and other documents as may be required by law, to:

1. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
4. Sample or monitor at reasonable times, for the purpose of assuring permit compliance, any substances or parameters at any location.

III. SPECIAL CONDITIONS

The permittee shall comply with the special conditions described below.

When an annual report is required for multiple special conditions, only one report combining the conditions will be submitted to DEQ. The annual report must be submitted by January 28th of each year. See the Table 11 for a summary of the special conditions compliance schedule.

Table 11. Compliance Schedule			
Action	Frequency	Completion Date of Action	Reporting Due Date
Outfall 003 Notification	Single Event	30 days prior to commencement of discharge at Outfall 003	30 days prior to commencement of discharge at Outfall 003
Ground Water Monitoring: Monitoring Well Installation Plan	Single Event	Within six (6) months of the permit effective date	Due on or before the 28 th day of the month following completion.
Ground Water Monitoring: Notification of Well Installation	Single Event	Within one (1) year of the permit effective date	Due on or before January 28 th of the following year.
Ground Water Monitoring: Sampling and Reporting of New Wells	Quarterly Event	Beginning within fifteen (15) months after the permit effective date	Due on or before the 28 th day of the month following the monitoring period
Aquifer Test and Hydrogeologic Investigation: Complete Investigation	Single Event	Prior to the Permittee's next renewal application submittal	With or before the Permittee's next renewal application submittal
Libby Creek Flow Monitoring: Sampling Analysis Plan	Single Event	Within six (6) months after the permit effective date	Within six (6) months of the permit effective date
Libby Creek Flow Monitoring: Visual Flow Assessment	Monthly Event	Beginning within one (1) year after the permit effective date	Due on or before January 28 th of the following year
Nutrient Compliance Schedule: Compliance Plan	Yearly Event	Plan complete within two (2) years after the permit effective date. Updates beginning within one (1) year after the permit effective date.	Due on or before January 28 th of the following year.
Best Management Practices and Pollution Prevention: SWPPP	Single Event	Within 60 days after the permit effective date	Within 60 days after the permit effective date

A. OUTFALLS 001 AND 003

The Permittee must provide written notification to DEQ 30 days prior to commencement of discharge at Outfall 003. Outfall 001 has been discharging under MPDES Permit number MT0030279, and no notification is required.

B. GROUND WATER MONITORING

The permittee is required to install a minimum of one monitoring well that is representative of the ambient nature of the receiving aquifer. Within six (6) months of the permit effective date, the permittee must create a Monitoring Well Installation Plan. The plan must be approved by DEQ prior to well installation. The installation must take place within one (1) year of the permit effective date.

The monitoring well(s) must be hydraulically upgradient of both Outfall 001 and Outfall 003 and all previous mining discharge locations. Unless otherwise approved by DEQ, the monitoring well(s) is/are to be sufficiently upgradient of all outfalls so that the water quality samples are not influenced by the discharge. The well(s) must be constructed to be representative of the top 20 feet of the shallow water table (first saturated water bearing unit).

Sampling and reporting for the new ambient well(s) will commence fifteen (15) months after the permit effective date. The Facility will conduct monthly monitoring at the monitoring well(s), at a minimum as required in Table 12. The quarterly monitoring data will be submitted in electronic DMRs, due the 28th of the month following the monitoring period.

Existing downgradient monitoring wells (MW07-01 and MW07-02) will be monitoring locations in this permit. Sampling and reporting for these existing well will commence upon issuance of the permit. The Facility will conduct quarterly monitoring at these two monitoring wells, at a minimum. The quarterly monitoring data will be submitted in electronic DMRs, due the 28th of the month following the monitoring period.

Table 12. Upgradient and Downgradient Ground Water Monitoring Requirements					
Parameter	Units	Sample Type ⁽¹⁾	Minimum Frequency	Reporting Requirement	RRV ⁽²⁾
Static Water Level	ft below ground surface	Grab	1/ Quarter	Daily Maximum	-
pH	SU	Grab	1/ Quarter	Daily Maximum	0.1
Specific Conductance	umhos/cm	Grab	1/ Quarter	Daily Maximum	-
Total Suspended Solids	mg/L	Grab	1/ Quarter	Daily Maximum	5
Oil & Grease	mg/L	Grab	1/ Quarter	Daily Maximum	1
Ammonia	mg/L	Grab	1/ Quarter	Daily Maximum	0.07
Nitrate+ Nitrite	mg/L	Grab	1/ Quarter	Daily Maximum	0.02
Total Nitrogen ⁽³⁾	mg/L	Grab or Calculated	1/ Quarter	Daily Maximum	0.245
Total Phosphorus ⁽³⁾	mg/L	Grab	1/ Quarter	Daily Maximum	0.003
Aluminum, dissolved	µg/L	Grab	1/ Quarter	Daily Maximum	9
Antimony, Total Recoverable	µg/L	Grab	1/ Quarter	Daily Maximum	0.5
Arsenic, Total Recoverable	µg/L	Grab	1/ Quarter	Daily Maximum	1
Barium, Total Recoverable	µg/L	Grab	1/ Quarter	Daily Maximum	3
Beryllium, Total Recoverable	µg/L	Grab	1/ Quarter	Daily Maximum	0.8
Cadmium, Total Recoverable	µg/L	Grab	1/ Quarter	Daily Maximum	0.03
Chromium, Total Recoverable	µg/L	Grab	1/ Quarter	Daily Maximum	10
Copper, Total Recoverable	µg/L	Grab	1/ Quarter	Daily Maximum	2
Iron, Total Recoverable	µg/L	Grab	1/ Quarter	Daily Maximum	20
Lead, Total Recoverable	µg/L	Grab	1/ Quarter	Daily Maximum	0.3

