Permit No.: MTX000014

MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY

<u>AUTHORIZATION TO OPERATE UNDER THE</u> MONTANA GROUND WATER POLLUTION CONTROL SYSTEM

In compliance with Montana Water Quality Act, Title 75, Chapter 5, Montana Code Annotated (MCA) and the Administrative Rules of Montana (ARM) 17.30 Subchapter 5, Subchapter 7, and Subchapter 10 *et seq.*,

The O.T. Mining Corporation

must operate its facility, **Basin Mill**, in accordance with the limitations, monitoring requirements, and other provisions set forth herein.

The facility is located at: South ½ of Section 17, Township 06 North, Range 05 West; Jefferson County.

Authorization is limited to the conditions specifically listed in the permit. The limitations, monitoring requirements, and other provisions specified herein support the protection of state waters.

This permit shall become effective: TBD.

This permit and the authorization to operate shall expire at midnight, **TBD** (five years after issue date).

	FOR THE MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY
	DRAFT
	Jon Kenning, Chief
	Water Protection Bureau
Issue Date:	

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I. EFFLUENT LIMITS, MONITORING REQUIREMENTS & OTHER CONDITIONS

A. <u>Description of Impoundment Areas</u>

The authorization to discharge provided under this permit is limited to seepage occurring beneath the impoundment specially designated below. Discharges at any location not authorized under a MGWPCS permit is a violation of the Montana Water Quality Act and may 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.

Outfall Description

Location: Tailings Impoundment;

Latitude: 46.27106°; Longitude: -112.25533°;

South 1/2 of Section 17, Township 06 North, Range 05 West;

Jefferson County.

Mixing Zone: The mixing zone is 15 feet in depth. The mixing zone terminates at the extent of the three monitoring wells located 75 to 120 feet from the inside edge of the tailings embankment.

Treatment Works: Primary settling.

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B. <u>Limitations, Contingency Measures, and Prohibitions</u>

The permittee must submit a report documenting the structural integrity of the impoundment prior to: commencement of facility milling operations; placement of wastes within the impoundment; or discharge of wastewater into the impoundment. The submitted report must document any reconstruction efforts. The report must be certified by a professional engineer (or similar).

Cyanide products and cyanide treated tailings may not be used on the property or placed in the tailings impoundment.

Surface runoff is prohibited from flowing from or through the mill site.

All spills of process solutions must be immediately reported to the Department.

Upon the effective date of the permit and lasting until the term of the permit; the quality of ground water must, as a minimum, meet the limitations set forth in Table 1.

If a ground water quality sample result exceeds a value given in Table 1, the permittee is required to re-sample the well(s) within 72 hours of receiving laboratory results and notify the Department within 24 hours of receiving the results of the conformational sampling.

Based on the re-sample results, the Department may direct the permittee to implement one or more contingency measures. Said measures could include, but are not necessarily limited to:

- In coordination with the Department, review water quality trends, discharge data, and other site activities to identify the probable cause and extent of the water quality changes;
- Increase sampling (frequency and/or constituents);
- Installation of additional ground water monitoring wells, including upgradient wells;
- Installation of additional treatment to the tailings slurry and/or other wastewater streams used during milling prior to wastewater disposal to lower the exceeded parameter concentration(s);
- Suspension of all milling operations until the cause of the exceedance(s) has been determined, remediation measures taken, and/or measures implemented to prevent a reoccurrence;
- Supply drinking water to residences, business and irrigation districts located downgradient of mill site; and/or
- Implement other measures as determined by the Department, which may include invoking reopener provisions set forth in Part IV. Section O of the renewed permit.

