

Incoming C0250005
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APPLICATION FOR COAL PERMIT PROCESSING

Permit Change New Permit Renewal Exploration Bond Release Transfer

Permittee: Alton Coal Development, LLC

Mine: Coal Hollow

Permit Number: C/025/0005

Title: Alluvial Groundwater Management Plan and revised UPDES

Description, Include reason for application and timing required to implement:

Submitted as results of Deficiency List Task No. 3935

Instructions: If you answer yes to any of the first eight (gray) questions, this application may require Public Notice publication.

- Yes No 1. Change in the size of the Permit Area? Acres: _____ Disturbed Area: _____ increase decrease.
- Yes No 2. Is the application submitted as a result of a Division Order? DO# _____
- Yes No 3. Does the application include operations outside a previously identified Cumulative Hydrologic Impact Area?
- Yes No 4. Does the application include operations in hydrologic basins other than as currently approved?
- Yes No 5. Does the application result from cancellation, reduction or increase of insurance or reclamation bond?
- Yes No 6. Does the application require or include public notice publication?
- Yes No 7. Does the application require or include ownership, control, right-of-entry, or compliance information?
- Yes No 8. Is proposed activity within 100 feet of a public road or cemetery or 300 feet of an occupied dwelling?
- Yes No 9. Is the application submitted as a result of a Violation? NOV # _____
- Yes No 10. Is the application submitted as a result of other laws or regulations or policies?

Explain: _____

- Yes No 11. Does the application affect the surface landowner or change the post mining land use?
- Yes No 12. Does the application require or include underground design or mine sequence and timing? (Modification of R2P2)
- Yes No 13. Does the application require or include collection and reporting of any baseline information?
- Yes No 14. Could the application have any effect on wildlife or vegetation outside the current disturbed area?
- Yes No 15. Does the application require or include soil removal, storage or placement?
- Yes No 16. Does the application require or include vegetation monitoring, removal or revegetation activities?
- Yes No 17. Does the application require or include construction, modification, or removal of surface facilities?
- Yes No 18. Does the application require or include water monitoring, sediment or drainage control measures?
- Yes No 19. Does the application require or include certified designs, maps or calculation?
- Yes No 20. Does the application require or include subsidence control or monitoring?
- Yes No 21. Have reclamation costs for bonding been provided?
- Yes No 22. Does the application involve a perennial stream, a stream buffer zone or discharges to a stream?
- Yes No 23. Does the application affect permits issued by other agencies or permits issued to other entities?

Please attach four (4) review copies of the application. If the mine is on or adjacent to Forest Service land please submit five (5) copies, thank you. (These numbers include a copy for the Price Field Office)

I hereby certify that I am a responsible official of the applicant and that the information contained in this application is true and correct to the best of my information and belief in all respects with the laws of Utah in reference to commitments, undertakings, and obligations, herein.

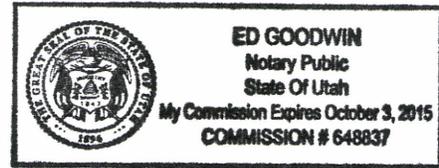
B. Kirk Nicholas
Print Name

B. Kirk Nicholas Resident Agent 12/15/11
Sign Name, Position, Date

Subscribed and sworn to before me this 16th day of December, 2011

Ed Goodwin
Notary Public

My commission Expires: _____
Attest: State of Utah _____, 2015 } ss:
County of Iron



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TABLE OF CONTENTS

Chapter 7

R645-301-300

HYDROLOGY

711.	GENERAL REQUIREMENTS	7-1
712.	CERTIFICATION	7-1
713.	INSPECTION	7-1
720.	ENVIRONMENTAL DESCRIPTION	7-2
721.	GENERAL REQUIREMENTS	7-2
	Groundwater Resources	7-2
	Surface Water Resources	7-9
722.	CROSS SECTIONS AND MAPS	7-12
722.200.	Location of surface water bodies	7-12
722.300.	Baseline monitoring stations.....	7-12
722.400.	Location of water wells.....	7-13
722.500.	Contour map(s) of disturbed area(s)	7-13
723.	SAMPLING AND ANALYSIS	7-14
724.	BASELINE INFORMATION	7-14
724.100.	Groundwater Information	7-14
724.200.	Surface Water Information	7-15
724.300.	Geologic Information.....	7-17
724.400.	Climatological Information.....	7-17
724.411.	Seasonal precipitation	7-18
724.412.	Wind direction and velocity.....	7-19
724.413.	Seasonal temperature ranges.....	7-19
724.500.	Supplemental Information	7-19
724.700.	Alluvial Valley Floor Determination	7-21
725.	BASELINE CUMULATIVE IMPACT AREA INFORMATION	7-22
726.	Modeling.....	7-22
727.	ALTERNATIVE WATER SOURCE INFORMATION	7-22
728.	PROBABLE HYDROLOGIC CONSEQUENCES	7-24
	DETERMINATION	
728.310.	Potential adverse impacts to the hydrologic balance	7-24
	<i>Direct Interception of Groundwater Resources</i>	7-26
	<i>Diminution of down-gradient groundwater resources</i>	7-27
	<i>Draining of up-gradient groundwater resources</i>	7-30
728.320.	Presence of acid-forming or toxic-forming materials.....	7-34
728.331.	Sediment yield from the disturbed area	7-36
728.332.	Impacts to important water quality parameters.....	7-36
728.333.	Flooding or streamflow alteration.....	7-40
728.334.	Groundwater and surface water availability	7-46
728.340.	Whether mining and reclamation activity will result in contamination, ..	7-49

	diminution or interruption of State-appropriated waters	
730.	OPERATION PLAN	7-51
731.	GENERAL REQUIREMENTS	7-51
	Groundwater and Surface-Water Protection	7-51
731.200.	Water Monitoring.....	7-57
	Streams.....	7-57
	Springs	7-58
	Wells	7-58
731.530	State appropriated water supply	7-59
731.600.	Stream Buffer Zones	7-61
731.700.	Cross sections and Maps	7-61
731.800.	Water Rights and Replacement.....	7-61
732.	Sediment Control Measures	7-63
732.100.	Siltation Structures.....	7-63
732.200.	Sedimentation Ponds.....	7-63
732.300.	Diversions	7-63
732.400.	Road Drainage	7-64
733.	IMPOUNDMENTS	7-64
733.100.	General Plans	7-64
733.200.	Permanent and Temporary Impoundments	7-67
734.	Discharge Structures	7-67
735.	Disposal of Excess Spoil.....	7-68
736.	Coal Mine Waste.....	7-69
737.	Noncoal Mine Waste.....	7-70
738.	Temporary Casing and Sealing of Wells	7-70
740.	DESIGN CRITERIA AND PLANS	7-73
741.	GENERAL REQUIREMENTS	7-73
742.	SEDIMENT CONTROL MEASURES	7-73
742.100.	General Requirements.....	7-73
742.110.	Design	7-73
742.200.	Siltation Structures	7-76
742.210.	General Requirements.....	7-76
742.220.	Sedimentation Ponds.....	7-77
742.230.	Other Treatment Facilities	7-80
742.300.	Diversions	7-80
742-310.	General Requirements.....	7-80
742.320.	Diversion of Perennial and Intermittent Streams.....	7-82
742.330.	Diversion of Miscellaneous Flows.....	7-83
742.400.	Road Drainage	7-85
742.410.	All Roads	7-85
742.420.	Primary Roads.....	7-87
742.423.	Drainage Control.....	7-87
743.	IMPOUNDMENTS	7-90
743.100.	General Requirements.....	7-90
744.	DISCHARGE STRUCTURES	7-91
744.	Disposal of Excess Spoil.....	7-92

744.100.	General Requirements.....	7-92
745.200.	Valley Fills and Head-of-Hollow Fills	7-94
745.300.	Durable Rock Fills.....	7-94
745.400.	Preexisting Benches.....	7-94
746.	COAL MINE WASTE	7-94
746.100.	General Requirements.	7-94
746.200.	Refuse Piles.	7-95
746.300.	Impounding structures.	7-95
746.330.	Drainage control.	7-95
746.400.	Return of Coal Processing Waste to Abandoned Underground Workings..	7-95
747.	DISPOSAL OF NONCOAL WASTE	7-95
748.	Casing and Sealing of Wells.....	7-95
750.	PERFORMANCE STANDARDS	7-97
751.	Water Quality Standards and Effluent Limitations.....	7-97
752.	Sediment Control Measures	7-98
752.200.	Road Drainage	7-98
753.	IMPOUNDMENTS AND DISCHARGE STRUCTURES	7-98
754.	DISPOSAL OF EXCESS SPOIL, COAL MINE WASTE AND NONCOAL MINE WASTE	7-99
755.	CASING AND SEALING OF WELLS	7-99
760.	RECLAMATION	7-101
761.	GENERAL REQUIREMENTS	7-101
762.	ROADS	7-101
763.	SILTATION STRUCTURES	7-101
764.	STRUCTURE REMOVAL	7-102
765.	PERMANENT CASING AND SEALING OF WELLS	7-102
References	7-105

DRAWINGS

Drawing 7-1	Spring and seep locations
Drawing 7-2	Baseline monitoring stations
Drawing 7-3	Water Rights map
Drawing 7-4	Alluvial groundwater discharge areas
Drawing 7-5	Alluvial groundwater degradation in Sink Valley
Drawing 7-6	Cross-section through proposed mine Pit 15
Drawing 7-7	Locations of ponds and irrigation ditches
Drawing 7-8	Climate data
Drawing 7-9	Plot of Palmer Hydrologic Drought Index, Utah Region 4
Drawing 7-10	Water monitoring locations
Drawing 7-11	Typical monitoring well construction
Drawing 7-12	Monitoring well locations
Drawing 7-13	Map of potentiometric levels in alluvial groundwater
Drawing 7-14	Pump test drawdowns in pumping and observation wells
Drawing 7-15	Hydrology Resource - Plan View
Drawing 7-15B	Hydrology Resource - Cross Sections

TABLES

Table 7-1	Monitoring site details
Table 7-2	Monitoring well construction details
Table 7-3	Climate data
Table 7-4	Monitoring plan protocols
Table 7-5	Water monitoring locations
Table 7-6	Operational field and laboratory water-quality parameters for surface-waters
Table 7-7	Operational field and laboratory water-quality parameters for groundwaters
Table 7-8	Hydraulic Conductivity values
Table 7-9	Estimated rates of groundwater inflows
Table 7-10	Summary table for wells
Table 7-11	Summary table for springs and seeps
Table 7-12	Water rights details and status

APPENDICES

Appendix 7-1	Petersen Hydrologic, LLC groundwater and surface-water report
Appendix 7-2	Not used
Appendix 7-3	Water rights
Appendix 7-4	Water Engineering & Technology, Inc. report
Appendix 7-5	Facilities spill plan
Appendix 7-6	Climate data
Appendix 7-7	Supplemental Alluvial Valley Floor Information
Appendix 7-8	Water right agreement with the town of Alton, Utah
Appendix 7-9	Hydrology Resource Contingency Plan and Coal Hollow Mine - Alluvial Groundwater Management Plan
Appendix 7-10	Permanent shale barrier

Appendix 7-11

Petersen Hydrologic, LLC hydrologic investigation of mine-water inflows and re-evaluation of sediment pond network

Appendix 7-12

UPEDS Permit No. UTG040027

Appendix 7-13

Petersen Hydrologic, LLC hydrologic investigation to evaluate the acid/neutralization behavior of groundwater in the coal seam

will be emplaced adjacent to the undisturbed alluvial sediments along the eastern edge of the pit 15 disturbance area. Information and design details for this low-permeability barrier are provided in Appendix 7-10. An evaluation of the permanent barrier for pit 15 has been performed by Mr. Alan O. Taylor of Taylor Geo-Engineering, LLC. Information in the Taylor Geo-Engineering report indicates that the 50-foot wide barrier will prevent any appreciable drainage of alluvial groundwater from the coarse-grained alluvial groundwater system centered east of the permit area into the backfilled pit areas. Laboratory analysis of the Tropic Shale material from which the barrier will be constructed indicates that the compacted shale material will perform adequately to successfully contain the alluvial groundwater. Using this technique, the pit areas will be reclaimed to restore the approximate pre-existing groundwater levels in Sink Valley.

Accordingly, the potential for impacts to subirrigation and soil moisture in the lands up-gradient of mining areas will be minimized by both the placement of the low-permeability backfill, and the emplacement of the low-permeability engineered barrier adjacent to Pit 15.

The potential for short-term impacts to subirrigation and soil moisture in the lands up-gradient of proposed mining areas will be minimized through the implementation of the hydrology resource contingency plan described in Appendix 7-9.

The Coal Hollow Mine has implemented a plan to divert upgradient alluvial groundwater to a sump and then, after settling, to Lower Robinson Creek. This plan is designed to minimize the potential for the interception of alluvial groundwater in the mine pit areas. The details of this plan are described in the Coal Hollow Mine Alluvial Groundwater Management Plan, which is presented in Appendix 7-9.

If any Utah State appropriated water rights are impacted by mining and reclamation operations in the proposed Coal Hollow Mine, these will be replaced according to all applicable Utah State laws and regulations using the designated water replacement source described in Section 727 above.

728.320 Presence of acid-forming or toxic-forming materials

Chemical information on the acid- and toxic-forming potential of earth materials naturally present in the proposed permit area are presented in Appendix 6-2. Chemical information on the low-sulfur Smirl coal seam proposed for mining is presented in Appendix 6-1 (confidential binder). Based on laboratory analytical data, it is apparent that acid-forming and toxic-forming materials that could result in the contamination of surface-water or groundwater supplies in the proposed Coal Hollow Mine permit and adjacent area are generally not present.

Total selenium (with a 5 mg/kg laboratory lower detection limit) was not detected in any of the samples from the proposed Coal Hollow Mine permit area. Water-extractable selenium concentrations were also generally low (see Section 728.332 below). Likewise, concentrations of water-extractable boron were also low, being less than 3 mg/kg in all samples analyzed. The pH of groundwaters in and around the proposed Coal Hollow Mine permit area are moderately alkaline (UDOGM, 2007). Data in Appendix 6-2 likewise indicate moderately alkaline conditions in sediments in the proposed permit area. The solubility of dissolved trace metals is usually limited in waters with alkaline pH conditions. Consequently, high concentrations of these metal

At any mining operation there is the potential for contamination of soils, surface-water and groundwater resources resulting from the spillage of hydrocarbons. Diesel fuels, oils, greases, and other hydrocarbons products will be stored and used at the mine site for a variety of purposes. A spill Prevention Control and Countermeasure Plan will be implemented that will help minimize any potential detrimental impacts to the environments.

