

MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY

AUTHORIZATION UNDER THE 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.*,

Paradine Mill, Inc.

must operate the facility, **Paradine Mill**, in accordance with the limitations, special conditions, monitoring requirements, best management practices, rehabilitation, and other provisions set forth herein.

The facility is located at:

NW Section 21, Township 05 North, Range 01 East
Latitude: 46.17829, Longitude: -111.61213
Broadwater County

Authorization is limited to the conditions specifically listed in the permit. The permit requirements specified herein support the protection of state waters.

This permit shall become effective: **April 01, 2022.**

This permit and authorization shall expire at midnight, **March 31, 2027.**

FOR THE MONTANA DEPARTMENT OF
ENVIRONMENTAL QUALITY

|S| Tatiana Davila

Tatiana Davila, Chief
Water Protection Bureau

Modification Date: June 21, 2023

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I. LIMITATIONS, MONITORING REQUIREMENTS & OTHER CONDITIONS

A. Description

A discharge of pollutants to state waters is not authorized. 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 Part 75-5-632 of the Montana Water Quality Act.

Tails Impoundment Description

Pond 1

NW Section 21, Township 05 North, Range 01 East
Latitude: 46.17901, Longitude: -111.61165
Broadwater County

Pond 2

NW Section 21, Township 05 North, Range 01 East
Latitude: 46.17942, Longitude: -111.61299
Broadwater County

Pond 3

NW Section 21, Township 05 North, Range 01 East
Latitude: 46.17991, Longitude: -111.61165
Broadwater County

B. Limitations and Prohibitions

DEQ authorizes placement of Hard Rock Mill tailings into lined impoundment(s). Material deposited at the impoundments is limited to hard rock ore sources that have been fully characterized and analyzed. The Permittee is to provide notice to DEQ prior to adding new sources of impoundment material/ore. Notice is also required for existing characterized sources/mines that encounter new mineralized zones. These sources may need to undergo quality analyses (similar to the requirements performed for Winston Mine, MTX000264).

Parameters of interest are listed in **Table 1**. If analytes are detected above ambient conditions and determined to likely be from facility operations; additional actions may be needed in order to assess the impacts. This may include an increase in monitoring and sampling, fate & transport, and an expanded ground water monitoring network.

Table 1: Parameters of Interest		
Calcium [as Ca]	Aluminum [as Al]	Manganese [as Mn]
Chloride [as Cl]	Antimony [as Sb]	Mercury [as Hg]
Cyanide, Total	Arsenic [as As]	Nickel [as Ni]
Fluoride [as F]	Barium [as Ba]	Selenium [as Se]
Magnesium [as Mg]	Beryllium [as Be]	Silver [as Ag]
Potassium [as K]	Cadmium [as Cd]	Strontium [as Sr]
Sodium [as Na]	Chromium, all forms [as Cr]	Thallium [as Tl]
Solids, Total Dissolved (TDS)	Copper [as Cu]	Zinc [as Zn]
Specific Conductivity [SC] @ 25°C	Iron [as Fe]	
Sulfate [SO ²]	Lead [as Pb]	
Nitrogen		

Water quality standards are listed in **Table 2**. If a water quality standard is exceeded, then the contingency measures of Part I.C. must be followed.

Table 2: Ground Water Quality Standards.		
Parameter	Units	Human Health Standards - Ground Water
Fluoride [as F]	mg/L	4.0
Nitrogen, Nitrite + Nitrate [as N]	mg/L	10.0
Antimony [as Sb]	mg/L	0.006
Arsenic [as As]	mg/L	0.010
Barium [as Ba]	mg/L	1.0
Beryllium [as Be]	mg/L	0.004
Cadmium [as Cd]	mg/L	0.0050
Chromium, all forms [as Cr]	mg/L	0.10
Copper [as Cu]	mg/L	1.30
Lead [as Pb]	mg/L	0.015
Mercury [as Hg]	mg/L	0.002
Nickel [as Ni]	mg/L	0.100
Selenium [as Se]	mg/L	0.050
Silver [as Ag]	mg/L	0.10
Strontium [as Sr]	mg/L	4.0
Thallium [as Tl]	mg/L	0.002
Zinc [as Zn]	mg/L	2.0
Footnotes: Standards for metal analytes are based on the dissolved portion (0.45 micron filter).		

The Operator is responsible for meeting permit conditions. At such time the Operator leaves, becomes inactive, or is unable to maintain long-term compliance; The Facility Owner will become responsible for compliance with all permit conditions (as Permit Operator and Owner). DEQ will provide notification of this action.

An Inactive Operator is defined as one who does not officially respond back to any two (2) DEQ inactive notice letters mailed within a one (1) year period. If an Operator is deemed inactive, the Facility Owner will become the sole party responsible for the facility including all conditions of the permit. During periods of inactivity, non-compliance must be remedied by the Facility Owner before a new Operator can commence operations.

C. Contingency Measures

Contingency measures include:

- Notify DEQ Water Protection Bureau (Attention: MGWPCS Program Lead) of ground water exceedance within one (1) week of the reporting date listed on the associated laboratory analysis report;
- Develop the well (three well casing volumes) and resample the associated monitoring well(s) in exceedance within one (1) week of the reporting date of the initial laboratory analysis report; and,
- Submit all respective laboratory analytical reports to DEQ Water Protection Bureau (Attention: MGWPCS Program Lead) within 60 days from the report date of the original laboratory analysis report. Include a report summarizing the exceedance(s), summary of actions taken, DEQ notification dates, re-sampling procedures, and water quality data.

Based on the re-sample results, DEQ may direct the Permittee to implement additional contingency measures. Said measures may include, but are not necessarily limited to:

- In coordination with DEQ, review water quality trends, leachate data, and other site activities to identify the probable cause and extent of the water quality changes.
- Increase monitoring (frequency and/or constituents).
- Expansion of the ground water monitoring network.
- Fate and transport study.
- 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.
- Milling prohibition of hard rock sources whose leachates contain the parameter of concern.
- Mitigation measures.
- Remedial measures.
- Supply clean water to residences, businesses, irrigation districts, and other water users located downgradient of mill site.
- Invoking the reopener provisions of the permit.

D. Monitoring and Reporting Requirements

Monitoring of the facility, impoundments, ground water monitoring network will be required through term of the permit. All monitoring and sampling required by this permit must be representative of the nature of the monitored media and must follow the DEQ approved Standard Operating Procedures.

All laboratory analytical reports must have analyte reporting levels (RL) that meet or exceed the required reporting value (RRV) as listed in DEQ Circular 7 unless otherwise approved by DEQ. This is only for concentration unit based analyses, and only for listed parameters that have an associated RRV.

1. Facility and Impoundment

- Facility and impoundment monitoring and reporting requirements are listed in **Table 3**.
- Monitoring and reporting must be completed in accordance with the Impoundment & Leak Detection System Operational Manual.

2. Impoundment Leak Detection System

- Leak detection system monitoring and reporting requirements are listed in **Tables 4-7**.
- Monitoring and reporting must be completed in accordance with the Impoundment & Leak Detection System Operational Manual.

3. Ground Water Monitoring

- Ground water monitoring and reporting is required for wells: WW-1, MW-3, MW-7, MW-8, MW-9, MW-10, MW-11, and MW-15.
- Monitoring well sampling and reporting requirements are listed in **Tables 8-15**.
- Monitoring and reporting must be completed in accordance with a Ground Water Monitoring Operational Manual. The manual shall provide for the consistent identification, development, monitoring, sampling, calculating, recording, and reporting of each monitoring well.
- Monitoring wells must not be sampled until after they are properly purged. The purge volumes and procedures for each well must be determined within the Ground Water Monitoring Operational Manual. Monitoring well development records need to be maintained on-site that document the proper development of the wells for each monitoring event.
- The permittee shall document the methodology and equipment used to sample monitoring wells for each event. Self-monitoring records shall be maintained on-site.
- Monitoring must take place even when the facility is nonoperational.
- Analytical methods must be in accordance with CFR 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 are no longer able to be sampled due to fluctuations in the ground water

table; the permittee shall install (or rehab) a new well to replace the abandoned, destroyed, decommissioned, or non-viable well.

- All wells, piezometers, and boreholes that can create preferential subsurface flows and are located in or near the drainfield must be properly plugged and abandoned prior to construction of the drainfield. Shallow monitoring of the vadose zone for operation and maintenance purposes may be approved by the Department.

Table 3: Facility and Impoundment Monitoring

Monitoring Frequency: Weekly-Operational, Monthly-NonOperational ⁽¹⁾
 Monitoring shall be done in accordance with the Impoundment & Leak Detection System Monitoring Analysis, and Reporting Plan.

Reporting Requirements⁽²⁾

Report Action Date: To be updated Annually on January 1st through the Term of the Permit Cycle.
 Report Submittal Date: Annual Reports must be received by DEQ on or before January 28th and must contain all individual sample records and permit cycle statistics.
 Each Annual Report will cumulate all Individual Observation Records completed from the effective date of the permit through term.