Manganese, Total Recoverable	µg/L	Grab	1/ Quarter	Daily Maximum	-
Mercury, Total Recoverable	µg/L	Grab	1/ Quarter	Daily Maximum	0.005
Nickel, Total Recoverable	µg/L	Grab	1/ Quarter	Daily Maximum	2
Selenium, Total Recoverable	µg/L	Grab	1/ Quarter	Daily Maximum	1
Silver, Total Recoverable	µg/L	Grab	1/ Quarter	Daily Maximum	0.2
Strontium, Total Recoverable	µg/L	Grab	1/ Quarter	Daily Maximum	20
Thallium, Total Recoverable	µg/L	Grab	1/ Quarter	Daily Maximum	0.2
Uranium, Total Recoverable	µg/L	Grab	1/ Quarter	Daily Maximum	0.2
Zinc, Total Recoverable	µg/L	Grab	1/ Quarter	Daily Maximum	8

(1) See Definition section at end of permit for explanation of terms.
(2) Required Reporting Value. See Circular DEQ-7 for minimum RRVs.
(3) Total nitrogen can be calculated as the sum of nitrate + nitrite and total Kjeldahl nitrogen concentration or using the persulfate method. MMC must conduct the same method for the entire permit duration.

C. AQUIFER TEST AND HYDROGEOLOGIC INVESTIGATION (FATE AND TRANSPORT STUDY)

The current aquifer test for the Libby Creek Exploration Project was prepared for Noranda in 1993. MMC shall complete a new aquifer test that uses new ground water data.

Complete a hydrologic investigation that evaluates fate and transport to know how the pollutants of concern impact surface water. This should be informed by new ground water monitoring data and other up-to-date information. DEQ recommends installing piezometers along Libby Creek and taking repeat measurements during different seasons to get a better understanding of the relationship of ground water and Libby Creek. Submit the study results to DEQ's Water Protection Bureau. Consider mounding, and ground water flow direction (seasonal).

The studies must be submitted with or before the permittee's next renewal application submittal.

D. LIBBY CREEK FLOW MONITORING

The permittee will collect in-stream flow data from Libby Creek to determine accurate characterization of perennialization and to gather data for future low flow calculations. MMC must submit a Sampling Analysis Plan for DEQ approval within six (6) months of the permit effective date.

MMC shall complete visual flow assessments between LB-200 and LB-300 at appropriate transects to characterize any dry sections of the stream. The monthly monitoring data will be submitted to DEQ in an annual report by January 28th of each year.

Complete ambient flow monitoring upstream of any discharge or influence of discharge from Outfalls 001 and 003 as described in the Tables 7 and 8.

E. TOXICITY IDENTIFICATION EVALUATION/ TOXICITY REDUCTION EVALUATION

The permit has established monitoring requirements for chronic toxicity. The permit also includes a provision to develop and implement a TIE/TRE plan if monitoring indicates effluent toxicity, as defined in the permit.

F. NUTRIENT COMPLIANCE SCHEDULE

MMC cannot currently meet the final nonsignificance nutrient limit for TN or TP. DEQ is providing a compliance schedule for ensuring on-going progress towards meeting these limits. See Appendix F for further discussion.

By no later than (2 years from the effective date of the permit), MMC will submit a Compliance Plan that evaluates all feasible alternatives for improving water quality for Libby Creek and selects which nutrient reduction option(s) will be pursued. The Compliance Plan will assess:

- Optimization study;
- Additional wastewater treatment;
- Adaptive Management Plant (AMP) (if available);
- Nutrient trading;
- Authorization to Degrade;
- Site-specific standards for Libby Creek;
- Variance and/or,
- Other nutrient reduction options.

MMC will be required to provide a schedule including investigation, design, and implementation. An annual report must be submitted by January 28th of each year, summarizing the progress made the previous year and outlining the steps planned for the year.

If the permittee believes compliance with the total nitrogen limits is not possible at this time, 40 CFR 131.14 and ARM 17.30.662 provide a process for seeking an individual variance from the water quality standard. If the variance is approved under ARM 17.30.662, DEQ will reopen the permit to implement the variance.

G. BEST MANAGEMENT PRACTICES AND POLLUTION PREVENTION

DEQ is establishing BMPs for the facility as a special condition in this permit.

G.1 BMPs

A number of sites and activities found at metal mining facilities require the implementation of BMPs to prevent the contamination of storm water. Implementation of BMPs are required not only for mineral extraction sites and material piles, but for discharges from roads accessing these sites. BMPs must be selected and implemented that address, at a minimum, the following areas:

- Good Housekeeping Practices;
- Minimizing Exposure;
- Erosion and Sediment Control; and
- Management of Runoff and Run-on.