Spill control kits will be provided on all mining equipment and personnel will be trained to properly control spills and dispose of any contaminated soils in an appropriate manner.

Based on these findings, it is concluded that the potential for mining and reclamation activities in the proposed Coal Hollow Mine permit area to cause detrimental impacts to important water quality parameters is minimal.

728.333 Flooding or streamflow alteration

As described above, appreciable groundwater inflow from the Tropic Shale and Dakota Formation into mine pits at the proposed Coal Hollow Mine are not anticipated. Appreciable groundwater inflows are anticipated only from the relatively thin, overlying alluvial groundwater systems. The thicknesses of the alluvium adjacent to mine openings in the proposed mining areas is generally less than 40 to 50 feet. The hydraulic conductivities of the predominantly clayey and silty alluvial sediments are low, and consequently, very large or sudden groundwater inflows into mine openings are not anticipated. Where appreciable alluvial groundwater is encountered adjacent to mine openings, it will be routed away from mining areas through ditches of other conveyance mechanisms. Details of the Coal Hollow Mine Alluvial Groundwater Management Plan are provided in Appendix 7-9. Consequently, discharge of mine water from the mine pits is not anticipated. The rates of alluvial groundwater drainage that could occur will likely not be of a magnitude that could potentially cause flooding or streamflow alteration in either the Sink Valley Wash or Lower Robinson Creek drainages.

If excess groundwater were to be encountered during mining operations such that it could not be adequately managed or discharged in compliance with the Utah UPDES discharge permit (which is considered unlikely), Alton Coal Development, LLC may when necessary construct supplemental containment and settlement ponds in which mine discharge waters may be held for treatment (where necessary) and subsequent discharge through UPDES discharge points in compliance with the UPDES discharge permit, minimizing the potential for flooding or streamflow alteration in areas adjacent to mining. To ensure that the mine is able to deal with any unforeseen

When coal mining near the eastern edge of the Coal Hollow Mine permit area occurs (mine pits 13-15), special measures will be taken to minimize the potential for the interception by the mine openings of large quantities of groundwater from artesian groundwater system in the northwest $\frac{1}{4}$ of Section 29, T5W, R39S, and to adequately

Table 7-4 Hydrologic monitoring protocols.

Discharge and water level measurements

Protocol	Applies to	Parameter	Frequency
A	Streams	Discharge	Quarterly
B	Springs	Discharge	Quarterly
C	Monitoring wells	Water elevation	Quarterly

Water quality

Protocol	Applies to	Parameters	Table	Frequency
1	Streams	Operational field and laboratory water quality measurements	7-6A*	Quarterly
2	Streams	Field water quality measurements only	7-6A*	Quarterly
3	Springs	Operational field and laboratory water quality measurements	7-7A*	Quarterly
4	Springs	Field water quality measurements only	7-7A*	Quarterly
5	Monitoring wells	operational field and laboratory water quality measurements	7-7A*	Quarterly
6	Monitoring wells	Field water quality measurements only	7-7A*	Quarterly
7	Monitoring wells	Laboratory acidity measurements for a period of two years	---	Quarterly

*Note: Every 5 years for the third or fourth quarter monitoring event, laboratory analysis will be performed according to the baseline parameter lists specified in Tables 7-6B and 7-7B for surface waters and groundwaters, respectively.

Table 7-5 Hydrologic monitoring locations and protocols for operational and reclamation phase monitoring.

Site	Protocols	Comments
<u>Streams</u>		
BLM-1	A, 2	Lower Robinson Creek adjacent to mined areas
RID-1	A, 2	Irrigation ditch in Robinson Creek
SW-2	A, 1	Kanab Creek below Robinson Creek
SW-3	A, 1	Kanab Creek above permit area
SW-4	A, 1	Lower Robinson Creek above permit area
SW-5	A, 1	Lower Robinson Creek above Kanab Creek
SW-6	A, 1	Sink Valley Wash at permit boundary
SW-8	A, 1	Swapp Hollow Creek above permit area
SW-9	A, 1	Sink Valley Wash below permit area
SW-101	A, 2	Lower Robinson Creek in permit area
<u>Springs</u>		
Sorensen Spring	B,4	Developed alluvial spring in Sink Valley at Sorensen ranch
SP-3	B, 4	Spring in upland pediment alluvium south of permit area (developed and piped down canyon in Sink Valley Wash)
SP-4	B, 3	Developed spring in Sink Valley Wash 1 mile below permit area
SP-6	B, 3	Seep in Sink Valley below permit area
SP-8	B, 3	Developed alluvial spring in Sink Valley at Dames ranch
SP-14	B,3	Alluvial spring in Sink Valley
SP-16	B, 4	Alluvial spring in Sink Valley
SP-20	B,3	Alluvial spring in Sink Valley
SP-22	B, 4	Alluvial spring in Sink Valley
SP-23	B, 4	Alluvial spring in Sink Valley
SP-33	B, 3	Developed spring in lower Sink Valley alluvium
<u>Wells</u>		
Y-36	C	Coal well in Sink Valley above permit area
Y-38	C, 7	Coal well in Sink Valley in permit area
Y-45	C	Coal seam well in Swapp Hollow above permit area
Y-61	C, 5, 7	Water well in Sink Valley artesian alluvial groundwater system above permit area
Y-63	C	Monitoring well in lower Sink Valley Alluvium below mining areas
Y-98	C	Alluvial well in Robinson Creek above permit area
Y-102	C	Alluvial well in upper Sink Valley in permit area
C0-18	C	Alluvial monitoring well in Lower Robinson Creek drainage
C0-54	C	Monitoring well in Lower Robinson Creek drainage near coal seam
C1-24	C	Alluvial monitoring well in Lower Robinson Creek drainage
C2-15	C	Monitoring well in Sink Valley alluvium

Site	Protocols	Comments
C2-28	C	Monitoring well in Sink Valley alluvium
C2-40	C	Monitoring well in Sink Valley alluvium
C3-15	C	Monitoring well in Sink Valley alluvium
C3-30	C	Monitoring well in Sink Valley alluvium
C3-40	C	Monitoring well in Sink Valley alluvium
C4-15	C	Monitoring well in Sink Valley alluvium
C4-30	C	Monitoring well in Sink Valley alluvium
C4-50	C	Monitoring well in Sink Valley alluvium
C5-130	C	Monitoring well in Sink Valley artesian alluvial groundwater system above permit area
C7-20	C	Monitoring well in Sink Valley alluvium
C9-15	C	Monitoring well in Sink Valley alluvium
C9-25	C	Monitoring well in Sink Valley alluvium
C9-40	C	Monitoring well in Sink Valley alluvium
LR-45	C, 5	Monitoring well in Lower Robinson Creek alluvium below mine area
LS-28	C, 5	Monitoring well in Sink Valley Alluvium below mining areas
LS-60	C	Monitoring well in Sink Valley Alluvium below mining areas
LS-85	C, 5	Monitoring well in artesian Sink Valley Alluvium below mining areas
SS-15	C	Monitoring well in Sink Valley Alluvium below mining areas
SS-30	C, 5	Monitoring well in Sink Valley Alluvium below mining areas
SS-75	C	Monitoring well in burned coal area material
UR-70	C, 5	Monitoring well in Lower Robinson Creek alluvium above mine area

Appendix 7-9

Hydrology Resource Contingency Plan
and
Coal Hollow Mine - Alluvial Groundwater
Management Plan

Coal Hollow Mine

Alluvial Groundwater Management Plan

From a water quality standpoint, it is preferable to allow naturally occurring, uncontaminated alluvial groundwater that would otherwise flow into the mine pit areas to be rerouted and subsequently discharged in its natural, uncontaminated state rather than allowing that groundwater to flow into the mine pit areas. A conceptual drawing depicting the proposed interception of up-gradient alluvial groundwater is shown on Figure 1. It is apparent in Figure 1 that in the absence of an up-gradient alluvial groundwater intercept trench, alluvial groundwaters would naturally flow into the mine pit areas.

As described in the approved Coal Hollow Mine MRP (See Sections 301-742.728.332 and 301.742.728.333), the plan indicates that, “*where possible, groundwater that will be encountered in alluvial sediments along the margins of mine pit areas will be routed through pipes, ditches or other conveyance methods away from mining areas via gravity drainage so as to prevent or minimize the potential for interaction with sediments disturbed by mining operations (including contact with the mined coal seam)*”. Because under this plan the alluvial groundwater (which constitutes the great majority of the groundwater in the mine area) will be routed away from the mining disturbed area, discharge of appreciable quantities of mine water from the mine pits should not be necessary. Minor quantities of groundwater that could potentially be encountered within the Smirl coal seam or from the overlying Tropic Shale bedrock may be managed within the mine pits, utilized as dust suppression water, or when necessary pumped from the pit areas and discharged through sediment ponds in compliance with the mine’s UPDES permit. The UPDES permit for the Coal Hollow Mine allows for the discharge of mine waters through Pond #3 and Pond #4.

A map showing the Coal Hollow Mine area with the projected mining pit sequence is shown in Figure 2. It should be noted that the actual mining sequence may change in the future based on the geologic and hydrogeologic conditions encountered during mining operations. Also shown on Figure 2 are arrows showing the approximate direction of shallow alluvial groundwater flow. The approximate flow directions are based on potentiometric data obtained from the network of monitoring wells at the site. It is evident that shallow alluvial groundwater flow in the Coal Hollow Mine area is generally from upland recharge areas located to the east and north toward lower lying areas in the west and south. Accordingly, it is anticipated that the alluvial groundwater interception trenches to be constructed will be located up-gradient of the pit areas to be mined and oriented roughly perpendicular to the prevailing groundwater flow direction to maximize the effectiveness of the intercept trench.

The temporary upgradient alluvial trenches will be appropriately sized to adequately pass the anticipated volumes of intercepted alluvial groundwater. The specific design of individual alluvial intercept trenches will likely be variable from location to location based largely on the nature and competency of the alluvial materials encountered. In every case, the trenches will be constructed according to good engineering practices and in compliance with all applicable State

and Federal rules to ensure the safe and effective operation of the trenches. It should be noted that these trenches are not intended or designed to convey surface runoff waters. The alluvial trenches will be constructed with associated surface-water exclusion berms on both the upgradient and downgradient margins of the trenches (see Figure 1). Using this technique, appreciable quantities of surface water should not enter the groundwater intercept trench. While some precipitation water will fall directly into the trench, the amount of water that would fall directly into the trench during a 2-year, 6-hour precipitation event (even up to several inches of precipitation) would not be of significant consequence to the capacity of the trench system.

The sump for dewatering operations in the Lower Robinson Creek drainage (see Drawing 5-3) has been located near where the Lower Robinson Creek diversion departs from the natural Lower Robinson Creek (UPDES outfall location 005). The sump will be constructed below grade with associated surface-water exclusion berms around the margins (see Figure 3). As the sump meets the definition of an impoundment, consideration for the 10-year 24-hour precipitation event should be considered. The Point Precipitation Frequency Estimates from NOAA for location Alton, Utah for the 2-year, 6-hour precipitation event is 2.00". The collection area for the designed sump includes the area within the 5' exclusion berm surrounding the sump (7,080 sqft), or during a 10-year, 24-hour event approximately 8,800 gallons of water. As the sump collects water manually (water pumped in) and from precipitation only and discharges from the sump is manually (water pumped out), adherence to the pumping protocol eliminates the need for an engineered outlet. Since the sump is completely incised (except for the exclusion berm), the internal side slopes will be constructed near vertical (1/4H:1V or steeper) to maximize storage volume. The sump will also be maintained as an impoundment and inspected and certified in accordance with the regulations.

While site specific hydrogeologic and operational considerations will dictate the specific operation plan for individual locations, the typical construction and operation of the alluvial groundwater dewatering system will be conducted as follows:

- 1) Alluvial groundwater intercept trenches will be constructed in the alluvial sediments up-gradient of the mining area. The intercept trenches will typically be constructed using a track-hoe or similar piece of equipment and will be of sufficient depth to intercept the desired alluvial groundwater zone. It should be noted that as the mining progresses, it will be necessary to periodically relocate, enlarge, or construct additional intercept trenches to maximize the efficiency of the alluvial groundwater interception and rerouting system.
- 2) The intercept trench will be constructed with a slight gradient (less than 2%). Water collected at the down-gradient end of the intercept trench will be transferred by pipe to a sump located near the outfall location. During the construction and initial operation phase of the intercept trench and sump, suspended solids may be settled in the sump prior to discharging.
- 3) A pump will be utilized at the sump location which to pump the water from the sump through a pipe to the outfall location. The initial location has been designated in the UPDES permit as outfall 005; discharge from another location will require approval and modification of the outfall location on the UPDES permit. The sump construction and the pumping protocols will be designed so as to minimize the potential to disturb sediments and increase the suspended solids

load in the pumped water. Based on the locations of the current mining areas, the water collected from the drainage trenches will be piped to the proposed outfall location on Lower Robinson Creek as shown on Figure 2. As mining progresses to the south in the Sink Valley drainage, the intercepted alluvial groundwater will be pumped to a suitable approved location on Sink Valley Wash.

4) Water in the sump will only be pumped to the outfall location after a period of time has been allowed for the concentration of suspended solids to settle. Only uncontaminated groundwater will be discharged to the outfall location. Water in the sump will likely also be used for dust suppression or mine process water.

5) The water quality and discharge rates from the alluvial groundwater intercept system will be monitored as per the requirements of the UPDES permit with the addition of dissolved Selenium required in accordance with MRP Permit Condition No.4.

