

Official Draft Public Notice Version November,1 2023

The findings, determinations, and assertions contained in this document are not final and subject to change following the public comment period.

STATE OF UTAH
DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF WATER QUALITY
WATER QUALITY BOARD
PO BOX 144870
SALT LAKE CITY, UTAH 84114-4870

**Ground Water Discharge and Construction Permit
Permit No. UGW490011**

In compliance with the provisions of the Utah Water Quality Act, Title 19, Chapter 5, Utah Code Annotated 1953, as amended, the Act,

**Tintic Consolidated Mining Company, LLC
15988 Silver Pass Road
Eureka, Utah 84628**

hereafter referred to as the Permittee, is granted a Ground Water Discharge Permit for process water ponds and impoundments to support a mining and beneficiation operation in Utah County. The mining operations are in Utah County approximately 12 miles ESE of Eureka, Township 10 South, Range 2 West, Section 11S SLBM.

This permit is based on representation made by the Permittee and other information contained in the administrative record. It is the responsibility of the Permittee to read and understand all provisions of this permit.

The facility shall be constructed and operated in accordance with conditions set forth in the permit and the Utah Administrative Rules for Ground Water Quality Protection (UAC R317-6 and R317-1).

This permit shall become effective on _____, 2023.

This permit and authorization to operate shall expire at midnight _____, 2028.

Signed this ____ day of December, 2023.

John Mackey, PE
Director

DWQ-2023-124909

TABLE OF CONTENTS

	TABLE OF CONTENTS.....	ii
I.	SPECIFIC CONDITIONS.....	1
	A. GROUND WATER CLASSIFICATION.....	1
	B. AUTHORIZED DESIGN AND CONSTRUCTION.....	1
	C. COMPLIANCE MONITORING REQUIREMENTS.....	3
	D. NON-COMPLIANCE STATUS.....	3
	E. REPORTING REQUIREMENTS.....	4
	F. COMPLIANCE SCHEDULE.....	4
II.	MONITORING, RECORDING AND REPORTING REQUIREMENTS.....	6
	A. REPRESENTATIVE SAMPLING.....	6
	B. ANALYTICAL PROCEDURES.....	6
	C. PENALTIES FOR TAMPERING.....	6
	D. REPORTING OF MONITORING RESULTS.....	6
	E. COMPLIANCE SCHEDULES.....	6
	F. ADDITIONAL MONITORING BY THE PERMITTEE.....	6
	G. RECORDS CONTENTS.....	6
	H. RETENTION OF RECORDS.....	6
	I. TWENTY-FOUR HOUR NOTICE OF NONCOMPLIANCE REPORTING.....	7
	J. OTHER NONCOMPLIANCE REPORTING.....	7
	K. INSPECTION AND ENTRY.....	7
III.	COMPLIANCE RESPONSIBILITIES.....	8
	A. DUTY TO COMPLY.....	8
	B. PENALTIES FOR VIOLATIONS OF PERMIT CONDITIONS.....	8
	C. NEED TO HALT OR REDUCE ACTIVITY NOT A DEFENSE.....	8
	D. DUTY TO MITIGATE.....	8
	E. PROPER OPERATION AND MAINTENANCE.....	8
IV.	GENERAL REQUIREMENTS.....	9
	A. PLANNED CHANGES.....	9
	B. ANTICIPATED NONCOMPLIANCE.....	9
	C. PERMIT ACTIONS.....	9
	D. DUTY TO REAPPLY.....	9
	E. DUTY TO PROVIDE INFORMATION.....	9
	F. OTHER INFORMATION.....	9
	G. SIGNATORY REQUIREMENTS.....	9
	H. PENALTIES FOR FALSIFICATION OF REPORTS.....	10
	I. AVAILABILITY OF REPORTS.....	10
	J. PROPERTY RIGHTS.....	10
	K. SEVERABILITY.....	11
	L. TRANSFERS.....	11
	M. STATE LAWS.....	11
	N. REOPENER PROVISION.....	11

Appendix A
Appendix B

Construction Permit
Construction Permit Plans and Specifications

I. SPECIFIC CONDITIONS

A. GROUND WATER CLASSIFICATION

The facility area covered by the Permit lies within the geothermal area of the East Tintic Mining District. As noted in the Statement of Basis, the depth to ground water is more than 1,000 feet and background ground water quality is typically between 5,000 and 10,000 mg/L TDS with one or more contaminants above the drinking water standards. Ground water in the deep bedrock greater than 1,000 feet is classified as **Class III- Limited Use Ground Water**.

