

## Caerus Piceance, LLC

### SURFACE USE PLAN OF OPERATIONS

ELU O13-496 Pad – Fee Surface-Fed Minerals

NWSE, Sec. 13, T4S, R96W

Expanded Liberty Unit COC-69926A

Federal Lease No.: COC-57684

Federal Lease No.: COC-68353

Federal Lease No.: COC-64814

JUNE 2020

### Proposed Action

Caerus Piceance, LLC is proposing to drill 26 Federal wells located on Fee surface/Federal minerals. APDs for the following wells located in the table below are being submitted.

<b><u>ELU O13-496 Well Pad – 26 Wells:</u></b>	ELU O13 FED 12B-13-496, 12C-13-496, 12D-13-496, 13A-13-496, 13B-13-496, 13C-13-496, 21A-24-496, 21B-24-496, 21C-24-496, 21D-24-496, 22A-24-496, 22B-13-496, 22C-13-496, 22D-13-496, 23A-13-496, 23B-13-496, 23C-13-496, 23D-13-496, 24A-13-496, 24B-13-496, 24C-13-496, 24D-13-496, 25A-13-496, 25B-13-496, 25C-13-496, and 25D-13-496
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Green highlights indicate Fed well/**bold indicates wells submitted.**

#### 1. Existing Roads

Refer to “Topo Map” (Sheet A and B) of the attached APD(s). The existing access roads are built. The road south of the pad is 645' +/- and the existing secondary access road north of the pad is 660' +/-.

Access roads and surface disturbing activities will conform to standards outlined in the 2007 version of BLM and USFS “Surface Operating Standards for Oil and Gas Exploration and Development – The Gold Book.”

All equipment and vehicles will be confined to the access road, pad and areas specified in the APD. The Operator will be responsible for continuous inspection and maintenance of the access road. The Operator will conform to a schedule of preventive maintenance, which at a minimum, provides for the following corrective measures on a biannual basis. (Problem areas will be corrected as needed.)

- Road surface grading.

- Relief ditch, culvert cleaning and cattle guard cleaning.
- Erosion control measures for cut and fill slopes and all other disturbed areas.
- Road closures in periods of excessive soil moisture to prevent rutting caused by vehicular traffic.
- Road and slope stabilization measures as required. The road shall be maintained to the standards required for the construction of the road until final abandonment and rehabilitation takes place.

## 2. New or Reconstructed Access Roads

No new access road construction is planned. Refer to “Topo Map” (Sheet A and B).

The existing pad is located on private. In the future, if any gravel is required it will come from Elam Construction Inc. and Una gravel pit located on 318 County Road 300 Parachute, Colorado 81635, NW ¼ of Sec. 34, T6S-R96W.

Driving Directions to ELU O13-496 Pad are as-follows:

Begin in Parachute, Colorado, at the Intersection of CR 215 and East 1st St. Travel Northerly on CR 215 for 10.5 miles. Come to Guard Shack - Electronic Gate #1. Proceed through gate and turn Left. Proceed West then Northerly for 0.8 miles. Come to "Y" in road, stay right. Continue Northerly for 1.6 miles. Come to Electronic Gate #2. Proceed through gate and continue Northerly for 7.6 miles. Come to Electronic Gate #3. Proceed through gate and continue Northerly for 0.1 miles. At Intersection with CR 401, continue Northerly for 1.6 miles. Then, turn Left onto ELU O13 496 Pad Road. Proceed Westerly for 0.1 miles, arrive at ELU O13-496 Pad.

Total distance from Parachute, Colorado to the proposed well location is approximately 22.3 miles.

Please refer to Section 1 (Existing Roads) for maintenance plans and conformance standards.

## 3. Location of Existing Wells

See “Topo Map C – “One-Mile Radius” plat.