Alluvial Groundwater Pumping Protocol

Alluvial groundwaters that are captured in the alluvial groundwater intercept trenches at the Coal Hollow Mine are routed to a collection sump to allow for the settling of particulates from the water. After a sufficient quantity of water is collected, and sediments have settled from the water, the waters are periodically discharged to receiving waters under an approved UPDES permit (UTG040027-005). In the current configuration, alluvial waters are collected and routed to the established collection sump and subsequently discharged to Lower Robinson Creek as shown on Figure 2, and in the Coal Hollow Mine MRP, Drawing 5-3. It should be noted that in the mine's current configuration, the collected alluvial groundwaters are discharged to Lower Robinson Creek. When mining occurs in other portions of the permit area in the future, discharge to the Sink Valley Wash drainage may occur.

In order to minimize the potential for erosion of the Lower Robinson Creek stream channel to which intercepted alluvial groundwaters are currently discharged, a careful protocol for the pumping of water from the operational sump collection system has been established. It should be emphasized that this Alluvial Groundwater Pumping Protocol may need to be modified in the future as mining conditions and mining locations change over time.

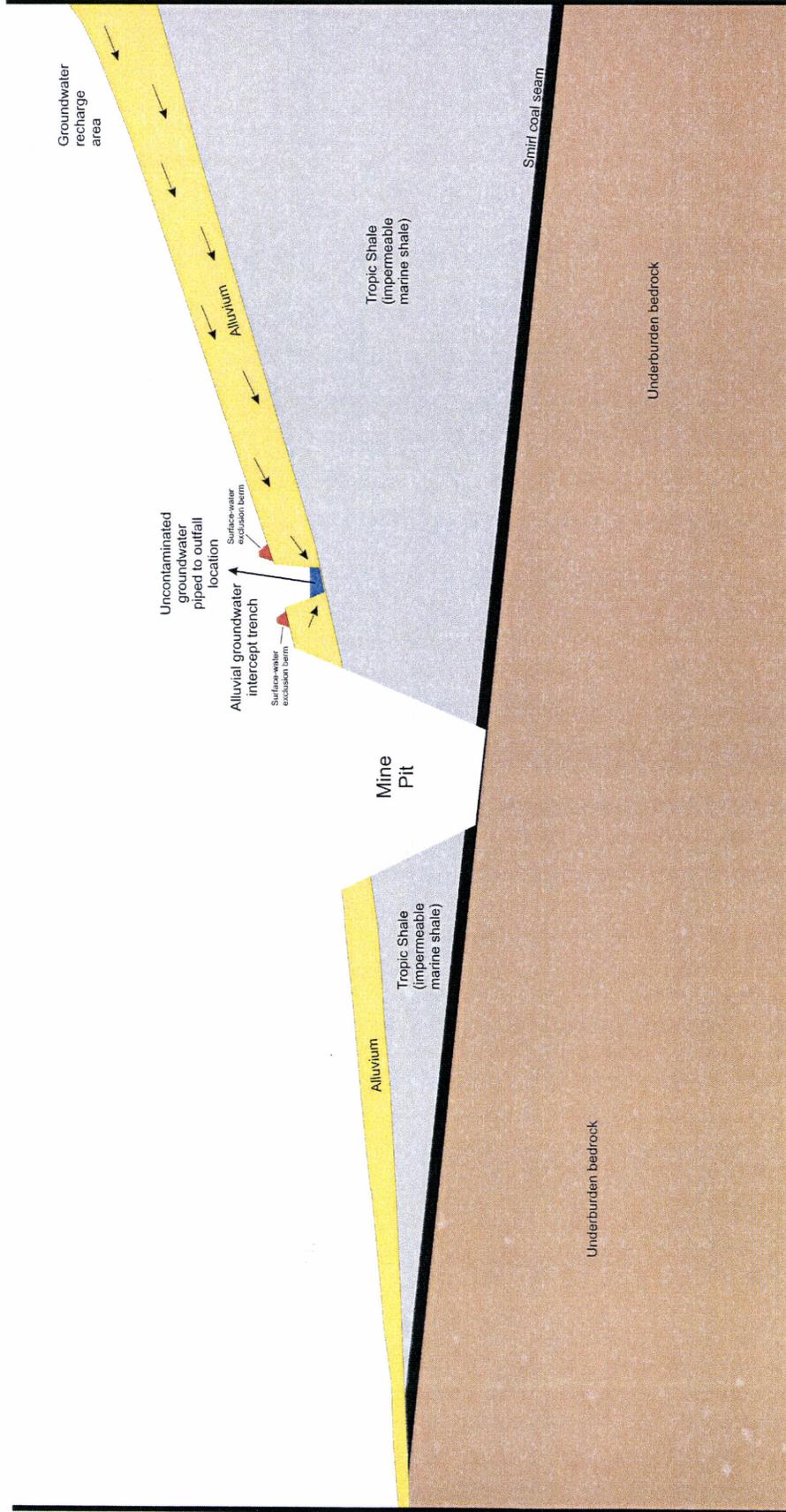
The protocol is summarized below.

- Alluvial groundwaters are collected in the alluvial groundwater intercept trench network.
- The intercepted alluvial groundwaters are pumped to a collection sump located as shown on Coal Hollow Mine MRP Drawing 5-3.
- Water may be allowed to accumulate in the sump to a maximum depth until the level is 3' from the surface. The water will be held in the sump for an adequate time to ensure that suspended solids have settled from the water. The designed sump has a capacity of approximately 650,000 gallons. Details of the de-watering sump are provided in Figure 3.
- Water is periodically pumped from the sump to the Lower Robinson Creek receiving water location as shown on MRP Drawing 5-3. The current pumping system is designed to intermittently pump water from the sump to the creek at a rate of approximately 40 gpm.
- In order to minimize the potential for disturbing sediments on the bottom of the sump during pumping, a float or similar device will be attached to the end of the pump intake so that the water from near the top of the pool will be pumped.
- The pumping from the sump will be stopped when the water level in the pond drops below approximately 5 feet depth so as to minimize the potential for disturbing sediments on the floor of the sump during pumping.
- The end of the pump outlet hose will be fitted with an energy dissipating device to minimize the potential for erosion at the pump outlet.
- The discharge from the sump will be monitored in accordance with the requirements of the approved UPDES Plan.
- In the system's current configuration, waters from the collection sump will be pumped to the Lower Robinson Creek diversion channel as shown on MRP Drawing 5-3. This is an engineered channel that has been designed to promote stability and resistance to erosion. The channel is armored with rip-rap at the location of the discharge, which should minimize the potential for erosion.

- In the system's current configuration, the discharged waters will flow intermittently down the engineered diversion channel for a distance of approximately 2,000 feet to the confluence with the natural Lower Robinson Creek stream channel (see MRP Drawing 5-3). It should be noted that natural seepage of water is generally present in the natural Lower Robinson Creek stream channel at this location. This reach of Lower Robinson Creek has previously been considered as intermittent in nature.

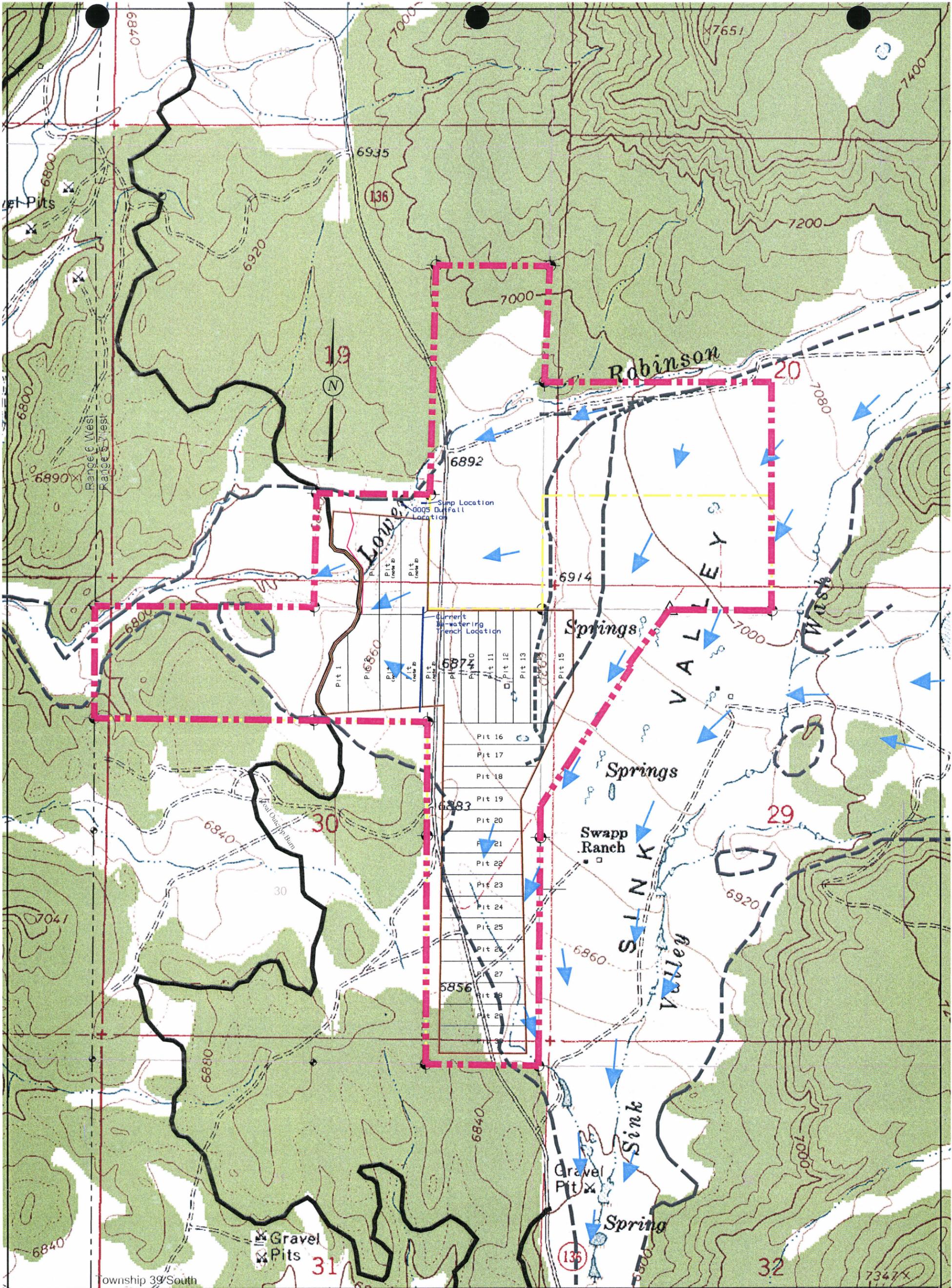
It should also be noted that the Lower Robinson Creek stream channel is not currently in a stable condition (see Coal Hollow Mine MRP, Section 728.333). This condition (which long pre-dates mining activity in the region) has been documented in the Coal Hollow Mine MRP. The mining and reclamation plan for the Coal Hollow Mine has been designed to minimize the potential for sediment yield and erosion in the mine permit area. Specifically, the mining and reclamation plan for the Lower Robinson Creek has been designed to leave the drainage in a condition at final bond release that is at least as stable as it was in the pre-mining condition.

Accordingly, while every effort will be made to minimize the potential for erosion of the stream channel, some erosion of the stream channel may occur. However, the relatively small magnitude of the proposed intermittent pumping rates (approximately 40 gpm) will likely not result in major erosion of the stream channel. It should be noted that flows on this magnitude occur periodically during springtime snowmelt events, and flows more than ten times greater than this amount periodically occur during torrential precipitation events.



Not to scale

Figure 1 Conceptual diagram showing alluvial groundwater intercept trench operation



LEGEND:

- PERMIT BOUNDARY
- PRIVATE COAL OWNERSHIP
- COAL LINE BOUNDARY
- COAL RECOVERY
- SECTION LINE
- FOUND SECTION CORNER
- FOUND PROPERTY CORNER

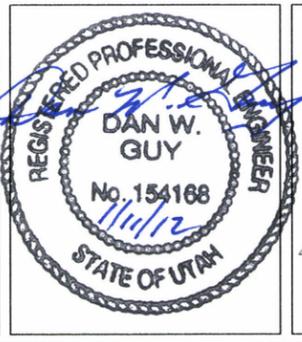
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DRAWING:	DATE:	SCALE:	1" = 1000'
JOB NUMBER:	SHEET	9-10_CoalRemoval_SequenceNEW11.dwg	
1400	31		

