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November 22, 1996

TO: File #2

THRU: Daron Haddock, Permit Supervisor *DRA*

FROM: James D. Smith, Reclamation Specialist *JDS*

RE: Alkali Tract Significant Revision, Soldier Canyon Mine, Soldier Creek Coal Company, ACT/007/018-96I, File #2, Carbon County, Utah

**SUMMARY:**

A coal mine permit application has been submitted to the Utah Division of Oil, Gas, and Mining (DOG M) by Coastal States Energy Company for the Dugout Canyon Mine, to be located southeast of the current Soldier Creek mine permit area. The Dugout Canyon permit application includes roughly the area covered by a previous mine permit issued to Sunedco for the Sage Point/Dugout Canyon Mine. A CHIA is being prepared that will include the Soldier Canyon and Dugout Canyon Mines.

**ENVIRONMENTAL RESOURCE INFORMATION**

**GEOLOGIC RESOURCE INFORMATION**

Regulatory Reference: 30 CFR Sec. 784.22; R645-301-623, -301-724.

**Analysis:**

The Alkali Tract Significant Revision contains no additional information for Chapter 6 - Geology except that maps have been expanded to include the additional area. A summary of hydrogeology is included on pages 7-94 through 7-135 in the PHC determination. Geologic information in the existing MRP is sufficient to assist in: determining the probable hydrologic consequences of the operation upon the quality and quantity of surface and ground water in the permit and adjacent areas, including the extent to which surface- and ground-water monitoring is necessary; determining all potentially acid- or toxic-forming strata down to and including the stratum immediately below the coal seam to be mined; determining whether reclamation can be accomplished and whether the proposed operation has been designed to prevent material damage to the hydrologic balance outside the permit area; and, preparing the subsidence control plan.

Geologic information in the Alkali Tract Significant Revision and in the currently approved MRP includes a



description of the geology of the proposed permit and adjacent areas down to and including the deeper of either the stratum immediately below the lowest coal seam to be mined or any aquifer below the lowest coal seam to be mined which may be adversely impacted by mining. Geologic cross sections and maps of areal geology and coal seam thickness have been updated to include the Alkali Lease Addition. The geology map does not indicate strike-and-dip or other features of structural geology. The map showing the thickness of rock between the Rock Canyon and Gilson seams has been reduced to simply indicate where the interburden is more than or less than thirty feet; because thirty feet is a widely accepted limit for mining in overlying or underlying seams, this map is adequate for indicating areas where only one of the two seams can be mined.

In no portion of the Soldier Canyon Mine permit area, the proposed Alkali Lease Addition, and adjacent areas are the strata down to the coal seam to be mined to be removed. The strata down to the coal seam to be mined are exposed at outcrops in and adjacent to these areas. No new samples have been collected and analyzed from test borings; drill cores; or fresh, unweathered, uncontaminated samples from rock outcrops for the Alkali Tract Significant Revision to the Soldier Canyon Mine MRP.

Collection, analysis, and description of additional geologic information has been determined not to be necessary to protect the hydrologic balance, to minimize or prevent subsidence, or to meet the performance standards.

### **Findings:**

Geologic information for the Alkali Tract Significant Revision to the Soldier Canyon Mine MRP is complete and accurate except for the following deficiency:

- 1) Strike-and-dip and other structural geology features are not shown on the geology map - Map 6.22-7.

## **HYDROLOGIC RESOURCE INFORMATION**

Regulatory Reference: 30 CFR Sec. 701.5, 784.14; R645-100-200, -301-720.

A coal mine permit application has been submitted to the Utah Division of Oil, Gas, and Mining (DOG M) by Coastal States Energy Company for the Dugout Canyon Mine, to be located southeast of the current Soldier Creek mine permit area. The Dugout Canyon permit application includes roughly the area covered by a previous mine permit issued to Sunedco for the Sage Point/Dugout Canyon Mine. A CHIA is being prepared that will include the Soldier Canyon and Dugout Canyon Mines.

The Alkali Tract Significant Revision contains a new Chapter 7 on hydrology to replace Chapter 7 in the currently approved plan. It follows the same format as the current Chapter 7 but contains a large number of additions and revisions.

### **Analysis:**

#### **Sampling and analysis.**

It is stated on page 7-2 that all water samples have been collected and analyzed according to methods in either the current edition of "Standard Methods for the Examination of Water and Wastewater" or the methodology in 40 CFR Parts 136 and 434, when feasible. *Concur* This statement in the Alkali Tract Significant Revision is not strictly true: except for tritium determination, methods to determine isotopic content of water are not covered by "Standard Methods for the Examination of Water and Wastewater" or the methodology in 40 CFR Parts 136 and 434. Tritium was determined at the University of Miami Tritium Laboratory using electrolytic enrichment and low level counting rather than the method in "Standard Methods for the Examination of Water and Wastewater". However, tritium data in the Alkali Tract Significant Revision are not used to determine water quality so do not fall under the requirements of R645-301-723.

Field measurements have been conducted with instruments calibrated according to manufacturers recommendations.

## **Baseline information.**

## **Ground water information.**

A description of the ground water system is found in section 7.24.1 beginning on page 7-3 of the Alkali Tract Significant Revision.

Culinary and sanitary water for the mine is hauled in by truck. The Alkali Tract Significant Revision does not identify any water supply wells in the permit or adjacent areas. Only two water rights in Table 7.24-2 appear to involve possible pumping of ground water from the subsurface, 4124 in Section 28, T. 12 S., R. 12 E. (issued to Barnard Iriat for domestic, irrigation, and stockwatering use and located approximately one mile north of the northeast corner of the permit area) and 203 in Section 18, T 12 S., R. 12 E. (issued to California Portland Cement Company for industrial use and located near the Soldier Creek Mine). Water right 203 is apparently not being used by the mine and the status of use of water right 4124 is unknown.

Plate 1 shows the locations for twenty-four monitoring or observation wells discussed in current mine plans or permit submittals. UG-1 and UG-2 were constructed for the investigation for the design of the UG ventilation shaft and have been abandoned. At least five of the wells have been drilled from within the Soldier Canyon Mine down to or through the Gilson seam to monitor water levels in the regional aquifer (Appendix 7-I, Soldier Canyon MRP). MW-1C, MW-1M, MW-2M, and MW-3M have been used to monitor water quality at the proposed waste rock disposal site that is no longer in the mine plan.

The current status of several wells is unclear. DM1, DM2, DM3, DM4, and 18-1 appear to be mine water discharge points rather than wells. Accessibility and functionality of most in-mine wells is not discussed .

On pages 54 and 62 of Appendix 7M, reference is made to the rapid loss of production capacity in wells #1 and #2. There is no further information on these two wells in the Alkali Tract Significant Revision.

The only water quality monitoring wells are the four located at the previously proposed waste rock disposal site. Locations are shown on Exhibit 7.21-1, but the symbol for these wells is mislabeled in the map legend. Also, springs CC-36 and CC-40 are marked as surface water monitoring points on Exhibit 7.21-1.

Exhibit 7.21-1 in the Alkali Tract Significant Revision shows spring CC-53, which is not listed in Table 7.24-1, in the extreme southwest corner of Section 31, T. 12 S., R. 12 E. (31ccc). According to Table 7.31-1, CC-53 is supposed to be the same as Spring 5, which is in Section 1, T. 13 S., R. 11 E. according to Exhibit 7.21-1 of the current Soldier Canyon Mine MRP and Table 7.24-1. (According to Table 7.24-1 this spring was identified as spring 55 in the Sage Point/Dugout Canyon Mine MRP.) The location and identification of springs 5 and CC-53 need to be clarified in Table 7.24-1 and shown correctly on Exhibit 7.21-1 of the Alkali Tract Significant Revision. For clarity, one name should be used consistently unless there is some reason or justification for changing the name.

Table 7.24-1 lists locations and elevations of 24 springs located in the permit and adjacent areas, including two not identified in the current MRP (#23 and #24). Locations of three of the springs (four if CC-53 is the same as spring 5) are on the new Exhibit 7.21-1 submitted with the Alkali Tract Significant Revision, but the other twenty-one (twenty if CC-53 is the same as spring 5) are not shown on the new map. Table 7.24-1 indicates five (four if CC-53 is the same as spring 5) of the springs not shown on Exhibit 7.21-1 are ground water monitoring sites. Exhibit 7.21-1 in the current MRP shows the locations of all twenty-two springs listed in Table 7.24-1 of the current MRP.

✓ On page 7-50 of the PAP, three springs in the Coal Creek drainage are mentioned and Exhibit 7.21-1 and Table 7.24-1 are referenced for location and other information. Neither Exhibit 7.21-1 nor Table 7.24-1 contain any information on springs located in the Coal Creek drainage.

Appendix C in Appendix 7M lists thirty springs in and adjacent to the Alkali Tract Significant Revision area. Only CC-36, CC-40, and CC-53 are marked on Exhibit 7.21-1.

In addition to Exhibits 7.21-1 and 7.21-2, Exhibit 7.24-1 (p. 7-2 and Table 7.28-1) and 7.24-2 (Table 7.28-1) are also referenced for information on surface and ground water occurrence and surface and ground water monitoring stations in and adjacent to the permit area. No Exhibit 7.24-1 is found the Alkali Tract Significant Revision or in the current MRP.

Spring 10 has been identified in different studies as issuing from the Blackhawk, North Horn, and Price River Formations (pages 7-113 and 7-114). Plate 6.22-7 identifies the site of spring 10 as in the middle of the North Horn Formation. The uncertainty of the surface geology associated with this spring is acknowledged on page 7-114. Water chemistry and isotopic data are interpreted as indicating that the water flows several hundred feet upwards from the Blackhawk Formation along a fault and mixes with recent surface water from Soldier Creek or with recently recharged, shallow ground water. There is no fault mapped. Also, there is no identified source for an upward gradient from the Blackhawk Formation to the surface, which would be in opposition to the regional gradient described elsewhere in the Alkali Tract Significant Revision (I. e., page 58 Appendix 7M).

Baseline information on surface and ground water includes data from Sunedco's Sage Point/Dugout Canyon MRP and SCCC's Soldier Canyon MRP. Collection of water quality data in the area for purposes of coal mine permitting began in 1976. Additional data were collected by Mayo and Associates in 1995 for the Alkali Tract Significant Revision. Water quality data have been collected from streams, springs, mine sumps, in-mine discharges, and drill holes. Other sources of information on geology and hydrology of the area include USGS investigations and unpublished theses.

Appendix 7M, part of the Alkali Tract Significant Revision, is titled "Investigation of surface and ground water systems in the vicinity of the Soldier Canyon Mine, Carbon County, Utah" and was prepared by Mayo and Associates. This appendix contains a PHC determination for the Alkali and Dugout Creek Tracts and recommendations for surface and ground water monitoring. This report contains a summary of discharge, temperature, solute composition, trace metal analysis, and dissolved oxygen data from several water quality studies. TSS, TDS, specific conductance corrected to 25 degrees C, pH, and total iron are reported for many samples. Manganese concentrations are also reported, but concentrations for total manganese, required by statute, are not given in this appendix nor elsewhere in the Alkali Tract Significant Revision or Soldier Canyon Mine MRP.

Appendix 7M includes data from as early as 1976 for springs 4, 5, 8, 10, 14, 15, 17, 18, 19, 20, 21, and 22 and for surface water monitoring points G-1, G-2, G-3, G-4, and G-5. Data for springs 1, 2, 3, 6, 9, 11, 12, 13, and 16 consist of one sample or observation at each site during the summer of 1976. No data are included for springs 7, 23, and 24 or for surface water monitoring points G-6 through G-10, all of which are listed in Table 7.24-1. Appendix 7M also contains: data on spring discharges that are based on an unidentified 1982 USGS study and a 1993-1994 seep and spring survey by Environmental Industrial Services (EIS); data on water discharged from the UPDES points; and data on water from in-mine discharges.

Table 7.24-2 gives permitted quantity and use for surface and ground water on which a water right has been filed.

Table 7.24-1 identifies water level monitoring wells and lists wells 5-1, 10-2, and 32-1 as currently monitored for water levels. Exhibit 7.21-1 shows locations of wells currently monitored for water level: it shows well 6-1 in addition to the 5-1, 10-2, and 32-1. Well 6-1 has recently experienced casing failure or blockage (p. 7-30), yet is proposed as one of three wells to be monitored under the Alkali Tract Significant Revision (Table 7.31-1, p. 7-157). Table 7 of Appendix 7M gives water level data for all four wells. Well 10-2 is screened in the Castlegate Sandstone, wells 6-1 and 10-2 are screened in the Blackhawk Formation, and well 5-1 is screened in the Sunnyside and Rock Canyon coal seams of the Blackhawk Formation.

Locations of previously monitored wells listed in Table 7.24-1 are not shown on Exhibit 7.21-1. Other than being listed in Table 7.24-1, there is no information on wells SC-8, SC-1, and 18-1. Well 11-2 is listed in Tables 7.24-1 and 7.24-4 but there is no other information on well 11-2 in the Alkali Tract Significant Revision. Well 11-2 is not shown on Exhibit 7.21-1, contrary to the statement in Table 7.21-4. On Exhibit 7.21-1 of the current Soldier Canyon Mine MRP wells DM 1, 2, 3, and 4 are described as having been destroyed by ventilation shaft construction. Their destruction is not mentioned in the text, in Table 7.24-1, or on Exhibit 7.21-1 of the Alkali Tract Significant Revision.

Rocks in the permit and adjacent area are described in the Alkali Tract Significant Revision. They are dominantly sandstones, siltstones, and shales of marine and continental origin. Although all these can be water-bearing, sandstone is the principle water-bearing rock. Sandstone bodies are generally lenticular and discontinuous, separated and surrounded by low permeability shale and mudstones. Aquifers in these sandstones are poorly understood and difficult to quantify.

Water levels measured in monitoring wells in the Soldier Canyon Mine area do not show evidence of a consistent piezometric surface. However, wells in areas east of the Soldier Canyon Mine indicate a mappable piezometric surface in the Castlegate Sandstone. In the Sage Point/Dugout Canyon Mine MRP it was concluded that in the area covered by that MRP, regional ground water movement is north to northwest with a gradient estimated to be slightly less than the dip of the strata. The regional water table is above the coal seams in at least part of the area to be mined. Average linear velocity is apparently less than 10 feet/year.

Water levels in the monitoring wells have not varied seasonally. Water levels in well 5-1 declined ninety-two feet from 1987 to 1995. Well 10-2 declined only ten feet over the same period. There was a decline of twenty-nine feet in well 6-1 from 1990 to 1993, at which time the well was found to be blocked, probably from casing collapse. The water level in well 32-1 rose thirty-four feet from 1990 to 1995. On page 7-30, the descriptions of water level changes in wells 5-1 and 10-2 are switched in comparison to what is given in Figure 7.24-3 of the Alkali Tract Significant Revision and Figure 17 and Table 7 in Appendix 7M.

The volume of ground water stored within the rocks above the Gilson seam in the Soldier Canyon Mine area is estimated to be 490,000 acre-feet (p. 7-28). Discharge to springs in the Soldier Canyon Mine area and underflow moving out of the Soldier Canyon Mine area are estimated on page 7-33. Inflows of water are common at working faces within the mine. Flows, at times large flows, occur from some fractures intercepted by mining. These inflows are consistent with the characterization of the Blackhawk Formation being saturated in most areas. Inflows at mining faces generally stop flowing within a few days and flows from fractures tend to diminish substantially over time, indicating either perched conditions or low recharge rates. Consumption, evaporation, and discharge volumes for 1985 - 1991 are on page 7-153. Recharge is estimated to be 742 acre-feet per year (p. 7-64) and proposed mining activities are expected to intercept an average of 460 acre-feet of ground water per year. It is unclear if ground water recharge, consumption, and storage estimates have been updated to include the Alkali Tract Significant Revision.

Unconfined ground water occurs in alluvial deposits along canyon bottoms. These deposits are generally thin and small in areal extent. Water in alluvium will generally move towards the axis of the canyon and down gradient along the axis.

Water rights are listed in Table 7.24-2 and mapped on Map 7.21-2. Water rights information includes usage, source, and location. Seasonal use and quantity vary significantly over the year. There is little use of spring or surface flows during the winter, but stockwatering consumes considerable water during the summer. Only two water rights, 4124 in Section 28, T. 12 S., R. 12 E. (issued to Barnard Iriat and located approximately one mile north of the northeast corner of the permit area) and 203 in Section 18, T 12 S., R. 12 E. (issued to California Portland Cement Company and located near the Soldier Creek Mine) appear to involve possible pumping of ground water from the subsurface. Water right 203 is apparently not being used by the mine and the status of use of water right 4124 is not indicated in the Soldier Canyon Mine MRP or Alkali Tract Significant Revision. Possible impacts of mining on water use will probably be limited to interactions between surface water and ground water.