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pH s.u. 6.0-9.0 Specific conductivity @ 25°C μS/cm 1,000 Nitrogen, Nitrite + Nitrate total [as N] mg/L 10.0 Antimony, dissolved [as Sb] μg/L 6.0 Arsenic, dissolved [as As] μg/L 10.0 Beryllium, dissolved [as Be] μg/L 4.0 Cadmium, dissolved [as Cd] μg/L 5.0 Chromium, dissolved [as Cr] μg/L 100 Copper, dissolved [as Cu] μg/L 1,300 Lead, dissolved [as Pb] μg/L 15.0 Mercury, dissolved [as Hg] μg/L 2.00 Nickel, dissolved [as Ni] μg/L 100 Selenium, dissolved [as Se] μg/L 50 Silver, dissolved [as Ag] μg/L 100 Thallium, dissolved [as Tl] μg/L 2.00 Zinc, dissolved [as Zn] μg/L 2.000	Parameter Units Daily Maximu Limit Limit (1)											
Nitrogen, Nitrite + Nitrate total [as N] mg/L 10.0 Antimony, dissolved [as Sb] µg/L 6.0 Arsenic, dissolved [as As] µg/L 10.0 Beryllium, dissolved [as Be] µg/L 4.0 Cadmium, dissolved [as Cd] µg/L 5.0 Chromium, dissolved [as Cr] µg/L 100 Copper, dissolved [as Cu] µg/L 1,300 Lead, dissolved [as Pb] µg/L 15.0 Mercury, dissolved [as Hg] µg/L 2.00 Nickel, dissolved [as Ni] µg/L 100 Selenium, dissolved [as Se] µg/L 50 Silver, dissolved [as Ag] µg/L 100 Thallium, dissolved [as Tl] µg/L 2.0	pН	s.u.	6.0-9.0									
Antimony, dissolved [as Sb]	Specific conductivity @ 25°C	μS/cm	1,000									
Arsenic, dissolved [as As] µg/L 10.0 Beryllium, dissolved [as Be] µg/L 4.0 Cadmium, dissolved [as Cd] µg/L 5.0 Chromium, dissolved [as Cr] µg/L 100 Copper, dissolved [as Cu] µg/L 1,300 Lead, dissolved [as Pb] µg/L 15.0 Mercury, dissolved [as Hg] µg/L 2.00 Nickel, dissolved [as Ni] µg/L 100 Selenium, dissolved [as Se] µg/L 50 Silver, dissolved [as Ag] µg/L 100 Thallium, dissolved [as Tl] µg/L 2.0	Nitrogen, Nitrite + Nitrate total [as N]	mg/L	10.0									
Beryllium, dissolved [as Be] μg/L 4.0 Cadmium, dissolved [as Cd] μg/L 5.0 Chromium, dissolved [as Cr] μg/L 100 Copper, dissolved [as Cu] μg/L 1,300 Lead, dissolved [as Pb] μg/L 15.0 Mercury, dissolved [as Hg] μg/L 2.00 Nickel, dissolved [as Ni] μg/L 100 Selenium, dissolved [as Se] μg/L 50 Silver, dissolved [as Ag] μg/L 100 Thallium, dissolved [as Tl] μg/L 2.0	Antimony, dissolved [as Sb]	μg/L	6.0									
Cadmium, dissolved [as Cd] μg/L 5.0 Chromium, dissolved [as Cr] μg/L 100 Copper, dissolved [as Cu] μg/L 1,300 Lead, dissolved [as Pb] μg/L 15.0 Mercury, dissolved [as Hg] μg/L 2.00 Nickel, dissolved [as Ni] μg/L 100 Selenium, dissolved [as Se] μg/L 50 Silver, dissolved [as Ag] μg/L 100 Thallium, dissolved [as Tl] μg/L 2.0	Arsenic, dissolved [as As]	μg/L	10.0									
Chromium, dissolved [as Cr] μg/L 100 Copper, dissolved [as Cu] μg/L 1,300 Lead, dissolved [as Pb] μg/L 15.0 Mercury, dissolved [as Hg] μg/L 2.00 Nickel, dissolved [as Ni] μg/L 100 Selenium, dissolved [as Se] μg/L 50 Silver, dissolved [as Ag] μg/L 100 Thallium, dissolved [as Tl] μg/L 2.0	Beryllium, dissolved [as Be]	μg/L	4.0									
Copper, dissolved [as Cu] μg/L 1,300 Lead, dissolved [as Pb] μg/L 15.0 Mercury, dissolved [as Hg] μg/L 2.00 Nickel, dissolved [as Ni] μg/L 100 Selenium, dissolved [as Se] μg/L 50 Silver, dissolved [as Ag] μg/L 100 Thallium, dissolved [as Tl] μg/L 2.0	Cadmium, dissolved [as Cd]	μg/L	5.0									
Lead, dissolved [as Pb] μg/L 15.0 Mercury, dissolved [as Hg] μg/L 2.00 Nickel, dissolved [as Ni] μg/L 100 Selenium, dissolved [as Se] μg/L 50 Silver, dissolved [as Ag] μg/L 100 Thallium, dissolved [as Tl] μg/L 2.0	Chromium, dissolved [as Cr]	μg/L	100									
Mercury, dissolved [as Hg] μg/L 2.00 Nickel, dissolved [as Ni] μg/L 100 Selenium, dissolved [as Se] μg/L 50 Silver, dissolved [as Ag] μg/L 100 Thallium, dissolved [as Tl] μg/L 2.0	Copper, dissolved [as Cu]	μg/L	1,300									
Nickel, dissolved [as Ni] $\mu g/L$ 100 Selenium, dissolved [as Se] $\mu g/L$ 50 Silver, dissolved [as Ag] $\mu g/L$ 100 Thallium, dissolved [as Tl] $\mu g/L$ 2.0	Lead, dissolved [as Pb]	μg/L	15.0									
Selenium, dissolved [as Se] μ g/L 50 Silver, dissolved [as Ag] μ g/L 100 Thallium, dissolved [as Tl] μ g/L 2.0	Mercury, dissolved [as Hg]	μg/L	2.00									
Silver, dissolved [as Ag] μ g/L 100 Thallium, dissolved [as Tl] μ g/L 2.0	Nickel, dissolved [as Ni]	μg/L	100									
Thallium, dissolved [as Tl] µg/L 2.0	Selenium, dissolved [as Se]	μg/L	50									
	Silver, dissolved [as Ag]		100									
Zinc, dissolved [as Zn] µg/L 2,000	Thallium, dissolved [as Tl]	μg/L	2.0									
	Zinc, dissolved [as Zn]	μg/L	2,000									

