



# DESERADO MINE

## BLUE MOUNTAIN ENERGY

3607 County Road #65  
Rangely, CO 81648  
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5/28/2025

Date Received

BLM  
Colorado State Office

Mr. Doug Vilsack  
Colorado State Director  
United States Bureau of Land Management  
P.O. Box 151029  
Lakewood, Colorado 80215

5/27/2025

Re: Lease Modification Application 74813

Dear Mr. Vilsack:

Blue Mountain Energy Inc. owns and operates the Deserado Coal Mine in Rio Blanco County, Colorado. This underground coal mine operates in a Logical Mining Unit (LMU) consisting of eight federal coal leases. Production at the Deserado Mine began in July 1983.

Blue Mountain Energy, Inc. is applying to add additional federal coal adjacent to the LMU. Specifically, 926 acres adjacent to lease CO-74813. Adding the proposed lease area into lease CO-74813 by modification will allow for maximum economic recovery of the reserves currently in the lease.

Therefore, Blue Mountain Energy is hereby applying to lease the proposed area of interest. Please find the Lease by Modification Application attached for your review.

If you have any questions concerning this submittal, please contact Joel Riggins at 970-675-4324 or at [jriggins@deserado.com](mailto:jriggins@deserado.com).

Sincerely,

*Joel Riggins*

Joel Riggins  
Engineering Manager

**APPLICATION FOR  
FEDERAL COAL LEASE MODIFICATION  
of  
COC-74813**

**RIO BLANCO COUNTY, COLORADO**

**SUBMITTED TO:**

**U.S. BUREAU OF LAND MANAGEMENT  
DENVER, COLORADO**



**DESERADO MINE**  
**BLUE MOUNTAIN ENERGY**

**3607 County Road 65  
Rangely, Colorado 81648**

**SUBMITTED BY:**

**BLUE MOUNTAIN ENERGY, INC.  
DESERADO MINE  
3607 County Road 65  
Rangely, Colorado 81648**

**May 2025**

## **1.0 Introduction:**

Blue Mountain Energy, Inc., a wholly owned subsidiary of Deseret Generation & Transmission Cooperative is submitting a coal lease modification application in accordance with the requirements of the Code of Federal Regulations, Title 43, Chapter II, Subchapter C, Subpart 3432. Blue Mountain Energy hereby requests that certain federally owned and currently unleased coal lands be granted under this lease modification application. The area under application is adjacent to COC-74813 and covers lands in Rio Blanco, Colorado.

Blue Mountain Energy's Inc. Deserado Mine has been active in the area for over 40 years. The mine commenced operation in the D-Seam in the late 1980s and a high-capacity longwall was installed in December, 1986. When the D-Seam reserves were nearly exhausted, rock slopes were initiated to access the underlying B-Seam in July, 1997. Longwall mining within the B-Seam commenced in January, 2000 and has continued to the present day. Blue Mountain Energy is highly committed to the development of coal resources and has invested extensive capital towards that venture. The Deserado Mine currently employs approximately 165 people from local communities and has received several environmental awards. All the coal produced is shipped to Deseret's Bonanza Power Plant in Bonanza, Utah. The Deserado Mine produces approximately 2.3 to 3.0 million raw tons per year and delivers about 2.0 million clean tons annually to the Bonanza Power Plant.

In addition to royalty payments in the near term, the Federal government would benefit from the lease modification by avoiding a potential bypassing of coal situation and promoting high resource recovery offered by a longwall system. Deserado Mine has future mine projections to develop and longwall mine is the area currently leased between the mined-out B-Seam Mine and the mined out and sealed D-Seam mine. This lease modification would add additional reserves and area to allow for longwall mining the reserves already leased. If the lease modification is not granted, the northeast portion of CO-74813 may be bypassed or mined by room and pillar methods with a lower recovery. The B-Seam and D-Seam coals will both be considered in the modification area, but based on current drillhole data, the D-Seam will be the minable seam in the modification area.

## **2.0 Applicant/Lessee Information:**

The applicant and the operator/lessee of the Deserado Mine are the same. The applicant is Blue Mountain Energy, Inc.. The address of the applicant and the person responsible is listed below:

Joel Riggins  
Engineering Manager  
Blue Mountain Energy, Inc.  
3607 County Rd #65  
Rangely, CO 81648  
Telephone: 970-675-4324  
E-mail: jriggins@deserado.com

The name and address of the record title holder and the operator/lessee of the leases which comprise the Deserado Logical Mining Unit is:

Blue Mountain Energy, Inc.  
10714 South Jordan Gateway  
Suite 300  
South Jordan, UT 84095

## **2.1 Signed Statement Regarding Parties of Interest and Other Lease Holdings:**

The Applicant, Blue Mountain Energy, Inc., is authorized to hold leases and licenses to mine and currently holds several federal coal leases

The undersigned certifies that Blue Mountain Energy, Inc. is the sole party of interest in this application, and that the applicant does not hold, own or control leases on more than 75,000 acres in one State, or not more than 150,000 acres in the United States of America at the time of application.

*Joel Riggins*

Joel Riggins, P.E.  
Engineering Manager, BME

### **3.0 Description of Lands:**

In accordance with subpart 3471, the following table lists the legal description of the lands outlined in this Application. This land description has been obtained from coal plat records maintained by the Bureau of Land Management and PLSS Survey Data. The modification area described herein consists of a total of 925.93 acres.

### **3.1 COC-74813 Modification Area – 925.93 Acres:**

#### T3N, R101 W, 6<sup>th</sup> P.M.

Sec. 23:	NE1/4SE1/4;
Sec. 24:	SW1/4, and S1/2SE1/4;
Sec. 25:	N1/2.

#### T3N, R100 W, 6<sup>th</sup> P.M.

Sec. 19:	SW1/4SW1/4;
Sec. 30:	N1/2.

### **3.2 Prairie Dog Tract:**

The area applied for under this lease application is included in the proposed Prairie Dog Lease Tract. The Prairie Dog Tract as described in the tract profile report prepared by the Bureau of Land Management and dated August 1982 located in Rio Blanco County, Colorado.