REVISIONS	
DATE:	BY:
09/30/11	KN

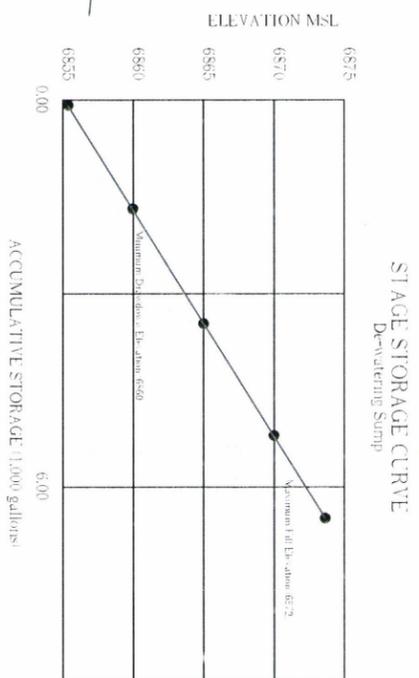
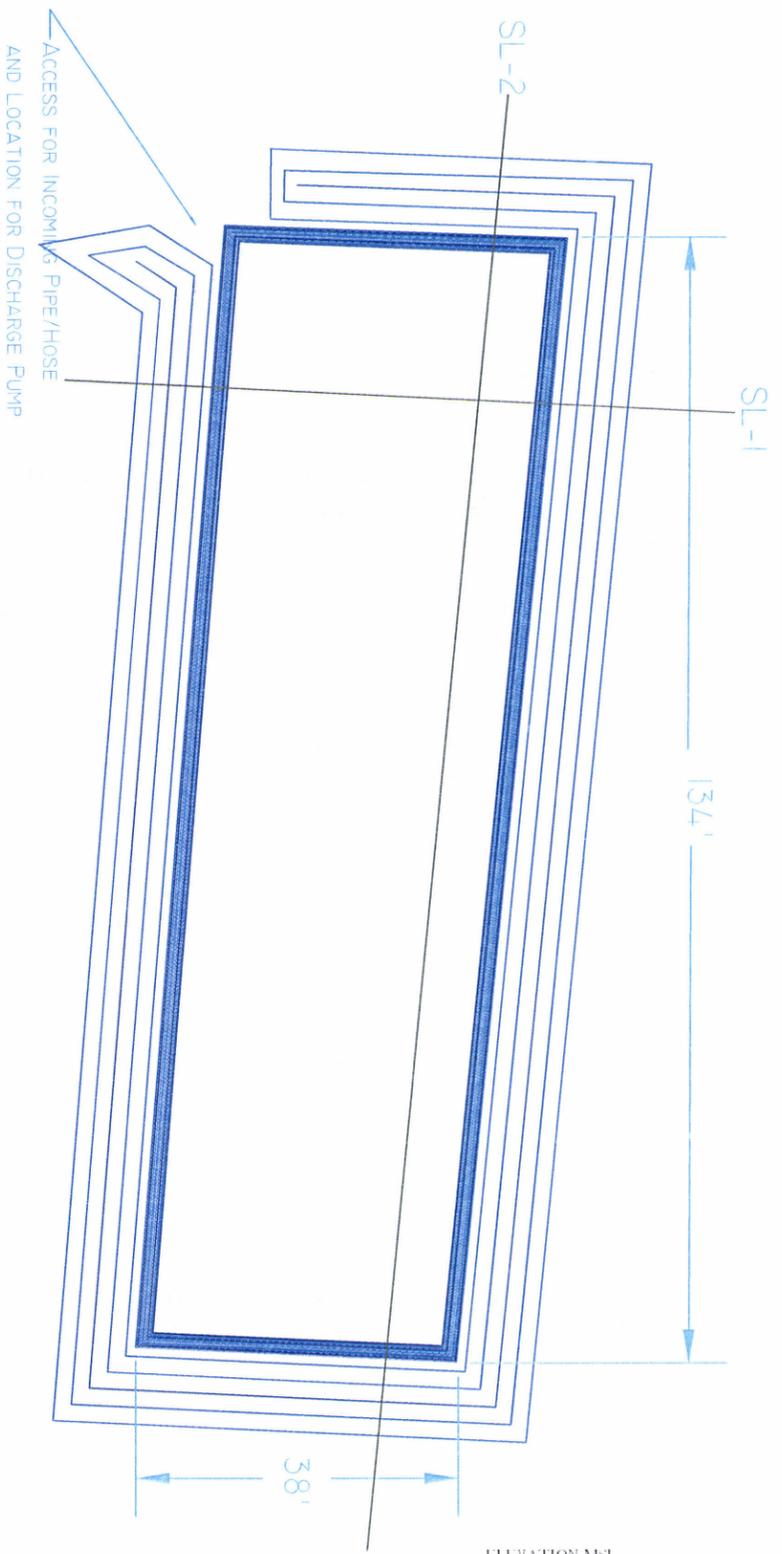
**ALLUVIAL
GROUND WATER
MANAGEMENT**

COAL HOLLOW
PROJECT
ALTON, UTAH

FIGURE 2



463 North 100 West, Suite 1
Cedar City, Utah 84721
Phone (435)67-5331
Fax (435)67-1192



STORAGE VOLUME COMPUTATIONS
De-watering Sump

ELEV. ft	WIDTH ft	LENGTH ft	AREA sqft	AVG. AREA sqft	INTERVAL ft	STORAGE gallons	ACC. STORAGE gallons	STAGE INTERVAL ft
6536.00	NA	NA	4639.6	4677.9	1.00	11.653	11.653	1.00
6537.00	NA	NA	4696.2	4714.5	1.00	35.267	46.920	2.00
6538.00	NA	NA	4732.9	4751.2	1.00	59.542	52.461	3.00
6539.00	NA	NA	4769.6	4787.9	1.00	83.817	115.279	4.00
6540.00	NA	NA	4806.4	4824.6	1.00	108.092	154.372	5.00
6541.00	NA	NA	4843.1	4861.3	1.00	132.367	190.742	6.00
6542.00	NA	NA	4879.8	4898.0	1.00	156.642	227.389	7.00
6543.00	NA	NA	4916.5	4934.7	1.00	180.917	264.315	8.00
6544.00	NA	NA	4953.2	4971.4	1.00	205.192	301.320	9.00
6545.00	NA	NA	4989.9	5008.1	1.00	229.467	338.325	10.00
6546.00	NA	NA	5026.6	5044.8	1.00	253.742	375.330	11.00
6547.00	NA	NA	5063.3	5081.5	1.00	278.017	412.335	12.00
6548.00	NA	NA	5099.9	5118.2	1.00	302.292	449.340	13.00
6549.00	NA	NA	5136.6	5154.9	1.00	326.567	486.345	14.00
6550.00	NA	NA	5173.3	5191.6	1.00	350.842	523.350	15.00
6551.00	NA	NA	5210.0	5228.3	1.00	375.117	560.355	16.00
6552.00	NA	NA	5246.7	5265.0	1.00	399.392	597.360	17.00
6553.00	NA	NA	5283.4	5301.7	1.00	423.667	634.365	18.00
6554.00	NA	NA	5320.1	5338.4	1.00	447.942	671.370	19.00
6555.00	NA	NA	5356.8	5375.1	1.00	472.217	708.375	20.00
6556.00	NA	NA	5393.5	5411.8	1.00	496.492	745.380	21.00
6557.00	NA	NA	5430.2	5448.5	1.00	520.767	782.385	22.00
6558.00	NA	NA	5466.9	5485.2	1.00	545.042	819.390	23.00
6559.00	NA	NA	5503.6	5521.9	1.00	569.317	856.395	24.00
6560.00	NA	NA	5540.3	5558.6	1.00	593.592	893.400	25.00
6561.00	NA	NA	5577.0	5595.3	1.00	617.867	930.405	26.00
6562.00	NA	NA	5613.7	5632.0	1.00	642.142	967.410	27.00
6563.00	NA	NA	5650.4	5668.7	1.00	666.417	1004.415	28.00
6564.00	NA	NA	5687.1	5705.4	1.00	690.692	1041.420	29.00
6565.00	NA	NA	5723.8	5742.1	1.00	714.967	1078.425	30.00
6566.00	NA	NA	5760.5	5778.8	1.00	739.242	1115.430	31.00
6567.00	NA	NA	5797.2	5815.5	1.00	763.517	1152.435	32.00
6568.00	NA	NA	5833.9	5852.2	1.00	787.792	1189.440	33.00
6569.00	NA	NA	5870.6	5888.9	1.00	812.067	1226.445	34.00
6570.00	NA	NA	5907.3	5925.6	1.00	836.342	1263.450	35.00
6571.00	NA	NA	5944.0	5962.3	1.00	860.617	1300.455	36.00
6572.00	NA	NA	5980.7	5999.0	1.00	884.892	1337.460	37.00
6573.00	NA	NA	6017.4	6035.7	1.00	909.167	1374.465	38.00
6574.00	NA	NA	6054.1	6072.4	1.00	933.442	1411.470	39.00
6575.00	NA	NA	6090.8	6109.1	1.00	957.717	1448.475	40.00

De-watering Sump

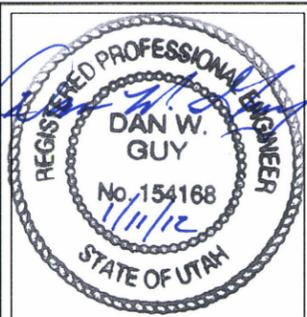
Required Storage for
10-year, 24-event = 8,827
Gallons

RECEIVED
JAN 17 2012
DIV. OF OIL, GAS & MINING

1" = 10'
X-Section Scale
1" = 20'

SL-1

SL-2



DRAWN BY: K. NICHOLS	CHECKED BY: LWJ
DRAWING: Figure 3	DATE: 12/12/11
JOB NUMBER:	SCALE: 1" = 20'
	SHEET

REVISIONS	
DATE:	BY:

DE-WATERING SUMP DETAILS

COAL HOLLOW PROJECT
ALTON, UTAH

Figure 3



463 North 100 West, Suite 1
Cedar City, Utah 84720
Phone (435)67-5331
Fax (435)67-1192



State of Utah

GARY R. HERBERT
Governor

GREG BELL
Lieutenant Governor

Department of
Environmental Quality

Amanda Smith
Executive Director

DIVISION OF WATER QUALITY
Walter L. Baker, P.E.
Director

Water Quality Board
Paula Doughty, *Chair*
Steven P. Simpson, *Vice-Chair*
Myron E. Bateman
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Darrell H. Mensel
Leland J. Myers
Neal L. Peacock
Gregory L. Rowley
Amanda Smith
Daniel C. Snarr
Jeffery L. Tucker
Walter L. Baker
Executive Secretary

September 26, 2011

CERTIFIED MAIL
(Return Receipt requested)

Mr. Kirk Nicholes, Environmental Specialist
Alton Coal Development, LLC
463 North 100 West, Suite 1
Cedar City, UT 84721

Dear Mr. Nicholes:

Subject: Addition of Outfall 005, UPDES Coal Mine General Permit Coverage No. UTG040027 for the Alton Coal Development – Coal Hollow Mine Site near Alton, Utah.

As per your request of August 23, 2011, an additional outfall known as 005 located at 37°24'5.04" North Latitude and 112°27'20.91" West Longitude, WGS84 Datum has been added to your permit. Enclosed is a signed copy of the modified Utah Pollutant Discharge Elimination System (UPDES) General Permit No. UTG040000 for the above referenced facility. Coverage under this general permit for your facility is referred to as application number UTG040027. The conditions and requirements of the modified permit are effective as of October 1, 2011. Copies of EPA form 3320-1, Discharge Monitoring Reports (DMR) forms, for reporting and self-monitoring requirements as specified in the permit, will be sent to you for Outfall 005 by email. As a reminder, DMR forms are due in our office by the 28th of each month following each monthly monitoring period.

A fee schedule was included in the Utah Department of Environmental Quality Budget appropriation request at the direction of the Legislature and in accordance with Utah Code annotated 19-1-201. The fee schedule, as approved by the legislature, includes a prescribed fee for permit coverage modification. The prescribed fee for this general permit coverage modification is \$90.00 per hour. It took four hours to amend this permit therefore the permit fee is 4 hrs X \$90.00/hour = \$360.00. Therefore, please remit \$360.00 within 30 days from receipt of this letter to:

Department of Environmental Quality
Division of Water Quality
Attn: Jaclyn Knudsen
P.O. Box 144370
Salt Lake City, UT 84114-4370

Please be sure to include the invoice number with you remittance.

Page 2

If you have any questions with regards to this matter, please contact Mike Herkimer of this office at (801) 536-4386 or by e-mail at mherkimer@utah.gov.

Sincerely,

UTAH WATER QUALITY BOARD

Walter L. Baker, P.E.
Executive Secretary

WLB:MDH:mc

Enclosure

cc: Colleen Gillespie, EPA Region VIII (w/ Encl.)
Robert R. Beers, SW Utah Public Health (w/ Encl.)
John Chartier, SW District Engineer (w/ Encl.)
Daron Haddock, Utah Division of Oil Gas & Mining (w/ Encl.)
Jim Karpowitz, Utah Division of Wildlife Resources
Nathan Darnall, U.S. Fish & Wildlife Services

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STATE OF UTAH
DIVISION OF WATER QUALITY
DEPARTMENT OF ENVIRONMENTAL QUALITY
SALT LAKE CITY, UTAH

AUTHORIZATION TO DISCHARGE UNDER THE
UTAH POLLUTANT DISCHARGE ELIMINATION SYSTEM
(UPDES)

GENERAL PERMIT FOR COAL MINING

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

Alton Coal Development, LLC – Coal Hollow Project

as identified in the application No. UTG040027 and request for modification on August 23, 2011, is authorized to discharge from the Coal Hollow Project outfalls to receiving waters named:

Lower Robinson Creek and Sink Valley Wash, tributaries to Kanab Creek and the Colorado River

in accordance with discharge points, effluent limitations, monitoring requirements and other conditions as set forth herein.

This modified permit coverage shall become effective on October 1, 2011.

This permit and the authorization to discharge shall expire at midnight, April 30, 2013.

Signed this 26th day of September, 2011

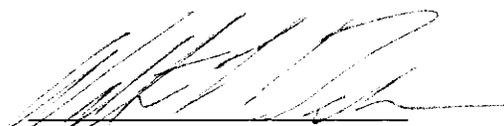

Walter L. Baker, P.E.
Executive Secretary
Utah Water Quality Board

TABLE OF CONTENTS

	<u>Page No.</u>
Cover Sheet--Issuance and Expiration Dates	3
I. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS	3
A. Criteria for Inclusion in the General Permit for Coal Mining	3
B. Notice of Intent for General Permit for Coal Mining	3
C. Description of Discharge Point(s)	4
D. Narrative Standard	4
E. Specific Limitations and Self-monitoring Requirements	5
F. Storm Water Requirements	6
II. MONITORING, RECORDING AND REPORTING REQUIREMENTS	17
A. Representative Sampling	17
B. Monitoring Procedures	17
C. Penalties for Tampering	17
D. Reporting of Monitoring Results	17
E. Compliance Schedules	17
F. Additional Monitoring by the Permittee	17
G. Records Contents	17
H. Retention of Records	18
I. Twenty-four Hour Notice of Noncompliance Reporting	18
J. Other Noncompliance Reporting	19
K. Inspection and Entry	19
III. COMPLIANCE RESPONSIBILITIES	20
A. Duty to Comply	20
B. Penalties for Violations of Permit Conditions	20
C. Need to Halt or Reduce Activity not a Defense	20
D. Duty to Mitigate	20
E. Proper Operation and Maintenance	20
F. Removed Substances	20
G. Bypass of Treatment Facilities	20
H. Upset Conditions	22
I. Toxic Pollutants	22
J. Changes in Discharge of Toxic Substances	22
K. Industrial Pretreatment	23
IV. GENERAL REQUIREMENTS	24
A. Planned Changes	24
B. Anticipated Noncompliance	24
C. Permit Actions	24
D. Duty to Reapply	24
E. Duty to Provide Information	24
F. Other Information	24
G. Signatory Requirements	24
H. Penalties for Falsification of Reports	25
I. Availability of Reports	25
J. Oil and Hazardous Substance Liability	25
K. Property Rights	25
L. Severability	25
M. Transfers	25
N. State Laws	26
O. Water Quality-Reopener Provision	26
P. Toxicity Limitation-Reopener Provision	26
V. GLOSSARY OF TERMS	27
A. Definitions	27

I EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

A. Criteria for Inclusion in the General Permit for Coal Mining

This General permit shall apply only to the discharge of treated wastewater from:

Coal mining operations either new or existing in Utah which include or will include in part, or in whole, alkaline mine water drainage, storm water runoff from coal preparation plant associated areas, active mining areas, and post mining areas until the performance bond is released. The total dissolved solids (TDS) are limited to a concentration of 500 mg/L at all discharge points, or one ton per day as a sum from all discharges.