WELL NUMBER	OPERATOR	QTR/QTR	SECTION	TOWNSHIP	RANGE
SG WD08A-19-C19-495	Caerus Energy Services LLC	NENW	19	4S	95W
SG WD11A-19-C19-495	Caerus Energy Services LLC	NENW	19	4S	95W
SG WD16A-19-C19-495	Caerus Energy Services LLC	NENW	19	4S	95W
SG WD03A-30-C19-495	Caerus Energy Services LLC	NENW	19	4S	95W
ELU A24 FED23D-14-496	Caerus Piceance LLC	NWNW	24	4S	96W
ELU A24 FED24A-14-496	Caerus Piceance LLC	NWNW	24	4S	96W
ELU A24 FED24B-14-496	Caerus Piceance LLC	NWNW	24	4S	96W
ELU A24 FED24C-14-496	Caerus Piceance LLC	NWNW	24	4S	96W
ELU A24 FED24D-14-496	Caerus Piceance LLC	NWNW	24	4S	96W
ELU A24 FED25A-14-496	Caerus Piceance LLC	NWNW	24	4S	96W
ELU A24 FED25B-14-496	Caerus Piceance LLC	NWNW	24	4S	96W
ELU A24 FED25C-14-496	Caerus Piceance LLC	NWNW	24	4S	96W
ELU A24 FED13D-13-496	Caerus Piceance LLC	NWNW	24	4S	96W
ELU A24 FED14A-13-496	Caerus Piceance LLC	NWNW	24	4S	96W
ELU A24 FED14B-13-496	Caerus Piceance LLC	NWNW	24	4S	96W

ELU A24 FED14C-13-496	Caerus Piceance LLC	NWNW	24	4S	96W
ELU A24 FED14D-13-496	Caerus Piceance LLC	NWNW	24	4S	96W
ELU A24 FED15A-13-496	Caerus Piceance LLC	NWNW	24	4S	96W
ELU A24 FED15B-13-496	Caerus Piceance LLC	NWNW	24	4S	96W
ELU A24 FED15C-13-496	Caerus Piceance LLC	NWNW	24	4S	96W
ELU A24 FED15D-13-496	Caerus Piceance LLC	NWNW	24	4S	96W
ELU A24 FED21A-23-496	Caerus Piceance LLC	NWNW	24	4S	96W
ELU A24 FED21B-23-496	Caerus Piceance LLC	NWNW	24	4S	96W
ELU A24 FED11A-24-496	Caerus Piceance LLC	NWNW	24	4S	96W
ELU A24 FED11B-24-496	Caerus Piceance LLC	NWNW	24	4S	96W
ELU A24 FED11C-24-496	Caerus Piceance LLC	NWNW	24	4S	96W
ELU A24 FED11D-24-496	Caerus Piceance LLC	NWNW	24	4S	96W
ELU A24 FED12A-24-496	Caerus Piceance LLC	NWNW	24	4S	96W
SG 4S95W 7-18-496	Barrett Resources Corp	NWNW	18	4S	95W
SG 8510B-23-L24496	Caerus Piceance LLC	NWNW	24	4S	96W
SG 8505E-24-L24496	Caerus Piceance LLC	NWNW	24	4S	96W
SG 8504E-24-L24496	Caerus Piceance LLC	NWNW	24	4S	96W
SG 8507C-23-L24496	Caerus Piceance LLC	NWNW	24	4S	96W
SG 8505D-24-L24496	Caerus Piceance LLC	NWNW	24	4S	96W
SG 8502E-23-L24496	Caerus Piceance LLC	NWNW	24	4S	96W
SG 8509B-24-L24496	Caerus Piceance LLC	NWNW	24	4S	96W
SG 8512A-24-L24496	Caerus Piceance LLC	NWNW	24	4S	96W
SG 8507B-23-L24496	Caerus Piceance LLC	NWNW	24	4S	96W
SG 8509A-24-L24496	Caerus Piceance LLC	NWNW	24	4S	96W
SG 8509E-24-L24496	Caerus Piceance LLC	NWNW	24	4S	96W
SG 8512C-24-L24496	Caerus Piceance LLC	NWNW	24	4S	96W
SG 8507D-23-L24496	Caerus Piceance LLC	NWNW	24	4S	96W
SG 8509C-24-L24496	Caerus Piceance LLC	NWNW	24	4S	96W
SG 8505C-24-L24496	Caerus Piceance LLC	NWNW	24	4S	96W
SG 8505B-24-L24496	Caerus Piceance LLC	NWNW	24	4S	96W
SG 8510A-23-L24496	Caerus Piceance LLC	NWNW	24	4S	96W
SG 8510C-23-L24496	Caerus Piceance LLC	NWNW	24	4S	96W
SG 8507A-23-L24496	Caerus Piceance LLC	NWNW	24	4S	96W
SG 8512D-23-L24496	Caerus Piceance LLC	NWNW	24	4S	96W
SG 8507E-23-L24496	Caerus Piceance LLC	NWNW	24	4S	96W
SG 8510E-23-L24496	Caerus Piceance LLC	NWNW	24	4S	96W
SG 8512E-24-L24496	Caerus Piceance LLC	NWNW	24	4S	96W
SG 8508E-24-L24496	Caerus Piceance LLC	NWNW	24	4S	96W
SG 8512B-24-L24496	Caerus Piceance LLC	NWNW	24	4S	96W
SG 8505A-24-L24496	Caerus Piceance LLC	NWNW	24	4S	96W
SG 8509D-24-L24496	Caerus Piceance LLC	NWNW	24	4S	96W
SG 8510D-23-L24496	Caerus Piceance LLC	NWNW	24	4S	96W
SG 8504D-24-L24496	Caerus Piceance LLC	NWNW	24	4S	96W
SG 8504C-24-L24496	Caerus Piceance LLC	NWNW	24	4S	96W
SG 8502D-23-L24496	Caerus Piceance LLC	NWNW	24	4S	96W
SG 8502C-23-L24496	Caerus Piceance LLC	NWNW	24	4S	96W

