

**FACT SHEET
CANYON FUEL COMPANY, LLC – SOLDIER CANYON MINE
RENEWAL DISCHARGE PERMIT
UTAH POLLUTANT DISCHARGE ELIMINATION SYSTEM (UPDES)
UPDES PERMIT NUMBER: UT0023680
MINOR INDUSTRIAL FACILITY**

FACILITY CONTACTS

Person Name: Kirt Tatton
Position: General Manager & Signatory

Person Name: Vicky Miller
Position: Environmental Engineer

Phone Number: 435-775-2062

Permittee: Canyon Fuel Company, LLC

Facility Name: Soldier Canyon Mine

Mailing Address: PO Box 1029
Wellington, Utah 84542

Facility Location: Nine Mile Canyon Road, ~12 miles northeast of Wellington, Utah

DESCRIPTION OF FACILITY

The Canyon Fuel Company, LLC - Soldier Canyon Mine (Mine) is an inactive underground coal mine facility with Standard Industrial Classification Code 1222, for bituminous underground coal mining operations. The Mine facility is located approximately 12 miles northeast of Wellington, Utah in Soldier Canyon off Nine Mile Canyon Road. The Mine has been idled with temporarily sealed portals for over 20 years and has had no in-mine dewatering activities during that time. The surface facilities were previously used on a limited basis in support of the nearby Canyon Fuel Company's Dugout Canyon Mine. Currently, the only potential for a discharge is from Outfall 002 at the surface sedimentation pond, which could discharge if there was enough runoff from precipitation events. The last discharge from the Mine resulted from large storm events discharging via Outfall 002 in September of 2013. Otherwise, there have been no discharges from any Outfall since 2013. The Mine has recently started reclamation activities through coordination with the Utah Division of Oil, Gas and Mining and it is unlikely the Mine will be re-activated in the future, however Mine officials desire continuation of the UPDES Permit (Permit) for any potential discharges over the next five years as appropriate.

SUMMARY OF CHANGES FROM PREVIOUS PERMIT

There are no proposed changes to the Permit effluent limitation requirements. The only changes when compared to the previous Permit are clarifications made within the **Additional Requirements** section of the Permit regarding metals monitoring should the Mine become active and discharging again. All other Permit provisions remain unchanged.

DISCHARGE INFORMATION

DESCRIPTION OF DISCHARGE

The Mine has been reporting self-monitoring results on Discharge Monitoring Reports (DMR) forms on a monthly basis as required. There have been no violations or discharges during the past five (5) year Permit cycle.

<u>Outfalls</u>	<u>Description of Discharge Points</u>
001	Located at Latitude 39° 42' 02" north, Longitude 110° 36' 39" west. Mine water discharge to Soldier Creek.
002	Located at Latitude 39° 41' 52" north, Longitude 110° 36' 42" west. Spillway of surface sedimentation pond to Soldier Creek.
003	Located at Latitude 39° 42' 09" north, Longitude 110° 36' 38" west. Mine water discharge to Soldier Creek.

RECEIVING WATERS AND STREAM CLASSIFICATION

Any discharge from the Mine flows into Soldier Creek, a tributary of the Price River, which is within the Colorado River Basin. The receiving waters are designated according to Utah Admin. Code R317-2-13 as follows:

- Class 2B -- Protected for infrequent primary contact recreation. Also protected for secondary contact recreation where there is a low likelihood of ingestion of water or a low degree of bodily contact with the water. Examples include, but are not limited to, wading, hunting, and fishing.
- Class 3C -- Protected for nongame fish and other aquatic life, including the necessary aquatic organisms in their food chain.
- Class 4 -- Protected for agricultural uses including irrigation of crops and stock watering.

TOTAL MAXIMUM DAILY LOAD (TMDL) REQUIREMENTS

According to the Utah [Final 2024 Integrated Report on Water Quality](#) dated April 30, 2024 (UDWQ, 2024), the immediate receiving water for Outfalls 001, 002, and 003 discharges is Soldier Creek located within the assessment unit (AU); "Price River and tributaries from confluence with Green River to confluence with Soldier Creek (AU name: Soldier Creek, AU ID: UT14060007-009_00)", which was listed as "No Evidence of Impairment", while the immediate downstream receiving water unit; "Price River and tributaries from confluence with Green River to confluence with Soldier Creek (AU name: Price River-4, AU ID: UT14060007-014_00)", was listed as "Fully Supporting".

The receiving waters do not currently indicate any impairments. Previously however, the "Price River, San

Rafael River, and Muddy Creek TMDLs for Total Dissolved Solids - West Colorado Watershed Management Unit, Utah, April 2004” (UDWQ, 2004) TMDL study was completed and established a total dissolved solids (TDS) site specific standard of 3,000 mg/L for the Price River and associated tributaries in the area where Soldier Creek enters the Price River. For more information, the TMDL can be found at <https://documents.deq.utah.gov/water-quality/watershed-protection/total-maximum-daily-loads/DWQ-2015-006611.pdf>.

BASIS FOR EFFLUENT LIMITATIONS

In accordance with regulations promulgated in the Code of Federal Regulations (C.F.R.), specifically in 40 C.F.R. § Part 122.44 and in Utah Admin. Code R317-8-4.2, effluent limitations are derived from technology-based effluent limitations guidelines and/or Utah Water Quality Standards found in Utah Admin. Code R317-2 as applicable. In cases where multiple limits have been developed, those that are more stringent apply. In cases where no limits or multiple limits have been developed, Best Professional Judgment (BPJ) of the permitting authority may be used where applicable. “Best Professional Judgment” refers to a discretionary, best professional decision made by the Permit writer based upon precedent, prevailing regulatory standards or other relevant information.

Permit limits can also be derived from a Wasteload Analysis (WLA), which incorporates Utah Water Quality Standards, including TMDL impairments as appropriate, Antidegradation Reviews (ADR) and designated uses into a water quality model that projects the effects of discharge concentrations on receiving water quality. Effluent limitations are those that the model demonstrates are sufficient to meet Utah Water Quality Standards in the receiving waters. During this UPDES renewal Permit development, a WLA and ADR were completed. An ADR Level I review was performed and concluded that an ADR Level II review was not required this time since there are no proposed increases in flow or concentrations from the previous Permit. The WLA indicates that the effluent limitations will be sufficiently protective of water quality in order to meet Utah Water Quality Standards in the receiving waters. The WLA and ADR information are included as an attachment to this Fact Sheet.

