

**FACT SHEET
CANYON FUEL COMPANY, LLC – SKYLINE MINE
UTAH POLLUTANT DISCHARGE ELIMINATION SYSTEM (UPDES)
DISCHARGE PERMIT MODIFICATION
UPDES PERMIT NUMBER: UT0023540
MAJOR INDUSTRIAL FACILITY**

FACILITY CONTACT INFORMATION

Person Name: Carson Pollastro
Position: CEO & Signatory

Person Name: Ryan Wilson
Position: Manager, Land and Regulatory Affairs

Phone Number: (970) 852-0110

Permittee Name: Canyon Fuel Company, LLC

Facility Name: Skyline Mine

Facility Location: Up Eccles Canyon from Scofield Town along State Route 264

Mailing Address: HC 35, Box 380
Helper, Utah 84526

DESCRIPTION OF FACILITY & BACKGROUND INFORMATION

The Canyon Fuel Company's Skyline Mine facility (Skyline Mine) is an underground coal mine facility with Standard Industrial Classification 1222, for bituminous underground coal mining operations. Skyline Mine is located approximately 8 miles southwest of Scofield Town, along State Route 264 in Carbon County, Utah. Skyline Mine currently has five UPDES Permit (Permit) discharge points (Outfalls 001, 002, 003, 004 & 005). For reference, an Outfall location map has been included as an attachment to this Fact Sheet.

Outfall 001, which discharges to Eccles Creek, is comprised of both the continuous mine water discharges, as well as any surface water runoff directed to the sedimentation pond from the main facility. Outfall 002 is from a sedimentation pond, which collects surface water runoff from the nearby coal load out facility located at the intersection of State Routes 264 & 96 and discharges intermittently to Eccles Creek during pond maintenance, precipitation and/or snow melt events. Outfall 002 has only discharged once in April 2023 during the past several years. Outfall 003 is from a sedimentation pond located at the off-site waste rock disposal area near Scofield Town and has not discharged to date and is not expected to discharge in the foreseeable future due to its size. If discharge were to occur it would go to UP Canyon Creek, tributary to Mud Creek and Scofield Reservoir. Outfall 004 is configured to discharge both mine water, as well as any surface water runoff directed to the sedimentation pond from the Winter Quarters Canyon ventilation

shaft facility location near Scofield Town. Outfall 004 first began discharging mine water in May 2020 to Winter Quarters Canyon Creek, which is also tributary to Mud Creek and Scofield Reservoir, to safely dewater and operate the active mining areas at the time. Prior to May 2020, any and all mine water discharges were discharged via Outfall 001. Outfall 004 ceased discharging operations in late 2023 and will likely not discharge again in the foreseeable future as mine dewatering operations have moved away from the area. Outfall 005, which began discharging in 2022, enables a portion of the mine water discharges that would otherwise discharge via Outfall 001, to be discharged directly into Electric Lake, which is tributary to Huntington Creek. Outfalls 001 & 005 are the primary discharge points while the other Outfalls remain in the Permit for any potential future discharges as appropriate.

On January 28, 2026, Skyline Mine experienced an unanticipated inundation of water forcing evacuation of the employees and a shutdown of mining operations due the inflow of water estimated at 15,000 gallons per minute. As part of initial agency notifications, Skyline Mine submitted a Notice of Emergency Unanticipated Bypass letter to Division of Water Quality, dated January 29, 2026, following provisions in part VI.G.3.b & c of the Permit. The notification letter is included for reference as an attachment to this Fact Sheet. To mitigate the inundation of excess water in Skyline Mine, additional pumping and dewatering operations are required to be installed in order to safely restart mining operations.

PERMIT MODIFICATION REQUEST

Due to the unanticipated and urgent nature of the necessary dewatering, Skyline Mine has requested a temporary increase to some of the discharge requirements for Outfall 005 following provisions for a Permit modification found in Utah Administrative Code (UAC) R317-8-5.6. Skyline Mine is currently undertaking emergency pumping activities to dewater portions of the mine that have been recently flooded since early February 2026 in order to safely restart mining operations. This emergency activity requires installing pumps from the surface into the underground mine. The underground portions of the flooded mine are not currently accessible, and water quality within the mine cannot be further controlled until safely dewatered and accessible. Due to the unknown water quality within flooded portions of the mine, this request for a temporary increase to some of the water quality parameters was submitted to accommodate the emergency pumping activities.

Skyline Mine anticipates the proposed increases will be needed for up to the first eleven (11) months of this modified Permit until the Mine is initially dewatered for safe operations, and also indicated that a lesser time period would not provide enough time to fully dewater the mine workings. The water quality parameters that are anticipated to potentially exceed existing Permit effluent limits during this time period include Total Dissolved Solids (TDS), Total Suspended Solids (TSS), and Total Iron, while other Permit parameters are not anticipated to exceed existing Permit effluent limits based on recent monitoring of the mine water by Skyline Mine. All Permit parameters will continue to be closely monitored as required in the Permit.

Skyline Mine has requested that the daily maximum TDS effluent limit be temporarily increased from 235 mg/L to 500 mg/L, which is still below the existing TDS limit of 1,200 mg/L for all other outfalls at Skyline Mine, as well as other UPDES Permits in Utah, which is derived from State Water Quality Standards found in UAC R317-2-14 as discussed further in the **Basis for Effluent Limitations** section of this Fact Sheet. The proposed increased TDS limit of 500 mg/L is still considered of “high-quality” or “fresh water” and is consistent with national drinking water standards criteria.

The existing Permit effluent limitation for TSS has been requested to temporarily increase from 31 mg/L to 60 mg/L, which is still below the existing TSS limit of 70 mg/L for all other outfalls at Skyline Mine, as

well as other similar type UPDES Permits in Utah, which is derived from applicable Federal Regulation Effluent Limit Guidelines as discussed further in the **Basis for Effluent Limitations** section of this Fact Sheet. Of note, is that during periods of runoff and other precipitation events, the tributaries to Electric Lake are often higher in TSS concentrations as naturally occurring.

Regarding Total Iron, Skyline Mine has requested that the daily maximum effluent limit be temporarily increased from 0.45 mg/L up to 3.0 mg/L, which directly aligns with applicable Federal Regulation Effluent Limit Guidelines as discussed further in the **Basis for Effluent Limitations** section of this Fact Sheet. Also, a supplemental evaluation report prepared by Peterson Hydrologic has been provided as a reference to help explain the expected increases in Total Iron and indicates that the maximum Total Iron concentration, as recently measured by Skyline Mine, was 1.26 mg/L. Thereby, a temporary increase to 2.0 mg/L as an interim effluent limit, rather than 3.0 mg/L, has been included in the modified Permit as discussed further in the **Basis for Outfall 005 Effluent Limitations** section of this Fact Sheet.

Skyline Mine's request also indicates that continuing mine water discharges via Outfall 005 will also help to bolster the supply of water in Electric Lake and within the downstream watershed as low snowpack and drought conditions are currently being experienced. This proposed temporary request for interim effluent limits is neither anticipated to impair the existing beneficial uses of the receiving water, nor the aquatic habitat of Electric Lake or immediately downstream in Huntington Creek. The Permit modification request and supplemental report information have been included as an attachment to this Fact Sheet.

BASIS FOR PERMIT MODIFICATION

As mentioned previously, the Permit modification request follows provisions in UAC R317-8-5.6(1), which states in part “...A permit may be modified if the Director determines good cause exists for modification [of a compliance schedule], such as an act of God, strike, flood or materials shortage or other events over which the permittee has little or no control and for which there is no reasonably available remedy.” Upon reviewing all available information and relevant factors, the permitting authority has determined that the Permit modification request by Skyline Mine is applicable at this time. This determination is based upon the following reasonable factors:

1. Skyline Mine is currently undertaking emergency pumping activities to dewater portions of the mine that have been recently flooded since February 2026 in order to safely restart mining operations. This emergency activity requires installing pumps from the surface into the underground mine. The underground portions of the flooded mine are not currently accessible, and water quality within the mine cannot be further controlled until safely dewatered and accessible.
2. The length of time during which the interim effluent limits will be in place is anticipated to be less than a year (i.e., 11 months) as requested by Skyline Mine. Less than a year's time is generally considered to be temporary in nature rather than non-temporary or long-term (i.e., years).
3. The primary pollutants of concern affected are TSS, TDS, and Total Iron, as mentioned previously, for which the proposed increased temporary effluent limits are aligned with the other Skyline Mine outfalls, and/or with other similar permits in Utah. Other Permit parameters, such as pH and metals (excluding Total Iron), are not anticipated to exceed the existing Permit effluent limits or Water Quality Standards, which are based on recent Skyline Mine monitoring of mine water. All Permit parameters will continue to be closely monitored as required in the Permit.
4. Any changes in ambient concentrations of the pollutants of concern in the receiving waters are not expected to have long term effects as the duration of the proposed temporary effluent limit increases is expected to be temporary as mentioned previously. For reference, the receiving water of Electric Lake can be over 1,000 times greater in size (when full) than the discharges via Outfall 005. As of

April, 2026, Electric Lake level is approximately 8,500 acre feet of water (or 2,770 million gallons), while the maximum discharges to date from Outfall 005 into Electric Lake have been 3.5 to 7 million gallons per day (MGD), and which may increase by 2-3 times that amount during the emergency dewatering activities.

5. No impairments to the existing aquatic wildlife or beneficial uses of the receiving waters are expected as a result of the proposed temporary effluent limit increases, however, Skyline Mine will be expected to closely monitor and immediately report any potential issues observed in the discharges and receiving waters as detailed in the Permit.
6. Concurrently, Skyline Mine shall complete a geochemical mixing model report that will be used to evaluate potential hydrogeochemical changes from Outfall 005 discharges in Electric Lake regarding any potential water quality degradation from the proposed increased discharges. A static model that incorporates the range in individual monitoring constituents is recommended; however, a rate-kinetic model may also be utilized. The modeling results and a report describing the geochemical modeling shall be provided to the Director within one year from the date of permit issuance. Once the report has been submitted to the Director, the permit may be reopened and modified to include more protective effluent limits based upon the study itself, or subsequent Reasonable Potential Analysis of all new data sets, or other relevant information as provided.

SUMMARY OF PERMIT CHANGES

The Permit has been modified with the following proposed changes:

1. Temporary interim effluent limits have been included for TSS, TDS and Total Iron, which shall be in effect only during the first eleven (11) months of the modified Permit period, after which time shall no longer be in effect.
2. Monitoring for TDS and Total Iron have been increased from twice per month to weekly sampling events during the first eleven (11) months of the modified Permit period to better align with the existing TSS monitoring requirements. Additionally, as part of the weekly monitoring activities, Skyline Mine shall perform comparison field monitoring of the receiving waters for pH, turbidity, total iron and conductivity, as well as visually observing and documenting the condition of the discharge and receiving waters for any potential water quality concerns, such as discoloration, turbidity, sediment transport, effects on wildlife, and/or any unnatural deposits as described in the Permit.
3. In addition to Total Metals Monitoring, Dissolved Metals, including dissolved iron, shall also be monthly monitored for Outfall 005 during the first eleven (11) months of this Permit.
4. Skyline Mine shall complete a geochemical mixing model report that will be used to evaluate potential hydrogeochemical changes from Outfall 005 discharges in Electric Lake regarding any potential water quality degradation from the proposed increased discharges. The modeling results and a report describing the geochemical modeling shall be provided to the Director within one year from the date of permit issuance.

These are the only changes proposed with this Permit modification that are subject to public comment during the public notice period. All other Permit limitations and monitoring requirements remain unchanged at this time.

DISCHARGE INFORMATION

DESCRIPTION OF DISCHARGE

Skyline Mine has been reporting self-monitoring results via Discharge Monitoring Reports (DMRs) on a monthly basis as required. The Permit Outfalls and discharge locations remain unchanged as follows:

<u>Outfall</u>	<u>Description of Discharge Point</u>
001	Located at Latitude 39° 41' 04", Longitude 111° 12' 04". Outfall from sedimentation pond and mine water discharges to Eccles Creek.
002	Located at Latitude 39° 41' 05", Longitude 111° 09' 23". Outfall from sedimentation pond at the load-out facility discharging to Eccles Creek.
003	Located at Latitude 39° 43' 13", Longitude 111° 09' 13". Outfall from sedimentation pond associated with the waste rock disposal site discharging to UP Canyon Creek.
004	Located at Latitude 39° 43' 13", Longitude 111° 11' 59". Outfall from sedimentation pond and mine water discharges to Winter Quarters Canyon Creek.
005	Located at Latitude 39° 38' 58", Longitude 111° 14' 22". Outfall for mine water discharges into Electric Lake.

RECEIVING WATERS AND STREAM CLASSIFICATION

The receiving waters of Eccles Creek, UP Canyon Creek, Winter Quarters Canyon Creek and Electric Lake are all classified according to Utah Administrative Code (UAC) R317-2-13.1. b as follows:

- Class 1C -- Protected for domestic purposes with prior treatment by treatment processes as required by the Utah Division of Drinking Water
- 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 3A -- Protected for cold water species of game fish and other cold-water aquatic life, including the necessary aquatic organisms in their food chain.
- Class 4 -- Protected for agricultural uses including irrigation of crops and stock watering.

Additionally, the receiving water of Electric Lake for Outfall 005 is classified as High Quality Waters – Category 2, as listed in UAC R317-2-12.2 and defined in UAC R317-2-3.3. The existing Permit requirements and limitations for Outfall 005 were previously developed to maintain the existing water quality of Electric Lake. For reference, a similar UPDES Permit (UT0025534) was issued by DWQ to PacifiCorp in 2000, in conjunction with Skyline Mine, for discharges from the nearby James Canyon Wells and pipeline into Electric Lake, which has since ceased UPDES Permit discharge operations. While degradation of water quality is generally prohibited in Category 2 waterbodies, the water quality effects as a result of temporary and limited interim effluent limits is provided for in UAC R317-2-3.5.b.4.

TOTAL MAXIMUM DAILY LOAD (TMDL) INFORMATION

According to the Utah's [Final 2024 Integrated Report on Water Quality](#) dated April 30, 2024 (UDWQ, 2024), the receiving water for Outfalls 001 through 004 effluent discharge "*Scofield Tributaries*, (AU name: *Scofield Tributaries* AU ID: *UT14060007-002_00*)", are listed as "Not Supporting" for Maximum Temperature, Minimum Dissolved Oxygen, and pH. A TMDL is needed, however, the priority is stated as "Low". Downstream "*Scofield Reservoir*, (AU name: *Scofield Reservoir*, AU ID: *UT-L-14060007-005_00*)" is listed as "Not Supporting" for Eutrophication, Harmful Algal Blooms, Minimum Dissolved Oxygen, pH and Total Phosphorus as P. The Scofield Reservoir TMDL was completed to address the impairment for pH, dissolved oxygen, and total phosphorus. Skyline Mine did not receive a waste load allocation (UDWQ, 2015).

The receiving water for Outfall 005 effluent discharge "*Electric Lake Tributaries*, (AU name: *Electric Lake Tributaries* AU ID: *UT14060009-001_00*)", are listed as "Insufficient Data". Downstream "*Electric Lake*, (AU name: *Electric Lake*, AU ID: *UT-L-14060009-025_00*)" is listed as "No Evidence of Impairment".

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 UAC R317-8-4.2, effluent limitations are derived from technology-based effluent limitations guidelines and/or Utah Water Quality Standards found in UAC 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 Permit modification development process, a WLA and Level I ADR was performed and concluded that a Level II ADR was required since there is a proposed increase in total effluent flow as compared to the previous permit (for Outfall 005 only). The separate Level II ADR was completed by the Mine and submitted to DWQ as part the Permit modification request information as required. The separate Level II ADR concluded that the proposed increase in flow for Outfall 005 from additional future dewatering operations is not only needed to continue safely operating the Mine, but is also the most practicable and preferred treatment option regarding antidegradation efforts. 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 for **Outfalls 001 through 004**:

- 1) Since the Skyline 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 434.40. 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. Skyline 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 for pH remain consistent, as derived from Utah Water Quality Standards found in UAC R317-2-14.
- 3) The Dissolved Oxygen daily minimum Permit limitation remains consistent from past Permits, as originally based upon Utah Water Quality Standards found in UAC R317-2-14 Table 2.14.2, and with previous WLA recommendations.
- 4) TDS are limited in the Permit by both mass loading and concentration requirements as described below:
 - a. Since discharges from Skyline Mine are within the Colorado River Basin, TDS mass loading is limited according to policies established by the Colorado River Basin Salinity Control Forum (Forum), as authorized in UAC 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. Based on Forum Policy, provisions have previously been made for salinity-offset projects to account for any TDS loading in excess of the tons per day Permit requirement as a sum of all discharges. Therefore, salinity-offset provisions have once again been included in the Skyline Mine permit as the facility remains current on the requirements included therein to account for any and all excess TDS loading. These provisions and requirements, as described further in both the permit and in this Fact Sheet, will remain in Skyline Mine's renewal permit as appropriate.
 - b. Limitations on TDS concentrations are limited by the Utah Water Quality Standard found in UAC R317-2-14, Table 2.14.1. and shall apply to Outfalls 001 through 004 as appropriate.
- 5) The iron limitation is based upon the Utah Water Quality Standard of 1.0 mg/L for dissolved iron (found in UAC R317-2 Table 2.14.2) as well as the WLA limitation of 1.0 mg/L for total recoverable iron. Total recoverable iron is a more stringent limit than dissolved iron since the dissolved component is a part of the total recoverable component. Therefore, the existing permit limit of 1.0 mg/L for total recoverable iron will remain in the renewal permit and shall apply to Outfalls 001 through 004 as appropriate.
- 6) Oil and Grease concentrations are limited to 10 mg/L by BPJ of the permitting authority to be consistent with other similar UPDES Permits.