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C. Monitoring and Reporting Requirements

1. Facility Operational Monitoring:

The following operational information must be recorded on a daily basis:

- Operational status of the mill.
- Operational status of tailings slurry flow into the impoundment.

Record logs monitoring daily operations must be maintained on-site at all times. During periods of shut down, the records need to only show the shut down and startup calendar dates.

A report documenting all daily operational information must be **completed** annually on the anniversary of the permit effective date. Narrative statements will be accepted for periods of shut down so long as the report clearly identifies the starting and ending dates for each. The report must be received by the Department thirty (30) calendar days following the anniversary of the permit effective date. Each submitted report must attach a copy of the most up-to-date monitoring and mitigation plan. Reports must be submitted annually through the term of the permit. Monitoring and reporting requirements are listed in Table 2.

A final cumulative report must be submitted directly to the Department that summarizes all facility operational monitoring information collected over the permit cycle. The report must be received by DEQ **180 days prior to the permit expiration date.** The report must be submitted in an electronic format that includes digitized and queryable data. Monitoring and reporting requirements are listed in Table 2.

Table 2: Facility Operational Monitoring and Reporting Requirements Annual Report Action Date:

To be completed annually on the anniversary of the permit effective date. The report must be received by DEQ 30 (thirty) calendar days following the anniversary of the permit effective date.

Permit Cycle Report Action Date:

A cumulative summary report must be received by DEQ 180 days prior to the permit expiration date.

Method	Units	Monitor Frequency	Reporting Requirements
Mill Operational Days	days	Daily	Number of Operational Days
For periods of operational shutdown (no outflows), down and start up occurred.	report the	e calendar dat	es of when the shut

Operational Days in which Tailings Slurry Flowed into the Impoundment.	days	Daily	Number of Operational Days
Footnotes:			
Daily Maximum: Report highest measured daily value for the reporting p			

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2. Erosion – Monitoring and Mitigation Plan:

The permittee shall create or redevelop a standard operating procedure plan to monitor and mitigate unauthorized activities and sources which may include but is not limited to: unauthorized discharges, unauthorized placement or redeposition of waste, erosion prevention, sedimentation, or transport of materials off-site. The plan will use best management practices to identify and mitigate any anthropogenic or naturally occurring impacts. The plan at minimum must address the following:

- All topsoil must be salvaged from disturbed areas and stockpiled for use during reclamation.
- On-site and flow-through storm water management;
- On-site sedimentation control:
 - Best management practices (BMPs) shall be utilized to control sedimentation. These include berms to prevent surface run-on and runoff from ore stockpiles and all other process materials.
- Impoundment free board;
 - o Maintain a minimum of two (2) feet of freeboard in the impoundment at all times.
- Impoundment dike and berm;
 - Must be maintained to prevent erosion and transport of materials off the property of the permittee or into state waters.
 - o The tailings impoundment must be revegetated concurrent with tailings disposal.
- Fugitive dust control,
 - Best management practices (BMPs) shall be utilized to control fugitive dust emissions from the facility. The following BMPs are examples of what may be required on wind erosive sites: watering, temporary seeding, topsoiling and revegetation, wind breaks, chemical amendments, soil amendments and/or stabilization fabric.
- Spills of process solution or chemicals;
 - o Must be immediately reported to the Department.