### **3.3 Logical Mining Unit:**

The eight Federal coal leases owned by Blue Mountain that comprise the Deserado Mine logical Mining Unit are all within Rio Blanco County, Colorado. The eight Federal coal leases and their corresponding legal descriptions are:

**C-02370301** – contains some 2,597.22 acres and is legally described herein as:

T. 2 N., R. 101W. 6th P.M.

sec. 1: lots 3, 4, S1/2NW1/4, SW1/4;

sec. 2: lots 1, 2, 3, 4, S1/2N1/2, SE1/4;  
sec. 3: lots 1, 2, 3, 4, S1/2N1/2, SW1/4;  
sec. 4: lots 1, 2, 3, 4, S1/2N1/2, S1/2 (ALL).

T. 3 N., R. 101W., 6th P.M.

sec. 32: S1/2SE1/4;  
sec. 33: S1/2S1/2;  
sec. 34: S1/2S1/2;  
sec. 35: S1/2S1/2, S1/2N1/2SE1/4;  
sec. 36: S1/2SW1/4.

**C-012666901** – contains some 259.06 acres and is legally described as follows:

T. 2 N., R. 101W. 6th P.M.,

sec. 11: lots 1, 2, 4, 5, & 6;  
sec. 12: lots 2, 3, 4, & 5.

**C-842401** – contains some 3,512.32 acres and is legally described as:

T. 3 N., R. 101W., 6th P.M.,

sec. 19: E1/2SE1/4, SW1/4SE1/4;  
sec. 20: S1/2, S1/2NW1/4, S1/2N1/2NW1/4;  
sec. 28: N1/2SE1/4, NE1/4, NW1/4;  
sec. 29: All;  
sec. 30: lots 1, 2, 3, 4, E1/2,E1/2W1/2;W1/2, E1/2;  
sec. 31: lots 1, 2, 3, 4, E1/2W1/2, E1/2;  
sec. 32: N1/2, N1/2S1/2, S1/2WS1/4;  
sec. 33: NW1/4SW1/4, SW1/4NW1/4.

**C-842501** – contains some 1120 acres and is legally described as:

T. 3 N., R. 101W. 6th P.M.,

sec. 21: SW1/4, S1/2SE1/4,  
sec. 22: SW1/4SW1/4,  
sec. 27: W1/2NW1/4, NW1/4SW1/4,  
sec. 28: SW1/4, S1/2SE1/4;  
sec. 33: N1/2N1/2, S1/2NE1/4, N1/2SE1/4, SE1/4NW1/4, NE1/4SW1/4;  
sec. 34: N1/2SW1/4.

**D-047201** – contains some 513 acres and is legally described as:

T. 2 N., R. 101W., 6th P.M.,

sec. 2: SW1/4;

sec. 3: SE1/4;

sec. 10: NE1/4NE1/4;

sec. 11: Lot 3, NE1/4NW1/4, W1/2NW1/4.

**C-44693** – contains 344.31 acres and is legally described as:

T. 2 N., R. 101 W. 6th P.M.

sec. 1: Lots 1, 2, 5, and 6

SW1/4NE1/4, W1/2SE1/4NE1/4 and N1/2SE1/4;

**CO-51551** – contains 1,320 acres is legally described as:

T. 3 N., R. 101 W., 6th P.M.

sec. 25: SE1/2

sec. 26: SE1/4SE1/4

sec. 34: S1/2NE1/4, N1/2SE1/4

sec. 35: NE1/4NE1/4, S1/2N1/2, N1/2SW1/4, N1/2N1/2SE1/4

sec. 36: N1/2, N1/2S1/2.

**CO-74813** – contains 3,157 acres and is legally described as:

RED WASH FEDERAL LEASE TRACT 1

T. 3 N., R. 101W., 6th P.M., Rio Blanco County, Colorado

Sec. 20, NE, N1/2NWNW, N1/2NENW;

Sec. 21, W1/2NE, SENE, NW, N1/2SE;

Sec. 22, SE1/2NW, N1/2SW, SESW, SE;

Sec. 23, S1/2SE, S1/2SW;

Sec. 26, N1/2, SW, N1/2SE, SWSE;

Sec. 27, E1/2, E1/2W1/4, SWSW;

Sec. 34, N1/2NE, NW;

Sec. 35, NWNE, N1/2NW;

Sec. 17, SWSW, S1/2 SE SW;  
Sec. 18, lots 3-4, SESW, S1/2NESW,  
S1/2SE, N1/2 S1/2SE  
Sec. 19, Lot 1, NE, NENW, N1/2SENW, N1/2NWSE

The Bureau of Land Management Office with jurisdiction over the Deserado Mine Logical Mining Unit (LMU) is the Colorado State Office.

#### **4.0 Current Operation:**

The Deserado Mine is an underground mine utilizing both a longwall and continuous miners for coal extraction. The continuous miners are used primarily for development of the mains and longwall gate roads. The continuous miners have been used for room and pillar mining in the past while development for a longwall panel was in progress. Success was limited due to unfavorable geologic conditions. This type of mining may be used in the future when conditions dictate that such would provide a successful and safe mining operation.

The mine operates within the Deserado Mine Logical Mining Unit (LMU) which is contiguous to the lease application area. The mine is the primary fuel supplier for the Bonanza Power Plant project. Other parts of the Bonanza Power Plant project are the Bonanza Station, a 458 net megawatt coal fired power plant, the Deseret Railroad, a captive thirty-five-mile railway which moves coal from the mine to the power plant, and a high voltage transmission system. The Deserado Mine is the primary fuel supplier to the Bonanza Station and its rate of coal production is dictated by the fuel requirements of the station.

During the next five years the Deserado Mine is scheduled to deliver approximately 1.7 to 2.0 million tons per year.

#### **Relationship to Existing Mine:**

The lease application area is adjacent to the northern and eastern edge of Federal Coal Lease CO-74813 as shown on Plate 1.

## 4.2 Geology:

The lease modification application area lies in the northwestern Piceance Basin within the Lower White River Coal Field, occurring on the Rangely NE and Cactus Reservoir USGS 7½ minute quadrangle maps (Figure 4.2.1). The area lies on the southern limb of the Red Wash Syncline, an asymmetrical flexure on the northeast flank of the Rangely Anticline. The axis of the Red Wash Syncline plunges to the southeast into the large synclinal structure of the Piceance Basin.