## Findings:

The Alkali Tract Significant Revision meets the minimum requirements for baseline ground water resource information except for the following deficiencies:

- 1.) Status (appropriated, active beneficial use, abandoned, etc.) of water rights 203 and 4124 for appropriation of ground water, presumably by wells, is unclear from information on water rights and wells in the Alkali Tract Significant Revision. (R645-301-121, -724.100, -722.400)

- 2.) The location of the spring labeled CC-53 on Exhibit 7.21-1 of the Alkali Tract Significant Revision does not match the location of spring 5 (which is identified as the same spring in Table 7.31-1) given in Table 7.24-1 and shown on Exhibit 7.21-1 of the current Soldier Canyon Mine MRP. (R645-301-121, -722, -722.300, -724.100, -731.211)
- 3.) The re-labeling of spring 5 to CC-53 is confusing and without apparent reason or purpose. (R645-301-121)
- 4.) Only three (possibly four-see previous deficiency concerning spring 5) of the twenty-four springs listed in Table 7.24-1 are shown on Exhibit 7.21-1. Locations of five (or four) of the eight springs listed as ground water monitoring sites have been left off the map. (R645-301-121, -722, -722.300, -724.100, -731.211)
- 5.) Neither Exhibit 7.21-1 nor Table 7.24-1 contain any information on the three springs in the Coal Creek drainage that are discussed on page 7-50 of the Alkali Tract Significant Revision. (R645-301-121, -724.100)
- 6.) Appendix C in Appendix 7M lists thirty springs in and adjacent to the Alkali Tract Significant Revision area. Only CC-36, CC-40, and CC-53 are marked on Exhibit 7.21-1. (R645-301-121, -724.100)
- 7.) The reference on p. 7-2 and Table 7.28-1 to Exhibits 7.24-1 and 7.24-2 for information on surface and ground water occurrence in and adjacent to the permit area is not clear. There is no Exhibit 7.24-1 nor 7.24-2 in the current MRP or Alkali Tract Significant Revision.(R645-301-121, -722.300, -724.100)
- 8.) Concentrations for total manganese, required by statute, are not given in Appendix 7M nor elsewhere in the Alkali Tract Significant Revision. (R645-301-121, -724.100)
- 9.) Locations of the water quality monitoring wells at the previously proposed waste rock disposal site are shown on Exhibit 7.21-1, but the symbol for these wells is mislabeled in the map legend. (R645-301-121, -724.100)
- 10.) Springs CC-36 and CC-40 (page 7-157 and Appendix 7M - C) are marked as surface water monitoring points on Exhibit 7.21-1. (R645-301-121, -722.300)
- 11.) Well 11-2 is listed in Tables 7.24-1 and 7.24-4 but it is not shown on Exhibit 7.21-1 and there is no other information on well 11-2 in the Alkali Tract Significant Revision. (R645-301-121, -722.300).
- 12.) It is unclear if spring discharge, underflow, ground water recharge, consumption, and storage volumes given on pages 7-28, 7-33, 7-64, and 7-153 (Figure 7.28-20) have been updated to include the area of the Alkali Tract Significant Revision and to account for actual and projected coal production. (R645-301-121, -724.310, 728, 731.214)
- 13.) On page 7-30, the descriptions of water level changes in wells 5-1 and 10-2 are switched in comparison to what is given in Figure 7.24-3 and Figure 17 and Table 7 in Appendix 7M. (R645-301-121, -724.100)
- 14.) No baseline or operational data are included in the Alkali Tract Significant Revision for springs 7, 23, and 24, all of which are listed in listed in Table 7.24-1. (R645-301-121)
- 15.) On pages 54 and 62 of Appendix 7M, reference is made to the rapid loss of production capacity in water production wells #1 and #2. There is no further information on these two wells in the Alkali Tract Significant Revision. (R645-301-121)
- 16.) For Spring 10, there is no fault mapped that could carry ground water several hundred feet upwards from the Blackhawk Formation. Also, there is no identified source for an upward gradient from the Blackhawk Formation to the surface, which would be in opposition to the regional gradient described elsewhere in the

Alkali Tract Significant Revision. (R645-301-121)

- 17.) There are no baseline data for springs CC-36 and CC-40. (R645-301-121)

### **Surface-water information.**

Soldier and Pine Creeks are described on pages 7-47 through 7-50. There is no description or discussion for Coal Creek or the Coal Creek drainage. Streams, lakes, ponds, and springs are shown on Exhibits 7.21-1 and 7.21-2. USGS topographic quadrangles show Soldier and Coal Creeks and several of their tributaries as perennial streams. Exhibits 7.21-1 and 7.21-2 make no distinction as to whether streams are perennial, intermittent or ephemeral.

Exhibit 7.21-1 incorrectly indicates NPDES discharge point 006, at the south end of the Proposed Refuse Disposal Site in Section 36, T. 13 S., R. 11 E., is a spring. Also, springs CC-36 and CC-40 are incorrectly marked as surface water monitoring points.

Surface water quality information is discussed in section 7.24.2, beginning on page 7-43 of the Alkali Tract Significant Revision. Baseline information on surface water includes data from Sunedco's Sage Point/Dugout Canyon MRP and SCCC's Soldier Canyon MRP. Collection of water quality data in the area for purposes of coal mine permitting began in 1976. Additional data were collected by Mayo and Associates in 1995 for the Alkali Tract Significant Revision.

The proposed life of mine (LOM) area shown on Exhibit 7.21-1 contains 6,641 acres of the Soldier Creek watershed according to the text on page 7-46. It appears that this LOM acreage figure has not been updated to include the Alkali Tract Significant Revision.

### **Findings:**

The Alkali Tract Significant Revision meets the minimum requirements for baseline surface water resource information except for the following deficiencies:

- 1.) Table 7.24-1 lists surface water monitoring sites G-1, G-3, and G-4 that are not shown on Exhibit 7.21-1. (R645-301-121, -722.300, -731.222)
- 2.) (Repeat) - Concentrations for total manganese, required by statute, are not given in Appendix 7M nor elsewhere in the Alkali Tract Significant Revision. (R645-301-121, -724.100)
- 3.) Exhibit 7.21-1 indicates NPDES discharge point 006, at the south end of the Proposed Refuse Disposal Site in Section 36, T. 13 S., R. 11 E., is a spring. (R645-301-121, -722.300)
- 4.) It appears that the figure of 6,641 acres given as the area of the proposed LOM area on page 7-46 has not been updated to include the Alkali Tract Significant Revision. (R645-301-121)
- 5.) Soldier and Pine Creeks are described on pages 7-47 through 7-50, but there is no description or discussion for Coal Creek. (R645-301-121)
- 6.) No baseline or operational data are included in the Alkali Tract Significant Revision for surface water monitoring points G-6 through G-10, all of which are listed in listed in Table 7.24-1. (R645-301-121)

7.) Exhibits 7.21-1 and 7.21-2 make no distinction as to whether streams are perennial, intermittent or ephemeral. (R645-301-121)

### **Baseline cumulative impact area information.**

The Cumulative Hydrologic Impact Assessment (CHIA) of Soldier Creek Coal Company's Soldier Canyon Mine operations in Carbon County, Utah was updated in October 1996 to include the Alkali Tract Significant Revision. The updated CHIA encompasses the probable cumulative impacts of all anticipated coal mining activities associated with the Soldier Canyon Mine on the hydrologic balance and whether the actual and proposed operations have been designed to prevent damage to the hydrologic balance outside the mine permit areas. Hydrologic and geologic information necessary to assess the probable cumulative hydrologic impacts of the proposed operation and all anticipated mining on surface and ground water systems in the Cumulative Impact Area (CIA) has been obtained from appropriate federal or state agencies and provided by the applicant. No adverse impacts on surface- and ground-water systems are anticipated from the proposed operations.

A separate CHIA was prepared in 1984 for the adjacent Sage Point-Dugout Canyon Mine, which was permitted but never developed. In March 1996 a new Permit Application Package (PAP) for a Dugout Canyon Mine was submitted by Coastal States Energy Company, owner of the Soldier Canyon Mine. The new Dugout Canyon Mine permit area includes roughly the west half of the Sage Point-Dugout Canyon permit area. A new CHIA that will cover both the Soldier Canyon and Dugout Mines is being prepared by DOGM.

The CHIA complies with federal legislation passed under the Surface Mining Control and Reclamation Act (SMCRA) and subsequent Utah and federal regulatory programs under R645-301-729 and 30 CFR 784.14(f), respectively.

### **Findings:**

The Alkali Tract Significant Revision meets the minimum requirements for baseline cumulative impact area information.

### **Modeling.**

Numerical modeling of ground water flow was done for an idealized fifty-foot thick sandstone aquifer underlying the Rock Canyon coal seam and dipping 8° to the north-northeast. GWSIM-II was the numerical simulation model used. The model indicated that the principle flow directions are: 1) in the direction of dip, and 2) toward Soldier Creek. No interpolation or statistical techniques have been included as part of the Alkali Tract Significant Revision or the Soldier Canyon Mine MRP.

### **Findings:**

The Alkali Tract Significant Revision meets the minimum requirements for information on modeling.

### **Probable hydrologic consequences determination.**

The PHC determination is found in section 7.28 beginning on page 7-75. (A partial PHC determination was also prepared by Mayo and Associates as part of Appendix 7M.) The PHC determination is based on baseline hydrologic, geologic, and other information collected for the Soldier Canyon Mine and the Alkali Tract Significant Revision. The area of investigation for the PHC determination extends from the uppermost pediment areas of the

Mancos Shale on the south (base of the Book Cliffs) to the headwaters of the principal drainages on the north (base of the Roan Cliffs), and extends from the Coal Creek drainage on the west to the Pace Canyon drainage on the east. These features are shown on Figures 7.28-1 and 7.28-3, but these figures do not show the correct outline of the Alkali Tract Significant Revision.

The PHC determination contains determinations that adverse impacts to the hydrologic balance will not occur and mining will not affect ground water discharge or solute composition of any spring. Toxic-forming materials that are present in mine discharge water have remained within discharge limits. Discharge waters have historically been alkaline and there are adequate carbonate minerals to neutralize potentially available acid. Monitoring of discharges from the mine indicate that sediment control measures are effective in controlling sediment yield from currently disturbed areas, and there will be no additional disturbed areas associated with the Alkali Tract.

Discharge from the Soldier Canyon Mine currently supplies up to 400 gpm flow in Soldier Creek in summer and fall, resulting in higher flow than under natural conditions. Also during these periods, TDS is higher than in the natural stream above the mine, and water chemistry is dominated by sodium, magnesium, and sulfate rather than magnesium, chloride, and bicarbonate ions. When mining in the Soldier Canyon Mine ceases, flow in Soldier Creek may cease entirely during summer and fall months, but TDS and water chemistry in the remaining flow will return to pre-mining conditions.

The by-pass culvert at the mine is designed, at a minimum, to pass the 100-year, 6-hour storm. Lack of downstream development and the broad section of the Soldier Creek drainage minimize the potential for impacts downstream of the mine in the event of an event larger than a 100-year, 6-hour storm. Following reclamation, the channels will be in a stable state. The main channel is designed to safely pass peak flow from a 100-year, 6-hour storm and the tributary channels designed to pass the peak flow of a 10-year, 6-hour storm.

Previous assessments of probable hydrologic consequences to the quantity and quality of ground water were based on 1) determining likely directions of ground water flow; 2) identifying locations of potential contaminant sources; and, 3) examining likely responses of the ground water systems to contamination. The Alkali Tract Significant Revision has added analyses of 4) solute and isotopic composition of surface and ground water data; 5) surface and ground water discharge data; and, 6) a re-evaluation of geologic data to determine surface and ground water interactions.

## Findings:

The Alkali Tract Significant Revision meets the minimum requirements for probable hydrologic consequences resource information except for the following deficiency:

- 1.) Figures 7.28-1 and 7.28-3 do not show the correct outline of the Alkali Tract. (R645-301-121)

## Ground water monitoring plan.

The ground water monitoring plan is based upon the PHC determination and the analysis of all baseline hydrologic, geologic, and other information in the Alkali Tract Significant Revision and current Soldier Canyon Mine MRP. Soldier Creek Coal Company interprets this information (page Appendix 7M-70) as indicating that:

- 1.) Ground water systems in the Flagstaff and North Horn Formations operate independently of the ground water system in the Blackhawk Formation;
- 2.) Temporal variability of flow in springs issuing from the Flagstaff and North Horn Formations is due to annual variations in precipitation; and,
- 3.) Mining will not affect ground water systems in the Flagstaff and North Horn Formations.

Table 7.24-1 lists twenty-four spring monitoring sites, including two new ones, and data from most of these sites are in the appendices. Only six spring monitoring sites are shown on Exhibit 7.21-1.

Recommended monitoring locations are listed in Table 7.31-1 (page 7-157) and shown on Exhibit 7.21-1. Table 7.31-2 outlines the recommended protocol for field and laboratory measurements, and Table 7.31-3 lists the

recommended parameters for ground water quality monitoring. Purpose of the water quality monitoring program is to verify the three assumptions given above, to identify potential impacts of coal mining operations on the hydrologic balance, and to provide information to the Utah Division of Water Quality if impacts to water sources occur (pages 7-155 and Appendix 7M-70).

Wells 10-2 and 32-1 are recommended to be maintained as monitoring wells. Well 6-1 is recommended to be maintained as a monitoring wells if the blockage in the casing can be removed or opened. Soldier Creek Coal Company recommends that Well 5-1 no longer be monitored routinely because this well appears to be simply monitoring the slow infiltration of drilling fluid and slug-test water into the coal seam; however, recent, more rapid declines of the water level correlate with mining activities nearby. The monitoring plan does not include the option of continuing to monitor Well 5-1 if Well 6-1 cannot made usable for monitoring. These wells will be monitored for water levels only. The four wells at the former waste rock disposal site are no longer to be monitored.

Springs 4, 5, 8, 10, CC-36, and CC-40 will be monitored quarterly for flow and field parameters. The quarterly and semi-annual water quality sampling schedule is tied to annual precipitation, but the explanation in Table 7.31-2 is unclear as to frequency of sampling.

The proposed monitoring plan eliminates four springs issuing from the Flagstaff Formation (3, 15, 18, and 21) from the current monitoring plan but adds CC-36, and CC-40, which issue from the Flagstaff Formation in or adjacent to the Alkali Tract. There are no baseline data for springs CC-36 and CC-40.

According to Table 7.31-1, monitoring of springs 4 and 8 will be discontinued one year following the end of mining in the vicinity of the spring. This is in addition to the proposed immediate elimination of monitoring of springs 3, 15, 18, and 21 in the same area. There are no discussion based on data in the Alkali Tract Significant Revision or Soldier Canyon Mine MRP indicating one year is sufficient time to determine that there have or have not been effects on springs from coal mining operations. One of the stated purposes of the ground water monitoring program is to verify that mining will not affect ground water systems in the Flagstaff and North Horn Formations. Cessation of monitoring of springs 4 and 8 in the Flagstaff and North Horn Formations, respectively, after one year appears to be without basis and contrary to the stated purpose of the monitoring plan.

Total iron, dissolved iron, total manganese, and dissolved manganese will be determined for ground water samples from springs during the third quarter only, supposedly because spring flow during that quarter is the least effected by precipitation and runoff and therefore is most representative of actual ground water conditions. Water quality parameters in Table 7.31-3 match those in the May 23, 1995 DOGM directive except for total alkalinity and total hardness: pH's are high and dissolved metals low in the vicinity of the Soldier Canyon Mine so total hardness and alkalinity are not a critical water quality parameters.

## **Findings:**

The Alkali Tract Significant Revision meets the minimum requirements for baseline ground water monitoring plan except for the following deficiencies:

- 1.) (Repeat) - Only three (possibly four-see previous deficiency concerning spring 5) of the twenty-four springs listed in Table 7.24-1 are shown on Exhibit 7.21-1. Locations of five (or four) of the eight springs listed as ground water monitoring sites have been left off the map. (R645-301-121, -722, -722.300, -724.100, -731.211)
- 2.) (Repeat) - Appendix C in Appendix 7M lists thirty springs in and adjacent to the Alkali Tract Significant Revision area. Only CC-36, CC-40, and CC-53 are marked on Exhibit 7.21-1. (R645-301-121, -724.100)
- 3.) (Repeat) - Concentrations for total manganese, required by statute, are not given in Appendix 7M nor elsewhere in the Alkali Tract Significant Revision. (R645-301-121, -724.100)

- 4.) (Repeat) - No baseline or operational data are included in the Alkali Tract Significant Revision for springs 7, 23, and 24, all of which are listed in listed in Table 7.24-1. (R645-301-121)

### **Surface water monitoring plan.**

The surface water monitoring plan is based upon the PHC determination and the analysis of all baseline hydrologic, geologic, and other information in the Alkali Tract Significant Revision and current Soldier Canyon Mine MRP.

Monitoring locations are listed in Table 7.24-1 and shown on Exhibit 7.21-1. Site G-10 has been added to monitor surface flow from the Alkali Tract. Table 7.24-1 lists monitoring sites G-1, G-3, and G-4 and data from these sites are in the Appendices, but their locations are not shown on Exhibit 7.21-1. Exhibit 7.21-1 shows the location for G-10 and Table 7.24-1 lists it but does not give its location. Comparing Exhibit 7.21-1 from the Alkali Tract Significant Revision with that from the current Soldier Creek Mine MRP, it appears that G-4 and G-7 are the same, and Table 7.24-1 gives the same location for these two sites. Comparison of the two maps also indicates that G-3 and G-9 are the same, but the locations identified in Table 7.24-1 are not the same for the two sites; the location for G-9 in Table 7.24-1 is apparently incorrect as the given location would be several hundred feet north of Pine Creek. If G-3 is the same as G-9 and G-4 is the same as G-7, this is a potential source for confusion and there is no explanation or justification in the Alkali Tract Significant Revision as to why G-3 and G-4 have been given these new names. Furthermore, locations described in Table 7.24-1 do not agree with locations shown on proposed Exhibit 7.21-1 for G-2, G-5, G-6, and G-8, but only G-8 is off significantly.

### **Findings:**

The Alkali Tract Significant Revision meets the minimum requirements for baseline surface water monitoring except for the following deficiencies:

- 1.) (Repeat) - Table 7.24-1 lists surface water monitoring sites G-1, G-3, and G-4 that are not shown on Exhibit 7.21-1. (R645-301-121, -722.300, -731.222)
- 2.) (Repeat) - Concentrations for total manganese, required by statute, are not given in Appendix 7M nor elsewhere in the Alkali Tract Significant Revision. (R645-301-121, -724.100)
- 3.) (Repeat) - No baseline or operational data are included in the Alkali Tract Significant Revision for springs 7, 23, and 24 or for surface water monitoring points G-6 through G-10, all of which are listed in listed in Table 7.24-1. (R645-301-121)
- 4.) (Repeat) - Exhibits 7.21-1 and 7.21-2 make no distinction as to whether streams are perennial, intermittent or ephemeral. (R645-301-121)

# **MAPS, PLANS, AND CROSS SECTIONS OF RESOURCE INFORMATION**

**Regulatory Reference: 30 CFR Sec. 783.24, 783.25; R645-301-323, -301-411, -301-521, -301-622, -301-722, -301-731.**

Cross sections, maps, and plans included in the Alkali Tract Significant Revision as required by this section have been prepared by, or under the direction of, and certified by a qualified, registered, professional engineer.

## **Affected Area Boundary Maps**

## **Archeological Site Maps**

## **Coal Resource and Geologic Information Maps**

### **Analysis:**

Geologic information in the Alkali Tract Significant Revision and in the currently approved MRP includes geologic cross sections and maps of areal geology and coal seam thickness that have been updated to include the Alkali Lease Addition. The geology map does not indicate strike-and-dip, faults, or other features of structural geology. The map showing the thickness of rock between the Rock Canyon and Gilson seams has been reduced to simply indicate where the interburden is more than or less than thirty feet; because thirty feet is a widely accepted limit for mining in overlying or underlying seams, this map is adequate for indicating areas where only one of the two seams can be mined.