Basis for Outfall 005 Effluent Limitations

Since Outfall 005 discharges into a Category 2 receiving water body as mentioned previously, a separate

WLA was also recently conducted in 2025 and once again in 2026 as part of this Permit modification process. As expected, the effluent limitations for Outfall 005 are more restrictive than those of the other Permit outfalls. This includes concentration limitations for TDS, TSS and Total Iron as derived from the recent WLAs and original 2020 WLA as well. The existing and previous Daily Maximum effluent Permit limits for TDS, TSS and Total Iron remained unchanged since 2020 and are derived from the 80th percentile of the Upper Lake tributaries data set as previously evaluated. Regarding TDS loading requirements for Outfall 005, no tons per day loading limit is applicable while the concentration of TDS is equal to or less than 500 mg/L as a 30-day average (CRBSCF Policy “fresh-water waiver” criteria). Permit limits for pH, dissolved oxygen, and oil & grease remain unchanged since 2020 and are consistent with the other Permit outfalls based upon Utah Water Quality Standards and BPJ of the permitting authority.

Regarding the Temporary Interim effluent limits proposed as part of this Permit modification for TDS, TSS and Total Iron, the following list provides a reasonable, factual basis for each concentration limit as selected for **Outfall 005**:

- 1) Temporarily increasing the effluent TDS concentration limit from 235 mg/L to 500 mg/L is based upon maintaining levels that are considered of “high-quality” or “fresh water” and consistent with applicable TDS drinking water standard criteria as mentioned previously.
- 2) Temporarily increasing the effluent TSS concentration limit from 31 mg/L to 60 mg/L is based upon, albeit lower than, the existing TSS limit of 70 mg/L for all other outfalls at Skyline Mine, as well as other similar type UPDES Permits in Utah, which is based upon 40 C.F.R. § Part 434.40 as mentioned previously.
- 3) Temporarily increasing the effluent Total Iron concentration limit from 0.45 mg/L to 2.0 mg/L is initially based upon 40 C.F.R. § Part 434.45 for new source performance standards, which includes a monthly average limitation of 3.0 mg/L. Skyline Mine requested a daily maximum effluent limitation up to 3.0 mg/L during the eleven (11) month Permit Interim dewatering period, which is a more protective limitation when compared to the daily maximum limitation of 6.0 mg/L found in 40 C.F.R. § Part 434.45. The maximum Total Iron concentration value of mine water as recently field measured by Skyline Mine resulted in 1.26 mg/L. Thereby, a temporary increase to 2.0 mg/L as an interim effluent limit, rather than 3.0 mg/L, has been included in the modified Permit based upon BPJ of the permitting authority to be more protective of the receiving waters, while still allowing for potential increases above the maximum value as recently measured.

For reference, the proposed temporary increases in TDS, TSS and Total Iron effluent limits are each aligned with other corresponding historical and existing UPDES Permits and discharge outfalls into Huntington Creek, located immediately downstream of Electric Lake (i.e., UPDES Permits UT0024368 and UT0023604).

The Permit effluent limitations remain unchanged for Outfalls 001 002, 003 & 004 as follows:

OUTFALLS 001, 002, 003, & 004

Parameter, Units	Effluent Limitations *a		
	Maximum Monthly Average	Daily Minimum	Daily Maximum
Total Effluent Flow, million gallons/day (MGD), *b	Report	--	Report

Total Iron, mg/L	--	--	1.0
Total Suspended Solids (TSS), mg/L	Report	--	70
Total Dissolved Solids (TDS), mg/L, *c	Report	--	1,200
TDS, tons/day, *c	Report	--	--
Dissolved Oxygen, mg/L	--	5.0	--
pH, Standard Units (SU)	--	6.5	9.0
Turbidity, NTU *f	--	--	Report
Temperature, °C	--	--	Report
Oil & Grease, mg/L, *d	--	--	10
Whole Effluent Toxicity (WET) Chronic Biomonitoring (Outfalls 001 & 004 only) *g	--	--	IC ₂₅ > 100% effluent
Total Metals, mg/L, *e	--	--	Report

The Permit effluent limitations, including interim limits as modified for Outfall 005 are as follows:

OUTFALL 005

Parameter, Units	Effluent Limitations *a		
	Maximum Monthly Average	Daily Minimum	Daily Maximum
Total Effluent Flow, MGD, *b	Report	--	Report
Total Iron, mg/L	--	--	0.45
Total Iron Interim Limit *h	--	--	2.0
TSS, mg/L	Report	--	31
TSS Interim Limit *h	--	--	60
TDS, mg/L, *c	Report	--	235
TDS Interim Limit *h	--	--	500
TDS, tons/day, *c	Report	--	--
Dissolved Oxygen, mg/L	--	5.0	--
pH, SU	--	6.5	9.0
Turbidity, NTU *f	--	--	Report
Temperature, °C	--	--	Report
Oil & Grease, mg/L, *d	--	--	10
Whole Effluent Toxicity (WET) Chronic Biomonitoring *g	--	--	IC ₂₅ > 100% effluent
Metals, mg/L, *e	--	--	Report

SELF-MONITORING AND REPORTING REQUIREMENTS

The following self-monitoring requirements are similar to the previous Permit with the additional monitoring requirements as mentioned previously. The Permit requires reports to be submitted monthly and quarterly as applicable, on DMR forms due 28 days after the end of each monitoring period. Effective January 1, 2017, monitoring results shall be submitted using NetDMR unless the permittee has successfully petitioned for an exception. Lab reports for biomonitoring, metals and toxic organics shall be attached to the DMRs when applicable.

ALL OUTFALLS (Unless stated otherwise)

Self-Monitoring and Reporting Requirements *a			
Parameter	Frequency	Sample Type	Units
Total Flow, *b	Continuous/Monthly	Recorder/Measured	MGD
Total Iron, *i	Weekly/Twice Monthly	Grab	mg/L
TSS	Weekly	Grab	mg/L
TDS, *c, *i	Weekly/Twice Monthly	Grab	mg/L & tons/day
pH	Weekly	Grab	SU
Oil & Grease, *d	Weekly, Twice Monthly	Grab, Visual	mg/L, Yes/No
Turbidity, *f	Monthly	Grab	NTU
Temperature	Monthly	Grab	°C
Dissolved Oxygen	Monthly	Grab	mg/L
Chronic WET Biomonitoring (Outfalls 001, 004 & 005), *g	Quarterly	Composite	Pass/Fail
Total Metals, *e (Outfalls 001, 004 & 005)	Monthly	Grab	mg/L
Dissolved Metals, *e (Outfall 005 only)	Monthly	Grab	mg/L

*a See Definitions, Part VIII, for definition of terms.

*b Flow measurements of the effluent volume shall be made in such a manner that the Permittee can affirmatively demonstrate that representative values are being obtained. Mine water discharges via Outfalls 001, 004 & 005 shall be continuously measured. If the rate of discharge is controlled, such as from intermittent discharging outfalls, the rate and duration of discharge shall be reported. Wastewater shall be discharged in a manner to prevent erosion, scouring, or damage to the Outfall location structures.

*c The TDS concentration from each of the Outfalls shall not exceed the daily maximum limit. No tons per day loading limit will be applied if the concentration of TDS from each outfall is equal to or less than 500 mg/L as a 30-day average. However, if the 30-day average concentration exceeds 500 mg/L, then the permittee cannot discharge more than 7.1 tons per day as a sum from all discharge points. Upon previous determinations by the Director, if the permittee is not able to meet the 500 mg/L 30-day average or the 7.1 tons per day loading limit, then the permittee is required to continue to participate in and/or fund a salinity offset project to include the 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 7.1 tons per day loading limit. The tonnage reduction from the offset project must be calculated by a method similar to one used by the NRCS, Colorado River Basin Salinity Control Forum, and/or other applicable agency.

A monitoring and adjustment plan to track the TDS credits shall continue to be submitted to DWQ 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.

- *d Weekly oil & grease sample analyses shall be conducted at Outfalls 001, 004 & 005 when discharging. At outfalls 002 & 003, oil & grease monitoring shall initially be a visual test conducted at least twice per month. If any oil and/or grease sheens are observed visually, or there is any other reason to believe that oil and/or grease may be present in the discharge, then a grab sample of the effluent must be immediately taken and this sample shall not exceed 10 mg/L. There shall be no visible sheen or 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.
- *e Total Recoverable Metals monthly monitoring is required for all Outfalls. Additionally, Dissolved Metals monthly monitoring is required for Outfall 005 only during the first eleven (11) months of this Permit. All Metals monitoring shall utilize sufficiently sensitive standard test methods, reporting limits and certified laboratories to include; aluminum, arsenic, cadmium, chromium, copper, iron, lead, mercury, nickel, selenium, silver, and zinc.
- *f Turbidity monitoring shall be conducted at least monthly whenever possible from all discharging Outfalls and their receiving water to demonstrate that there is not an increase of more than 10 nephelometric turbidity units (NTU) over the respective receiving waters, when applicable.
- *g Quarterly WET testing shall alternate the test species as follows: Ceriodaphnia dubia (water flea) shall be tested during the 1st and 3rd quarters and Pimephales promelas (fathead minnows) shall be tested during the 2nd and 4th quarters.
- *h Interim effluent limits have been incorporated for these parameters and shall be in effect during the first eleven (11) months of the modified permit, after which time shall no longer be in effect.
- *i Total Iron and TDS monitoring shall be weekly during the first eleven (11) months of the modified permit, after which time shall revert back to twice/monthly monitoring. Additionally, as part of the weekly monitoring activities during the first eleven (11) months of the modified permit, the permittee shall perform field monitoring of the receiving waters for pH, turbidity, total iron and conductivity, as well as visually observing and documenting the condition of the discharge and receiving waters for any potential water quality concerns, such as discoloration, turbidity, sediment transport, effects on wildlife, and/or any unnatural deposits.

PERMIT DURATION

It is recommended that this modified Permit be effective for the remainder of the five (5) year Permit period.

Drafted and Reviewed by
Jeff Studenka, Discharge Permit Writer
Amy Dickey, TMDL/Watershed Protection
Nick Von Stackelberg, Watershed Protection Section
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PUBLIC NOTICE INFORMATION (to be updated after)

Began:
Ended:

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 UAC 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 UAC 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 UAC R317-8-5.6(3)

Responsiveness Summary

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

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ATTACHMENT 1

*Permit Modification Request & Total Iron Evaluation
Supplemental Information
(DWQ-2026-001898)*



Canyon Fuel Company, LLC
9815 S Monroe St, Suite 203
Sandy, UT 84070
Telephone (970) 852-0110
RWilson@wolverinefuels.com

April 2, 2026

Utah Division of Water Quality
Attn: Jeff Studenka
PO Box 144870
Salt Lake City, UT 84114-4880

Re: UPDES Industrial Permit Revision UT0023540 – Skyline Mine

Dear Mr. Studenka,

Canyon Fuel Company, LLC (CFC) respectfully requests a revision to the currently authorized UPDES permit to temporarily increase the quality parameters through Outfall 005 of the above referenced permit. Enclosed with this letter is an Industrial Permit Application requesting this revision to include a temporary and limited exceedance provision.

In order to expedite this review process, CFC acknowledges and agrees to pay the costs incurred for any needed analysis.

Should you need any additional information, please feel free to contact me at the phone number or email address above. We appreciate the Division's prompt attention to this matter.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Ryan Wilson'.

Ryan Wilson
Manager of Land and Regulatory Affairs
Canyon Fuel Company, LLC

Enclosures



Division of Water Quality (DWQ) UPDES Program

UPDES Industrial Permit Application

Part I. General Information (40 CFR 122.21(j)(1) and (9))

Permit Status: ☐ Renewal ☐ New Permit

UPDES Permit No.: _____ ☐ New Permit; UPDES Permit # Not Available

Facility Name: _____

Facility Location: _____

City _____ State _____ Zip _____

Facility Mailing Address: _____

City _____ State _____ Zip _____

Facility Contact: _____ **Title:** _____

Phone Number: _____ **Email Address:** _____

Name of Signatory: _____ **Title:** _____

Is the applicant the facility owner, operator or both? (check only one response.)

☐ Owner ☐ Operator ☐ Both

Indicate below any existing environmental permits. (Check all that apply and type the corresponding permit number for each.)

☐ RCRA (hazardous waste) ☐ UIC (underground injection control) ☐ PSD (air emissions)

☐ Nonattainment program (CAA) ☐ NESHAPs (CAA) ☐ Dredge or fill (CWA Section 404)

☐ Other (specify) _____

Nature of Business CFR (40 CFR 122.21(f)(8))

Describe the nature of your business

Division of Water Quality (DWQ) UPDES Program

UPDES Industrial Permit Application

Part II. Facility Information

Design and Actual Flow Rates

Provide design and actual flow rates in designated spaces.

Maximum Design Flow Rate

mgd

Annual Average Flow Rates (Actual)

Five Years Ago		Four Years Ago		Three Years Ago	
	mgd		mgd		mgd
Two Years Ago		Last Year		Current Year	
	mgd		mgd		mgd

Maximum Daily Flow Rates (Actual)

Five Years Ago		Four Years Ago		Three Years Ago	
	mgd		mgd		mgd
Two Years Ago		Last Year		Current Year	
	mgd		mgd		mgd

Describe the treatment for each outfall*

	Outfall Number		Outfall Number		Outfall Number	
Level of Treatment						
Primary	Treatment Unit		Treatment Unit		Treatment Unit	
	Size		Size		Size	
	Flow rate		Flow rate		Flow rate	
	Retention time		Retention time		Retention time	
	Other		Other		Other	
Equivalent to secondary	Treatment Unit		Treatment Unit		Treatment Unit	
	Size		Size		Size	
	Flow rate		Flow rate		Flow rate	
	Retention time		Retention time		Retention time	
	Other		Other		Other	



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Part II. Facility Information *continued*

Describe the treatment for each outfall* *continued*

		Outfall #		Outfall #		Outfall #	
Secondary	Treatment Unit		Treatment Unit		Treatment Unit		
	Size		Size		Size		
	Flow rate		Flow rate		Flow rate		
	Retention time		Retention time		Retention time		
	Other		Other		Other		
Advanced	Treatment Unit		Treatment Unit		Treatment Unit		
	Size		Size		Size		
	Flow rate		Flow rate		Flow rate		
	Retention time		Retention time		Retention time		
	Other		Other		Other		
Other (specify)	Treatment Unit		Treatment Unit		Treatment Unit		
	Size		Size		Size		
	Flow rate		Flow rate		Flow rate		
	Retention time		Retention time		Retention time		
	Other		Other		Other		

* The data can be entered in the section above or an excel spreadsheet. Attached additional sheets if needed.

Production

Outfall Number	Operation, Product, or Material	Quantity per Day	Unit of Measure

Division of Water Quality (DWQ) UPDES Program

UPDES Industrial Permit Application

Part II. Facility Information *continued*

BLUEPRINT: Attach a line drawing that shows the water flow through your facility with a water balance.

☐ Line Drawing/Blueprint Attached

MAP: Attach a USGS topographic map or aerial photo extending one mile beyond the property boundaries of the site, the facility or activity boundaries, any treatment area(s), outfall(s), major drainage patterns, and the receiving surface waters stated above.

☐ Map Attached

Are improvements to the facility scheduled?

☐ YES If YES, explain below.

☐ NO If NO, Skip to Part III

Briefly list and describe the schedule improvements.

1.	
2.	
3.	
4.	

Provide scheduled or actual dates of completion for improvements.

Scheduled or Actual Dates of Completion for Improvements

Scheduled Improvement (from above)	Affected Outfalls (list outfall number)	Begin Construction (MM/DD/YYYY)	End Construction (MM/DD/YYYY)	Begin Discharge (MM/DD/YYYY)	Attainment of Operational Level (MM/DD/YYYY)
1.					
2.					
3.					
4.					

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Part III. Sampling Information

Provide all parameter sampling data with analytical results, reporting limit and any laboratory flags on an Excel or similar spreadsheet. *An Excel Spreadsheet template may be provided upon request.*

Has WET testing been conducted during the last 5 years? ☐ YES ☐ NO

Indicate the acute and chronic WET tests (PASS or FAIL) results for the past 5 years. If no WET testing for the quarter, then leave blank (e.g., for semi-annual or annual testing or missed testing events).