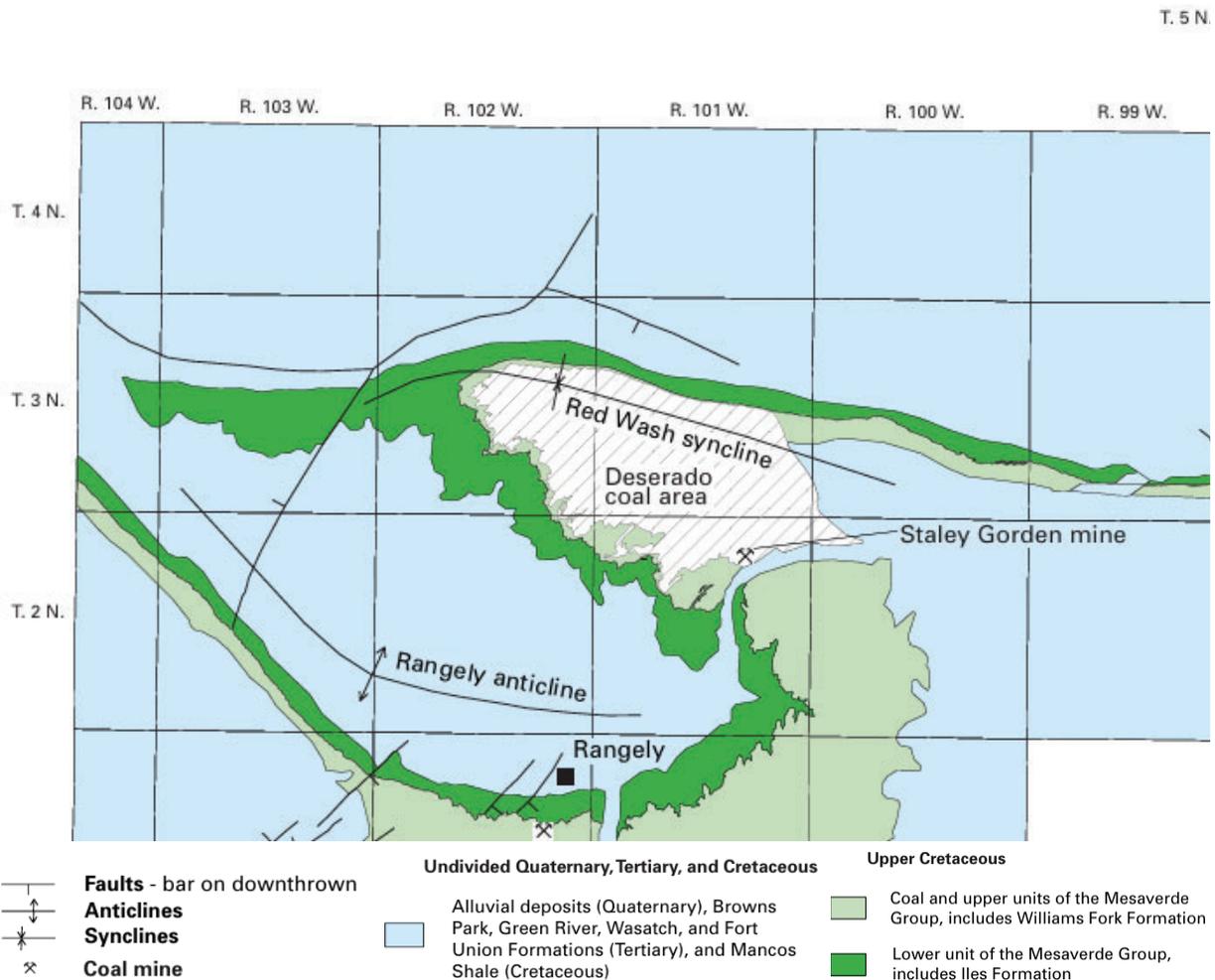


Figure 4.2.1 Location map showing the Deserado coal area, Lower White River coal field, Moffat, and Rio Blanco Counties, Colorado. Modified after Barnum and Garrigues (1980), Garrigues and Barnum (1980), and Tweto (1979). Source: U.S. Geological Survey Professional Paper 1625-B Chapter N, Assessment of the Distribution and Resources of Coal in the Deserado Coal Area, Lower White River Coal Field, Northwest Colorado, By M.E. Brownfield, L.N.R. Roberts, E.A. Johnson, and T.J. Mercier.

The Deserado Mine is within the Lower White coal field located on the far northern margin of the Piceance Basin. Mineable coal beds in the Deserado coal area are contained in the coal unit of the Upper Cretaceous Mesaverde Group. The B and D seam coal beds in this unit are the most laterally continuous, both are low sulfur (0.55 percent), and both have an apparent rank of high-volatile C bituminous. Crucial factors affecting coal recoverability are: (1) a significant amount of the coal reserves are found at depths greater than 1,000 ft, (2) many of the coal beds are in close proximity stratigraphically, which may restrict underground mining of some beds, and (3) longwall mining method will need to bypass coal at the longwall face when dealing with reduced coal thickness from partings and splits.

Over the past 40 years underground production from the D-Seam came from 12 longwall panels prior to abandonment and the current active B-Seam production has come from 19 longwall panels. More than 8 longwall panels are projected within the current B-Seam mine layout. Planning for additional development of both B-Seam and D-Seam are currently being evaluated. Several drill holes within the historic Deserado lease area are planned to start in 2025. All the past drilling and extensive underground mining has provided observation of mining conditions, improved ground control methods for safety with productivity, and improved the local geological information needed to continue mining within the Deserado reserve area.