Topic	Individual Observation Record (Repeat as Necessary)								Permit Cycle Statistical Summary
	Observation Date	Facility		Impoundment					Facility
		Operational Status (Active/Inactive)	Number of Days Operational	Status of Impoundment ⁽³⁾ (Not yet used/ In-Use/ Reclaimed)	Is Impoundment Ready for Use (Built/Reconditioned)? (y/n)	Does the Impoundment Contain Tails or other Wastes? (y/n)	Condition of Impoundment	Observation and Decision Making Notes	Number of Days Operational ⁽⁴⁾
Facility Operations									
Pond 1 - Impoundment		-	-						
Pond 1 - LDS		-	-						
Pond 2 - Impoundment		-	-						
Pond 2 - LDS		-	-						
Pond 2a - Impoundment		-	-						
Pond 2a - LDS		-	-						
Pond 2b - Impoundment		-	-						
Pond 2b - LDS		-	-						
Pond 3 - Impoundment		-	-						
Pond 3 - LDS		-	-						

Footnotes:
 Monitoring and Reporting will be required regardless of the operational status of the facility or of the impoundments.
 (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 tails have been moved, processed (or reprocessed), stored, and/or deposited on-site during any single day within the reporting period.
 (2) The permittee may create their own report in a format that suits their operational and reporting needs. It must however contain all data inputs as shown above and in the respective permit condition. All submitted data must be in a digital format and the report must be queryable (e.g. excel table). Report submittals directly to the MGWPCS Program Lead via email will be accepted.
 (3) The status of the impoundments will be considered to be "In-Use" upon the deposition of any amount of tails or waste products and will remain in-use until reclamation is approved by DEQ.
 (4) Each submitted report must cumulate observations collected to date, starting with the permit effective date and continuing through the term of the permit.

Table 4: Leak Detection System Monitoring - Pond 1 - LDS 001

Monitoring Frequency: Quarterly
 Monitoring of the LDS shall be done in accordance with the DEQ approved
 Impoundment & Leak Detection System Monitoring, Analysis, and Reporting Plan.
 Required Laboratory Method: 40 CFR 136⁽¹⁾

Reporting Requirements⁽²⁾

Report Action Date: To be updated Annually on January 1st through the Term of the Permit Cycle.
 Report Submittal Date: Annual Reports must be received by DEQ on or before January 28th and must contain all individual sample records and permit cycle statistics.
 Each Annual Report will cumulate all Individual Observation and Sample Records completed from the effective date of the permit through term.

Analyte/Measurement	Units	Individual Observation Record (Repeat as Necessary)					Individual Sample Record (Repeat as Necessary)						Permit Cycle Statistical Summary							
		Observation Date	Was the LDS developed? (y/n)	Was a sample collected? (y/n)	Were background conditions exceeded? (y/n)	Observation and Decision Making Notes	Sample Date	Lab Result ⁽³⁾	Laboratory Reporting Level	Non-Detect? (y/n)	Laboratory Method	Laboratory Qualifier Code(s) ⁽⁴⁾	Count of Observations Performed	Count of Samples Collected	Lab Results				Count of Non-detects	Average Laboratory Reporting Level
															Minimum	Average	Median	Maximum		
Temperature	°C																			
pH	s.u.																			
Solids, Total Dissolved (TDS)	mg/L																			
Specific Conductivity [SC] @ 25°C	µS/cm																			
Bicarbonate [as HCO ₃]	mg/L																			
Calcium [as Ca]	mg/L																			
Chloride [as Cl]	mg/L																			
Cyanide, Total	mg/L																			
Fluoride [as F]	mg/L																			
Hardness [as CaCO ₃]	mg/L																			
Magnesium [as Mg]	mg/L																			
Potassium [as K]	mg/L																			
Sodium [as Na]	mg/L																			
Sulfate [SO ²⁻]	mg/L																			
Nitrogen, Ammonia [as N]	mg/L																			
Nitrogen, Kjeldahl, Total [as N]	mg/L																			
Nitrogen, Nitrite + Nitrate [as N]	mg/L																			
Nitrogen, Total [as N] ⁽⁵⁾	mg/L																			
Aluminum [as Al]	mg/L																			
Antimony [as Sb]	mg/L																			
Arsenic [as As]	mg/L																			
Barium [as Ba]	mg/L																			
Beryllium [Be]	mg/L																			
Cadmium [as Cd]	mg/L																			
Chromium, all forms [as Cr]	mg/L																			
Copper [as Cu]	mg/L																			
Iron, Total [as Fe]	mg/L																			
Lead [as Pb]	mg/L																			
Manganese [as Mn]	mg/L																			
Mercury [as Hg]	mg/L																			
Nickel [as Ni]	mg/L																			
Selenium [as Se]	mg/L																			
Silver [as Ag]	mg/L																			
Strontium [as Sr]	mg/L																			
Thallium [as Tl]	mg/L																			
Zinc [as Zn]	mg/L																			

Footnotes:
 s.u.: standard units
 Metal parameters will be analyzed using the dissolved portion (0.45 micron filter).
 Monitoring and Reporting will be required regardless of the operational status of the facility or of the impoundments.
 (1) The listed laboratory analytical method must be used unless written approval by DEQ is received.
 (2) The permittee may create their own report in a format that suits their operational and reporting needs. It must however contain all data inputs as shown above and in the respective permit condition.
 All submitted data must be in a digital format and the report must be queryable (e.g. excel table). Report submittals directly to the MGWPCS Program Lead via email will be accepted.
 (3) For nondetects, the laboratory reporting level must be entered in as the respective lab result.
 (4) Laboratory qualifiers are not common, leave blank if none. Attach a description of all listed codes if any.
 (5) Total Nitrogen is the sum of Nitrate + Nitrite and Total Kjeldahl Nitrogen.

Table 5: Leak Detection System Monitoring - Pond 2a - LDS 002a

Monitoring Frequency: Quarterly
 Monitoring of the LDS shall be done in accordance with the DEQ approved
 Impoundment & Leak Detection System Monitoring, Analysis, and Reporting Plan.
 Required Laboratory Method: 40 CFR 136⁽¹⁾

Reporting Requirements⁽²⁾

Report Action Date: To be updated Annually on January 1st through the Term of the Permit Cycle.
 Report Submittal Date: Annual Reports must be received by DEQ on or before January 28th and must contain all individual sample records and permit cycle statistics.
 Each Annual Report will cumulate all Individual Observation and Sample Records completed from the effective date of the permit through term.

Analyte/Measurement	Units	Individual Observation Record (Repeat as Necessary)					Individual Sample Record (Repeat as Necessary)						Permit Cycle Statistical Summary							
		Observation Date	Was the LDS developed? (y/n)	Was a sample collected? (y/n)	Were background conditions exceeded? (y/n)	Observation and Decision Making Notes	Sample Date	Lab Result ⁽³⁾	Laboratory Reporting Level	Non-Detect? (y/n)	Laboratory Method	Laboratory Qualifier Code(s) ⁽⁴⁾	Count of Observations Performed	Count of Samples Collected	Lab Results				Count of Non-detects	Average Laboratory Reporting Level
															Minimum	Average	Median	Maximum		
Temperature	°C																			
pH	s.u.																			
Solids, Total Dissolved (TDS)	mg/L																			
Specific Conductivity [SC] @ 25°C	µS/cm																			
Bicarbonate [as HCO ₃]	mg/L																			
Calcium [as Ca]	mg/L																			
Chloride [as Cl]	mg/L																			
Cyanide, Total	mg/L																			
Fluoride [as F]	mg/L																			
Hardness [as CaCO ₃]	mg/L																			
Magnesium [as Mg]	mg/L																			
Potassium [as K]	mg/L																			
Sodium [as Na]	mg/L																			
Sulfate [SO ²⁻]	mg/L																			
Nitrogen, Ammonia [as N]	mg/L																			
Nitrogen, Kjeldahl, Total [as N]	mg/L																			
Nitrogen, Nitrite + Nitrate [as N]	mg/L																			
Nitrogen, Total [as N] ⁽⁵⁾	mg/L																			
Aluminum [as Al]	mg/L																			
Antimony [as Sb]	mg/L																			
Arsenic [as As]	mg/L																			
Barium [as Ba]	mg/L																			
Beryllium [Be]	mg/L																			
Cadmium [as Cd]	mg/L																			
Chromium, all forms [as Cr]	mg/L																			
Copper [as Cu]	mg/L																			
Iron, Total [as Fe]	mg/L																			
Lead [as Pb]	mg/L																			
Manganese [as Mn]	mg/L																			
Mercury [as Hg]	mg/L																			
Nickel [as Ni]	mg/L																			
Selenium [as Se]	mg/L																			
Silver [as Ag]	mg/L																			
Strontium [as Sr]	mg/L																			
Thallium [as Tl]	mg/L																			
Zinc [as Zn]	mg/L																			

Footnotes:
 s.u.: standard units
 Metal parameters will be analyzed using the dissolved portion (0.45 micron filter).
 Monitoring and Reporting will be required regardless of the operational status of the facility or of the impoundments.
 (1) The listed laboratory analytical method must be used unless written approval by DEQ is received.
 (2) The permittee may create their own report in a format that suits their operational and reporting needs. It must however contain all data inputs as shown above and in the respective permit condition.
 All submitted data must be in a digital format and the report must be queryable (e.g. excel table). Report submittals directly to the MGWPCS Program Lead via email will be accepted.
 (3) For nondetects, the laboratory reporting level must be entered in as the respective lab result.
 (4) Laboratory qualifiers are not common, leave blank if none. Attach a description of all listed codes if any.
 (5) Total Nitrogen is the sum of Nitrate + Nitrite and Total Kjeldahl Nitrogen.