The following list is the basis of the Permit effluent limitations:

- 1) Since the Mine discharges meet the U.S. Environmental Protection Agency (EPA) definition of “alkaline mine drainage,” the permittee is subject to the technology-based effluent limitations in 40 C.F.R. § Part 434.45. Applicable technology-based limits included in the Permit are as follows:
 - a. Total Suspended Solids (TSS) daily maximum limit of 70 mg/L.
 - b. For discharges composed of surface water or mine water commingled with surface water, 40 C.F.R. § Part 434.63 allows alternate effluent limits to be applied when discharges result from specific runoff events, detailed below and in the Permit. The Mine has the burden of proof that the described runoff event occurred as described in the Permit.
 - i. For runoff events (rainfall or snowmelt) less than or equal to a 10-year 24-hour precipitation event, settleable solids may be substituted for TSS and shall be limited to 0.5 milliliters per liter (ml/L). All other effluent limitations must be achieved concurrently, as described in the Permit.
 - ii. For runoff events (rainfall or snowmelt) greater than a 10-year 24-hour precipitation event, the pH limitations may supersede the otherwise applicable Permit effluent limitations.

- 2) The Daily minimum and daily maximum Permit limitations on pH are derived from Utah Water Quality Standards found in Utah Admin. Code R317-2-14.
- 3) Total dissolved solids (TDS) are limited according to both Utah Water Quality Standards and to policies established by the Colorado River Basin Salinity Control Forum. TDS are limited by both mass loading and concentration requirements as described below:
 - a. Since discharges from the Mine may eventually reach the Colorado River, TDS mass loading is limited according to policies established by the Colorado River Basin Salinity Control Forum (Forum), as authorized in Utah Admin. Code R317-2-4 to further control salinity in the Utah portion of the Colorado River Basin. On February 28, 1977 the Forum produced the "Policy For Implementation of Colorado River Salinity Standards Through the NPDES Permit Program" (Policy), with the most current subsequent triennial revision dated October 2023. On October 20, 1982 the Forum produced the "Policy for Implementation of Colorado River Salinity Standards through the NPDES Permit Program for Intercepted Ground Water" and as a result, the Permit issued to the Mine in 1991 increased the TDS loading limit from 1-ton/day to 5-tons/day, as a sum from all outfalls. This increase in TDS loading was based on mining activities resulting in increased mine water flows that were determined to be from intercepted ground water based on the Forum's aforementioned ground water policy. This Permit will once again retain the 5-tons/day effluent TDS loading limit, however, if the Mine is reactivated then a new intercepted groundwater study shall be completed upon the Mine being reactivated and discharging again. This new study will determine if the 5-tons/day of TDS is appropriate or if the quantity needs to be changed. Additionally based on Forum Policy, provisions can be made for salinity-offset projects to account for any TDS loading in excess of the Permit requirement.
 - b. The Permit limit for TDS concentrations is based on the previously mentioned TMDL (Price River, San Rafael River and Muddy Creek TMDLs for Total Dissolved Solids – West Colorado Watershed Management Unit, Utah April 2004), which established a TDS site specific standard of 3,000 mg/L for the Price River and associated tributaries in the area where Soldier Creek enters the Price River. Since the Mine has been idled and sealed for over 20 years, sampling of the water in the mine has been unavailable and the current quality of the water is unknown. The nearby Dugout Canyon Mine, which is owned and operated by the same company and in the next canyon to the east of Soldier Canyon, had previously, under normal operating conditions, averaged <2,000 mg/L TDS from their discharge points (inclusive of mine water and sedimentation ponds). The Dugout Canyon Mine has a TDS limit of 2,400 mg/L as a daily maximum and since the quality of the water in the Soldier Mine is currently unknown, a TDS limit of 2,400 mg/L as a daily maximum concentration will once again be included in the renewal Permit based on BPJ of the permitting authority to be consistent and more protective of the downstream receiving waters and to comply with the EPA Anti-Backsliding Policy. This is the same limitation as the previous Permit cycle.
- 4) The iron effluent requirement is water quality based as derived from the WLA limitation of 1.0 for total recoverable iron, which is based on the State Water Quality Standard of 1.0 mg/L for dissolved iron found in Utah Admin. Code R317-2 Table 2.14.2. Total recoverable iron includes the dissolved fraction as part of the total component. Therefore, a Permit limit of 1.0 mg/L for total recoverable iron will once again be included in the renewal Permit and shall apply to each of the discharge points.

- 5) Oil and Grease concentrations are limited to 10 mg/L by BPJ of the permitting authority to be consistent with other industrial facilities statewide.
- 6) The effluent flow limitation is based on the maximum historic Mine dewatering discharge rate during March 1991 from Outfall 001 at 200 gallons per minute (gpm) and Outfall 003 at 720 gpm for a combined flow of 1.3 million gallons per day (MGD) and is the same flow limit as in the previous Permit.

Reasonable Potential Analysis

Since January 1, 2016, DWQ has conducted reasonable potential (RP) analysis on all new and renewal applications received after that date. RP Analysis for this Permit renewal was conducted following DWQ's September 10, 2015, Reasonable Potential Analysis Guidance (RP Guidance). There are four outcomes defined in the RP Guidance: Outcome A, B, C, or D. These Outcomes provide a framework for what routine monitoring or effluent limitations are required.

Since there have been no discharges of Mine water in decades, none of the parameters of concern, including metals could be evaluated for a reasonable potential to exceed the applicable water quality standards and RP could not be conducted at this time. Therefore, this renewal Permit will once again require that the permittee obtains metals discharge data by monitoring the Mine water upon any potential future start up and discharges, as detailed in the Permit, for total recoverable concentrations of arsenic, cadmium, chromium, copper, cyanide, lead, mercury, molybdenum, nickel, silver, selenium and zinc so that a more thorough RP analyses can be performed as appropriate.

By default, the result of this limited RP analysis was Outcome C: No new effluent limitation. Routine monitoring requirements maintained as they are in the Permit. A copy of the RP summary is included as an attachment at the end of this Fact Sheet.

The Permit limitations remain unchanged as follows:

Parameter, Units	Effluent Limitations *a		
	Maximum Monthly Average	Daily Minimum	Daily Maximum
Flow, million gallons per day (MGD) *b	1.3	--	Report
pH, standard units (SU)	--	6.5	9.0
Total Suspended Solids (TSS), mg/L	--	--	70
Total Iron, mg/L	--	--	1.0
Oil & Grease, mg/L *c	--	--	10
Total Dissolved Solids (TDS), mg/L *d	Report	--	2,400
TDS, tons/day *d	--	--	5
Turbidity, NTU *e	--	--	Report

SELF-MONITORING AND REPORTING REQUIREMENTS

The following self-monitoring requirements are the same as in the previous Permit. The Permit requires reports to be submitted monthly as applicable on DMR forms due 28 days after the end of each monthly

monitoring period. Also remaining as detailed in the Permit, are additional monitoring requirements should the Mine become active and discharging once again. Effective January 1, 2017, monitoring results shall be submitted using NetDMR unless the permittee has successfully petitioned for an exception. Lab sheets for biomonitoring, metals and toxic organics shall be attached to the DMRs.

Self-Monitoring and Reporting Requirements *a			
Parameter	Frequency	Sample Type	Units
Flow *b	Monthly	Measured	MGD
TSS	Monthly	Grab	mg/L
Total Iron	Monthly	Grab	mg/L
Oil & Grease *c	Monthly	Visual/Grab	mg/L
TDS *d	Monthly	Grab	mg/L
TDS *d	Monthly	Calculated	tons/day
pH	Monthly	Grab	SU
Turbidity *e	Monthly	Grab	NTU

*a See Permit Definitions, for definition of terms.