### **Findings:**

The Alkali Tract Significant Revision meets the minimum requirements for coal resource and geologic information maps.

## **Cultural Resource Maps**

## **Existing Structures and Facilities Maps**

## **Existing Surface Configuration Maps**

## **Mine Workings Maps**

## **Monitoring Sampling Location Maps**

### **Analysis:**

It appears that no new test borings or core samplings have been done for the Alkali Tract Significant Revision. Information on elevation and locations of test borings and core samplings is not included in the Alkali Tract Significant Revision. This information should be in the current Soldier Canyon Mine MRP. Water monitoring and sampling location are shown on Exhibit 7.21-1. Deficiencies are discussed under "Hydrologic Resource Information - Baseline Information".

### **Findings:**

The Alkali Tract Significant Revision meets the minimum requirements for subsurface water resource sampling location maps except for the related deficiencies discussed under "Hydrologic Resource Information - Baseline Information" and the following:

- 1.) It is not clear from the water rights (Table 7.24-2) or other information in the Alkali Tract Significant Revision, including maps or plans, if there are water wells, active or abandoned, associated with water rights 203 and 4124. (R645-301-121, -724.100)
- 2.) (Repeat) - The location of the spring labeled CC-53 on Exhibit 7.21-1 of the Alkali Tract Significant Revision does not match the location of spring 5 (which is identified as the same spring in Table 7.31-1) given in Table 7.24-1 and shown on Exhibit 7.21-1 of the current Soldier Canyon Mine MRP. (R645-301-121, -722.300, -724.100, -731.211)
- 3.) (Repeat) - Appendix C in Appendix 7M lists thirty springs in and adjacent to the Alkali Tract Significant Revision area. Only CC-36, CC-40, and CC-53 are marked on Exhibit 7.21-1. (R645-301-121, -724.100)
- 4.) (Repeat) - Table 7.24-1 lists surface water monitoring sites G-1, G-3, and G-4 that are not shown on Exhibit 7.21-1. (R645-301-121, -722.300, -731.222)
- 5.) (Repeat) - Locations of the water quality monitoring wells at the previously proposed waste rock disposal site are shown on Exhibit 7.21-1, but the symbol for these wells is mislabeled in the map legend. (R645-301-121, -724.100)
- 6.) (Repeat) - Springs CC-36 and CC-40 (page 7-157 and Appendix 7M - C) are marked as surface water monitoring points on Exhibit 7.21-1. (R645-301-121, -722.300)
- 7.) (Repeat) - Well 11-2 is listed in Tables 7.24-1 and 7.24-4 but it is not shown on Exhibit 7.21-1 and there is no other information on well 11-2 in the Alkali Tract Significant Revision. (R645-301-121, -722.300).
- 8.) (Repeat) - Soldier and Pine Creeks are described on pages 7-47 through 7-50, but there is no description or discussion for Coal Creek. (R645-301-121)

## **Permit Area Boundary Maps**

## **Surface and Subsurface Ownership Maps**

## **Subsurface Water Resource Maps**

### **Analysis:**

No new maps of subsurface water resources are included in the Alkali Tract Significant Revision.

### **Findings:**

Subsurface water resource maps are complete and accurate except for the related deficiencies discussed under “Hydrologic Resource Information - Baseline Information” and the following:

- 1.) Water production wells #1 and #2 discussed on pages 54 and 62 of Appendix 7M are not shown on a map. (R645-301-121, -724.100).
- 2.) It is not clear from the water rights (Table 7.24-2) or other information in the Alkali Tract Significant Revision, including maps or plans, if there are water wells, active or abandoned, associated with water rights 203 and 4124. (R645-301-121, -724.100)

## **Surface Water Resource Maps**

## **Vegetation Reference Area Maps**

## **Well Maps**

### **Analysis:**

There are no gas and oil wells within the proposed permit area. There are three natural gas exploration wells approximately one-half to one mile north of the Soldier Canyon Mine permit area that are not shown on maps in the Alkali Tract Significant Revision. On pages 54 and 62 of Appendix 7M, reference is made to the rapid loss of production capacity in water production wells #1 and #2. There is no further information on these two wells in the Alkali Tract Significant Revision. It is not clear from the water rights (Table 7.24-2) or other information in the Alkali Tract Significant Revision if there are water wells, active or abandoned, associated with water rights 203 and 4124. (R645-301-121, -724.100)

### **Findings:**

The Alkali Tract Significant Revision meets the minimum requirements for well maps except for the related deficiencies discussed under “Hydrologic Resource Information - Baseline Information” and the following:

- 1.) (Repeat) - Water production wells #1 and #2 discussed on pages 54 and 62 of Appendix 7M are not shown on a map. (R645-301-121, -724.100).
- 2.) (Repeat) - It is not clear from the water rights (Table 7.24-2) or other information in the Alkali Tract Significant Revision, including maps or plans, if there are water wells, active or abandoned, associated with water rights 203 and 4124. (R645-301-121, -724.100)

## **Contour Maps**

# OPERATION PLAN

## Analysis:

dc

### **Subsidence control plan.**

The Alkali Tract Significant Revision contains no additional information for Chapter 6 - Geology except that maps have been expanded to include the additional area. Geologic information in the Alkali Tract Significant Revision and in the currently approved MRP includes a description of the geology of the proposed permit and adjacent areas down to and including the deeper of either the stratum immediately below the lowest coal seam to be mined or any aquifer below the lowest coal seam to be mined which may be adversely impacted by mining. Geologic cross sections and maps of areal geology and coal seam thickness have been updated to include the Alkali Lease Addition. The map showing the thickness of rock between the Rock Canyon and Gilson seams has been reduced to simply indicate where the interburden is more than or less than thirty feet; because thirty feet is a widely accepted limit for mining in overlying or underlying seams, this map is adequate for indicating areas where only one of the two seams can be mined.

## Findings:

The Alkali Tract Significant Revision meets the minimum requirements for description of the physical conditions, such as depth of cover, seam thickness, and lithology, which affect the likelihood or extent of subsidence and subsidence-related damage.

## HYDROLOGIC INFORMATION

Regulatory Reference: 30 CFR Sec. 773.17, 774.13, 784.14, 784.16, 784.29, 817.41, 817.42, 817.43, 817.45, 817.49, 817.56, 817.57; R645-300-140, -300-141, -300-142, -300-143, -300-144, -300-145, -300-146, -300-147, -300-147, -300-148, -301-512, -301-514, -301-521, -301-531, -301-532, -301-533, -301-536, -301-542, -301-720, -301-731, -301-732, -301-733, -301-742, -301-743, -301-750, -301-761, -301-764.

## Analysis:

dc

### **Ground-water monitoring.**

Ground-water monitoring data will be submitted quarterly to DOGM, within ninety days of the end of the quarter. When the analysis of any water sample indicates noncompliance with the permit conditions, the operator will notify DOGM within five days.

Equipment, structures, and other devices used in conjunction with monitoring the quality and quantity of ground water onsite and offsite will be properly installed, maintained, and operated and shall be removed by the operator when no longer needed.

The ground water monitoring plan is based upon the PHC determination and the analysis of all baseline hydrologic, geologic, and other information in the Alkali Tract Significant Revision and current Soldier Canyon Mine

MRP. Soldier Canyon Coal Company interprets this information (page Appendix 7M-70) as indicating that:

- 1.) Ground water systems in the Flagstaff and North Horn Formations operate independently of the ground water system in the Blackhawk Formation;
- 2.) Temporal variability of flow in springs issuing from the Flagstaff and North Horn Formations is due to annual variations in precipitation; and,
- 3.) Mining will not affect ground water systems in the Flagstaff and North Horn Formations.

Table 7.24-1 lists twenty-four spring monitoring sites, including two new ones, and data from most of these sites are in the appendices. Only six spring monitoring sites are shown on Exhibit 7.21-1.

Recommended operational monitoring locations are listed in Table 7.31-1 (page 7-157) and shown on Exhibit 7.21-1. Table 7.31-2 outlines the recommended protocol for field and laboratory measurements, and Table 7.31-3 lists the recommended parameters for ground water quality monitoring. Purpose of the water quality monitoring program is to verify the three assumptions given above, to identify potential impacts of coal mining operations on the hydrologic balance, and to provide information to the Utah Division of Water Quality if impacts to water sources occur (pages 7-155 and Appendix 7M-70).

Wells 10-2 and 32-1 are recommended to be maintained as monitoring wells. Well 6-1 is recommended to be maintained as a monitoring wells if the blockage in the casing can be removed or opened. Soldier Canyon Coal Company recommends that Well 5-1 no longer be monitored routinely because this well appears to be simply monitoring the slow infiltration of drilling fluid and slug-test water into the coal seam; however, recent, more rapid declines of the water level correlate with mining activities nearby. The monitoring plan does not include the option of continuing to monitor Well 5-1 if Well 6-1 cannot be made usable for monitoring. These wells will be monitored for water levels only. The four wells at the former waste rock disposal site are no longer to be monitored.

Springs 4, 5, 8, 10, CC-36, and CC-40 will be monitored quarterly for flow and field parameters. The quarterly and semi-annual water quality sampling schedule is tied to annual precipitation, but the explanation in Table 7.31-2 is unclear as to frequency of sampling.

The proposed monitoring plan eliminates four springs issuing from the Flagstaff Formation (3, 15, 18, and 21) from the current monitoring plan but adds CC-36, and CC-40, which issue from the Flagstaff Formation in or adjacent to the Alkali Tract. There are no baseline data for springs CC-36 and CC-40.

According to Table 7.31-1, monitoring of springs 4 and 8 will be discontinued one year following the end of mining in the vicinity of the spring. This is in addition to the proposed immediate elimination of monitoring of springs 3, 15, 18, and 21 in the same area. There are no discussion based on data in the Alkali Tract Significant Revision or Soldier Canyon Mine MRP indicating one year is sufficient time to determine that there have or have not been effects on springs from coal mining operations. One of the stated purposes of the ground water monitoring program is to verify that mining will not affect ground water systems in the Flagstaff and North Horn Formations. Cessation of monitoring of springs 4 and 8 in the Flagstaff and North Horn Formations, respectively, after one year appears to be without basis and contrary to the stated purpose of the monitoring plan.

Total iron, dissolved iron, total manganese, and dissolved manganese will be determined for ground water samples from springs during the third quarter only, supposedly because spring flow during that quarter is the least affected by precipitation and runoff and therefore is most representative of actual ground water conditions. Water quality parameters in Table 7.31-3 match those in the May 23, 1995 DOGM directive except for total alkalinity and total hardness: pH's are high and dissolved metals low in the vicinity of the Soldier Canyon Mine so total hardness and alkalinity are not a critical water quality parameters.

## **Findings:**

The Alkali Tract Significant Revision meets the minimum requirements for information on operational ground water monitoring except for the following deficiencies:

- 1.) The monitoring plan does not include the option of continuing to monitor Well 5-1 in the case that Well 6-1 cannot be made usable for monitoring. (R645-301-121, -731.210)
- 2.) The quarterly and semi-annual water quality sampling schedule is tied to annual precipitation, but the explanation in Table 7.31-2 is unclear. (R645-301-121, -731.211)
- 3.) There is no discussion based on data in the Alkali Tract Significant Revision or Soldier Canyon Mine MRP indicating one year is sufficient time to determine that there have or have not been effects on springs from coal mining operations: cessation of monitoring of springs 4 and 8 in the Flagstaff and North Horn Formations, respectively, after one year appears to be without basis and contrary to the stated purpose of the monitoring plan. (R645-301-121, -731.214)
- 4.) What appears to be a typographic error on page 7-165 identifies spring 30, rather than spring 10, as one of the six springs to be monitored. (R645-301-121)
- 5.) Locations described in Table 7.24-1 do not agree with locations shown on proposed Exhibit 7.21-1 for G-2, G-5, G-6, and particularly for G-8 and G-9. (R645-301-121, -722.300, -731.222)

## Surface water monitoring.

### Analysis:

*Continue*  
Table 7.31-2 outlines the recommended protocol for field and laboratory measurements, and Table 7.31-4 lists the recommended parameters for surface water quality monitoring. The purpose for the surface water quality monitoring program is 1) to further evaluate the potential for hydrologic connection between the Blackhawk Formation and streams; and 2) to continue monitoring the effects of coal mine discharge waters on Soldier Creek (page Appendix 7M-69).

~~Monitoring locations are listed in Table 7.24-1 and shown on Exhibit 7.21-1.~~ Site G-10 has been added to monitor surface flow from the Alkali Tract. Exhibit 7.21-1 shows the location for G-10 and Table 7.24-1 lists it but does not give its location. Comparing Exhibit 7.21-1 from the Alkali Tract Significant Revision with that from the current Soldier Creek Mine MRP, it appears that G-4 and G-7 are the same, and Table 7.24-1 gives the same location for these two sites. Comparison of the two maps also indicates that G-3 and G-9 are the same, but the locations identified in Table 7.24-1 are not the same for the two sites; the location for G-9 in Table 7.24-1 is apparently incorrect as the given location would be several hundred feet north of Pine Creek. If G-3 is the same as G-9 and G-4 is the same as G-7, this is a potential source for confusion and there is no explanation or justification in the Alkali Tract Significant Revision as to why G-3 and G-4 have been given these new names. Furthermore, locations described in Table 7.24-1 do not agree with locations shown on proposed Exhibit 7.21-1 for G-2, G-5, G-6, and G-8, but only G-8 is off significantly.

### Findings:

*Continue*  
The Alkali Tract Significant Revision meets the minimum requirements for information on operational surface water monitoring except for the following deficiencies:

- 1.) (Repeat) - The quarterly and semi-annual water quality sampling schedule is tied to annual precipitation, but the explanation in Table 7.31-2 is unclear. (R645-301-121, -731.211)
- 2.) It appears that surface water monitoring sites G-4 and G-7 are the same, but there is no explanation or reason given for G-4 being renamed G-7 for the Alkali Tract Significant Revision. (R645-301-121, -722.300, -731.222)
- 3.) It appears that surface water monitoring sites G-3 and G-9 may be the same, but the description of G-9's location in Table 7.24-1 does not agree with the location shown on Exhibit 7.21-1, and there is no

explanation or reason given for G-3 being renamed G-9 for the Alkali Tract Significant Revision. (R645-301-121, -722.300, -731.222)

*dc* **Acid and toxic-forming materials.**

**Analysis:**

Drainage from acid- and toxic-forming materials and underground development waste into surface and ground water will be avoided by:

- 1.) identifying and burying or treating such materials; or,
- 2.) Storing such materials in a manner that will protect surface and ground water by preventing erosion, the formation of polluted runoff, and infiltration of polluted water. Storage will be limited to the period until burial or treatment first becomes feasible, and as long as storage will not result in any risk of water pollution or other environmental damage (page 7-167).

**Findings:**

The Alkali Tract Significant Revision meets the minimum requirements for information on acid- and toxic-forming materials.

*dc* **Transfer of wells.**

**Analysis:**

Before final release of bond, exploratory or monitoring wells shall be sealed in a safe and environmentally sound manner. Ownership of wells will be transferred only with prior approval of the DOGM. The conditions of such transfer shall comply with State and local laws and the permittee shall remain responsible for the proper management of the well until bond release (page 7-167).

**Findings:**

The Alkali Tract Significant Revision meets the minimum requirements for operational information on transfer of wells.

**Discharges into an underground mine.**

**Analysis:**

There will be no discharges into the underground mine without the approval of DOGM and MSHA.

**Findings:**

The Alkali Tract Significant Revision meets the minimum requirements for information on operational discharges into an underground mine.

**Gravity discharges.**

**Analysis:**

Dip of the coal seams to the north prevents gravity discharge of water to the surface from the mine.

**Findings:**

The Alkali Tract Significant Revision meets the minimum requirements for information on gravity discharges.

*ok* **Water quality standards and effluent limitations.**

**Diversions.**

*ok* **Stream buffer zones.**

**Sediment control measures.**

**Siltation structures.**

**Sedimentation ponds.**

**Other treatment facilities.**

**Exemptions for siltation structures.**

**Discharge structures.**

**Impoundments.**

*ok* **Casing and sealing of wells.**

**Analysis:**

Each well identified in the mine permit application as a ground water monitoring well will comply with the requirements of R645-301-748 and will be temporarily sealed before use and protected during use. Before final release of bond, exploratory and monitoring wells will be sealed in a safe and environmentally sound manner in accordance with R645-301-631, R645-301-738, and R645-301-765 (pages 7-167 and 7-172).

**Findings:**

The Alkali Tract Significant Revision meets the minimum requirements for information on operational casing and sealing of wells.

**MAPS, PLANS, AND CROSS SECTIONS OF MINING OPERATIONS**

Regulatory Reference: 30 CFR Sec. 784.23; R645-301-512, -301-521, -301-542, -301-632, -301-731, -302-323.

 **Monitoring and Sampling Location Maps****Analysis:**

Exhibit 7.21-1 shows locations of surface and ground water monitoring sites. Deficiencies in these maps have already been discussed.

**Findings:**

The Alkali Tract Significant Revision meets the minimum requirements for information on operational maps and plans except for the following deficiencies:

- 1.) (Repeat) - Locations described in Table 7.24-1 do not agree with locations shown on proposed Exhibit 7.21-1 for G-2, G-5, G-6, and particularly for G-8 and G-9. (R645-301-121, -722.300, -731.222)
- 2.) (Repeat) - It appears that surface water monitoring sites G-4 and G-7 are the same, but there is no explanation or reason given for G-4 being renamed G-7 for the Alkali Tract Significant Revision. (R645-301-121, -722.300, -731.222)
- 3.) (Repeat) - It appears that surface water monitoring sites G-3 and G-9 may be the same, but the description of G-9's location in Table 7.24-1 does not agree with the location shown on Exhibit 7.21-1, and there is no explanation or reason given for G-3 being renamed G-9 for the Alkali Tract Significant Revision. (R645-301-121, -722.300, -731.222)

# RECLAMATION PLAN

## GENERAL REQUIREMENTS

Regulatory Reference: PL 95-87 Sec. 515 and 516; 30 CFR Sec. 784.13, 784.14, 784.15, 784.16, 784.17, 784.18, 784.19, 784.20, 784.21, 784.22, 784.23, 784.24, 784.25, 784.26; R645-301-231, -301-233, -301-322, -301-323, -301-331, -301-333, -301-341, -301-342, -301-411, -301-412, -301-422, -301-512, -301-513, -301-521, -301-522, -301-525, -301-526, -301-527, -301-528, -301-529, -301-531, -301-533, -301-534, -301-536, -301-537, -301-542, -301-623, -301-624, -301-625, -301-626, -301-631, -301-632, -301-731, -301-723, -301-724, -301-725, -301-726, -301-728, -301-729, -301-731, -301-732, -301-733, -301-746, -301-764, -301-830.

