

**FACT SHEET AND STATEMENT OF BASIS  
KAMAS CITY CORPORATION  
WASTEWATER TREATMENT FACILITY  
RENEWAL PERMIT: DISCHARGE  
UPDES PERMIT NUMBER: UT0020966  
MINOR MUNICIPAL**

**FACILITY CONTACTS**

Person Name: Matt McCormick  
Position: Mayor  
Phone Number: (435) 783-4630

Person Name: Matt Crittenden  
Position: Public Works Director  
Phone Number: (425) 731-0562

Person Name: Darrell Thomas  
Position: Operator  
Phone Number: (435) 783-6208

Facility Name: Kamas City Corporation Wastewater Treatment Facility  
Mailing and Facility Address: 170 North Main  
Kamas, UT 84036  
Telephone: (435) 783-4630  
Actual Address: Simpson Road  
Kamas, UT 84036

**DESCRIPTION OF FACILITY**

The Kamas City Wastewater Treatment Facility (Kamas) was last upgraded in 1991. At present, the facility consists of an 18" inlet pipe, grinder and a screen, influent flow meter, followed by 5 waste stabilization ponds (first 3 are aerated), ultraviolet light disinfection, effluent flow meter and a 10 KW Koler generator. The facility has seven 20 HP Aero-O2 aerators manufactured by Aeratrion Industries International, Inc. The five cells cover 3.4, 6.7, 3.4, 3.2 and 2.1 acres respectively. Total surface area of the lagoon is approximately 18.8 acres. The total area of the facility is contained within a chain link fence and occupies an area of 900 feet by 1300 feet. The wastewater lagoon is located approximately one-quarter (0.25) mile northwest of Kamas, Utah, in Summit County.

The design capacity of the facility is 1.0 MGD and was originally designed for a population equivalent of 1,000. The current population of Kamas is approximately 2,500. The treatment facility was originally designed for an influent organic loading of 420 lbs/day of Biochemical Oxygen Demand (BOD) and 375 lbs/day of Total suspended solids (TSS). Since the facility was built, it has added additional aerators to their system. With this addition, the facility can now treat 1,750 lbs of BOD per day with a population equivalent of approximately 4,000.

## SUMMARY OF CHANGES FROM PREVIOUS PERMIT

BOD and TSS effluent limitations are lower than they were in the previous permit. Utah Administrative Code (UAC) R317-1-3.2.G. allows for 45 mg/L for a monthly average and 65 mg/L for a weekly average when certain conditions are being met. These conditions are no longer being met, so the BOD and TSS limitations will be based on Utah Secondary Treatment Standards, UAC R317-1-3.2, and the Wasteload Analysis (WLA).

### Compliance Schedules

Total Phosphorus, Total Nitrogen, and Ammonia:

Included in the previous permit was a Compliance Schedule for total phosphorus, total nitrogen, and ammonia. Due to unexpected delays outside of Kamas' control, Kamas was not able to meet the terms of the Compliance Schedule in the previous permit. They have requested a modification of this schedule to account for these unexpected delays, which resulted in the revised Compliance Schedule Below.

<b>Comply by Date</b>	<b>Action</b>
March 31, 2022	Kamas City shall submit for approval by the Division of Water Quality (DWQ) the Wastewater Master Plan describing in detail the community needs, alternatives considered, a summary of industrial users within the service area for the pretreatment requirements, and plans for financing and implementing the recommended and necessary improvements to the Kamas wastewater treatment.
February 1, 2023	Kamas City shall submit detailed construction plans and specifications to DWQ to obtain a construction permit.
August 1, 2023	Kamas City shall commence construction of approved wastewater treatment upgrades as outlined in the DWQ Construction permit.
October 1, 2025	Kamas City shall complete construction of wastewater treatment upgrades and begin startup and optimization of upgraded wastewater treatment process.
January 1, 2026	Kamas City shall achieve compliance with all effluent limits prescribed in UPDES Permit No. UT0020907. At the end of the compliance period the TP load limits will be 277 kg (609 lbs) during the summer and 554 kg (1,218 lbs) annually. TN limits will be 2,771 kg (6,096 lbs) during summer and 5,542 kg (12,192 lbs) annually. Ammonia limits can be found in Effluent Limitations Table.

Dissolved Oxygen:

According to 'TABLE 2.14.2' in UAC 317-2-14 the minimum Dissolved Oxygen (DO) for Class 3A streams where early life stages (ELS) are present is 8.0 mg/L. ELS have been determined to be present in the receiving stream, therefore the daily minimum DO parameter for DO is 8.0 mg/L. To allow for needed upgrades a Compliance Schedule for DO will be included in this permit. The interim limit for DO will be the value for the previous permit.