Table 6: Leak Detection System Monitoring - Pond 2b - LDS 002b

Monitoring Frequency: Quarterly
 Monitoring of the LDS shall be done in accordance with the DEQ approved
 Impoundment & Leak Detection System Monitoring, Analysis, and Reporting Plan.
 Required Laboratory Method: 40 CFR 136⁽¹⁾

Reporting Requirements⁽²⁾

Report Action Date: To be updated Annually on January 1st through the Term of the Permit Cycle.
 Report Submittal Date: Annual Reports must be received by DEQ on or before January 28th and must contain all individual sample records and permit cycle statistics.
 Each Annual Report will cumulate all Individual Observation and Sample Records completed from the effective date of the permit through term.

Analyte/Measurement	Units	Individual Observation Record (Repeat as Necessary)					Individual Sample Record (Repeat as Necessary)						Permit Cycle Statistical Summary							
		Observation Date	Was the LDS developed? (y/n)	Was a sample collected? (y/n)	Were background conditions exceeded? (y/n)	Observation and Decision Making Notes	Sample Date	Lab Result ⁽³⁾	Laboratory Reporting Level	Non-Detect? (y/n)	Laboratory Method	Laboratory Qualifier Code(s) ⁽⁴⁾	Count of Observations Performed	Count of Samples Collected	Lab Results				Count of Non-detects	Average Laboratory Reporting Level
															Minimum	Average	Median	Maximum		
Temperature	°C																			
pH	s.u.																			
Solids, Total Dissolved (TDS)	mg/L																			
Specific Conductivity [SC] @ 25°C	µS/cm																			
Bicarbonate [as HCO ₃]	mg/L																			
Calcium [as Ca]	mg/L																			
Chloride [as Cl]	mg/L																			
Cyanide, Total	mg/L																			
Fluoride [as F]	mg/L																			
Hardness [as CaCO ₃]	mg/L																			
Magnesium [as Mg]	mg/L																			
Potassium [as K]	mg/L																			
Sodium [as Na]	mg/L																			
Sulfate [SO ²⁻]	mg/L																			
Nitrogen, Ammonia [as N]	mg/L																			
Nitrogen, Kjeldahl, Total [as N]	mg/L																			
Nitrogen, Nitrite + Nitrate [as N]	mg/L																			
Nitrogen, Total [as N] ⁽⁵⁾	mg/L																			
Aluminum [as Al]	mg/L																			
Antimony [as Sb]	mg/L																			
Arsenic [as As]	mg/L																			
Barium [as Ba]	mg/L																			
Beryllium [Be]	mg/L																			
Cadmium [as Cd]	mg/L																			
Chromium, all forms [as Cr]	mg/L																			
Copper [as Cu]	mg/L																			
Iron, Total [as Fe]	mg/L																			
Lead [as Pb]	mg/L																			
Manganese [as Mn]	mg/L																			
Mercury [as Hg]	mg/L																			
Nickel [as Ni]	mg/L																			
Selenium [as Se]	mg/L																			
Silver [as Ag]	mg/L																			
Strontium [as Sr]	mg/L																			
Thallium [as Tl]	mg/L																			
Zinc [as Zn]	mg/L																			

Footnotes:
 s.u.: standard units
 Metal parameters will be analyzed using the dissolved portion (0.45 micron filter).
 Monitoring and Reporting will be required regardless of the operational status of the facility or of the impoundments.
 (1) The listed laboratory analytical method must be used unless written approval by DEQ is received.
 (2) The permittee may create their own report in a format that suits their operational and reporting needs. It must however contain all data inputs as shown above and in the respective permit condition.
 All submitted data must be in a digital format and the report must be queryable (e.g. excel table). Report submittals directly to the MGWPCS Program Lead via email will be accepted.
 (3) For nondetects, the laboratory reporting level must be entered in as the respective lab result.
 (4) Laboratory qualifiers are not common, leave blank if none. Attach a description of all listed codes if any.
 (5) Total Nitrogen is the sum of Nitrate + Nitrite and Total Kjeldahl Nitrogen.

Table 7: Leak Detection System Monitoring - Pond 3 - LDS 003

Monitoring Frequency: Quarterly
 Monitoring of the LDS shall be done in accordance with the DEQ approved
 Impoundment & Leak Detection System Monitoring, Analysis, and Reporting Plan.
 Required Laboratory Method: 40 CFR 136⁽¹⁾

Reporting Requirements⁽²⁾

Report Action Date: To be updated Annually on January 1st through the Term of the Permit Cycle.
 Report Submittal Date: Annual Reports must be received by DEQ on or before January 28th and must contain all individual sample records and permit cycle statistics.
 Each Annual Report will cumulate all Individual Observation and Sample Records completed from the effective date of the permit through term.

Analyte/Measurement	Units	Individual Observation Record (Repeat as Necessary)					Individual Sample Record (Repeat as Necessary)						Permit Cycle Statistical Summary							
		Observation Date	Was the LDS developed? (y/n)	Was a sample collected? (y/n)	Were background conditions exceeded? (y/n)	Observation and Decision Making Notes	Sample Date	Lab Result ⁽³⁾	Laboratory Reporting Level	Non-Detect? (y/n)	Laboratory Method	Laboratory Qualifier Code(s) ⁽⁴⁾	Count of Observations Performed	Count of Samples Collected	Lab Results				Count of Non-detects	Average Laboratory Reporting Level
															Minimum	Average	Median	Maximum		
Temperature	°C																			
pH	s.u.																			
Solids, Total Dissolved (TDS)	mg/L																			
Specific Conductivity [SC] @ 25°C	µS/cm																			
Bicarbonate [as HCO ₃]	mg/L																			
Calcium [as Ca]	mg/L																			
Chloride [as Cl]	mg/L																			
Cyanide, Total	mg/L																			
Fluoride [as F]	mg/L																			
Hardness [as CaCO ₃]	mg/L																			
Magnesium [as Mg]	mg/L																			
Potassium [as K]	mg/L																			
Sodium [as Na]	mg/L																			
Sulfate [SO ²⁻]	mg/L																			
Nitrogen, Ammonia [as N]	mg/L																			
Nitrogen, Kjeldahl, Total [as N]	mg/L																			
Nitrogen, Nitrite + Nitrate [as N]	mg/L																			
Nitrogen, Total [as N] ⁽⁵⁾	mg/L																			
Aluminum [as Al]	mg/L																			
Antimony [as Sb]	mg/L																			
Arsenic [as As]	mg/L																			
Barium [as Ba]	mg/L																			
Beryllium [Be]	mg/L																			
Cadmium [as Cd]	mg/L																			
Chromium, all forms [as Cr]	mg/L																			
Copper [as Cu]	mg/L																			
Iron, Total [as Fe]	mg/L																			
Lead [as Pb]	mg/L																			
Manganese [as Mn]	mg/L																			
Mercury [as Hg]	mg/L																			
Nickel [as Ni]	mg/L																			
Selenium [as Se]	mg/L																			
Silver [as Ag]	mg/L																			
Strontium [as Sr]	mg/L																			
Thallium [as Tl]	mg/L																			
Zinc [as Zn]	mg/L																			

Footnotes:
 s.u.: standard units
 Metal parameters will be analyzed using the dissolved portion (0.45 micron filter).
 Monitoring and Reporting will be required regardless of the operational status of the facility or of the impoundments.
 (1) The listed laboratory analytical method must be used unless written approval by DEQ is received.
 (2) The permittee may create their own report in a format that suits their operational and reporting needs. It must however contain all data inputs as shown above and in the respective permit condition.
 All submitted data must be in a digital format and the report must be queryable (e.g. excel table). Report submittals directly to the MGWPCS Program Lead via email will be accepted.
 (3) For nondetects, the laboratory reporting level must be entered in as the respective lab result.
 (4) Laboratory qualifiers are not common, leave blank if none. Attach a description of all listed codes if any.
 (5) Total Nitrogen is the sum of Nitrate + Nitrite and Total Kjeldahl Nitrogen.

Table 8: Ground Water Monitoring Requirements for MW-3

Required Laboratory Method: 40 CFR 136 ⁽¹⁾
 Monitoring Frequency: Monthly
 Monitoring shall be done in accordance with the Ground Water Monitoring, Analysis, and Reporting Plan.

Ground Water Reporting Requirements- Special Condition⁽²⁾

Cumulative Record of all Individual Monitoring and Sample Results through Term of the Current Permit Cycle.
 Statistical Summary Report of all Individual Results through Term of the Current Permit Cycle.⁽³⁾
 Report Action Date: To be Updated Annually on January 1st through the Term of the Permit Cycle.
 Each Annual Report must be received by DEQ on or before January 28th.