The plan must include a proposed timetable for recurring self-monitoring. If potential impacts are identified, the plan must document mitigation measures that will be or have been taken. A copy of the plan must be maintained on-site at all times.

A report documenting the monitoring and mitigation measures taken must be completed **annually on the anniversary of the permit effective date.** The report must be received by the Department **30 (thirty) calendar days following the anniversary of the permit effective date.** Each submitted report must attach a copy of the most up-to-date monitoring and mitigation plan. Reports must be submitted annually through the term of the permit

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3. Ground Water Monitoring:

Ground water monitoring must be completed through the term of the permit regardless of the operational status of the facility, or of the business status of the permittee. Ground water monitoring frequency is dependent on the operational status of the facility (Part I.C.1). Monitoring requirements are listed in Table 3 and Table 4. The minimum monitoring requirements listed in Table 3 is required when the mill is operational during any given day within the listed sample frequency. The monitoring requirement schedule of Table 4 may be used only when the mill has not been in operation for all days within the annual reporting period.

Monitoring wells East Well, Middle Well, and West Well, must be individually sampled at the frequency and with the type of measurement respectively listed in Table 3 or Table 4. Samples must include, but not be limited to, the respective parameters listed in Table 3 or Table 4 for each listed monitoring well.

Each individual sampling event must be separately documented and recorded. In the occurrence of a dry-well sampling event, the permittee is to record the individual event and how the dry conditions were determined. The permittee shall document the methodology and equipment used to sample monitoring wells during each sampling event. Records of all sampling events must be maintained on-site at all times.

Parameter analytical methods must be in accordance with the Code of Federal Regulations, Title 40, Part 136, unless specified or otherwise approved by the Department.

If any of the monitoring wells are abandoned, destroyed, decommissioned or non-viable; or is no longer able to be sampled due to fluctuations in the ground water table; the permittee must install (or rehab) a new well to replace the abandoned, destroyed, decommissioned, or non-viable well(s).

Submittal of reports is required, regardless of the operational status of the facility, the business status of the permittee, or of the condition of each individual monitoring well. Reports must be completed **annually on the anniversary of the permit effective date.** The report must be received by the Department **thirty (30) calendar days following the anniversary of the permit effective date.** The report must document each individual collected sample, and at minimum include all laboratory and statistical information as listed in Table 5. The report must provide a statistical summary for all individual samples collected over the annual reporting period. Reports must be submitted annually through the term of the permit. Reporting requirements are listed in Table 5. Self-monitoring records must be maintained in accordance with Part II.H. of this permit.

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A final cumulative summary report must be submitted directly to the Department that summarizes all sampling information collected over the permit cycle. The report must be received by DEQ 180 days prior to the permit expiration date. The report must be submitted in an electronic format that includes digitized and queryable data. Reporting requirements are summarized in Table 5.

Table 3: Operational Mill⁽¹⁾ Ground Water Monitoring Requirements. Separately for East Well, Middle Well, and West Well.

Analyte	Monitor Location	Units	Sample Type (2)	Minimum Sample Frequency
рН	East Well, Middle Well, West Well	s.u.	Grab or Instant.	1/Month
Specific conductivity @ 25°C	East Well, Middle Well, West Well	μS/cm	Grab or Instant.	1/Month
Static Water Level ⁽³⁾	East Well, Middle Well, West Well	ft-bmp	Instant.	1/Month
Nitrogen, ammonia total [as N]	East Well, Middle Well, West Well	mg/L	Grab	1/Month
Nitrogen, Nitrite + Nitrate total [as N]	East Well, Middle Well, West Well	mg/L	Grab	1/Month
Arsenic, dissolved [as As]	East Well, Middle Well, West Well	μg/L	Grab	1/Month
Cadmium, dissolved [as Cd]	East Well, Middle Well, West Well	μg/L	Grab	1/Month
Copper, dissolved [as Cu]	East Well, Middle Well, West Well	μg/L	Grab	1/Month
Iron, dissolved [as Fe]	East Well, Middle Well, West Well	μg/L	Grab	1/Month
Lead, dissolved [as Pb]	East Well, Middle Well, West Well	μg/L	Grab	1/Month
Zinc, dissolved [as Zn]	East Well, Middle Well, West Well	μg/L	Grab	1/Month
Antimony, dissolved [as Sb]	East Well, Middle Well, West Well	μg/L	Grab	1/Quarter
Beryllium, dissolved [as Be]	East Well, Middle Well, West Well	μg/L	Grab	1/Quarter
Chromium, dissolved [as Cr]	East Well, Middle Well, West Well	μg/L	Grab	1/Quarter
Mercury, dissolved [as Hg]	East Well, Middle Well, West Well	μg/L	Grab	1/Quarter
Nickel, dissolved [as Ni]	East Well, Middle Well, West Well	μg/L	Grab	1/Quarter
Selenium, dissolved [as Se]	East Well, Middle Well, West Well	μg/L	Grab	1/Quarter
Silver, dissolved [as Ag]	East Well, Middle Well, West Well	μg/L	Grab	1/Quarter
Thallium, dissolved [as Tl]	East Well, Middle Well, West Well	μg/L	Grab	1/Quarter