Geospatial data has been electronically sent concurrently to WRFO.

#### **4. Location of Existing and/or Proposed Production Facilities**

At each drill location, surface disturbance will be kept to a minimum. Each drill pad will be leveled using cut and fill construction techniques as noted in the attached survey.

Should drilling result in established commercial production the following will be shown:

1. Proposed location and attendant lines, by flagging, if off well pad.
2. Dimensions of facilities.
3. Construction methods and materials.
4. Protective measures and devices to protect livestock and wildlife.
5. All buried pipelines will be buried to a minimum depth of 3 feet, except at road crossing where they will be buried to a depth of 4 feet. The maximum right-of-way for the pipeline route will be 75 feet wide and will be minimized at 50 feet when possible. The right-of-way will be minimized by utilizing existing roads and existing rights-of-way when possible and when fewer pipes will be installed in the same trench when surrounding topography is flatter and does not require significant side cuts.
6. Pipeline location warning signs shall be installed within 90 days after construction is completed.
7. Caerus shall condition pipeline right-of-way in a manner to preclude vehicular travel upon said rights-of-way, except for access to pipeline drips and valves.
8. During the drilling, completing and production of the wells on this pad Caerus will be needing to install pipes in one right-of-way:
  - Buried up to 12" for 3-phase gathering that connects to the ELU 013 496 and the ELU G13 496 CDP that will deliver 3-phase flow to the CDP.
  - Buried up to 8" frac line connecting the ELU O13 496 to the ELU G13 496 CDP, doubling as a remote frac location.
  - Surface up to 12" for 3-phase flowback that will be conducted on the ELU G13 496 CDP Pad.
  - Buried up to 6" gas lift line.

Water will be pumped from Divide Road Water Treatment Facility to the ELU G13 496 CDP using an existing 12" buried waterline in addition to 8,483' of newly constructed water delivery pipeline. Additionally, 3,188' of new construction, remote frac line will be buried from the ELU G13 496 CDP to the ELU 013 496 to support remote frac operations. This line will follow the proposed pipeline ROW for the lines supporting the ELU 013 496 Pad (Topo D).

A new 3-phase gathering line will be constructed that will carry gas, water and oil from the ELU 013 496 Pad to the newly constructed, ELU G13 496 CDP. This new pipeline will be buried and up to 12" in diameter, covering approximately 3,188'. Three phase separation will occur at the ELU G13 496 CDP, with oil being separated, metered and collected in the tank battery on site. The tank battery will serve as the measurement and sales point in which the BLM custody transfer will occur for the ELU O13 496 Pad. Water will be separated and pumped back to Divide Road Water Treatment where the water will be reused for completion activities or disposed of in existing salt-water disposal well. Gas will be separated, measured, and will flow into a newly installed gas line, carrying the gas to the Story Gulch Compressor Station or Middle Fork Compressor Station, where compression and dehydration activities will occur. Measurement of gas at the ELU G13 496 CDP will be the custody transfer and allocation point for all gas.

Caerus intends to bury these pipelines with the exception of the up to 12-inch steel surface flowback line. This surface line will be removed once completion and flowback operations have been completed. All disturbances will be reclaimed according to BLM and surface owner requirements.