B. Notice of Intent for a General Permit for Coal Mining

Any facility which desires coverage under this general permit for coal mining and meets the requirements of Part I.A. may be issued general permit coverage by submitting a notice of intent (NOI) to the Division of Water Quality.

The NOI shall include:

1. A completed Environmental Protection Agency Application (EPA Form 3510-1) or equivalent information.
2. Location and identification number (such as 001, 002, etc.) of each existing discharge and/or proposed discharge point(s). This includes the latitude and longitude to the nearest 15 seconds and the name of the receiving water(s).
3. A description of the source of the wastewater for each discharge point.
4. A description of the treatment given or proposed for the wastewater at each discharge point and if necessary a justification of why no treatment is required.
5. Flow characteristics for each discharge point such as whether flow is or will be continuous or intermittent and indicate projected and/or actual average and maximum flows in gallons per day (gpd), or million gallons per day (MGD).
6. Data for each discharge point for the following parameters:
 - a. Biochemical demand (BOD₅).
 - b. Chemical oxygen demand (COD).
 - c. Total organic carbon (TOC).
 - d. Total suspended solids (TSS).
 - e. Flow.
 - f. Ammonia (as N).
 - g. Oil and grease.
 - h. Temperature.
 - i. pH.
 - j. Total dissolved solids (TDS).
 - k. Total iron and metals, cyanide, phenols located in *Table III of UAC R317-8-3.12*.
 - l. For discharge(s) of mine water or mine water and mine water mixed with surface runoff one acute whole efficiency toxicity test (WET) using two species and full dilution series

(five dilutions plus a control). Sediment pond discharges which have only surface runoff do not require WET tests.

- m. Date and time of sampling for each parameter.
- n. Date and time of analysis for each parameter.
- o. Utah certified laboratory which has completed the analysis for each parameter.

For each discharge point the presence or absence of any toxic and/or priority pollutants as listed in *Table II, UAC R317-8-3.13*.

C. Description of Discharge Point(s).

The authorization to discharge provided under this permit is limited to those outfalls specifically designated below as discharge locations. Discharges at any location not authorized under a UPDES permit is a violation of the *Act* and may be subject to penalties under the *Act*. Knowingly discharging from an unauthorized location or failing to report an unauthorized discharge may be subject to criminal penalties as provided under the *Act*.

<u>Outfall Number</u>	<u>Location of Discharge Point(s)</u>
001	Storm water runoff from sediment pond #1 to Lower Robinson Creek, Latitude 37° 24' 13" N, Longitude 112°27'13"W.
001B	Storm water runoff from sediment pond #1B to Lower Robinson Creek, Latitude 37° 24' 11" N, Longitude 112°27'16"W.
002	Storm water runoff from sediment pond #2 to Lower Robinson Creek, Latitude 37° 24' 10" N, Longitude 112°27'16"W.
003	Ground water and storm water runoff from sediment pond #3 to Lower Robinson Creek, Latitude 37° 23' 51" N, Longitude 112°27'53"W.
004	Ground water and storm water runoff from sediment pond #4 to Sink Valley Wash, Latitude 37° 23' 01" N, Longitude 112°27'03"W.
005	Up-gradient alluvial groundwater discharged from a collection sump to Lower Robinson Creek, Latitude 37°24'5.04 N, and Longitude 112°27'20.91 W.

D. Narrative Standard.

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

E. Specific Limitations and Self-monitoring Requirements.

1. Effective immediately and lasting the duration of this permit, the permittee is authorized to discharge from Outfalls 001, 001B, 002, 003, and 004. Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristics	<u>Discharge Limitations a/</u>			<u>Monitoring Requirements</u>	
	<u>Average</u> <u>30-Day</u>	<u>Daily</u> <u>7-Day</u>	<u>Maximum</u>	<u>Measurement</u> <u>Frequency</u>	<u>Sample</u> <u>Type</u>
Flow, gpd or MGD	N/A	N/A	NA	Monthly	Measured <u>b/</u>
Oil & Grease, mg/L	N/A	N/A	10 <u>c/</u>	Monthly	Visual/Grab
Total Iron, mg/L	N/A	N/A	1.0	Monthly	Grab <u>e/</u>
Total Suspended Solids, mg/L	25	35	70	Monthly	Grab <u>e/</u>
Total Dissolved Solids, mg/L	500 <u>d/</u>	N/A	NA	Monthly	Grab <u>e/</u>

The pH shall not be less than 6.5 standard units nor greater than 9.0 standard units in any sample and shall be monitored monthly by a grab sample.

There shall be no visible sheen or floating solids or visible foam in other than trace amounts.

There shall be no discharge of sanitary wastes or process water from coal preparation plants.

N.A. - Not Applicable.

a/ See Definitions, *Part V.A* for definition of terms.

b/ For intermittent discharge, the duration of the discharge shall also be reported.

c/ If a visual sheen for oil and/or grease is observed, or there is another reason to believe oil and/or grease may be present in the discharge, then a grab sample must be taken immediately and the results shall not exceed 10 mg/L.

d/ If each outfall cannot achieve a 30-day average of 500 mg/L, then the permittee is limited to one ton (2000 lbs) per day as a sum from all outfalls.

e/ These samples may also be a composite sample.

2. Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): in the final effluent before mixing with any receiving waters.
3. Any discharge or increase in the volume of a discharge caused by precipitation within any 24 hour period less than or equal to the 10-year, 24-hour precipitation event (or snowmelt of equivalent volume) at outfall(s) (from approved decant procedures only) may comply with the following limitations instead of the otherwise applicable limitations for TSS in Part I.E.1:

<u>Effluent Characteristics</u>	<u>Daily Maximum</u>
Settleable Solids	0.5 ml/L

In addition to the monitoring requirements specified under Part I.E.1 all effluent samples collected during storm water discharge events shall also be analyzed for settleable solids. Such analyses shall be conducted monthly by grab samples.

4. Any discharge or increase in the volume of a discharge caused by precipitation within any 24 hour period greater than the 10-year, 24 hour precipitation event (or snowmelt of equivalent volume) at outfall(s) from sedimentation ponds may comply with the following limitations instead of the otherwise applicable limitations:

The pH shall not be less than 6.5 standard units nor greater than 9.0 standard units. However as stated in Part I.E.3, all effluent samples collected during storm-water discharge events shall be analyzed for settleable solids and parameters identified under Part I.E.1.

5. The operator shall have the burden of proof that the discharge or increase in discharge was caused by the applicable precipitation event described in Parts I.E.3 and 4. The alternate limitations in Parts I.E.3 and 4 shall not apply to treatment systems that treat underground mine water only.
6. Additional monitoring shall be required for facilities that discharge into waters or watersheds on the Utah 303(d) list of impaired waters. These facilities shall be required to monitor for the pollutant(s) that cause the impairment for these waters. The Division of Water Quality will incorporate any additional sampling requirements for parameters of concern.

F. Storm Water Requirements. It has been determined that the aforementioned permittee has a regulated storm water discharge as per UAC R317-8-3.9., therefore, the following permit conditions governing storm water discharges apply.

1. Coverage of This Section.

- a. Discharges Covered Under This Section. The requirements listed under this section shall apply to storm water discharges from this permitted facility, subject to effluent limitations listed in Part I.E. of this permit.

- 1) Site Coverage. Storm water discharges from the following portions of this permitted facility may be eligible for this permit: haul roads (nonpublic roads on which coal or coal refuse is conveyed), access roads (nonpublic roads providing light vehicular traffic within the facility property and to public roadways), railroad spurs, sidings, and internal haulage lines (rail lines used for hauling coal within the facility property and to offsite commercial railroad lines or loading areas), conveyor belts, chutes, and aerial tramway haulage areas (areas under and around coal or refuse conveyor areas, including transfer stations), equipment storage and maintenance yards, coal handling buildings and structures, and inactive coal mines and related areas (abandoned and other inactive mines, refuse disposal sites and other mining-related areas on private lands).

2. Prohibition of Non-storm Water Discharges.

- a. The following non-storm water discharges may be authorized by this permit provided the non-storm water component of the discharge is in compliance with this section: fire fighting activities; fire hydrant flushings; potable water sources including waterline flushings; drinking fountain water; irrigation drainage; lawn watering; routine external

building washdown water where detergents or other compounds have not been used in the process; pavement washwaters where spills or leaks of toxic or hazardous materials (including oils and fuels) have not occurred (unless all spilled material has been removed) and where detergents are not used; air conditioning condensate; uncontaminated compressor condensate; uncontaminated springs; uncontaminated ground water; and foundation or footing drains where flows are not contaminated with process materials such as solvents.

3. Storm Water Pollution Prevention Plan Requirements. Most of the active coal mining-related areas, described in paragraph 1. above, are subject to sediment and erosion control regulations of the U.S. Office of Surface Mining (OSM) that enforces the Surface Mining Control and Reclamation Act (SMCRA). OSM has granted authority to the Utah Division of Oil Gas and Mining (DOG M) to implement SMCRA through State SMCRA regulations. All SMCRA requirements regarding control of erosion, siltation and other pollutants resulting from storm water runoff, including road dust resulting from erosion, shall be primary requirements of the pollution prevention plan and shall be included in the contents of the plan directly, or by reference. Where determined to be appropriate for protection of water quality, additional sedimentation and erosion controls may be warranted.
 - a. Contents of Plan. The plan shall include at a minimum, the following items:
 - 1) Pollution Prevention Team. Each plan shall identify a specific individual or individuals within the facility organization as members of a storm water Pollution Prevention Team that are responsible for developing the storm water pollution prevention plan and assisting the facility manager in its implementation, maintenance, and revision. The plan shall clearly identify the responsibilities of each team member. The activities and responsibilities of the team shall address all aspects of the facility's storm water pollution prevention plan.
 - 2) Description of Potential Pollutant Sources. Each plan shall provide a description of potential sources that may reasonably be expected to add significant amounts of pollutants to storm water discharges or that may result in the discharge of pollutants during dry weather from separate storm sewers draining the facility. Each plan shall identify all activities and significant materials that may potentially be significant pollutant sources. Each plan shall include, at a minimum:
 - a) Deadlines for Plan Preparation and Compliance
The permittee shall prepare, implement and/or update a plan in compliance with the provisions of this section within 270 days of the effective date of this permit.
 - b) Keeping Plans Current
The permittee shall amend the plan whenever there is a change in design, construction, operation, or maintenance, that has a significant effect on the potential for the discharge of pollutants to the waters of the State or if the storm water pollution prevention plan proves to be ineffective in eliminating or significantly minimizing pollutants from sources identified by the plan, or in otherwise achieving the general objectives of controlling pollutants in storm water discharges associated with the

activities at the mine.

c) Drainage.

- (1) A site map, such as a drainage map required for SMCRA permit applications, that indicate drainage areas and storm water outfalls. These shall include but not be limited to the following:
 - (a) Drainage direction and discharge points from all applicable mining-related areas described in paragraph 1.a(1). (Site Coverage) above, including culvert and sump discharges from roads and rail beds and also from equipment and maintenance areas subject to storm runoff of fuel, lubricants and other potentially harmful liquids.
 - (b) Location of each existing erosion and sedimentation control structure or other control measures for reducing pollutants in storm water runoff.
 - (c) Receiving streams or other surface water bodies.
 - (d) Locations exposed to precipitation that contain acidic spoil, refuse or unreclaimed disturbed areas.
 - (e) Locations where major spills or leaks of toxic or hazardous pollutants have occurred.
 - (f) Locations where liquid storage tanks containing potential pollutants, such as caustics, hydraulic fluids and lubricants, are exposed to precipitation.
 - (g) Locations where fueling stations, vehicle and equipment maintenance areas are exposed to precipitation.
 - (h) Locations of outfalls and the types of discharges contained in the drainage areas of the outfalls.
- (2) For each area of the facility that generates storm water discharges associated with the mining-related activity with a reasonable potential for containing significant amounts of pollutants, a prediction of the direction of flow, and an identification of the types of pollutants that are likely to be present in storm water discharges associated with the activity. Factors to consider include the toxicity of the pollutant; quantity of chemicals used, produced or discharged; the likelihood of contact with storm water; and history of significant leaks or spills of toxic or hazardous pollutants. Flows with a significant potential for causing erosion shall be identified.

- d) Inventory of Exposed Materials. An inventory of the types of materials handled at the site that potentially may be exposed to precipitation. Such inventory shall include a narrative description of significant materials

that have been handled, treated, stored or disposed in a manner to allow exposure to storm water method and location of onsite storage or disposal; materials management practices employed to minimize contact of materials with storm water runoff a description of existing structural and nonstructural control measures to reduce pollutants in storm water runoff; and a description of any treatment the storm water receives.