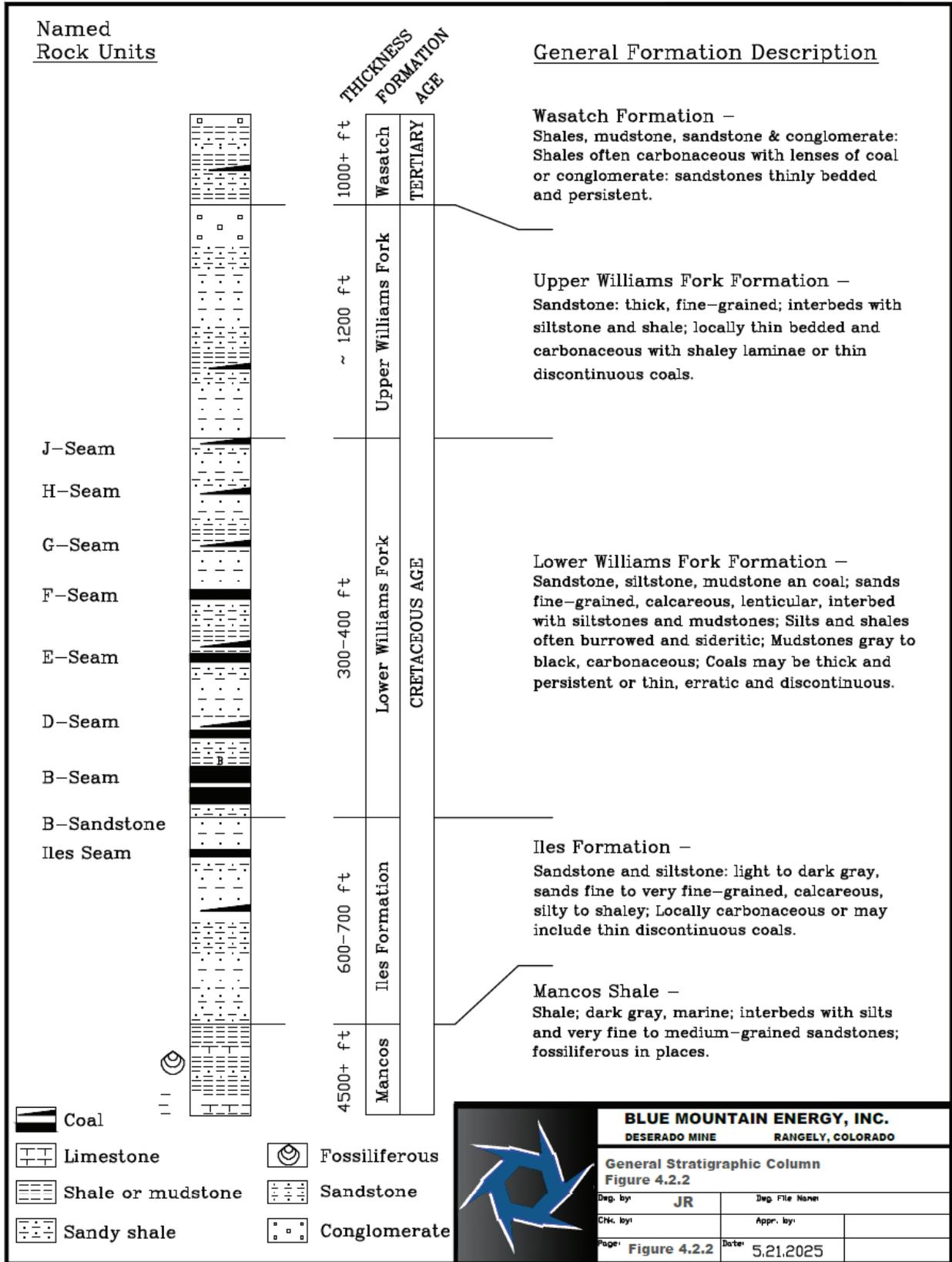
The elevation of the proposed modification area ranges from 5,420 feet in the southern and western portions of the tract to 5,593 feet in the northeast. The terrain slopes gently with the dipping strata, but is often bisected by linear gullies that are oriented down dip. The strata in the lease area dip approximately 6° towards N45°E, but flattens and rotates to dip nearly due east as the axis of the Red Wash Syncline is closely approached (Figure 4.2.1). As the strata dips towards the northeast, the depth of cover increases from ~1,400 feet to more than 2,000 feet within the modification area. North of the syncline axis, the dip reverses steeply to the southwest and the beds rise to form the east/west trending Coal Ridge.

The stratigraphy of the area is comprised of members of the Upper Cretaceous Mesa Verde and Tertiary Wasatch Formations (Figure 4.2.2). The Mesaverde Group is divided into three stratigraphic units, named the Iles, the Lower Williams Fork and Upper Williams Fork Formations in ascending order. The rocks exposed at the surface within the lease modification area are predominately those within the Upper Williams Fork

Formation, although the basal portions of the overlying Tertiary Wasatch Formation occur in the northeast corner of the lease tract above the area of deepest cover.

The Lower Williams Fork Formation contains all the coals of economic importance. As many as 9 separated coal zones have been identified within this formation in the Deserado Mine area. The Lower Williams Fork averages around 350 feet in thickness, but the thicker and economically important coals occur near the bottom of the formation. The rocks, which were deposited in a coastal plain environment, are comprised mostly of carbonaceous mudstone and siltstone, with lesser occurrences of sandstone and coal. Two beds of volcanic ash-fall tuff were widely deposited within the lower thick coal unit. Although the ash has been altered to clay, the high gamma signatures of these beds in the geophysical logs make them important marker beds for correlation.

As many as 9 distinct coal beds or zones have been identified within the Lower Williams Fork Formation (Figure 4.2.2). These seams were named in ascending alphabetical order, A-Seam through J-Seam. Because the A-Seam and C-Seam are commonly joined with the B-Seam to form a mineable thick coal deposit, their alphabetic bed names were later dropped in favor of the Upper and Lower B-Seam designations.



The D-Seam is the coal seam of primary economic interest in the modification area. Based on the nearest drillholes, the D-Seam is estimated to be 6 feet thick on average. An exploration license is being applied for concurrently with this lease modification application to future define the resource.

In areas where portions of both Upper and Lower D-Seams are mined, the intervening Middle Parting must also be mined. The Middle Parting is variable in its composition, ranging from dull boney coal to carbonaceous mudstone to soft claystone. Because this and other rock partings commonly occur within the mining horizon, the coal must be washed to reduce ash content.

The drill hole data shows numerous thin coal beds that overlie the B-Seam within the lease area. The coals have been labeled the D, E, F, G, H, I and J-Seams in prior stratigraphic work (Figure 4.2.2). The D-Seam has been extensively mined to the southwest of the modification area and while a small B-Seam reserve remains on Leases C-74813, the B-Seam is thin and not minable within the modification area. The uppermost of these coals, the J-Seam lies between 200 and 250 feet above the D-Seam. Because of their thin, erratic nature, poor quality, limited extent and depth of cover, none of the coals above or below the D-Seam have the potential to be recovered economically.

### **4.3 Exploration:**

Blue Mountain Energy has applied for an exploration license, with drilling planned for the summer/fall of 2026. The information gained from the drilling program will be sufficient to fulfill data adequacy requirements for leasing purposes, however, additional exploration drilling may be required for definitive mine planning.