Year	Outfall No. _____		Outfall No. _____		Outfall No. _____		Outfall No. _____		Outfall No. _____			
	Acute	Chronic	Acute	Chronic	Acute	Chronic	Acute	Chronic	Acute	Chronic		
	Qtr 1	☐ PASS ☐ FAIL	Qtr 1	☐ PASS ☐ FAIL	Qtr 1	☐ PASS ☐ FAIL	Qtr 1	☐ PASS ☐ FAIL	Qtr 1	☐ PASS ☐ FAIL	Qtr 1	☐ PASS ☐ FAIL
	Qtr 2	☐ PASS ☐ FAIL	Qtr 2	☐ PASS ☐ FAIL	Qtr 2	☐ PASS ☐ FAIL	Qtr 2	☐ PASS ☐ FAIL	Qtr 2	☐ PASS ☐ FAIL	Qtr 2	☐ PASS ☐ FAIL
	Qtr 3	☐ PASS ☐ FAIL	Qtr 3	☐ PASS ☐ FAIL	Qtr 3	☐ PASS ☐ FAIL	Qtr 3	☐ PASS ☐ FAIL	Qtr 3	☐ PASS ☐ FAIL	Qtr 3	☐ PASS ☐ FAIL
	Qtr 4	☐ PASS ☐ FAIL	Qtr 4	☐ PASS ☐ FAIL	Qtr 4	☐ PASS ☐ FAIL	Qtr 4	☐ PASS ☐ FAIL	Qtr 4	☐ PASS ☐ FAIL	Qtr 4	☐ PASS ☐ FAIL
	Qtr 1	☐ PASS ☐ FAIL	Qtr 1	☐ PASS ☐ FAIL	Qtr 1	☐ PASS ☐ FAIL	Qtr 1	☐ PASS ☐ FAIL	Qtr 1	☐ PASS ☐ FAIL	Qtr 1	☐ PASS ☐ FAIL
	Qtr 2	☐ PASS ☐ FAIL	Qtr 2	☐ PASS ☐ FAIL	Qtr 2	☐ PASS ☐ FAIL	Qtr 2	☐ PASS ☐ FAIL	Qtr 2	☐ PASS ☐ FAIL	Qtr 2	☐ PASS ☐ FAIL
	Qtr 3	☐ PASS ☐ FAIL	Qtr 3	☐ PASS ☐ FAIL	Qtr 3	☐ PASS ☐ FAIL	Qtr 3	☐ PASS ☐ FAIL	Qtr 3	☐ PASS ☐ FAIL	Qtr 3	☐ PASS ☐ FAIL
	Qtr 4	☐ PASS ☐ FAIL	Qtr 4	☐ PASS ☐ FAIL	Qtr 4	☐ PASS ☐ FAIL	Qtr 4	☐ PASS ☐ FAIL	Qtr 4	☐ PASS ☐ FAIL	Qtr 4	☐ PASS ☐ FAIL
	Qtr 1	☐ PASS ☐ FAIL	Qtr 1	☐ PASS ☐ FAIL	Qtr 1	☐ PASS ☐ FAIL	Qtr 1	☐ PASS ☐ FAIL	Qtr 1	☐ PASS ☐ FAIL	Qtr 1	☐ PASS ☐ FAIL
	Qtr 2	☐ PASS ☐ FAIL	Qtr 2	☐ PASS ☐ FAIL	Qtr 2	☐ PASS ☐ FAIL	Qtr 2	☐ PASS ☐ FAIL	Qtr 2	☐ PASS ☐ FAIL	Qtr 2	☐ PASS ☐ FAIL
	Qtr 3	☐ PASS ☐ FAIL	Qtr 3	☐ PASS ☐ FAIL	Qtr 3	☐ PASS ☐ FAIL	Qtr 3	☐ PASS ☐ FAIL	Qtr 3	☐ PASS ☐ FAIL	Qtr 3	☐ PASS ☐ FAIL
	Qtr 4	☐ PASS ☐ FAIL	Qtr 4	☐ PASS ☐ FAIL	Qtr 4	☐ PASS ☐ FAIL	Qtr 4	☐ PASS ☐ FAIL	Qtr 4	☐ PASS ☐ FAIL	Qtr 4	☐ PASS ☐ FAIL
	Qtr 1	☐ PASS ☐ FAIL	Qtr 1	☐ PASS ☐ FAIL	Qtr 1	☐ PASS ☐ FAIL	Qtr 1	☐ PASS ☐ FAIL	Qtr 1	☐ PASS ☐ FAIL	Qtr 1	☐ PASS ☐ FAIL
	Qtr 2	☐ PASS ☐ FAIL	Qtr 2	☐ PASS ☐ FAIL	Qtr 2	☐ PASS ☐ FAIL	Qtr 2	☐ PASS ☐ FAIL	Qtr 2	☐ PASS ☐ FAIL	Qtr 2	☐ PASS ☐ FAIL
	Qtr 3	☐ PASS ☐ FAIL	Qtr 3	☐ PASS ☐ FAIL	Qtr 3	☐ PASS ☐ FAIL	Qtr 3	☐ PASS ☐ FAIL	Qtr 3	☐ PASS ☐ FAIL	Qtr 3	☐ PASS ☐ FAIL
	Qtr 4	☐ PASS ☐ FAIL	Qtr 4	☐ PASS ☐ FAIL	Qtr 4	☐ PASS ☐ FAIL	Qtr 4	☐ PASS ☐ FAIL	Qtr 4	☐ PASS ☐ FAIL	Qtr 4	☐ PASS ☐ FAIL
	Qtr 1	☐ PASS ☐ FAIL	Qtr 1	☐ PASS ☐ FAIL	Qtr 1	☐ PASS ☐ FAIL	Qtr 1	☐ PASS ☐ FAIL	Qtr 1	☐ PASS ☐ FAIL	Qtr 1	☐ PASS ☐ FAIL
	Qtr 2	☐ PASS ☐ FAIL	Qtr 2	☐ PASS ☐ FAIL	Qtr 2	☐ PASS ☐ FAIL	Qtr 2	☐ PASS ☐ FAIL	Qtr 2	☐ PASS ☐ FAIL	Qtr 2	☐ PASS ☐ FAIL
	Qtr 3	☐ PASS ☐ FAIL	Qtr 3	☐ PASS ☐ FAIL	Qtr 3	☐ PASS ☐ FAIL	Qtr 3	☐ PASS ☐ FAIL	Qtr 3	☐ PASS ☐ FAIL	Qtr 3	☐ PASS ☐ FAIL
	Qtr 4	☐ PASS ☐ FAIL	Qtr 4	☐ PASS ☐ FAIL	Qtr 4	☐ PASS ☐ FAIL	Qtr 4	☐ PASS ☐ FAIL	Qtr 4	☐ PASS ☐ FAIL	Qtr 4	☐ PASS ☐ FAIL

Describe any cause(s) of toxicity:

Were the above WET analysis submitted to Utah DWQ?

☐ YES

☐ NO



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Part IV. Compliance Information

Has the facility had and parameter exceedances over the past five years? ☐ YES ☐ NO

If Yes, provide the below information:

Parameter	Exceedance	Month/Year	Cause



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Facility monitoring data.

[illegible]

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Part V. Outfalls and Receiving Water(s)

Provide the latitude and longitude to the nearest second for each dewatering outfall. The specified location should be after all treatment and before release to the receiving water. Provide the name of the initial receiving water. If the initial receiving water is unnamed, please also indicate the closed named drainage the receiving water flows into (i.e. unnamed tributary of City Creek). Attach additional sheets if necessary for more outfalls.

Each outfall to a different receiving water segment is subject to additional application fees and annual fees.

Outfall No.	Average daily flow rate	Latitude	Longitude	Receiving Surface Waters (Name)
	mgd	O ' "	O ' "	
	mgd	O ' "	O ' "	
	mgd	O ' "	O ' "	

Do any of the outfalls described above have a season or periodic discharges?

☐ YES ☐ NO

If so, provide the following information for each applicable outfall.

	Outfall No.		Outfall No.		Outfall No.	
Number of times per year discharges occurs						
Average duration of each discharge (specify units)						
Average flow of each discharge		mgd		mgd		mgd
Months in which discharge occurs						



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Part VI. Effluent and Intake Characteristics

Table A.

Conventional and Non-Conventional Pollutants

Are you requesting a waiver for one or more pollutants listed Table A for any of your outfalls?

☐ YES ☐ NO

If yes, indicate the applicable outfalls below. Provide a written waiver request and other required information with the application.

Outfall Number		Outfall Number		Outfall Number	

Have you completed monitoring for all Table A pollutants at each of your outfalls for which a waiver has not been requested and attached the results to this application?

☐ YES ☐ NO; a waiver has been requested for all pollutants at all outfalls

Table B.

Toxic Metals, Cyanide, Total Phenols, and Organic Toxic Pollutants

Do any of the facility's processes that contribute wastewater fall into one or more of the primary industry categories listed in Appendix A?

☐ YES ☐ NO ☐ Not applicable

Have you checked "Testing Required" for all toxic metals, cyanide, and total phenols in Section 1 of Table B?

☐ YES ☐ NO

List the applicable primary industry categories and check the boxes indicating the required Gas Chromatography/Mass Spectrometry (GS/MS) Fraction(s) identified in Appendix A.

Primary Industry Category	Required Gas Chromatography/Mass Spectrometry (GS/MS) Fraction(s)
	☐ Volatile ☐ Acid ☐ Base/Neutral ☐ Pesticide
	☐ Volatile ☐ Acid ☐ Base/Neutral ☐ Pesticide
	☐ Volatile ☐ Acid ☐ Base/Neutral ☐ Pesticide

Have you checked "Testing Required" for all required pollutants in Sections 2 through 5 of Table B for each of the GC/MS fractions?

☐ YES ☐ NO

Have you checked "Believe Present" or Believed Absent" for all pollutants listed in Sections 1 through 5 of Table B where testing is not required?

☐ YES ☐ NO

Have you provided (1) quantitative data for those Section 1, Table B, pollutants for which you have indicated testing is required or (2) quantitative data or other required information for those Section 1, Table B, pollutants that you have indicated are "Believe Present" in your discharge?

☐ YES ☐ NO

Have you provided (1) quantitative data for those Sections 2 through 5, Table B, pollutants for which you have determined testing is required or (2) quantitative data or an explanation for those Sections 2 through 5, Table B, pollutants you have indicated are "Believed Present" in your discharge?

☐ YES ☐ NO



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Part VI. Effluent and Intake Characteristics *continued*

Table C. Certain Conventional and Non-Conventional Pollutants

Have you indicated whether pollutants are "Believed Present" or "Believed Absent" for all pollutants listed on Table C for all outfalls?

☐ YES ☐ NO

Have you completed Table C by providing (1) quantitative data for those pollutants that are limited either directly or indirectly in an Effluent Limitation Guidelines and/or (2) quantitative data or an explanation for those pollutants for which you have indicated "Believe Present"?

☐ YES ☐ NO

Table D. Certain Hazardous Substances and Asbestos

Have you indicated whether pollutants are "Believed Present" or "Believed Absent" for all pollutants listed on Table D for all outfalls?

☐ YES ☐ NO

Have you completed Table D by (1) describing the reasons the applicable pollutants are expected to be discharged and (2) by providing quantitative data, if available?

☐ YES ☐ NO

Table E. 2,3,7,8-Tetrachlorodibenzo-p-Dioxin (2,3,7,8-TCDD)

Does the facility use or manufacture one or more of the 2,3,7,8-TCDD congeners listed below:

- ☐ 2,4,5-trichlorophenoxy acetic acid (2,4,5-T)
- ☐ 2-(2,4,5-trichlorophenoxy) propanoic acid (Silvex, 2,4,5-TP)
- ☐ 2-(2,4,5-trichlorophenoxy) ethyl 2,2-dichloro-propionate (Erbon)
- ☐ 0,0-dimethyl 0-(2,4,5-trichlorophenyl) phosphorothioate (Ronnell)
- ☐ 2,4,5,-trichlorophenol (TCP)
- ☐ hexachlorophene (HCP).
- ☐ Or do you know of have reason to believe that TCDD is or may be present in the effluent?

☐ YES, Complete Table E ☐ NO, Skip to Part VII

Have you completed Table E by reporting qualitative data for TCDD?

☐ YES ☐ NO

Were any of the analyses reported in this section performed by a contract laboratory or consulting firm?

☐ YES ☐ NO, Skip to Part VII

Provide information for each contract laboratory or consulting firm below.

	Laboratory Number 1	Laboratory Number 2	Laboratory Number 3
Name of laboratory/firm			
Laboratory address			
Phone Number			
Pollutant(s) analyzed			

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Part VII. Used or Manufactured Toxics

Is any pollutant listed in Table B a substance or a component of a substance used or manufactured at your facility as an intermediate or final product or byproduct?

☐ YES ☐ NO, Skip to Part VIII

List the pollutants below.

1. _____	4. _____	7. _____
2. _____	5. _____	8. _____
3. _____	6. _____	9. _____

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Part VIII. Biosolids Information (If Not Applicable, Skip to Part IX.)

Was the Biosolids Annual Report submitted? ☐ YES ☐ NO

☐ Attach a Biosolids Management Plan with application

Serve Connections?

Provide the total dry metric tons per the latest 365-day period of sewage sludge generated, treated, used and disposed of:

Practice	Dry Metric Tons per 365-day Period
Amount generated at the facility	
Amount treated at the facility	
Amount used (i.e., received from offsite) at the facility	
Amount disposed of at the facility	

Treatment Provided at Your Facility

Identify the treatment process(es) used at your facility to reduce pathogens in sewage sludge

- | | |
|--|---|
| ☐ Preliminary operations (e.g., sludge grinding and degritting) | ☐ Thickening (concentration) |
| ☐ Stabilization | ☐ Anaerobic digestion |
| ☐ Composting | ☐ Conditioning |
| ☐ Disinfection | ☐ Dewatering (e.g. centrifugation, sludge drying beds, sludge lagoons) |
| ☐ Heat drying | ☐ Thermal reduction |
| ☐ Methane or biogas capture and recovery | |

Sewage Sludge Disposal Method

Land Application of Bulk Sewage Sludge

Is sewage sludge from your facility applied to the land? ☐ YES ☐ NO If No, Skip to next section

Total dry metric tons per 365-day period of sewage sludge applied to all land sites: _____

Surface Disposal

Is sewage sludge from your facility placed on a surface disposal site?

☐ YES ☐ NO If No, Skip to next section

Total dry metric tons of sewage sludge from your facility placed on all surface disposal sites per 365-day period: _____

Do you own or operate all surface disposal sites to which you send sewage sludge for disposal?

☐ YES ☐ NO If No, complete the below information

Surface disposal site *you do not operate*

Site name _____

Mailing address _____

City _____ State _____ Zip _____

Contact Name _____ Title _____

Phone Number _____ Email Address _____



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UPDES Industrial Permit Application

Part VIII. Bisolids Information *continued*

Incineration

Is sewage sludge from your facility fired in a sewage sludge incinerator?

☐ YES ☐ NO If No, Skip to next section

Total dry metric tons of sewage sludge from your facility fired in all sewage sludge incinerators per 365-day period: _____

Do you own or operate all sewage sludge incinerators in which sewage sludge from facility is fired?

☐ YES ☐ NO If No, complete the below information

Incinerator location *you do not operate*

Site name _____

Mailing address _____

City _____ State _____ Zip _____

Contact Name _____

Title _____

Phone Number _____

Email Address _____

Disposal in a Municipal Solid Waste Landfill

Is sewage sludge from your facility placed on a municipal solid waste landfill?

☐ YES ☐ NO If No, Skip to next section

Total dry metric tons of sewage sludge from your facility placed in this municipal solid waste landfill per 365-day period: _____

Do you own or operate the municipal solid waste landfill in which sewage sludge is disposed?

☐ YES ☐ NO If No, complete the below information

Municipal Solid Waste Landfill *you do not operate*

Site name _____

Mailing address _____

City _____ State _____ Zip _____

Contact Name _____

Title _____

Phone Number _____

Email Address _____



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Part IX. Reuse Information (If Not Applicable, skip to Part X.)

Is wastewater effluent directly applied to land?

☐ YES ☐ NO If YES, complete the below information.

Land Application Site and Discharge Data			
Location	Size	Average Daily Volume Applied	How often
	acres	gpd	☐ Seasonal ☐ Continuous ☐ Intermittent
	acres	gpd	☐ Seasonal ☐ Continuous ☐ Intermittent
	acres	gpd	☐ Seasonal ☐ Continuous ☐ Intermittent

Seasonal land application.

Indicate months of seasonal land application

☐ January	☐ April	☐ July	☐ October
☐ February	☐ May	☐ August	☐ November
☐ March	☐ June	☐ September	☐ December

Where is the Reuse water distributed

- ☐ Residential irrigation
- ☐ Urban uses
 - ☐ Non-residential landscape irrigation
 - ☐ Golf course irrigation
 - ☐ Toilet flushing
 - ☐ Fire protection
- ☐ Irrigation of food crops (direct contact with edible part) – spray irrigation
- ☐ Irrigation of food crops (Non direct contact with edible part) – no spray irrigation
- ☐ Irrigation
 - ☐ Sod farms
 - ☐ Silviculture
 - ☐ Limited access highway rights of way
 - ☐ Other areas where human access is restrict or unlikely to occur
- ☐ Irrigation of animal feed crops other than pasture for milking animals
- ☐ Impoundment of wastewater where direct human contact is not allowed or is unlikely to occur
- ☐ Cooling water
- ☐ Soil compaction or duct control in construction areas
- ☐ Other

☐ Attached an updated Reuse Project Plan

An updated Reuse Project Plan is required during every permit renewal.