EPA has identified a wide variety of BMPs to mitigate discharges of contaminants at mines. These controls to prevent erosion and control sedimentation are the most effective if they are installed at the inception of operations and maintained throughout active operations and reclamation of the site. These BMPs are described in EPA's *Industrial Stormwater Fact Sheet, Sector G: Metal Mining (Ore Mining and Dressing) Facilities* (EPA-833-F-06-022, February 2021) and must be referenced and incorporated by the permittee into the facility's storm water pollution prevention plan (SWPPP). The following categories describe the BMPs available for reducing pollutants in storm water discharges at metal mining facilities:

- Discharge Diversions
- Drainage/Storm Water Conveyance Systems
- Runoff Dispersion
- Sediment Control and Collection

- Vegetation Practices
- Capping
- Treatment
- Haul Roads and/or Access Roads Maintenance
- Equipment/Vehicle Fueling and Maintenance
- Overburden, Waste Rock, and Raw Material Piles
- Reclamation Activities

A combination of preventive and treatment BMPs will yield the most effective storm water management for minimizing the discharge of pollutants via storm water runoff. BMPs must also address preventive maintenance records or logbooks, regular facility inspections, spill prevention and response, and employee training. All BMPs require regular maintenance to function as intended. Some management measures have simple maintenance requirements, others are quite involved. BMPs must be regularly inspected to ensure they are operating properly, including during runoff events. As soon as a problem is found, action to resolve it should be initiated immediately.

The categories discussed above are not an exhaustive list of BMPs. The permittee may identify and implement any additional BMPs that minimize and/or eliminate the generation of pollutants and the potential discharge of pollutants into state waters through normal operations and ancillary activities. Additional guidance on BMPs is available in EPA's *Guidance Manual for Developing Best Management Practices* (EPA 833-B-93-004, October 1993) and the Forest Service's *National Best Management Practices for Water Quality Management on National Forest System Lands* (USDA, Forest Service, FS-990a, April 2012).

G.2 Storm Water Management

The permittee must develop, maintain, and implement a SWPPP that describes the facility, BMPs, control measures, and monitoring procedures that will ensure compliance with the terms and conditions of the MPDES permit. The BMPs implemented at the facility may be structural or non-structural in nature. The SWPPP must be submitted to DEQ no later than 60 days after the effective date of the permit and must be approved by DEQ prior to construction and implementation. SWPPPs are intended to be maintained such that they are updated and adjusted to reflect current conditions, activities, and any storm water issues identified at the facility. The SWPPP and any updates must be maintained onsite. Periodic evaluation of the SWPPP (once per year minimum) and the ongoing improvements to the facility, as documented in the SWPPP, will serve to improve the quality of storm water runoff.

The SWPPP must contain a narrative evaluation of the appropriateness of storm water management practices that divert, infiltrate, reuse, or otherwise manage storm water runoff such as to reduce the discharge of pollutants. The SWPPP must document, at minimum, the following:

Storm Water Pollution Prevention Team and SWPPP Administrator

The permittee must identify the staff members that comprise the facility's storm water pollution prevention team, as well as their individual responsibilities. This team must include, and the SWPPP specify, a "SWPPP Administrator." The SWPPP Administrator is the lead responsible person for ensuring the development, implementation, and maintenance of the SWPPP. The SWPPP Administrator also serves as the primary contact person regarding the SWPPP. The

facility's storm water pollution prevention team is responsible for assisting the facility manager in developing and revising the facility's SWPPP as well as maintaining control measures and taking corrective actions where required. Each member of the storm water pollution prevention team must have ready access to this permit and the SWPPP.

Site Description

The SWPPP must provide a description of the nature of the industrial activities at the facility. The SWPPP must document the mining and associated activities with the potential to impact the storm water discharges covered by this permit.

Site Map

The SWPPP must include a legible map(s) of sufficient scale which clearly shows current conditions including the following:

- Map scale;
- North arrow;
- The site boundaries for the facility or activity;
- Locations of all receiving waters in the immediate vicinity of the facility;
- The location and extent of structures and impervious surfaces;
- Directions of storm water flow (use arrows);
- Locations of all existing structural storm water control measures;
- Locations of all storm water conveyances including ditches, pipes, and swales;
- Locations of all storm water outfall and monitoring points;
- Locations of storm water inlets and outfalls, with a unique identification code for each outfall;
- Locations of potential pollutant sources;
- Locations where spills or leaks have occurred;
- Locations and descriptions of all non-storm water discharges;
- Locations and sources of run-on to the facility from adjacent property that contains pollutants; and
- Locations of the following activities where such activities are exposed to precipitation:
 - Fueling stations;
 - Vehicle and equipment maintenance and/or cleaning areas;
 - Loading/unloading areas;
 - Locations used for the treatment, storage, or disposal of wastes;
 - Liquid storage tanks;
 - Processing and storage areas;
 - Immediate access roads and rail lines used or traveled by carriers of raw materials, manufactured products, waste material, or by-products used or created by the facility;
 - Major permanent facility structures; transfer areas for substances in bulk; and
 - Machinery.