Additional new surface disturbances for facilities will be needed to support mining within the lease modification area. Such sites will primarily be related to the surface drilling of boreholes for gas monitoring, nitrogen injection, mine ventilation and degasification, although other facilities may also be needed. Similar drilling to support mining has been ongoing for years with minimal environmental consequences.

Drill site preparation would be accomplished by a D-8 sized bulldozer or equivalent and topsoil is cleared and stored. Each drill site will be sized to allow sufficient space for all

necessary drilling equipment and is typically less than 100' x 150' in size.

Rotary drilling and coring will be done by a rubber-tire, truck-mounted drilling rig. Support equipment will consist of a water truck, one rig-up or support truck, and four-wheel drive pickups for the crews and company representatives. Stationary equipment for each site will consist of a pipe truck or trailer, one or more truck-mounted air compressors or boosters and a supply trailer. One truck mounted geophysical logging unit will be used on each hole location.

#### **4.4 D-Seam Mining Development:**

Currently at the Deserado Mine, gate road and mains development cut an interval thickness of 9.0 feet. The longwall is cutting an interval thickness of between 7 and 11 feet. Due to design, the minimum thickness in which the longwall can operate is about 7 feet. Combining the D-Seam reserves within lease CO-74813 with the adjacent reserves in the lease modification area would afford maximum economic recovery of the reserves.

The D-Seam mining sequence plan for Deserado Mine within the lease modification area is southeast to northwest longwall panels. Based on the limited data available, the configuration of the D-Seam deposit would add another four or five northwest-southeast oriented longwall panels. Portions of all the panels occur within the lease modification area. Another 3 to 4 north-south longwall panels may be possible with the addition of the modification area. Due to the current lack of definition for coal and parting thickness, the length and mining extent of the longwall panels are uncertain. Additional exploration drilling should delineate the coal and parting thickness in this area and subsequently, the lengths of the longwall panels.

#### **4.5 Surface Land Use:**

The present land use of the modification area consists of year-round wildlife habitat. No agricultural areas are developed within or immediately adjacent to the modification area. No flood plains, prime and unique farmlands, Wilderness, Wild and Scenic Rivers or Areas of Critical Environmental Concern exist within the area.

### **Visual Consideration:**

The modification area would be extracted by underground methods and no visual impacts are anticipated. However, it is possible that one or more shaft sites for ventilation would be needed to support the mining operation. Such sites, however, would be temporary and create minimal visual impact. A maximum of around seven feet of surface subsidence is possible in the area overlying the underground workings. Because longwall subsidence in the Deserado Mine area is typically subtle and leaves no displacement scarps, underground mining would leave the characteristic of the landscape relatively unchanged.

### **Cultural, Archaeological, and Paleontological Features:**

Very little, if any, surface disturbance of the area is anticipated and as a result, there should be no impact on cultural resources. Road and drill sites have been located to avoid archaeological sites. As specified in 43 CFR II Subpart 3482 (a)(3)(viii), Blue Mountain Energy will conduct a cultural resources survey of any future proposed and unsurveyed drilling locations and access roads. New roads and drill sites will be relocated as appropriate to avoid archeological resources. Fossils are found within nearly all the geologic units and no significant paleontological specimens are anticipated. Areas of planned new surface disturbance where bedrock could be disturbed will be surveyed for paleontological resources as well as cultural resources and the findings provided to the Bureau of Land Management.

### **Water Resources:**

The town of Rangely, located 15 miles southwest of the area, averages around 10 inches of precipitation annually. Given that precipitation generally increases as elevation increases, the annual precipitation would be expected to be somewhat higher. An estimated 75% of the annual precipitation occurs during the winter and early spring, mostly as snowfall.

The lease application area lies within the White River Basin District within the larger Yampa/White River Basin. No major streams occur within the lease tract area. The Red Wash runs through the lease modification area and is the primary drainage system in this area. The ephemeral Red Wash drainage lies in the lease modification area and flows southward into the White River. Several smaller dry wash drainages traverse the

lease tract, which empty into Red Wash. These ephemeral drainages are not anticipated to be significantly impacted by mining operations but will be monitored in accordance with Colorado DRMS Regulations for Coal Mining. New surface disturbances associated with temporary drill pads and access roads will be minimized to prevent erosion during periods of wet weather.

The rocks in the region are predominately consolidated sandstones and shales. Based on previous drilling data and hydrologic studies in the area, channel-like sandstones are the primary potential source of sub-surface water in the area. Because these channel sandstones are generally erratic and have limited lateral continuity, the occurrence of significant groundwater resources and impact by mining is expected to be very low.

### **Soils:**

Soils in the application area are mainly derived from sandstones and shales of the Mesaverde and Wasatch Formations. Occasionally the soil profile may exhibit considerable inclusion of parent materials. Much of the area has thin topsoil consisting primarily of sandy loam. The soil is generally poor with high clay content. The area is bisected by gullied ephemeral drainages. This watershed has been identified as contributing high sediment loads to the White River during periods of high run-off. While the underground mining operations should have no impact on soils, related surface disturbances for drilling are of greater importance. Because the impacts to soils are dependent upon successful reclamation, monitoring will be conducted to ensure successful reclamation of disturbed sites.

### **Vegetation:**

Bottom land drainages are heavily covered with sagebrush. Sandy soils on higher ground are covered with sagebrush, juniper trees and native grasses. The highest slopes are densely covered with junipers and pinyon. Other dominant plants on these slopes include greasewood, saltbrush and Wyoming sagebrush, with an under story of largely western wheatgrass, Sandberg bluegrass and squirreltail. Certain invasive, non-native plant species exist within the application area. These invasive species include annual cheatgrass, knapweed, musk thistle, bull thistle and Canada thistle. Blue Mountain Energy maintains a progressive reclamation and weed control program to combat weed establishment.

### **Habitat of Fish and Wildlife:**

The area provides habitat for elk, mule deer and pronghorn antelope. The area is encompassed by winter range that is used from October through April. Small and non-game animals' resident to the lease modification area are common and widespread throughout the region in similar habitats. These species include the white-tailed prairie dog, badger, coyote and various species of raptors, upland game birds and other small mammals. Several migratory birds including loggerhead shrike, gray vireo, sage sparrow, Brewer's sparrow and black-throated gray warbler, use the application area's lower elevation big sagebrush and Utah juniper communities for breeding. Because mining will occur underground, these species are not expected to be significantly affected by mining operations.