Date	Minimum DO Limit
Permit Issue – December 31, 2022	5.5 mg/L
January 1, 2024	8 mg/L

## DISCHARGE

### DESCRIPTION OF DISCHARGE

Kamas has been reporting self-monitoring results on Discharge Monitoring Reports on a monthly basis.

Outfall	Description of Discharge Point
001	<p>Located at latitude 40° 39'06" and longitude 111°17'06". The effluent discharges to the west approximately one quarter mile through an underground 10" pipe to an unnamed irrigation ditch, which is a tributary of Beaver Creek. From this location, Beaver Creek flows approximately 3 miles to the Weber River.</p>

### **RECEIVING WATERS AND STREAM CLASSIFICATION**

The final discharge is to Beaver Creek and to the Weber River, both classified as Class 1C, 2B, 3A and 4 according to *Utah Administrative Code (UAC) R317-2-13*:

- 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.

### **TOTAL MAXIMUM DAILY LOAD (TMDL) REQUIREMENTS**

Due to impairments to Rockport Reservoir's coldwater fishery beneficial use and its associated TMDL, Kamas City will need to meet limits for total phosphorus (TP) and total nitrogen (TN) as allocated in the 2014 Rockport Reservoir and Echo Reservoir TMDL (adopted into rule by the Water Quality Board 3/26/2014 and approved by EPA 9/16/2014). The TMDL outlines both annual and summer load limits, defining summer as April 1 through September 30 (183 days). At the end of the compliance period the TP load limits will be 277 kg (609 lbs) during the summer and 554 kg (1,218 lbs) annually. TN limits will be 2,771 kg (6,096 lbs) during summer and 5,542 kg (12,192 lbs) annually. This equates to 3.3 lbs/day TP and 33 lbs/day TN.

### **BASIS FOR EFFLUENT LIMITATIONS**

Limitations on total suspended solids (TSS), biological oxygen demand (BOD5), *E. coli*, pH and percent removal for BOD5 and TSS are based on current Utah Secondary Treatment Standards, UAC R317-1-3.2. The oil and grease limits are based on best professional judgment (BPJ). All remaining limits have been set according to the WLA for this discharge, which is attached. It has been determined that this discharge will not cause a violation of water quality standards. An Antidegradation Level II review is not required

since the Level I review shows that water quality impacts are minimal. Except for parameters included in the Compliance Schedule. the permittee is expected to be able to comply with these limitations.

### Reasonable Potential Analysis

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

A quantitative RP analysis was performed on cyanide, arsenic, chromium, copper, lead, nickel, silver, zinc, molybdenum, selenium, and mercury to determine if there was reasonable potential for the discharge to exceed the applicable water quality standards. Based on the RP analysis, the following parameters exceeded the most stringent chronic water quality standard or were determined to have a reasonable potential to exceed the standard: cyanide. However, due to the number of data points available, a valid statistical analysis could not be performed – see Attachment 4 at the end of this Fact Sheet for more details. As a result, there will be no additional limits or monitoring requirements as a result of RP this permit cycle.

The permit limitations are:

Parameter	Effluent Limitations *a				
	Maximum Monthly Avg	Maximum Weekly Avg	Yearly	Daily Minimum	Daily Maximum
Total Flow	1.0	--	--	--	--
BOD <sub>5</sub> , mg/L	25	30	--	--	--
BOD <sub>5</sub> Min. % Removal	85	--	--	--	--
TSS, mg/L	25	35	--	--	--
TSS Min. % Removal	85	--	--	--	--
Dissolved Oxygen, mg/L*j	--	--	--	5.5/8.0	--
Total Ammonia (as N), mg/L *h					
Summer (Jul-Sep)	3.2	--	--	--	6.5
Fall (Oct-Dec)	12.8	--	--	--	20.6
Winter (Jan-Mar)	5.4	--	--	--	12.5
Spring (Apr-Jun)	3.2	--	--	--	6.5
<i>E. coli</i> , No./100mL	126	157	--	--	--
Total Phosphorus, lbs *f					
Summer (Ap-Sep)	--	--	609	--	--
Annually	--	--	1,218	--	--
Total Nitrogen, lbs *g					
Summer (Ap-Sep)	--	--	6,096	--	--
Annually	--	--	12,192	--	--
Oil & Grease, mg/L	--	--	--	--	10.0
pH, Standard Units	--	--	--	6.5	9

### SELF-MONITORING AND REPORTING REQUIREMENTS

The following self-monitoring requirements are different than the previous permit. Total nitrogen and total phosphorus are required to be reported in pounds (lbs) in frequency listed below to allow for comparison to TMDL limits. The permit will require reports to be submitted monthly and annually, as applicable, on

Discharge Monitoring Report (DMR) forms due 28 days after the end of the monitoring period. Effective January 1, 2017, monitoring results must be submitted using NetDMR unless the permittee has successfully petitioned for an exception. Lab sheets for biomonitoring must be attached to the biomonitoring DMR. Lab sheets for metals and toxic organics must be attached to the DMRs.