Division of Water Quality (DWQ) UPDES Program

UPDES Industrial Permit Application

Part X. Antidegradation Review

The objective of antidegradation rules and policies is to protect existing high quality waters and set forth a process for determining where and how much degradation is allowable for socially and/or economically important reasons. In accordance with Utah Administrative Code (UAC R317-2-3), an antidegradation review (ADR) is a permit requirement for any project that will increase the level of pollutants in waters of the state. The rule outlines requirements for both Level I and Level II ADRs, as well as public comment procedures. This review form is intended to assist the applicant and Division of Water Quality (DWQ) staff in complying with the rule but is not a substitute for the complete rule in R317-2-3.5. Additional details can be found in the *Utah Antidegradation Implementation Guidance* and relevant sections of the guidance are cited in this review form.

ADRs should be among the first steps of an application for a UPDES permit because the review helps establish treatment expectations. The level of effort and amount of information required for the ADR depends on the nature of the project and the characteristics of the receiving water. To avoid unnecessary delays in permit issuance, DWQ recommends that the process be initiated at least one year prior to the date a final approved permit is required.

DWQ will determine if the project will impair beneficial uses (Level I ADR) using information provided by the applicant and whether a Level II ADR is required. The applicant is responsible for conducting the Level II ADR. For the permit to be approved, the Level II ADR must document that all feasible measures have been undertaken to minimize pollution for socially, environmentally or economically beneficial projects resulting in an increase in pollution to waters of the state.

For permit requiring a Level II ADR, this antidegradation form must be completed and approved by DWQ before any UPDES permit can be issued. Typically, the ADR form is completed in an iterative manner in consultation with DWQ. The applicant should first complete the statement of social, environmental and economic importance (SEEI) in Section C and determine the parameters of concern (POCs) in Section D. Once the POCs are agreed upon by DWQ, the alternatives analysis and selection of preferred alternative Section E can be conducted based on minimizing degradation resulting from discharge of the POCs. Once the applicant and DWQ agree upon the preferred alternative, the review is considered complete, and the form is submitted to DWQ.

What are the designated uses of the receiving water (R317-2-6)? (check all that apply)

- ☐ Domestic Water Supply
- ☐ Recreation
- ☐ Aquatic Life
- ☐ Agricultural Water Supply
- ☐ Great Salt Lake

Antidegradation Category 1, 2 or 3 of receiving water?
(R317-2-3.2, -3.3, and -3.4):

Division of Water Quality (DWQ) UPDES Program

UPDES Industrial Permit Application

Part X. Antidegradation Review *continued*

Effluent flow reviewed: *typically, this should be the maximum daily discharge at the design capacity of the facility. Exceptions should be noted.*

What is the application for? (Check all that apply)

- ☐ A UPDES permit for a new facility, project, or outfall.
- ☐ A UPDES permit renewal with an expansion of modification of an existing wastewater treatment works.
- ☐ A UPDES permit renewal requiring limits for a pollutant not covered by the previous permit and/or an increase to existing permit limits.
- ☐ A UPDES permit renewal with no charges in facility operations.

Section B. Is a Level II ADR required?

This section of the form is intended to help applicants determine if a Level II ADR is required for specific permitted activities. In addition, the Executive Secretary/Director may require a Level II ADR for an activity with the potential for major impact on the quality of waters of the state (R317-2-3.5a.1).

B1. The UPDES permit is new or is being renewed and the proposed effluent concentration and loading limits are higher than the concentration and loading limits in the previous permit and any previous antidegradation review(s).

- ☐ YES – (Proceed/Skip to **B3** of the Form)
- ☐ NO – No Level II ADR is required and there is no need to proceed further with the review questions.
Continue to the Certification Statement and Signature page.

B2. Will any pollutants use assimilative capacity of the receiving water, i.e. do the pollutant concentrations in the effluent exceed those in the receiving waters at critical conditions? For most pollutants, effluent concentrations that are higher than the ambient concentrations require an antidegradation review? For a few pollutants such as dissolved oxygen, and antidegradation review is required if the effluent concentrations are less than the ambient concentrations in the receiving water. (Section 3.3.3 of Implementation Guidance)

- ☐ YES – (Proceed to **B3** of the Form)
- ☐ NO – No Level II ADR is required and there is no need to proceed further with the review questions.
Continue to the Certification Statement and Signature page.

Division of Water Quality (DWQ) UPDES Program

UPDES Industrial Permit Application

Part X. Antidegradation Review *continued*

B3. Are water quality impacts of the proposed project temporary and limited (Section 3.3.4 of Implementation Guidance)? Proposed projects that will have temporary and limited effects on water quality can be exempted from a Level II ADR.

- ☐ YES – Identify the reason used to justify this determination if B4.1 and proceed to Section G. No Level II ADR is required.
- ☐ NO – A Level II ADR is required (Proceed to Section C)

B3.1 Complete this question only if the applicant is requesting a Level II review exclusion for temporary and limited projects (See R317-2-3.5(b)(3) and R317-2-3.5(b)(4)). For projects requesting a temporary and limited exclusion please indicate the factor(s) used to justify this determination (check all that apply and provide details as appropriate) (Section 3.3.4 of Implementation Guidance):

- ☐ Water quality impacts will be temporary and related exclusively to sediment or turbidity and fish spawning will not be impaired.

Factors to be considered in determining whether water quality impacts will be temporary and limited:

- a) The length of time during which water quality will be lowered:
- b) The perfect change in ambient concentrations of pollutants:
- c) Pollutants affected:
- d) Likelihood for long-term water quality benefits:
- e) Potential for any residual long-term influences on existing uses:
- f) Impairment of fish spawning, survival and development of aquatic fauna excluding fish removal efforts:

Additional justification, as needed:

This request is for a temporary and limited increase of discharge quality parameters for Outfall 005. Skyline Mine is currently undertaking emergency pumping activities to de-water portions of the mine that have flooded. This proposed activity requires installing well pumps from the surface into the underground mine. The underground portion of the mine is not currently accessible, and water quality within the mine cannot be controlled. Due to an unknown quality of water within the flooded portion of the mine, this request for a temporary and limited increase of parameters is being submitted to accommodate the emergency pumping activities. CFC anticipates the proposed activity will be needed for the next 11 months. Parameters that may be exceeded include Total Dissolved Solids, Total Suspended Solids, and Iron. It is requested that the daily maximum TDS limit be increased to 500 mg/L. This limit is still considered a high-quality water and is within national drinking water standards. The daily maximum for TSS is requested to increase to 60 mg/L. This amount is still below the TSS limit for all other outfalls at Skyline mine. During periods of runoff and precipitation, the tributaries to Electric Lake often far exceed this amount. Considering the low snowpack this year, there will be little runoff occurring in 2026. No upper limit is being requested for Total Iron. It is anticipated Total Iron will be higher than the current parameters, but it is currently unknown how high it may climb. A report prepared by Peterson Hydrologic is included as a reference to explain the increase in Total Iron. It is not anticipated that Total Iron would exceed 3.0mg/L. All the proposed increased parameters are still aligned with grandfathered UPDES discharge points in the Lower Huntington Creek area downstream of Electric Lake. The discharged water will also help to bolster the limited supply of water in the basin due to the low snowpack and drought conditions currently being experienced. This proposed temporary increase is not anticipated to impair the fish and aquatic habitat of Electric Lake or Huntington Creek.

Division of Water Quality (DWQ) UPDES Program

UPDES Industrial Permit Application

Part X. Antidegradation Review *continued*

Level II ADR

Section C, D, E, and F of the form constitute the Level II ADR Review. The applicant must provide as much detail as necessary for DWQ to perform the antidegradation review. Questions are provided for the convenience of applicants; however, for more complex permits it may be more effective to provide the required information in a separate report. Applicants that prefer a separate report should record the report name here and proceed to Section G of the form.

Option Report Name: _____

Section C. Is the degradation from the project socially and economically necessary to accommodate important social or economic development in the area in which the waters are located? *The applicant must provide as much detail as necessary for DWQ to concur that the project is socially and economically necessary when answering the questions in the section. More information is available in Section 6.2 of the Implementation Guidance.*

C1. Describe the social and economic benefits that would be realized through the proposed project, including the number and nature of jobs created and anticipated tax revenues.

C2. Describe any environmental benefits to be realized through implementation of the proposed project.

C3. Describe any social and economic losses that may result from the project, including impacts to recreation or commercial development.

C4. Summarize any supporting information from the affected communities on preserving assimilative capacity to support future growth and development.

Division of Water Quality (DWQ) UPDES Program

UPDES Industrial Permit Application

Part X. Antidegradation Review *continued*

C5. Please describe any structures or equipment associated with the project that will be placed within or adjacent to the receiving water.

C6. Will the discharge potentially impact a drinking water source, e.g., Class 1C waters? Depending upon the locations of the discharge and its proximity to downstream drinking water diversions, additional treatment or more stringent effluent limits or additional monitoring, beyond that which may otherwise be required to meet minimum technology standards or in stream water quality standards, may be required by the Director in order to adequately protect public health and the environment (R317-2-3.5 d.).

- ☐ YES
☐ NO

Section D. Identify and rank (from increasing to decreasing potential threat to designated uses) the parameters of concern. *Parameters of concern are parameters in the effluent at concentrations greater than ambient concentrations in the receiving water. The applicant is responsible for identifying parameter concentrations in the effluent and DWQ will provide parameter concentrations for the receiving water. More information is available in Section 3.3.3 of the Implementation Guidance.*

Parameters of Concern:			
Rank	Pollutant	Ambient Concentration	Effluent Concentration
1.			
2.			
3.			
4.			
5.			

Division of Water Quality (DWQ) UPDES Program

UPDES Industrial Permit Application

Part X. Antidegradation Review *continued*

Pollutants Evaluated that are not Considered Parameters of Concern:

Pollutant	Ambient Concentration	Effluent Concentration	Justification
1.			
2.			
3.			
4.			
5.			

Section E. Alternative Analysis Requirements of Level II Antidegradation Review. *Level II ADRs require the applicant to determine whether there are feasible less-degrading alternatives to the proposed project. More information is available in Section 5.5 and 5.6 of the Implementation Guidance.*

E1. The UPDES permit is being renewed without any changes to flow or concentrations. Alternative treatment and discharge options including changes to operations and maintenance were considered and compared to the current processes. NO economically feasible treatment or discharge alternatives were identified that were not previously considered for any previous antidegradation review(s).

☐ YES – (Proceed to Section F)

☐ NO or Does Not Apply (Proceed to E2)

E2. Attach as an appendix to this form a report that describes that following factors for all alternative treatment options (see 1) a technical descriptions of the treatment process, including construction costs and continued operation and maintenance expenses, 2) the mass and concentration of discharge constituents, and 3) a description of the reliability of the system, including the frequency where recurring operation and maintenance may lead to temporary increases in discharged pollutants. Most of this information is typically available from a Facility Plan, if available.

Report Name: _____

E3. Describe the proposed method and cost of the baseline treatment alternative. The baseline treatment alternative is the minimum treatment required to meet water quality based effluent limits (WQBEL) as determined by the preliminary or final wasteload analysis (WLC) and any secondary or categorical effluent limits.

Division of Water Quality (DWQ) UPDES Program

UPDES Industrial Permit Application

Part X. Antidegradation Review *continued*

E4. Were any of the following alternatives feasible and affordable?

Alternative	Feasible	Reason Not Feasible/Affordable
Pollutant Trading	☐ YES ☐ NO	
Water Recycling/Reuse	☐ YES ☐ NO	
Land Application	☐ YES ☐ NO	
Connection to Other Facilities	☐ YES ☐ NO	
Upgrade to Existing Facility	☐ YES ☐ NO	
Total Containment	☐ YES ☐ NO	
Improved O&M of Existing Systems	☐ YES ☐ NO	
Seasonal or Controlled Discharge	☐ YES ☐ NO	
New Construction	☐ YES ☐ NO	
No Discharge	☐ YES ☐ NO	

E5. From the applicant's perspective, what is the preferred treatment option?

Division of Water Quality (DWQ) UPDES Program

UPDES Industrial Permit Application

Part X. Antidegradation Review *continued*

E6. Is the preferred option also the least polluting feasible alternative?

☐ YES ☐ NO

If No, what were less degrading feasible alternative(s)?

If No, provide a summary of the justification for not selecting the least polluting feasible alternative and if appropriate, provide a more detailed justification as an attachment.

Section F. Optional Information

F1. Does the applicant want to conduct optional public review(s) in addition to the mandatory public review? Level II ADRs are public noticed for a thirty day comment period. More information is available in Section 3.7.1 of the Implementation Guidance.

☐ YES ☐ NO

F2. Does the project include an optional mitigation plan to compensate for the proposed water quality degradation?

☐ YES ☐ NO

Report Name: _____



UPDES Industrial Permit Application

Part XI. Certification Statement and Signature

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with 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 of knowing violations.

Carson Pollastro

**PRINT NAME of Signatory
Authority**

Signature

Chief Executive Officer

Title

3/31/2026

Date

The Division of Water Quality may request addition information.

Important: The UPDES Permit Application will not be considered complete unless you answer every question. If an item does not apply to you, enter "Not Applicable" to show that you considered the question.

The UPDES Permit Application, must be signed as follows:

- 1) For a corporation, a responsible corporate officer shall sign the NOT, a responsible corporate officer means:
 - a. A President, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation; or
 - b. The manager of one or more manufacturing, production, or operating facilities, if
 - i. The manager is authorized to make management decisions that govern the operation of the regulated facility, including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental statutes and regulations;
 - ii. The manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and
 - iii. Authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.
- 2) For a partnership of sole proprietorship, the general partner or the proprietor, respectively; or
- 3) For a municipality, state or other public agency, either a principal executive officer or ranking elected official shall sign the application; in this subsection, a principal executive officer of any agency means;
 - a. The chief executive officer of the agency; or
 - b. A senior executive officer having responsibility for the overall operations of a principal geographic unit or division of the agency.

Where to File the UPDES Permit Application form:

Please submit the original form with a signature in ink to the below address. Remember to retain a copy for your records.

UPDES sent by mail:

**Division of Water Quality
195 North 1950 West
PO Box 144870
Salt Lake City, UT 84114-4870**

OFFICE USE ONLY

Date received: / /

Received by: _____

Document No: _____

via: ☐ Email ☐ Fax ☐ Webportal ☐ Mail ☐ Hand Delivery



Division of Water Quality (DWQ) UPDES Program

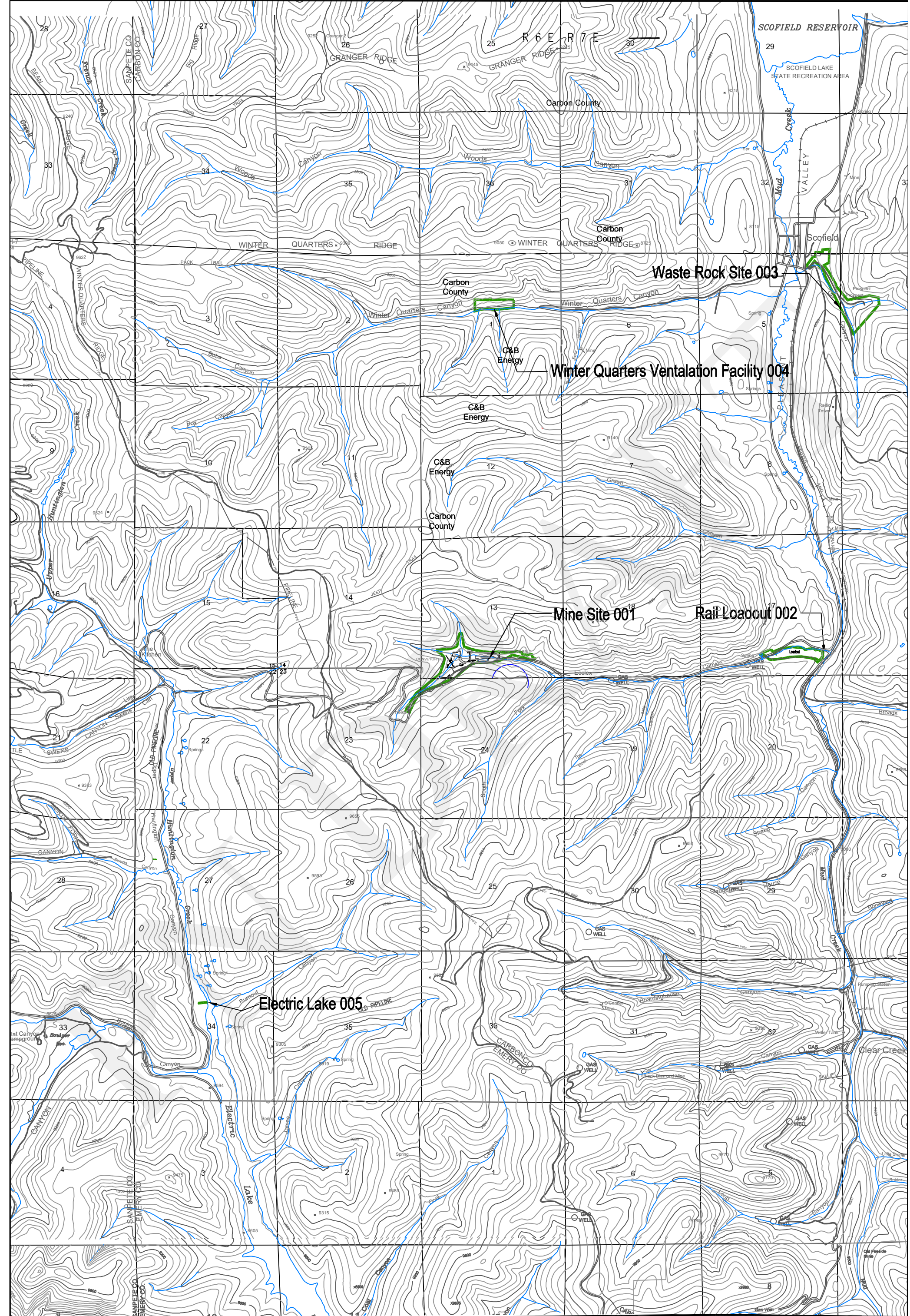
UPDES Industrial Permit Application

Appendix A. Testing Requirements for Organic Toxic Pollutants Industry Categories*