There are no fisheries on the lease modification area. The White River and its warm water fisheries above Kenny Reservoir is the only system supporting aquatic resources in the area that could potentially be influenced by mining. Because of its distant location, mining within the modification area would have no reasonable potential to affect aquatic habitat in the White River.

### **Threatened, Endangered and Sensitive Species:**

No threatened, endangered or sensitive animal species have been identified within the application area. While the potential exists for Wolf Creek Black-footed Ferret, ferruginous hawk burrowing owl and greater sage grouse, these species have not been identified within the lease tract in recent years. It is suspected that the absence of these species may be due to a natural reduction in nesting habitat and food sources. Surface disturbing activities, such as the drilling operations, will be coordinated to avoid potential conflicts with these species and their nesting activities.

There are no plant species listed, proposed, or candidate to the Endangered Species Act, nor plants considered sensitive by the BLM, that are known to inhabit the modification area. Mining within the modification area will have no conceivable influence on special status plant species or associated habitats.

### **Wetlands and Flood Plains:**

There are no true wetlands within the application area. A few marginal riparian areas occur locally in stock ponds or nearby channels along the intermittent Red Wash drainage. These areas are not expected to be impacted by the underground mining operations. Related short term drilling operations followed by reclamation should result in improved density of grass that may help reduce sedimentation entering Red Wash and the lower White River. The flood plain of the White River lies ~3.2 miles south of the application area and is not expected to be affected by planned mining operations.

### **Fire Protection:**

Mining will be done in accordance with the Mine Safety and Health Administration guidelines set forth in the Code of Federal Regulations. The Deserado Mine has maintained an excellent record in safety and compliance.

### **Surface and Ground Water Protection:**

No major surface streams traverse the application area. The White River occurs ~3.2 miles to the south of the application area and will be unaffected by mining. The ephemeral Red Wash drainage occurs within the lease modification boundary. A few runoff-fed stock and game ponds exist on the application area. Mining activity is anticipated to have no significant effect on the drainages or small ponds.

No significant flows have been encountered in the exploration holes drilled in the Deserado Mine area. Very little ground water has been encountered in the B-Seam and D-Seam mining operations located to the west and south of the application area. The Applicant believes that the impact mining would have on the hydrological balance would be minimal.

Surface and groundwater pollution and monitoring programs have been established for both surface and ground water at the Deserado Mine. Procedures are outlined in the Mine Plan to minimize any potential impacts. These procedures are discussed in detail in the CDRMS Mining and Reclamation permit #C-1981-018.

### **Soil Erosion Prevention:**

Minimal surface disturbance is anticipated, as mining is restricted to underground extraction. The existing mine infrastructure would be used to mine, clean and ship the coal. Additional surface disturbances related to new exploration activities and potential ventilation sites would be designed to prevent erosion of the soil and would require additional permit authorization.

### **Air & Noise:**

There will be little adverse impacts of noise or air pollution. Mining operations will occur underground; overlying surface areas are unpopulated and remote. Any mining-related noises would be temporary or minimal and most likely limited to ventilation shafts, if any were needed. Several ventilation shafts have been previously constructed at the Deserado Mine with little influence on noise pollution.

The mining influence on air pollution is similarly limited. The liberation of dust has historically been minimal and additional measures for dust control could be put into effect if needed. Methane will be liberated from mine ventilation and gob vent boreholes. Methane production from the Deserado Mine has historically been modest and less than most other mines within the Piceance Basin. As the mine is developed beneath deeper cover, methane liberation may increase. Where needed, flame arrestors will be used on ventilation boreholes. Deserado Mine has been in operation for more than thirty-five years with little-known adverse effects of noise or air pollution. Since mining will be done underground, no additional surface impacts of significance are anticipated.

### **Social/Economic Considerations:**

The Deserado Mine has a long coal mining history. The Deserado Mine employs about 165 people. Given the relatively low population density of the area, the Deserado Mine workforce comprises a significant percentage of the working population. This helps support the local communities. By leasing the modification area, a significant portion of the local base income will be extended. This will provide future economic stability for the region.

No significant impacts are expected on a social-economic level. Blue Mountain Energy intends to remain an asset to the surrounding communities as a source of employment

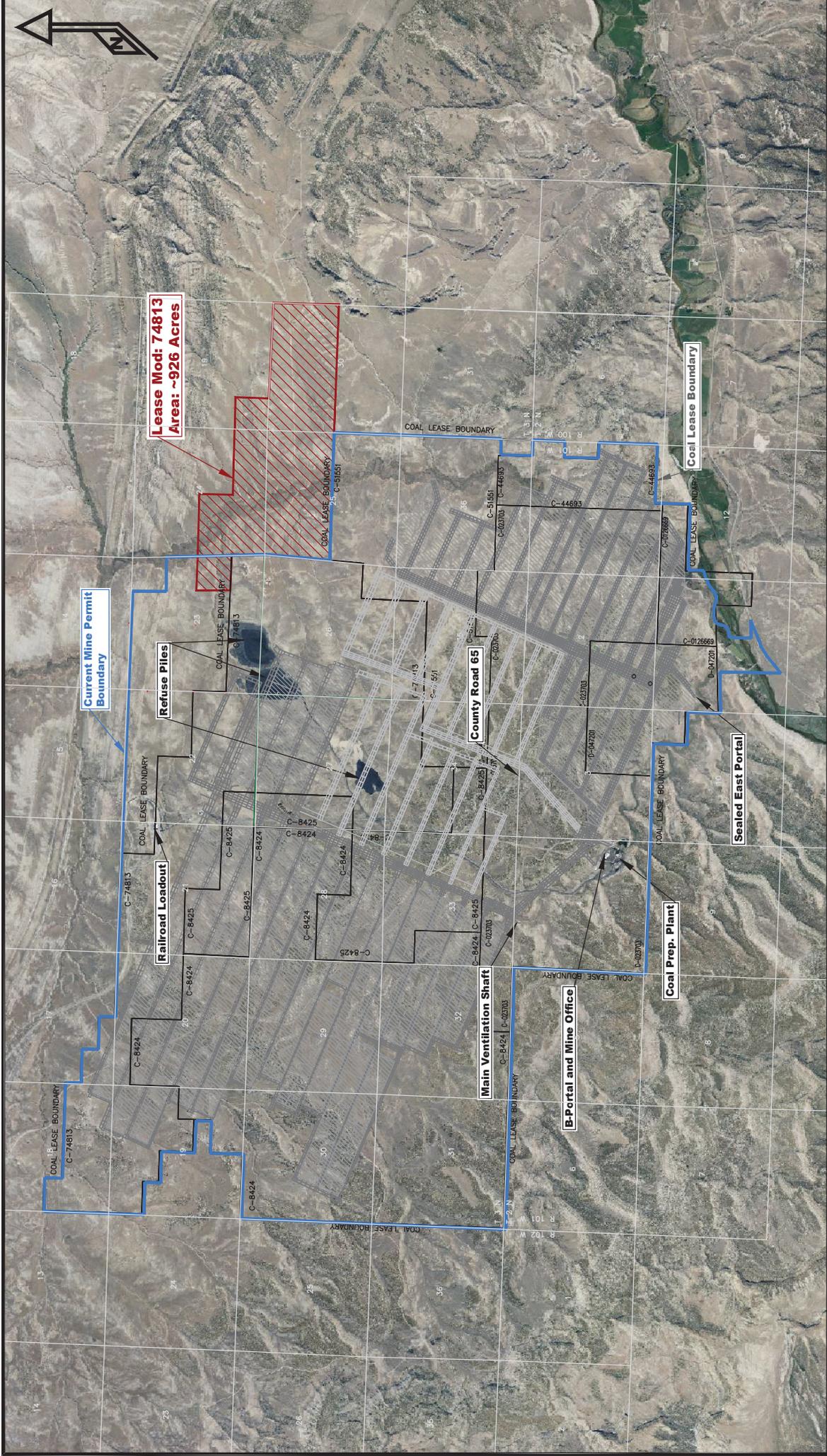
and as a contributing entity to the civic and recreational needs of the area through taxes, donations, and support.