## HYDROLOGIC INFORMATION

Regulatory Reference: 30 CFR Sec. 784.14, 784.29, 817.41, 817.42, 817.43, 817.45, 817.49, 817.56, 817.57; R645-301-512, -301-513, -301-514, -301-515, -301-532, -301-533, -301-542, -301-723, -301-724, -301-725, -301-726, -301-728, -301-729, -301-731, -301-733, -301-742, -301-743, -301-750, -301-751, -301-760, -301-761.

### Analysis:

#### *dc* Ground-water monitoring.

Equipment, structures, and other devices used in conjunction with monitoring the quality and quantity of ground water onsite and offsite will be properly installed, maintained, and operated and shall be removed by the operator when no longer needed.

### Findings:

The Alkali Tract Significant Revision meets the minimum requirements for information on reclamation ground water monitoring.

#### Surface-water monitoring.

#### *dc* Acid and toxic-forming materials.

### Analysis:

Drainage from acid- and toxic-forming materials and underground development waste into surface and ground water will be avoided by:

- 1.) identifying and burying or treating such materials; or,
- 2.) Storing such materials in a manner that will protect surface and ground water by preventing erosion, the formation of

polluted runoff, and infiltration of polluted water. Storage will be limited to the period until burial or treatment first becomes feasible, and as long as storage will not result in any risk of water pollution or other environmental damage (page 7-167).

**Findings:**

The Alkali Tract Significant Revision meets the minimum requirements for reclamation information on acid- and toxic-forming materials.

*dc* **Transfer of wells.**

**Analysis:**

Before final release of bond, exploratory or monitoring wells shall be sealed in a safe and environmentally sound manner. Ownership of wells will be transferred only with prior approval of the DOGM. The conditions of such transfer shall comply with State and local laws and the permittee shall remain responsible for the proper management of the well until bond release (page 7-167).

**Findings:**

The Alkali Tract Significant Revision meets the minimum requirements for information on transfer of wells during and after reclamation.

*dc* **Discharges into an underground mine.**

*dc* **Gravity discharges.**

**Analysis:**

Dip of the coal seams to the north prevents gravity discharge of water to the surface from the mine.

**Findings:**

The Alkali Tract Significant Revision meets the minimum requirements for information on gravity discharge during and after reclamation.

*dc* **Water quality standards and effluent limitations.**

**Diversions.**

**Stream buffer zones.**

**Sediment control measures.**

**Siltation structures.**

**Sedimentation ponds.**

**Other treatment facilities.**

**Exemptions for siltation structures.**

**Discharge structures.**

**Impoundments.**

*dc* **Casing and sealing of wells.**

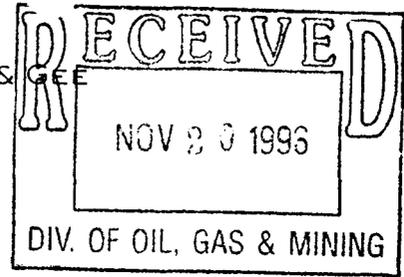
**Analysis:**

Each well identified in the mine permit application as a ground water monitoring well will comply with the requirements of R645-301-748 and will be temporarily sealed before use and protected during use. Before final release of bond, exploratory and monitoring wells will be sealed in a safe and environmentally sound manner in accordance with R645-301-631, R645-301-738, and R645-301-765 (pages 7-167 and 7-172).

**Findings:**

The Alkali Tract Significant Revision meets the minimum requirements for information on casing and sealing of wells during and after reclamation.

LAW OFFICES OF  
KIMBALL, PARR, WADDOUPS, BROWN & GEE  
A PROFESSIONAL CORPORATION  
SUITE 1300  
185 SOUTH STATE STREET  
POST OFFICE BOX 11019  
SALT LAKE CITY, UTAH 84147-0019  
TELEPHONE (801) 532-7840  
TELECOPIER (801) 532-7750



JOHN M. BURKE

VIA HAND DELIVERY

November 18, 1996

Susan Procarione, County Recorder  
Carbon County Court House  
120 Main Street  
Price, Utah 84501

Re: Applications of Mining Permit Transfer

Dear Ms. Procarione:

Please find enclosed herewith one copy each of four applications for transfer of the mining permits for the Skyline Mine, Banning Loadout, Soldier Canyon Mine, and Dugout Mine in Carbon County. The Division of Oil, Gas, and Mining requires that mining permit transfer applications be made available at the court house for review by interested members of the public.

The Sun Advocate is publishing a public notice regarding the permit transfer applications on Tuesday, May 19, 1996. That notice indicates that the applications will be available for review at the County Clerk's office. We would appreciate your assistance in making these applications available to the public for review consistent with your usual practice in such matters.

Thank you for your assistance. If you have any questions or comments regarding the foregoing, please do not hesitate to contact me.

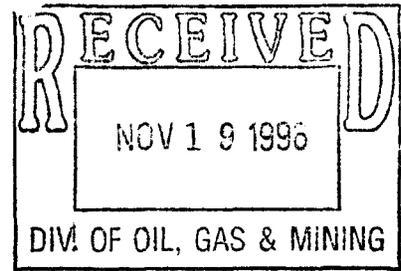
Very truly yours,

John M. Burke

Enclosure

cc: David Arnolds  
Kirk Mueller  
Daron Haddock  
Clayton J. Parr

JMB/wm



**CANYON FUEL COMPANY, LLC**

**APPLICATION FOR PERMIT TRANSFER**

**SOLDIER CANYON MINE**

**ACT/007/018**

**November 19, 1996**

## TABLE OF CONTENTS

<u>Section</u>	<u>Page</u>
1.10 Minimum Requirements for Legal, Financial, Compliance and Related Information . . . . .	1-1
1.1.1 Introduction . . . . .	1-1
1.1.2 Identification of Interests . . . . .	1-7
1.1.2.2 Applicant and Operator . . . . .	1-5
1.1.2.3 Control Persons . . . . .	1-8
1.1.2.4 Coal Mining and Reclamation Operation Permit Applications Previous, Current or Pending . . . . .	1-21
1.1.2.5 Coal Mining Reclamation Operation Permit Applications - Previous, Current, and Pending . . . . .	1-22
1.1.2.6 Legal or Equitable Owner of the Surface and Mineral Properties to be Mined . . . . .	1-23
1.1.2.7 Owners of Record of Property Contiguous to Proposed Permit Area . . . . .	1-25
1.1.2.8 MSHA Numbers . . . . .	1-26
1.1.2.9 Interest in Contiguous Lands . . . . .	1-26
1.1.3 Violation Information . . . . .	1-27
1.1.4 Right-of-Entry Information . . . . .	1-34
1.1.5 Status of Unsuitability Claims . . . . .	1-52
1.1.6 Permit Term . . . . .	1-53
1.1.7 Insurance and Proof of Publication . . . . .	1-35

**LIST OF TABLES**

Table 1-1 List of Violations - Soldier Creek Mine - Utah Division of Oil, Gas and Mining  
NOV History . . . . . 1-28

Table 1-2 List of Violations - SUFCo Mine - Utah Division of Oil, Gas  
and Mining NOV History . . . . . 1-30

Table 1-3 List of Violations - Skyline Mines - Utah Division of Oil, Gas  
and Mining NOV History . . . . . 1-32

**LIST OF APPENDICES**

Appendix

1-1 Newspaper Advertisement

## CHAPTER 1

### GENERAL CONTENTS

#### **1.10 Minimum Requirements for Legal, Financial, Compliance and Related Information**

##### **1.1.1 Introduction**

Canyon Fuel Company, LLC submits this Application for Permit Transfer seeking transfer of Permit No. ACT/0007/018 (the "permit") pursuant to Utah Admin. R645-303-320. The application sets forth information regarding the (1) nature of the transaction giving rise to this transfer request; (2) the identity of the principal interests involved in the transfer; (3) the legal, financial, and compliance status and history of Canyon Fuel Company; and (4) the status of the mine area.

The permit was issued to and is presently held by the Soldier Creek Coal Company, a subsidiary of Sage Point Coal Company. Sage Point Coal Company is a subsidiary of Coastal States Energy Company. Coastal States Energy Company is a wholly owned subsidiary of Coastal Coal, Inc., which in turn is the wholly owned subsidiary of the Coastal Corporation. Coastal States Energy Company owns the following entities: (1) Southern Utah Fuel Company ("SUFCo"); (2) Sage Point Coal Company, which in turn owns Soldier Creek Coal Company; (3) Utah Fuel Company, and (4) Skyline Coal. Skyline Coal Company and Coastal States Energy Company own, as equal partners, the Skyline Joint Venture. Figure 1.1 depicts the Coastal States organizational structure.

A Purchase and Sale Agreement entered into by The Coastal Corporation, Coastal Coal Company, Inc., Atlantic Richfield Company, and Itochu Corporation anticipates merger of Coastal States Energy Company and all of its subsidiaries into a newly formed joint liability company, Canyon Fuel Company, LLC and the subsequent sale of Canyon Fuel Company, LLC to Arco Uinta Coal Company, a wholly owned subsidiary of Atlantic Richfield Company, and

Itochu Coal International, Inc. a wholly owned subsidiary of Itochu Corporation. See Figure 1.2 for an organizational diagram depicting the entities that will merge together into Canyon Fuel Company, LLC, and the parent corporations of Canyon Fuel Company, LLC.

This Application seeks transfer of the permit from Soldier Creek Coal Company to Canyon Fuel Company, LLC, contingent upon the closing of the anticipated sale and the merger of Coastal States Energy Company and its subsidiaries into Canyon Fuel Company, LLC on or about December 20, 1996. As a result of this transaction, this Application for Permit Transfer documents anticipated changes in Chapter 1 of the Mining and Reclamation Plan for the SUFCo Mine -- "Legal, Compliance, and Related Information."

Other portions of the Plan remain unmodified. Any charts, maps, drawings, diagrams, exhibits, tables, and so forth in the unmodified Mining and Reclamation Plan bearing the name(s) Coastal States Energy Company, Skyline Coal Company, Sage Point Coal Company, Southern Utah Fuel Company, and/or Utah Fuel Company should be read substituting the name Canyon Fuel Company, LLC for any and all of these other entities, all of which will have been merged into Canyon Fuel Company, LLC.

**FIGURE 1.1**  
**Coastal Coal Operations**  
**Legal Structure and Business Units**

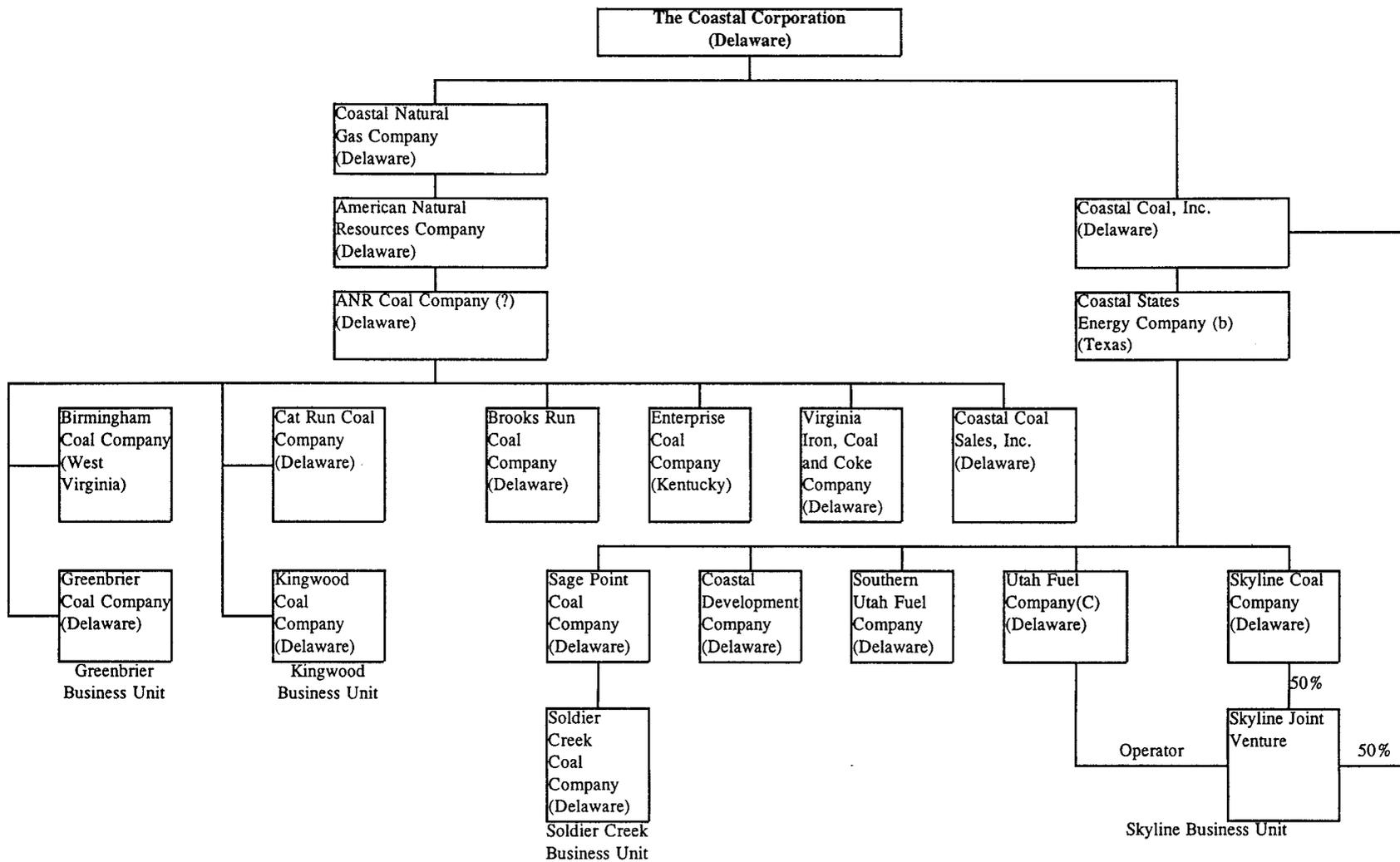
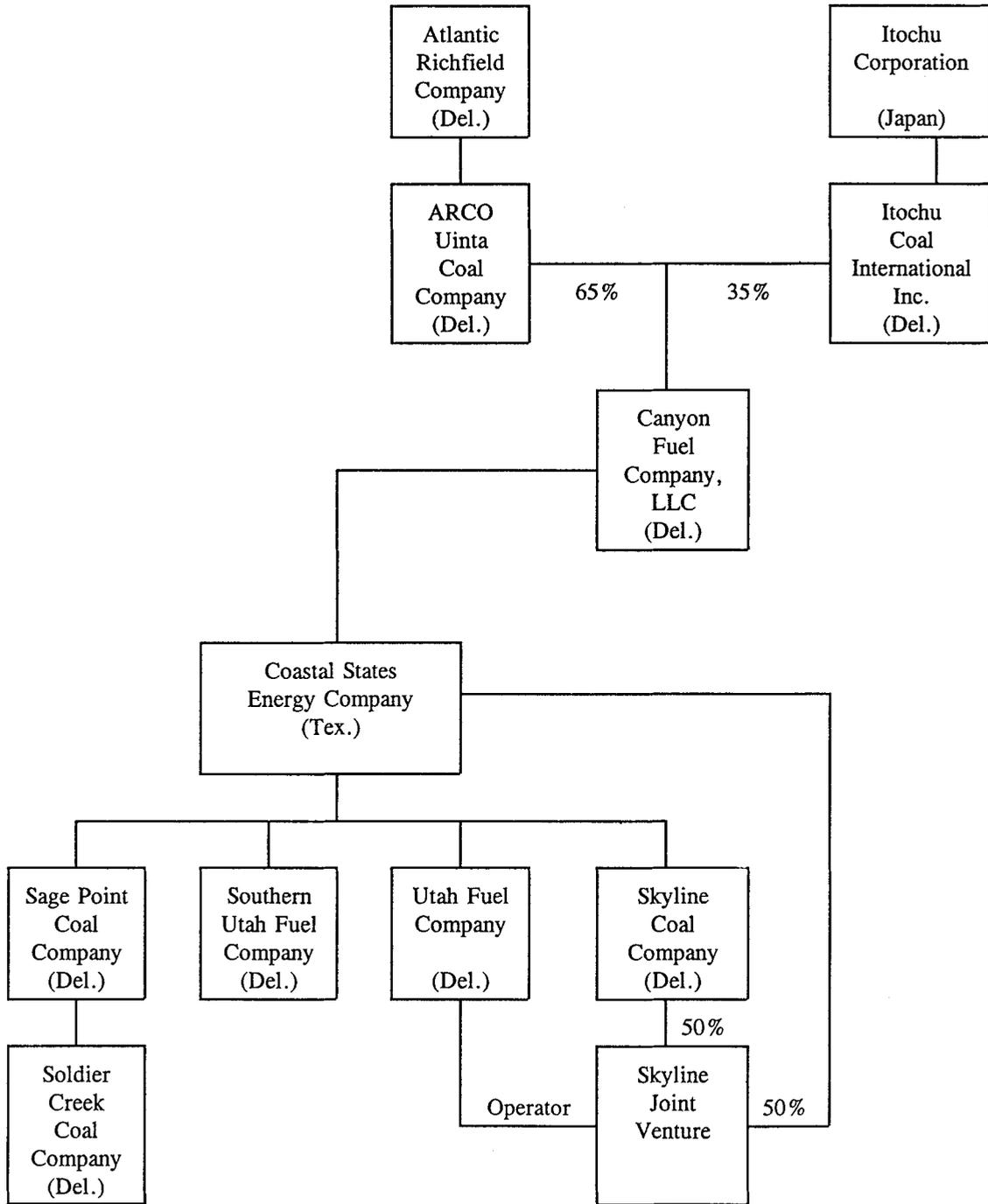


FIGURE 1.2



The mine is located at the mouth of Nine Mile Canyon, Sections 7 and 18, Township 13 S., Range 12 E., Salt Lake Base and Meridian (SLB&M), on the southern edge of the Book Cliffs in the heart of the book cliff Coal Field (Exhibit 1.12-2). It is approximately 12 miles northeast of Price, Utah (Figure 1).