*b Flow measurements of influent/effluent volume shall be made in such a manner that the permittee can affirmatively demonstrate that representative values are being obtained. If the rate of discharge is controlled, the rate and duration of discharge shall be reported.

*c There shall be no visible sheen, floating solids, or visible foam in other than trace amounts upon any discharges and there shall be no discharge of any sanitary wastes at any time. If a sheen is observed, a sample of that effluent shall be collected immediately thereafter and the oil & grease shall not exceed 10 mg/L in concentration.

*d The TDS concentration from each of the outfalls shall not exceed 2,400 mg/L as a daily maximum limit. No tons per day loading limit will be applied if the concentration of TDS in the discharge is equal to or less than 500 mg/L as a thirty-day average. However, if the 30-day average concentration exceeds 500 mg/L, then the permittee cannot discharge more than 5 tons per day as a sum from all discharge points. Any amount over the 5 tons per day limit shall require the permittee to participate in and/or fund a salinity offset project to include TDS offset credits as appropriate.

The salinity-offset project shall include TDS credits on a ton-for-ton basis for which the permittee is over the 5 tons per day loading limit. The tonnage reduction from the offset project must be calculated by a method similar to one used by the Natural Resources Conservation Service, Colorado River Basin Salinity Control Forum, or other applicable agency.

If the permittee will be participating in the construction and implementation of a new salinity-offset project, then a project description and implementation schedule shall be submitted to the Director at least six (6) months prior to the implementation date of the project, which will then be reviewed for approval. The salinity offset project description and implementation schedule must be approved by the Director and shall be appended to this permit.

If the permittee will be funding any additional salinity-offset projects through third parties, the permittee shall provide satisfactory evidence to the Director that the required funds have been deposited to the third party within six (6) months of project approval by the Director. A monitoring and adjustment plan to track the TDS credits shall be submitted to the Director for each monthly monitoring period during the life of this permit. Any changes to the monitoring and adjustment plan must be approved by the Director and upon approval shall be appended to this permit.

- *e Turbidity monitoring shall be conducted monthly whenever possible from all discharging Outfalls to ensure that there is not an increase of more than 10 nephelometric turbidity units (NTU) over the receiving waters, when applicable.

All Permit compliance monitoring will occur at the Outfall locations listed in the **DESCRIPTION OF DISCHARGE** section above.

BIOSOLIDS

The State of Utah has adopted the 40 C.F.R. § 503 federal regulations for the disposal of sewage sludge (biosolids) by reference. However, this facility does not receive, generate, treat or dispose of biosolids. Therefore 40 C.F.R. § 503 shall not apply.

STORM WATER

Separate storm water permits may be required based on the types of activities occurring on site. Permit coverage under the Multi Sector General Permit (MSGP) for Storm Water Discharges from Industrial Activities may be required based on the Standard Industrial Classification (SIC) code for the facility and the types of industrial activities occurring. If required and the facility is not already covered, it has 30 days from when this Permit is issued to submit the appropriate Notice of Intent (NOI) for the MSGP or exclusion documentation.

Permit coverage under the Construction General Storm Water Permit (CGP) is required for any construction at the facility which disturb an acre or more, or is part of a common plan of development or sale that is an acre or greater. A Notice of Intent (NOI) is required to obtain a construction storm water permit prior to the period of construction. Information on storm water permit requirements can be found at <http://stormwater.utah.gov>

PRETREATMENT REQUIREMENTS

This facility does not discharge process wastewater to a sanitary sewer system. If wastewater is discharged to a sanitary sewer system the permittee must also notify the DWQ Pretreatment Coordinator regarding the discharge. Also, process wastewater that the facility may discharge to the sanitary sewer, either as a direct discharge or as a hauled waste, is subject to federal, state, and local pretreatment regulations. Pursuant to section 307 of the Clean Water Act, the permittee shall comply with all applicable federal general pretreatment regulations promulgated, found in 40 CFR § 403, the state's pretreatment requirements found in Utah Admin. Code R317-8-8, and any specific local discharge limitations developed by the Publicly Owned Treatment Works (POTW) accepting the waste.

In addition, in accordance with 40 CFR § 403.12(p)(1), the permittee must notify the POTW, the EPA Regional Waste Management Director, and the State hazardous waste authorities, in writing, if they discharge any substance into a POTW which if otherwise disposed of would be considered a hazardous waste under 40 CFR § 261. This notification must include the name of the hazardous waste, the EPA hazardous waste number, and the type of discharge (continuous or batch).

BIOMONITORING REQUIREMENTS

A nationwide effort to control toxic discharges where effluent toxicity is an existing or potential concern is regulated in accordance with the Utah Pollutant Discharge Elimination System Permit and Enforcement Guidance Document for Whole Effluent Toxicity Control (biomonitoring), dated February 2018. Authority to require effluent biomonitoring is provided in Permit Conditions, Utah Admin. Code R317-8-4.2, Permit Provisions, Utah Admin. Code R317-8-5.3 and Water Quality Standards, Utah Admin. Code R317-2-5 and R317 -2-7.2.

The permittee is not classified as a major facility or a significant minor facility and historical discharges from the Mine are from intercepted ground water and/or storm water only, in which toxicity has not been an existing or a potential concern. Any discharges are to an ephemeral drainage and do not normally reach downstream waters except during extreme precipitation events. Based on these considerations, there is no reasonable potential for toxicity in the facility's discharge. As such, there will be no numerical WET limitations or WET monitoring requirements in this Permit. However, if the Mine seals are removed and the Mine becomes active again, the Mine will be required to conduct at least one Acute or Chronic Biomonitoring WET test using both WET test species (Ceriodaphnia and fathead minnows) to confirm that these historic conditions have not changed. Additionally, the Permit will once again contain a toxicity limitation re-opener provision. This provision allows for modification of the Permit at any time in the future to include WET limitations and/or WET monitoring, should additional information indicate the presence of toxicity in the discharge.

PERMIT DURATION

It is recommended that this Permit be effective for a duration of five (5) years.

Drafted and Reviewed by
Jeff Studenka, Discharge Permit Writer
Daniel Griffin, Biosolids
Jennifer Robinson, Pretreatment
Lonnie Shull, Biomonitoring
Carl Adams, Storm Water
Amy Dickey, TMDL/Watershed Protection
Chris Shope, Wasteload Analysis/ADR
Utah Division of Water Quality, (801) 536-4300

PUBLIC NOTICE INFORMATION (to be updated after)

Began: Month Day, Year

Ended: Month Day, Year

Comments will be received at: 195 North 1950 West
PO Box 144870
Salt Lake City, UT 84114-4870

The Public Notice of the draft Permit was published on State of Utah and/or DWQ's website for at least 30 days as required.