**Hazards to Public Health and Safety:**

There are no known hazards to public health and safety.

**Reclamation:**

Minimal surface disturbance is anticipated. Reclamation within the modification area at drill sites or possible ventilation facilities will be the same as described in the approved mining and reclamation permit and exploration plans.



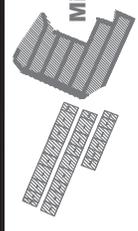
**BLUE MOUNTAIN ENERGY, INC.**  
 DESERADO MINE RANGELY, COLORADO

Proposed Exploration Lease Modification Area  
 CO-74813 Plate 1

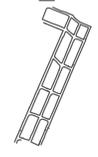
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Checked by:		Appr. by:	
Page:	Plate 1	Date:	5/22/2025



**Lease Mod 74813**



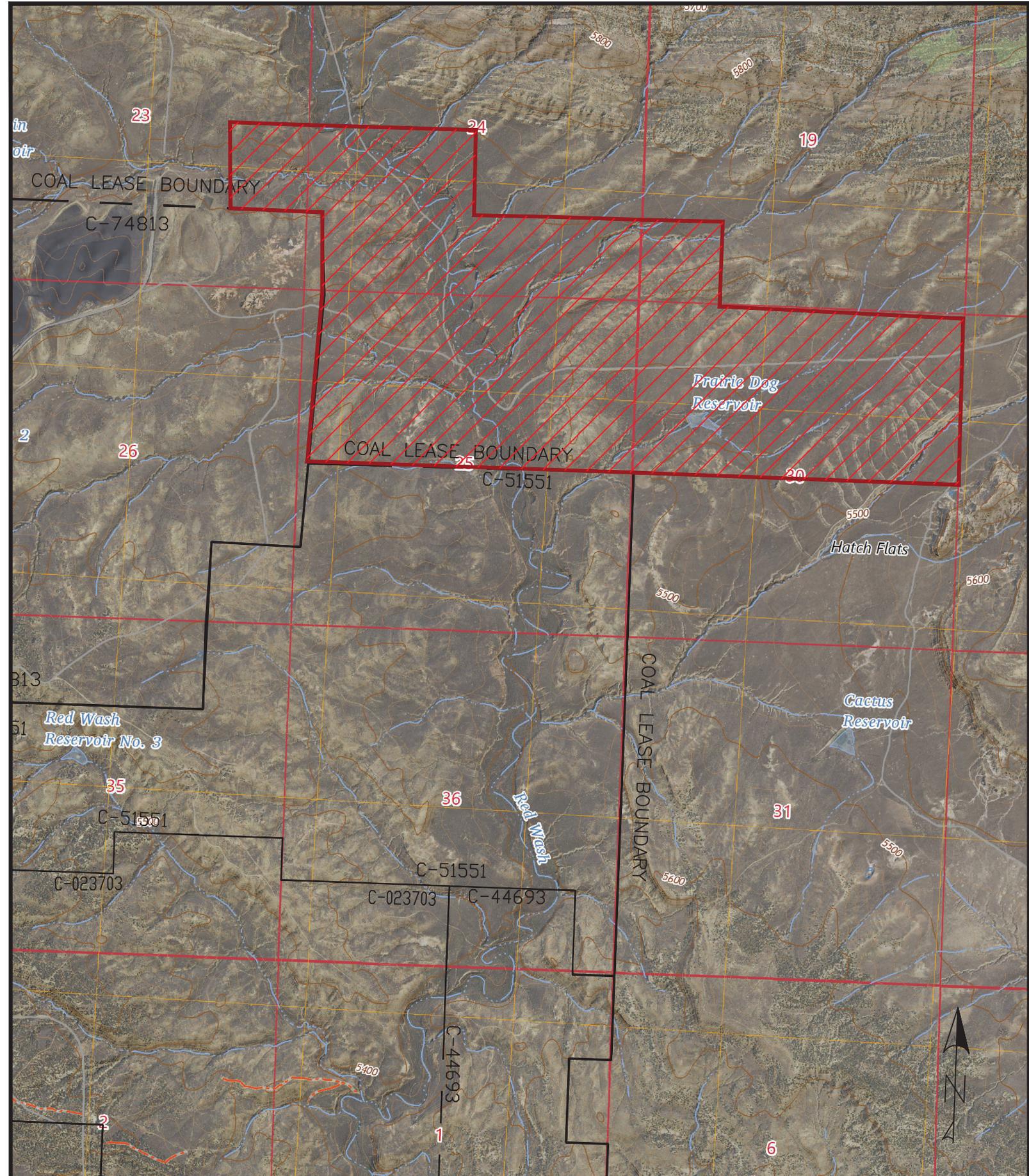