Self-Monitoring and Reporting Requirements *a			
Parameter	Frequency	Sample Type	Units
Total Flow *b, *c	Continuous	Recorder	MGD
BOD <sub>5</sub> , Influent *d	Monthly	Composite	mg/L
Effluent	Monthly	Composite	mg/L
TSS, Influent *d	Monthly	Composite	mg/L
Effluent	Monthly	Composite	mg/L
<i>E. coli</i>	Monthly	Grab	No./100mL
pH	Weekly	Grab	SU
Total Ammonia (as N), *h	Monthly	Composite	mg/L
DO *j	Monthly	Grab	mg/L
Oil & Grease *e	When Sheen Observed/Monthly	Grab	mg/L
Orthophosphate (as P) Effluent	Monthly	Composite	mg/L
Total Phosphorus, *f Influent	Monthly	Composite	mg/L
Effluent	Monthly	Composite	mg/L
Total Nitrogen, *g Influent	Monthly	Composite	mg/L
Effluent	Monthly	Composite	mg/L
Total Phosphorus, *f	Summer (Ap-Sep) Annually	Calculated Calculated	lbs lbs
Total Nitrogen, *g	Summer (Ap-Sep) Annually	Calculated Calculated	lbs lbs
Total Kjeldahl Nitrogen TKN (as N) Influent	Monthly	Composite	mg/L
Effluent	Monthly	Composite	mg/L
Nitrate, NO <sub>3</sub>	Monthly	Composite	mg/L
Nitrite, NO <sub>2</sub>	Monthly	Composite	mg/L
Metals, Influent *i	Semi-Annually	Composite	mg/L
Effluent	Semi-Annually	Composite	mg/L
Organic Toxics	1 <sup>st</sup> , 3 <sup>rd</sup> , and 5 <sup>th</sup> Year	Grab	mg/L

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

\*b Flow measurements of influent/effluent volume shall be made in such a manner that the permittee can affirmatively demonstrate that representative values are being obtained.

\*c If the rate of discharge is controlled, the rate and duration of discharge shall be reported.

\*d In addition to monitoring the final discharge, influent samples shall be taken and analyzed for this constituent at the same frequency as required for this constituent in the discharge.

\*e Oil & Grease sampled when sheen is present or visible. If no sheen is present or visible, report NA.

- \*f Total phosphorus is limited by the 2014 Rockport Reservoir and Echo Reservoir TMDL to 277 kg (609 lbs) during the summer and 554 kg (1,218 lbs) annually. Final effluent limitations will become effective in accordance with compliance schedule as found in *Part 1.C.3.a.* of the permit.
- \*g Total nitrogen is limited by the 2014 Rockport Reservoir and Echo Reservoir TMDL to 2,771 kg (6,096 lbs) during summer and 5,542 kg (12,192 lbs) annually. Final effluent limitations will become effective in accordance with compliance schedule as found in *Part 1.C.3.a.* of the permit.
- \*h Final effluent limitations will become effective in accordance with compliance schedule as found in *Part 1.C.3.a.* of the permit. Final ammonia limits will go into effect on January 1, 2026.
- \*i RP Analysis was run on metal data from the previous permit cycle. No metals limits are required at this time.
- \*j Final effluent limitations will become effective in accordance with compliance schedule as found in *Part 1.C.3.b.* of the permit. Final limit of 8.0 mg/L will become effective January 1, 2024. Interim limit will be 5.5 mg/L.

### **BIOSOLIDS**

The State of Utah has adopted the 40 CFR 503 federal regulations for the disposal of sewage sludge (biosolids) by reference. However, since this facility is a lagoon, there is not any regular sludge production. Therefore 40 CFR 503 does not apply at this time. In the future, if the sludge needs to be removed from the lagoons and is disposed in some way, the Division of Water Quality must be contacted prior to the removal of the sludge to ensure that all applicable state and federal regulations are met

### **STORM WATER**

Separate storm water permits may be required based on the types of activities occurring on site. Based on the design flow of the facility of 1.0 MGD, the permittee is required to maintain separate permit coverage, or an appropriate exclusion, under the Multi-Sector General Permit (MSGP) for Storm Water Discharges Associated with Industrial Activities (UTR000000). If the facility has not already done so, it has 30 days from when this permit is issued to submit the appropriate Notice of Intent (NOI) for the MSGP, or exclusion documentation.

Permit coverage under the Construction General Storm Water Permit (CGP) is required for any construction at the facility which disturb an acre or more, or is part of a common plan of development or sale that is an acre or greater. A Notice of Intent (NOI) is required to obtain a construction storm water permit prior to the period of construction.