- e) Spills and Leaks. A list of significant spills and leaks of toxic or hazardous pollutants that occurred at areas that are exposed to precipitation or that otherwise drain to a storm water conveyance at the facility beginning 3 years prior to the effective date of this permit. Such list shall be updated as appropriate during the term of the permit.
 - f) Sampling Data. A summary of any existing discharge sampling data describing pollutants in storm water discharges from the portions of the facility covered by this permit, including a summary of any sampling data collected during the term of this permit.
 - g) Risk Identification and Summary of Potential Pollutant Sources. A narrative description of the potential pollutant sources from the following activities: truck traffic on haul roads and resulting generation of sediment subject to runoff and dust generation; fuel or other liquid storage; pressure lines containing slurry, hydraulic fluid or other potential harmful liquids; and loading or temporary storage of acidic refuse or spoil. Specific potential pollutants shall be identified where known.
- 3) Measures and Controls. The permittee shall develop a description of storm water management controls appropriate for the facility and implement such controls. The appropriateness and priorities of controls in a plan shall reflect identified potential sources of pollutants at the permitted facility. The description of storm water management controls shall address the following minimum components, including a schedule for implementing such controls.
- a) Good Housekeeping. Good housekeeping requires the maintenance of areas that may contribute pollutants to storm water discharges in a clean, orderly manner. These are practices that would minimize the generation of pollutants at the source or before it would be necessary to employ sediment ponds or other control measures at the discharge outlets. Where applicable, such measures or other equivalent measures would include the following: sweepers and covered storage to minimize dust generation and storm runoff; conservation of vegetation where possible to minimize erosion; watering of haul roads to minimize dust generation; collection, removal, and proper disposal of waste oils and other fluids resulting from vehicle and equipment maintenance; or other equivalent measures.
 - b) Preventive Maintenance. A preventive maintenance program shall involve timely inspection and maintenance of storm water management devices as well as inspecting and testing facility equipment and systems to uncover conditions that could cause breakdowns or failures resulting in discharges of pollutants to surface waters, and ensuring appropriate

maintenance of such equipment and systems. Where applicable, such measures would include the following: removal and proper disposal of settled solids in catch basins to allow sufficient retention capacity; periodic replacement of siltation control measures subject to deterioration such as straw bales; inspections of storage tanks and pressure lines for fuels, lubricants, hydraulic fluid or slurry to prevent leaks due to deterioration or faulty connections; or other equivalent measures.

- c) Spill Prevention and Response Procedures. Areas where potential spills that can contribute pollutants to storm water discharges can occur, and their accompanying drainage points shall be identified clearly in the storm water pollution prevention plan. Where appropriate, specifying material handling procedures, storage requirements, and use of equipment such as diversion valves in the plan should be considered. Procedures for cleaning up spills shall be identified in the plan and made available to the appropriate personnel. The necessary equipment to implement a clean up shall be available to personnel.
- d) Inspections. In addition to or as part of the comprehensive site evaluation required under paragraph 3.a.(4) of this section, qualified facility personnel shall be identified to inspect designated areas of the facility at appropriate intervals specified in the plan. The following shall be included in the plan:
- (1) Active Mining-Related Areas and Those Inactive Areas Under SMCRA Bond Authority. The plan shall require quarterly inspections by the facility personnel for areas of the facility covered by pollution prevention plan requirements. This inspection interval corresponds with the quarterly inspections for the entire facility required to be provided by SMCRA authority inspectors for all mining-related areas under SMCRA authority, including sediment and erosion control measures. Inspections by the facility representative may be done at the same time as the mandatory inspections performed by SMCRA inspectors. Records of inspections of the SMCRA authority facility representative shall be maintained.
 - (2) Inactive Mining-Related Areas Not Under SMCRA Bond. The plan shall require annual inspections by the facility representative except in situations referred to in paragraph 3.a.(4)(d) below.
 - (3) Inspection Records. The plan shall require that inspection records of the facility representative and those of the SMCRA authority inspector shall be maintained. A set of tracking or follow-up procedures shall be used to ensure that appropriate actions are taken in response to the inspections.
- e) Employee Training. Employee training programs shall inform personnel responsible for implementing activities identified in the storm water pollution prevention plan or otherwise responsible for storm water

management at all levels of responsibility of the components and goals of the storm water pollution prevention plan. Training should address topics such as spill response, good housekeeping and material management practices. The pollution prevention plan shall identify periodic dates for such training.

- f) Record keeping and Internal Reporting Procedures. A description of incidents (such as spills, or other discharges) along with other information describing the quality and quantity of storm water discharges shall be included in the plan required under this part. Inspections and maintenance activities shall be documented and records of such activities shall be incorporated into the plan.
- g) Non-storm Water Discharges.
- (1) Certification. The plan shall include a certification that the discharge has been tested or evaluated for the presence of non-storm water discharges such as drainage from underground portions of inactive mines or floor drains from maintenance or coal handling buildings. The certification shall include the identification of potential significant sources of non-storm water discharges at the site, a description of the results of any test and/or evaluation, a description of the evaluation criteria or testing method used, the date of any testing and/or evaluation, and the onsite drainage points that were directly observed during the test. Certifications shall be signed in accordance with Part IV.G.4. of this permit.
 - (2) Exceptions. Except for flows from fire fighting activities, authorized sources of non-storm water listed in Part I.F.2.a. that are combined with storm water discharges associated with industrial activity must be identified in the plan. The plan shall identify and ensure the implementation of appropriate pollution prevention measures for the non-storm water component(s) of the discharge.
 - (3) Failure to Certify. If the permittee is unable to provide the certification required (testing or other evaluation for non-storm water discharges), the Executive Secretary must be notified within 180 days after the effective date of this permit. If the failure to certify is caused by the inability to perform adequate tests or evaluations, such notification shall describe: the procedure of any test conducted for the presence of non-storm water discharges; the results of such test or other relevant observations; potential sources of non-storm water to the storm discharge lines; and why adequate tests for such storm discharge lines were not feasible. Non-storm water discharges to waters of the State that are not authorized by a UPDES permit are unlawful, and must be terminated.
- h) Sediment and Erosion Control. The plan shall identify areas that, due to topography, activities, or other factors, have a high potential for

significant soil erosion, and identify structural, vegetative, and/or stabilization measures to be used to limit erosion and reduce sediment concentrations in storm water discharges. As indicated in paragraph I.F.3. above, SMCRA requirements regarding sediment and erosion control measures are primary requirements of the pollution prevention plan for mining-related areas subject to SMCRA authority. The following sediment and erosion control measures or other equivalent measures, should be included in the plan where reasonable and appropriate for all areas subject to storm water runoff:

- (1) Stabilization Measures. Interim and permanent stabilization measures to minimize erosion and lessen amount of structural sediment control measures needed, including: mature vegetation preservation; temporary seeding; permanent seeding and planting; temporary mulching, matting, and netting; sod stabilization; vegetative buffer strips; temporary chemical mulch, soil binders, and soil palliatives; nonacidic road surfacing material; and protective trees.
- (2) Structural Measures. Structural measures to lessen erosion and reduce sediment discharges, including: silt fences; earth dikes; straw dikes; gradient terraces; drainage swales; sediment traps; pipe slope drains; porous rock check dams; sedimentation ponds; riprap channel protection; capping of contaminated sources; and physical/chemical treatment of storm water.
 - i) Management of Flow. The plan shall contain a narrative consideration of the appropriateness of traditional storm water management practices (other than those as sediment and erosion control measures listed above) used to manage storm water runoff in a manner that reduces pollutants in storm water runoff from the site. The plan shall provide that the measures, which the permittee determines to be reasonable and appropriate, shall be implemented and maintained. Appropriate measures may include: discharge diversions; drainage/storm water conveyances; runoff dispersion; sediment control and collection; vegetation/soil stabilization; capping of contaminated sources; treatment; or other equivalent measures.
- 4) Comprehensive Site Compliance Evaluation. Qualified personnel shall conduct site compliance evaluations at intervals specified in the plan, but in no case less than once a year. Such evaluations shall provide:
 - a) Areas contributing to a storm water discharge associated with coal mining-related areas shall be visually inspected for evidence of, or the potential for, pollutants entering the drainage system. These areas include haul and access roads; railroad spurs, sidings, and internal haulage lines; conveyor belts, chutes and aerial tramways; equipment storage and maintenance yards; coal handling buildings and structures; and inactive mines and related areas. Measures to reduce pollutant loadings shall be evaluated to determine whether they are adequate and properly implemented in accordance with the terms of the permit or whether additional control measures are needed. Structural storm water

management measures, sediment and erosion control measures, and other structural pollution prevention measures, as indicated in paragraphs 3.a.(3)(h) and 3.a.(3)(i) above and where identified in the plan, shall be observed to ensure that they are operating correctly. A visual evaluation of any equipment needed to implement the plan, such as spill response equipment, shall be made.

- b) Based on the results of the evaluation, the description of potential pollutant sources identified in the plan, in accordance with paragraph 3.a.(2) of this section, and pollution prevention measures and controls identified in the plan, in accordance with paragraph 3.a.(3) of this section, shall be revised as appropriate within 2 weeks of such evaluation and shall provide for implementation of any changes to the plan in a timely manner. For inactive mines, such revisions may be extended to a maximum of 12 weeks after the evaluation.
 - c) A report summarizing the scope of the evaluation, personnel making the evaluation, the date(s) of the evaluation, major observations relating to the implementation of the storm water pollution prevention plan, and actions taken in accordance with paragraph 3.a.(4)(b) above shall be made and retained as part of the storm water pollution prevention plan for at least 3 years after the date of the evaluation. The report shall identify any incidents of noncompliance. Where a report does not identify any incidents of noncompliance, the report shall contain a certification that the facility is in compliance with the storm water pollution prevention plan and this permit. The report shall be signed in accordance with Part IV.G.4. (Signatory Requirements) of this permit.
 - d) Where compliance evaluation schedules overlap with inspections required under 3.a.(3)(d), the compliance evaluation may be conducted in place of one such inspection. Where annual site compliance evaluations are shown in the plan to be impractical for inactive mining sites due to the remote location and inaccessibility of the site, site inspections required under this part shall be conducted at appropriate intervals specified in the plan, but, in no case less than once in 3 years.
4. Numeric Effluent Limitations. There are no additional numeric effluent limitations beyond those described in Part I.E. of this permit.
5. Monitoring and Reporting Requirements.
- a. Benchmark Analytical Monitoring Requirements. The permittee must monitor their storm water discharges associated with industrial activity at least quarterly (4 times per year) during years 2 and 4 of the permit cycle except as provided in paragraphs 5.a.(3) (Sampling Waiver), 5.a.(4) (Representative Discharge), and 5.a.(5) (Alternative Certification). The permittee is required to monitor their storm water discharges for the pollutants of concern listed in Table E. below. Reports must be made in accordance with 5.b. (Reporting). In addition to the parameters listed in Table E. below, the permittee must provide the date and duration (in hours) of the storm event(s) sampled; rainfall measurements or estimates (in inches) of the storm event that generated the sampled runoff; the duration between the storm event sampled and the end of the previous measurable (greater than 0.1 inch rainfall) storm event; and an estimate of the total

volume (in gallons) of the discharge sampled.

The results of benchmark monitoring are primarily for the permittee's use to determine the overall effectiveness of the SWPPP in controlling the discharge of pollutants to receiving waters. Benchmark values are not viewed as permit limitations. An exceedence of a benchmark value does not, in and of itself, constitute a violation of this permit. While exceedences of a benchmark value does not automatically indicate a violation of a water quality standard has occurred, it does signal that modifications to the SWPPP or more specific pollution prevention controls may be necessary.

Table E.
Monitoring Requirements for Coal Mining Facilities

Pollutants of Concern	Cut-Off Concentration
Total Recoverable Aluminum	0.75 mg/L
Total Recoverable Iron	1.0 mg/L
Total Suspended Solids	100 mg/L

- 1) Monitoring Periods. The permittee shall monitor samples collected during the sampling periods of: January through March, April through June, July through September, and October through December during the second and fourth years of this permit cycle.
- 2) Sample Type. A minimum of one grab sample shall be taken. All such samples shall be collected from the discharge resulting from a storm event that is greater than 0.1 inches in magnitude and that occurs at least 72 hours from the previously measurable (greater than 0.1 inch rainfall) storm event. The required 72-hour storm event interval is waived where the preceding measurable storm event did not result in a measurable discharge from the facility. The required 72-hour storm event interval may also be waived where the permittee documents that less than a 72-hour interval is representative for local storm events during the season when sampling is being conducted. The grab sample shall be taken during the first 30 minutes of the discharge. If the collection of a grab sample during the first 30 minutes is impracticable, a grab sample can be taken during the first hour of the discharge, and the discharger shall submit with the monitoring report a description of why a grab sample during the first 30 minutes was impracticable. If storm water discharges associated with industrial activity commingle with process or nonprocess water, then where practicable permittees must attempt to sample the storm water discharge before it mixes with the non-storm water discharge.
- 3) Sampling Waiver.
 - a) Adverse Conditions. If the permittee is unable to collect samples within a specified sampling period due to adverse climatic conditions, thus a substitute sample shall be collected from a separate qualifying event in the next monitoring period and the data submitted along with the data for the routine sample in that period. Adverse weather conditions that may prohibit the collection of samples include weather conditions that create dangerous conditions for personnel (such as local flooding, high winds, hurricanes, tornadoes, electrical storms, etc.) or otherwise make the collection of a sample impracticable (drought, extended frozen

conditions, etc.).

- b) Low Concentration Waiver. When the average concentration for a pollutant calculated from all monitoring data collected from an outfall during the second year monitoring is less than the corresponding value for that pollutant listed in Table E. under the column Monitoring Cut-Off Concentration, the permittee may waive monitoring and reporting requirements for the fourth year monitoring period. The permittee must submit to the Executive Secretary, in lieu of the monitoring data, a certification that there has not been a significant change in industrial activity or the pollution prevention measures in area of the facility that drains to the outfall for which sampling was waived.
- c) Inactive and Unstaffed Site. If the permittee is unable to conduct quarterly chemical storm water sampling at an inactive and unstaffed site, the operator of the facility may exercise a waiver of the monitoring requirements as long as the facility remains inactive and unstaffed. The permittee must submit to the Executive Secretary, in lieu of monitoring data, a certification statement on the Storm Water Discharge Monitoring Report (SWDMR) stating that the site is inactive and unstaffed so that collecting a sample during a qualifying event is not possible.
- 4) Representative Discharge. If the permittee has two or more outfalls that, based on a consideration of industrial activity, significant materials, and management practices and activities within the area drained by the outfall, discharge substantially identical effluents, the permittee may test the effluent of one of such outfalls and report that the quantitative data also applies to the substantially identical outfall(s) provided that the permittee includes in the storm water pollution prevention plan a description of the location of the outfalls and explains in detail why the outfalls are expected to discharge substantially identical effluents. In addition, for each outfall that the permittee believes is representative, an estimate of the size of the drainage area (in square feet) and an estimate of the runoff coefficient of the drainage area [e.g., low (under 40 percent), medium (40 to 65 percent), or high (above 65 percent)] shall be provided in the plan. The permittee shall include the description of the location of the outfalls, explanation of why outfalls are expected to discharge substantially identical effluents, and estimate of the size of the drainage area and runoff coefficient with the SWDMR.
- 5) Alternative Certification. The Permittee is not subject to the monitoring requirements of this section provided that certification is made for a given outfall or on a pollutant-by-pollutant basis in lieu of monitoring reports required under paragraph b. below, under penalty of law, signed in accordance with Part IV.G.4. (Signatory Requirements). The Certification shall state that material handling equipment or activities, raw materials, intermediate products, final products, waste materials, by-products, industrial machinery or operations, or significant materials from past industrial activity that are located in areas of the facility within the drainage area of the outfall are not presently exposed to storm water and are not expected to be exposed to storm water for the certification period. Such certification must be retained in the storm water pollution prevention plan, and submitted to DWQ in accordance with Part II.D. of this permit. In the case

of certifying that a pollutant is not present, the permittee must submit the certification along with the monitoring reports required under paragraph b. below. If the permittee cannot certify for an entire period, they must submit the date exposure was eliminated and any monitoring required up until that date. This certification option is not applicable to compliance monitoring requirements associated with effluent limitations.