B. AUTHORIZED DESIGN AND CONSTRUCTION

1. These following facilities have been constructed and are currently in use:

- Pilot-Scale Tailings Storage Area and associated Solution Collection Ditch. The Pilot-Scale Tailings Storage Area was constructed as a double lined system with drainage sloped to a leachate collection and removal system (LCRS). The associated Solution Collection Ditch is also sloped to a LRCS. This facility was constructed under a Permit-By-Rule Determination in 2021.

2. Future or Proposed Projects that require Construction Permits:

Phase 1

- Heap Leach Facility - Conversion of the Pilot - Scale Tailings Storage Area and associated Solution Collection Ditch to a Heap Leach Facility and Solution Collection Ditch with LCRS.
- Process Pond - The Process Pond is a historic facility that TCM proposes to convert to a lined facility to collect and store mill operations process water to ensure no discharge from the mill facility. The historic pond will be reconstructed with a double lined system with LCRS. The pond provides a storage volume of approximately 287,000 gallons allowing for 2.1 feet of freeboard. The pond area will be approximately 0.4 acres. The maximum storage capacity would be approximately 477,000 gallons at the top elevation of 5612.00 feet.
- Dry-Stack Tailings Facility and associated Event Pond – These are new facilities to be constructed for the future tailings from the mill facility. The dry stack facility will include a composite liner system constructed with a geosynthetic clay liner overlain by an 80-mil high density polyethylene (HDPE) geomembrane liner, totaling approximately 15 acres. Event Pond - In addition, the dry stack facility will include an approximately 2.3-acre event pond located outside the limits of the lined dry stack. The event pond will be constructed using a double liner with LCRS. Capacity of the event pond is approximately 5.2 million gallons. The construction of this dry stack facility will be completed in two stages. Stage 1 is designed to have a capacity of approximately 456,000 cubic yards (677,000 tons). Therefore, Stage 1 is designed to contain roughly 3 years of processed dry stack tailings material. Stage 2 will have a capacity of approximately 514,000 cubic yards (763,000 tons).

The total capacity would then be approximately 970,000 cubic yards (1.44 million tons). Since there will be a gap of 2 to 3 years between construction of Stage 1 and Stage 2 a new Construction Permit will be issued for Stage 2 before that construction can be started.

Stage 2 of the Dry Stack Facility

- A new Construction Permit shall be issued prior to the start of construction of Stage 2.

Phase 2

- Ore Storage and Waste Rock Facility Collection Pond – These facilities will be located near the mine portal. The Ore Storage area will hold ore for up to 5-7 days before being taken to the mill for processing. The Waste Rock Facility will contain waste rock generated from underground mining that is not used to backfill underground mining operations. There will be ditch systems that will transport any contact water from the Ore Storage area and a ditch system that will transport any contact water and potential leachate from the Waste Rock Facility to a lined Collection Pond for storage. A new Construction Permit will be issued for this site when the engineering plans and specifications have been completed and stamped by a Utah Certified Professional Engineer (P.E.)
3. BAT Performance Monitoring- Best Available Technology (BAT) performance monitoring will include minimum vertical freeboard, maximum allowable leakage rate, and maximum allowable head monitoring. These performance standards are based on the precedent of previous ground water discharge permits and *Action Leakage Rates for Leak Detection Systems* (EPA, January 1992).
 - a. Minimum Vertical Freeboard – a minimum of 24 inches of vertical freeboard shall be maintained at the Solution Collection Ditch, Process Pond, Event Pond, and Ore Transfer and Waste Rock Facility Collection Pond to ensure total containment.
 - b. Maximum Allowable Leakage Rate – the maximum allowable leakage rate is based on rate of 200 gallons per day per acre (gpd/acre). The Process Pond is 0.4 acres and therefore the rate is 80 gpd. The Solution Collection Ditch is 0.03 acres and therefore the rate is 6 gpd. The Event Pond is 2.3 acres and therefore the rate is 460 gpd/acre.
 - c. Maximum Allowable Head – the maximum head that will be allowed in the leak detection sumps of the Process Pond, the Solution Collection Ditch, and the Event Pond is one (1) foot. Any fluids collected in the leak detection sump will be removed and used as process water in the Mill or placed back into the pond from which it came.
 4. Spill Containment – The permittee shall design, maintain and construct all pipelines, storage tanks, and mill facilities with a spill containment system that shall:

- a. Prevent any spills or leakage from any contact with the ground surface or ground water.
- b. Convey all spills or leakage to the evaporation/surge pond.

Any spill that does come into contact with the ground surface or ground water that causes pollution or has the potential to cause pollution to waters of the state shall be reported in accordance with Part II.I.