Information on storm water permit requirements can be found at <http://stormwater.utah.gov>

### **PRETREATMENT REQUIREMENTS**

An Approved Pretreatment Program is not required to be developed by Kamas. This is due to the flow through the plant being less than five (5) MGD. Although there are concerns regarding industrial users due to violations and the possibility that White Knight Fluid Handling, is discharging process wastewater to the

Publicly Owned Treatment Works (POTW). White Knight Fluid Handling is an Industrial User that manufactures medical devices.

E-coli violations have occurred that might be due to impacts of the UV system during the springs months. This could be due to turnover that occurs in the wastewater ponds. Additional review of the issues at the treatment system and within the service area must occur to determine if an Industrial User is impacting the POTW.

An industrial waste survey (IWS) is required to be submitted by Kamas to DWQ. The IWS assists with determining if pretreatment assistance is needed. Submission of the IWS must occur before March 31, 2022. If an Industrial User begins to discharge or an existing Industrial User changes the process or discharge practices, Kamas must resubmit an IWS no later than sixty days following the introduction or change as stated in Part II of the permit.

If local limits are developed Kamas is required to submit the local limit development information to the Division of Water Quality (DWQ). Local limits must be approved by DWQ before Kamas implements the local limits.

If developed, local limits must be reviewed annually to evaluate the need to revise or develop technically based local limits for pollutants of concern. The evaluation may indicate that the local limits are sufficiently protective, need to be revised, or should be developed. Local limits are implemented to ensure compliance by Industrial Users, with the general and specific prohibitions in 40 CFR Part 403.5(a) and Part 403.5(b).

### **BIOMONITORING REQUIREMENTS**

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

Kamas is a minor municipal facility, which discharges one (1) MGD, and has no industries contributing to the wastewater system. The dilution ratio of the irrigation ditch to discharge is approximately 2 to 1. Based on these considerations, there is no reasonable potential for toxicity in Kamas' discharge (per State of Utah Permitting and Enforcement Guidance Document for Whole Effluent Toxicity Control). As such, there will be no numerical WET limitations or WET monitoring requirements in this permit. However, the permit will contain a toxicity limitation re-opener provision. This provision allows for modification of the permit, should additional information indicate the presence of toxicity in the discharge.

### **PERMIT DURATION**

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

Drafted and Reviewed by  
Danielle Lenz, Discharge Permit Writer  
Daniel Griffin, Biosolids  
Jennifer Robinson, Pretreatment  
Lonnie Shull, Biomonitoring  
Carl Adams, Storm Water  
Christine Osborne, TMDL/Watershed  
Danielle Lenz, Reasonable Potential Analysis  
Chris Shope, Wasteload Analysis

Utah Division of Water Quality, (801) 536-4300

**PUBLIC NOTICE**

Began: Month Day, Year

Ended: Month Day, Year

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

The Public Noticed of the draft permit was published on the DWQ webpage.

During the public comment period provided under 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 R317-8-6.12.

**ADDENDUM TO FSSOB**

During finalization of the Permit certain dates, spelling edits and minor language corrections were completed. Due to the nature of these changes they were not considered Major and the permit is not required to be re Public Noticed.

**Responsiveness Summary**

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

DWQ-2021-030150



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**ATTACHMENT 1**

*Industrial Waste Survey*

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# Industrial Pretreatment Wastewater Survey



Do you periodically experience any of the following treatment works problems:

- foam, floaties or unusual colors
- plugged collection lines caused by grease, sand, flour, etc.
- discharging excessive suspended solids, even in the winter
- smells unusually bad
- waste treatment facility doesn't seem to be treating the waste right

Perhaps the solution to a problem like one of these may lie in investigating the types and amounts of wastewater entering the sewer system from industrial users.

An industrial user (IU) is defined as a non-domestic user discharging to the waste treatment facility which meets any of the following criteria:

1. **has a lot of process wastewater (5% of the flow at the waste treatment facility or more than 25,000 gallons per work day.)**

Examples: Food processor, dairy, slaughterhouse, industrial laundry.

2. **is subject to Federal Categorical Pretreatment Standards;**

Examples: metal plating, cleaning or coating of metals, blueing of metals, aluminum extruding, circuit board manufacturing, tanning animal skins, pesticide formulating or packaging, and pharmaceutical manufacturing or packaging,

3. **is a concern to the POTW.**

Examples: septage hauler, restaurant and food service, car wash, hospital, photo lab, carpet cleaner, commercial laundry.