In addition to the above items, the SWPPP must document the locations of the following (as appropriate):

- Mining or milling site boundaries;
- Access and haul roads;

- Outline of the drainage areas of each storm water outfall within the facility with indications of the types of discharges from the drainage areas;
- Location(s) of all permitted discharges covered under an individual MPDES permit;
- Outdoor equipment storage, fueling, and maintenance areas;
- Materials handling areas;
- Outdoor manufacturing, outdoor storage, and material disposal areas;
- Outdoor chemicals and explosives storage areas;
- Overburden, materials, soils, or waste storage areas;
- Location of mine drainage (where water leaves the mine) or other process water;
- Tailings piles and ponds (including proposed ones);
- Heap leach pads;
- off-site points of discharge for mine drainage and process water;
- Surface waters;
- Boundary of tributary areas that are subject to effluent limitations guidelines; and
- Location(s) of reclaimed areas.

Summary of any Potential Pollutant Sources

The permittee must document in the SWPPP areas at the facility where industrial materials or activities are exposed to storm water and from which allowable non-storm water discharges are released. Industrial materials or activities include, but are not limited to: material handling equipment or activities; industrial machinery; raw materials; industrial production and processes; and intermediate products, byproducts, final products, and waste products. Material handling activities include, but are not limited to: the storage, loading and unloading, transportation, disposal, or conveyance of any raw material, intermediate product, final product or waste product. For each area identified, the description must include:

- A list of the industrial activities exposed to storm water (e.g., material storage; equipment fueling, maintenance, and cleaning);
- A list of the pollutant(s) or pollutant constituents (e.g. crankcase oil, zinc, sulfuric acid, and/or cleaning solvents) associated with each identified activity. The pollutant list must include materials that have been handled, treated, stored, or disposed, and that have been exposed to storm water in the three years prior to the date of the SWPPP; and
- Documentation of where potential spills and leaks may occur that might contribute pollutants to storm water discharges, and the corresponding outfall(s) potentially affected by such spills and leaks. The permittee must document spills and leaks of oil or toxic or hazardous pollutants that actually occurred at exposed areas or that drained to a storm water conveyance, in the three years prior to the date of the SWPPP.

Each facility component or system must be examined for its waste minimization opportunities and its potential for discharge to state waters due to equipment failure, improper operation, and natural phenomena. This examination must include, at a minimum, all normal operations and ancillary activities including (as appropriate) material storage areas, plant site runoff, in-plant transfer, process and material handling areas, loading or unloading operations, spillage or leaks, sludge and waste disposal, or drainage from raw material storage.

Description of Control Measures and BMPs

The permittee must document in the SWPPP the location and types of control measures installed and implemented at the facility and describe how the control measure selection and design considerations were addressed. This documentation must describe how the control measures address both the pollutant sources identified and any storm water run-on that commingles with any discharges covered under this permit.

Documentation of control measures must include design and maintenance criteria for permanent and temporary structural control measures (i.e. plans, detail drawings, cross-sections, specifications, narrative description, etc.) and an appropriate maintenance schedule. The selection, design, installation, and implementation of these control measures must be in accordance with good engineering practices and/or manufacturer's specifications, and the SWPPP should reference all source(s) used in BMP design, installation, implementation, and maintenance specifications (i.e. EPA, Montana Department of Transportation, or other BMP manuals). Note that the permittee may deviate from such manufacturer's specifications as long as the permittee provides justification for any deviation and includes documentation of the rationale in the part of the SWPPP that describes control measures.

In addition, any other requirements for other programs or permitting activities which would meet the SWPPP requirements may be incorporated. If the permittee finds that any control measures are not achieving their intended effect of minimizing pollutant discharges, then the permittee must modify these control measures as expeditiously as practicable.

Control measures that must be documented in the SWPPP and implemented by the permittee must, at a minimum, include:

- Good Housekeeping Procedures. Keep clean all exposed areas that are potential sources of pollutants using such measures as sweeping at regular intervals, keeping materials orderly and labeled, and storing materials in appropriate containers.
- Maintenance. Regularly inspect, test, maintain, and repair all industrial equipment and systems to avoid situations that may result in leaks, spills, and other releases of pollutants in storm water discharged to receiving waters. All control measures that are used to achieve the effluent limits required by this permit must be maintained in effective operating condition. Non-structural control measures must also be diligently maintained (e.g., spill response supplies available and personnel appropriately trained). If control measures need to be replaced or repaired, then the permittee must make the necessary repairs or modifications before the next storm event.
- Spill Prevention and Response Procedures. Minimize the potential for leaks, spills and other releases that may be exposed to storm water and develop plans for effective response to such spills if or when they occur. At a minimum, the SWPPP must document and the permittee must implement the following:
 - Procedures for plainly labeling containers (e.g., "Used Oil," "Spent Solvents," "Fertilizers and Pesticides," etc.) that may be susceptible to spillage or leakage to encourage proper handling and facilitate rapid response if spills or leaks occur;
 - Preventative measures such as barriers between material storage and traffic areas, secondary containment provisions, and procedures for material storage and handling;
 - Procedures for expeditiously stopping, containing, and cleaning up leaks, spills, and other releases. Employees who may cause, detect, or respond to a spill or leak must be trained in these procedures and have necessary spill response equipment available; and