C. COMPLIANCE MONITORING REQUIREMENTS

1. Process Water Ponds Monitoring

Water recovered from the leak detection sumps under the double-lined Process Pond, the Solution Collection Ditch, and the Event Pond will pass through a totalizer (e.g., flow meter or equivalent measuring device) before being discharged to the Mill or back into the pond where it originated. The permittee shall record daily totalizer readings for each of these ponds. A daily total of over 80 gpd for the Process Pond, 6 gpd for the Solution Collection Ditch, and 460 gpd for the Event Pond constitutes non-compliance with the terms of this permit. The permittee shall make these records of daily pond leakage available to DWQ upon request.

D. NON-COMPLIANCE STATUS

1. Out of Compliance Due to Failure of Best Available Technology- if process water collects in the sumps of any process water pond at a rate greater than 200 gal/acre/day (460 gal/day for a 2.3-acre pond), the permittee shall notify the Division of Water Quality by telephone within 24 hours and in writing within five working days. Unless it can be demonstrated that the fluid in the sump is not process water that has leaked from the impoundment, the permittee shall immediately begin activities to locate, isolate to temporarily exclude process water from the liner and repair any leaks in the pond's liners. Within thirty days of the discovery of leakage exceeding the 200 gal/acre/day standard, the permittee shall submit a report to DWQ containing a description of the source of the excessive leakage, its duration, and if the leakage has not been corrected, the anticipated time it is expected to continue; and steps already taken or plans to reduce, eliminate and prevent recurrence of the leakage. The plans may be subject to modification by DWQ. An evaluation shall also be made of whether constituents associated with process water have been released to the environment. If there is a catastrophic failure of the pond's containment system, the Director of DWQ may require cessation of discharge or pond closure. Upon completion of any repairs or remediation activities, the permittee shall submit a report demonstrating the integrity of the pond's containment system.
2. Out-of-Compliance Status Based Upon Failure to Maintain Best Available Technology - In the event that BAT monitoring indicates a violation of any of the construction or performance standards outlined in Part I.B of this permit, the permittee shall submit to the Director a notification and description of the violation in accordance with Part II.I of this permit.

E. REPORTING REQUIREMENTS

1. Quarterly Ground Compliance Monitoring - monitoring required in Part I.E.2 above shall be reported according to the schedule in Table 3 below, unless modified by the Director:

Table 3: Quarterly Compliance Monitoring Report Schedule

Quarter	Report Due Date
1 st (January, February, March)	April 30 th
2 nd (April, May, June)	July 31 st
3 rd (July, August, September)	October 31 st
4 th (October, November, December)	January 31 st

2. Daily Leak Detection Monitoring- reporting will include:
 - a. Number of days in the quarter that fluids were present in the leak detection sump.
 - b. Largest daily volume of fluid removed from the leak detection sump during the quarter, if fluids were present.
 - c. If the permittee wishes to argue that fluids removed from the sump were not process water that leaked from the impoundment, results of sampling and analysis of collected fluid.
 - d. The disposition of any fluids in the leak detection sump, if they were not returned to the impoundment.

3. Electronic Filing Requirements - Quarterly reports will be submitted to the Division of Water Quality's electronic data submission portal at:

<https://deq.utah.gov/water-quality/water-quality-electronic-submissions>

Permit Review Report- Within 30 days after receipt of this permit, the permittee shall report to the Director that the person(s) responsible for implementing this permit has read and is personally familiar with all the terms and conditions of this permit.

F. COMPLIANCE SCHEDULE

1. Monitoring Plan- Within 6 months from construction completion and "approval to use" from DWQ, the Permittee must submit a report for Director review detailing the as built performance of the constructed BAT control features and, if necessary, propose modifications to or additional monitoring based on actual operation to maintain no discharge.
2. New Construction- At least three months before beginning construction of any new facility that will contain wastewater, tailings or process water, the permittee shall apply to DWQ for a Construction Permit to include the new facilities. This requirement does not apply to the design and construction items in Section I.B.1 and I.B.2 of this permit.

3. Conceptual Closure Plan- No later than 3 years from permit issuance the Permittee must submit to the Director for review and approval a conceptual site closure plan on disposal and removal of facilities and collection and disposal of any remaining process water.
4. Final Closure Plan. Along with the required application for permit renewal due 180 days prior to permit expiration, the permittee shall submit a final closure plan for the facility that is protective of the quality of waters of the state. The plan must evaluate the potential for the tailings to leach contaminants into ground or surface water based on testing of representative samples of the tailings. To the greatest extent practicable, the tailings must be drained of interstitial fluids until they are no longer free-draining. The final closure plan shall be implemented following approval by DWQ.

PND DRAFT

II. MONITORING, RECORDING AND REPORTING REQUIREMENTS

A. REPRESENTATIVE SAMPLING

Samples taken in compliance with the monitoring requirements established under Part I shall be representative of the monitored activity.

B. ANALYTICAL PROCEDURES

Water sample analysis must be conducted according to test procedures specified under UAC R317-6-6.3.L, unless other test procedures have been specified in this permit.