All users of the water treatment facility are **prohibited** from making the following types of discharges:

1. A discharge which creates a fire or explosion hazard in the collection system.
2. A discharge which creates toxic gases, vapor or fumes in the collection system.
3. A discharge of solids or thick liquids which creates flow obstructions in the collection system.
4. An acidic discharge (low pH) which causes corrosive damage to the collection system.
5. Petroleum oil, nonbiodegradable cutting oil, or products of mineral oil origin in amounts that will cause problems in the collection system or at the waste treatment facility.
6. Waste haulers are prohibited from discharging without permission. (No midnight dumping!)

When the solution to a sewer system problem may be found by investigating the types and amounts of wastewater entering the sewer system discharged from IUs, it's appropriate to conduct an Industrial Waste Survey.

## An Industrial Waste Survey consists of:

### Step 1: Identify Industrial Users

Make a list of all the commercial and industrial sewer connections.

Sources for the list:

business license, building permits, water and wastewater billing, Chamber of Commerce, newspaper, telephone book, yellow pages.

Split the list into two groups:

domestic wastewater only--no further information needed  
everyone else (IUs)

### Step 2: Preliminary Inspection

Go visit each IU identified on the "everybody else" list.

Fill out the **Preliminary Inspection Form** during the site visit.

### Step 3: Informing the State

Please fax or send a copy of the Preliminary inspection form (both sides) to:

**Jennifer Robinson**

Division of Water Quality  
288 North 1460 West  
PO Box 144870  
Salt Lake City, UT 84114-4870

Phone: (801) 536-4383  
Fax: (801) 536-4301  
E-mail: [jenrobinson@utah.gov](mailto:jenrobinson@utah.gov)

**PRELIMINARY INSPECTION FORM**

INSPECTION DATE \_\_\_ / \_\_\_ /

Name of Business \_\_\_\_\_ Person Contacted \_\_\_\_\_  
Address \_\_\_\_\_ Phone Number \_\_\_\_\_

Description of Business \_\_\_\_\_

Principal product or service: \_\_\_\_\_

Raw Materials used: \_\_\_\_\_

Production process is:  Batch  Continuous  Both

Is production subject to seasonal variation?  yes  no

If yes, briefly describe seasonal production cycle.

This facility generates the following types of wastes (check all that apply):

- |   |  |
|---|--|
| 1. <input type="checkbox"/> Domestic wastes             | (Restrooms, employee showers, etc.)                    |
| 2. <input type="checkbox"/> Cooling water, non-contact  | 3. <input type="checkbox"/> Boiler/Tower blowdown      |
| 4. <input type="checkbox"/> Cooling water, contact      | 5. <input type="checkbox"/> Process                    |
| 6. <input type="checkbox"/> Equipment/Facility washdown | 7. <input type="checkbox"/> Air Pollution Control Unit |
| 8. <input type="checkbox"/> Storm water runoff to sewer | 9. <input type="checkbox"/> Other describe             |

Wastes are discharged to (check all that apply):

- |   |                                       |
|---|---------------------------------------|
| <input type="checkbox"/> Sanitary sewer   | <input type="checkbox"/> Storm sewer  |
| <input type="checkbox"/> Surface water    | <input type="checkbox"/> Ground water |
| <input type="checkbox"/> Waste haulers    | <input type="checkbox"/> Evaporation  |
| <input type="checkbox"/> Other (describe) |                                       |

Name of waste hauler(s), if used

Is a grease trap installed? Yes No

Is it operational? Yes No

Does the business discharge a lot of process wastewater?

- More than 5% of the flow to the waste treatment facility? Yes No
- More than 25,000 gallons per work day? Yes No

Does the business do any of the following:

- |   |  |
|---|--|
| <input type="checkbox"/> Adhesives                                    | <input type="checkbox"/> Car Wash                  |
| <input type="checkbox"/> Aluminum Forming                             | <input type="checkbox"/> Carpet Cleaner            |
| <input type="checkbox"/> Battery Manufacturing                        | <input type="checkbox"/> Dairy                     |
| <input type="checkbox"/> Copper Forming                               | <input type="checkbox"/> Food Processor            |
| <input type="checkbox"/> Electric & Electronic Components             | <input type="checkbox"/> Hospital                  |
| <input type="checkbox"/> Explosives Manufacturing                     | <input type="checkbox"/> Laundries                 |
| <input type="checkbox"/> Foundries                                    | <input type="checkbox"/> Photo Lab                 |
| <input type="checkbox"/> Inorganic Chemicals Mfg. or Packaging        | <input type="checkbox"/> Restaurant & Food Service |
| <input type="checkbox"/> Industrial Porcelain Ceramic Manufacturing   | <input type="checkbox"/> Septage Hauler            |
| <input type="checkbox"/> Iron & Steel                                 | <input type="checkbox"/> Slaughter House           |
| <input type="checkbox"/> Metal Finishing, Coating or Cleaning         |  |
| <input type="checkbox"/> Mining                                       |  |
| <input type="checkbox"/> Nonferrous Metals Manufacturing              |  |
| <input type="checkbox"/> Organic Chemicals Manufacturing or Packaging |  |
| <input type="checkbox"/> Paint & Ink Manufacturing                    |  |
| <input type="checkbox"/> Pesticides Formulating or Packaging          |  |
| <input type="checkbox"/> Petroleum Refining                           |  |
| <input type="checkbox"/> Pharmaceuticals Manufacturing or Packaging   |  |
| <input type="checkbox"/> Plastics Manufacturing                       |  |
| <input type="checkbox"/> Rubber Manufacturing                         |  |
| <input type="checkbox"/> Soaps & Detergents Manufacturing             |  |
| <input type="checkbox"/> Steam Electric Generation                    |  |
| <input type="checkbox"/> Tanning Animal Skins                         |  |
| <input type="checkbox"/> Textile Mills                                |  |