See Topo D for proposed location of the ELU G13 496.

The newly constructed ELU G13 496 CDP will consist of 3-phase separation equipment, generators, water pumping skids, a tank battery for oil storage, gas and water-cooling equipment, and measurement equipment for gathered oil and gas use for measurement and allocation of gas gathered.

All tanks are installed in secondary containment that is lined (i.e. production tanks, produced water tanks, etc.) Secondary containment will be constructed on compacted subsoil, be impervious, and hold 110% of the capacity of the largest tank.

9. All tank containments will be lined with a minimum 24 mil impermeable liner.
10. All permanent (onsite for six months or longer) above-the-ground constructed or installed, including pumping units, will be painted a color determined by BLM. All production facilities will be painted within six months of installation. Facilities that are required to comply with Occupation Health and Safety Act Rules and Regulations will be excluded from this painting requirement.
11. If different production facilities are required, a sundry notice will be submitted.
12. Run off and sediment Best Management Practices will be implemented and maintained per Caerus Piceance LLC Stormwater Management Plan (CDPHE Certification #COR037689). The Pad will have a berm built around entire location.
13. Caerus Piceance LLC shall protect all survey monuments, witness corners, and reference monuments against disturbance during construction, operation, maintenance and termination of the facilities authorized herein.

Caerus shall immediately notify the authorized officer in the event that any corners, monuments or markers are disturbed or are anticipated to be disturbed. If any monuments, corner or accessories are destroyed, obliterated or damaged during construction, operation or maintenance, Caerus shall secure the services of a Registered Land Surveyor to restore the disturbed monuments, corner or accessories, at the same location, using surveying procedures found in the Manual of surveying Instructions for the Survey of the public Lands of the United States, latest edition. Caerus shall ensure that the Registered Land Surveyor properly records the survey in compliance with the Colorado Revised Statutes 38-53-101 through 38-53-112 (1973) and shall send a copy to the authorized officer.

During drilling and subsequent operations, all equipment and vehicles will be confined to the access road right-of-way and any additional areas as specified in the approved Application for Permit to Drill.

Reclamation of disturbed areas no longer needed for drilling/completion operation will be accomplished by grading, leveling and seeding as recommended by the Bureau of Land Management.

Caerus will be responsible for road maintenance from the beginning to completion of operations.

See Figure 1, 2A, 2B for the proposed ELU O13-496 Pad and Figure 7 for the proposed G13-496 CDP-Frac Support Pad.

The new gathering facility will consist of water pumps, bulk 3-phase separators, a custody transfer gas meter, a tank battery for oil storage and sales point, and water tanks for storage. The facility may include a generator and one or more liquid coolers.

Refer to "Construction Layout" (Figure 1, 2A, 2B) of the attached plat package as well as "Interim Reclamation Plat" and the "Facility Layout Diagram" (Figure 4A and 4B) attached to the APD applications.

## **5. Location and Types of Water Supply**

Water to be used for drilling these wells will be delivered to the location by pipeline and trucking. Completions of the wells will be delivered to the location via pipeline. Water delivery for Drilling will be diverted from Caerus surface at the North Parachute Ranch West Fork Point of Diversion (POD Lat/Long – 39 37' 49.51"N 108 11' 42.57"W with WD ID# 3901083). This water will be pumped through existing pipeline infrastructure delivered to the M34 freshwater pond through an 8" buried pipeline. From the pond, water will be hauled via truck to the O13 Drilling operations. Water delivery for Completions will be initiated from Divide Road via existing buried pipeline infrastructure directly to the ELU G13 496 remote frac pad location. From the remote frac pad water is pumped to the wells via the buried remote frac line as described above in Section 4.

The water source may be from (1) recycled flow back water (frac water from completion operations), production water gathered from producing wells, or some combination thereof resulting from ongoing operations in the Piceance Basin that may be treated for reuse, or (2) fresh water from available water rights in the Piceance Basin.

The water provider is Caerus. Caerus maintains numerous water rights in Piceance Basin/or its tributaries. Fresh water for Drilling will come from our Industrial Rights in North Parachute Ranch West Fork Point of Diversion (POD Lat/Long – 39 37' 49.51"N 108 11' 42.57"W with WD ID# 3901083).