- Procedures for notification of appropriate facility personnel, emergency response agencies, and regulatory agencies.
- Erosion and Sediment Controls. The permittee must stabilize exposed areas and contain runoff using structural and/or non-structural control measures to minimize onsite erosion and sedimentation, and the resulting discharge of pollutants. Among other actions, flow velocity dissipation devices must be placed at discharge locations and within outfall channels where necessary to reduce erosion and/or settle out pollutants. In selecting, designing, installing, and implementing appropriate control measures, the permittee is encouraged to consult with available guidance resources relating to BMPs for erosion and sedimentation, including industrial sector-specific information.
- Management of Runoff. The permittee must divert, infiltrate, reuse, contain, or otherwise reduce storm water runoff, to minimize pollutants in any discharges. In selecting, designing, installing, and implementing appropriate control measures, the permittee is encouraged to consult with available guidance resources relating to storm water BMPs for runoff management, including industrial sector-specific information.

Additionally, the permittee must address and implement the following in their SWPPP:

- The number and quantity of pollutants and the toxicity of effluent generated, discharged, or potentially discharged at the facility must be minimized by the permittee to the extent feasible by managing each influent waste stream in the most appropriate manner;
- Storm water control measures must be designed, operated, and maintained to maximize the chemical and/or physical processes that reduce or eliminate the discharge of any pollutants to state surface waters;
- Sediment ponds must be clearly staked to indicate sediment accumulation;
- The permittee must ensure proper operation and maintenance of any control and/or discharge structures;
- To the maximum extent possible, 100-foot setbacks or 35-foot vegetated buffer strips between roads and/or other impervious surfaces and any downgradient surface waters or other conduits to surface waters will be established and/or maintained;
- Where experience indicates a reasonable potential for equipment failure (e.g., a tank overflow or leakage), natural condition (e.g., precipitation), or other circumstances that may result in significant amounts of pollutants reaching state waters, the SWPPP should include a prediction of the direction, rate of flow and total quantity of pollutants that could be discharged from the facility as a result of each condition or circumstance;
- The permittee must take into account and control sediment from snow plowed or sediment removed from the mine, ancillary facilities, and roads;
- The permittee must avoid the sidecasting of soils or snow. The sidecasting of road material is prohibited on road segments within or abutting Riparian Habitat Conservation Areas in priority watersheds; and
- Discharges to frozen or snow-covered ground must be minimized or eliminated.

Any Schedules and/or Standard Operating Procedures

The SWPPP must document any control measure inspections, routine maintenance, and/or procedures that impact the potential generation and/or discharge of pollutants by the facility. The permittee must conduct a facility inspection once every 30 days and within 24 hours of a significant precipitation event of 0.5 inches or greater. At a minimum, the documentation of each routine facility inspection must include the following:

- The inspection date and time;
- The name(s) and signature(s) of the inspector(s);
- Weather information;
- A description of any discharges occurring at the time of the inspection;
- Any previously unidentified discharges of pollutants from the site;
- Any observations of obvious indicators of storm water pollution;
- Any control measures needing maintenance or repairs;
- Any failed control measures that need replacement;
- Any incidents of noncompliance observed; and
- Any additional control measures needed to comply with the permit requirements.

An inspection for a significant storm event may also be used and credited towards one of the monthly inspections.

Corrective Actions

If any of the following conditions occur, the permittee must review and revise the selection, design, installation, implementation, and maintenance of the facility's control measures to ensure that the condition is eliminated and will not be repeated in the future:

- An unauthorized release or discharge (e.g., spill, leak, or discharge of non-storm water not authorized by this or another MPDES permit) occurs at the facility;
- The permittee become aware, or DEQ determines, that the control measures are not stringent enough for the discharge to meet applicable water quality standards;
- An inspection or evaluation of the facility by a DEQ representative determines that modifications to the control measures are necessary to meet the non-numeric effluent limits in this permit; or
- An inspection finds that the control measures are not being properly operated and maintained.

Corrective Action Deadlines

If an inspection or other observation identifies storm water pollution or control measures needing repair or replacement, the permittee must document these conditions within 24 hours of making such discovery. Subsequently, within 14 days of such discovery, the permittee must document any corrective actions taken or needed, any further investigation of the deficiency, or the basis for determining that no further action is needed. If the permittee determines that any changes are necessary following the review, any modifications to the control measures must be made before the next storm event if possible, or as soon as practicable following that storm event. The permittee must document the following:

- A summary of any corrective actions taken;

- Notice of whether any SWPPP modifications are required;
- The date any corrective action was initiated; and
- The date that the corrective action was completed.

These time intervals are not grace periods but are schedules considered reasonable for documenting any findings and for making necessary repairs and improvements. They are included in this permit to ensure that the conditions prompting the need for these repairs and improvements are not allowed to persist indefinitely.

Effect of Corrective Action

If the event triggering the corrective action review is a permit violation then correcting it does not remove the original violation. Additionally, failing to take corrective action in accordance with this section is an additional permit violation. DEQ will consider the appropriateness and promptness of corrective action in determining potential enforcement responses to permit violations.