During the public notice and comment period provided under Utah Admin. Code R317-8-6.5, any interested person may submit written comments on the draft Permit and may request a public hearing, if no hearing has already been scheduled. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing. All comments will be considered in making the final decision and shall be answered as provided in Utah Admin. Code R317-8-6.12.

ADDENDUM TO FACT SHEET

During finalization of the Permit certain dates, spelling edits and minor language corrections were completed. Due to the nature of these changes, they are considered minor changes and the Permit is not required to be re Public Noticed as provided in Utah Admin. Code R317-8-5.6(3)

Responsiveness Summary

(For any comments received and response sent. Actual letters can be referenced, but not required to be included).

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ATTACHMENT 1

Wasteload Analysis Information
(DWQ-2026-000750 & DWQ-2026-002905)



State of Utah

SPENCER J. COX
Governor

DEIDRE HENDERSON
Lieutenant Governor

Department of
Environmental Quality

Tim Davis
Commissioner

DIVISION OF WATER QUALITY
Candice Hasenyager, P.E.
Director

**Utah Division of Water Quality
Statement of Basis ADDENDUM
Wasteload Analysis and Antidegradation Level I Review**

Date: February 17, 2026

Prepared by: Christopher L. Shope, PhD
Standards and Technical Services

Facility: Canyon Fuel Coal Soldier Canyon Mine
UPDES Permit No. Preliminary - UT0023680

This addendum summarizes the wasteload analysis that was performed to determine water quality based effluent limits (WQBEL) for this discharge. Wasteload analyses are performed to determine point source effluent limitations necessary to maintain designated beneficial uses by evaluating projected effects of discharge concentrations on in-stream water quality. The wasteload analysis also takes into account downstream designated uses (UAC R317-2-8). Projected concentrations are compared to numeric water quality standards to determine acceptability. The numeric criteria in this wasteload analysis may be modified by narrative criteria and other conditions determined by staff of the Division of Water Quality.

DISCHARGE

Outfall 001 is an in-mine sump but the mine is sealed with no possible discharge. Outfall 002 is a sedimentation pond with a design flow rate of 1.3 MGD. Outfall 003 is an in-mine sump but the mine is sealed with no possible discharge.

Effluent discharge is located at: Outfall 001 - 39° 42' 02", -110° 36' 39", Outfall 002 - 39° 41' 52", -110° 36' 42", and Outfall 003 - 39° 42' 09", -110° 36' 38".

Expected combined effluent discharge remains at 1.3 million gallons per day (MGD).

RECEIVING WATER

The receiving water for Outfalls 001, 002, and 003 is Soldier Creek, an intermittent stream that is a tributary to the Price River.

Per UAC R317-2-13.1.b, the designated beneficial uses of the affected assessment units in the immediate area are *Price River and tributaries from confluence with Green River to confluence with Soldier Creek* with Uses 2B, 3C, 4.

- *Class 2B - Protected for infrequent primary contact recreation. Also protected for secondary contact recreation where there is a low likelihood of ingestion of water or a low degree of bodily contact with the water. Examples include, but are not limited to, wading, hunting, and fishing.*
- *Class 3C - Protected for nongame fish and other aquatic life, including the necessary aquatic organisms in their food chain.*
- *Class 4 - Protected for agricultural uses including irrigation of crops and stock watering.*

Per UAC R317-2-8 Protection of Downstream Uses, all actions to control waste discharges under these rules shall be modified as necessary to protect downstream designated uses.

WATER QUALITY STANDARDS

Numeric criteria based on designated beneficial uses are specified in UAC R317-2-14. In addition, narrative water quality standards must not be violated per UAC R317-2-7.2:

It shall be unlawful, and a violation of these rules, for any person to discharge or place any waste or other substance in such a way as will be or may become offensive such as unnatural deposits, floating debris, oil, scum or other nuisances such as color, odor or taste; or cause conditions which produce undesirable aquatic life or which produce objectionable tastes in edible aquatic organisms; or result in concentrations or combinations of substances which produce undesirable physiological responses in desirable resident fish, or other desirable aquatic life, or undesirable human health effects, as determined by bioassay or other tests performed in accordance with standard procedures; or determined by biological assessments in Subsection R317-2-7.3.

No permit may be issued by the Director per UAC R317-8-2.2(7) to a new source or a new discharger, if the discharge from its construction or operation will cause or contribute to the violation of water quality standards. The owner or operator of a new source or [a] new discharger proposing to discharge into a water segment which does not meet Utah water quality standards or is not expected to meet those standards even after the application of the effluent limitations required by the UPDES rules and for which the Director has performed a wasteload allocation for the pollutants to be discharged, must demonstrate, before the close of the public comment period, that:

- (a) There are sufficient remaining wasteload allocations to allow for the discharge; and*
- (b) The existing dischargers into the segment are subject to schedules of compliance designed to bring the segment into compliance with Utah Water Quality Standards. (See UAC R317-2.)*

CRITICAL LOW FLOW

Typically, the critical flow for the receiving water in a wasteload analysis is considered the lowest stream flow for seven consecutive days with a ten-year return frequency (7Q10). Extremely limited flow rate data was available from 1969 and 2025. In addition, the effluent discharge is to

an intermittent stream periodically supplied by upstream gas wells. For these reasons, critical conditions exhibit no flow in the receiving water. Since there is no upstream critical flow, the 7Q10 is assumed to be zero and effluent limits revert to end-of-pipe (EOP) water quality standards.

Due to severe lack water quality data, upstream water quality inputs were estimated. The average of parameter concentration for hardness, pH, water temperature were estimated from combined monitoring locations. The monitoring locations are DWQ 4932220 CANYON FUEL SOLDIER CK MINE 003, DWQ 4932210 CANYON FUEL SOLDIER CK MINE 001, DWQ 4932170 CANYON FUEL SOLDIER CK SED PND 002, and DWQ 4932185 SOLDIER CREEK AB DUGOUT CANYON RD XING. Upstream hardness, pH, and temperature are consistent with estimated data provided in the 2016 and 2021 wasteload analyses.

RECEIVING WATER ASSESSMENT AND TOTAL MAXIMUM DAILY LOAD (TMDL)

According to the Utah [Final 2024 Integrated Report on Water Quality](#) dated April 30, 2024 (UDWQ, 2024), the receiving water for Outfalls 001, 002, and 003 discharges; *“Price River and tributaries from confluence with Green River to confluence with Soldier Creek (AU name: Soldier Creek, AU ID: UT14060007-009_00)”*, was listed as “No Evidence of Impairment”.

The immediate downstream receiving water; *“Price River and tributaries from confluence with Green River to confluence with Soldier Creek (AU name: Price River-4, AU ID: UT14060007-014_00)”*, was listed as “Fully Supporting”. The receiving waters do not currently indicate any impairments. Previously, the *“Price River, San Rafael River, and Muddy Creek TMDLs for Total Dissolved Solids - West Colorado Watershed Management Unit, Utah, April 2004”* (UDWQ, 2004) established a total dissolved solids (TDS) site specific standard of 3,000 mg/L for the Price River and associated tributaries in the area where Soldier Creek enters the Price River.