Are any process changes or expansions planned during the next three years? Yes No  
If yes, attach a separate sheet to this form describing the nature of planned changes or expansions.

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Inspector

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Waste Treatment Facility

Please send a copy of the preliminary inspection form (both sides) to:

Jennifer Robinson  
Division of Water Quality  
PO Box 144870  
Salt Lake City, Utah 84114-4870

Phone: (801) 536-4383  
Fax: (801) 536-4301  
E-Mail: [jenrobinson@utah.gov](mailto:jenrobinson@utah.gov)

	<b>Industrial User</b>	<b>Jurisdiction</b>	<b>SIC Codes</b>	<b>Categorical Standard Number</b>	<b>Total Average Process Flow (gpd)</b>	<b>Total Average Facility Flow (gpd)</b>	<b>Facility Description</b>
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							



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**ATTACHMENT 2**

*Effluent Monitoring Data*

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## Effluent Monitoring Data.

Month	Flow	pH		O & G	<i>E. coli</i>	BOD5		TSS	
	Max	Min	Max	Max	Chronic	Week Ave	Mon. Ave	Week Ave	Mon. Ave
Sep-18	ND	ND	ND	ND	ND	ND	ND	ND	ND
Oct-18	0.09	7.16	7.56	0	2	5	5	11	5.5
Nov-18	0.06	7.21	8.01	0	0	0	0	15	15
Dec-18	0.1	7.71	8.14	0	0	8	7	4	4
Jan-19	0.1	6.18	8.02	0	91	14	12.5	14	105
Feb-19	0.11	7.66	8.06	0	2400	16	16	15	14
Mar-19	0.1	7.7	7.91	0	1410	19	18	16	14
Apr-19	0.18	7.63	8.22	0	119	19	17	32	28
May-19	0.43	8.12	8.29	0	0	20	19	60	45
Jun-19	0.61	8	8.34	0	3	7	6	38	21
Jul-19	0.24	7.99	8.37	0	1	16	11	24	22.5
Aug-19	0.23	8.35	8.4	0	4	9	8	28	21
Sep-19	0.09	8.52	8.59	0	2	8	8	43	41.5
Oct-19	0.12	8	8.3	0	3	5	5	8	8
Nov-19	0.1	8.11	8.11	0	0	0	0	4	4
Dec-19	0.09	6.9	7.68	0	0	12	12	0	0
Jan-20	0.07	7.31	7.81	0	8	9	9	0	0
Feb-20	0.15	7.71	8.62	0	2400	12	10	13	7
Mar-20	0.17	7.23	7.74	0	1300	18	16	17	14
Apr-20	0.17	7.48	8.14	0	2	40	20	72	36
May-20	0.36	7.19	8.79	0	0	11	8	20	20
Jun-20	0.36	6.99	7.84	0	2	9	19	8	16
Jul-20	0.17	7.31	7.83	0	37	24	12	23	11
Aug-20	0.14	7.25	7.85	0	46	0	0	5	3
Sep-20	0.07	8.67	8.98	0	0	6	6	4	4
Oct-20	0.03	7.51	8.28	0	2	0	0	6	6
Nov-20	0.12	6.87	8.15	0	0	0	0	0	0
Dec-20	0.15	7.21	8.81	0	0	10	10	11	10
Jan-21	0.15	7.68	7.93	0	20	11	10	9	9
Feb-21	0.17	7.54	8.18	0	158	19	16	20	17
Mar-21	0.18	7.22	7.85	0	1050	16	16	20	19
Apr-21	0.16	7.06	8.14	0	0	34	28	40.5	40
May-21	0.2	7.16	7.5	10	0	39	33	50	44.5
Jun-21	0.2	7.33	8.6	0	0	18	9	14	7
Jul-21	0.11	7.49	7.86	0	0	0	0	0	0
Aug-21	ND	ND	ND	ND	ND	ND	ND	ND	ND
Sep-21	0.25	7.35	7.68	0	161	0	0	0	0