C. PENALTIES FOR TAMPERING

The 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 \$10,000 per violation, or by imprisonment for not more than six months per violation, or by both.

D. REPORTING OF MONITORING RESULTS

Monitoring results obtained during each reporting period specified in the permit, shall be submitted to the Director, Utah Division of Water Quality at the following address no later than the 15th day of the month following the completed reporting period:

State of Utah
Division of Water Quality
P.O. Box 144870
Salt Lake City, Utah 84114-4870
Attention: Ground Water Protection Section

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.

F. ADDITIONAL MONITORING BY THE PERMITTEE

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

G. RECORDS CONTENTS

Records of monitoring information shall include:

1. The date, exact place, and time of sampling or measurements;
2. The individual(s) who performed the sampling or measurements;
3. The date(s) and time(s) analyses were performed;
4. The individual(s) who performed the analyses;
5. The analytical techniques or methods used; and,
6. The results of such analyses.

H. RETENTION OF RECORDS

The permittee shall retain records of all monitoring information, including all calibration and maintenance records and copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least three years

from the date of the sample, measurement, report or application. This period may be extended by request of the Director at any time.

I. TWENTY-FOUR HOUR NOTICE OF NONCOMPLIANCE REPORTING

1. The permittee shall verbally report any noncompliance which may endanger public health or the environment as soon as possible, but no later than 24 hours from the time the permittee first became aware of the circumstances. The report shall be made to the Utah Department of Environmental Quality 24 hour number, (801) 536-4123, or to the Division of Water Quality, Ground Water Protection Section at (801) 536-4300, during normal business hours (Monday through Friday 8:00 am - 5:00 pm Mountain Time).
2. A written submission shall also be provided to the Director 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. Reports shall be submitted to the addresses in Part II.D, 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 are submitted.

K. INSPECTION AND ENTRY

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

1. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of the 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 or as otherwise authorized by the Act, 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 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 advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

B. PENALTIES FOR VIOLATIONS OF PERMIT CONDITIONS.

The Act provides that any person who violates a permit condition implementing provisions of the Act is subject to a civil penalty not to exceed \$10,000 per day of such violation. Any person who willfully or negligently violates permit conditions is subject to a fine not exceeding \$25,000 per day of violation. Any person convicted under Section 19-5-115(2) of the Act a second time shall be punished by a fine not exceeding \$50,000 per day. 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 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.

IV. GENERAL REQUIREMENTS

A. PLANNED CHANGES

The permittee shall give notice to the Director as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required when the alteration or addition could significantly change the nature of the facility or increase the quantity of pollutants discharged.

B. ANTICIPATED NONCOMPLIANCE

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

C. PERMIT ACTIONS

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

D. DUTY TO REAPPLY

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

E. DUTY TO PROVIDE INFORMATION

The permittee shall furnish to the Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Director, 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 Director, it shall promptly submit such facts or information.

G. SIGNATORY REQUIREMENTS

All applications, reports or information submitted to the Director 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 Director shall be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:
 - a. The authorization is made in writing by a person described above and submitted to the Director, and,
 - b. The authorization specified either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.)
3. Changes to Authorization. If an authorization under Part IV.G.2 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 must be submitted to the Director 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 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 \$10,000 per violation, or by imprisonment for not more than six months per violation, or by both.

I. AVAILABILITY OF REPORTS

Except for data determined to be confidential by the permittee, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Director. As required by the Act, permit applications, permits, effluent data, and ground water quality data shall not be considered confidential.

J. PROPERTY RIGHTS

The issuance of this permit does not convey any property 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.

K. 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.

L. TRANSFERS

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

1. The current permittee notifies the Director at least 30 days in advance of the proposed transfer date;
2. The notice includes a written agreement between the existing and new permittee containing a specific date for transfer of permit responsibility, coverage, and liability between them; and,
3. The Director does not notify the existing permittee and the proposed new permittee of his or her intent to modify, or revoke and reissue the permit. If this notice is not received, the transfer is effective on the date specified in the agreement mentioned in paragraph 2 above.

M. STATE LAWS

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, penalties established pursuant to any applicable state law or regulation under authority preserved by Section 19-5-117 of the Act.

N. REOPENER PROVISION

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

1. If new ground water standards are adopted by the Board, the permit may be reopened and modified to extend the terms of the permit or to include pollutants covered by new standards. The permittee may apply for a variance under the conditions outlined in R317-6-6.4.D.
2. If alternative compliance mechanisms are required.
3. If subsequent ground water monitoring data reveals the background water quality values in Part I Table 1 are not accurate.

Appendix A

Construction Permit

Appendix B

Construction Permit Plans and Specifications

PND DRAFT