- b. Reporting. The permittee shall submit monitoring results for each outfall associated with industrial activity [or a certification in accordance with Sections (3), (4), or (5) above] obtained during the second year reporting period, on Storm Water Discharge Monitoring Report (SWDMR) form(s) postmarked no later than the 31st day of the following March. Monitoring results [or a certification in accordance with Sections (3), (4), or (5) above] obtained during the fourth year reporting period shall be submitted on SWDMR form(s) postmarked no later than the 31st day of the following March. For each outfall, one signed SWDMR form must be submitted to the Executive Secretary per storm event sampled. Signed copies of SWDMRs, or said certifications, shall be submitted to the Executive Secretary at the address listed in Part II.D. of the permit.
- c. Visual Examination of Storm Water Quality. The permittee shall perform and document a visual examination of a representative storm water discharge at the following frequencies: quarterly for active areas under SMCRA bond located in areas with average annual precipitation over 20 inches; semi-annually for inactive areas under SMCRA bond, and active areas under SMCRA bond located in areas with average annual precipitation of 20 inches or less; visual examinations are not required at inactive areas not under SMCRA bond.
- 1) Visual Monitoring Periods. Examinations shall be conducted in each of the following periods for the purposes of visually inspecting storm water runoff or snow melt: Quarterly-January through March; April through June; July through September; and October through December. Semi-annually—January through June and July through December.
 - 2) Sample and Data Collection. Examinations shall be made of samples collected within the first 60 minutes (or as soon thereafter as practical, but not to exceed two hours) of when the runoff or snowmelt begins discharging. The examinations shall document observations of color, odor, clarity, floating solids, settled solids, suspended solids, foam, oil sheen, and other obvious indicators of storm water pollution. The examination must be conducted in a well-lit area. No analytical tests are required to be performed on the samples. All such samples shall be collected from the discharge resulting from a storm event that is greater than 0.1 inches in magnitude and that occurs at least 72 hours from the previously measurable (greater than 0.1 inch rainfall) storm event. Where practicable, the same individual will carry out the collection and examination of discharges for the life of the permit.
 - 3) Visual Storm Water Discharge Examination Reports. Visual examination reports must be maintained onsite in the pollution prevention plan. The report shall include the examination date and time, examination personnel, the nature of the discharge (i.e., runoff or snow melt), visual quality of the storm water discharge (including observations of color, odor, clarity, floating solids, settled solids, suspended solids, foam, oil sheen, and other obvious indicators of storm water pollution), and probable sources of any observed storm water contamination.

MONITORING, RECORDING AND REPORTING REQUIREMENTS

- A. Representative Sampling. Samples taken in compliance with the monitoring requirements established under *Part I* shall be collected from the effluent stream prior to discharge into the receiving waters. Samples and measurements shall be representative of the volume and nature of the monitored discharge. Sludge samples shall be collected at a location representative of the quality of sludge immediately prior to the use-disposal practice.
- B. Monitoring Procedures. Monitoring must be conducted according to test procedures approved under *Utah Administrative Code ("UAC") R317-2-10*, unless other test procedures have been specified in this permit.
- C. Penalties for Tampering. The *Act* provides that any person who falsifies, tampers with, or knowingly renders inaccurate, any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than six months per violation, or by both.
- D. Reporting of Monitoring Results. Monitoring results obtained during the previous month shall be summarized for each month and reported monthly on a Discharge Monitoring Report Form (EPA No. 3320-1), post-marked no later than the 28th day of the month following the completed reporting period. The first report for the May 2009 monitoring period is due on June 28, 2009. If no discharge occurs during the reporting period, "no discharge" shall be reported. Legible copies of these, and all other reports including whole effluent toxicity (WET) test reports required herein, shall be signed and certified in accordance with the requirements of *Signatory Requirements (see Part IV.G)*, and submitted to the Director, Division of Water Quality at the following address:
- original to: Department of Environmental Quality
Division of Water Quality
288 North 1460 West
PO Box 144870
Salt Lake City, Utah 84114-4870
- E. Compliance Schedules. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any Compliance Schedule of this permit shall be submitted no later than 14 days following each schedule date.
- F. Additional Monitoring by the Permittee. If the permittee monitors any parameter more frequently than required by this permit, using test procedures approved under *UAC R317-2-10* or as otherwise specified in this permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR. Such increased frequency shall also be indicated. Only those parameters required by the permit need to be reported.
- G. Records Contents. Records of monitoring information shall include:
1. The date, exact place, and time of sampling or measurements;
 2. The individual(s) who performed the sampling or measurements;
 3. The date(s) and time(s) analyses were performed;
 4. The individual(s) who performed the analyses;
 5. The analytical techniques or methods used; and,
 6. The results of such analyses.

- H. Retention of Records. The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least three years from the date of the sample, measurement, report or application. This period may be extended by request of the Executive Secretary at any time. A copy of this UPDES permit must be maintained on site during the duration of activity at the permitted location.
- I. Twenty-four Hour Notice of Noncompliance Reporting.
1. The permittee shall (orally) report any noncompliance which may seriously endanger health or environment as soon as possible, but no later than twenty-four (24) hours from the time the permittee first became aware of circumstances. The report shall be made to the Division of Water Quality, (801) 538-6146, or 24 hour answering service (801) 536-4123.
 2. The following occurrences of noncompliance shall be reported by telephone (801) 536-4123 as soon as possible but no later than 24 hours from the time the permittee becomes aware of the circumstances:
 - a. Any noncompliance which may endanger health or the environment;
 - b. Any unanticipated bypass which exceeds any effluent limitation in the permit (See *Part III.G, Bypass of Treatment Facilities.*);
 - c. Any upset which exceeds any effluent limitation in the permit (See *Part III.H, Upset Conditions.*); or,
 - d. Violation of a maximum daily discharge limitation for any of the pollutants listed in the permit.
 3. A written submission shall also be provided within five days of the time that the permittee becomes aware of the circumstances. The written submission shall contain:
 - a. A description of the noncompliance and its cause;
 - b. The period of noncompliance, including exact dates and times;
 - c. The estimated time noncompliance is expected to continue if it has not been corrected; and,
 - d. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.
 - e. Steps taken, if any, to mitigate the adverse impacts on the environment and human health during the noncompliance period.
 4. The Executive Secretary may waive the written report on a case-by-case basis if the oral report has been received within 24 hours by the Division of Water Quality, (801) 538-6146.
 5. Reports shall be submitted to the addresses in *Part II.D, Reporting of Monitoring Results.*

- J. Other Noncompliance Reporting. Instances of noncompliance not required to be reported within 24 hours shall be reported at the time that monitoring reports for *Part II.D* are submitted. The reports shall contain the information listed in *Part II.I.3*.
- K. Inspection and Entry. The permittee shall allow the Executive Secretary, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to:
1. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of the permit;
 2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
 3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and,
 4. Sample or monitor at reasonable times, for the purpose of assuring permit compliance or as otherwise authorized by the *Act*, any substances or parameters at any location.

III. COMPLIANCE RESPONSIBILITIES

- A. Duty to Comply. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. The permittee shall give advance notice to the Executive Secretary of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.
- B. Penalties for Violations of Permit Conditions. The Act provides that any person who violates a permit condition implementing provisions of the Act is subject to a civil penalty not to exceed \$10,000 per day of such violation. Any person who willfully or negligently violates permit conditions of the Act is subject to a fine not exceeding \$25,000 per day of violation; Any person convicted under UCA 19-5-115(2) a second time shall be punished by a fine not exceeding \$50,000 per day. Except as provided at Part III.G, Bypass of Treatment Facilities and Part III.H, Upset Conditions, nothing in this permit shall be construed to relieve the permittee of the civil or criminal penalties for noncompliance.
- C. Need to Halt or Reduce Activity not a Defense. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
- D. Duty to Mitigate. The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.
- E. Proper Operation and Maintenance. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.
- F. Removed Substances. Collected screening, grit, solids, sludges, or other pollutants removed in the course of treatment shall be buried or disposed of in such a manner so as to prevent any pollutant from entering any waters of the state or creating a health hazard. Sludge/digester supernatant and filter backwash shall not directly enter either the final effluent or waters of the state by any other direct route.
- G. Bypass of Treatment Facilities.
1. Bypass Not Exceeding Limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to parts 2. and 3. of this section.
 2. Prohibition of Bypass.
 - a. Bypass is prohibited, and the Executive Secretary may taken enforcement action against a permittee for bypass, unless:
 - (1) Bypass was unavoidable to prevent loss of human life, personal injury, or severe property damage;

- (2) There were no feasible alternatives to bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate backup equipment should have been installed in the exercise of reasonable engineering judgement to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance, and
 - (3) The permittee submitted notices as required under section G.3.
 - b. The executive Secretary may approve an anticipated bypass, after considering its adverse effects, if the Executive Secretary determines that it will meet the three conditions listed in sections G.2a. (1), (2) and (3).
3. Notice.
 - a. Anticipated bypass. Except as provided above in section G.2. and below in section G. 3.b, if the permittee knows in advance of the need for a bypass, it shall submit prior notice, at least ninety days before the date of bypass. The prior notice shall include the following unless otherwise waived by the Executive Secretary:
 - (1) Evaluation of alternative to bypass, including cost-benefit analysis containing an assessment of anticipated resource damages:
 - (2) A specific bypass plan describing the work to be performed including scheduled dates and times. The permittee must notify the Executive Secretary in advance of any changes to the bypass schedule;
 - (3) Description of specific measures to be taken to minimize environmental and public health impacts;
 - (4) A notification plan sufficient to alert all downstream users, the public and others reasonably expected to be impacted by the bypass;
 - (5) A water quality assessment plan to include sufficient monitoring of the receiving water before, during and following the bypass to enable evaluation of public health risks and environmental impacts; and
 - (6) Any additional information requested by the Executive Secretary.
 - b. Emergency Bypass. Where ninety days advance notice is not possible, the permittee must notify the Executive Secretary, and the Director of the Department of Natural Resources, as soon as it becomes aware of the need to bypass and provide to the Executive Secretary the information in section G.3.a.(1) through (6) to the extent practicable.
 - c. Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass to the Executive Secretary as required under Part II.1. Twenty Four Hour Reporting. The permittee shall also immediately notify the Director of the Department of Natural Resources, the public and downstream users and shall implement measures to minimize impacts to public health and environment to the extent practicable.

H. Upset Conditions.

1. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with technology based permit effluent limitations if the requirements of paragraph 2. of this section are met. Executive Secretary's administrative determination regarding a claim of upset cannot be judiciously challenged by the permittee until such time as an action is initiated for noncompliance.
2. Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
 - a. An upset occurred and that the permittee can identify the cause(s) of the upset;
 - b. The permitted facility was at the time being properly operated;
 - c. The permittee submitted notice of the upset as required under Part II.I, Twenty-four Hour Notice of Noncompliance Reporting; and,
 - d. The permittee complied with any remedial measures required under Part III.D, Duty to Mitigate.
3. Burden of proof. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

I. Toxic Pollutants. The permittee shall comply with effluent standards or prohibitions established under Section 307(a) of *The Water Quality Act of 1987* for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

J. Changes in Discharge of Toxic Substances. Notification shall be provided to the Executive Secretary as soon as the permittee knows of, or has reason to believe:

1. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
 - a. One hundred micrograms per liter (100 ug/L);
 - b. Two hundred micrograms per liter (200 ug/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/L) for 2,4-dinitrophenol and for 2-methyl-4, 6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
 - c. Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with *UAC R317-8-3.4(7)*, or (10); or,
 - d. The level established by the Executive Secretary in accordance with *UAC R317-8-4.2(6)*.
2. That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

- a. Five hundred micrograms per liter (500 ug/L);
- b. One milligram per liter (1 mg/L) for antimony;
- c. Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with *UAC R317-8-3.4(9)*; or,
- d. The level established by the Executive Secretary in accordance with *UAC R317-8-4.2(6)*.

K. Industrial Pretreatment. Any wastewaters discharged to the sanitary sewer, either as a direct discharge or as a hauled waste, are subject to Federal, State and local pretreatment regulations. Pursuant to Section 307 of *The Water Quality Act of 1987*, the permittee shall comply with all applicable federal General Pretreatment Regulations promulgated at *40 CFR 403*, the State Pretreatment Requirements at *UAC R317-8-8*, and any specific local discharge limitations developed by the Publicly Owned Treatment Works (POTW) accepting the wastewaters.