The estimated amount of water used for construction, drilling and dust abatement is 14,000 bbls fresh water per well. This is based on estimated use of 1,000 bbl water/day for dust control. Completions will use ~234,000 bbls of water per well. It is Caerus' intent to exhaust all reasonable volumes of produced/flowback waters for Completions operations before utilizing a fresh water source. In the event that fresh water is needed for Completions, the diversions of water will occur at the Una Bridge Alternate Point of Diversion (Lat/Long - 39 23' 37.57"N 108 6' 8.60"W with WD ID# 3901079). This site is covered by Caerus' industrial water rights and in the event of an "on-call" period by a senior water right, Caerus' augmentation plan with the Co River District will allow diversions to occur as required necessary for operations. Water at this site will be pumped by electric pumping equipment into a 12" buried pipeline through existing buried infrastructure delivered directly to the frac location.

Access route is as follows: Please see "Driving Directions" for directions to pad (Section 2).

## **6. Source of Construction Materials**

All necessary materials for earthwork construction are on this location. Caerus will not be borrowing materials from any other location. Pad and access road construction will be balanced cut/fill earthwork quantities; there will be no import earthwork material. Surface gravel aggregates and/or pit lining material will be imported from Una/Parachute Gravel Pit, a permitted commercial gravel pit near Rifle, CO.

Una/Parachute Gravel Pit, 318 CR 300, Parachute, CO 81635. Their gravel pit is in the NW ¼ of Section 34, T6S-R96W; also, Latham-Burkett gravel pit located in the SW ¼ of Section 27, T8S-R97W.

## **7. Methods for Handling Waste Disposal**

Drill cuttings generated during drilling of the proposed well will be managed on the pad surface in a cutting's management area. The area will be sufficiently bermed to provide run-on protection and run-off controls. The moisture content will be as low as practicable to prevent accumulations of liquids greater than a de minimis amount. This will be accomplished through solids control equipment consisting of shale shakers, centrifuges, and a flocculating unit to separate drill cuttings solids from liquid (water). Any liquid removed

the solids will be reused as part of the drilling process. Both surface interval and production interval drill cuttings will be segregated and sampled for the pertinent suite of COGCC Table 910-1 analytes, such that the different cuttings can be managed appropriately (if necessary). Those cuttings analytically demonstrating conformance with applicable COGCC Table 910-1 standards will be beneficially reused as part of the pad reclamation efforts. Cuttings analytically above COGCC Table 910-1 standards will be remediated on-site to below pertinent thresholds and then beneficially reused as part of the pad reclamation. The cuttings management area will be reclaimed in accordance with the 900 and 1000 COGCC Rules.

Western Colorado Waste Inc., P.O. Box 26, Mack, CO 81525 provides roll-off dumpsters and portable toilets. The location will have 1-2 40-yard closed top container that will be emptied weekly. There will be 1-2 portable toilets that will be serviced weekly. All trash and porta potty liquids will be disposed of at Garfield County Landfill, 0075 CR 246, Rifle, CO 81650; (970) 625-2516.

Stallion Oilfield Services, 240 Cactus Rose Lane, Rifle, CO 81650 provides housing, water and sewer services. All housing units have full bathrooms. All grey water is treated and stored in 2000-gallon waste water storage tanks. This water is picked up every four days and disposed of at the City of Rifle Water Treatment System. All water hauling of potable and non-drinking water is under the State of Colorado PWSID Permit # CO00223729 which allows Stallion to operate as a potable water delivery operator. Water is purchased from the Town of Parachute, CO at Red Point LLC, 808 CR 215, Parachute, CO 81635. The following equipment will be on location:

- 3 - Climate Controlled 3000-gallon potable water tanks
- 5 - 2000-gallon wastewater storage tanks
- 2 - 40-yard closed top roll-off dumpsters
- 2 - Portable Toilets

## **8. Ancillary Facilities**

There will be one new location will be utilized as ancillary facilities for the ELU O13 496 pad, consisting of the ELU G13 496 CDP and Frac Support Pad. This pad will serve as the remote frac location for the ELU O13 496, as well as a central gathering facility to separate and meter gas, oil and water produced from the pad.