Analyte/Measurement	Units	Individual Sample Record (Repeat as Necessary)							Permit Cycle Statistical Summary							
		Sample Collection Date	Dry-Well Conditions? (y/n)	Lab Result ⁽⁴⁾	Laboratory Reporting Level	Non-Detect? (y/n)	Laboratory Method	Laboratory Qualifier Code(s) ⁽⁵⁾	Count of Samples Collected	Count of Dry-Well Occurrences	Lab Results				Count of Non-detects	Average Laboratory Reporting Level
											Minimum	Average	Median	Maximum		
Temperature	°C															
Total Well Depth (TD)	ft-bmp															
Static Water Level (SWL)	ft-bmp															
Static Water Level (SWL)	ft-MSL															
pH	s.u.															
Solids, Total Dissolved (TDS)	mg/L															
Specific Conductivity [SC] @ 25°C	µS/cm															
Bicarbonate [as HCO ₃]	mg/L															
Calcium [as Ca]	mg/L															
Chloride [as Cl]	mg/L															
Cyanide, Total	mg/L															
Fluoride [as F]	mg/L															
Hardness [as CaCO ₃]	mg/L															
Magnesium [as Mg]	mg/L															
Potassium [as K]	mg/L															
Sodium [as Na]	mg/L															
Sulfate [SO ₄ ²⁻]	mg/L															
Nitrogen, Ammonia [as N]	mg/L															
Nitrogen, Kjeldahl, Total [as N]	mg/L															
Nitrogen, Nitrite + Nitrate [as N]	mg/L															
Nitrogen, Total [as N] ⁽⁶⁾	mg/L															
Aluminum [as Al]	mg/L															
Antimony [as Sb]	mg/L															
Arsenic [as As]	mg/L															
Barium [as Ba]	mg/L															
Beryllium [Be]	mg/L															
Cadmium [as Cd]	mg/L															
Chromium, all forms [as Cr]	mg/L															
Copper [as Cu]	mg/L															
Iron, Total [as Fe]	mg/L															
Lead [as Pb]	mg/L															
Manganese [as Mn]	mg/L															
Mercury [as Hg]	mg/L															
Nickel [as Ni]	mg/L															
Selenium [as Se]	mg/L															
Silver [as Ag]	mg/L															
Strontium [as Sr]	mg/L															
Thallium [as Tl]	mg/L															
Zinc [as Zn]	mg/L															

Footnotes:
 ft-bmp: feet below measuring point.
 ft-MSL: feet above mean sea level
 s.u.: standard units
 Dissolved: Metal parameters will be analyzed using the dissolved portion (0.45 micron filter).
 Document well condition and dry well occurrences following the DEQ approved Ground Water Monitoring, Analysis, and Reporting Plan.
 Monitoring and Reporting will be required regardless of the operational status of the facility or of the condition of the monitoring well.
 Static Water Level & Total Depth: Measure to 1/100th of one foot. All measurements and calculations shall follow the DEQ approved Ground Water Monitoring, Analysis, and Reporting Plan.
 (1) The listed laboratory analytical method must be used unless written approval by DEQ is received.
 (2) The permittee may create their own report in a format that suits their operational and reporting needs. It must however contain all data inputs as shown above and in the respective permit condition.
 All submitted data must be in a digital format and the report must be queryable (e.g. excel table). Report submittals directly to the MGWPCS Program Lead via email will be accepted.
 (3) Each submitted report must cumulate all monitoring events and samples collected to date, starting with the permit effective date and continuing through the term of the permit.
 (4) For nondetects, the laboratory reporting level must be entered in as the respective lab result.
 (5) Laboratory qualifiers are not common, leave blank if none. Attach a description of all listed codes if any.
 (6) Total Nitrogen is the sum of Nitrate + Nitrite and Total Kjeldahl Nitrogen.

Table 9: Ground Water Monitoring Requirements for MW-7

Required Laboratory Method: 40 CFR 136 ⁽¹⁾
 Monitoring Frequency: Monthly
 Monitoring shall be done in accordance with the Ground Water Monitoring, Analysis, and Reporting Plan.

Ground Water Reporting Requirements- Special Condition⁽²⁾

Cumulative Record of all Individual Monitoring and Sample Results through Term of the Current Permit Cycle.
 Statistical Summary Report of all Individual Results through Term of the Current Permit Cycle.⁽³⁾
 Report Action Date: To be Updated Annually on January 1st through the Term of the Permit Cycle.
 Each Annual Report must be received by DEQ on or before January 28th.

Analyte/Measurement	Units	Individual Sample Record (Repeat as Necessary)							Permit Cycle Statistical Summary							
		Sample Collection Date	Dry-Well Conditions? (y/n)	Lab Result ⁽⁴⁾	Laboratory Reporting Level	Non-Detect? (y/n)	Laboratory Method	Laboratory Qualifier Code(s) ⁽⁵⁾	Count of Samples Collected	Count of Dry-Well Occurrences	Lab Results				Count of Non-detects	Average Laboratory Reporting Level
											Minimum	Average	Median	Maximum		
Temperature	°C															
Total Well Depth (TD)	ft-bmp															
Static Water Level (SWL)	ft-bmp															
Static Water Level (SWL)	ft-MSL															
pH	s.u.															
Solids, Total Dissolved (TDS)	mg/L															
Specific Conductivity [SC] @ 25°C	µS/cm															
Bicarbonate [as HCO ₃]	mg/L															
Calcium [as Ca]	mg/L															
Chloride [as Cl]	mg/L															
Cyanide, Total	mg/L															
Fluoride [as F]	mg/L															
Hardness [as CaCO ₃]	mg/L															
Magnesium [as Mg]	mg/L															
Potassium [as K]	mg/L															
Sodium [as Na]	mg/L															
Sulfate [SO ₄ ²⁻]	mg/L															
Nitrogen, Ammonia [as N]	mg/L															
Nitrogen, Kjeldahl, Total [as N]	mg/L															
Nitrogen, Nitrite + Nitrate [as N]	mg/L															
Nitrogen, Total [as N] ⁽⁶⁾	mg/L															
Aluminum [as Al]	mg/L															
Antimony [as Sb]	mg/L															
Arsenic [as As]	mg/L															
Barium [as Ba]	mg/L															
Beryllium [Be]	mg/L															
Cadmium [as Cd]	mg/L															
Chromium, all forms [as Cr]	mg/L															
Copper [as Cu]	mg/L															
Iron, Total [as Fe]	mg/L															
Lead [as Pb]	mg/L															
Manganese [as Mn]	mg/L															
Mercury [as Hg]	mg/L															
Nickel [as Ni]	mg/L															
Selenium [as Se]	mg/L															
Silver [as Ag]	mg/L															
Strontium [as Sr]	mg/L															
Thallium [as Tl]	mg/L															
Zinc [as Zn]	mg/L															

Footnotes:
 ft-bmp: feet below measuring point.
 ft-MSL: feet above mean sea level
 s.u.: standard units
 Dissolved: Metal parameters will be analyzed using the dissolved portion (0.45 micron filter).
 Document well condition and dry well occurrences following the DEQ approved Ground Water Monitoring, Analysis, and Reporting Plan.
 Monitoring and Reporting will be required regardless of the operational status of the facility or of the condition of the monitoring well.
 Static Water Level & Total Depth: Measure to 1/100th of one foot. All measurements and calculations shall follow the DEQ approved Ground Water Monitoring, Analysis, and Reporting Plan.
 (1) The listed laboratory analytical method must be used unless written approval by DEQ is received.
 (2) The permittee may create their own report in a format that suits their operational and reporting needs. It must however contain all data inputs as shown above and in the respective permit condition.
 All submitted data must be in a digital format and the report must be queryable (e.g. excel table). Report submittals directly to the MGWPCS Program Lead via email will be accepted.
 (3) Each submitted report must cumulate all monitoring events and samples collected to date, starting with the permit effective date and continuing through the term of the permit.
 (4) For nondetects, the laboratory reporting level must be entered in as the respective lab result.
 (5) Laboratory qualifiers are not common, leave blank if none. Attach a description of all listed codes if any.
 (6) Total Nitrogen is the sum of Nitrate + Nitrite and Total Kjeldahl Nitrogen.

Table 10: Ground Water Monitoring Requirements for MW-8

Required Laboratory Method: 40 CFR 136 ⁽¹⁾
 Monitoring Frequency: Monthly
 Monitoring shall be done in accordance with the Ground Water Monitoring, Analysis, and Reporting Plan.

Ground Water Reporting Requirements- Special Condition⁽²⁾

Cumulative Record of all Individual Monitoring and Sample Results through Term of the Current Permit Cycle.
 Statistical Summary Report of all Individual Results through Term of the Current Permit Cycle.⁽³⁾
 Report Action Date: To be Updated Annually on January 1st through the Term of the Permit Cycle.
 Each Annual Report must be received by DEQ on or before January 28th.