**ATTACHMENT 3**

*Wasteload Analysis*

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**ATTACHMENT 4**

*Reasonable Potential Analysis*

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## REASONABLE POTENTIAL ANALYSIS

Water Quality has worked to improve our reasonable potential analysis (RP) for the inclusion of limits for parameters in the permit by using an EPA provided model. As a result of the model, more parameters may be included in the renewal permit. A Copy of the Reasonable Potential Analysis Guidance (RP Guide) is available at water Quality. There are four outcomes for the RP Analysis<sup>1</sup>. They are;

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

Initial screening for metals values that were submitted through the discharge monitoring reports showed that a closer look at some of the metals is needed. A copy of the initial screening is included in the “Effluent Metals and RP Screening Results” table in this attachment. The initial screening check for metals showed that the full model needed to be run on cyanide, arsenic, chromium, copper, lead, nickel, silver, zinc, molybdenum, selenium, and mercury.

On pg. 5 of the RP Guide Number of Data Points is discussed. It states, “Generally, a minimum data set of 10 valid data points within the last five years is recommended to perform a valid statistical analysis,” but we only have six data points for each metal. Technical Support Document for Water Quality Based Toxics Control EPA/505/2-90-001 (USEPA 1991) recommends using a default coefficient of variation (CV) of .6 for data sets less than 10 values, which has been done in the following models.

The RP model was run on arsenic, chromium, copper, lead, nickel, silver, molybdenum, selenium, mercury, and zinc using the most recent data back through 2018. This resulted in 6 data points for each constitute. The results of the models are that there is not acute or chronic RP at 95% confidence or 99% confidence (Outcome C from Reasonable Potential Guide).

The RP model was run on cyanide using the most recent data back through 2018. This resulted in 6 data points for each constitute. The result of the model is that there is acute RP at 95% confidence or 99% confidence. However, due to the number of data points, the model produced uncertain results. Data points indicate low concern for exceeding limits presented in the WLA. During next permit cycle added data will allow model to run at efficiency. At this time, there will be no limit or addition monitoring (Outcome C from Reasonable Potential Guide).

A Summary of the RP Model inputs and outputs are included in the tables below.

### Outfall 001 RP Input/Output Summary Tables

RP Procedure Output	Outfall Number: 001 Data Units: mg/L
Parameter	Cyanide
Distribution	Default
Reporting Limit	0.0010
Significant Figures	2
Maximum Reported Effluent Conc.	0.009
Coefficient of Variation (CV)	0.60
Acute Criterion	0.0305

<sup>1</sup> See Reasonable Potential Analysis Guidance for definitions of terms

Chronic Criterion	0.0092	
Confidence Interval	95	99
Projected Maximum Effluent Conc. (MEC)	0.0340	0.0670
RP Multiplier	3.8	7.4
RP for Acute?	YES	YES
RP for Chronic?	YES	YES
RP for Human Health?	NO	NO
Outcome	C*	

\* Due to the number of data points, the model produced uncertain results. Data points indicate low concern for exceeding limits presented in the WLA. During next permit cycle added data will allow model to run at efficiency. At this time, there will be no limit or addition monitoring.

RP Procedure Output	Outfall Number: 001 Data Units: mg/L	
Parameter	Arsenic	
Distribution	Default	
Reporting Limit	0.0010	
Significant Figures	2	
Maximum Reported Effluent Conc.	0.0011	
Coefficient of Variation (CV)	0.60	
Acute Criterion	0.0879	
Chronic Criterion	0.2654	
Confidence Interval	95	99
Projected Maximum Effluent Conc. (MEC)	0.0024	0.0042
RP Multiplier	2.1	3.8
RP for Acute?	NO	NO
RP for Chronic?	NO	NO
RP for Human Health?	NO	NO
Outcome	C	

RP Procedure Output	Outfall Number: 001 Data Units: mg/L	
Parameter	Chromium	
Distribution	Default	
Reporting Limit	0.0010	
Significant Figures	2	
Maximum Reported Effluent Conc.	0.0009	
Coefficient of Variation (CV)	0.60	
Acute Criterion	0.0164	
Chronic Criterion	0.0207	
Confidence Interval	95	99
Projected Maximum Effluent Conc. (MEC)	0.0027	0.0051
RP Multiplier	3.0	5.6

RP for Acute?	NO	NO
RP for Chronic?	NO	NO
RP for Human Health?	NO	NO
Outcome	C	

RP Procedure Output	Outfall Number: 001 Data Units: mg/L	
Parameter	Copper	
Distribution	Default	
Reporting Limit	0.0010	
Significant Figures	2	
Maximum Reported Effluent Conc.	0.0044	
Coefficient of Variation (CV)	0.6	
Acute Criterion	0.033	
Chronic Criterion	0.0254	
Confidence Interval	95	99
Projected Maximum Effluent Conc. (MEC)	0.0094	0.0170
RP Multiplier	2.1	3.8
RP for Acute?	NO	NO
RP for Chronic?	NO	NO
RP for Human Health?	NO	NO
Outcome	C	