Production from each well on the ELU O13 496 Pad will flow through its own individual 3-Phase meter, located on the ELU O13 496 Pad. After flowing through this meter, gas, water and oil from the individual well will commingle with the other wells on this pad into a common pipeline and flow to the ELU G13 496 CDP. At the CDP, the 3-phase separator will separate oil, gas and water. Gas will flow from the separator, through an AGA approved custody transfer meter and will then flow to Story Gulch or Middle Fork Compressor Station where compression and dehydration services will be conducted. Oil from the 3-phase separator will be collected and dumped to the tank battery on the ELU G13 CDP site. Oil will then be processed and sold, via truck, from the tank battery. Water from the 3-phase separator will be metered and pumped into a water gathering system carrying the water to Divide Road Water Treatment Facility. Each individual well on the ELU O13 496 Pad will have a well test completed in accordance with pre-approved BLM standards. Gas from the AGA approved custody transfer meter will be allocated back to each well, based on each well's percentage of the total gas production from the ELU G13 496 CDP, with the intention that additional locations in the Expanded Liberty Unit will also be collected to the ELU G13 496 CDP at a later date. Oil sold from the tank battery will be allocated back to each well based on each well's percentage of gas production through the CDP.

In addition to serving as a central collection and allocation point, the ELU G13 CDP will also serve as a remote frac location and will also serve to handle remote flowback operations from the ELU O13 496 pad. Water will be pumped from Divide Road Water Treatment Facility to the ELU G13 CDP Pad where all fracturing equipment will be staged. Pumps, tanks, generators, separators and other equipment will occupy the ELU G13 CDP Pad. During fracturing operations, high pressure water will be pumped from the ELU G13 CDP Pad to the ELU O13 496 Pad utilizing the newly installed, buried remote frac line. The ELU G13 CDP Pad will also serve as the location for flowback operations. During flowback

operations, gas, water and oil from the ELU 013 496 Pad will flow through 3,188 feet of newly constructed, up to 12" in diameter, surface line that will carry production to the ELU G13 496 CDP Pad. The ELU G13 496 CDP Pad will serve flowback operations, consisting of separating equipment, generators, coolers and pumps. Gas separated during flowback operations will discharge flowback equipment and flow through the gas meter located at the ELU G13 496 CDP so that proper metering and allocation can occur. Oil collected during flowback operations will be transferred to the tank batter on the ELU G13 496 CDP Pad, where it will then be sold and trucked from location.

After completion activities, a workover rig will be used on the ELU O13-496 Pad to place tubing in all of the wells for long term production.

## **9. Wellsite Layout**

See "Well Location Plat" attached to each APDs for the Well Location.

See Figure 1, 2A, and 2B find the Construction Layout.

See Figure 3 find the Drill Rig Layout.

See Figure 4A find the Interim Reclamation Diagram.

See Figure 4B find the Interim Facility Diagram.

See Figure 5 and 5A find the Multi-Well Diagram.

See Figure 6 find the Location Drawing.

See Figure 7 find the Location Drawing for the G13-496 CDP/Frac Support Pad.

See Exhibit – Surface Use Disturbance

See Topo Map – A Topo

See Topo Map – B (Access Road)

See Topo Map – C (One-Mile Radius)

See Topo Map – D (Pipeline Map)

See Topo Map – W (Hydrology Map)

## **10. Plans for Surface Reclamation**

### Interim Reclamation

Also, unless otherwise directed by the landowner or a jurisdictional authority, rocks, cut vegetation, and other surface material temporarily stockpiled during construction are redistributed as backfill on the project area and blended into the natural landscape. The segregated topsoil is then spread evenly across the reclaimed areas. Due to the amount of soil moved around the site during reclamation, perimeter sediment controls such as wattles or diversion ditches will need to be implemented if not present already.

Once all topsoil has been distributed across the site, the location is then seeded by drill seeding methods or broadcast seeding. The recommended seed mix for revegetation on the ELU O13-496 surface has been provided by the BLM WRFO and is attached to the submitted APDs. All reclaimed areas except areas needed for production will be seeded. All areas needed for production will be graveled. The Pad boundary will be fenced per surface owner request.

Re-vegetation is accomplished as soon as practical following the preparation of a site for final stabilization. Seeding will be done when seasonal or weather conditions are most favorable. Whenever possible, seeding is timed to take advantage of moisture, such as early spring or late fall.

On terrain where drill seeding is appropriate, seed may be planted using a drill equipped with a depth regulator to ensure proper depth of planting. Drilling will be used where topography and soil conditions allow operation of equipment to meet the seeding requirements of the species being planted while steeper areas are broadcast seeded. Steeper areas will be assessed in order to determine if additional BMPs are needed to stabilize the soil until vegetation develops.