Paved Road 53 (Soldier Creek Road) provides easy access to the mine facilities which are adjacent to the highway. While the road is unpaved beyond the mine it is maintained by Carbon County and serves as an access road to recreational and agricultural areas. The road serves as an alternative access between the Price River Basin and the Uinta Basin.

The mine was first opened in 1906, but little coal was produced until 1935 when Premium Coal Company leased the property. That Company operated the mine continuously until 1972. During those years approximately 1.2 million tons of coal were produced.

In September of 1974 California Portland Cement Company purchased the property and after making certain improvements resumed production on June 15, 1976.

On September 5, 1985, assets were transferred to Sunedco Coal Co., a Delaware corporation and a subsidiary of Sun Company, Inc., with offices in Lakewood, Colorado. The Applicant was reincorporated as a Delaware corporation by Sunedco Coal Co. and assets were then transferred to the Applicant. Ownership of the Federal and State coal leases are held by two affiliate companies, Sunedco Coal Company and Sunoco Energy Development Co. A working agreement was established between them and the Applicant to mine the leased coal.

With the acquisition of the Soldier Canyon property the land holding company, Sunedco Coal Co., chose to combine that acreage with certain adjacent acreage which had previously been included in a proposed project: Sage Point-Dugout Canyon. The permit application for Sage Point-Dugout Canyon (UT-0041; ACT/007/009) was approved by DOGM June 5, 1984, but subsequent softening coal markets dictated a postponement of mine development. By combining all of the Soldier Canyon property with selected parts of the Sage Point-Dugout Canyon acreage not included in the ACT/007/009 Permit, a more satisfactory mining area resulted.

A corporate reorganization by Sun Coal Company, Inc. merged Sunedco Coal Co. and Sunoco Energy Development Co. into Sage Point Coal Company. As a result of the corporate merger, Sage Point Coal Co. became the sole shareholder of Soldier Creek Coal Co. A working agreement was, thereafter, established between Sage Point Coal Company and the Applicant.

On September 16, 1993, Coastal States Energy Company purchased all of the stock of Sage Point Coal Company and Soldier Creek Coal Company.

Coal is currently mined from the Rock Canyon and Sunnyside seams by room and pillar method. Current mine production for 1996, will be approximately 1.0 million tons. Future maximum annual production is expected to be approximately 1.0 million tons annually.

Soldier Creek Coal Company has constructed three new portals, installed of 885 feet of stream culvert, realigned the county road and constructed a topsoil storage area.

Soldier Creek Coal Company also proposed to expand its LOM permit and obtain the additional coal leases to coincide with SCM's Logical Mining Unit (LMU), and construct a waste rock disposal site (Exhibit 1.12-2). Additional coal reserves will be required to ensure future production, and a waste rock disposal site is required by the Division.

The proposed waste rock disposal is located in Section 25 and 36, Township 13 S., Range 11 E., Salt Lake Base and Meridian (SLB&M). The 64.6 acre site is located on a portion of a 333.33 acre tract of private land surrounded by federal land under the management of the U.S. Bureau of Land Management (BLM). The site is approximately 3 miles south of the mine site.

Waste rock is hauled by truck from the mine via the paved county road. Travel distance along the county road is approximately 3 miles from the mine site to the disposal site access road. The site access road, from the paved county road to the disposal site, is approximately 0.5 miles in length. The disposal site serves the Soldier Canyon Mine and will serve the Dugout Canyon Mine for the lives of the mines. The design and operation of the disposal area will conform with all State and Federal Regulations.

### **1.1.2 Identification of Interests**

The applicant, Canyon Fuel Company, LLC is a newly formed Limited Liability Company organized under the laws of Delaware and owned by ARCO Uinta Coal Company, a Delaware Corporation, and Itochu Coal International Inc., a Delaware Corporation. ARCO Uinta Coal Company is a wholly owned subsidiary of Atlantic Richfield Corporation. Itochu Coal International Inc. is a wholly owned subsidiary of Itochu Corporation, a Japanese Corporation.

#### **1.1.2.2 Applicant and Operator**

##### **APPLICANT:**

Canyon Fuel Company, LLC  
555 Seventeenth Street  
Denver, Colorado 80202  
Telephone: (303) 293-7576  
Employer Identification: To be applied for

##### **OPERATOR:**

Canyon Fuel Company, LLC  
555 Seventeenth Street  
Denver, Colorado 80202  
Telephone: (303) 293-7576  
Employer Identification: To be applied for

##### **RESIDENT AGENT:**

CT Corporation Systems  
50 West Broadway, Salt Lake City, Utah 84104  
Telephone: (801) 531-7090  
Social Security number: N/A  
Employer Identification: 51-0006522

##### **CONTACT PERSON:**

David M. Arnolds  
Canyon Fuel Company, LLC  
555 Seventeenth Street  
Denver, Colorado 80202  
Telephone: (303) 293-7576

**PERSON WHO WILL PAY ABANDONED MINE RECLAMATION FEES:**

Canyon Fuel Company, LLC  
555 Seventeenth Street  
Denver, CO 80202

**1.1.2.3 Control Persons**

This section identifies those persons who own or control Canyon Fuel Company, LLC. Canyon Fuel Company, LLC will be a Delaware limited liability company with two members. ARCO Uinta Coal Company will hold a 65% interest, and Itochu Coal International, Inc. will hold a 35% interest.

ARCO Uinta Coal Company is a wholly owned subsidiary of Atlantic Richfield Company.

**ADDRESS:**

ARCO Uinta Coal Company  
555 Seventeenth Street  
Denver, Colorado 80202

**EMPLOYER IDENTIFICATION:**

95-4298676

**ADDRESS:**

Atlantic Richfield Company  
515 South Flower Street  
Los Angeles, California 90071

**EMPLOYER IDENTIFICATION:**

23-0371610

Itochu Coal International, Inc. is a wholly owned subsidiary of Itochu Corporation, a Japanese corporation.

**ADDRESS:**

Itochu Coal International, Inc.  
C/O Deloitte Touche, LLP  
555 17th Street, Suite 3600  
Denver, Colorado 80202

**EMPLOYER IDENTIFICATION:**

Applied for

**ADDRESS:**

Itochu Corporation, 5-1  
ICita-Aoyama 2-Chrome  
Minatoku, Tokyo 107-77, Japan

**EMPLOYER IDENTIFICATION:**

98-0053818

The following lists the officers and directors of Canyon Fuel Company, LLC, Atlantic Richfield Company, ARCO Uinta Coal Company, Itochu Corporation, and Itochu Coal International, Inc. The addresses for the officers, directors and manager listed are the same as those of the respective business entities, as listed above, for which the individuals are officers and directors.

**CANYON FUEL COMPANY, LLC:**

**Officers:**

Richard D. Pick Chief Executive Office

SSN : [REDACTED]

Effective : 12/20/1996

Thomas F. Linn Secretary

SSN : [REDACTED]

Effective : 12/20/1996

Chris M. Noble Chief Financial

SSN: : [REDACTED]

Effective : 12/20/1996

**ARCO Uinta Coal Company Representatives to the Management Board:**

Michael DeGenring

SSN : ██████████

Effective : 12/20/1996

Eugene D. DiClaudio

SSN :

Effective : 12/20/1996

**Alternate Representatives to the Management Board:**

Chris M. Noble

SSN : ██████████

Effective : 12/20/1996

Harold B. Tyber

SSN : ██████████

Effective : 12/20/1996

**Itochu Coal International, Inc. Representatives to the Management Board:**

Akio Shigetomi

SSN : Not Applicable

Effective : 11/30/1996

Masayoshi Araya

SSN : Not Applicable

Effective: : 11/30/1996

**Itochu Coal International, Inc. Alternate Representatives to the Management Board:**

Katsurni Takahisa

SSN : Not Applicable

Effective : 11/30/1996

Kazuo Osawa

SSN : Not Applicable

Effective : 11/30/1996

## Directors and Officers

### ATLANTIC RICHFIELD COMPANY

#### DIRECTORS:

Ronald J. Arnault	Director
SSN : ██████████	
Effective : 10/26/1937	First Elected: 10/26/1987
Frank D. Boren	Director
SSN : ██████████	
Effective : 07/23/1990	First Elected: 07/23/1990
Mike R. Bowlin	Director
SSN : ██████████	
Effective : 06/22/1992	First Elected: 06/22/1992
Lodwick M. Cook	Director
SSN : ██████████	
Effective : 06/23/1980	First Elected: 06/23/1980
Richard H. Deihl	Director
SSN : ██████████	
Effective : 02/23/1987	First Elected: 02/23/1987
Anthony G. Fernandes	Director
SSN : ██████████	
Effective : 09/26/1994	First Elected: 09/26/1994
John Gavin	Director
SSN : ██████████	
Effective : 02/01/1989	First Elected: 02/01/1989
Hanna H. Gray	Director
SSN : ██████████	
Effective : 06/28/1982	First Elected: 06/28/1982
Phillip M. Hawley	Director
SSN : ██████████	
Effective : 12/16/1975	First Elected: 12/16/1975
Marie L. Knowles	Director
SSN : ██████████	
Effective : 07/22/1996	First Elected: 07/22/1996

Kent Kresa	Director
SSN : ██████████	
Effective : 11/01/1993	First Elected: 11/01/1993
David T. McLaughlin	Director
SSN : ██████████	
Effective : 02/22/1993	First Elected: 02/22/1993
John B. Slaughter	Director
SSN : ██████████	
Effective : 12/18/1989	First Elected: 12/18/1989
William E. Wade, Jr.	Director
SSN : ██████████	
Effective : 06/28/1993	First Elected: 06/28/1993
Henry Wendt	Director
SSN : ██████████	
Effective : 12/01/1987	First Elected: 12/01/1987

**OFFICERS:**

Mike R. Bowlin	Chairman of the Board & Chief Executive Officer
SSN : ██████████	
Effective : 05/06/1996	First Elected: 05/06/1996
Ronald J. Arnault	Executive Vice President
SSN : ██████████	
Effective : 07/22/1996	First Elected: 07/22/1996
Anthony G. Fernandes	Executive Vice President
SSN : ██████████	
Effective : 09/26/1994	First Elected: 09/26/1994
Marie L. Knowles	Executive Vice President and Chief Financial Officer
SSN : ██████████	
Effective : 07/22/1996	First Elected: 07/22/1996
William E. Wade, Jr.	Executive Vice President
SSN : ██████████	
Effective : 06/01/1993	First Elected: 06/01/1993
Harrell L. Bilhartz, Jr.	Senior Vice President
SSN : ██████████	
Effective : 07/23/1990	First Elected: 07/23/1990

John B. Cheactham	Senior Vice President
SSN : ██████████	
Effective : 11/20/1995	First Elected: 11/20/1995
E. Kent Damon, Jr.	Senior Vice President
SSN : ██████████	
Effective : 07/23/1990	First Elected: 07/23/1990
Kenneth R. Dickerson	Senior Vice President
SSN : ██████████	
Effective : 06/27/1988	First Elected: 06/27/1988
Stephan R. Mut	Senior Vice President
SSN : ██████████	
Effective : 09/26/1994	First Elected: 09/26/1994
William C. Rusnack	Senior Vice President
SSN : ██████████	
Effective : 07/23/1990	First Elected: 07/23/1990
J. Kenneth Thompson	Senior Vice President
SSN : ██████████	
Effective : 06/27/1994	First Elected; 06/27/1994
Bruce G. Whitmore	Sr. Vice President, General Counsel & Corporate Secretary
SSN : ██████████	
Effective : 01/01/1995	First Elected: 01/01/1995
Allan L. Comstock	Vice President and Controller
SSN : ██████████	
Effective : 06/01/1993	First Elected: 06/01/1993
Terry G. Dallas	Vice President and Treasurer
SSN : ██████████	
Effective : 01/24/1994	First Elected: 01/24/1994
Stephen J. Giovanisci	Vice President
SSN : ██████████	
Effective : 09/23/1985	First Elected: 09/23/1985
Beverly L. Hamilton	Vice President and Investment Officer
SSN : ██████████	
Effective : 02/25/1991	First Elected: 02/25/1991
Linda G. Havard	Vice President
SSN : ██████████	
Effective : 01/24/1994	First Elected: 01/24/1994

Allen C. Holmes	Vice President and General Tax Officer
SSN : ██████████	First Elected: 03/25/1991
Effective : 03/25/1991	
John H. Kelly	Vice President
SSN : ██████████	First Elected: 06/01/1993
Effective : 06/01/1993	
Robert J. Trunek	Vice President
SSN : ██████████	First Elected: 01/24/1994
Effective : 01/24/1994	
Barbara M. Hinds	Assistant Corporate Secretary
SSN : ██████████	First Elected: 12/19/1977
Effective : 12/19/1977	
Kathleen A. Kingsbury	Associate Corporate Secretary
SSN : ██████████	First Elected: 10/24/1994
Effective : 10/24/1994	
Robert M. Pine	Assistant Controller
SSN :	First Elected: 01/28/1991
Effective : 01/28/1991	
Patrick J. Ellingsworth	Chief Tax Attorney and Associate General Tax Officer
SSN : ██████████	First Elected: 05/01/1989
Effective : 05/01/1989	
Leslye B. Nunnally	Assoc. General Tax Officer
SSN : ██████████	First Elected: 05/02/1988
Effective : 05/02/1988	
Ronald R. Williams	Assoc. General Tax Officer
SSN : ██████████	First Elected: 05/05/1991
Effective : 05/05/1991	
Charles P. Cooley	Assistant Treasurer
SSN : ██████████	First Elected: 06/28/1993
Effective : 06/28/1993	
George S. Davis	Assistant Treasurer
SSN : ██████████	First Elected: 01/23/1995
Effective : 02/06/1995	
Martin C. Recchuite	Assistant Treasurer
SSN : ██████████	First Elected: 06/27/1988
Effective : 06/27/1988	

John J. Coffey	Assistant Vice President
SSN : ██████████	
Effective : 05/03/1993	First Elected: 05/03/1993
Patricia N. Boinski	Assistant Secretary
SSN : ██████████	
Effective : 05/06/1989	First Elected: 05/06/1989
Patrick J. Brophy	Assistant Secretary
SSN : ██████████	
Effective : 05/06/1986	First Elected: 05/06/1986
E. Larry Cantu	Assistant Secretary
SSN : ██████████	
Effective : 05/06/1996	First Elected: 05/06/1996
James R. Coffee	Assistant Secretary
SSN : ██████████	
Effective : 05/07/1985	First Elected: 05/07/1985
Patricia B. Fisher	Assistant Secretary
SSN : ██████████	
Effective : 05/06/1996	First Elected: 05/06/1996
W. Steven Jones	Assistant Secretary
SSN :	
Effective : 05/02/1994	First Elected: 05/02/1994
Susan O. Liebson	Assistant Secretary
SSN :	
Effective : 05/06/1996	First Elected: 05/06/1996
Thomas F. Linn	Assistant Secretary
SSN : ██████████	
Effective : 05/06/1986	First Elected: 05/06/1986
John R. Lucas, Jr.	Assistant Secretary
SSN : ██████████	
Effective : 05/03/1993	First Elected: 05/03/1993
Roderick W. MacDonald	Assistant Secretary
SSN :	
Effective : 05/05/1987	First Elected: 05/05/1987
David W. Marquez	Assistant Secretary
SSN :	
Effective : 05/06/1996	First Elected: 05/06/1996

Stephen Molina	Assistant Secretary
SSN : ██████████	
Effective : 05/06/1996	First Elected: 05/06/1996
Karen R. Monroe	Assistant Secretary
SSN : ██████████	
Effective : 05/06/1996	First Elected: 05/06/1996
Richard C. Morse	Assistant Secretary
SSN : ██████████	
Effective : 05/07/1985	First Elected: 05/07/1985
Ronald C. Redcay	Assistant Secretary
SSN : ██████████	
Effective : 05/03/1993	First Elected: 05/03/1993
Paul J. Richmond	Assistant Secretary
SSN :	
Effective : 05/07/1985	First Elected: 05/07/1985
Thomas C. Roantree, III	Assistant Secretary
SSN : ██████████	
Effective : 05/01/1989	First Elected: 05/01/1989
Daniel J. Rolf	Assistant Secretary
SSN :	
Effective : 06/22/1992	First Elected: 06/22/1992
Eric E. Sigsbey	Assistant Secretary
SSN : ██████████	
Effective : 05/06/1996	First Elected: 05/06/1996
Antoinette M. Tadolini	Assistant Secretary
SSN :	
Effective : 05/06/1996	First Elected: 05/06/1996
Diane A. Ward	Assistant Secretary
SSN :	
Effective : 05/06/1986	First Elected: 05/06/1986

**Directors and Officers**

**ARCO UINTA COAL COMPANY**

**DIRECTORS:**

David T. Bennett                      Director  
SSN                      : ██████████  
Effective                : 06/05/1996                      First Elected: 06/05/1996

Michael W. DeGenring              Director  
SSN                      : ██████████  
Effective                : 09/24/1990                      First Elected: 09/24/1990

Thomas F. Linn                      Director  
SSN                      : ██████████  
Effective                : 05/02/1994                      First Elected: 05/02/1994

Stephen B. Mut                      Director  
SSN                      : ██████████  
Effective                : 09/26/1994                      First Elected: 09/26/1994

Chris M. Noble                      Director  
SSN                      : ██████████  
Effective                : 09/11/1995                      First Elected: 09/11/1995

Richard D. Pick                      Director  
SSN                      : ██████████  
Effective                : 11/01/1992                      First Elected: 11/01/1992

Harold B. Tyber                      Director  
SSN                      : ██████████  
Effective                : 08/01/1995                      First Elected: 08/01/1995

William S. Wagener                      Director  
SSN                      : ██████████  
Effective                : 06/05/1996                      First Elected: 06/05/1996