Employee Training

The SWPPP Administrator must ensure all employees receive in-house training, including all members of the pollution prevention team who work in areas where industrial materials or activities are exposed to storm water, or who are responsible for implementing activities necessary to meet the conditions of this permit (e.g., inspectors, maintenance personnel). Training must cover both the specific control measures used to achieve the effluent limits in this permit and the monitoring, inspection, planning, reporting, and documentation requirements in other parts of this permit. Training must be conducted at least annually at a minimum and the date of the training and employees in attendance must be documented.

SWPPP Modifications and Updates

The SWPPP must be maintained and kept up-to-date to reflect current site conditions. If construction or a change in the design, operation, or maintenance at the facility either changes the nature of pollutants discharged in storm water from the facility, or increases the quantity of pollutants discharged, then the permittee must review the selection, design, installation, implementation, and maintenance of the facility's control measures to determine if any modifications to the SWPPP are necessary. Any SWPPP modification or update must be signed by a responsible corporate official as specified in ARM 17.30.1323.

The permittee is required to operate, build, and maintain the facility and storm water practices as identified in their SWPPP. The permittee may adjust or change the control measures used to improve storm water retention and treatment. This flexibility allows the permittee to adjust practices as necessary to ensure continued compliance with the permit. The SWPPP must be kept up-to-date to document any changes in BMPs, control measures, or corrective actions. Any changes to the SWPPP must be submitted to DEQ within 30 days for review. The approved SWPPP must be publicly available on the company's website.

IV. COMPLIANCE RESPONSIBILITIES

A. Duty to Comply

The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Montana Water Quality Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. The permittee shall give DEQ advance notice of any planned changes at the permitted facility or of an activity which may result in permit noncompliance.

B. Penalties for Violations of Permit Conditions

The Montana Water Quality Act provides that any person who violates a permit condition of the Act is subject to civil or criminal penalties not to exceed \$25,000 per day or one year in prison, or both, for the first conviction, and \$50,000 per day of violation or by imprisonment for not more than two years, or both, for subsequent convictions. MCA 75-5-611(a) also provides for administrative penalties not to exceed \$10,000 for each day of violation and up to a maximum not to exceed \$100,000 for any related series of violations. Except as provided in permit conditions on Part III.G of this permit, "Bypass of Treatment Facilities" and Part III.H of this permit, "Upset Conditions," nothing in this permit shall be construed to relieve the permittee of the civil or criminal penalties for noncompliance.

C. Need to Halt or Reduce Activity not a Defense

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

D. Duty to Mitigate

The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

E. Proper Operation and Maintenance

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit. However, the permittee shall operate, as a minimum, one complete set of each main line unit treatment process whether or not this process is needed to achieve permit effluent compliance.

F. Removed Substances

1. Collected screenings, grit, solids, sludges, or other pollutants removed in the course of treatment shall be disposed of in such a manner so as to prevent any pollutant from entering any waters of the state or creating a health hazard. Sludge shall not be directly blended with either the final plant discharge and/or waters of the United States.

G. Bypass of Treatment Facilities

1. Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Parts III.G.2 and III.G.3 of this permit.
2. Notice:
 - a. Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten (10) days before the date of the bypass.
 - b. Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required under Part II.I of this permit, "Twenty-Four Hour Reporting."
3. Prohibition of bypass:
 - a. Bypass is prohibited, and DEQ may take enforcement action against a permittee for a bypass, unless:
 - i. The bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
 - ii. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
 - iii. The permittee submitted notices as required under Part III.G.2 of this permit.
 - b. DEQ may approve an anticipated bypass, after considering its adverse effects, if DEQ determines that it will meet the three conditions listed above in Part III.G.3.a of this permit.

H. Upset Conditions

1. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with technology-based permit effluent limitations if the requirements of Part III.H.2 of this permit are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review (i.e. Permittees will have the opportunity for a judicial determination on any claim of upset only in an

enforcement action brought for noncompliance with technology-based permit effluent limitations).

2. Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
 - a. An upset occurred, and that the permittee can identify the cause(s) of the upset;
 - b. The permitted facility was at the time being properly operated;
 - c. The permittee submitted notice of the upset as required under Part II.I of this permit, "Twenty-Four Hour Notice of Noncompliance Reporting;" and
 - d. The permittee complied with any remedial measures required under Part III.D of this permit, "Duty to Mitigate."
3. Burden of proof. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

V. GENERAL REQUIREMENTS

A. Planned Changes

The permittee shall give notice to DEQ as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:

1. The alteration or addition could significantly change the nature or increase the quantity of pollutant discharged. This notification applies to pollutants which are not subject to effluent limitations in the permit.
2. There are any planned substantial changes to the existing sewage sludge management practices of storage and disposal. The permittee shall give DEQ notice of any planned changes at least 180 days prior to their implementation.

B. Anticipated Noncompliance

The permittee shall give advance notice to DEQ of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

C. Permit Actions

This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

D. Duty to Reapply

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit. The application must be submitted at least 180 days before the expiration date of this permit.

E. Duty to Provide Information

The permittee shall furnish to DEQ, within a reasonable time, any information which DEQ may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to DEQ, upon request, copies of records required to be kept by this permit.

F. Other Information

When the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or any report to DEQ, it shall promptly submit such facts or information with a narrative explanation of the circumstances of the omission or incorrect submittal and why they weren't supplied earlier.