MIXING ZONE

Per UAC R317-2-5, the maximum allowable mixing zone is 15 minutes of travel time for acute conditions, not to exceed 50% of stream width, and 2,500 feet for chronic conditions. Water quality standards must be met at the end of the regulatory mixing zone. In this case, because the 7Q10 was assumed to be zero, no mixing zone is allowed, and no dilution factor was applied.

PARAMETERS OF CONCERN

The potential parameters of concern identified for the discharge/receiving water were determined in consultation with the UPDES Permit Writer, the Utah Water Quality Assessment Reports, and the industry SIC codes from <https://www.osha.gov/data/sic-search>. The primary parameters of concern for this facility include TDS and iron.

WET LIMITS

The percent of effluent in the receiving water in a fully mixed condition, and acute and chronic dilution in a not fully mixed condition are calculated in the WLA in order to generate WET limits. The LC₅₀ (lethal concentration, 50%) percent effluent for acute toxicity and the IC₂₅ (inhibition concentration, 25%) percent effluent for chronic toxicity, as determined by the WET test, needs to be below the WET limits, as determined by the WLA. The WET limit for LC₅₀ is typically 100% effluent and does not need to be determined by the WLA.

WET limits for Outfall 001 for IC₂₅ should be based on 100% effluent due to critical low flow conditions of zero.

WASTELOAD ALLOCATION METHODS

Effluent limits were determined for conservative constituents using a simple mass balance mixing analysis (UDWQ 2021). The mass balance analysis is summarized in the Wasteload Addendum.

The water quality standard for chronic ammonia toxicity is dependent on temperature and pH, and the water quality standard for acute ammonia toxicity is dependent on pH. Background data were not sampled for this location. To evaluate effluent discharge water quality, the discharge monitoring report (DMR) would typically be used. Due to a lack of flow dilution, effluent limits for this discharge are water quality standards for the specific receiving water. The applicable water quality standards are attached as an appendix to this wasteload.

For parameters without a WQBEL, permit limits should be set according to rules found in R317-1-3 and categorical UPDES discharge requirements.

Models and supporting documentation are available for review upon request.

LOCATION MAP

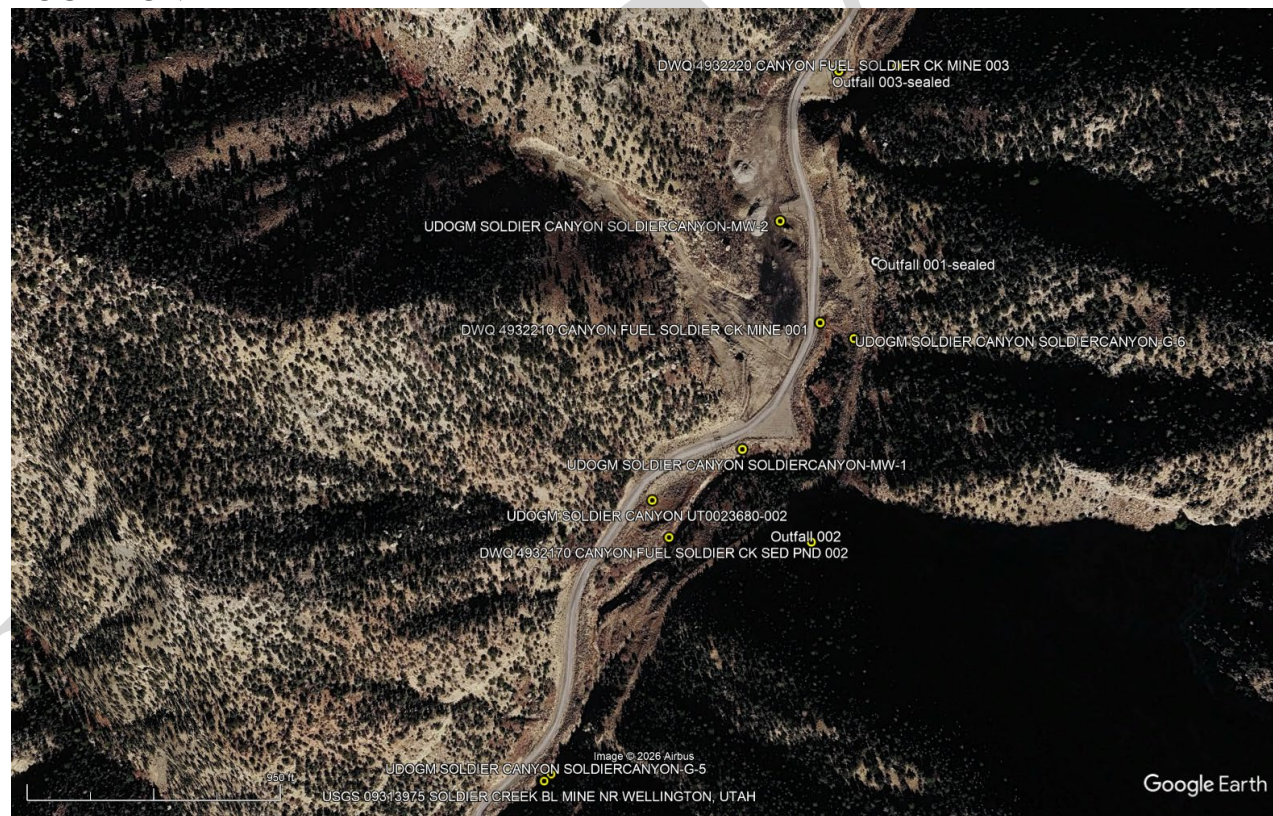


Figure 1-Location map of outfalls, monitoring locations, and surface water channels.

ANTIDEGRADATION LEVEL I REVIEW

The objective of the Level I Antidegradation Review (ADR) is to ensure the protection of existing uses, defined as the beneficial uses attained in the receiving water on or after November 28, 1975.

No evidence is known that the existing uses deviate from the designated beneficial uses for the receiving water. Therefore, the beneficial and existing uses will be protected if the discharge remains below the WQBELs presented in this wasteload.

ANTIDEGRADATION LEVEL II REVIEW REQUIREMENTS

A Level II ADR is not required for this facility. This is an existing effluent discharge and the permittee is not requesting an increase in flow or change in effluent pollutants over that authorized in the existing permit.