**OFFICERS:**

Stephen B. Mut                      President  
SSN                      : ██████████  
Effective                : 09/26/1994                      First Elected: 09/26/1994

David T. Bennett                      Vice President  
SSN                      : ██████████  
Effective                : 06/05/1996                      First Elected: 06/05/1996

Michael W. DeGenring	Vice President
SSN : ██████████	
Effective : 09/24/1990	First Elected: 09/24/1990
Chris M. Noble	Vice President
SSN : ██████████	
Effective : 09/11/1995	First Elected: 09/11/1995
Richard D. Pick	Vice President
SSN : ██████████	
Effective : 11/01/1992	First Elected: 11/01/1992
Harold F. Tyber	Vice President
SSN : ██████████	
Effective : 08/01/1995	First Elected: 08/01/1995
William S. Wagener	Vice President
SSN : ██████████	
Effective : 06/05/1996	First Elected: 06/05/1996
Kathleen A. Kingsbury	Vice President and Secretary
SSN : ██████████	
Effective : 11/01/1994	First Elected: 11/01/1994
George S. Davis	Treasurer
SSN : ██████████	
Effective : 02/06/1995	First Elected: 02/06/1995
Charles P. Cooley	Assistant Treasurer
SSN : ██████████	
Effective : 06/28/1993	First Elected: 06/28/1993
Cathey S. Lowe	Assistant Treasurer
SSN : ██████████	
Effective : 03/07/1996	First Elected: 08/07/1996
William R. Ash	Assistant Secretary
SSN :	
Effective : 06/17/1996	First Elected: 06/17/1996
Patricia B. Fisher	Assistant Secretary
SSN : ██████████	
Effective : 09/26/1994	First Elected: 09/26/1994
Sue Ann Higgins	Assistant Secretary
SSN :	
Effective : 06/17/1996	First Elected: 06/17/1996

Barbara M. Hinds	Assistant Secretary
SSN : ██████████	
Effective : 08/01/1990	First Elected: 08/01/1990
Thomas F. Linn	Assistant Secretary
SSN : ██████████	
Effective : 05/02/1994	First Elected: 05/02/1994
Thomas C, Roantree, III	Assistant Secretary
SSN : ██████████	
Effective : 06/17/1996	First Elected: 06/17/1996

**Directors and Officers**

**ITOCHU CORPORATION<sup>1</sup>**

<u>Name</u>	<u>Title</u>	<u>Date of Appointment</u>
Minoru Murofushi	Chairman, President, CEO	June-96
Tariayoshi Nakazawa	Executive Vice Chairman	June-96
Jay W. Chni	Executive Vice President	June-93
Takashi Yamamura	Executive Vice President	April-95
Konji Morisawa	Executive Vice President	April-96
Ichiro Kanade	Executive Vice President	April-96
Noboru Nishikawa	Sr. Managing Director	April-96
Kouji Nojiura	Sr. Managing Director	April-96
Akihito Mori	Sr. Managing Director	April-96
Masayoshi Trujiwara	Sr. Managing Director	April-96
Uichiro Niwa	Sr. Managing Director	April-96
Hiroshi Surrie	Sr. Managing Director	April-96
Fumiaki Fujino	Managing Director	June-95
Hiroyuka Yamaoka	Managing Director	April-95
Katsuyuki Kanozaki	Managing Director	April-95
Tetsusaburo Shirai	Managing Director	April-95

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<sup>1</sup>The following individuals listed as directors and officers of Itochu Corporation are Japanese nationals and do not have social security numbers.

Scizo Kanou	Managing Director	April-95
Nobuhiro Takahashi	Managing Director	April-96
Takashi Shiga	Managing Director	April-96
Motohiro Matsukura	Managing Director	April-96
Takeahi Seino	Managing Director	April-96
Takeo Onda	Managing Director	April-96
Shougo Honma	Managing Director	April-96
Keiiehi Wakabayashi	Managing Director	April-96
Akira Asami	Director	June-91
Masahiro Pukumoto	Director	June-95
Kiyoaki Imai	Director	June-95
Shiro Morita	Director	June-95
Nobuo Kobayashi	Director	June-95
Makoto Kato	Director	June-95
Yuushin Okazaki	Director	June-95
Kakuichi Saegusa	Director	June-95
Sumitaka Fujita	Director	June-95
Hiromi Izuka	Director	June-96
Renjiro Sakashita	Director	June-96
Tokuji Kayama	Director	June-96
Mitauo Sakai	Director	June-96
Hiroataka Takechi	Director	June-96
Tadao Abe	Director	June-96
Masaya Takci	Director	June-96
Junichi Tanlyama	Director	June-96
Takeshi Kondou	Director	June-96
Mitsuaki Fukuda	Director	June-96
Yasuo Itsushima	Director	June-96
Kunio Tajiri	Director	June-96
Michio Tanabe	Director	June-96
Hiroshi Itoh	Full-time Corporate Auditor	April-92

Jouji Akizawa	Full-time Corporate Auditor	June-95
Iharuhiko Ochiai	Full-time Corporate Auditor	June-95
Ryuuhei Takashima	Corporate Auditor	June-94
Riichi Hashimoto	Corporate Auditor	June-94

**ITOCHU COAL INTERNATIONAL, INC.<sup>2</sup>**

Akio Shigerom	Chief Executive Officer	November 1996
Masayolin Aray	Executive Director	November 1996
Katsumi Takahisa	Executive Director	November 1996

**1.1.2.4 Coal Mining and Reclamation Operation Permit Applications Previous, Current, or Pending**

The following list represents all permits to be transferred to Canyon Coal Company, LLC by Coastal States Energy Company, all pending applications for permits, and any permit recognized as necessary in the future for which no application has been filed. Identification numbers of applications or permits are contained in the following list. However, many of the agencies listed have review responsibility only and may not have submitted a numbered permit.

<u>Permit</u>	<u>Issuing Authority</u>	<u>Approval Status/ Identification No.</u>
Mining and Reclamation Permit ACT/041/002	State of Utah Department of Natural Resources Division of Oil, Gas and Mining  Department of Interior U.S. Geological Survey and Office of Surface Mining  Department of Agriculture U.S. Forest Service Fishlake National Forest and Manti La Sal National Forest	1977 Mine Plan was approved on May 19, 1987

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<sup>2</sup>The following individuals listed as directors and officers of Itochu Coal International, Inc. are Japanese nationals and do not have social security numbers.

U.P.D.E.S. Permit UT-0022918	Environmental Protection Agency and Utah D.E.Q.	Approved
Disposal for Water Discharge	Utah Department of Health	Approved
Business License	Sevier County	Approved
Mine Health and Safety Permits 42-00089	Mine Safety and Health Administration - Utah	All approved
ID No. 1211-UT-09-00089-01	Mine Safety and Health Administration	New Waste Rock Disposal Area Construction Plan
Radio Permits	Federal Communications Commission	Approved
Certificate of Insurance and Authorization to do Business in State	State Industrial Development Commission	Approved
Public Water Supply Permit #21020	State of Utah Department of Health Division of Environmental Health	Approved
Special Use 4078-02	U.S. Forest Service Fishlake National Forest	Approved
Air Quality Approval Order	State of Utah Utah Air Conservation Committee Department of Health Division of Environmental Health	Approved 1988 Production Increase approved 3/27/90
Water Rights	State Engineer	Approved

**1.1.2.5 Coal Mining Reclamation Operation Permit Applications - Previous, Current, and Pending**

The Canyon Coal Company, LLC mining permits and operations are:

SUFCo Mine	ACT/041/002
Skyline Mine	ACT/007/005
Soldier Canyon Mine	ACT/007/018
Banning Loadout	ACT/007/034
Dugout Canyon	Pending

The issuing authority for the Canyon Fuel Company permits is the UDOGM.

Permits and operations held by the following subsidiary companies of Atlantic Richfield Company are:

<u>PERMIT</u>	<u>STATE</u>	<u>ISSUING AGENCY</u>	<u>FACILITY</u>	<u>STATUS</u>	<u>MSHA NO.</u>
233-T3	Wyoming	Land Quality Division Department of Environmental Quality	Black Thunder Mine	Renewal Approved 23 January 1988	48-00977 Issued
483-T1	Wyoming	Land Quality Division Department of Environmental Quality	Coal Creek Mine	Renewal Approved 25 February 1986	48-01215 Issued

Neither Atlantic Richfield Company nor any of its subsidiary owns or controls any other coal mining or reclamation operation. None of the executive officers and directors of Atlantic Richfield Company are directors and officers of any other entity that owns or controls an interest, direct or indirect, having coal mining operations in the United States. Itochu Corporation does not own or control any interest, direct or indirect, in any other entity having coal mining operations in the United States. None of the executive officers of Itochu Corporation are directors or officers of any other entity that owns or controls an interest, direct or indirect, in any entity having coal mining operations in the United States.

**1.1.2.6 Legal or Equitable Owner of the Surface and Mineral Properties to be Mined**

The legal or equitable owners of the areas to be affected by the surface operations and facilities during the five year permit period are:

The United States of America

Sage Point Coal Company  
P.O. Box 1029  
Wellington, Utah 84542

Louise L. Iriart  
Route 1 Box 172  
Price, Utah 84501

No area within the lands to be affected by surface operations and facilities or within the area of coal to be mined is under a real estate contract.

The legal or equitable owners of the coal to be mined during the five year permit period are:

The United States of America

The State of Utah

Sage Point Coal Company  
P.O. Box 1029  
Wellington, Utah 84542

The holders of record of any leasehold interest in areas to be affected by surface operations or facilities are:

Great Western Drilling  
Ken Davis Jr.  
Proprietor  
Great Western Drilling  
P.O. Box 1659  
Midland, Texas

REI Underground Exploration, Inc.  
Officers:  
Jeffrey J. Schwoebel, President  
REI Underground Exploration, Inc.  
360 Wakara Way  
Salt Lake City, Utah 84108

Cherie B. Pederson, Secretary/Treasurer  
REI Underground Exploration, Inc.  
360 Wakara Way  
Salt Lake City, Utah 84108

Soldier Creek Coal Company  
P.O. Box 1029  
Wellington, Utah 84542

Sage Point Coal Company  
P.O. Box 1029  
Wellington, Utah 84542

Principal Shareholders for leasehold interests:

<u>For</u>	<u>Is</u>	<u>Whose Address Is</u>
REI Underground Exploration, Inc.	Resource Enterprises, Inc.	360 Wakara Way Salt Lake City, Utah 84108
Canyon Fuel Company	Sage Point Coal Company	555 Seventeenth Street Denver, CO 80202

**Resident agents for leasehold interests:**

REI Underground Exploration, Inc.  
360 Wakara Way  
Salt Lake City, Utah 84108

The holders of record of leasehold interests in the coal to be mined are Canyon Fuel Company, Inc., the United States of America, and the State of Utah.

**1.1.2.7 Owners of Record of Property Contiguous to Proposed Permit Area**

Owners of record of surface and subsurface areas contiguous to the proposed permit area, including the sewage lagoons and refuse disposal site, are shown on Exhibits 1.12-1 and 1.12-2 of the unmodified permit. Names and addresses of the owners are:

Surface

Sage Point Coal Company  
P.O. Box 1029  
Wellington, Utah 84542

Carbon County  
Courthouse Building  
Price, Utah 84501

Newell H. and Madge Nelson  
Cleveland, Utah 84518  
Louise L. Iriart  
Route 1, Box 172  
Price, Utah 84501

United States of America  
Department of Interior  
Bureau of Land Management  
Price Coal Office  
900 North 700 East  
Price, Utah 84501

### Subsurface

Utah State Office  
Department of Natural Resources  
Division of Lands and Forests  
3 Triad Center  
355 West North Temple  
Salt Lake City, Utah 84180-1203

Sage Point Coal Company  
P.O. Box 1029  
Wellington, Utah 84542

Louise L. Iriart  
Route 1, Box 172  
Price, Utah 84501

United States of America  
Department of Interior  
Bureau of Land Management  
Price Coal Office  
900 North 700 East  
Price, Utah 84501

#### **1.1.2.8 MSHA Numbers**

The mine name and identification number are as follows:

Soldier Canyon Mine  
Mine ID No. 42-00077.

#### **1.1.2.9 Interest in Contiguous Lands**

Canyon Fuel Company, LLC has interests in lands contiguous to the area covered by the

proposed mine permit (Exhibits 1.12-1 and 1.12-2 in the unmodified Chapter 1). Canyon Fuel Company, LLC holds all land and lease interests in the Permit Area.

### **1.1.3 Violation Information**

Neither Canyon Fuel Company, LLC nor any major stockholder of the company having any interest, either legal or equitable, in Canyon Fuel Company, LLC have had a State or Federal mining permit suspended or revoked or a security deposited in lieu of a bond revoked. Neither Canyon Fuel Company, LLC, any of its mining operations, nor any person who owns or controls Canyon Fuel Company has any unabated cessation orders or unabated air or water quality violation notices.

Table 1 -1 contains the NOV history for the Canyon Fuel Company, LLC and its operations. As a newly formed entity, Canyon Fuel Company, LLC received no violations within the three years prior to filing of this application. The company mines, however, have been operating for several years and have received some NOVs. The violations for the Canyon Fuel Company, LLC operations, including the SUFCo Mine, ACT/041/002; Skyline Mine, ACT/007/005; Soldier Canyon Mine, ACT/007/018; Banning Loadout, ACT/007/034 are set forth in Table 1.1.

TABLE 1-1

## LIST OF VIOLATIONS

**Soldier Creek Mine - Utah Division of Oil, Gas and Mining NOV History**

NOV	Date	Description	Actions Taken	Termination Date/Status	Administrative or Judicial Proceedings
N87-9-6-1 Banning Loadout	07/17/87	Failure to prevent, to the extent possible, additional contributions of sediment to stream flow outside the permit area.	Repaired two small piping holes along berm	08/20/87	Terminated
N88-13-1-1 Banning Loadout	04/18/88	Failure to pass disturbed runoff through an operating sediment control structure.	Repaired and reinstalled two silt fences and installed two straw bale dikes	04/28/88	Terminated
N-89-28-1-1 SCCC minesite	02/01/89	Failure to pass surface drainage from a disturbed area through a sediment pond or treatment facility before leaving a permit area.	Snow pushed beyond drainage control facilities was recovered to the extent possible. Straw bales installed around remainder.	02/06/89	Terminated
N89-17-3-1 SCCC minesite	10/11/89	Failure to maintain adequate sediment control to prevent, to the extent possible, additional contributions of sediment to Soldier Creek.	Diverted all stream flow including mine water discharge around construction site during construction activities.	10/16/89	Terminated
N89-22-89 SCCC minesite	11/22/89	Failure to confine disturbance to limits of previously approved boundaries during surface facilities expansion construction.	An adequate plan for the use and/or reclamation of areas disturbed was submitted.	01/22/90	Terminated
N90-27-6-1 SCCC minesite	05/22/90	Failure of sub-contractor (Cowing & Company, Inc.) for new mine portal development to have surface blaster certification.	Sub-contractor had completed work and moved off the job site. No remedial action required.	02/22/90	Terminated
N90-28-5-1 Banning Loadout	08/01/90	Failure to have a valid certificate of blaster certification during surface blasting activities.		08/06/90	Terminated
N90-15-1-1 Banning Loadout	10/04/90	Violation 2 of 2 issued for failure to conduct water monitoring in accordance with approved plan.		10/04/90	Terminated
N91-37-1-3 SCCC Minesite	01/30/91	Violation 1 of 3 issued for failure to operate within disturbed area boundary.		04/02/91	Terminated

NOV	Date	Description	Actions Taken	Termination Date/Status	Administrative or Judicial Proceedings
N-91-37-1-3 SCCC Minesite	01/30/91	Violation 2 of 3 issued for failure to place excess spoil in a designated area within the permit boundary.		03/01/91	Terminated
N91-37-1-3 SCCC Minesite	01/30/91	Violation 3 of 3 issued for failure to identify and protect the topsoil resource.		03/01/91	Terminated
N92-15-1-1 Banning Loadout	08/26/92	Failure to submit a complete response to Division Order 92B regarding M&RP submittal.	Submitted response	01/12/93	Terminated
N93-38-1-3 DOGM	09/22/93	Violation 1 of 3 issued for failure to provide certification for the design of existing primary road.	Submitted response		Terminated
N93-38-1-3 DOGM	09/22/93	Violation 2 of 3 issued for failure to provide design information for a ditch/berm system associated with an existing road.	Submitted response		Terminated
N93-38-1-3 DOGM	09/22/93	Violation 3 of 3 issued for failure to include power lines on maps approved within the MRP.	Submitted response		Terminated
N94-38-1-1 DOGM	01/26/94	Failure to comply with TDS limitation for discharge at facility sedimentation pond.	None required	01/26/94	Terminated
N94-39-5-1 DOGM	11/09/94	Failure to have an identification sign at the main gate.	Replaced sign	11/09/94	Terminated

TABLE 1-2

## LIST OF VIOLATIONS

## SUFCo Mine - Utah Division of Oil, Gas and Mining NOV History

NOV	Date	Description	Actions Taken	Termination Date/Status	Administrative or Judicial Proceedings
N85-6-1-1	01/15/85	No fan small area exemption runoff sampling.	Immediately started sampling		
N85-6-4-1	03/12/85	Parking pad drainage modification to sediment pond without approval	12/21/84 - sent in revised plan to eliminate small area exemption and go back to previously approved plan of parking pad drainage to sediment pond. 3/14/85 - Sent in plans again to Division that were approved without any revisions on 4/18/85.	4/22/85	Termination of Notice
N85-6-6-1	04/30/85	Failure to analyze for oil and grease in sediment pond decant sample	None - requested assessment conference	4/30/84	Termination of Notice
N85-6-7-1	06/21/85	Quality of fan area discharge	6/11/85 - Sent in request for Division approval to eliminate main site fan small area exemption. 6/28/85 - Letter submitted to satisfy abatement. 7/18/85 DOGM approval of plan. 8/16/86 modification implemented.	9/11/85	Termination of Notice
N86-9-6-1	05/01/86	Bypass culvert contaminated with oil - white film on surface of water	Inspected and cleaned culvert. Repaired hole in side of culvert where contaminate was seeping in.	7/14/86	NOV Vacated
N86-9-7-1	06/17/86	Failure to meet TDS limitation for sediment pond discharge	Letter sent to DOGM with explanation and steps to be taken to prevent further violation.	7/16/86	Termination of Notice
N87-9-9-1	09/22/87	Failure to comply with conditions and terms of approved permit.	Meetings held with DOGM. Written comments submitted	12/11/87	NOV Vacated