**Mined Out Areas**



**Mine Workings**



**Mine Projections**

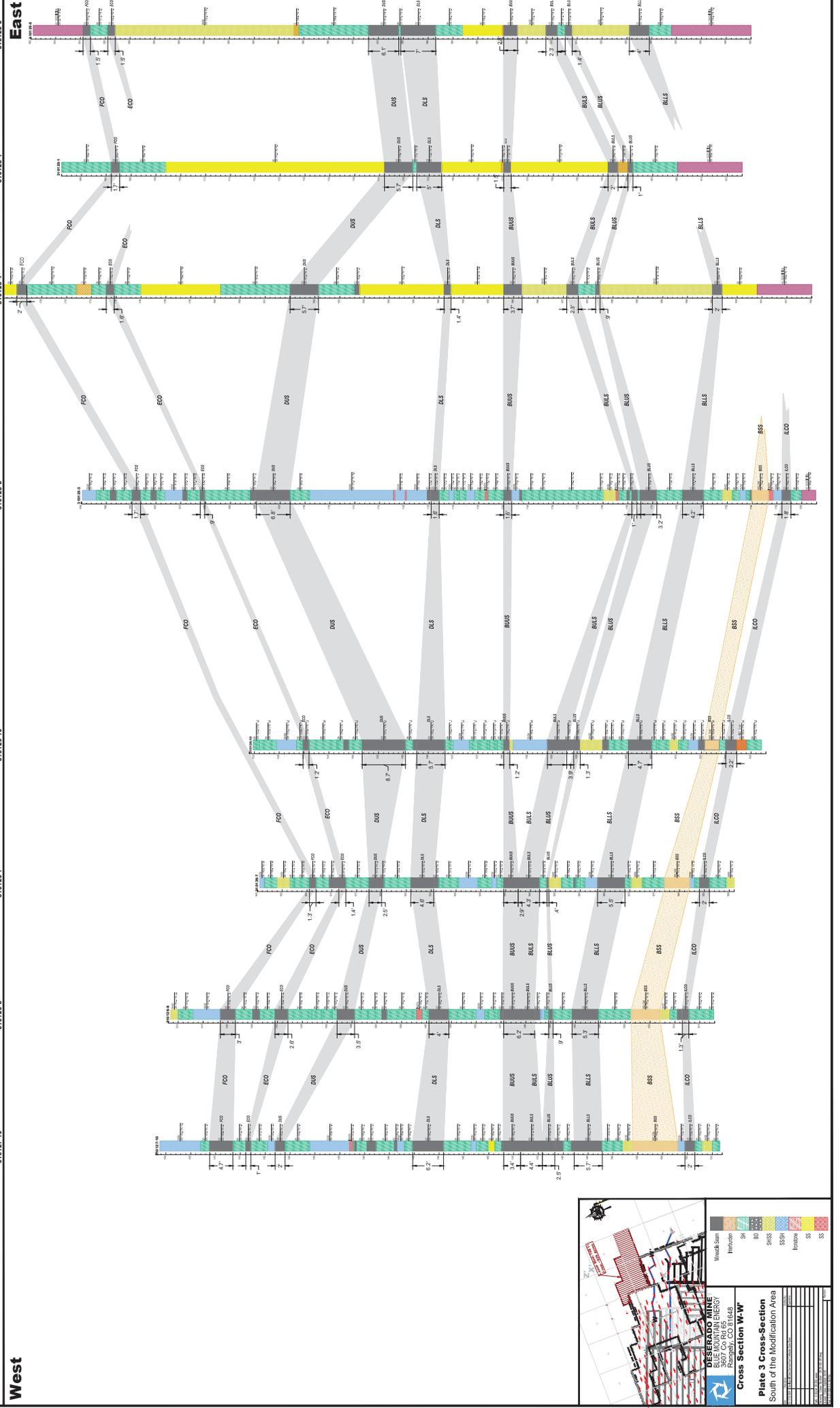
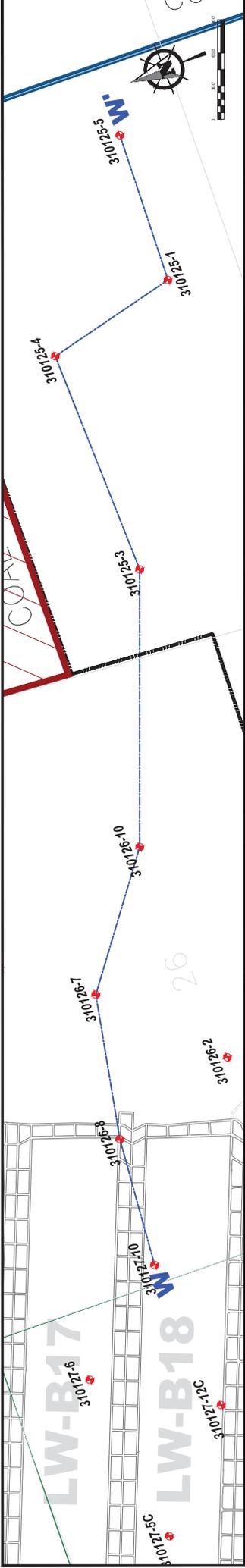


**BLUE MOUNTAIN ENERGY, INC.**

DESERADO MINE  
3607 COUNTY ROAD 65  
RANGELY, CO 81648

Title **USGS Cactus Reservoir** Deserado Mine Permit Modification CO-74813  
**7.5 Minute Topo**  
**1:24000** **Plate 2**

Dwg location:						
Dwg by:	Check by:	Appr. by:	Scale	Sheet		
Date	Date 5/20/25	Date	Date	1" = 2000'		



DESERADO MINE  
SUNBELT ENERGY  
3907 CO. RD. #5  
RANGELY, CO 81168

**Cross Section W-W'**

**Plate 3 Cross-Section**  
South of the Modification Area

Mask Stem	SH	BO	SWSS	SSW	Horizon	SS
Reflection	SH	BO	SWSS	SSW	Horizon	SS



**DESERADO MINE**  
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