Industry Category		Volatile	Gas Chromatography/Mass Spectrometry (GS/MS) Fraction(s) [†]		Pesticide
			Acid	Base/Neutral	
1.	Adhesives and sealants	X	X	X	☐
2.	Aluminum forming	X	X	X	☐
3.	Auto and other laundries	X	X	X	X
4.	Battery manufacturing	X	☐	X	☐
5.	Coal mining	☐	☐	☐	☐
6.	Coil coating	X	X	X	☐
7.	Copper forming	X	X	X	☐
8.	Electric and electronic compounds	X	X	X	X
9.	Electroplating	X	X	X	☐
10.	Explosives manufacturing	☐	X	X	☐
11.	Foundries	X	X	X	☐
12.	Gum and wood chemicals (all subparts except D and F)	X	X	☐	☐
13.	Gum and wood chemicals, Subpart D (tall oil rosin)	X	X	X	☐
14.	Gum and wood chemicals, Subpart F (rosin-based derivatives)	X	X	X	☐
15.	Inorganic chemicals manufacturing	X	X	X	☐
16.	Iron and steel manufacturing	X	X	X	☐
17.	Leather tanning and finishing	X	X	X	☐
18.	Mechanical products manufacturing	X	X	X	☐
19.	Nonferrous metals manufacturing	X	X	X	X
20.	Ore mining, Subpart B (base and precious metals)	☐	X	☐	☐
21.	Organic chemicals manufacturing	X	X	X	X
22.	Paint and ink formulation	X	X	X	☐
23.	Pesticides	X	X	X	X
24.	Petroleum refining	X	☐	☐	☐
25.	Pharmaceutical preparations	X	X	X	☐
26.	Photographic equipment and supplies	X	X	X	☐
27.	Plastic and synthetic materials manufacturing	X	X	X	X
28.	Plastic processing	X	☐	☐	☐
29.	Printing and publishing	X	X	X	X
30.	Pulp and paperboard mills	X	X	X	X
31.	Rubber processing	X	X	X	☐
32.	Soap and detergent manufacturing	X	X	X	☐
33.	Steam electric power plants	X	X	☐	☐
34.	Textile mills (except Subpart C, Greige Mills)	X	X	X	☐
35.	Timber products processing	X	X	X	X

Key

- * See note at conclusion of 40 CFR 122, Appendix D (1983) for explanation of effect of suspensions on testing requirements for primary industry categories
- † The pollutants in each fraction are listed in Table B
- X Testing is required
- ☐ Testing is not required

[illegible]

**Skyline Mine
UPDES
Outfall Locations**



Canyon Fuel Company, LLC
HC35 BOX 380, HELPER, UTAH 84526
435-448-6463

SCALE: 1" = 1500'	DATE: 5/20/19	CK.BY: GGAlecki	REVISION: 0 5-20-19
DWG. NO.:		DR.BY: TEarl	
CAD FILE:			

BASE PREPARED BY INTERMOUNTAIN AERIAL SURVEYS, SALT LAKE CITY, UTAH - M96147

5-20-19



PETERSEN HYDROLOGIC

30 March 2026

Mr. Ryan Wilson
Manager of Land and Regulatory Affairs
Canyon Fuel Company, LLC
9815 South Monroe St, Suite 203
Sandy, UT 84070

Ryan,

At your request we have performed an evaluation of total iron concentrations in mine waters that have recently pooled in the underground mine workings at the Canyon Fuel Company, LLC Skyline Mine. The focus of this evaluation is to investigate the likely source and geochemical mechanisms which may control total iron in the pooled water. It is noted that recent levels of total iron measured in the mine pool remain relatively low, with concentrations typically ranging from about 0.86 to 0.88 mg/L. The results of our evaluation are presented in the following sections of this letter report.

Overview

The Canyon Fuel Company, LLC Skyline Mine is located near the Town of Scofield in Utah's Wasatch Plateau coal mining district. The mine, which became operational in December 1981, produces low-sulfur, bituminous coal that is used primarily in thermal electricity generation.

Coal mining at the Skyline Mine is performed primarily using longwall mining techniques. Additional coal mining using continuous mining techniques is carried out primarily for the purpose of creating main entryways and for the development of the longwall mining panels. Generally, mining of longwall panels results in the formation of “gob” areas as the longwall mining advances and recently mined areas are intentionally allowed to cave and fracture behind the advancing mining face. In contrast, the main entryway areas are typically designed to be more stable and less prone to caving and fracturing as unmined blocks of coal are left in place to provide support. The extent to which individual mining entryways remain open as time passes after mining of an area is complete is difficult to verify, as these areas generally become inaccessible after mining districts are commonly closed after mining in the district is completed.

Intercepted Groundwater at the Skyline Mine

Prior to about 1999, groundwater intercepted during underground mining operations was derived primarily from perched groundwater systems in the Blackhawk Formation in the mine roof. Some additional groundwater also entered the mine workings through fault and fracture systems. Beginning around 1999, the most significant occurrences of intercepted groundwater were inflows sourced from the upwelling of warmer groundwater flowing from groundwater systems in the Star Point Sandstone. The Star Point Sandstone, which underlies the overlying Blackhawk Formation, contains appreciable quantities of groundwater in the region.

Since the time of the onset of Star Point Sandstone groundwater inflows at the mine, it has been the experience that episodes of sudden inflows of groundwater with varying magnitudes have occurred periodically when water-bearing faults or fractures are first exposed during mining. While the total discharge from the mine has generally increased as the Star Point Sandstone groundwaters have been intercepted, it is not uncommon that the rates of discharge from individual Star Point Sandstone inflows gradually increase over time.

It is noted here that in compliance with the approved Mining and Reclamation Plan, Skyline Mine notifies the Division of Oil, Gas and Mining when substantial groundwater inflows are encountered in the mine. Water quality and water quantity monitoring of the significant inflows is also performed and the monitoring information is submitted to the Division of Oil, Gas and mining as required.

Notably, during September of 2001 a significant, unanticipated inflow of groundwater entered the Skyline Mine workings in the 10-Left mining district. After mining in the surrounding mine district was completed, the district was allowed to fill with water (including mine gobs and main entryways) until the region became filled. At that time, pumping of water from the pool commenced. Pumping rates from the underground 10-Left area pool were maintained at levels sufficient to maintain the water level in the pool at desired levels. The water pumped from this flooded mine district was monitored for discharge rates and water quality parameters at monitoring station CS-14 and subsequently discharged through the Skyline Mine UPDES permit outfalls to receiving waters in Eccles Canyon. This water, which is discharged into the Price River surface water system has been beneficial to downstream water users and ecosystems.

Of significance to this investigation, in early 2026 a sudden, unanticipated inflow of a large quantity of water entered into the Skyline Mine underground workings as mining in the area was being performed. As a result of this inflow, portions of the Skyline Mine became flooded, as voids present in the mine gobs and main entryways became filled with water. As a consequence of the large volume of water intercepted, Skyline Mine continues to design and employ appropriate measures to appropriately managing the water.

Water Quality

It is noted that the recent inflows of water into the Skyline Mine workings have had significant effects on the operations of the mine. Currently, mine personnel are in the process of collecting and analyzing water quality information where it can be reasonably

accessed under the current conditions to more fully characterize the water quality characteristics of the intercepted water held in the mine pool.

As discussed above, the focus of this preliminary investigation is to evaluate the likely geochemical pathways that could influence total iron concentrations in the mine pool and potentially in the discharge of mine waters.

Total iron data available for this evaluation were provided by Skyline Mine personnel. The measurements of total iron concentrations were performed by Skyline Mine personnel using commercially available field test kits. This methodology allows for the quick-screening of iron concentrations with immediate results in the field to facilitate an up-to-the-moment understanding of trends in total iron concentrations.

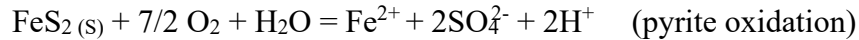
Total iron concentration measurements were performed numerous times over a recent 7-day period, with a minimum measured value of 0.64 mg/L and a maximum value of 1.26 mg/L. The average of the total iron measurements clustered between about 0.86 to 0.88 mg/L (personal communication, Derrick White, 2026).

Iron Geochemistry

While the geochemistry of aqueous iron species can be complex, the general geochemical evolutionary pathway by which the oxidation of sulfide minerals results in the liberation of iron, H^+ , and sulfate under oxidizing aqueous conditions is well documented.

Through the effects of this general geochemical pathway, hydrogeochemical conditions may arise that include increased concentrations of total iron to varying degrees in aqueous environments. Such conditions are commonly observed in Utah coal mining environments. This geochemical evolutionary pathway is discussed below.

The sulfide mineral pyrite, which is commonly present in underground coal mines in Utah, is oxidized when it comes into contact with oxygenated water. This reaction is represented in a simplified form as:

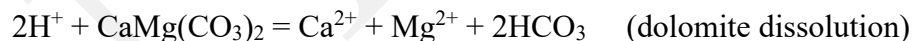


This reaction, which may be facilitated and enhanced by the presence of certain bacteria and the presence of Fe^{3+} , yields free, reduced iron (Fe^{2+}), sulfate, and H^+ (acid), and removes oxygen from the water.

It is noted that the pyrite oxidation reaction described above may potentially proceed until availability of any of the three reactants becomes depleted – sulfide mineral (pyrite), oxidizing agent (dissolved oxygen), or water. Once one of these reactants becomes depleted, this specific reaction stops.

Other factors that may potentially influence the extent, rates, and persistence of the above reaction, include thermodynamics, reaction kinetics, and the degree to which water in the pool is physically brought into contact with the reactants. This may include water residence time in the mine pool and water flushing currents/pathways through the irregular geometry of the pool in the underground mine workings.

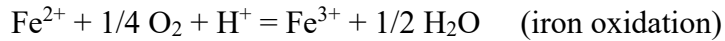
The liberation of H^+ in this pyrite oxidation reaction results in a temporary lowering of the pH and facilitates the dissolution of carbonate minerals according to:



These two reactions result in an increase in the calcium, magnesium, and bicarbonate concentrations of the water and consume H^+ , resulting in an increased pH. Because of the abundance of carbonate minerals in the coal fields of the western United States, the acid produced from pyrite oxidation is readily consumed in the reactions described above and acid-mine-drainage generally does not occur.

Water flowing in a surface stream that is fully aerated with near neutral pH will generally not contain more than a few micrograms per liter of dissolved iron (Hem, 1985). This is

because oxygen is continuously present in an actively flowing stream and the Fe^{2+} is rapidly oxidized to Fe^{3+} according to:



The oxidized iron is subsequently precipitated as a solid (commonly as an amorphous iron hydroxide) which eventually settles from the stream. This simplified reaction may be expressed as:



The H^+ produced in this reaction is consumed in the carbonate mineral dissolution reactions described above.

As indicated, it is beyond the scope of this evaluation to project future trends in total iron concentrations or other water quality parameters. However, it is anticipated that as additional water quality monitoring data continues to be acquired, and as trends in concentrations of individual solute geochemical parameters become better defined, it may be possible for such a determination to occur in the future.

2001 10-Left mine pool experience

While it is beyond the scope of this evaluation to project future trends in total iron concentrations in the current underground mine pool, historical information from the September 2001 mine inflow event could potentially provide some insights.

As discussed above, a significant groundwater inflow event occurred during September 2001 in the 10-Left mining area at the Skyline Mine. Estimates of the initial inflow rates were on the order of about 10,000 gpm. After mining in adjacent portions of that mining district later ceased, the Skyline Mine workings in that mining district were allowed to fill with the intercepted water and the elevation of the mine pool. When that level was reached, surface elevation of the pool was maintained through pumping of water from the

pool at the necessary pumping rates. The mine pool water was pumped to the surface to a location near the Skyline Mine portals in Eccles Canyon (the discharge rates and water quality being monitored at site CS-14; UDOGM 2026). The water from station CS-14 was then discharged through UPDES outfalls into the Eccles Creek receiving water. A plot of long-term total iron concentrations monitored at CS-14 is attached. It is noted that the discharge water at CS-14 had laboratory determined total iron concentrations that peaked at 0.725 mg/L total iron shortly after pumping from the district began in late 2003. Total iron levels then began to decline more or less continuously until total iron concentrations in the pumped mine pool water dropped to near or below laboratory detection limits in 2009 (Figure 1).

From this experience it seems possible that either 1) the geochemical reaction rates in the 10-Left pool that produce total iron were not sufficiently large to overcome dilution effects from the large volume of water flushing through the pool and held in storage, or perhaps 2) that the duration of time when the reaction could potentially occur was finite as a result of diminishing availability of the chemical reactants as the sulfide mineral and/or dissolved oxygen became depleted or exhausted over time as reactants are consumed by the reaction.

Whether similar conditions will prevail in relation to the current flooding/mine inflow condition at the Skyline Mine is not known. However, given the general similarities in the intercepted groundwater associated with 10-Left inflow/pool and that encountered at the currently existing mine pool, and also to the generally similar geologic and geochemical characteristics of these two mining areas, it does not seem unreasonable to conclude that the two areas might respond in a similar way. Specific conclusions regarding whether similar occurrences might be experienced within the current Skyline Mine pool in the absence of additional data would be speculative.

We recommend the continued monitoring of water quality in the current mine pool and potential discharge locations at the Skyline Mine. Monitoring information collected during these activities will assist in further characterizing the overall water quality of

these waters and help ensure that the water quality of surrounding groundwater and surface-water systems and ecosystems will be preserved.

Conclusions

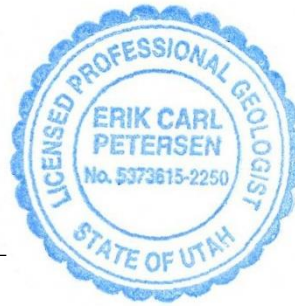
1. Total iron concentrations recently measured by Skyline Mine personnel in accessible portions of the current flooded mine pool at the Skyline Mine remain relatively low, with typical field-test-kit determined concentrations generally in the range of about 0.86-0.88 mg/L.
2. The total iron monitored in the Skyline Mine underground pool is most likely derived from the oxidation of sulfide minerals such as pyrite (FeS_2) that is present in the coal or within the near-adjacent bedrock strata in the submerged, aqueous environment in the presence of dissolved oxygen. Similar occurrences regarding the presence of total iron in aqueous underground mining environments are common.
3. Anecdotal evidence from the previous significant mine-water inflow event that the Skyline Mine experienced in 2001 suggests that total iron concentrations could possibly mitigate over time in a similar fashion. However, with the available information, making detailed predictions regarding the possible concentrations and potential fate of future total iron concentrations in the current Skyline Mine pool is beyond the scope of this investigation and would be entirely speculative.
4. While it is beyond the scope of this current evaluation to project future trends in total iron concentrations or other water quality parameters, it is anticipated that as additional water quality monitoring data continues to be acquired going forward, and as sources and trends in concentrations of individual solute geochemical species of interest become better defined, it may be possible for such a determination to be made in the future.

References Cited

Hem, J.D., 1985, Study and interpretation of the chemical characteristics of natural water, U.S. Geological Survey Water Supply Paper 2254.
Utah Division of Oil, Gas and Mining on-line water quality database, accessed 30 March 2026, <https://ogm.utah.gov/awqms-access/>

Please feel free to contact me should you have any questions in this regard.