DOCUMENTS

WLA Document: *260213-Soldier_Mine_EOP_WLA_2026.docx*

Wasteload Analysis and Addendums: *260213-Soldier_Mine_EOP_WLA_2026.xlsm*

REFERENCES

Utah Division of Water Quality. 2004. Price River, San Rafael River, and Muddy Creek TMDLS for Total Dissolved Solids West Colorado Watershed Management Unit, Utah. <https://lf-public.deq.utah.gov/WebLink/DocView.aspx?id=15505&repo=Public&searchid=73721341-2667-4867-8b21-2fcb83543871&cr=1>

Utah Division of Water Quality. 2021. Utah Wasteload Analysis Procedures Version 2.0. <https://documents.deq.utah.gov/water-quality/standards-technical-services/DWQ-2021-000684.pdf>

Utah Division of Water Quality. 2024. Final 2024 Integrated Report on Water Quality. <https://lf-public.deq.utah.gov/WebLink/DocView.aspx?id=87957&repo=Public&searchid=fcd9ea4c-51e1-4227-aa29-fb1921c2cc19&cr=1>

WASTELOAD ANALYSIS [WLA]

Date: 5/18/2026

Appendix A: Mass Balance Mixing Analysis for Conservative Constituents**A Level II Antidegradation Review (ADR) is NOT required for this facility.**

Discharging Facility: Canyon Fuel Coal Soldier Canyon Mine
 UPDES No: 7UT0023680
 4932210.0

Permit Flow [MGD]: 1.30000 Annual Max. Daily
 1.30000 Annual Max. Monthly

Receiving Water: Soldier Creek to Price River
 Stream Classification: 2B,3C,4
 Stream Flows [cfs]: 0.00 All Seasons Critical Low Flow
 - All Seasons Critical Low Flow (20th %)

Fully Mixed: YES
 Acute River Width: 100%
 Chronic River Width: 100%

Modeling Information

A mass balance mixing analysis was used to determine the effluent limits.

All model numerical inputs, intermediate calculations, outputs and graphs are available for discussion, inspection and copy at the Division of Water Quality.

Effluent Limitations

Current State water quality standards are required to be met under a variety of conditions including in-stream flows targeted to the 7-day, 10-year low flow (R317-2-9).

Other conditions used in the modeling effort reflect the environmental conditions expected at low stream flows.

The calculations in this wasteload analysis utilize the maximum effluent discharge flow of 1.3 MGD. If the discharger is allowed to have a flow greater than 1.3 MGD during 7Q10 conditions, and effluent limit concentrations as indicated, then water quality standards will be violated. In order to prevent this from occurring, the permit writers must include the discharge flow limitation as indicated above; or, include loading effluent limits in the permit.

Effluent Limitations for Protection of Drinking Water (Class 1C Waters) (R317-2-14.1)

Physical Parameter	Concentration	
	Minimum	Maximum
pH	6.5	9.0

Bacteriological	
E. coli (30 Day Geometric Mean)	206 (#/100 mL)
E. coli (Maximum)	668 (#/100 mL)

Metals-Dissolved Maximum

Parameter	Standard'	Maximum Background	Limit
Arsenic (µg/L)	10.0		10.0
Barium (µg/L)	1000.0		1000.0
Beryllium (µg/L)	4.0		4.0
Cadmium (µg/L)	10.0		10.0
Chromium (µg/L)	50.0		50.0
Lead (µg/L)	15.0		15.0
Mercury (µg/L) ^c	2.000		2.000
Selenium (µg/L)	50.0		50.0
Silver (µg/L)	50.0		50.0

Inorganics-Maximum

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Parameter	Standard'	Maximum Background	Limit
Bromate (mg/L)	0.01		0.01
Chlorite (mg/L)	1.0		1.0
Fluoride (mg/L)	4.0		4.0
Nitrates as N (mg/L)	10.0		10.0
Total Dissolved Solids (mg/L)	1200.0		1200.0

Radiological

Parameter	Maximum Concentration Standard
Gross Alpha (pCi/L)	15

Effluent Limitations for Protection of Recreation (Class 2A Waters) (R317-2-14.1)

Physical Parameter	Concentration	Minimum	Maximum
pH		6.5	9.0
Turbidity Increase (NTU)			10.0

Bacteriological

E. coli (30 Day Geometric Mean)	126 (#/100 mL)
E. coli (Maximum)	409 (#/100 mL)

Effluent Limitations for Protection of Recreation (Class 2B Waters) (R317-2-14.1)

Physical Parameter	Concentration	Minimum	Maximum
pH		6.5	9.0
Turbidity Increase (NTU)			10.0

Bacteriological (R317-2-14.1)

E. coli (30 Day Geometric Mean)	206 (#/100 mL)
E. coli (Maximum)	668 (#/100 mL)

Effluent Limitations for Protection of Aquatic Wildlife (Class 3A Waters) (R317-2-14.21)

Physical Parameter	Concentration	Minimum	Maximum
pH		6.5	9.0
Turbidity Increase (NTU)			10.0
Temperature (deg C)			20
Temperature Change (deg C)			2

Dissolved Oxygen (mg/L)

	Minimum Concentration	ELS Present	Others Present
Instantaneous	8.0		4.0
30-day Average	6.5		6.5
7-day Average	9.5		5

Inorganics

Parameter	Chronic (30-day ave)	Acute (1-hour ave) Standard
Phenol (mg/L)		0.010
Hydrogen Sulfide (Undissociated-mg/L)		0.002
Total Residual Chlorine (mg/L)	0.011	0.019

Ammonia-Total (mg/L)

	Chronic (30-day ave) ELS Present	Acute (1-hour ave)	
Season	Standard	Background	Limit
Summer	1.8		4.4
Fall	2.3		5.2
Winter	2.4		5.6
Spring	1.6		3.9

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Season	ELS Absent					
	Standard	Background	Limit	Standard	Background	Limit
Summer	1.8		1.8	4.4		4.4
Fall	2.5		2.5	5.2		5.2
Winter	2.9		2.9	5.6		5.6
Spring	1.6		1.6	3.9		3.9

Metals-Total Recoverable

Parameter	Chronic (4-day ave)			Acute (1-hour ave)		
	Standard ¹	Background	Limit	Standard ¹	Background	Limit
Aluminum (µg/L)	87.0		87.0	750.0		750.0
Arsenic (µg/L)	150.0		150.0	340.0		340.0
Cadmium (µg/L)	1.5		1.5	4.2		4.2
Chromium VI (µg/L)	11.0		11.0	16.0		16.0
Chromium III (µg/L)	166.4		166.4	3481.6		3,482
Copper (µg/L)	18.5		18.5	29.8		29.8
Cyanide (µg/L) ²	5.2		5.2	22.0		22.0
Iron (µg/L)				1000.0		1,000
Lead (µg/L)	8.8		8.8	227.0		227.0
Mercury (µg/L) ²	0.0		0.012	2.4		2.4
Nickel (µg/L)	102.9		102.9	925.8		926
Selenium (µg/L)	4.6		4.6	18.4		18.4
Silver (µg/L)				15.1		15.1
Tributyltin (µg/L) ²	0.1		0.072	0.5		0.46
Zinc (µg/L)	236.7		236.7	236.7		236.7

1: Based upon a Hardness of 223.3 mg/l as CaCO₃

2: Background concentration assumed 67% of chronic standard

Organics [Pesticides]