NOV	Date	Description	Actions Taken	Termination Date/Status	Administrative or Judicial Proceedings
N89-13-1-1	09/28/89	Failure to confine mining activities to within the approved disturbed area. Failure to minimize disturbance to surface water systems. Disturbing stockpiled topsoil. Placing soil materials in an undisturbed ephemeral drainage	9/29/90 Cleared channel and stabilized bank. 11/6/90 Revegetated channel and topsoil stockpile.	11/14/89	Terminated
N89-28-10-1	11/17/89	Failure to maintain required records at the mine site and submit required reports to the Division	Obtained copies of NPDES discharge monitoring report submitted to the Division	12/07/89	Terminated
N90-28-1-1	03/19/90	Failure to maintain sediment control structures in a manner which prevents additional contributions of sediment to stream flow outside the permit area.	Repaired silt fences.	04/11/90	Terminated
N90-39-1-1	11/26/90	Failure to conduct mining in accordance with the terms and conditions of the permit. TDS at 003 above NPDES limit.	Necessary documentation submitted.	12/24/90	Terminated
N92-39-1-1	01/24/92	Failure to notify the Division of the date of seeding one week prior to seeding at substation pad required by const. amendment.	Necessary documentation submitted.	01/28/92	Terminated
N93-42-1-1	08/26/93	Failed to report both field and lab measurements for pH and spec. cond. Nitrate was not reported as (NO <sub>3</sub> + NO <sub>2</sub> )	Submitted required data to Division.	09/07/96	Terminated
N94-46-2-1	10/31/94	Failed to mark perimeter to surface facilities prior to beginning surface activities. Failure to maintain perimeter markers as required (4 East fan).	Perimeter markers installed.	12/27/94	Terminated
N95-46-4-1	10/25/95	Failure to properly handle non-coal waste in a controlled manner.	Cleaned up non-coal waste and trained surface supervisors in proper handling procedures.	11/07/95	Terminated

TABLE 1-3

## LIST OF VIOLATIONS

## Skyline Mines - Utah Division of Oil, Gas and Mining NOV History

NOV	Date	Description	Actions Taken	Termination Date/Status	Administrative or Judicial Proceedings
N92-37-1-1	03/04/92	Failure to provide monitoring results of revegetation practices, treatments, and trails as described in pages 4-35 and 4-36, and Volume 1-2 of the MRP. This information is also requested annually by the Division in the Annual Report.	Necessary documentation submitted	03/20/92	Vacated
N92-37-1-1	03/25/92	Failure to comply with the terms and conditions of the approved permit, specifically exceedance of NPDES Discharge Permit UT-002340 to TDS and sulfates. Sampling confirms chronic exceedance of TDS limits that have been self-reported to the Bureau of Water Pollution Control.	Written acceptance of the action items in Docket No. 192-03.	05/17/93	Fine paid
N92-37-4-1	05/22/92	Failure to maintain sediment control in Area 17 of the Railroad Loadout. Failure to prevent to the extent possible, additional contributions of sediment to stream flow or run off outside the permit area.	Required remedial action completed.	10/09/92	Finalized assessment - paid
N92-37-5-1	08/26/92	Failure to maintain diversion as described in the M&RP Volume 5, Section 10, page 4/4.	Necessary documentation submitted and required actions taken.	01/07/93	Received final assessment - paid
N92-37-6-1	08/26/92	Failure to implement sediment control measures as described in the construction plan and consequently conducting coal mining operations outside of the permit area (D & B).	Necessary documentation submitted and required actions taken.	01/07/93	Finalized assessment - paid
N92-37-7-1	08/26/92	Failure to provide maps and plans showing relevant surface configuration and slope; size and location of spoil and development waste areas.	Necessary documentation submitted and required actions taken.	01/07/93	Finalized assessment - paid
N93-39-2-1	03/03/93	Conducting mining activities outside the permit area. Coal was pushed over retaining wall.	Removed coal without damaging vegetation or topsoil	05/18/93	Paid proposed assessment

NOV	Date	Description	Actions Taken	Termination Date/Status	Administrative or Judicial Proceedings
N93-39-5-3	09/16/93	Violation 1 of 3. Failure to have appropriate sediment control measures that are designed and constructed.	Submitted design for sediment control measures and then installed after approval.	Terminated	Paid final assessment
N93-39-5-3	09/16/93	Violation 2 of 3. Failure to design emergency spillway.	Submitted plan for approval showing pond in total containment and therefore no spillway is needed.	Terminated	Paid final assessment
C95-39-1-1	09/07/95	Failed to protect, minimize disturbance and adverse impacts on fish and related environmental matters.	Submitted mitigation plan and implemented plan.	Terminated	Waiting for proposed assessment
N-95-39-3-1	10/15/95	Conducting mining activities without Division approval.	Submitted amendment to cover activity	Terminated	Paid assessment
Stipulation & consent order #195-02COUDWQ	10/23/95	Discharge of longwall mining fluid which caused a fish kill in Eccles and Mud Creeks	Install and implement measures to prevent any future release of longwall fluids.	Closed out	Payment of penalty to UDWQ and reimbursement to UDWQ for fish kill and cost of restocking
C-95-39-1-1	08/07/95	Failed to protect minimize disturbance and adverse impacts on fish and related environmental values.	Submitted and implemented required abatement plan.	Assessment conference requested	Pending

#### 1.1.4 Right-of-Entry Information

Canyon Fuel Company, LLC bases its right to enter and continue underground mining activities on a number of documents pertaining to coal leases and surface ownership in the permit area (Exhibits 1.12-1 and 1.12-2). The Applicant has a working agreement with lessee of all the coal to be mined in the five-year permit term. All surface facilities are constructed on Bureau of Land Management Rights-of-Way and Coal Lease Lands.

The coal leases, supporting documents, and a surface consent agreement to conduct underground mining are summarized below.

#### Federal Coal Leases

Lease No. SL 051279-063188

Date of Lease: January 4, 1935

Lessee: Sage Point Coal Company

Lands Covered:

T13S. R11E. SLB&M

Sec. 12: E/2E/2

Sec. 13: NE/4 NE/4

T13S. R12E. SLB&M

Sec. 7: All

Sec. 8: W/2

Sec. 17: NW/4

Sec. 18: N/2 NE/4, SE/4 NE/4, NE/4 NW/4, Lot 1  
(NW/4 NW/4)

Containing: 1548.31 ac

#### Supporting Documents:

1. Assignment of federal coal lease from Premium Coal Company to California Portland Cement Company on July 31, 1974, approved effective September 1, 1974, by BLM.
2. Assignment of Federal coal lease from California Portland Cement Company to Sunedco Coal Company on August 23, 1985, approved by BLM on September 5, 1985.
3. Working agreement established between Applicant and Sunedco Coal Company.

4. Working agreement established between Sunedco and Sage Point Coal Company.
5. Working agreement established between Sage Point Coal Company and the Applicant.

**Federal Permission to Mine**

Date of Lease: Permission was attached to Federal Lease No. SL 051279-063188  
by the U.S. Geological Survey Mining Supervisor on

December 11, 1974.

Lessee: Sage Point Coal Company

Lands Covered:

**T13S. R11E. SLB&M**

Sec. 13: SE/4 NE/4, NE/4 SE/4

**T13S. R12E. SLB&M**

Sec. 18: Lot 2 (SW/4 NW/4), SE/4 NW/4

Containing: 163.32 ac

Supporting Documents:

1. Assignment of Federal Coal Lease SL 051279-063188 from California Portland Cement Company to Sunedco Coal Company on August 23, 1985, approved by BLM on September 5, 1985.
2. Working agreement established between the Applicant and Sunedco Coal Company.
3. Working agreement established between Sunedco and Sage Point Coal Company.
4. Working agreement established between Sage Point Coal Company and the Applicant.

**Federal Coal Lease U-50722**

Date of Lease: September 1, 1982

Lessee: Sage Point Coal Company

Lands Covered:

T13S. R11E. SLB&M

Sec. 12: E/2 W/2, W/2 E/2

Sec. 13: NW/4 NE/4, NE/4 NW/4

Containing: 400 ac

Supporting Documents:

1. Assignment of Federal coal lease from California Portland Cement Company to Sunedco Coal Company on August 23, 1985, approved by BLM on September 5, 1985.
2. Working agreement established between Applicant and Sunedco Coal Company.
3. Working agreement established between Sunedco and Sage Point Coal Company.
4. Working agreement established between Sage Point Coal Company and the Applicant.

Federal Coal Lease Modified U-50722

Date of Lease: August 24, 1991

Lessee: Sage Point Coal Company

Lands Covered:

T13S. R11E. SLB&M

Sec. 1: Lot 8

Containing 40.00 acres

Supporting Documents:

1. Modified coal lease from the BLM to Sage Point Coal Company dated August 24, 1990.
2. Working agreement established between Sage Point Coal Company and the Applicant.

Federal Coal Lease UTU-69635

Date of Lease: October 1, 1995

Lessee: Sage Point Coal Company

Lands Covered:

T13S. R11E. SLB&M

Sec.: Lots 1-7, Lot 8 for all coal except the Rock Canyon seam

Sec. 10: E 1/2 E 1/2

Sec. 11: All

Sec. 12: W 1/2 W 1/2  
Sec. 13: W 1/2 NW 1/4, SE 1/4 NW 1/4, SW 1/4  
Sec. 14: N 1/2, N 1/2 S 1/2, SE 1/4, SE 1/4  
Sec. 15: NE 1/4 NE 1/4  
Sec. 23: N 1/2 NE 1/4 NE 1/4  
Sec. 24: N 1/2 N 1/2; NW 1/4

Containing 2,177.52 acres

**Supporting Documents:**

1. Coal Lease UTU-69635 Form 3400-12, Appendix 1B.
2. BLM Environmental Assessment, March 1995, Appendix 1A.

**Unleased Federal Coal Leases**

Lands Covered:

These lands are outside the approved five-year term of permit and will be acquired from United States of America (BLM) during the permit renewal five-year term permit. The lands are included to show the progression of mine development over the mine's life.

T12S. R12E. SLB&M

Sec. 33: SW 1/4, SE 1/4  
Containing: 320 acres

T12S. R12E. SLB&M

Sec. 34: SW 1/4  
Containing: 160 acres

**Supporting Documents:**

1. The Applicant will not enter the property until all legal rights (leases) have been obtained.
2. The Applicant will not enter the property until all DOGM permitting requirements are satisfied and approved.

## Federal Coal Leases Contiguous to Permit Area

(Proposed lease additions not within this Permit Term)

Federal Coal Lease U-07064-027821

Lessee: Sage Point Coal Company

Lands Covered:

### T13S. R12E. SLB&M

Sec. 13: S/2

Sec. 23: E/2 E/2, W/2 SE/4, NE/4 SW/4

Sec. 24: All

Sec. 25: N/2 N/2

Sec. 26: N/2 NE/4

### T13S. R13E. SLB&M

Sec. 18: S/2

Sec. 19: Lots 1,2,3,4, E/2 W/2, NE/4, NW/4 SE/4

Sec. 30: Lot 1

Containing: 2416.14 act

### Supporting Documents:

1. Assignment of lease U-07064-027821 from Kennecott Coal Co. to Eureka, January 2, 1979, approved effective June 1, 1979, by BLM.
2. Assignment of lease U-07064-027821 on March 4, 1982, from Eureka Energy Company unto Sunoco Energy Development Co. and approve effective June 1, 1982, by BLM.
3. Effective November 30, 1985, all coal reserves in the state of Utah formerly owned or leased by Sunedco Coal Co. are now owned or leased by Sage Point Coal Company.
4. A decision dated July 31, 1990, by the BLM recognized the corporate merger of Sunedco Coal Co. into Sage Point Coal Company.
5. The Applicant will not enter the property until all DOGM permitting requirements are satisfied and approved.

## State Coal Leases

### State Coal Lease ML-42648

Date of Lease: October 11, 1985  
Lessee: Sage Point Coal Company  
Land Covered:

#### T12S, R12E, SLB&M

Sec. 8: E/2  
Sec. 17: NE/4

Containing: 480 ac

### Supporting Documents

1. Federal Coal Lease U-089096 issued July 1, 1962, was converted to State ownership (ML-42648) in the In-Lieu Land Transfer on October 11, 1985, approved by Utah Division of State Lands on October 11, 1985.
2. Working agreement established between the Applicant and Sunedco Coal Company.
3. Working agreement established between the Sunedco and Sage Point Coal Company.
4. Working agreement established between Sage Point Coal Company and the Applicant.

### State Coal Lease ML-42649

Date of Lease: October 11, 1985  
Lessee: Sage Point Coal Company  
Lands Covered:

Lands described below are only a portion of the entire lands held by this lease:

#### T13S, R12E, SLB&M

Sec 3: W/2  
Sec. 4: S/2, Lots 1, 2, 3, 4  
Sec. 5: SE/4, Lots 1, 2  
Sec. 9: W/2, NE/4, N/2 SE/4

Containing: 1304.24 ac

### Supporting Documents:

1. Federal Coal Lease U-0144820 issued September 1, 1966, was converted to State ownership (ML-42649) in the In-Lieu Land Transfer on October 11, 1985, approved by Utah Division of State Lands on October 11, 1985.
2. Working agreement established between the Applicant and Sunedco Coal Company.
3. Working agreement established between Sunedco and Sage Point Coal Company.
4. Working agreement established between Sage Point Coal Company and the Applicant.

**State Coal Lease ML-44365**

Date of Lease: April 3, 1989  
Lessee: Sage Point Coal Company  
Lands Covered:

**T13S. R12E. SLB&M**

Sec. 5: SW 1/4, Lots 3, 4  
Sec. 6: All

Containing: 557.20 ac

Supporting Documents:

1. State Coal Lease ML-44365 was acquired by the Applicant on April 3, 1989.

**State Coal Leases Contiguous to Permit Area**

(Proposed lease additions not within this Permit Term)

**State Coal Lease ML-42648**

Date of Lease: October 11, 1985  
Lessee: Sage Point Coal Company  
Lands Covered:

**T13S. R12E. SLB&M**

Sec. 10: S/2  
Sec. 11: S/2  
Sec. 14: All  
Sec. 15: All  
Sec. 17: E/2 SW/4, SE/4  
Sec. 20: E/2 NW/4, SW/4 NW/4, N/2 NE/4

Sec. 21: N/2 NW/4, NE/4  
Sec. 22: N/2, N/2 S/2  
Sec. 23: W/2 NW/4

Containing: 3160 ac

Supporting Documents:

1. Federal Coal Lease U-089096 issued July 1, 1962, was converted to State ownership (ML-42648) in the In-Lieu Land Transfer on October 11, 1985, approved by Utah Division of State Lands on October 11, 1985.
2. The Applicant will not enter the property until all DOGM permitting requirements are satisfied and approved.

**State Coal Lease ML-42649**

Date of Lease: October 11, 1985  
Lessee: Sage Point Coal Company  
Lands Covered:

T13S. R12E. SLB&M  
Sec. 3: E/2  
Sec. 9: S/2 SE/4  
Sec. 10: N/2  
Sec. 11: N/2

Containing: 906.86 ac

Supporting Documents:

1. Federal Coal Lease U-0144820 issued September 1, 1966, was converted to State ownership (ML-42649) in the In-Lieu Land Transfer on October 1, 1985, approved by Utah Division of State Lands on October 11, 1985.
2. The Applicant will not enter the property until all DOGM permitting requirements are satisfied and approved.

**State Coal Lease ML-22590**

Date of Lease: January 25, 1965  
Lessee: Sage Point Coal Company  
Lands Covered:

T13S. R12E. SLB&M  
Sec. 2: All

Containing 375.52 Ac

Supporting Documents:

1. Assignment of lease ML-22590 from Heiner Coal Co. to PC and E August 2, 1976, approved August 9, 1976, by Utah Division of State Lands.
2. Assignment of lease ML-22590 from PG and E to Eureka December 8, 1978, approved January 8, 1979, by Utah Division of State Lands. 3. On March 4, 1982, Eureka Energy Company assigns to Sunoco Energy Development Co. all rights and privileges as lessee in such lands.
3. Effective November 30, 1985, all coal reserves in the state of Utah formerly owned by Sunedco are now owned or leased by Sage Point Coal Company
4. The Applicant will not enter the property until all DOGM permitting requirements are satisfied and approved.

State coal leases ML 21994 and ML 22675 have been relinquished to the state with no obligations as evidenced by letters from the State of Utah contained in Appendix 1-C.

**Unleased Private Coal Leases**

These lands are outside the approved five-year term of permit and will be acquired from individual owners during the permit renewal five-year term permit. The lands are included to show the progression of mine development over the mine's life.

T12S. R12E. SLB&M

Section 31: NE 1/4, NE 1/4

Containing: 40 ac

Section 32: NW 1/4, NE 1/4

Containing: 40 ac

Section 33: NE 1/4 NE 1/4

Containing: 40 ac

Section 34: NW 1/4  
Containing: 160 ac

Supporting Documents:

1. The Applicant will not enter the property until all legal rights (leases) have been obtained.
2. The Applicant will not enter the property until all DOGM permitting requirements are satisfied and approved.

**Fee Coal Contiguous to Permit Area**

(Proposed lease additions not within this Permit Term)

Parcel 1 - "Fish Creek Canyon" Fee Coal

Owner in Fee: Sage Point Coal Company  
Lands Covered:

T13S. R12E. SLB&M  
Sec. 16: All

Containing: 640.0 ac

Supporting Documents:

1. On March 4, 1982, Eureka Energy Company conveys and warrants to Sunoco Energy Development Co. Fee Coal interest 801671 and 801672.
2. Effective November 30, 1985, all coal reserves in the state of Utah formerly owned or leased by Sunedco are not owned or leased by Sage Point Coal Company.
3. The Applicant will not enter the property until all DOGM permitting requirements are satisfied and approved.