Sincerely,



Erik C. Petersen, P.G.
Principal Hydrogeologist
Utah PG #5373615-2250

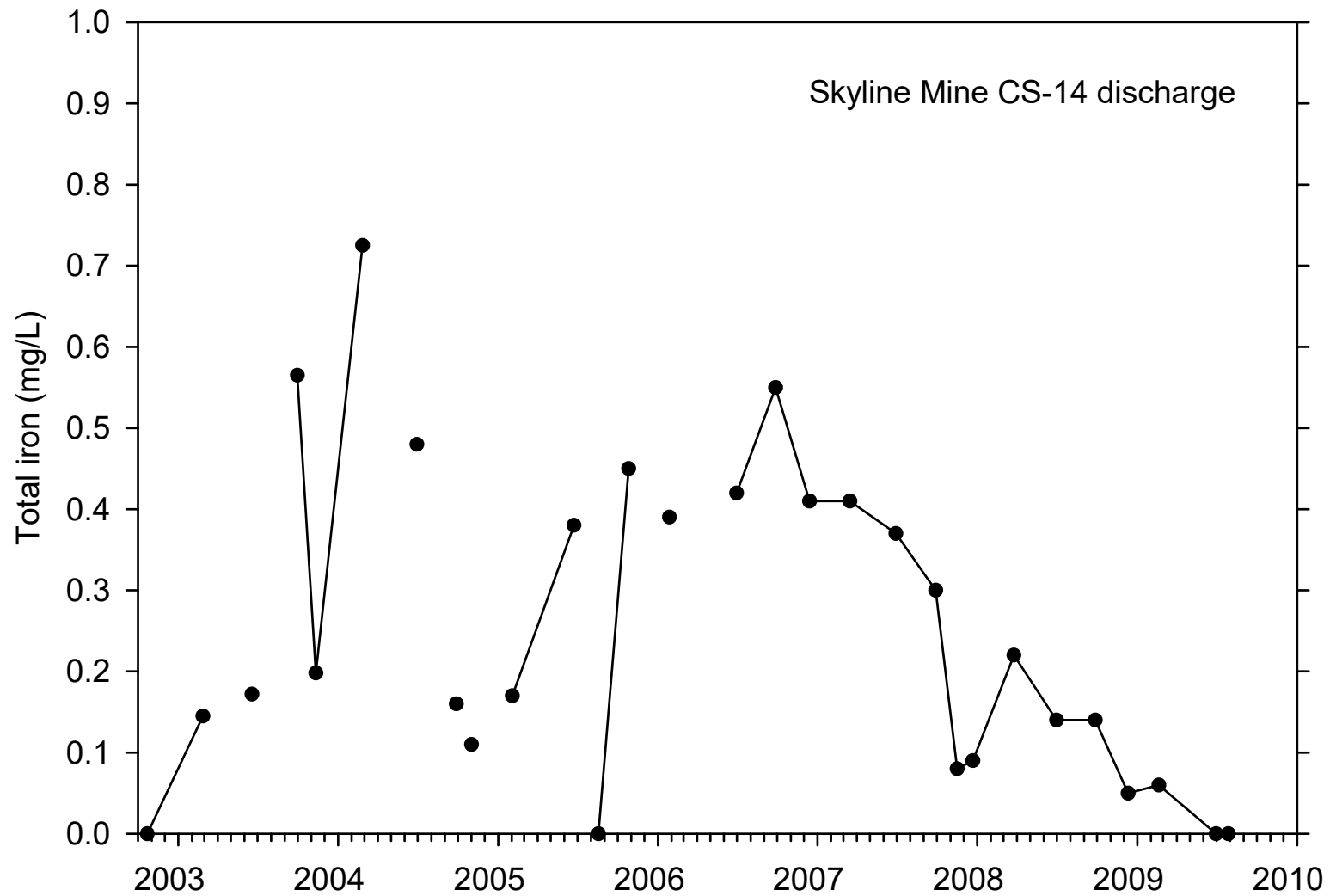
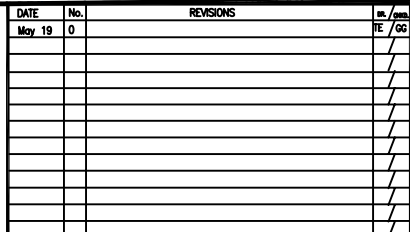


Figure 1 Total iron concentrations in mine discharge waters pumped from the down-dip flooded mine workings in the southwest portion of the Skyline Mine at monitoring point CS-14 (DOGM, 2026).

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ATTACHMENT 2

Outfall Locations Map
(DWQ-2025-002650)



BASE PREPARED BY INTERMOUNTAIN AERIAL SURVEYS, SALT LAKE CITY, UTAH - M96147

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ATTACHMENT 3

*Notification of Emergency Bypass
(DWQ-2026-000402)*

Date: January 29, 2026

To: Candice A. Hasenyager, P.E. - Director
Jeff Studenka
Department of Environmental Quality
Division of Water Quality
P.O. Box 144870
Salt Lake City, Utah 84114-4870

From: Skyline Mine

Re: Notice of Emergency Unanticipated Bypass Under Permit UT0023540, Part VI.G.2 & 3

Dear Ms. Hasenyager:

Pursuant to the notification requirements under UPDES Permit UT0023540 (the "Permit") Part VI.G.2&3 Skyline Mine provides the following information to comply with the requirements.

Verbal Notifications of the distressed condition were made to the following agencies:

- Mine Safety and Health Administration was notified at 12:40am January 28th
- Jeff Studenka of Division of Water Quality was notified at approx. 8:00am January 28th
- Dana Dean of Division of Oil Gas and Mining was notified at approx. 8:30am January 28th
- Erika Tobin of Bureau of Land Management was notified at approx. 10:00am January 28th

Canyon Fuel Company, LLC ("CFC"), accordingly, provides this summary of the circumstances requiring a mine water emergency bypass.

Summary:

In the early morning hours of January 28, 2026, Mine 5 District 3 bleeder section experienced an inundation of water. Employees in this area were evacuated as water progressed. Water continues to flow through the Mine 5 District 2 bleeder and fill lower portions of the mine. The water is anticipated to continue and advance into all areas of the active mine. The inflow of water is estimated at 15,000 gallons a minute. Emergency bypass is required to prevent personal injury and severe property damage. Without the emergency bypass, the coal resource will be lost.

To mitigate the inundation of water, additional pumps and improvements are required to be installed in the Electric Lake discharge system (Outfall 005) and the Eccles Creek discharge system (Outfall 001) to enable the discharge capacity that is required to maintain mine access.

Outfall 005 Electric Lake Discharge System:

Additional capacity is required in the Outfall 005 system because of the limited capacity in Outfall 001. To mitigate the inundation, a third pump was added to the Electric Lake system on January 28. Previous pumping capacity through this system was around 5,000 gpm. With the addition of a third pump, it should increase to 7,500 gpm. The designed water treatment system was bypassed due to experienced inflows and the additional capacity from the third pump. Also, three rows of silt fence and certified weed-free hay bales were added on the surface below the discharge to assist in treatment of the water.

Outfall 001 Eccles Creek Discharge System:

System improvements to the discharge system feeding Outfall 001 may also be installed in the mine to increase discharge capacity out Outfall 001. Currently the system capacity is approximately 9,000 gpm, and may be increased by the installation of additional pumps and piping systems to add another 3,000 gpm.

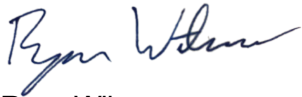
Additional Efforts and Alternatives:

We currently intend to install an additional pipeline at Swen's Canyon Fan Facility to deliver discharge water from underground workings to the surface. The discharged water will be piped to Electric Lake adjacent to the existing 005 Outfall. Electric Lake has sufficient capacity to receive additional water from the outfall. This installation will serve as a temporary solution to increase the discharge from the mine until the Emergency Bypass conditions no longer exist. CFC has, and will continue to, consult with the Utah Division of Oil, Gas and Mining for construction and surface disturbing activities. It is not anticipated that this additional discharge will have any impact on public health or the environment.

The discharge from both Outfalls will continue to be monitored in accordance with the permitted UPDES parameters, or more frequently as necessary. Because the reservoirs below the outfalls have sufficient storage capacity, this increased flow would not affect downstream users.

Thank you for your assistance in this matter. Correspondence may be sent to the email addresses of CFC personnel at Skyline Mine.

Thank you,



Ryan Wilson
Manager of Land and Regulatory Affairs
Canyon Fuel Company, LLC – Skyline Mine

CC: Joel Ferry, Director of Natural Resources,

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ATTACHMENT 4

*Wasteload Analysis and Antidegradation Review
(DWQ-2026-002894 & DWQ-2026-002980)*



State of Utah

SPENCER J. COX
Governor

DEIDRE HENDERSON
Lieutenant Governor

Department of
Environmental Quality

Tim Davis
Executive Director

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: May 26, 2026

Prepared by: Christopher L. Shope
Standards and Technical Services

Facility: Canyon Fuel Company, LLC – Skyline Mine
UPDES Permit No. UT-0023540

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.

This Permit Modification wasteload is for an increased effluent flow and water quality parameters at Outfall 005. Skyline Mine has initiated emergency pumping activities to de-water portions of the mine that have flooded. The underground portion of the flooded mine is not currently accessible, and water quality within the mine cannot be controlled. The permittee anticipates the proposed activity will be required to last up to 11 months. Parameters that may be exceeded include Total Dissolved Solids, Total Suspended Solids, and Total Iron. It is requested that the daily maximum TDS limit be increased to 500 mg/L, which is high-quality water and within national drinking water standards. The daily maximum for TSS is requested to increase to 60 mg/L, which is less than the TSS limit for all other outfalls at Skyline mine. No upper limit was requested for Total Iron, but it is not anticipated that Total Iron would exceed 3.0 mg/L. This proposed temporary increase is not anticipated to impair the fish and aquatic habitat of Electric Lake or downstream in Huntington Creek.

Discharge

There are five effluent discharge points listed in the permit renewal application.

Outfall 001: Discharge of mine water, stormwater, and washdown water; 16.9 MGD

Outfall 002: Discharge of stormwater and washdown water; 0.115 MGD

Outfall 003: Discharge of stormwater; 0.072 MGD

Outfall 004: Discharge of mine water and stormwater; 1.0 MGD

Outfall 005: Discharge of mine water to Electric Lake; 14.4 MGD

Receiving Water

The effluent from Outfalls 001 through 004 will discharge into Eccles Creek, Up Canyon Creek, or Winter Quarters Canyon Creek. These creeks then drain to Mud Creek, which drains to Scofield Reservoir. Outfall 005 drains directly into Electric Lake.

Outfall 001: Eccles Creek → Mud Creek → Scofield Reservoir

Outfall 002: Eccles Creek → Mud Creek → Scofield Reservoir

Outfall 003: Up Canyon Creek → Mud Creek → Scofield Reservoir

Outfall 004: Winter Quarters Canyon Creek → Mud Creek → Scofield Reservoir

Outfall 005: Electric Lake

Per UAC R317-2-13.1(b) the designated beneficial uses for: *Price River and tributaries, from Price City Water Treatment Plant intake to headwaters*, are: 1C,2B,3A,4. In addition, per UAC R317-2-13.1(b), the designated beneficial uses for: *Huntington Creek and tributaries, from Highway U-10 crossing to headwaters*, are: 1C,2B,3A,4.

- *Class 1C - Protected for domestic purposes with prior treatment by treatment processes as required by the Utah Division of Drinking Water*
- *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 3A -- Protected for cold water species of game fish and other cold water 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. Per UAC R317-2-13.12(d), the designated beneficial uses for: *Scofield Reservoir*, are: 1C,2B,3A,4. Per UAC R317-2-13.12(h), the designated beneficial uses for: *Electric Lake*, are: 2B,3A,4. Furthermore, per UAC R317-2-3.3, Electric Lake is a Category 2 anti-degradation water body:

- *A point source discharge may be permitted provided that the discharge does not degrade existing water quality.*

- *Waters of the state designated as Category 2 Waters are listed in R317-2-12.2.*

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). Due to a lack of flow records for Eccles Creek, the 20th percentile of flow measurements was calculated on a seasonal basis. The source of flow data for Eccles Creek was from a summation of DOGM sampling sites CS-3, CS-9, and CS-11 for 2015-2025. Due to a lack of flow records for Upper Huntington Creek, the 20th percentile of flow measurements was again calculated on an annual basis. The source of flow data for Upper Huntington Creek was from monitoring location DWQ 4931250 HUNTINGTON CK AB ELECTRIC L for 2015-2025. Table 1 provides critical flow conditions.

Table 1: Critical low flow(cfs)

Outfalls	Receiving Water	Season	Critical Low Flow (cfs)
001-004	Eccles Creek	Summer	0.111
		Fall	0.045
		Winter	0.018
		Spring	0.854
005	Electric Lake	Annual	1.460

In addition, per UAC R317-2-5, streams with a flow equal to or less than twice the flow of a point source discharge may be considered to be totally mixed. Therefore, no mixing zones are allowed for any of these five effluent discharges and water quality concentrations must meet the numeric criteria at the end-of-pipe (EOP).

Eccles Creek upstream receiving water quality was also characterized based on samples collected from DOGM sampling sites CS-3, CS-9, and CS-11 for 2015-2025. For Electric Lake, water quality data were supplied by Skyline Mine and PacifiCorp as well as Division of Water Quality (DWQ) database sources in 2020. Sixteen water quality sampling locations were used in the analysis. These monitoring locations included: UPL-1, UPL-2, UPL-3, UPL-4, UPL-10, UPL-11, and PG-1 in Upper Huntington Creek; UPL-EL-1 and UPL-EL-3 (at multiple depths), JC-1, MLID 4931190, and MLID 4931200 for Electric Lake; and H-1, H-2, UPL9, and UPL-9A in Lower Huntington Creek. To provide increased precision in the distribution of specific analyte concentrations, all of the monitoring locations were grouped as Upper Huntington Creek, Electric Lake, and Lower Huntington Creek samples. Statistical analysis of the three groups was performed to evaluate reasonable representative background conditions corresponding to these regions. More recent water quality samples were not available, therefore DWQ reverted to the 2020 analysis.

Total Maximum Daily Load (TMDL)

According to the Utah's [Final 2024 Integrated Report on Water Quality](#) dated April 30, 2024 (UDWQ, 2024), the receiving water for Outfalls 001 through 004 effluent discharge "*Scofield Tributaries*, (AU name: *Scofield Tributaries* AU ID: *UT14060007-002_00*)", are listed as "Not Supporting" for Maximum Temperature, Minimum Dissolved Oxygen, and pH. A TMDL is needed, however, the priority is stated as "Low". Downstream "*Scofield Reservoir*, (AU name:

Scofield Reservoir, AU ID: *UT-L-14060007-005_00*)” is listed as “Not Supporting” for Eutrophication, Harmful Algal Blooms, Minimum Dissolved Oxygen, pH and Total Phosphorus as P. The Scofield Reservoir TMDL was completed to address the impairment for pH, dissolved oxygen, and total phosphorus. Skyline Mine did not receive a waste load allocation (UDWQ, 2015).

The receiving water for Outfall 005 effluent discharge “*Electric Lake Tributaries*, (AU name: *Electric Lake Tributaries* AU ID: *UT14060009-001_00*)”, are listed as” Insufficient Data”. Downstream “*Electric Lake*, (AU name: *Electric Lake*, AU ID: *UT-L-14060009-025_00*)” is listed as “No Evidence of Impairment”.

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.

However, UAC R317-2-5 also states that, streams with a flow equal to or less than twice the flow of a point source discharge may be considered to be totally mixed. For Outfalls 001 through 004, the data indicated critical upstream ambient flow of 1.3 ft³/s relative to the 15.6 ft³/s effluent discharge. For Outfall 005 the data indicated critical upstream ambient flow of 1.5 ft³/s versus 22.3 ft³/s effluent discharge. Therefore, no mixing zones are allowed for any of the effluent discharges and water quality concentrations must meet the numeric criteria at the end-of-pipe (EOP).

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 potential parameters of concern for this facility include: total dissolved solids (TDS), total suspended solids (TSS), and Total and Dissolved 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 are provided in Table 2.

Table 2: WET Limits for IC₂₅

	Percent Effluent
Season	Outfalls 001 - 005
Summer	100%
Fall	100%
Winter	100%
Spring	100%

Wasteload Allocation Methods

Effluent limits for Outfalls 001 through 004 were determined for conservative constituents using a simple mass balance mixing analysis (UDWQ, 2021). The mass balance analysis is summarized in the Wasteload Addendums.

For Electric Lake, it was evaluated that a daily maximum concentration limit consistent with the 80th percentile of the Upper Huntington Creek sample will be implemented. Furthermore, it is recommended that the arithmetic mean of the Lake sample is to be used for an annual average concentration limit through the annual running average of bi-monthly sampling results (Tables 3, 4, and 5).

Table 3: TDS (mg/l) background statistical description by region

region	count	min	20%	mean	median	80%	max	std	var	skew
Lake	1266	108	151	167.34	164	183	451	23	529.16	3.4
Lower	1242	26	230	303.18	292	369	763	83.53	6977.37	0.94
Upper	1392	105	175	202.36	201	235	301	34.12	1164.08	0.08

Table 4: Total Iron (mg/l) background statistical description by region

region	count	min	20%	mean	median	80%	max	std	var	skew
Lake	1258	0	0.05	0.08	0.05	0.08	3.11	0.18	0.03	14.66
Lower	1240	0.03	0.11	0.95	0.2	0.72	48.22	4.71	22.18	9.64
Upper	1392	0	0.08	0.38	0.21	0.45	12.01	0.84	0.71	8.24

Table 5: Dissolved Iron (mg/l) background statistical description by region

region	count	min	20%	mean	median	80%	max	std	var	skew
Lake	1262	0	0.03	0.03	0.03	0.03	0.34	0.01	0	9.52
Lower	1240	0	0.03	0.04	0.03	0.03	1.69	0.11	0.01	13.02
Upper	1392	0	0.03	0.03	0.03	0.03	0.43	0.03	0	7.38

The Upper Huntington Creek region displays some seasonal variability, particularly in TDS. Total iron concentration concentrations also display multi-annual trends, suggestive of variable groundwater flowpaths and associated geochemical influence. Furthermore, total iron in Electric Lake typically increases between two and ten-fold through the fall and winter, while dissolved iron remains near detection limit. Therefore, the dissolved iron fraction drops from a high of 60 percent to between 6 and 20 percent through the fall, winter, and spring with the lowest concentration in May or June.