G. Signatory Requirements

All applications, reports or information submitted to DEQ or the EPA shall be signed and certified.

1. All permit applications shall be signed by either a principal executive officer or ranking elected official.

2. All reports required by the permit and other information requested by DEQ shall be signed by a person described above or by a duly authorized representative of that person. A person is considered a duly authorized representative only if:
 - a. The authorization is made in writing by a person described above and submitted to DEQ; and
 - b. The authorization specified either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or an individual occupying a named position.)
3. Changes to authorization. If an authorization under Part IV.G.2 of this permit is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Part IV.G.2 of this permit must be submitted to DEQ prior to or together with any reports, information, or applications to be signed by an authorized representative.
4. Certification. Any person signing a document under this section shall make the following certification:

“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 knowing violations.”

H. Penalties for Falsification of Reports

The Montana Water Quality Act provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction be punished by a fine of not more than \$25,000 per violation, or by imprisonment for not more than six months per violation, or by both.

I. Availability of Reports

Except for data determined to be confidential under 40 CFR Part 2, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of DEQ. As required by the Clean Water Act, permit applications, permits and effluent data shall not be considered confidential.

J. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under Section 311 of the Clean Water Act.

K. Property Rights

The issuance of this permit does not convey any property rights of any sort, or any exclusive privilege.

L. Severability

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

M. Transfers

This permit may be automatically transferred to a new permittee if:

1. The current permittee notifies DEQ at least 30 days in advance of the proposed transfer date;
2. The notice includes a written agreement between the existing and new permittees containing a specific date for transfer of permit responsibility, coverage, and liability between them;
3. DEQ does not notify the existing permittee and the proposed new permittee of an intent to revoke or modify and reissue the permit. If this notice is not received, the transfer is effective on the date specified in the agreement mentioned in Part IV.M.2 of this permit; and
4. Required annual and application fees have been paid.

N. Fees

The permittee is required to submit payment of an annual fee as set forth in ARM 17.30.201. If the permittee fails to pay the annual fee within 90 days after the due date for the payment, DEQ may:

1. Impose an additional assessment computed at the rates established under 17.30.201; and,
2. Suspend the processing of the application for a permit or authorization or, if the nonpayment involves an annual permit fee, suspend the permit, certificate or authorization for which the fee is required. DEQ may lift suspension at any time up to one year after the suspension occurs if the holder has paid all outstanding fees, including all penalties, assessments and interest imposed under this sub-section. Suspensions are limited to one year, after which the permit will be terminated.

O. Reopener Provisions

This permit may be reopened and modified (following proper administrative procedures) to include the appropriate effluent limitations (and compliance schedule, if necessary), or other appropriate requirements if one or more of the following events occurs:

1. **Water Quality Standards:** The water quality standards of the receiving water(s) to which the permittee discharges are modified in such a manner as to require different effluent limits than contained in this permit.
2. **Water Quality Standards are Exceeded:** If it is found that water quality standards or trigger values in the receiving stream are exceeded either for parameters included in the permit or others, DEQ may modify the effluent limits or water management plan.
3. **TMDL or Wasteload Allocation:** TMDL requirements or a wasteload allocation is developed and approved by DEQ and/or EPA for incorporation in this permit.
4. **Water Quality Management Plan:** A revision to the current water quality management plan is approved and adopted which calls for different effluent limitations than contained in this permit.
5. **Sewage Sludge:** There have been substantial changes (or such changes are planned) in sludge use or disposal practices; applicable management practices or numerical limitations for pollutants in sludge have been promulgated which are more stringent than the requirements in this permit, and/or it has been determined that the permittee's sludge use or disposal practices do not comply with existing applicable state or federal regulations.
6. **Toxic Pollutants:** A toxic standard or prohibition is established under Section 307(a) of the Clean Water Act for a toxic pollutant which is present in the discharge and such standard or prohibition is more stringent than any limitation for such pollutant in this permit.

VI. DEFINITIONS

1. **“Act”** means the Montana Water Quality Act, Title 75, chapter 5, MCA.
2. **“Administrator”** means the administrator of the United States Environmental Protection Agency.
3. **“Acute Toxicity”** occurs when 50 percent or more mortality is observed for either species (See Part I.C of this permit) at any effluent concentration. Mortality in the control must simultaneously be 10 percent or less for the effluent results to be considered valid.
4. **“Annual Average Load”** means the arithmetic mean of all 30-day or monthly average loads reported during the calendar year for a monitored parameter.
5. **“Arithmetic Mean” or “Arithmetic Average”** for any set of related values means the summation of the individual values divided by the number of individual values.
6. **“Average Monthly Limit”** means the highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.
7. **“BOD₅”** means the five-day measure of pollutant parameter biochemical oxygen demand.
8. **“Bypass”** means the intentional diversion of waste streams from any portion of a treatment facility.
9. **“cBOD₅”** means the five-day measure of pollutant parameter carbonaceous biochemical oxygen demand.
10. **“CFR”** means Code of Federal Regulations.
11. **“Chronic toxicity”** occurs when, during a chronic toxicity test, the 25% inhibition concentration (IC₂₅) for any tested species is less than or equal to the percent effluent represented by the effluent concentration in the receiving water after accounting for any allowable mixing zone.
12. **“Composite samples”** means a sample composed of four or more discrete aliquots (samples). The aggregate sample will reflect the average quality of the water or wastewater in the compositing or sample period. Composite sample may be composed of constant volume aliquots collected at regular intervals (simple composite) or flow proportioned.
13. **“Daily Discharge”** means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the daily discharge is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the daily discharge is calculated as the average measurement of the pollutant over the day.
14. **“DEQ”** means the Montana Department of Environmental Quality. Established by 2-15-3501, MCA.