Analyte/Measurement	Units	Individual Sample Record (Repeat as Necessary)							Permit Cycle Statistical Summary							
		Sample Collection Date	Dry-Well Conditions? (y/n)	Lab Result ⁽⁴⁾	Laboratory Reporting Level	Non-Detect? (y/n)	Laboratory Method	Laboratory Qualifier Code(s) ⁽⁵⁾	Count of Samples Collected	Count of Dry-Well Occurrences	Lab Results				Count of Non-detects	Average Laboratory Reporting Level
											Minimum	Average	Median	Maximum		
Temperature	°C															
Total Well Depth (TD)	ft-bmp															
Static Water Level (SWL)	ft-bmp															
Static Water Level (SWL)	ft-MSL															
pH	s.u.															
Solids, Total Dissolved (TDS)	mg/L															
Specific Conductivity [SC] @ 25°C	µS/cm															
Bicarbonate [as HCO ₃]	mg/L															
Calcium [as Ca]	mg/L															
Chloride [as Cl]	mg/L															
Cyanide, Total	mg/L															
Fluoride [as F]	mg/L															
Hardness [as CaCO ₃]	mg/L															
Magnesium [as Mg]	mg/L															
Potassium [as K]	mg/L															
Sodium [as Na]	mg/L															
Sulfate [SO ₄ ²⁻]	mg/L															
Nitrogen, Ammonia [as N]	mg/L															
Nitrogen, Kjeldahl, Total [as N]	mg/L															
Nitrogen, Nitrite + Nitrate [as N]	mg/L															
Nitrogen, Total [as N] ⁽⁶⁾	mg/L															
Aluminum [as Al]	mg/L															
Antimony [as Sb]	mg/L															
Arsenic [as As]	mg/L															
Barium [as Ba]	mg/L															
Beryllium [Be]	mg/L															
Cadmium [as Cd]	mg/L															
Chromium, all forms [as Cr]	mg/L															
Copper [as Cu]	mg/L															
Iron, Total [as Fe]	mg/L															
Lead [as Pb]	mg/L															
Manganese [as Mn]	mg/L															
Mercury [as Hg]	mg/L															
Nickel [as Ni]	mg/L															
Selenium [as Se]	mg/L															
Silver [as Ag]	mg/L															
Strontium [as Sr]	mg/L															
Thallium [as Tl]	mg/L															
Zinc [as Zn]	mg/L															

Footnotes:
 ft-bmp: feet below measuring point.
 ft-MSL: feet above mean sea level
 s.u.: standard units
 Dissolved: Metal parameters will be analyzed using the dissolved portion (0.45 micron filter).
 Document well condition and dry well occurrences following the DEQ approved Ground Water Monitoring, Analysis, and Reporting Plan.
 Monitoring and Reporting will be required regardless of the operational status of the facility or of the condition of the monitoring well.
 Static Water Level & Total Depth: Measure to 1/100th of one foot. All measurements and calculations shall follow the DEQ approved Ground Water Monitoring, Analysis, and Reporting Plan.
 (1) The listed laboratory analytical method must be used unless written approval by DEQ is received.
 (2) The permittee may create their own report in a format that suits their operational and reporting needs. It must however contain all data inputs as shown above and in the respective permit condition.
 All submitted data must be in a digital format and the report must be queryable (e.g. excel table). Report submittals directly to the MGWPCS Program Lead via email will be accepted.
 (3) Each submitted report must cumulate all monitoring events and samples collected to date, starting with the permit effective date and continuing through the term of the permit.
 (4) For nondetects, the laboratory reporting level must be entered in as the respective lab result.
 (5) Laboratory qualifiers are not common, leave blank if none. Attach a description of all listed codes if any.
 (6) Total Nitrogen is the sum of Nitrate + Nitrite and Total Kjeldahl Nitrogen.

Table 11: Ground Water Monitoring Requirements for MW-9

Required Laboratory Method: 40 CFR 136 ⁽¹⁾
 Monitoring Frequency: Monthly
 Monitoring shall be done in accordance with the Ground Water Monitoring, Analysis, and Reporting Plan.

Ground Water Reporting Requirements- Special Condition⁽²⁾

Cumulative Record of all Individual Monitoring and Sample Results through Term of the Current Permit Cycle.
 Statistical Summary Report of all Individual Results through Term of the Current Permit Cycle.⁽³⁾
 Report Action Date: To be Updated Annually on January 1st through the Term of the Permit Cycle.
 Each Annual Report must be received by DEQ on or before January 28th.

Analyte/Measurement	Units	Individual Sample Record (Repeat as Necessary)							Permit Cycle Statistical Summary							
		Sample Collection Date	Dry-Well Conditions? (y/n)	Lab Result ⁽⁴⁾	Laboratory Reporting Level	Non-Detect? (y/n)	Laboratory Method	Laboratory Qualifier Code(s) ⁽⁵⁾	Count of Samples Collected	Count of Dry-Well Occurrences	Lab Results				Count of Non-detects	Average Laboratory Reporting Level
											Minimum	Average	Median	Maximum		
Temperature	°C															
Total Well Depth (TD)	ft-bmp															
Static Water Level (SWL)	ft-bmp															
Static Water Level (SWL)	ft-MSL															
pH	s.u.															
Solids, Total Dissolved (TDS)	mg/L															
Specific Conductivity [SC] @ 25°C	µS/cm															
Bicarbonate [as HCO ₃]	mg/L															
Calcium [as Ca]	mg/L															
Chloride [as Cl]	mg/L															
Cyanide, Total	mg/L															
Fluoride [as F]	mg/L															
Hardness [as CaCO ₃]	mg/L															
Magnesium [as Mg]	mg/L															
Potassium [as K]	mg/L															
Sodium [as Na]	mg/L															
Sulfate [SO ₄ ²⁻]	mg/L															
Nitrogen, Ammonia [as N]	mg/L															
Nitrogen, Kjeldahl, Total [as N]	mg/L															
Nitrogen, Nitrite + Nitrate [as N]	mg/L															
Nitrogen, Total [as N] ⁽⁶⁾	mg/L															
Aluminum [as Al]	mg/L															
Antimony [as Sb]	mg/L															
Arsenic [as As]	mg/L															
Barium [as Ba]	mg/L															
Beryllium [Be]	mg/L															
Cadmium [as Cd]	mg/L															
Chromium, all forms [as Cr]	mg/L															
Copper [as Cu]	mg/L															
Iron, Total [as Fe]	mg/L															
Lead [as Pb]	mg/L															
Manganese [as Mn]	mg/L															
Mercury [as Hg]	mg/L															
Nickel [as Ni]	mg/L															
Selenium [as Se]	mg/L															
Silver [as Ag]	mg/L															
Strontium [as Sr]	mg/L															
Thallium [as Tl]	mg/L															
Zinc [as Zn]	mg/L															

Footnotes:
 ft-bmp: feet below measuring point.
 ft-MSL: feet above mean sea level
 s.u.: standard units
 Dissolved: Metal parameters will be analyzed using the dissolved portion (0.45 micron filter).
 Document well condition and dry well occurrences following the DEQ approved Ground Water Monitoring, Analysis, and Reporting Plan.
 Monitoring and Reporting will be required regardless of the operational status of the facility or of the condition of the monitoring well.
 Static Water Level & Total Depth: Measure to 1/100th of one foot. All measurements and calculations shall follow the DEQ approved Ground Water Monitoring, Analysis, and Reporting Plan.
 (1) The listed laboratory analytical method must be used unless written approval by DEQ is received.
 (2) The permittee may create their own report in a format that suits their operational and reporting needs. It must however contain all data inputs as shown above and in the respective permit condition.
 All submitted data must be in a digital format and the report must be queryable (e.g. excel table). Report submittals directly to the MGWPSC Program Lead via email will be accepted.
 (3) Each submitted report must cumulate all monitoring events and samples collected to date, starting with the permit effective date and continuing through the term of the permit.
 (4) For nondetects, the laboratory reporting level must be entered in as the respective lab result.
 (5) Laboratory qualifiers are not common, leave blank if none. Attach a description of all listed codes if any.
 (6) Total Nitrogen is the sum of Nitrate + Nitrite and Total Kjeldahl Nitrogen.

Table 12: Ground Water Monitoring Requirements for MW-10

Required Laboratory Method: 40 CFR 136 ⁽¹⁾
 Monitoring Frequency: Monthly
 Monitoring shall be done in accordance with the Ground Water Monitoring, Analysis, and Reporting Plan.

Ground Water Reporting Requirements- Special Condition⁽²⁾

Cumulative Record of all Individual Monitoring and Sample Results through Term of the Current Permit Cycle.
 Statistical Summary Report of all Individual Results through Term of the Current Permit Cycle.⁽³⁾
 Report Action Date: To be Updated Annually on January 1st through the Term of the Permit Cycle.
 Each Annual Report must be received by DEQ on or before January 28th.