Dissolved iron in Electric Lake was generally at the detection limit of 0.03 mg/l. The dissolved iron fraction ranges between 9 and 14 percent of total iron in the Upper Huntington Creek but is relatively stable in Electric Lake at 60 percent. This indicates that iron is predominately in the particulate fraction for the Upper region, while the dissolved fraction dominates Electric Lake.

Effluent Limits

The water quality based effluent limits for the proposed Outfall 005 are summarized in Table 6.

Table 6: Water Quality Based Effluent Limits Summary for Outfall 005

Effluent Constituent	Water Quality Limit (WQBEL)		End-of-Pipe (EOP)	Permittee Proposed
	Existing Daily Maximum	Recommended Annual Average	WQS Numeric Criteria	--
Total Dissolved Solids (TDS mg/l)	235	167	1200	500
Total Iron (mg/l)	0.45	0.08	1.00	up to 3.00
Dissolved Iron (mg/l)	0.03	0.03	NA	NA
Total Suspended Solids (mg/l)	31.0	NA	70.0*	60.0

* effluent limitation guideline from [40 C.F.R. § Part 434.42](#)

Table 6 provides the current water quality based effluent limits, calculated as daily maximum concentration limit from the 80th percentile of the Upper Huntington Creek samples and annual average concentration limit from the arithmetic mean of Electric Lake samples. This describes the existing background concentrations. The numeric criteria at the end-of-pipe (EOP) are provided for an upper limit on water quality concentrations during this permit modification. It is expected that current WQBELs will be attained once emergency pumping activities to de-water portions of the mine that have flooded have ceased in approximately 11 months.

Models and supporting documentation are available for review upon request.

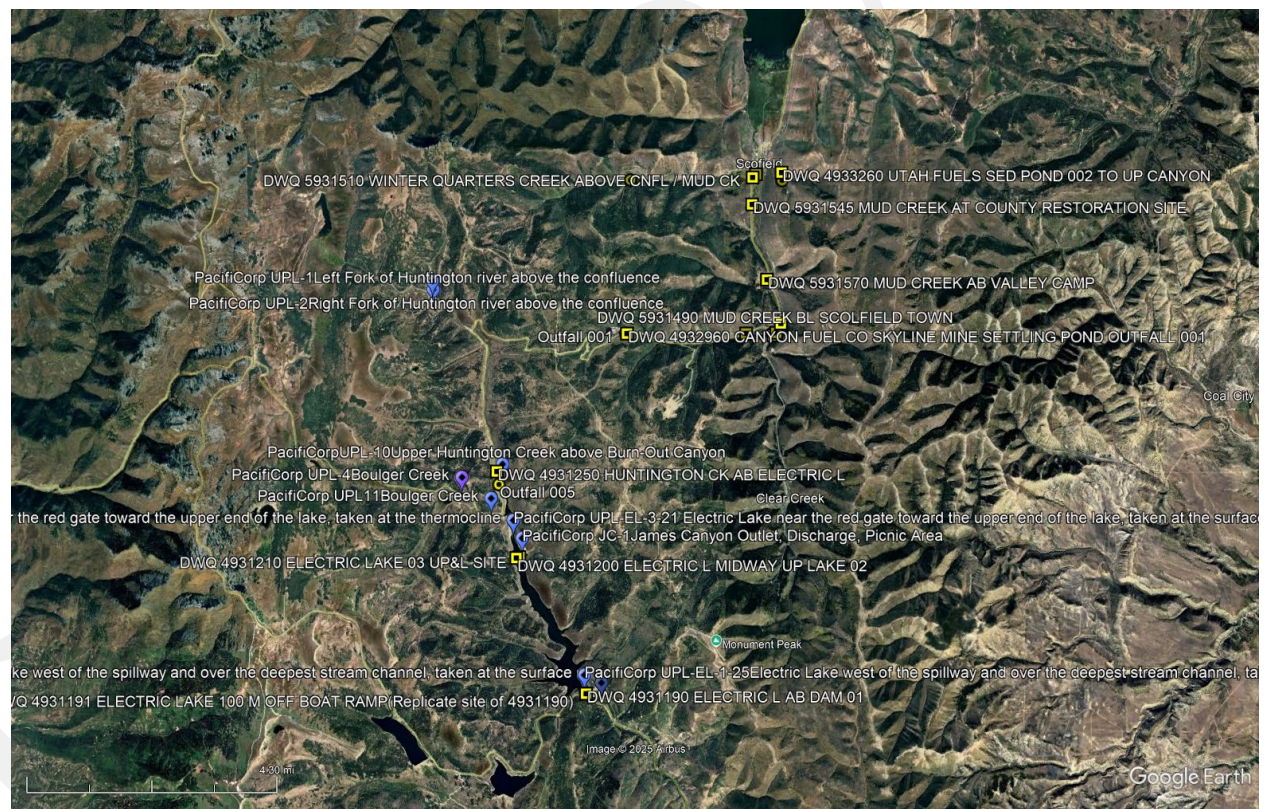


Figure 1: Location map of outfalls, monitoring locations, and surface water channels.

Antidegradation Level I Review

The objective of the Level I 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 uses will be protected if the discharge remains below the WQBELs presented in this wasteload.

A Level II Antidegradation Review (ADR) is required for this facility Per UAC R-317-2-3, because the facility is increasing effluent discharge and water quality concentrations at Outfall 005.

Documents:

WLA Document: *260526-Skyline_Mine_EOP_001-005_WLA_2026.docx*

Wasteload Analysis and Addendums: *260516-Skyline_Mine_EOP_001-005_WLA_2026.xlsx*

References:

Utah Division of Water Quality. 2015. Scofield Reservoir TMDL. <https://lf-public.deq.utah.gov/WebLink/DocView.aspx?id=15465&dbid=0&repo=Public>

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>

LEVEL II ANTIDEGRADATION REVIEW FORM

UTAH DIVISION OF WATER QUALITY

Instructions

The objective of antidegradation rules and policies is to protect existing high quality waters and set forth a process for determining where and how much degradation is allowable for socially and/or economically important reasons. In accordance with Utah Administrative Code (UAC R317-2-3), an antidegradation review (ADR) is a permit requirement for any project that will increase the level of pollutants in waters of the state. The rule outlines requirements for Level I and Level II ADRs, as well as public comment procedures. This review form is intended to assist the applicant and Division of Water Quality (DWQ) staff in complying with the rule but is not a substitute for the complete rule in R317-2-3.5. Additional details can be found in the *Utah Antidegradation Implementation Guidance* and relevant sections of the guidance are cited in this review form.

ADRs should be among the first steps of an application for a UPDES permit because the review helps establish treatment expectations. The level of effort and amount of information required for the ADR depends on the nature of the project and the characteristics of the receiving water. To avoid unnecessary delays in permit issuance, the Division of Water Quality (DWQ) recommends that the process be initiated at least one year prior to the date a final approved permit is required.

DWQ will determine if the project will impair beneficial uses (Level I ADR) using information provided by the applicant and whether a Level II ADR is required. The applicant is responsible for conducting the Level II ADR. For the permit to be approved, the Level II ADR must document that all feasible measures have been undertaken to minimize pollution for socially, environmentally or economically beneficial projects resulting in an increase in pollution to waters of the state.

For permits requiring a Level II ADR, this antidegradation form must be completed and approved by DWQ before any UPDES permit can be issued. Typically, the ADR form is completed in an iterative manner in consultation with DWQ. The applicant should first complete the statement of social, environmental and economic importance (SEEI) in Part C and determine the parameters of concern (POC) in Part D. Once the POCs are agreed upon by DWQ, the alternatives analysis and selection of preferred alternative in Part E can be conducted based on minimizing degradation resulting from discharge of the POCs. Once the applicant and DWQ agree upon the preferred alternative, the review is considered complete, and the form must be signed, dated, and submitted to DWQ.

**Utah Division of Water Quality
Level II Antidegradation Review Form**

Part A: Application Information

Facility Name: Canyon Fuel Company, LLC – Skyline Mine

Facility Owner: Canyon Fuel Company, LLC

Facility Location: Eccles Canyon, Scofield Route, Scofield, UT 84526

Form Prepared By: Ryan Wilson, Manager of Land and Regulatory Affairs

Outfall Number: 005

Receiving Water: Electric Lake

Designated Beneficial Uses of the Receiving Water (R317-2-13):

Domestic Water Supply: ☒ 1C

Recreation: ☒ 2B

Aquatic Life: ☒ 3A

Agricultural Water Supply: ☒ 4

Great Salt Lake: NA

Antidegradation Category of Receiving Water (R317-2-12):

☐ 1 ☒ 2 ☐ 3

UPDES Permit Number: UT0023540

Effluent Flow Reviewed: Temporary Increase in Parameters to Outfall 005

Typically, this is the maximum monthly average discharge at design capacity. Exceptions should be noted.

What is the application for? (check all that apply)

- ☐ A UPDES permit for a new facility, project, or outfall.
- ☐ A UPDES permit renewal with an expansion or modification of an existing wastewater treatment works.
- ☒ A UPDES permit renewal requiring limits for a pollutant not covered by the previous permit and/or an increase to existing permit limits.
- ☐ A UPDES permit renewal with no changes in facility operations.

**Utah Division of Water Quality
Level II Antidegradation Review Form**

Part B. Determination of Need for Level II Review

This section of the form is intended to help applicants determine if a Level II ADR is required for specific permitted activities. In addition, the Executive Secretary may require a Level II ADR for an activity with the potential for major impact on the quality of waters of the state (R317-2-3.5a.1).

B1. The UPDES permit is new or is being renewed and the proposed effluent concentration and loading limits are higher than the concentration and loading limits in the previous permit and any previous antidegradation review(s).

☒ **Yes** (Proceed to Part B2 of the Form)

☐ **No** No Level II ADR is required and there is no need to proceed further with review questions.

B2. Will any pollutants use assimilative capacity of the receiving water, i.e. do the pollutant concentrations in the effluent exceed those in the receiving waters at critical conditions? For most pollutants, effluent concentrations that are higher than the ambient concentrations require an antidegradation review. For a few pollutants, such as dissolved oxygen, an antidegradation review is required if the effluent concentrations are less than the ambient concentrations in the receiving water. (Refer to Section 3.3 of Implementation Guidance)

☒ **Yes** (Proceed to Part B3 of the Form)

☐ **No** No Level II ADR is required and there is no need to proceed further with review questions.

B3. Are water quality impacts of the proposed project temporary and limited (Section 3.3.3 of Implementation Guidance)? Proposed projects that will have temporary and limited effects on water quality can be exempted from a Level II ADR.

☐ **Yes** Identify the reasons used to justify this determination in Part B3.1 and proceed to Part G. No Level II ADR is required.

☒ **No** A Level II ADR is required (Proceed to Part C)

**Utah Division of Water Quality
Level II Antidegradation Review Form**

B3.1 Complete this question only if the applicant is requesting a Level II review exclusion for temporary and limited projects (see R317-2-3.5(b)(3) and R317-2-3.5(b)(4)). For projects requesting a temporary and limited exclusion please indicate the factor(s) used to justify this determination (check all that apply and provide details as appropriate) (Section 3.3.3 of Implementation Guidance):

- ☐ Water quality impacts will be temporary and related exclusively to sediment or turbidity and fish spawning will not be impaired.

Factors to be considered in determining whether water quality impacts will be temporary and limited:

- a) The length of time during which water quality will be lowered:
- b) The percent change in ambient concentrations of pollutants:
- c) Pollutants affected:
- d) Likelihood for long-term water quality benefits:
- e) Potential for any residual long-term influences on existing uses:
- f) Impairment of fish spawning, survival and development of aquatic fauna excluding fish removal efforts:

Additional justification, as needed:

**Utah Division of Water Quality
Level II Antidegradation Review Form**

LEVEL II ANTIDEGRADATION REVIEW

Part C, D, E, and F of the form constitute the Level II ADR Review. The applicant must provide as much detail as necessary for DWQ to perform the antidegradation review. Questions are provided for the convenience of applicants; however, for more complex permits it may be more effective to provide the required information in a separate report. Applicants that prefer a separate report should record the report name here and proceed to Part G of the form.

Optional Report Name: *Attachment A – Supplemental Information*

**Utah Division of Water Quality
Level II Antidegradation Review Form**

Part C. Statement of Social, Economic and Environmental Importance

This section determines whether the degradation from the project is necessary to accommodate important social and/or economic development in the area in which the waters are located. The applicant must provide as much detail as necessary for DWQ to concur that the project is socially and economically necessary when answering the questions in this section. More information is available in Section 6.2 of the Implementation Guidance.

SEE ATTACHMENT A – SUPPLEMENTAL INFORMATION

**Utah Division of Water Quality
Level II Antidegradation Review Form**

Part D. Parameters of Concern

This section identifies and ranks the parameters of concern from increasing to decreasing potential threat to beneficial uses of the receiving waters. Parameters of concern are constituents in the effluent at concentrations greater than ambient concentrations in the receiving water. The applicant is responsible for identifying parameter concentrations in the effluent and UDWQ will provide parameter concentrations for the receiving water through the wasteload allocation. More information is available in Section 3.3.3 of the Implementation Guidance.

SEE ATTACHMENT A – SUPPLEMENTAL INFORMATION

Part E. Alternative Analysis

Level II ADRs require the applicant to determine whether there are feasible less-degrading alternatives to the proposed project. For new and expanded discharges, the Alternatives Analysis must be prepared under the supervision of and stamped by a Professional Engineer registered with the State of Utah. DWQ may grant an exception from this requirement under certain circumstances, such as the alternatives considered potentially feasible do not include engineered treatment alternatives. More information regarding the requirements for the Alternatives Analysis is available in Section 5 of the Implementation Guidance.

SEE ATTACHMENT A – SUPPLEMENTAL INFORMATION

Alternative	Feasible	Reason Not Feasible/Affordable
Alternative Treatment Options	☐ Yes ☒ No	Water is not accessible for treatment
Higher Treatment Levels	☐ Yes ☒ No	Water is not accessible for treatment
Connection to Other Facilities	☐ Yes ☒ No	There are no treatment facilities adjacent to or capable of connecting to facility
Process Changes/Material Substitution	☐ Yes ☒ No	
Seasonal or Controlled Discharge	☐ Yes ☒ No	Mine operation is year round and requires ongoing discharge
Pollutant Trading	☒ Yes ☐ No	
Water Conservation	☐ Yes ☒ No	Mine operation requires ongoing discharge
Water Recycling/Reuse	☐ Yes ☒ No	Encountered groundwater exceeds needed water use
Alternative location or receiving water	☐ Yes ☒ No	There are no additional lands to accommodate new construction at the facility
Land Application	☐ Yes ☒ No	
Total Containment	☐ Yes ☒ No	There is not enough suitable land at or near facility for total containment
Improved O&M of Existing System	☐ Yes ☒ No	Existing systems are not capable of treatment

**Utah Division of Water Quality
Level II Antidegradation Review Form**

Part F. Public Notice

Level II ADRs require an opportunity for the public and interested parties to review and comment on the documentation. UDWQ conducts the mandatory Public Notice once the Level II ADR has been reviewed and is considered complete, which typically occurs with the environmental determination or the draft UPDES permit. Level II ADRs are public noticed for a minimum 30 day comment period. More information is available in Section 3.7.1 of the Implementation Guidance.

F1. Does the applicant want to conduct optional public review(s) of components of the Level II ADR in addition to the mandatory public review?

- ☐ **Statement of Social, Economic and Environmental Importance**
- ☐ **Parameters of Concern**
- ☐ **Alternatives Analysis**
- ☒ **No, Applicant does not want to conduct optional public review**

**Utah Division of Water Quality
Level II Antidegradation Review Form**

Part G. Certification of Antidegradation Review

G1. Applicant's Certification

The form must be signed by the same responsible person who signed the accompanying UPDES permit application per UAC R317-8-3.1(3) or 401 Certification.

Based on my inquiry of the person(s) who manage the system or who prepared the documentation, the information in this form and associated documents is, to the best of my knowledge and belief, true, accurate, and complete.

Print Name: Jed Gordon, General Manager – Skyline Mine

Signature: *Jed R. Gordon*

Date: 5/21/2026

G2. Professional Engineer's Certification

The Alternatives Analysis must be prepared under the supervision of and stamped by a Professional Engineer registered with the State of Utah. UDWQ may grant an exception from this requirement under certain circumstances, such as the alternatives considered potentially feasible do not include engineered treatment alternatives.

The Alternatives Analysis was prepared under my supervision and the information in this form and associated documents is, to the best of my knowledge and belief, true, accurate, and complete. Apply the Professional Engineer stamp below.

Print Name: Jacob Smith

Professional Engineer License Number: 9073281

Signature: *Jacob Smith*

Date: 5/21/2026



ANTIDEGRADATION REVIEW: SKYLINE MINE

ATTACHMENT A

SUPPLEMENTAL INFORMATION

Introduction and Purpose

Canyon Fuel Company, LLC (CFC), owns and operates the Skyline Mine, located approximately 6 miles southwest of Scofield, Utah in the Wasatch Plateau Coal Field with mine works located in Carbon, Emery and Sanpete Counties. Active permits at the mine site include Utah Pollution Discharge Elimination System (UPDES) Permit Number UT0023540, which was last renewed in 2025 and expires on October 31, 2030.