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

IV. GENERAL REQUIREMENTS

- A. Planned Changes. The permittee shall give notice to the Executive Secretary as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when the alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are not subject to effluent limitations in the permit. In addition, if there are any planned substantial changes to the permittee's existing sludge facilities or their manner of operation or to current sludge management practices of storage and disposal, the permittee shall give notice to the Executive Secretary of any planned changes at least 30 days prior to their implementation.
- B. Anticipated Noncompliance. The permittee shall give advance notice to the Executive Secretary of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.
- C. Permit Actions. This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.
- D. Duty to Reapply. If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee shall apply for and obtain a new permit. The application shall be submitted at least 180 days before the expiration date of this permit.
- E. Duty to Provide Information. The permittee shall furnish to the Executive Secretary, within a reasonable time, any information which the Executive Secretary may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Executive Secretary, upon request, copies of records required to be kept by this permit.
- F. Other Information. When the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or any report to the Executive Secretary, it shall promptly submit such facts or information.
- G. Signatory Requirements. All applications, reports or information submitted to the Executive Secretary shall be signed and certified.
1. All permit applications shall be signed by either a principal executive officer or ranking elected official
 2. All reports required by the permit and other information requested by the Executive Secretary shall be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:
 - a. The authorization is made in writing by a person described above and submitted to the Executive Secretary, and,
 - b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility, such as the position of plant manager, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.)

3. Changes to authorization. If an authorization under paragraph IV.G.2 is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of paragraph IV.G.2 must be submitted to the Executive Secretary prior to or together with any reports, information, or applications to be signed by an authorized representative.
4. Certification. Any person signing a document under this section shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

- H. Penalties for Falsification of Reports. The *Act* provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction be punished by a fine of not more than \$10,000.00 per violation, or by imprisonment for not more than six months per violation, or by both.
- I. Availability of Reports. Except for data determined to be confidential under *UAC R317-8-3.2*, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the office of Executive Secretary. As required by the *Act*, permit applications, permits and effluent data shall not be considered confidential
- J. Oil and Hazardous Substance Liability. Nothing in this permit shall be construed to preclude the permittee of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under the *Act*.
- K. Property Rights. The issuance of this permit does not convey any property rights of any sort, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.
- L. Severability. The provisions of this permit are severable, and if any provisions of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.
- M. Transfers. This permit may be automatically transferred to a new permittee if:
 1. The current permittee notifies the Executive Secretary at least 20 days in advance of the proposed transfer date:

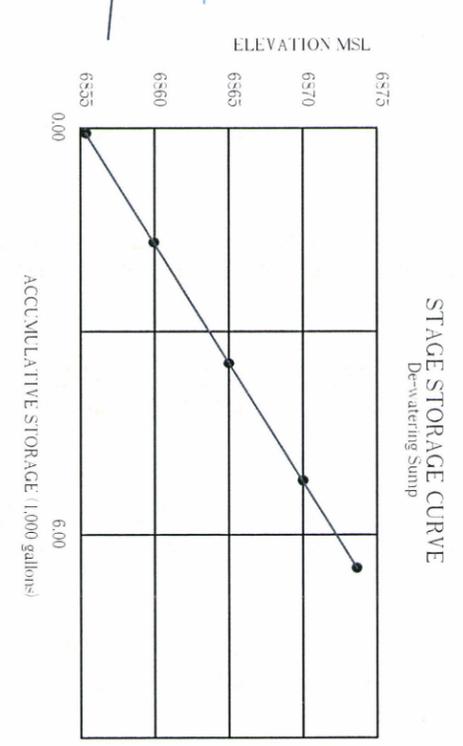
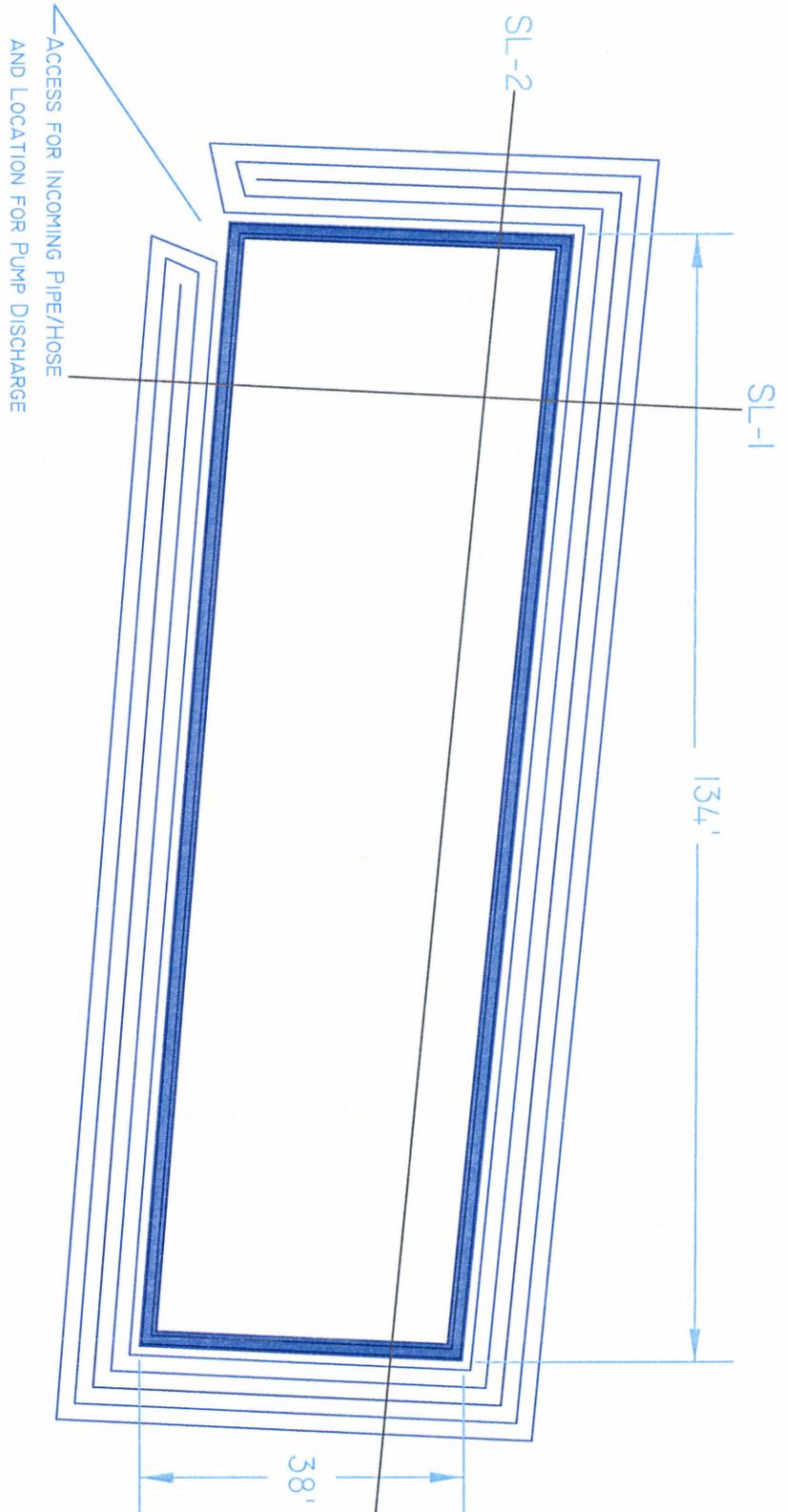
2. The notice includes a written agreement between the existing and new permittees containing a specific date for transfer of permit responsibility, coverage, and liability between them; and,
 3. The Executive Secretary does not notify the existing permittee and the proposed new permittee of his or her intent to modify, or revoke and reissue the permit. If this notice is not received, the transfer is effective on the date specified in the agreement mentioned in paragraph 2 above.
- N. State Laws. Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable state law or regulation under authority preserved by *UCA 19-5-117*.
- O. Water Quality-Reopener Provision. This permit may be reopened and modified (following proper administrative procedures) to include the appropriate effluent limitations and compliance schedule, if necessary, if one or more of the following events occurs:
1. Water Quality Standards for the receiving water(s) to which the permittee discharges are modified in such a manner as to require different effluent limits than contained in this permit.
 2. A final wasteload allocation is developed and approved by the State and/or EPA for incorporation in this permit.
 3. A revision to the current Water Quality Management Plan is approved and adopted which calls for different effluent limitations than contained in this permit.
- P. Toxicity Limitation-Reopener Provision. This permit may be reopened and modified (following proper administrative procedures) to include whole effluent toxicity (WET) testing, a WET limitation, a compliance schedule, a compliance date, additional or modified numerical limitations, or any other conditions related to the control of toxicants if toxicity is detected during the life of this permit.

GLOSSARY OF TERMS

A. Definitions.

1. The "30-day (and monthly) average" is the arithmetic average of all samples collected during a consecutive 30-day period or calendar month, whichever is applicable. The calendar month shall be used for purposes of reporting self-monitoring data on discharge monitoring report forms.
2. The "7-day (and weekly) average" is the arithmetic average of all samples collected during a consecutive 7-day period or calendar week, whichever is applicable. The 7-day and weekly averages are applicable only to those effluent characteristics for which there are 7-day average effluent limitations. The calendar week which begins on Sunday and ends on Saturday, shall be used for purposes of reporting self-monitoring data on discharge monitoring report forms. Weekly averages shall be calculated for all calendar weeks with Saturdays in the month. If a calendar week overlaps two months (i.e., the Sunday is in one month and the Saturday in the following month), the weekly average calculated for that calendar week shall be included in the data for the month that contains the Saturday.
3. "Daily Maximum" ("Daily Max.") is the maximum value allowable in any single sample or instantaneous measurement.
4. "Composite samples" shall be flow proportioned. The composite sample shall, as a minimum, contain at least four (4) samples collected over the composite sample period. Unless otherwise specified, the time between the collection of the first sample and the last sample shall not be less than six (6) hours nor more than 24 hours. Acceptable methods for preparation of composite samples are as follows:
 - a. Constant time interval between samples, sample volume proportional to flow rate at time of sampling;
 - b. Constant time interval between samples, sample volume proportional to total flow (volume) since last sample. For the first sample, the flow rate at the time the sample was collected may be used;
 - c. Constant sample volume, time interval between samples proportional to flow (i.e., sample taken every "X" gallons of flow); and,
 - d. Continuous collection of sample, with sample collection rate proportional to flow rate.
5. A "grab" sample, for monitoring requirements, is defined as a single "dip and take" sample collected at a representative point in the discharge stream.
6. An "instantaneous" measurement, for monitoring requirements, is defined as a single reading, observation, or measurement.
7. "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

8. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility.
9. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
10. "Executive Secretary" means Executive Secretary of the Utah Water Quality Board.
11. "EPA" means the United States Environmental Protection Agency.
12. "Act" means the "*Utah Water Quality Act*".
13. "Best Management Practices" ("*BMPs*") means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the State. *BMPs* also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.
14. "Coal pile runoff" means the rainfall runoff from or through any coal storage pile.
15. "*CWA*" means *The Federal Water Pollution Control Act*, as amended, by *The Clean Water Act of 1987*.
16. "Point Source" means any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel or other floating craft from which pollutants are or may be discharges. This term does not include return flows from irrigated agriculture or agriculture storm water runoff.
17. "Significant spills" includes, but is not limited to: releases of oil or hazardous substances in excess of reportable quantities under *Section 311 of the Clean Water Act* (see *40CFR 110.10* and *40 CFR 117.21*) or *Section 102 of the CERCLA* (see *40 CFR 302.4*).
18. "Storm water" means storm water runoff, snow melt runoff, and surface runoff and drainage.
19. "Waste pile" means any noncontainerized accumulation of solid, nonflowing waste that is used for treatment or storage.
20. "10-year, 24-hour precipitation event" means the maximum 24-hour precipitation event with a probable reoccurrence interval of once in 10 years. This information is available in *Weather Bureau Technical Paper no. 40*, May 1961 and *NOAA Atlas 2* 1973 for the 11 Western States, and may be obtained from the National Climatic center of the Environmental Data Service, National Oceanic and Atmospheric Administration, U.S. Department of Commerce.
21. The term "coal preparation plant" means a facility where coal is crushed, screened, sized and cleaned, dried, or otherwise prepared and loaded for transit to a consuming facility.
22. The term "coal preparation plant associated areas" means the coal preparation plant yards, immediate access roads, coal refuse piles, and coal storage piles and facilities.

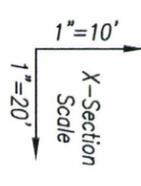


STORAGE VOLUME COMPUTATIONS
De-watering Sump

ELEV. FT.	WIDTH FT.	LENGTH FT.	AREA ac	AVG. AREA ac	INTERVAL FT.	STORAGE ac-ft	ACC. STORAGE ac-ft	STAGE INTERVAL FT.
6536.00	NA	NA	4639.6	4677.9	1.00	11.633	11.633	1.00
6537.00	NA	NA	4696.2	4714.5	1.00	35.267	46.920	2.00
6538.00	NA	NA	4732.0	4751.2	1.00	35.342	82.461	3.00
6539.00	NA	NA	4769.6	4787.8	1.00	35.317	117.879	4.00
6500.00	NA	NA	4506.4	4525.0	1.00	36.093	154.972	5.00
6561.00	NA	NA	4843.4	4862.0	1.00	36.570	190.742	6.00
6562.00	NA	NA	4880.3	4899.1	1.00	36.648	227.390	7.00
6563.00	NA	NA	4917.6	4936.3	1.00	36.926	264.315	8.00
6564.00	NA	NA	4954.9	4973.6	1.00	37.205	301.520	9.00
6565.00	NA	NA	4992.2	5010.5	1.00	37.481	339.001	10.00
6566.00	NA	NA	5029.7	5048.0	1.00	37.761	376.762	11.00
6567.00	NA	NA	5067.2	5085.0	1.00	38.046	414.809	12.00
6568.00	NA	NA	5104.9	5122.7	1.00	38.328	453.137	13.00
6569.00	NA	NA	5142.6	5160.3	1.00	38.611	491.748	14.00
6570.00	NA	NA	5180.4	5197.4	1.00	38.894	530.642	15.00
6571.00	NA	NA	5218.4	5234.4	1.00	39.178	569.820	16.00
6572.00	NA	NA	5256.4	5271.4	1.00	39.463	609.283	17.00
6573.00	NA	NA	5294.3	5294.3	1.00	39.463	648.846	18.00

De-watering Sump

RECEIVED
JAN 17 2012
 DIV. OF OIL, GAS & MINING



DRAWN BY: K. NICHOLAS	CHECKED BY: LWJ	REVISIONS		DE-WATERING SUMP DETAILS		
	DRAWING: Figure 3	DATE: 12/12/11	DATE:			
JOB NUMBER:	SHEET			Figure 3		