Analyte/Measurement	Units	Individual Sample Record (Repeat as Necessary)							Permit Cycle Statistical Summary							
		Sample Collection Date	Dry-Well Conditions? (y/n)	Lab Result ⁽⁴⁾	Laboratory Reporting Level	Non-Detect? (y/n)	Laboratory Method	Laboratory Qualifier Code(s) ⁽⁵⁾	Count of Samples Collected	Count of Dry-Well Occurrences	Lab Results				Count of Non-detects	Average Laboratory Reporting Level
											Minimum	Average	Median	Maximum		
Temperature	°C															
Total Well Depth (TD)	ft-bmp															
Static Water Level (SWL)	ft-bmp															
Static Water Level (SWL)	ft-MSL															
pH	s.u.															
Solids, Total Dissolved (TDS)	mg/L															
Specific Conductivity [SC] @ 25°C	µS/cm															
Bicarbonate [as HCO ₃]	mg/L															
Calcium [as Ca]	mg/L															
Chloride [as Cl]	mg/L															
Cyanide, Total	mg/L															
Fluoride [as F]	mg/L															
Hardness [as CaCO ₃]	mg/L															
Magnesium [as Mg]	mg/L															
Potassium [as K]	mg/L															
Sodium [as Na]	mg/L															
Sulfate [SO ₄ ²⁻]	mg/L															
Nitrogen, Ammonia [as N]	mg/L															
Nitrogen, Kjeldahl, Total [as N]	mg/L															
Nitrogen, Nitrite + Nitrate [as N]	mg/L															
Nitrogen, Total [as N] ⁽⁶⁾	mg/L															
Aluminum [as Al]	mg/L															
Antimony [as Sb]	mg/L															
Arsenic [as As]	mg/L															
Barium [as Ba]	mg/L															
Beryllium [Be]	mg/L															
Cadmium [as Cd]	mg/L															
Chromium, all forms [as Cr]	mg/L															
Copper [as Cu]	mg/L															
Iron, Total [as Fe]	mg/L															
Lead [as Pb]	mg/L															
Manganese [as Mn]	mg/L															
Mercury [as Hg]	mg/L															
Nickel [as Ni]	mg/L															
Selenium [as Se]	mg/L															
Silver [as Ag]	mg/L															
Strontium [as Sr]	mg/L															
Thallium [as Tl]	mg/L															
Zinc [as Zn]	mg/L															

Footnotes:
 ft-bmp: feet below measuring point.
 ft-MSL: feet above mean sea level
 s.u.: standard units
 Dissolved: Metal parameters will be analyzed using the dissolved portion (0.45 micron filter).
 Document well condition and dry well occurrences following the DEQ approved Ground Water Monitoring, Analysis, and Reporting Plan.
 Monitoring and Reporting will be required regardless of the operational status of the facility or of the condition of the monitoring well.
 Static Water Level & Total Depth: Measure to 1/100th of one foot. All measurements and calculations shall follow the DEQ approved Ground Water Monitoring, Analysis, and Reporting Plan.
 (1) The listed laboratory analytical method must be used unless written approval by DEQ is received.
 (2) The permittee may create their own report in a format that suits their operational and reporting needs. It must however contain all data inputs as shown above and in the respective permit condition.
 All submitted data must be in a digital format and the report must be queryable (e.g. excel table). Report submittals directly to the MGWPCS Program Lead via email will be accepted.
 (3) Each submitted report must cumulate all monitoring events and samples collected to date, starting with the permit effective date and continuing through the term of the permit.
 (4) For nondetects, the laboratory reporting level must be entered in as the respective lab result.
 (5) Laboratory qualifiers are not common, leave blank if none. Attach a description of all listed codes if any.
 (6) Total Nitrogen is the sum of Nitrate + Nitrite and Total Kjeldahl Nitrogen.

Table 13: Ground Water Monitoring Requirements for MW-11

Required Laboratory Method: 40 CFR 136 ⁽¹⁾
 Monitoring Frequency: Monthly
 Monitoring shall be done in accordance with the Ground Water Monitoring, Analysis, and Reporting Plan.

Ground Water Reporting Requirements- Special Condition⁽²⁾

Cumulative Record of all Individual Monitoring and Sample Results through Term of the Current Permit Cycle.
 Statistical Summary Report of all Individual Results through Term of the Current Permit Cycle.⁽³⁾
 Report Action Date: To be Updated Annually on January 1st through the Term of the Permit Cycle.
 Each Annual Report must be received by DEQ on or before January 28th.

Analyte/Measurement	Units	Individual Sample Record (Repeat as Necessary)							Permit Cycle Statistical Summary							
		Sample Collection Date	Dry-Well Conditions? (y/n)	Lab Result ⁽⁴⁾	Laboratory Reporting Level	Non-Detect? (y/n)	Laboratory Method	Laboratory Qualifier Code(s) ⁽⁵⁾	Count of Samples Collected	Count of Dry-Well Occurrences	Lab Results				Count of Non-detects	Average Laboratory Reporting Level
											Minimum	Average	Median	Maximum		
Temperature	°C															
Total Well Depth (TD)	ft-bmp															
Static Water Level (SWL)	ft-bmp															
Static Water Level (SWL)	ft-MSL															
pH	s.u.															
Solids, Total Dissolved (TDS)	mg/L															
Specific Conductivity [SC] @ 25°C	µS/cm															
Bicarbonate [as HCO ₃]	mg/L															
Calcium [as Ca]	mg/L															
Chloride [as Cl]	mg/L															
Cyanide, Total	mg/L															
Fluoride [as F]	mg/L															
Hardness [as CaCO ₃]	mg/L															
Magnesium [as Mg]	mg/L															
Potassium [as K]	mg/L															
Sodium [as Na]	mg/L															
Sulfate [SO ₄ ²⁻]	mg/L															
Nitrogen, Ammonia [as N]	mg/L															
Nitrogen, Kjeldahl, Total [as N]	mg/L															
Nitrogen, Nitrite + Nitrate [as N]	mg/L															
Nitrogen, Total [as N] ⁽⁶⁾	mg/L															
Aluminum [as Al]	mg/L															
Antimony [as Sb]	mg/L															
Arsenic [as As]	mg/L															
Barium [as Ba]	mg/L															
Beryllium [Be]	mg/L															
Cadmium [as Cd]	mg/L															
Chromium, all forms [as Cr]	mg/L															
Copper [as Cu]	mg/L															
Iron, Total [as Fe]	mg/L															
Lead [as Pb]	mg/L															
Manganese [as Mn]	mg/L															
Mercury [as Hg]	mg/L															
Nickel [as Ni]	mg/L															
Selenium [as Se]	mg/L															
Silver [as Ag]	mg/L															
Strontium [as Sr]	mg/L															
Thallium [as Tl]	mg/L															
Zinc [as Zn]	mg/L															

Footnotes:
 ft-bmp: feet below measuring point.
 ft-MSL: feet above mean sea level
 s.u.: standard units
 Dissolved: Metal parameters will be analyzed using the dissolved portion (0.45 micron filter).
 Document well condition and dry well occurrences following the DEQ approved Ground Water Monitoring, Analysis, and Reporting Plan.
 Monitoring and Reporting will be required regardless of the operational status of the facility or of the condition of the monitoring well.
 Static Water Level & Total Depth: Measure to 1/100th of one foot. All measurements and calculations shall follow the DEQ approved Ground Water Monitoring, Analysis, and Reporting Plan.
 (1) The listed laboratory analytical method must be used unless written approval by DEQ is received.
 (2) The permittee may create their own report in a format that suits their operational and reporting needs. It must however contain all data inputs as shown above and in the respective permit condition.
 All submitted data must be in a digital format and the report must be queryable (e.g. excel table). Report submittals directly to the MGWPSC Program Lead via email will be accepted.
 (3) Each submitted report must cumulate all monitoring events and samples collected to date, starting with the permit effective date and continuing through the term of the permit.
 (4) For nondetects, the laboratory reporting level must be entered in as the respective lab result.
 (5) Laboratory qualifiers are not common, leave blank if none. Attach a description of all listed codes if any.
 (6) Total Nitrogen is the sum of Nitrate + Nitrite and Total Kjeldahl Nitrogen.

Table 14: Ground Water Monitoring Requirements for MW-15

Required Laboratory Method: 40 CFR 136 ⁽¹⁾
 Monitoring Frequency: Monthly
 Monitoring shall be done in accordance with the Ground Water Monitoring, Analysis, and Reporting Plan.

Ground Water Reporting Requirements- Special Condition⁽²⁾

Cumulative Record of all Individual Monitoring and Sample Results through Term of the Current Permit Cycle.
 Statistical Summary Report of all Individual Results through Term of the Current Permit Cycle.⁽³⁾
 Report Action Date: To be Updated Annually on January 1st through the Term of the Permit Cycle.
 Each Annual Report must be received by DEQ on or before January 28th.