On January 28, 2026, Skyline Mine experienced an unanticipated inundation of water forcing evacuation of the employees and a shutdown of mining operations due to the inflow of water. As part of initial agency notifications, Skyline Mine submitted a Notice of Emergency Unanticipated Bypass letter to Division of Water Quality, dated January 29, 2026, following provisions in part VI.G.3.b & c of the Permit. To mitigate the inundation of excess water in Skyline Mine, additional pumping and dewatering operations are required to be installed in order to safely restart mining operations.

This ADR is being prepared as part of an application to temporarily increase water quality parameters under UT0023540. The underground portions of the flooded mine are not currently accessible, and water quality within the mine cannot be further controlled until safely dewatered and accessible. Due to the unknown water quality within flooded portions of the mine, the request for a temporary increase to water quality parameters was submitted to accommodate the emergency pumping activities.

Project Description

UPDES permit UT0023540 authorizes discharge from five outfalls: Outfall 001 discharges mine water to Eccles Creek, Outfall 002 discharges to Eccles Creek from a sedimentation pond, Outfall 003 discharges to UP Canyon Creek from a sedimentation pond located at the waste rock site, Outfall 004 discharges mine water to Winter Quarters Canyon, and Outfall 005 discharges directly into Electric Lake.

This request is part of a request to increase discharge quality parameters for Outfall 005. Skyline Mine is currently undertaking emergency pumping activities to de-water portions of the mine that have flooded. This proposed activity requires installing multiple well pumps from the surface into the underground mine. The underground portion of the mine is not currently accessible, and water quality within the mine cannot be controlled. Due to an unknown quality of water within the flooded portion of the mine, this request for an increase of parameters is being submitted to accommodate the emergency pumping activities. CFC anticipates the proposed activity will be needed for the next 11 months. Parameters that may be exceeded include Total Dissolved Solids, Total Suspended Solids, and Iron. It is requested that the daily maximum TDS limit be increased to 500 mg/L. This limit is still considered a high-quality water and is within national drinking water standards for TDS. The daily maximum for TSS is requested to increase to 60 mg/L. This amount is still below the TSS limit for all other outfalls at Skyline mine. During periods of runoff and precipitation, the tributaries to Electric Lake often far exceed this amount. Considering the low snowpack this year, there will be little runoff occurring in 2026. No upper limit is being requested for Total Iron. It is anticipated Total Iron will be higher than the current parameters, but

it is currently unknown how high it may climb. A report prepared by Peterson Hydrologic was included with the permit modification application as a reference to explain the increase in Total Iron. It is not anticipated that Total Iron would exceed 3.0mg/L. Based on more recent field monitoring data performed by CFC, it appears Total Iron should not exceed 2.0mg/L. All the proposed increased parameters are still aligned with grandfathered UPDES discharge points in the Lower Huntington Creek area downstream of Electric Lake. The discharged water will also help to bolster the limited supply of water in the basin due to the low snowpack and drought conditions currently being experienced. This proposed temporary increase is not anticipated to impair the fish and aquatic habitat of Electric Lake or Huntington Creek.

Part C. Statement of Social, Environmental, and Economic Importance

This section determines whether the degradation from the project is necessary to accommodate important social and/or economic development in the area in which the waters are located. The applicant must provide as much detail as necessary for DWQ to concur that the project is socially and economically necessary when answering the questions in this section.

The requirement for applicants originates in the *Code of Federal Regulations*, Chapter 40, Part 131.12(a)(2) [40 CFR 40.131.12(a)(2)]. It requires applicants to demonstrate that allowing lower water quality is beneficial to accommodate social or economic development in the area. The State of Utah defines the minimum information that an applicant must provide includes the following:

- Impacts on employment
- Increases in production
- Improved community tax base
- Impacts on housing
- Correction of an environmental or public health problem

C1. Describe the proposed project or activity that requires a discharge of pollutants to waters of the State of Utah.

The majority of the remaining mineable reserves at the Skyline Mine are located within or beyond the flooded portions of the mine. In order to continue the operation of the mine, the flooded area is required to be dewatered to access the mine again. The flooded area of the mine is located directly below Outfall 005. In order to safely reenter the mine, it is necessary dewater the encountered groundwater currently flooding the mine and discharge it to the surface. The only feasible way to dewater the mine is to pump the water through Outfall 005. This is accomplished by installing several downhole well pumps from the Outfall 005 borehole and the Swen's Ventilation Shaft. Because the flooded area of the mine can only be safely dewatered from the surface, CFC has no control on the water quality.

Without the ability to dewater the mine from the surface, the flooded portion of the mine would need to be sealed to allow groundwater to stabilize at equilibrium. This would sterilize the remaining mineable coal from being accessed from the Skyline Mine and result in the ultimate closure of the mine.

C2. Describe the social and economic benefits that would be realized through the proposed project, including the number and nature of jobs created and anticipated tax revenues.

Skyline Mine has been in operation since 1983 and has historically operated as a longwall and continuous miner developed coal mine. Annual production rates are typically around 3.5 million tons per year. Employment for Skyline Mine ranges from 350 to 425 employees. Prior to the January 28 event, Skyline employed approximately 412 staff. With the recent idling of the mine, staffing has been reduced to 110 and no production has occurred since January 27. If dewatering efforts prove successful, the employment at Skyline can increase back to approximately 350 employees for full operation.

The average yearly wage and benefits each CFC employee receives is approximately \$125,000. In addition to the direct employment jobs CFC also require the coal be transported via truck to the local power plants. Skyline Mine supports approximately 75 trucking jobs and the coal going to the power plants will support the 700 plus employees at the power plants. Based on a 2019 study by the Economic Policy Institute¹ for each direct employee of a coal mining operation, it creates 5 indirect jobs (i.e. schools, contractors, retail, etc.). Therefore, if Skyline reaches back to full employment of 350 people, it would create an economic benefit to rural Utah of another 1,750 jobs.

Skyline Mine historically has paid around \$1.2 million in annual property taxes. If dewatering efforts cannot be enabled through this temporary increase in water quality parameters, and the mine were to remain idled or closed, the property tax would significantly reduce to around \$120,000. In addition to property taxes, Skyline Mine also has an economic impact to local suppliers and vendors of approximately \$65M per year. CFC also pays production royalties to private landowners and the Bureau of Land Management of approximately \$20M per year, part of which returns back to the State and Local governments. The continued life of the mine is anticipated to be approximately 10 years if dewatering efforts prove to be successful.

C3. Describe any environmental benefits to be realized through implementation of the proposed project.

Historic flows from Outfall 005 were around 3,500 gpm prior to the January 28th event. With the additional pumping capacity installed from the surface, the new discharge rate for Outfall 005 is expected to be more than 15,000 gpm. Snowpack for the year was around 13% on average for the Upper Huntington Basin. This is a historically low amount that has resulted in extreme drought conditions. Peak runoff for the area was finished in mid-March, where it historically is not completed until mid-June. The increased flow through Outfall 005, will in turn restore the water balance in Electric Lake caused by the historically low drought conditions currently being experienced. This will benefit the limited supply of water stored in the Upper Huntington reservoirs and help to serve downstream water users for domestic, agricultural and power production purposes in a year when water is desperately needed.

¹ Bivens, J. (2019). *Updated Employment Multipliers for the U.S. Economy*. Washington D.C.: Economic Policy Institute.

C4. Describe any social and economic losses that may result from the project, including impacts to recreation or commercial development.

No known social or economic losses would result from an increase in water flow into Electric Lake.

C5. Summarize any supporting information from the affected communities on preserving assimilative capacity to support future growth and development.

Given the current drought conditions, there is adequate capacity in Electric Lake to receive the discharged water. Even if the lake were to fill, water can be released from the dam and flow to downstream users or eventually into the Colorado River. In any eventuality, increased water in the drainage is a benefit to all water users downstream.

C6. Describe any structures or equipment associated with the project that will be placed within or adjacent to the receiving water.

An additional pipe was installed to accommodate the increased capacity and pumps from the Swen's Canyon shaft site. In order to dissipate energy from the outfall, larger diameter rip rap at the discharge point is needed. This will also serve to allow the water from both pipelines to mix together at the discharge point.

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Part D. Parameters of Concern

The existing Skyline Mine UPDES permit contains limits for the following parameters at Outfall 005:

- a) pH, total iron, oil & grease, total suspended solids (TSS), and total dissolved solids (TDS).

To CFC's knowledge, there are no parameters/pollutants that have been identified as "important" through public comment or other public input forums for discharges to Electric Lake. TDS is a POC under the Colorado River Salinity Control Forum.

Based on past permit reviews and waste load analysis, TDS, TSS, pH and total iron have been identified as Parameters of Concern. The following list of preliminary parameters/pollutants was established as potential POCs for further consideration in the Skyline Mine ADR analysis:

1. Total Suspended Solids
2. Totals Dissolved Solids
3. Oil & Grease
4. Iron
5. pH
6. Temperature
7. Metals (As, Cd, Cr, Cu, Pb, Hg, Ni, Se, Zn)

Section 4.0 of the ADR Implementation Guidance indicates that "only parameters in the discharge effluent that exceed, or potentially exceed, ambient concentrations [in the receiving water body] should be considered".

D-1. Parameters of Concern:

The tables below were provided in the most recent waste load analysis dated May 20, 2025 for permit UT-0023540 specific to Outfall 005.

Table 3: TDS (mg/l) background statistical description by region

region	count	min	20%	mean	median	80%	max	std	var	skew
Lake	1266	108	151	167.34	164	183	451	23	529.16	3.4
Lower	1242	26	230	303.18	292	369	763	83.53	6977.37	0.94
Upper	1392	105	175	202.36	201	235	301	34.12	1164.08	0.08

Table 4: Total Iron (mg/l) background statistical description by region

region	count	min	20%	mean	median	80%	max	std	var	skew
Lake	1258	0	0.05	0.08	0.05	0.08	3.11	0.18	0.03	14.66
Lower	1240	0.03	0.11	0.95	0.2	0.72	48.22	4.71	22.18	9.64
Upper	1392	0	0.08	0.38	0.21	0.45	12.01	0.84	0.71	8.24

Table 5: Dissolved Iron (mg/l) background statistical description by region

region	count	min	20%	mean	median	80%	max	std	var	skew
Lake	1262	0	0.03	0.03	0.03	0.03	0.34	0.01	0	9.52
Lower	1240	0	0.03	0.04	0.03	0.03	1.69	0.11	0.01	13.02
Upper	1392	0	0.03	0.03	0.03	0.03	0.43	0.03	0	7.38

D-2. Pollutants Evaluated That Are Not Considered Parameters of Concern:

Other pollutants have been evaluated and determined to not be parameters of concern. While they may not be parameters of concern, the Permit also requires monitoring for oil and grease, temperature, turbidity, dissolved oxygen, and total metals. The quality of the water being pumped from the flooded area is not statistically different from encountered groundwater that would otherwise be discharged through the Outfalls in the permit. It is not anticipated that the chemistry of the water being discharged during the dewatering operations through Outfall 005 is different than what has been historically evaluated.

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Part E. Alternative Analysis

The intent of this section is to evaluate whether there are any reasonable non-degrading or less degrading alternatives when compared with the discharge alternative for handling of water from the Mine. The section provides an initial screening of potential alternatives based on their feasibility followed by a detailed screening of those alternatives deemed feasible based on their total financial costs, pollution/POC reduction, and performance based on several criteria, including reliability, operability, maintainability, sustainability, and adaptability to future regulatory changes. The analysis is followed by identification of the preferred treatment alternative and the justification for selection of that treatment alternative.

The requirements found in UAC R317-2-3.5 stipulate the following alternatives should be considered, evaluated, and implemented to the extent feasible:

- a) Innovative or alternative treatment options
- b) More effective treatment options or higher treatment levels
- c) Connection to other wastewater treatment facilities
- d) Process changes or products or raw material substitution
- e) Seasonal or controlled discharge options to minimize discharging during critical water quality periods
- f) Pollutant trading
- g) Water conservation
- h) Water recycle and reuse
- i) Alternative discharge locations or alternative receiving water bodies
- j) Land application
- k) Total containment
- l) Improved operation and maintenance (O&M) of existing treatment systems
- m) Other appropriate alternatives

Section 5.2 of the Implementation Guidance indicates that the feasibility of all treatment alternatives should be examined before the alternatives are included for further consideration as part of the ADR analysis. Based on this requirement, many of the alternatives listed in UAC R317-2-3.5 can be excluded from further consideration as part of this ADR analysis based on their impracticality or inability to be implemented at the Mine. The following are treatment alternatives from the above list that are excluded from further consideration along with the justifications for each exclusion:

- **Alternative A - Alternative Treatment Solutions:** Due to the flooded nature of the mine, the water being pumped from the mine is currently inaccessible and cannot be treated in any way prior to discharge.
- **Alternative B – Higher treatment levels:** Ion exchange and reverse osmosis are demonstrated treatment processes for removing TDS from effluent. However, these processes concentrate the salt ions into a reverse osmosis membrane reject stream or an ion exchange resin regeneration brine, and do not reduce the mass of TDS requiring discharge to surface or disposal by other methods. Due the cost and complexity of managing reject and regeneration wastes, higher level treatment processes were not considered further. For treatment of Iron, aeration, and settling ponds are required to

drop the iron out as a solid. This would require a large acreage of disturbance to construct ponds, and also create a waste stream that would need to be hauled offsite for disposal. The discharge point is located on USDA National Forest Service lands and the terrain does not accommodate large settling ponds for this purpose.

- **Alternative C—Connection to other wastewater treatment facilities:** There are no wastewater treatment facilities in the area of Outfall 005.
- **Alternative D—Process changes or product or raw material substitution:** Due to the flooded nature of the mine, Outfall 005 is the only feasible location to dewater the mine from.
- **Alternative E—Seasonal or controlled discharge options:** Due to the flooded nature of the mine, dewatering operations cannot be fluctuated due to seasonal demand. This would result in further damage to the mine.
- **Alternative G—Water conservation:** The intercepted groundwater in the mine is an oversupply of water that cannot be controlled except by pumping.
- **Alternative H—Water recycle and reuse:** The intercepted groundwater in the mine is an oversupply of water that cannot be controlled and is not needed for any use at the mine.
- **Alternative I—Use of alternative discharge locations or alternative receiving water bodies:** The only receiving water body in proximity to the flooded area of the mine is Electric Lake.
- **Alternative K—Total containment:** Options for total containment include an evaporation pond, deep well injection, and thermal evaporation using a mechanical concentrator and crystallizer. However, the construction of holding or evaporation ponds or other containment structures would require about 600 acres of suitable, undeveloped land to operate effectively to handle the new proposed flows. Based on the rugged topography surrounding the Electric Lake with limited moderate slopes, total containment using evaporation ponds is not considered. Total containment using deep well injection is used at some locations to dispose of effluent streams. However, geology and hydrogeology dictate the capacity of well injection. Due to the high hydrostatic head of groundwater adjacent to the mine, injection and containment of an additional 24,200 acre feet per year is not feasible for an injection well.
- **Alternative L—Improved operation and maintenance of existing treatment systems:** Not applicable. The water being pumped from the mine is currently inaccessible and cannot be treated in any way prior to discharge.

After excluding the preceding treatment alternatives deemed infeasible from further consideration, the following alternatives listed in UAC R317-2-3.5 are being carried forward for further analysis as part of this ADR:

Alternative F - Pollutant Trading

The discharge is located within the Colorado River basin and is subject to the Colorado River Basin Salinity Control Forum's policies for TDS. The Forum policy allows permitting

authorities to allow industrial sources of salinity to conduct or to finance salinity offset projects. Skyline Mine has purchased salinity offset credits as an alternative to reduce salinity in the regional Utah watershed portion of the Colorado River Basin for TDS discharges from the facility that would exceed one (1) ton per day (tpd). The current TDS limit for Outfall 005 is 235 mg/L and the proposed temporary increase is 500 mg/L, which still falls under the threshold for salinity loading requirements. It is not known if other pollutants have a similar trading and offset program.

Alternative J - Land Application

The facility is located in a relatively narrow basin and within the USDA National Forest service. There are no feasible lands nearby the discharge location that could be utilized for application. Land application for agricultural use does occur approximately 25 miles downstream from Outfall 005. Downstream water users heavily desire the use of this water in any year, and especially this year given the extreme drought conditions. According to a report by Utah State University², the watering rates for a typical alfalfa field in Castle Dale, are 4-acre feet per acre, with a consumptive use of 63%. Assuming a six-month growing season, the water being discharged from Outfall 005 could support 2,982 acres of alfalfa and 12,000 acre feet of storage during the off-season. Alternatively, if this water required a permitted discharge point further downstream, it would require the use of almost 3,000 acres and construction of a 25 mile long, 36" pipeline, to transport the water to be utilized for land application. Based on an estimate for construction and pipe compiled by the Applicant, a pipeline of this magnitude would cost over \$16,000,000.

Summary of Alternatives

As demonstrated above, the only possible alternatives are additional treatment to remove POCs or piping further downstream, all of which provides limited improvement in the effluent quality while creating a large disturbance of National Forest lands and results in a waste stream that otherwise must be disposed of offsite. Due to the flooded nature of the mine, limited alternatives exist to accommodate the dewatering efforts that will hopefully allow the mine to return to full operation.

² *Consumptive Use of Irrigated Crops in Utah*, Research Report 145. Utah Agricultural Experiment Station. Utah State University, Logan, Utah, October 1994.