Parcel 2 - "Dugout Canyon" Fee Coal

Owner in Fee: Sage Point Coal Company  
Lands Covered:

T13S. R12E. SLB&M

Sec. 23: W/2 NE/4, E/2 NW/4

Containing: 160.0 ac

Supporting Documents:

1. On March 4, 1982, Eureka Energy Company conveys and warrants to Sunoco Energy Development Co. Fee Coal interest 801681.
2. Effective November 30, 1985, all coal reserves in the state of Utah formerly owned or leased by Sunedco are now owned or leased by Sage Point Coal Company.
3. The Applicant will not enter the property until all DOGM permitting requirements are satisfied and approved.

Alkali Tract - Fee Coal

Owner in Fee: Sage Point Coal Company

Lands Covered:

T13S. R11E. SLB&M

Sec. 2: All

Sec. 3: Lots 5, 6 and 7

Sec. 10: NW/4, W/2 NE/4, NW/4 SW/4, NW/4 SE/4

Containing: 757.49 ac

Supporting Documents:

1. On March 4, 1982, Eureka Energy Company conveys and warrants to Sunoco Energy Development Co. Fee Coal interest 801681.
2. Effective November 30, 1985, all coal reserves in the state of Utah formerly owned or leased by Sunedco are now owned or leased by Sage Point Coal Company.
3. The Applicant will not enter the property until all DOGM permitting requirements are satisfied and approved.

Surface Ownership

Surface ownership for the life of mine area is illustrated on Exhibit 1.12-1.

Federal Right-of-Ways U-50167

(Sewage Lagoons, Pipeline, Access Road)

Dated: July 2, 1982

Lessee: Sage Point Coal Company

Lands Covered:

T13S. R12E. SLB&M

Sec. 18: Lot 4, NE/4 SW/4,  
SW/4 NE/4, SE/4 SW/4, NW/4 SE/4

Sec. 19: Lots 1, 2, 3, 4

T13S. R11E. SLB&M

Sec. 24: SE/4 SE/4 SE/4

Containing: 4.81 ac

Supporting Documents:

1. Assignment of Right-of-Ways from California Portland Cement Company to Sunedco Coal Company on September 5, 1985, approved by the BLM on September 19, 1985.
2. Working agreement established between Applicant and Sunedco Coal Company.
3. Working agreement established between Sunedco Coal Company and Sage Point Coal Company.
4. Working agreement established between Sage Point Coal Company and the Applicant.

Federal Right-of-Ways U-52071

(Sediment Pond, Access Road, Storage Area)

Dated: June 7, 1983

Lessee: Sage Point Coal Company

Lands Covered:

T13S. R12E. SLB&M

Sec. 18: NE/4 SW/4 NE/4, NW/4 SW/4 NE/4

Containing: 3.75 ac

Supporting Documents:

1. Assignment of Right-of-Ways from California Portland Cement to Sunedco Coal Company on September 5, 1985, approved by the BLM on September 19, 1985.
2. Working agreement established between Applicant and Sunedco Coal Company.
3. Working agreement established between Sunedco Coal Company and Sage Point Coal Company.
4. Working agreement established between Sage Point Coal Company and the Applicant.

Land Use Permit UTU-66132

(Topsoil Storage Site and Access Road)

Date of Agreement: August 14, 1990

Lessee: Soldier Creek Coal Company Lands Covered:

T13S. R11E. SLB&M

Sec. 25: S/2 SW/4 NE/4, N/2 NW/4 SE/4

Containing: 4.5 acres

Supporting Documents:

1. Land Use Permit issued for the BLM to Soldier Creek Coal Company on August 14, 1990, authorizing use of the described land.
2. Approved amendment to Land Use Permit UTU-66132 for construction; operation and maintenance of an access road to the permit area.

Amendment of Right-of-Way UTU-62044

(Road Relocation)

Date of Agreement: April 26, 1991  
Consentor: Bureau of Land Management  
Consentee: Carbon County Lands Covered:

T13S. R12E. SLB&M

Sec. 7: SE/4 SE/4

Sec. 18: NE/4 NE/4

Supporting Documents:

1. Approved Right-of-Way amendment to relocate the county road for 1235 feet between the BLM and Carbon County on April 26, 1991.
2. Working agreement between Carbon County and the Applicant.

Federal Realty Action UTU-65023

Exchange of Public Lands in Carbon County, Utah

(Lands for Waste Rock Disposal Site, Access Road, Topsoil Storage Site and Future Uses)

Dated: June 17, 1991

Lands Covered:

T13S. R11E. SLB&M

Sec.25: S/2 SW/4 NE/4, E/2 NE/4 SW/4, SE/4 SW/4, W/2 SE/4

Containing: 160.00 ac

Supporting Documents:

1. Notice of Realty Action UTU-65023 from the BLM, dated June 17, 1991, to the Applicant.

**Surface Consent Agreements**

The Applicant has received consent agreements to conduct coal operation as described below:

Easement

(Power line)

Date of Agreement:  
Consentor: Mountain Fuels Supply Company  
Consentee: Sage Point Coal Company  
Term:  
Lands Covered:

T13S. R12E. SLB&M  
Sec. 7:

Supporting Documents:

1. Easement license to construct and maintain a power line between Mountain Fuels Company to California Portland Cement Company on July 26, 1982.
2. Assignment of the easement license from California Portland Cement Company to Sunedco Coal Company on September 5, 1985.
3. Working agreement between the Applicant and Sunedco Coal Company.
4. Working agreement between Sunedco Coal Company and Sage Point Coal Company.
5. Working agreement between Sage Point Coal Company and the Applicant.

Conditional Licensee Agreement

(Surface Facilities)

Date of Agreement: December 11, 1989  
Consentor: Questar Pipeline Company  
Consentee: Soldier Creek Coal Company  
Lands Covered:

T13S. R12E. SLB&M  
Sec. 18: NE/4 NE 4

Supporting Document:

Conditional license agreement to construct facilities necessary for the development of the Soldier Canyon Mine between Questar Pipeline Company and the Applicant on December 11, 1989.

Realignment of Portion of Soldier Creek Road

Date of Agreement: July 11, 1990

Lands Covered:

T13S. R12E. SLB&M

Sec. 7: SE/4 SE/4

Sec. 18: NE/4 NE/4

Supporting Document:

Letter from Nick Sampinos (Attorney for Carbon County) to Mark Mackiewicz (BLM) stating the County's supportive position in the realignment project.

Stream Channel Alteration Permit 90-91-23SA

Stream Culvert Extension

Date of Agreement: September 26, 1990

Consentor: State of Utah, Department of Natural Resources Division of Water Rights

Consentee: Carbon County

Lands Covered:

T13S. R12E. SLB&M

Sec. 18: NE/4 NE/4

Supporting Documents:

1. Stream Channel Alteration Permit 90-91-23SA to install 885 feet of stream culvert between the Division of Water Rights and Carbon County.
2. Working agreement between Carbon County and the Applicant.

County Road Relocation Project

Date of Agreement: March 25, 1991

Consentor: Carbon County Consentee: Soldier Creek Coal Company

Lands Covered:

T13S. R12E. SLB&M

Sec. 7: SE/4 SE/4 Sec. 18: NE/4 NE/4

Supporting Documents:

Letter from William D. Krompel (Carbon County Commissioner) to Soldier Creek Coal Company (SC3), giving SC3 its approval to proceed with the road relocation.

County Road Right-of-Way Encroachment Authorization

(Topsoil Storage Access Road)

Date of Agreement: April 4, 1991  
Consentor: Carbon County  
Consentee: Soldier Creek Coal Company  
Lands Covered:

Area of access road that will encroach upon Carbon County's right-of-way.

Supporting Documents:

Letter from Evan Hansen (County Engineer) granting Soldier Creek Coal Company permission to encroach upon Carbon County's road right-ofway.

**Other Licenses and Permits**

Permits and licenses held by the Applicant are listed along with the governmental agency issuing the approvals on Table 1.14-1.

TABLE 1.14-1

PERMITS AND APPROVALS  
SOLDIER CREEK COAL COMPANY

<u>PERMIT/ APPROVAL</u>	<u>AGENCY</u>	<u>DATE</u>
Mine I.D. 42-00077	MINE SAFETY AND HEALTH ADMINISTRATION Federal Center P.O. Box 25367 Denver, CO 80225	02/27/73
Permit to Mine UT-0023	U.S. OFFICE OF SURFACE MINING Brooks Tower 1020 15th Street Denver, CO 80202	05/31/85

NPDES UT-0023680	U.S. EPA AGENCY 1860 Lincoln Street Suite 103 Denver, CO 80295	06/01/91
Rights-of Way Sewage Lagoons U-50167	U.S. BUREAU OF LAND MANAGEMENT	07/08/82
Rights-of Way Sediment Pond U-52071	U.S. BUREAU OF LAND MANAGEMENT	06/07/83
Permit to Mine ACT/007/018	UTAH DIVISION OF OIL, GAS AND MINING 1594 West North Temple Suite 1210 Box 145801 Salt Lake City, UT 84114-5801	05/29/85
Air Quality Approval Order	UTAH DIVISION OF AIR QUALITY P.O. Box 2500 Salt Lake City, UT 84110	09/03/91
Safe Drinking Water Approval	UTAH DIVISION OF DRINKING WATER	01/17/79
Waste Water System Sewage Lagoons Approval Order	UTAH DIVISION OF WATER QUALITY	05/07/82
Wastewater System Septic Tank Approval Order	UTAH DIVISION OF WATER QUALITY	06/02/82
Land Use Permit UTU-66132	U.S. BUREAU OF LAND MANAGEMENT	08/14/90
Conditional License Agreement	QUESTAR PIPELINE COMPANY 79 South State Street P.O. Box 11450 Salt Lake City, Utah 84147	12/11/89
Land Use Permit UTU-66132	U.S. BUREAU OF LAND MANAGEMENT	08/14/90

Conditional License Agreement	QUESTAR PIPELINE COMPANY 79 South State Street P.O. Box 11450 Salt Lake City, UT 84147	12/11/89
Stream Channel Alteration Permit 90-91-23SA	STATE OF UTAH, DEPARTMENT OF NATURAL RESOURCES DIVISION OF WATER RIGHTS 1636 West North Temple Suite 220 Salt Lake City, UT 84116-3156	09/26/90
Amendment of Right-of-Way UTU-62044	U.S. BUREAU OF LAND MANAGEMENT	04/26/91
Federal Realty Action Land Exchange UTU-65023	U.S. BUREAU OF LAND MANAGEMENT	Pending

### 1.1.5 Status of Unsuitability Claims

After reviewing the description of the proposed permit area, the Regulatory Authority should determine that this area is:

- a. Not included within an area designated unsuitable for surface coal mining operations. {R645-301-115.100}
- b. Not within an area under study for designating lands unsuitable for surface coal mining operations. {R645-301-115.100}
- c. Not on any lands subject to the prohibitions or limitations for R645-103-322.
- d. Within 100 ft. of the outside right-of-way of a public road {R645-103-234}. The Applicant has received formal permission from the Carbon County Commissioners to mine within 100 ft. of the right-of-way of a public road.
- e. Not within 300 ft. of any occupied dwelling. {R645-103-235}

- f. Not unsuitable in accordance with 522 of SMCRA.

There are no public roads and no occupied dwellings within the area proposed to be added to the permit by the Alkali Tract Significant Revision.

#### **1.1.6 Permit Term**

Soldier Canyon Mine's origin dates back to 1906 when limited prospecting was done on the property. A Federal coal lease was granted in 1935 and mining commenced on the property.

Mine rehabilitation was initiated in 1975 and consisted of a general clean-up to meet federal safety standards, driving two rock tunnels and installing a conveyor belt system. The underground work was completed in June, 1976. Surface rehabilitation work began in August, 1975 and continued until completion in May, 1978. The outside rehabilitation work included the construction of a substation, power centers, office, warehouse, shop, and bathhouse. Construction of a sedimentation pond was completed in November, 1979 and sewage lagoons were completed in October, 1982.

A permanent program mining permit (ACT/007/018) was issued by the State and OSM (UT 0023) on May 19, 1985. Subsequently, the mine was acquired by Sunedco Coal Company on September 5, 1985, and Sunedco reincorporated the Applicant in Delaware and transferred the mine assets back to the Applicant. Federal and State leases were held by two affiliate companies, Sunedco Coal Company and Sunoco Energy Development Company. A working agreement was established between them and the Applicant to continue operating the mine.

Thereafter, a corporate reorganization on December 31, 1987, by Sun Coal Company, Inc., initiated a corporate merger of Sunedco Coal Company and Sunoco Energy Development Company into Sage Point Coal Company. As a result of the corporate merger, Sage Point Coal Company became the sole shareholder of Soldier Creek Coal Company. A working agreement was thereafter established between Sage Point Coal Company and Soldier Creek Coal Company. Canyon Fuel Coal Company, LLC intends to add additional coal reserves to its present base and seeks a new mine permit to include these reserves. Canyon Fuel Company foresees the need

to expand its surface facilities and are described within this permit application.

Exhibits 5.21-1, 5.26-1, and Plate 5-1 of the unmodified Mining and Reclamation Plan show the location of each surface mining activity within the 6958.19 ac life of mine area and 4,909.69 ac five-year term of permit area.

The horizontal and vertical extent of the proposed underground mine workings for each phase of mining is shown on Exhibits 5.21-4, 5.21-5 and 5.21-6 of unmodified Mining and Reclamation Plan. Mining will be restricted to the reduced five-year term until the necessary leases and permits are obtained to extend mining activities.

Canyon Fuel Company, LLC proposes to operate Soldier Canyon Mine for 30 years and requests that a permit be issued for the first five years. This application presents information on the construction of surface facilities, mine operation, and reclamation over the anticipated 30 year life of the mine.

Canyon Fuel Company, LLC is conducting mining activities within 100 ft. of a public road. Soldier Creek Road is the public road and the affected portion is a stretch within the permit area, T13S. R12E, Sec. 18 and 7, Carbon County, Utah. The legal description of the permit boundary is provided in Sec. 1.17.200. Areas of disturbance are illustrated on Exhibits 5.21-2, 5.21-3, 5.26-1 and Plate 5-1.

#### **1.1.7 Insurance and Proof of Publication**

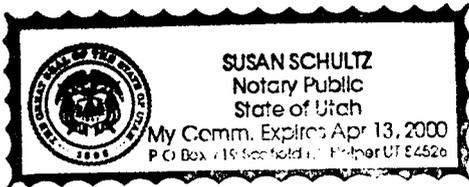
Certificates of Insurance issued to Canyon Fuel Company, LLC will be added prior to closing and to approval of the permit transfer. The newspaper advertisement appears in Appendix 1-1. Verification of the advertisement appearing in the appropriate newspapers will be added to Appendix 1-1 and submitted to the Division no later than 4 weeks after publication.

The undersigned party hereby attests that the information contained in this Application for Permit Transfer is true and correct to the best of the undersigned's information and belief.

On behalf of CANYON FUEL COMPANY, LLC

Richard O'Neil  
Its: CEO, Canyon Fuel Company, LLC

Subscribed and sworn before me this 19 day of November, 1996.



(SEAL)

Susan Schultz  
Notary Public

Residing at Alpine UT

My Commission Expires:

4/13/2000

**APPENDICE 1-1**

PUBLIC NOTICE  
Application for Permit Transfer  
Canyon Fuel Company, LLC  
Soldier Canyon Mine

Notice is hereby given that Canyon Fuel Company, LLC, 555 Seventeenth Street, Denver Colorado 80202, on or about November 19, 1996, submitted an Application for Permit Transfer for Permit No. ACT/007/018, covering operations for the Soldier Canyon Mine, to the State of Utah, Department of Natural Resources, Division of Oil, Gas, and Mining. The current permittee, Soldier Creek Coal Company, P.O. Box 1, Price, Utah 84501 will be merged into Canyon Fuel Company, LLC on or about December 20, 1996. In conjunction with the anticipated merger and change in the name of the owner of the mining operations, the Canyon Fuel Company, LLC filed the Application for Permit Transfer for the Soldier Canyon Mine permit in advance of closing to obtain approval for the transfer from the Division of Oil, Gas, and Mining.

Approval by the Division of Oil, Gas, and Mining will allow coal mining operations to continue in the permit area. The lands involving mining activities are located in Carbon County. The mine portals are located 12 miles northeast of Wellington, Utah in Soldier Canyon. The approximately 4,909.69 acre leasehold associate with the five-year plan involves all or part of the following coal lands:

LEGAL DESCRIPTION

The coal leases to be mined include State Leases ML-42648 and ML-42649 described as follows:

Lease ML-42648

Township 13 S., Range 12 E., Salt Lake Base and Meridian

Section 8: E $\frac{1}{2}$   
Section 10: S $\frac{1}{2}$   
Section 11: S $\frac{1}{2}$   
Section 14: All  
Section 15: All  
Section 17: NE $\frac{1}{4}$ ; E $\frac{1}{2}$  SW $\frac{1}{4}$ ; SE $\frac{1}{4}$   
Section 20: E $\frac{1}{2}$  NW $\frac{1}{4}$ ; SW $\frac{1}{4}$  NW $\frac{1}{4}$ ; N $\frac{1}{2}$  NE $\frac{1}{4}$   
Section 21: N $\frac{1}{2}$ ; NW $\frac{1}{4}$ ; NE $\frac{1}{4}$   
Section 22: N $\frac{1}{2}$ ; N $\frac{1}{2}$  S $\frac{1}{2}$   
Section 23: W $\frac{1}{2}$  NW $\frac{1}{4}$   
Containing 3640 acres

Lease ML-42649

Township 13 S., Range 12 E., Salt Lake Base and Meridian

Section 3: Lots 1,2,3,4; S½  
Section 4: Lots 1,2,3,4; S½  
Section 5: Lots 1,2; SE¼  
Section 9: All  
Section 10: N½  
Section 11: N½  
Containing 2212 acres

All of Lease ML-42648 and the S½ SE¼ of Section 9 of Lease ML-42649 will be permitted.

Copies of the complete application for transfer are available for public inspection at the Carbon County Clerk's Office, Carbon County Court House, 120 Main Street, Price, Utah 84501 and at the Utah Division of Oil, Gas, and Mining offices at 1594 West North Temple, Suite 1210, Salt Lake City, Utah 82114-5801.

Written comments, objections, and requests for informal conferences regarding the Application for Permit Transfer must be submitted, within 30 days of the date of the publication of this notice, to the Utah Division of Oil, Gas, and Mining, 1594 West North Temple, Suite 1210, Box 155801, Salt Lake City, Utah 84114-5801.

Published in the Sun Advocate on November 19, 1996.