Footnotes:

Dissolved: Metal parameters will be analyzed using the dissolved portion (0.45 micron filter).

Instant.: Instantaneous reading using on-site equipment.

Static water levels shall be measured to the hundredth of a foot.

ft-bmp = feet below established measuring point

s.u. = standard units

(2) See definitions in Part V of the permit.

⁽¹⁾ Monitoring and reporting requirements are based on the daily operational status of facility. The facility will be considered to be in operation if ore or tailings have been processed during any single day occurring within the reporting period.

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Table 4: Non-Operational Mill⁽¹⁾ Ground Water Monitoring Requirements. Separately for East Well, Middle Well, and West Well.

Analyte	Monitor Location	Units	Sample Type (2)	Minimum Sample Frequency
рН	East Well, Middle Well, West Well	s.u.	Grab or Instant.	1/Year
Specific conductivity @ 25°C	East Well, Middle Well, West Well	μS/cm	Grab or Instant.	1/Year
Static Water Level ⁽³⁾	East Well, Middle Well, West Well	ft-bmp	Instant.	1/Year
Nitrogen, ammonia total [as N]	East Well, Middle Well, West Well	mg/L	Grab	1/Year
Nitrogen, Nitrite + Nitrate total [as N]	East Well, Middle Well, West Well	mg/L	Grab	1/Year
Antimony, dissolved [as Sb]	East Well, Middle Well, West Well	μg/L	Grab	1/Year
Arsenic, dissolved [as As]	East Well, Middle Well, West Well	μg/L	Grab	1/Year
Beryllium, dissolved [as Be]	East Well, Middle Well, West Well	μg/L	Grab	1/Year
Cadmium, dissolved [as Cd]	East Well, Middle Well, West Well	μg/L	Grab	1/Year
Chromium, dissolved [as Cr]	East Well, Middle Well, West Well	μg/L	Grab	1/Year
Copper, dissolved [as Cu]	East Well, Middle Well, West Well	μg/L	Grab	1/Year
Iron, dissolved [as Fe]	East Well, Middle Well, West Well	μg/L	Grab	1/Year
Lead, dissolved [as Pb]	East Well, Middle Well, West Well	μg/L	Grab	1/Year
Mercury, dissolved [as Hg]	East Well, Middle Well, West Well	μg/L	Grab	1/Year
Nickel, dissolved [as Ni]	East Well, Middle Well, West Well	μg/L	Grab	1/Year
Selenium, dissolved [as Se]	East Well, Middle Well, West Well	μg/L	Grab	1/Year
Silver, dissolved [as Ag]	East Well, Middle Well, West Well	μg/L	Grab	1/Year
Thallium, dissolved [as Tl]	East Well, Middle Well, West Well	μg/L	Grab	1/Year
Zinc, dissolved [as Zn]	East Well, Middle Well, West Well	μg/L	Grab	1/Year

Footnotes:

Dissolved: Metal parameters will be analyzed using the dissolved portion (0.45 micron filter).

Instant.: Instantaneous reading using on-site equipment.

Static water levels shall be measured to the hundredth of a foot.

ft-bmp = feet below established measuring point

- s.u. = standard units
- (1) Monitoring and reporting requirements are based on the daily operational status of the facility. The facility will be considered to be in operation if ore or tailings have been processed during any single day occurring within the reporting period.
- (2) See definitions in Part V of the permit.