Analyte/Measurement	Units	Individual Sample Record (Repeat as Necessary)							Permit Cycle Statistical Summary							
		Sample Collection Date	Dry-Well Conditions? (y/n)	Lab Result ⁽⁴⁾	Laboratory Reporting Level	Non-Detect? (y/n)	Laboratory Method	Laboratory Qualifier Code(s) ⁽⁵⁾	Count of Samples Collected	Count of Dry-Well Occurrences	Lab Results				Count of Non-detects	Average Laboratory Reporting Level
											Minimum	Average	Median	Maximum		
Temperature	°C															
Total Well Depth (TD)	ft-bmp															
Static Water Level (SWL)	ft-bmp															
Static Water Level (SWL)	ft-MSL															
pH	s.u.															
Solids, Total Dissolved (TDS)	mg/L															
Specific Conductivity [SC] @ 25°C	µS/cm															
Bicarbonate [as HCO ₃]	mg/L															
Calcium [as Ca]	mg/L															
Chloride [as Cl]	mg/L															
Cyanide, Total	mg/L															
Fluoride [as F]	mg/L															
Hardness [as CaCO ₃]	mg/L															
Magnesium [as Mg]	mg/L															
Potassium [as K]	mg/L															
Sodium [as Na]	mg/L															
Sulfate [SO ₄ ²⁻]	mg/L															
Nitrogen, Ammonia [as N]	mg/L															
Nitrogen, Kjeldahl, Total [as N]	mg/L															
Nitrogen, Nitrite + Nitrate [as N]	mg/L															
Nitrogen, Total [as N] ⁽⁶⁾	mg/L															
Aluminum [as Al]	mg/L															
Antimony [as Sb]	mg/L															
Arsenic [as As]	mg/L															
Barium [as Ba]	mg/L															
Beryllium [Be]	mg/L															
Cadmium [as Cd]	mg/L															
Chromium, all forms [as Cr]	mg/L															
Copper [as Cu]	mg/L															
Iron, Total [as Fe]	mg/L															
Lead [as Pb]	mg/L															
Manganese [as Mn]	mg/L															
Mercury [as Hg]	mg/L															
Nickel [as Ni]	mg/L															
Selenium [as Se]	mg/L															
Silver [as Ag]	mg/L															
Strontium [as Sr]	mg/L															
Thallium [as Tl]	mg/L															
Zinc [as Zn]	mg/L															

Footnotes:
 ft-bmp: feet below measuring point.
 ft-MSL: feet above mean sea level
 s.u.: standard units
 Dissolved: Metal parameters will be analyzed using the dissolved portion (0.45 micron filter).
 Document well condition and dry well occurrences following the DEQ approved Ground Water Monitoring, Analysis, and Reporting Plan.
 Monitoring and Reporting will be required regardless of the operational status of the facility or of the condition of the monitoring well.
 Static Water Level & Total Depth: Measure to 1/100th of one foot. All measurements and calculations shall follow the DEQ approved Ground Water Monitoring, Analysis, and Reporting Plan.
 (1) The listed laboratory analytical method must be used unless written approval by DEQ is received.
 (2) The permittee may create their own report in a format that suits their operational and reporting needs. It must however contain all data inputs as shown above and in the respective permit condition.
 All submitted data must be in a digital format and the report must be queryable (e.g. excel table). Report submittals directly to the MGWPSC Program Lead via email will be accepted.
 (3) Each submitted report must cumulate all monitoring events and samples collected to date, starting with the permit effective date and continuing through the term of the permit.
 (4) For nondetects, the laboratory reporting level must be entered in as the respective lab result.
 (5) Laboratory qualifiers are not common, leave blank if none. Attach a description of all listed codes if any.
 (6) Total Nitrogen is the sum of Nitrate + Nitrite and Total Kjeldahl Nitrogen.

Table 15: Ground Water Monitoring Requirements for WW-1

Required Laboratory Method: 40 CFR 136 ⁽¹⁾
 Monitoring Frequency: Monthly
 Monitoring shall be done in accordance with the Ground Water Monitoring, Analysis, and Reporting Plan.

Ground Water Reporting Requirements- Special Condition⁽²⁾

Cumulative Record of all Individual Monitoring and Sample Results through Term of the Current Permit Cycle.
 Statistical Summary Report of all Individual Results through Term of the Current Permit Cycle.⁽³⁾
 Report Action Date: To be Updated Annually on January 1st through the Term of the Permit Cycle.
 Each Annual Report must be received by DEQ on or before January 28th.

Analyte/Measurement	Units	Individual Sample Record (Repeat as Necessary)							Permit Cycle Statistical Summary							
		Sample Collection Date	Dry-Well Conditions? (y/n)	Lab Result ⁽⁴⁾	Laboratory Reporting Level	Non-Detect? (y/n)	Laboratory Method	Laboratory Qualifier Code(s) ⁽⁵⁾	Count of Samples Collected	Count of Dry-Well Occurrences	Lab Results				Count of Non-detects	Average Laboratory Reporting Level
											Minimum	Average	Median	Maximum		
Temperature	°C															
Total Well Depth (TD)	ft-bmp															
Static Water Level (SWL)	ft-bmp															
Static Water Level (SWL)	ft-MSL															
pH	s.u.															
Solids, Total Dissolved (TDS)	mg/L															
Specific Conductivity [SC] @ 25°C	µS/cm															
Bicarbonate [as HCO ₃]	mg/L															
Calcium [as Ca]	mg/L															
Chloride [as Cl]	mg/L															
Cyanide, Total	mg/L															
Fluoride [as F]	mg/L															
Hardness [as CaCO ₃]	mg/L															
Magnesium [as Mg]	mg/L															
Potassium [as K]	mg/L															
Sodium [as Na]	mg/L															
Sulfate [SO ₄ ²⁻]	mg/L															
Nitrogen, Ammonia [as N]	mg/L															
Nitrogen, Kjeldahl, Total [as N]	mg/L															
Nitrogen, Nitrite + Nitrate [as N]	mg/L															
Nitrogen, Total [as N] ⁽⁶⁾	mg/L															
Aluminum [as Al]	mg/L															
Antimony [as Sb]	mg/L															
Arsenic [as As]	mg/L															
Barium [as Ba]	mg/L															
Beryllium [Be]	mg/L															
Cadmium [as Cd]	mg/L															
Chromium, all forms [as Cr]	mg/L															
Copper [as Cu]	mg/L															
Iron, Total [as Fe]	mg/L															
Lead [as Pb]	mg/L															
Manganese [as Mn]	mg/L															
Mercury [as Hg]	mg/L															
Nickel [as Ni]	mg/L															
Selenium [as Se]	mg/L															
Silver [as Ag]	mg/L															
Strontium [as Sr]	mg/L															
Thallium [as Tl]	mg/L															
Zinc [as Zn]	mg/L															

Footnotes:
 ft-bmp: feet below measuring point.
 ft-MSL: feet above mean sea level
 s.u.: standard units
 Dissolved: Metal parameters will be analyzed using the dissolved portion (0.45 micron filter).
 Document well condition and dry well occurrences following the DEQ approved Ground Water Monitoring, Analysis, and Reporting Plan.
 Monitoring and Reporting will be required regardless of the operational status of the facility or of the condition of the monitoring well.
 Static Water Level & Total Depth: Measure to 1/100th of one foot. All measurements and calculations shall follow the DEQ approved Ground Water Monitoring, Analysis, and Reporting Plan.
 (1) The listed laboratory analytical method must be used unless written approval by DEQ is received.
 (2) The permittee may create their own report in a format that suits their operational and reporting needs. It must however contain all data inputs as shown above and in the respective permit condition.
 All submitted data must be in a digital format and the report must be queryable (e.g. excel table). Report submittals directly to the MGWPCS Program Lead via email will be accepted.
 (3) Each submitted report must cumulate all monitoring events and samples collected to date, starting with the permit effective date and continuing through the term of the permit.
 (4) For nondetects, the laboratory reporting level must be entered in as the respective lab result.
 (5) Laboratory qualifiers are not common, leave blank if none. Attach a description of all listed codes if any.
 (6) Total Nitrogen is the sum of Nitrate + Nitrite and Total Kjeldahl Nitrogen.

E. Special Conditions

1. Ground Water Monitoring, Analysis, and Reporting Operational Manual

The Permittee shall use Best Management Practices (BMPs) in developing Standard Operating Procedures (SOPs) for monitoring, sampling, analyzing, and reporting ground water characteristics. These procedures must be fully described in a SOP manual provided to DEQ. The SOP manual must be site-specific and result in monitoring and reporting that is representative of the nature of the shallow ground water bearing zone. The manual must provide for consistent identification, development, monitoring, sampling, calculating, recording, and reporting of the monitoring wells. The manual must provide for guidance on: determining and documenting dry-well occurrences; and determining future well viability. Any previous manual must be updated to reflect current site-specifics and industry standards.

The completion and submittal date of the manual is listed in **Table 16**. The manual must be reviewed and approved by DEQ prior to implementation. The Permittee shall maintain a copy of the manual, monitoring well development records, dry well determinations, sampling records, and calibration records at the facility at all times. All subsequent amended manuals must be reported to DEQ.

2. Impoundment and Leak Detection System Operational Manual

The Permittee shall use BMPs in developing SOPs for monitoring, sampling, analyzing, and reporting on the impoundment and leak detection system characteristics and conditions. The manual needs to be site-specific and result in monitoring and reporting that is representative of the nature of these systems. The manual must be used as a guide in:

- Monitoring, recording and reporting system characteristics and conditions.
- Equipment calibration.
- Sampling, recording and reporting of the leak detection system's water quality.
- Determining status conditions and analyte calculations (**Table 3 - 7**).

Any previous manual must be updated to reflect current site-specifics and industry standards.

The manual must also include determination procedures for detecting parameters of interest and concern within the impoundment leak detection systems. The manual must set forth DEQ notice procedures.

The completion and submittal date for the manual is listed in **Table 16**. The manual must be reviewed and approved by DEQ prior to implementation. The Permittee shall maintain a copy of the operational manual, monitoring, sampling, and calibration records at the facility at all times. All subsequent amended manuals must be reported to DEQ.

3. Monitoring Well Viability

The Permittee shall monitor and collect representative ground water samples from the underlying water bearing zones. If any of the monitoring wells are abandoned, destroyed, decommissioned, non-viable; or are no longer able to be monitored due to obstructions or fluctuations in the ground water table; the Permittee shall rehab the non-viable well or replace with the installation of a new well.