15. "**Director**" means the Director of the Montana Department of Environmental Quality.
16. "**Discharge**" means the injection, deposit, dumping, spilling, leaking, placing, or failing to remove any pollutant so that it or any constituent thereof may enter into state waters, including ground water.
17. "**EPA**" means the United States Environmental Protection Agency.
18. "**Federal Clean Water Act**" means the federal legislation at 33 USC 1251, *et seq.*
19. "**Geometric Mean**" means the value obtained by taking the Nth root of the product of the measured values.
20. "**Grab Sample**" means a sample which is taken from a waste stream on a one-time basis without consideration of flow rate of the effluent or without consideration for time.
21. "**Indirect discharge**" means the introduction of pollutants into a POTW from any non-domestic source regulated under Section 307(b), (c) or (d) of the Federal Clean Water Act.
22. "**Industrial User**" means a source of Indirect Discharge.
23. "**Instantaneous Maximum Limit**" means the maximum allowable concentration of a pollutant determined from the analysis of any discrete or composite sample collected, independent of the flow rate and the duration of the sampling event.
24. "**Instantaneous Measurement**" for monitoring requirements, means a single reading, observation, or measurement.
25. "**Interference**" means a discharge which, alone or in conjunction with other contributing discharges
 - a. Inhibits or disrupts the POTW, its treatment processes or operations, or its sludge processes, use or disposal; and
 - b. Therefore causes a violation of any requirement of the POTW's MPDES permit (including an increase in the magnitude or duration of a violation) or causes the prevention of sewage sludge use or disposal in compliance with the following statutes and regulations: Section 405 of the Clean Water Act; 40 CFR Part 503 - Standards for the Use and Disposal of Sewage Sludge; Resource Conservation and Recovery Act (RCRA); 40 CFR Part 258 - Criteria for Municipal Solid Waste Landfills; and/or any State regulations regarding the disposal of sewage sludge.
26. "**Lethal Concentration, 50 Percent**" (LC50) means the toxic or effluent concentration that would cause death in 50 percent of the test organisms over a specified period of time.
27. "**Maximum Daily Limit**" means the maximum allowable discharge of a pollutant during a calendar day. Expressed as units of mass, the daily discharge is cumulative mass discharged over the course of the day. Expressed as a concentration, it is the arithmetic average of all measurements taken that day.
28. "**Mine Drainage**" means any water drained, pumped, or siphoned from a mine.

29. **"Minimum Level"** (ML) of quantitation means the lowest level at which the entire analytical system gives a recognizable signal and acceptable calibration point for the analyte, as determined by the procedure set forth at 40 CFR 136. In most cases the ML is equivalent to the Required Reporting Value (RRV) unless otherwise specified in the permit.
30. **"Mixing zone"** means a limited area of a surface water body or aquifer where initial dilution of a discharge takes place and where certain water quality standards may be exceeded.
31. **"Nondegradation"** means the prevention of a significant change in water quality that lowers the quality of high-quality water for one or more parameters. Also, the prohibition of any increase in discharge that exceeds the limits established under or determined from a permit or approval issued by DEQ prior to April 29, 1993.
32. **"Pass through"** means a discharge which exits the POTW into waters of the State of Montana in quantities or concentrations which, alone or in conjunction with other discharges, is a cause of a violation of any requirement of the POTW's MPDES permit (including an increase in the magnitude or duration of a violation).
33. **"Process Wastewater"** means water which, during manufacturing or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, by product, or waste product.
34. **"Regional Administrator"** means the administrator of Region VIII of EPA, which has jurisdiction over federal water pollution control activities in the state of Montana.
35. **"Severe Property Damage"** means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
36. **"Sewage Sludge"** means any solid, semi-solid or liquid residue generated during the treatment of domestic sewage and/or a combination of domestic sewage and industrial waste of a liquid nature in a treatment works. Sewage sludge includes, but is not limited to, domestic septage; scum or solids removed in primary, secondary, or advanced wastewater treatment processes; and a material derived from sewage sludge. Sewage sludge does not include ash generated during the incineration of sewage sludge or grit and screenings generated during preliminary treatment of domestic sewage in a treatment works.
37. **"TIE"** means a toxicity identification evaluation.
38. **"TMDL"** means the total maximum daily load limitation of a parameter, representing the estimated assimilative capacity for a water body before other designated uses are adversely affected. Mathematically, it is the sum of wasteload allocations for point sources, load allocations for non-point and natural background sources, and a margin of safety.
39. **"TRE"** means a toxicity reduction evaluation.

40. **"TSS"** means the pollutant parameter total suspended solids.
41. **"Upset"** means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.