If necessary, in areas of concentrated surface flow, turf reinforcement mats and erosion control blankets will be employed to help facilitate vegetative growth.

#### Final Reclamation

Unless otherwise directed by the landowner or a jurisdictional authority, the following standards will apply to final reclamation.

- A. Re-contouring:** Unless an agreement is made with the landowner to keep the road and/or pad in place, the disturbed areas surrounding the well location, including the access road will be recontoured to blend as nearly possible with the natural topography. Final grading of back-filled and cut slopes will be done to prevent erosion and encourage establishment of vegetation. Existing drainages will be re-established.
- B. Re-vegetation:** The long-term objective is to establish a self-perpetuating plant community that is compatible with and capable of supporting the identified land use. Noxious weeds will be treated in accordance with applicable COGCC rules.

Upon completion of approved plugging, a regulation marker will be erected in accordance with 43 CFR 3162.6. The marker will be constructed after contouring. The top of the marker will be closed or capped and the following minimum information will be permanently placed on the marker with a plate, cap or beaded-on with a welding torch: "Fed" or "Fee", as applicable; "well number, location by quarter, quarter section, township and range"; and "lease number".

#### **Surface Ownership:**

The Oil Shale Corporation  
925 North Eldridge Parkway  
Houston, Texas, 77079  
(281) 206-5485 – Mark Salvie, Sr. Landman

Refer to "Topo Map" (Sheet A and B) and "Location Drawing" (Figure 7) detailed pad information including existing access.

The well pad and all production facilities are located on private surface owned by The Oil Shale Corporation.

#### **11. Other Information**

This is an existing location that previously served as Temporary Living Quarters for Conoco Phillips personnel. The housing buildings have been removed. This location is within previously conducted cultural survey boundaries, so no new cultural survey will be required for this location, if the activities stay within the limits of the existing disturbance. A Paleo monitor will be required when the pad construction activities begin to observe and monitor bedrock/formation rock disturbance. Because this location is relatively flat and level, the corners of the proposed pad could be seen from the center area of the site. There are several micro-pile foundation elements left in place where the housing buildings used to be. Caerus said that the micro-piles extend about 12 feet down into the soil and formation bedrock. Some of them will be able to be cut off at surface elevation, but several of them will need to be completely removed. A maximum of 13-foot cuts and 6-foot fill areas are in pad construction design. This location will have a secondary access road on the Northwest corner of the pad, for safety ingress/egress during SimOps Drilling/Completions activities. This road will be reclaimed during interim reclamation.

Through the annual site visits, noxious and invasive weeds will be identified, inventoried and treated by licensed contracted herbicide applicators.

Caerus Piceance LLC will monitor, control and reduce the spread of noxious and invasive weed species within Caerus disturbances as determine in the Colorado Noxious Weed Act and rules pertaining to the administration and enforcement of the Colorado Noxious Weed Act."

Success will be achieved when minimal noxious weeds exist, and native vegetation dominates the area reclaimed during interim reclamation activities which will be evaluated during annual site visits.

Caerus Piceance LLC estimates it will cost \$178,970 dollars to complete final reclamation which includes the well pad, remote frac pad/production pad, access roads and associated pipelines.

#### Environmental Considerations

RESOURCE / ENVIRONMENTAL ISSUE	POTENTIAL IMPACTS		COMMENTS
	YES	NO	
<b>AIR QUALITY</b>		X	All equipment and infrastructure complies with COGCC and CDPHE air quality regulations for an APEN or permitting.
<b>CHEMICAL MANAGEMENT</b>		X	All chemical management complies with COGCC, CDPHE and SARA Title III reporting requirements, including MSDS sheets for all chemicals used in Caerus Piceance, LLC operations.
<b>CULTURAL OR PALEO RESOURCES PRESENT</b>	TBD	TBD	BLM WRFO requires paleo monitor on location during pad construction.
<b>GROUNDWATER</b>		X	Drilling plans comply with COGCC ground water protection regulations.
<b>MINERALS - FEDERAL</b>		X	26 APDs submitted herein comply with 43 CFR 3160, et. al. and associated Onshore Orders and guidance.
<b>MINERALS- STATE AND COUNTY</b>		X	APDs have been submitted to the COGCC for State Approval in accordance with COGCC Title 34 regulations. Any SUP or other county requirements will be complied with.
<b>NEPA</b>		X	The proposed actions may qualify for categorical exclusion which will be determined by WRFO.
<b>NOISE</b>		X	Noise thresholds as established by the COGCC will be complied with in accordance with State Title 34 regulations.
<b>NOXIOUS WEEDS</b>	TBD	TBD	This location will be added to the noxious weed management plan
<b>RECLAMATION</b>		X	The ELU O13-496 Pad is on private surface owned by The Oil Shale Corporation.
<b>SPILLS</b>	TBD	TBD	All spills will be managed in accordance with Federal (NRC, BLM, et. al.), state (COGCC, CDPHE, CDOT) requirements, including notification, reporting, response and remediation actions. The appropriate level of notification will depend upon the waste classification as an E&P, or non-E&P waste, as defined by EPA regulations.