RP Procedure Output	Outfall Number: 001 Data Units: mg/L	
Parameter	Lead	
Distribution	Default	
Reporting Limit	0.0010	
Significant Figures	2	
Maximum Reported Effluent Conc.	0.001	
Coefficient of Variation (CV)	0.60	
Acute Criterion	0.177	
Chronic Criterion	0.0115	
Confidence Interval	95	99
Projected Maximum Effluent Conc. (MEC)	0.0038	0.0074
RP Multiplier	3.8	7.4
RP for Acute?	NO	NO
RP for Chronic?	NO	NO
RP for Human Health?	NO	NO
Outcome	C	

RP Procedure Output	Outfall Number: 001 Data Units: mg/L	
Parameter	Nickel	
Distribution	Default	

Reporting Limit	0.0010	
Significant Figures	2	
Maximum Reported Effluent Conc.	0.0042	
Coefficient of Variation (CV)	0.60	
Acute Criterion	10.778	
Chronic Criterion	0.152	
Confidence Interval	95	99
Projected Maximum Effluent Conc. (MEC)	0.0090	0.0160
RP Multiplier	2.1	3.8
RP for Acute?	NO	NO
RP for Chronic?	NO	NO
RP for Human Health?	NO	NO
Outcome	C	

RP Procedure Output	Outfall Number: 001 Data Units: mg/L	
Parameter	Mercury	
Distribution	Default	
Reporting Limit	0.0010	
Significant Figures	2	
Maximum Reported Effluent Conc.	0.0	
Coefficient of Variation (CV)	NA	
Acute Criterion	0.0002	
Chronic Criterion	2.1e-5	
Confidence Interval	95	99
Projected Maximum Effluent Conc. (MEC)	0.0000	0.0000
RP Multiplier	NA	NA
RP for Acute?	NO	NO
RP for Chronic?	NO	NO
RP for Human Health?	NO	NO
Outcome	C	

RP Procedure Output	Outfall Number: 001 Data Units: mg/L	
Parameter	Molybdenum	
Distribution	Default	
Reporting Limit	0.0010	
Significant Figures	2	
Maximum Reported Effluent Conc.	0.0009	
Coefficient of Variation (CV)	0.60	
Acute Criterion	NA	
Chronic Criterion	NA	
Confidence Interval	95	99
Projected Maximum Effluent Conc. (MEC)	0.0019	0.0034

RP Multiplier	2.1	3.8
RP for Acute?	NA	NA
RP for Chronic?	NA	NA
RP for Human Health?	NA	NA
Outcome	C	

RP Procedure Output	Outfall Number: 001 Data Units: mg/L	
Parameter	Selenium	
Distribution	Default	
Reporting Limit	0.0010	
Significant Figures	2	
Maximum Reported Effluent Conc.	0.0006	
Coefficient of Variation (CV)	0.28	
Acute Criterion	0.0276	
Chronic Criterion	0.0078	
Confidence Interval	95	99
Projected Maximum Effluent Conc. (MEC)	0.0023	0.0044
RP Multiplier	3.8	7.4
RP for Acute?	NO	NO
RP for Chronic?	NO	NO
RP for Human Health?	NO	NO
Outcome	C	

RP Procedure Output	Outfall Number: 001 Data Units: mg/L	
Parameter	Silver	
Distribution	Default	
Reporting Limit	0.0010	
Significant Figures	2	
Maximum Reported Effluent Conc.	0.0	
Coefficient of Variation (CV)	NA	
Acute Criterion	0.0145	
Chronic Criterion	NA	
Confidence Interval	95	99
Projected Maximum Effluent Conc. (MEC)	0.0000	0.0000
RP Multiplier	NA	NA
RP for Acute?	NO	NO
RP for Chronic?	NO	NO
RP for Human Health?	NO	NO
Outcome	C	

RP Procedure Output	Outfall Number: 001 Data Units: mg/L	
Parameter	Zinc	
Distribution	Default	
Reporting Limit	0.0010	
Significant Figures	2	
Maximum Reported Effluent Conc.	0.03	
Coefficient of Variation (CV)	0.60	
Acute Criterion	0.2713	
Chronic Criterion	0.3439	
Confidence Interval	95	99
Projected Maximum Effluent Conc. (MEC)	0.0660	0.1100
RP Multiplier	2.2	6.1
RP for Acute?	NO	NO
RP for Chronic?	NO	NO
RP for Human Health?	NO	NO
Outcome	C	

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