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Table 5: Ground Water Reporting Requirements - Separately for East Well, Middle Well, and West Well.

Annual Report Action Date: To be completed annually on the anniversary of the permit effective date. The report must be received by DEQ 30 (thirty) calendar days following the anniversary of the permit effective date.

Permit Cycle Report Action Date: A cumulative summary report must be received by DEQ 180 days prior to the permit expiration date.

		Individual Sample Record (Repeat as Necessary)							Annual Statistical Summary Report						
Analyte	Units	Sample Collection Date	Dry-Well Conditions? (y/n)	Result	Laboratory Reporting Level	Non-Detect? (y/n)	Laboratory Qualifier(s)	Count of Samples Collected	Count of Dry- Well Occurrences	Minimum	Average	Median	Maximum	Count of Non- detects	Average Laboratory Reporting Level
pН	s.u.														
Specific conductivity @ 25°C	μS/cm														
Static Water Level	ft-bmp														
Nitrogen, ammonia total [as N]	mg/L														
Nitrogen, Nitrite + Nitrate total [as N]	mg/L														
Antimony, dissolved [as Sb]	μg/L														
Arsenic, dissolved [as As]	μg/L														
Beryllium, dissolved [as Be]	μg/L														
Cadmium, dissolved [as Cd]	μg/L														
Chromium, dissolved [as Cr]	μg/L														
Copper, dissolved [as Cu]	μg/L														
Iron, dissolved [as Fe]	μg/L														
Lead, dissolved [as Pb]	μg/L														
Mercury, dissolved [as Hg]	μg/L														
Nickel, dissolved [as Ni]	μg/L														
Selenium, dissolved [as Se]	μg/L														
Silver, dissolved [as Ag]	μg/L														
Thallium, dissolved [as Tl]	μg/L														
Zinc, dissolved [as Zn]	μg/L														

Footnotes:

The permittee may create their own report in a format that suites their operating and reporting needs. It must however contain all data inputs as shown above and in Appendix V. All data must be in a digital form and the report must be queryable. For calculation purposes, non-detects must be entered as "0" (zero).

Laboratory qualifiers are not common, leave blank if none, provide supplemental descriptions if using codes.

Daily Maximum: Report highest measured daily value for the reporting period.

Daily Minimum: Report lowest measured daily value for the reporting period.

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4. Ground Water Monitoring SOP and SAP Plan

The permittee shall develop (or update), maintain, and implement a Ground Water Monitoring Standard Operating Procedures (SOP) and Sampling and Analysis (SAP) Plan. At minimum, the plan should address:

- Well purging;
- Equipment and procedures used for sample collection or field parameter measurement:
- Sample collection, specifying sampling equipment and procedures;
- Equipment decontamination procedures and storage;
- Sample preservation and storage; and,
- Transportation to lab.

An updated plan must be submitted to DEQ in conjunction with the 2018 ground water monitoring report. A copy of the SOP and SAP plan must be maintained on-site at all times.

D. <u>Reclamation Requirements</u>

The following permit conditions are required following the termination of operations; the abandonment of the facility; or, when the permittee's business status with the Office of the Montana Secretary of State becomes inactive (or similar).

- All topsoil must be salvaged from disturbed areas and stockpiled for use during reclamation.
- All areas impacted by ore, wasterock, tailings, sedimentation, or similar must be reclaimed to promote positive runoff. The areas must be covered with a minimum of two (2) feet of soil material and revegetated. The permittee may request a change in this requirement if it can be documented by a qualified soil scientist and supported with data processed by a qualified laboratory. Post reclamation monitoring must verify that the entire site meets state and federal soil standards for human health and environmental protection.
- The reclaimed areas must be reseeded, stabilized, and irrigated, if necessary, upon the request of the Department. The Department may release the permittee from this reclamation monitoring responsibility at an earlier date upon review of the reclamation success.
- Reclamation and ground water must be monitored and a report submitted yearly to the Department for a period of two years following cessation of operations. The report must be submitted in writing for each calendar year and must be received by the Department no later than March 15th of the year following the report period. Responsibility for reclamation success will remain with the company until such time that the Department agrees in writing that the reclamation is complete.

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II. MONITORING, RECORDING AND REPORTING REQUIREMENTS

A. Representative Sampling

Samples taken in compliance with the monitoring requirements established under Part I of the permit must be collected from the effluent stream prior to discharge into the receiving waters. Samples and measurements must be representative of the volume and nature of the monitored discharge.