Parameter	Chronic (4-day ave)		Acute (1-hour ave)	
	Standard	Limit	Standard	Limit
Aldrin (µg/L)			1.5	1.5
Chlordane (µg/L)	0.0043	0.0043	1.2	1.2
DDT, DDE (µg/L)	0.001	0.001	0.55	0.55
Diazinon (µg/L)	0.17	0.17	0.17	0.17
Dieldrin (µg/L)	0.0056	0.0056	0.24	0.24
Endosulfan, a & b (µg/L)	0.056	0.056	0.11	0.11
Endrin (µg/L)	0.036	0.036	0.086	0.086
Heptachlor & H. epoxide (µg/L)	0.0038	0.0038	0.26	0.26
Lindane (µg/L)	0.08	0.08	1.0	1.0
Methoxychlor (µg/L)			0.03	0.03
Mirex (µg/L)			0.001	0.001
Nonylphenol (µg/L)	6.6	6.6	28.0	28.0
Parathion (µg/L)	0.0130	0.0130	0.066	0.066
PCB's (µg/L)	0.014	0.014		
Pentachlorophenol (µg/L)	15.0	15.0	19.0	19.0
Toxephene (µg/L)	0.0002	0.0002	0.73	0.73

Radiological

Parameter	Maximum Concentration	
	Standard	
Gross Alpha (pCi/L)	15	

Effluent Limitations for Protection of Aquatic Wildlife (Class 3B Waters) (R317-2-14.21)

Physical Parameter

	Concentration	
	Minimum	Maximum
pH	6.5	9.0
Turbidity Increase (NTU)		10.0
Temperature (deg C)		27
Temperature Change (deg C)		4

Dissolved Oxygen (mg/L)

	Minimum Concentration	
	ELS Present	Others Present
Instantaneous	5.0	3.0

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30-day Average	5.5	5.5
7-day Average	6.0	4

Inorganics	Chronic (30-day ave)	Acute (1-hour ave)
Parameter		Standard
Phenol (mg/L)		0.010
Hydrogen Sulfide (Undissociated-mg/L)		0.002
Total Residual Chlorine (mg/L)	0.011	0.019

Ammonia-Total (mg/L)

	Chronic (30-day ave)			Acute (1-hour ave)		
	ELS Present					
Season	Standard	Background	Limit	Standard	Background	Limit
Summer	1.8		1.8	6.6		6.6
Fall	2.3		2.3	7.8		7.8
Winter	2.4		2.4	8.4		8.4
Spring	1.6		1.6	5.8		5.8
	ELS Absent					
Season	Standard	Background	Limit	Standard	Background	Limit
Summer	1.8		1.8	6.6		6.6
Fall	2.5		2.5	7.8		7.8
Winter	2.9		2.9	8.4		8.4
Spring	1.6		1.6	5.8		5.8

Metals-Total Recoverable

	Chronic (4-day ave)			Acute (1-hour ave)		
Parameter	Standard ¹	Background	Limit	Standard ¹	Background	Limit
Aluminum (µg/L)	87.0		87.0	750.0		750.0
Arsenic (µg/L)	150.0		150.0	340.0		340.0
Cadmium (µg/L)	1.5		1.5	4.2		4.2
Chromium VI (µg/L)	11.0		11.0	16.0		16.0
Chromium III (µg/L)	166.4		166.4	3,482		3,482
Copper (µg/L)	18.5		18.5	29.8		29.8
Cyanide (µg/L) ²	5.2		5.2	22.0		22.0
Iron (µg/L)				1,000		1,000
Lead (µg/L)	8.8		8.8	227.0		227.0
Mercury (µg/L) ²	0.012		0.012	2.4		2.4
Nickel (µg/L)	102.9		102.9	926		926
Selenium (µg/L)	4.6		4.6	18.4		18.4
Silver (µg/L)				15.1		15.1
Tributyltin (µg/L) ²	0.072		0.072	0.46		0.46
Zinc (µg/L)	236.7		236.7	236.7		236.7

1: Based upon a Hardness of 223.3 mg/l as CaCO₃

2: Background concentration assumed 67% of chronic standard

Organics [Pesticides]

	Chronic (4-day ave)		Acute (1-hour ave)	
Parameter	Standard	Limit	Standard	Limit
Aldrin (µg/L)			1.5	1.5
Chlordane (µg/L)	0.0043	0.0043	1.2	1.2
DDT, DDE (µg/L)	0.001	0.001	0.55	0.55
Diazinon (µg/L)	0.17	0.17	0.17	0.17
Dieldrin (µg/L)	0.0056	0.0056	0.24	0.24
Endosulfan, a & b (µg/L)	0.056	0.056	0.11	0.11
Endrin (µg/L)	0.036	0.036	0.086	0.086
Heptachlor & H. epoxide (µg/L)	0.0038	0.0038	0.26	0.26
Lindane (µg/L)	0.08	0.08	1.0	1.0
Methoxychlor (µg/L)			0.03	0.03
Mirex (µg/L)			0.001	0.001
Nonylphenol (µg/L)	6.6	6.6	28.0	28.0
Parathion (µg/L)	0.0130	0.0130	0.066	0.066
PCB's (µg/L)	0.014	0.014		
Pentachlorophenol (µg/L)	15.0	15.0	19.0	19.0

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Toxephene (µg/L)	0.0002	0.0002	0.73	0.73
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Radiological

Parameter	Maximum Concentration Standard
Gross Alpha (pCi/L)	15

Effluent Limitations for Protection of Aquatic Wildlife (Class 3C Waters) (R317-2-14.2)

Physical Parameter

	Concentration
	Minimum Maximum
pH	6.5 9.0
Turbidity Increase (NTU)	15.0
Temperature (deg C)	27
Temperature Change (deg C)	4

Dissolved Oxygen (mg/L)

	Minimum Concentration
	ELS Present Others Present
Instantaneous	3.0 3.0
30-day Average	5.0 5
7-day Average	

Inorganics

	Chronic (30-day ave)	Acute (1-hour ave)
Parameter	Standard	Standard
Phenol (mg/L)		0.010
Hydrogen Sulfide (Undissociated-mg/L)		0.002
Total Residual Chlorine (mg/L)	0.011	0.019

Ammonia-Total (mg/L)

	Chronic (30-day ave)			Acute (1-hour ave)		
		ELS Present				
Season	Standard	Background	Limit	Standard	Background	Limit
Summer	1.8		1.8	6.6		6.6
Fall	2.3		2.3	7.8		7.8
Winter	2.4		2.4	8.4		8.4
Spring	1.6		1.6	5.8		5.8
	ELS Absent					
Season	Standard	Background	Limit	Standard	Background	Limit
Summer	1.8		1.8	6.6		6.6
Fall	2.5		2.5	7.8		7.8
Winter	2.9		2.9	8.4		8.4
Spring	1.6		1.6	5.8		5.8