A report summarizing the viability are required on an annual basis. The completion and submittal date for the reports are listed in **Table 16**.

4. Monitoring Well Replacement, Rehabilitation, and Abandonment

If for any reason a monitoring well needs to be replaced, rehabilitated, or abandoned, the Permittee shall submit a plan to DEQ for approval prior to the action taking place. The plan must document existing site-specifics and the reasoning behind the proposed action. The plan must detail the specific steps to take place during deconstruction, drilling, workover, and/or construction of the respective wells.

Written permission from DEQ is needed prior to the abandonment of any monitoring well. At minimum, monitoring well abandonment activities must be done in accordance with ARM 36.21.810(2-5). If the monitoring well is located in or around any collection, storage, treatment, disposal, land application, and/or mixing zone workings (or similar) additional actions may be required to prevent preferential subsurface flows, contamination, and to mitigate against any unauthorized wastewater releases. All new well installations must have detailed drilling, lithology, geospatial, and well construction information. A follow-up report summarizing all actions and details must be submitted to DEQ within 30 calendar days.

5. Ground Water Potentiometric Surface Maps

The Permittee shall monitor and report ground water flow directions in the general vicinity of the facility. Seasonal potentiometric surface maps are required and must reflect the anticipated point in time when the shallow aquifer level is at its highest and lowest. Additional maps must also be created that reflect times in-between the highs and lows. At minimum, a total of four maps must be created and reported for each calendar year through the term of the permit. All maps must include supporting data. Submittal of maps are required on an annual basis. The completion and submittal date for the reports are listed in **Table 16**.

6. Fugitive Dust Control

A manual documenting mitigation measures for the active control of fugitive emissions is required. A copy of the manual shall be kept on-site at the facility at all times.

7. Erosion Control

A manual documenting measures for the control of on-site erosion and sedimentation is required. A copy of the manual shall be kept on-site at the facility at all times.

8. Rehabilitation

The Permittee must create and maintain plans for future rehabilitation of all used tailing ponds. The design and implementation of rehabilitation procedures must include the placement of a surficial soil cap and the establishment of a native vegetation community. Post-rehabilitation requirements include: ground water and surface water monitoring, erosion control measures, and the successful establishment of a native vegetative cover. Post-rehabilitation monitoring shall be continued until approved and terminated by DEQ.

The initial plan is only tentative as DEQ must approve final rehabilitation plans for each impoundment. The completion and submittal date for the tentative plan is listed in **Table 16**. A final plan must be submitted and approved by DEQ:

- Prior to the end of the operational life of each individual impoundment; or,
- When DEQ establishes an impoundment as inactive;
- When the Operator is no longer active; or,
- When recurring non-compliance with permit conditions takes place.

An inactive impoundment is defined as a DEQ approved pond that has received tailings from the operation of the Paradine Mill facility (or as otherwise approved by DEQ), but has not received a significant amount of tails in two (2) consecutive years. Documentation of activity is required and must be reported to DEQ.

An Inactive Operator is defined as one who does not officially respond back to any two (2) DEQ inactive notice letters mailed within a one (1) year period. Once an Operator is deemed to be inactive, the Facility Owner will become the sole party responsible for the facility including all conditions of the permit (includes rehabilitation). During periods of inactivity, any non-compliance must be remedied by the Facility Owner before a new Operator can commence operations.

Recurring non-compliance is defined as:

- Any three (3) monthly individual sample records not received by DEQ for any individual monitoring well within a 24 month consecutive period; or,
- Any three (3) monthly individual observation records not received by DEQ for facility and impoundment monitoring within a 24 month consecutive period; or,
- Any two (2) quarterly individual observation records not received by DEQ for any individual impoundment leak detection system within a 24 month consecutive period; or,
- Any three (3) special condition reports (excluding those listed above) are not received by DEQ through the term of the permit.

Incomplete and uncertified records are not acceptable substitutions.

Table 16: Compliance Schedule			
Action	Freq.	Scheduled Completion Date of Action⁽¹⁾	Scheduled Report Due Date.⁽²⁾
Develop and implement a site-specific Ground Water Monitoring Operational Manual. ⁽³⁾	Single event	November 01, 2022	November 28, 2022
Develop and implement a site-specific Impoundment & Leak Detection System Operational Manual. ⁽³⁾	Single event	November 01, 2022	November 28, 2022
Complete Annual Ground Water Monitoring Reports. ⁽⁴⁾	Annually	Annually on December 31st.	Annually on January 28th. (The initial report on the 2022 calendar year is due on January 28, 2023.)
Complete Annual Leak Detection System Monitoring Reports. ⁽⁴⁾	Annually	Annually on December 31st.	Annually on January 28th. (The initial report on the 2022 calendar year is due on January 28, 2023.)
Complete Annual Facility and Impoundment Monitoring Reports. ⁽⁴⁾	Annually	Annually on December 31st.	Annually on January 28th. (The initial report on the 2022 calendar year is due on January 28, 2023.)
Complete Annual Monitoring Well Viability Reports.	Annually	Annually on December 31st.	Annually on January 28th. (The initial report on the 2022 calendar year is due on January 28, 2023.)
Complete Seasonal Ground Water Potentiometric Maps.	Annually	Annually on December 31st.	Annually on January 28th. (The initial report on the 2022 calendar year is due on January 28, 2023.)
Footnotes: (1) The actions must be completed on or before the scheduled completion dates. (2) Reports must be received by DEQ on or before the scheduled report due dates. The reports must include all information as required for each applicable action permit condition. (3) The completed plan/manual (action), in place of a written report, must be received by DEQ on or before the scheduled report due date. (4) Sampling and reporting requirements are listed in Section 6.			

II. MONITORING, RECORDING AND REPORTING REQUIREMENTS

- A. Representative Sampling
Samples and measurements shall be representative of the volume and nature of the monitored facility.
- B. Monitoring Procedures
Monitoring must be conducted according to test procedures approved under Part 136, Title 40 of the Code of Federal Regulations (CFR), 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
Reporting (e.g. special conditions, compliance actions) must be submitted in accordance to the reporting requirements of Part I of this permit. Unless otherwise approved by DEQ, 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 shall be submitted no later than 14 days following each schedule date, unless otherwise specified in this permit.
- F. Additional Monitoring by the Permittee
If the permittee performs monitoring 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. Such increased frequency shall also be indicated.

G. Records Contents

As described in Part I. At minimum, 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 five years from the date of the sample, measurement, report or application. This period may be extended by request of the Department at any time. Data collected on site, copies of Discharge Monitoring Reports, and a copy of this MGWPCS permit must be maintained on site during the duration of activity at the permitted location.

I. Twenty-four Hour Notice of Noncompliance Reporting

In addition to Part I requirements:

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 shall be made to the Water Protection Bureau at (406) 444-5546 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;
 - 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 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. 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) 444-5546.
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 the Department or 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.

III. 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 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(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", 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

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.

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 judgement 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.

IV. GENERAL REQUIREMENTS

A. Planned Changes

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. Anticipated Noncompliance

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. 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 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.

G. Signatory Requirements

All applications, reports or information submitted to the Department shall 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;
 - 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 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 monitoring 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 or any invasion of personal rights, nor 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;
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 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, 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. Reopener Provisions

This permit may be reopened and modified (following proper administrative procedures) to include the appropriate limitations or special conditions (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 conditions than contained in this permit.
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 permit conditions or water management plan.

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). The arithmetic average must not include any individual daily measurements collected on days in which discharge did not occur (e.g. flow measurements). 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). The arithmetic average must not include any individual daily measurements collected on days in which discharge did not occur (e.g. flow measurements). 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). The arithmetic average must not include any individual daily measurements collected on days in which discharge did not occur (e.g. flow measurements). 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 calculated individual daily average loads (lbs/day) recorded during the calendar year, multiplied by 365 (days/year) for a monitored parameter.
6. **“Annual Maximum Limit”** means the maximum allowable discharge of a parameter during a calendar year (or defined 365 day period).
7. **"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.
8. **“BOD₅”** means the five-day measure of the biochemical oxygen demand parameter.

9. **“Bypass”** means the intentional diversion of waste streams from any portion of a treatment facility.
10. **“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.
11. **“CFR”** means Code of Federal Regulations.
12. **“CFU”** means Colony Forming Units.
13. **“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.
14. **“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.
15. **“Daily Maximum”** means the highest individual measured daily value occurring in a defined reporting period (see Daily Discharge).
16. **“Daily Maximum Limit”** means the maximum allowable discharge of a parameter for any calendar day (see Daily Discharge).

17. **“DEQ”** means the Montana Department of Environmental Quality.
18. **“Department”** means the Montana Department of Environmental Quality.
19. **“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.
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. **“Instantaneous”** means a single reading, observation, or measurement.
22. **“Load Limits”** are mass-based discharge limits expressed in units such as lbs/day.
23. **“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.
24. **“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.
25. **“RRV”** means Required Reporting Values (DEQ Circular 7).
26. **“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.
27. **“TSS”** means the total suspended solids parameter.
28. **“Total Inorganic Nitrogen (TIN)”** means the arithmetic sum of Nitrate + Nitrite and Ammonia.
29. **“Total Nitrogen (TN)”** means the arithmetic sum of Nitrate + Nitrite and Total Kjeldahl Nitrogen.