B. <u>Monitoring Procedures</u>

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 the 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

All reports (e.g. special conditions, compliance actions) must be submitted no later than the 28th day of the month following the completion due date, unless otherwise specified. All reports required herein, 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 Schedules

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 to the Department in either electronic or paper format and be postmarked no later than 14 days following each schedule date unless otherwise specified in this permit.

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F. Additional Monitoring by the Permittee

If the permittee monitors any additional parameters or any parameter more frequently than required by this permit using approved analytical methods as specified in this permit, the results of this monitoring must be included in the analysis and reporting of the data submitted in reports to DEQ. Such increased frequency must also be indicated.

G. Records Contents

Records of monitoring information must at minimum 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 the request of DEQ at any time. Data collected on site and a copy of this MGWPCS permit must be maintained on site during the duration of activity at the permitted location.

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I. Twenty-four Hour Notice of Noncompliance Reporting

- 1. The permittee shall report any serious incidents 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 must be made to the Water Protection Bureau at (406) 444-3080 or the Office of Disaster and Emergency Services at (406) 324-4777. The following examples are considered serious incidents:
 - a. Any noncompliance which may seriously endanger health or the environment; or
 - b. Any unanticipated bypass which exceeds any effluent limitation in the permit (See Part III.G. of this permit, "Bypass of Treatment Facilities").
- 2. A written submission must be provided within five days of the time that the permittee becomes aware of the circumstances. The written submission must 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. The Department 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, at (406) 444-3080.
- 4. Reports must 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 must be reported at the time that monitoring reports for Part II.D. of this permit are submitted. The reports must contain the information listed in Part II.I.2. of this permit.

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K. <u>Inspection and Entry</u>

The permittee shall allow the head of the Department, the Director, or an authorized representative thereof, 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.

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III. COMPLIANCE RESPONSIBILITIES

A. <u>Duty to Comply</u>

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 the Department 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(9)(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 Part III.G. of this permit, "Bypass of Treatment Facilities," 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.

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F. Removed Substances

Collected screenings, grit, solids, sludge, 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.

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 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 the Department may take enforcement action against a permittee for a bypass, unless:
 - 1) The bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
 - 2) 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
 - 3) The permittee submitted notices as required under Part III.G.2. of this permit.
- b. The Department may approve an anticipated bypass, after considering its adverse effects, if the Department determines that it will meet the three conditions listed above in Part III.G.3.a. of this permit.

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IV. GENERAL REQUIREMENTS

A. <u>Planned Changes</u>

The permittee shall give notice to the Department 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; or
- 2. There are any planned substantial changes to the existing sewage sludge management practices of storage and disposal. The permittee shall give the Department notice of any planned changes at least 180 days prior to their implementation.

B. <u>Anticipated Noncompliance</u>

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

F. <u>Other Information</u>

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 the Department, 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.

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G. <u>Signatory Requirements</u>

All applications, reports or information submitted to the Department must be signed and certified.

- 1. All permit applications shall be signed as follows:
 - a. For a corporation: by a responsible corporate officer:
 - b. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or
 - c. For a municipality, State, Federal, or other public agency: by either a principal executive officer or ranking elected official.
- 2. All reports required by the permit and other information requested by the Department 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 the Department; and
 - b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility, such as the position of plant manager, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters (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 the Department 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

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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

All reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Department and the EPA. Permit applications, permits and effluent data shall not be considered confidential and shall also be available for public inspection.

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 or Water Rights

The issuance of this permit does not convey any property or water rights of any sort, or any exclusive privileges, nor does it authorize any injury to private property, any invasion of personal rights, or any infringement of federal, state or local laws or regulations.

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 the Department at least 30 days in advance of the proposed transfer date;

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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. The Department does not notify the existing permittee and the proposed new permittee of the 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, the Department may:

- 1. Impose additional fee assessment(s) computed at the rates established under ARM 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. The Department 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. <u>Reopener Provisions</u>

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; or
- 2. Water Quality Standards are Exceeded: If it is found that water quality standards or trigger values, excluding mixing zones designated by ARM 17.30.501-518, for parameters included in the permit or others, the department may modify the effluent limits or water management plan.

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V. **DEFINITIONS**

1. **"30-day (and Monthly) Average"** other than for *E. coli* bacteria, means the arithmetic average of all individual daily discharge measurements during a consecutive 30-day period or calendar month, whichever is applicable (see Daily Discharge). Geometric means must be calculated for the *E. coli* bacteria parameter.