Metals-Total Recoverable

	Chronic (4-day ave)			Acute (1-hour ave)		
Parameter	Standard¹	Background	Limit	Standard¹	Background	Limit
Aluminum (µg/L)	87.0		87.0	750.0		750.0
Arsenic (µg/L)	150.0		150.0	340.0		340.0
Cadmium (µg/L)	1.5		1.5	4.2		4.2
Chromium VI (µg/L)	11.0		11.0	16.0		16.0
Chromium III (µg/L)	166.4		166.4	3,482		3,482
Copper (µg/L)	18.5		18.5	29.8		29.8
Cyanide (µg/L) ²	5.2		5.2	22.0		22.0
Iron (µg/L)				1,000		1,000
Lead (µg/L)	8.8		8.8	227.0		227.0
Mercury (µg/L) ²	0.012		0.012	2.4		2.4
Nickel (µg/L)	102.9		102.9	926		926
Selenium (µg/L)	4.6		4.6	18.4		18.4
Silver (µg/L)				15.1		15.1
Tributyltin (µg/L) ²	0.072		0.072	0.46		0.46
Zinc (µg/L)	236.7		236.7	236.7		236.7

1: Based upon a Hardness of 0 mg/l as CaCO3

2: Background concentration assumed 67% of chronic standard

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Organics [Pesticides]

Parameter	Chronic (4-day ave)		Acute (1-hour ave)	
	Standard	Limit	Standard	Limit
Aldrin (µg/L)			1.5	1.5
Chlordane (µg/L)	0.0043	0.0043	1.2	1.2
DDT, DDE (µg/L)	0.001	0.001	0.55	0.55
Diazinon (µg/L)	0.17	0.17	0.17	0.17
Dieldrin (µg/L)	0.0056	0.0056	0.24	0.24
Endosulfan, a & b (µg/L)	0.056	0.056	0.11	0.11
Endrin (µg/L)	0.036	0.036	0.086	0.086
Heptachlor & H. epoxide (µg/L)	0.0038	0.0038	0.26	0.26
Lindane (µg/L)	0.08	0.08	1.0	1.0
Methoxychlor (µg/L)			0.03	0.03
Mirex (µg/L)			0.001	0.001
Nonylphenol (µg/L)	6.6	6.6	28.0	28.0
Parathion (µg/L)	0.0130	0.0130	0.066	0.066
PCB's (µg/L)	0.014	0.014		
Pentachlorophenol (µg/L)	15.0	15.0	19.0	19.0
Toxophene (µg/L)	0.0002	0.0002	0.73	0.73

Radiological

Parameter	Maximum Concentration
Standard	
Gross Alpha (pCi/L)	15

Effluent Limitations for Protection of Aquatic Wildlife (Class 3D Waters) (R317-2-14.2)

Physical Parameter	Concentration	
	Minimum	Maximum
pH	6.5	9.0
Turbidity Increase (NTU)		15.0
Temperature (deg C)		
Temperature Change (deg C)		

Dissolved Oxygen (mg/L)	Minimum Concentration	
	ELS Present	Others Present
Instantaneous	3.0	3.0
30-day Average	5.0	5
7-day Average		

Inorganics	Parameter	Acute Standard (1 Hour Average)	
		Standard	
	Phenol (mg/L)	0.010	
	Hydrogen Sulfide (Undissociated) [mg/L]	0.002	
	Total Residual Chlorine (mg/L)	0.019	

Ammonia-Total (mg/L)

Season	Chronic (30-day ave) ELS Present			Acute (1-hour ave)		
	Standard	Background	Limit	Standard	Background	Limit
Summer	1.8		1.8	6.6		6.6
Fall	2.3		2.3	7.8		7.8
Winter	2.4		2.4	8.4		8.4
Spring	1.6		1.6	5.8		5.8
Season	ELS Absent					
	Standard	Background	Limit	Standard	Background	Limit
Summer	1.8		1.8	6.6		6.6
Fall	2.5		2.5	7.8		7.8
Winter	2.9		2.9	8.4		8.4
Spring	1.6		1.6	5.8		5.8

Metals-Total Recoverable

Parameter	Chronic (4-day ave)			Acute (1-hour ave)		
	Standard ¹	Background	Limit	Standard ¹	Background	Limit
Aluminum (µg/L)	87.0		87.0	750.0		750.0
Arsenic (µg/L)	150.0		150.0	340.0		340.0
Cadmium (µg/L)	1.5		1.5	4.2		4.2
Chromium VI (µg/L)	11.0		11.0	16.0		16.0
Chromium III (µg/L)	166.4		166.4	3,482		3,482
Copper (µg/L)	18.5		18.5	29.8		29.8
Cyanide (µg/L) ²	5.2			22.0		22.0
Iron (µg/L)				1,000		1,000
Lead (µg/L)	8.8		8.8	227.0		227.0
Mercury (µg/L) ²	0.012		0.012	2.4		2.4
Nickel (µg/L)	102.9		102.9	926		926
Selenium (µg/L)	4.6		4.6	18.4		18.4
Silver (µg/L)				15.1		15.1
Tributyltin (µg/L) ²	0.072		0.072	0.46		0.46
Zinc (µg/L)	236.7		236.7	236.7		236.7

1: Based upon a Hardness of 223.3 mg/l as CaCO₃

2: Background concentration assumed 67% of chronic standard

Organics [Pesticides]

Parameter	Chronic (4-day ave)		Acute (1-hour ave)	
	Standard	Limit	Standard	Limit
Aldrin (µg/L)			1.5	1.5
Chlordane (µg/L)	0.0043	0.0043	1.2	1.2
DDT, DDE (µg/L)	0.001	0.001	0.55	0.55

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Diazinon (µg/L)	0.17	0.17	0.17	0.17
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ATTACHMENT 2

Reasonable Potential Analysis

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REASONABLE POTENTIAL ANALYSIS

Water Quality has worked to improve our reasonable potential (RP) analysis for the inclusion of limits for parameters in the Permit by using an EPA provided model. As a result of the model, more parameters may be included in the renewal permit. A Copy of the Reasonable Potential Analysis Guidance (RP Guide) is available at water Quality. There are four outcomes for the RP Analysis¹. They are;

- Outcome A: A new effluent limitation will be placed in the permit.
- Outcome B: No new effluent limitation. Routine monitoring requirements will be placed or increased from what they are in the permit,
- Outcome C: No new effluent limitation. Routine monitoring requirements maintained as they are in the permit,
- Outcome D: No limitation or routine monitoring requirements are in the permit.

Summary: Based upon the policy “Reasonable Potential Analysis Guidance” developed by the Utah Division of Water Quality on September 10, 2015, and subsequently implemented beginning January 1, 2016, for all new and renewal permits, it was determined not to include any new effluent limits in this renewal permit. This is because there has been no mine water discharge data to evaluate and a more qualitative and quantitative RP analysis was not possible at this time. Monitoring for all parameters of concern, including metals, is included however, as detailed in the permit for any potential future mine water discharges. RP will be re-evaluated during the next permit cycle as appropriate. The result of the RP analysis is Outcome C: No new effluent limitation. Routine monitoring requirements maintained as they are in the permit.

¹ See Reasonable Potential Analysis Guidance for definitions of terms

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