<b>VISUAL RESOURCES</b>		X	The area is in a Class II area and the surface location is located entirely on private surface.
<b>WASTE</b>		X	All E&P wastes, including drilling cuttings, produced water; frac water, etc. will be managed in accordance with Federal (BLM) and COGCC regulations. Non-E&P wastes will be managed in accordance with EPA and CDPHE regulations.
<b>WATER – 404 LOCATIONS</b>		X	N/A - Pad already constructed and not in a jurisdictional area.
<b>WATER – GENERAL / NPDES / WATER RIGHTS</b>		X	Any NPDES discharge permits (if needed) and water rights obligations will be complied with under state COGCC, CDPHE and SEO regulations.
<b>WATER - SPCC</b>		X	All SPCC locations with comply with 40 CFR 112.
<b>WATER-STORMWATER</b>		X	Stormwater is addressed under a field-wide Stormwater Management Plan (CDPHE Certification #COR400000 for North Parachute).
<b>WILDLIFE-NON-GAME AND TE&amp;S (INCLUDES RAPTORS)</b>		X	November 2019 - Caerus Piceance LLC (Caerus) formally requested and received authorization from Colorado Parks and Wildlife (CPW) to transfer the Encana USA Inc. Wildlife Mitigation Plan Agreement (WMPA) to Caerus' existing WMPA. Caerus is currently adhering to all aspects of both WMPAs through Caerus' current best management practices.
<b>Raptors</b>	TBD	TBD	At the on-site no mention of raptor survey was requested.

See Exhibit 1 – Surface Use Disturbance

<b>Project Surface Disturbance (Acres)</b>
--------------------------------------------

	Private		BLM-USDA FS		Totals	
<i>New Disturbance</i>	<i>Total</i>	<i>Long-Term</i>	<i>Total</i>	<i>Long-Term</i>	<i>Total</i>	<i>Total Long-Term</i>
ELU O13-496 Well Pad	0.0	0.0	0	0	0	0
ELU G13-496 CDP Pad	10.199	10.199	0	0	0	0
ELU G13-496 CDP Access Road	0.346	0.346				
ELU O13-496 Access Roads	0.0	0.0				
ELU O13-496 Pipeline R-O-W	7.319	0.0	0	0	0	0
<b>Subtotal</b>	<b>17.864</b>	<b>10.545</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<i>Existing Disturbance</i>	<i>Total</i>	<i>Long-Term</i>	<i>Total</i>	<i>Long-Term</i>	<i>Total</i>	<i>Total Long-Term</i>
ELU O13-496 Well Pad	6.602	2.2	0	0	0	0
ELU O13-496 Access Roads	0.598	0.598	0	0	0	0
ELU G13-496 CDP Pad	0.0	0.0				
<b>Subtotal</b>	<b>7.2</b>	<b>2.798</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<i>Re-Disturbance</i>	<i>Total</i>	<i>Long-Term</i>	<i>Total</i>	<i>Long-Term</i>	<i>Total</i>	<i>Total Long-Term</i>
ELU O13-496 Well Pad	0.00	0.00	0	0	0	0
Pipeline	0.00	0.00	0	0	0	0
<b>Subtotal</b>	<b>0.00</b>	<b>0.00</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>TOTAL DISTURBANCE ELU O13-496 Project Only</b>	<b>14.519</b>	<b>2.798</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>TOTAL DISTURBANCE ELU G13-496 CDP-Frac Support Pad</b>	<b>10.545</b>	<b>10.545</b>				

I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

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