- 2. **"90-day (and Quarterly) Average"** other than for *E. coli* bacteria, means the arithmetic average of all individual daily discharge measurements during a consecutive 90-day period or calendar quarter, whichever is applicable (see Daily Discharge). Geometric means must be calculated for the *E. coli* bacteria parameter.
- 3. **"180-day (and Six-Month or Semi-Annual) Average"** other than for *E. coli* bacteria, means the arithmetic average of all individual daily discharge measurements collected during a consecutive 180-day period or calendar half-year, whichever is applicable (see Daily Discharge). Geometric means must be calculated for the *E. coli* bacteria parameter.
- 4. "Act" means the Montana Water Quality Act, Title 75, chapter 5, MCA.
- 5. **"Annual Average Load"** means the arithmetic mean of all 30-day (or calendar month) or 90-day (or calendar quarter) average loads reported during the calendar year for a monitored parameter.
- 6. **"Annual Maximum Load"** means the arithmetic mean of all calculated individual daily average loads (lbs/day) recorded during the calendar year, multiplied by 365 (days/year) for a monitored parameter.
- 7. **"Annual Maximum Limit"** means the maximum allowable discharge of a parameter during a calendar year (or defined 365 day period).
- 8. "Best management practices" ("BMPs") means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of state waters. BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.
- 9. **"BOD₅"** means the five-day measure of the biochemical oxygen demand parameter.
- 10. **"Bypass"** means the intentional diversion of waste streams from any portion of a treatment facility.

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11. "Composite Sample" means a sample that consists of two or more discrete aliquots. Composite samples must be flow proportioned. The composite sample must, as a minimum, contain at least four (4) samples collected over the compositing period. Unless otherwise specified, the time between the collection of the first sample and the last sample must not be less than six (6) hours nor more than 24 hours. Acceptable methods for preparation of composite samples are as follows:

- a. Constant time interval between samples, sample volume proportional to flow rate at time of sampling;
- b. Constant time interval between samples, sample volume proportional to total flow (volume) since last sample. For the first sample, the flow rate at the time the sample was collected may be used;
- c. Constant sample volume, time interval between samples proportional to flow (i.e. sample taken every "X" gallons of flow); and,
- d. Continuous collection of sample, with sample collection rate proportional to flow rate.
- 12. "CFR" means Code of Federal Regulations.
- 13. "CFU" means Colony Forming Units.
- 14. **"Continuous"** means a measurement occurring without interruption throughout the operating hours of the facility, except for infrequent shutdowns for maintenance process changes, or other similar activities.
- 15. **"Daily Discharge"** means the discharge of a parameter (or pollutant) measured during a calendar day (or any 24-hour period that reasonably represents the calendar day for purposes of sampling). For parameters with limitations expressed in units of mass, the daily discharge is calculated as the total mass of the parameter discharged over the day. For parameters with limitations expressed in other units of measurement, the daily discharge is calculated as the arithmetic average of all measurements (or samples) collected over the day.
- 16. **"Daily Maximum"** means the highest individual measured daily value occurring in a defined reporting period (see Daily Discharge).
- 17. **"Daily Maximum Limit"** means the maximum allowable discharge of a parameter for any calendar day (see Daily Discharge).
- 18. **"DEQ"** means the Montana Department of Environmental Quality.

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- 19. **"Department"** means the Montana Department of Environmental Quality.
- 20. **"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.
- 21. **"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.
- 22. "Instantaneous" means a single reading, observation, or measurement.
- 23. **"Load Limits"** are mass-based discharge limits expressed in units such as lbs/day.
- 24. "Mixing Zone" means a limited area of a surface water body or ground water bearing zone where initial dilution of a discharge takes place and where certain water quality standards may be exceeded.
- 25. "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 design capacity or limitations established under or determined from a permit or approval issued by the Department prior to April 29, 1993.
- 26. "**RRV**" means Required Reporting Values (DEQ Circular 7).
- 27. "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.
- 28. "TSS" means the total suspended solids parameter.
- 29. **"Total Inorganic Nitrogen (TIN)"** means the arithmetic sum of Nitrate + Nitrite and Ammonia.
- 30. **"Total Nitrogen (TN)"** means the arithmetic sum of Nitrate + Nitrite and Total Kjeldahl Nitrogen.