

# Interim Reclamation Plan

## Red Rocks 1-14

This Interim Reclamation Plan has been prepared by Desert Eagle Operating, LLC (DEO) for its Red Rocks 1-14 helium gas well location in Las Animas County, Colorado. The Plan addresses the Colorado Oil & Gas Conservation Commission (COGCC) requirement at Rule 304.c.(16) to prepare an Interim Reclamation Plan, the criteria in Rule 1003, and COGCC guidance.

### 1.0 Site Description

DEO proposes to develop helium gas using a single conventional vertical helium gas well. The well will be drilled with air using a water well-sized drill rig. There will be no drilling mud, hydraulic fracturing, stimulation, or flowback. The well is not expected to produce hydrocarbons or water, based on results from wells already drilled in this area. The well will be in the following location:

NE ¼ NW ¼ Section 1, Township 30 South, Range 55 West

The location is on fee surface and will produce fee minerals. The land use is ranchland leased from a private landowner. The environmental setting is arid ranchland, which is sparsely vegetated.

The Oil and Gas Location will be approximately 1.10 acres during well development with a Working Pad Surface of 1.00 acres. After Interim Reclamation, the production pad will be downsized to an estimated 0.20 acres. An estimated 0.90 acres will be reclaimed.

The site elevation is 5,498 feet.

The estimated durations are 1 day for pad preparation; 7 days for drilling; 3 days for completion; 1 day for interim reclamation; and approximately 10 years for production.

### 2.0 Soil Description

The soil map unit and its boundary are shown on the Form 2A, Soil Unit Map. The soil unit is listed in Table 1.

**Table 1. Soil Unit**

Soil Unit	Drainage Class	Available Water Capacity	Depth to Restrictive Feature
VT – Villedry-Travessilla complex, 1 to 8 percent slopes	Well drained	6.6 inches	Alternately 20 to 40 inches and 6 to 20 inches.

### 3.0 Oil and Gas Location Pre-Disturbance Vegetation Community

The location is arid ranchland. According to an on-site environmental review in July 2022, vegetation is Blue Grama, Sideoats Grama, Western Wheatgrass, Great Plains Yucca, One-seed Juniper, Plains Prickly Pear, and Tree Cholla. There is an approximately 75 percent vegetative cover.

### 4.0 Identification of Reference Area

The Reference Area is located at 37.471798, -103.538466. The Reference Area was identified during the July 2022 on-site environmental review based on a location with vegetation and cover consistent with the Red Rocks 1-14 Location.

## **5.0 Known Weed Infestations**

There were no weed infestations identified on the Oil and Gas Location during the July 2022 on-site environmental review.

## **6.0 Flowlines**

An off-location flowline for helium gas will be buried underground from the wellhead to an off-location helium processing unit. The helium processing unit will be located on private property. The flowline will be 8-inch polyethylene. The flowline trench will be approximately 2,040 feet long, 2 feet wide, and 4 feet deep, with approximately 3 feet of soil cover. Soil removed during flowline trenching will be segregated based on changes in physical characteristics. It will be windrowed alongside to the trench. After flowline installation and integrity testing, the trench will be backfilled. The soil layers will be replaced in the order in which they were removed. The operator will identify appropriate soil amendments to promote vegetative growth. Seeding and revegetation will provide cover and prevent blowing soil, erosion, and weed propagation. The area will be monitored for vegetation growth. Where needed, the soil will be amended or reseeded to promote revegetation. The flowline is shown on the Form 2A, Related Location and Flowline Map.

## **7.0 Access Road**

DEO will use an existing dirt access road. An additional approximately 130 feet of new dirt road will connect the existing access to the Oil and Gas Location. Based on the driller's experience drilling previous wells in the area, the access will not require clearing or blading to support the water well-sized drill rig or to accommodate the potential for emergency response vehicles. The access road is shown on the Form 2A, Access Road Map. The access road will remain in place during production. During final reclamation, the access road will be reclaimed in the same manner as the Oil and Gas Location.

## **8.0 Removal of Drilling, Re-entry, Completion Equipment and All Associated Debris and Waste Materials (1003.a)**

After well drilling and completion, the production pad will be downsized to approximately 0.02 acres. The well driller will clear equipment and materials in preparation for interim reclamation. Any open holes, cellars, rat holes, or other boreholes will be backfilled per industry standards. During final reclamation, surface equipment, abandoned flowline risers, and any debris will be removed from the location.

## **9.0 Management of Waste Material**

Waste materials will not be left onsite after well drilling and completion. Waste material, volume, and final disposal is described in the Waste Management Plan.

## **10.0 Identification of Interim Reclamation Areas No Longer in Use (1003.b)**

An approximately 0.02-acre production pad will not be reclaimed. During production, this area will support well operation, the off-location helium gas line, and maintenance activities.

## **11.0 Compaction Alleviation (1003.c)**

To decompact soil layers, areas to be reclaimed will be ripped to an estimated depth of 18 inches unless restrictive features are encountered at a shallower depth. Decompaction will be used to improve the soil structure and to promote soil aeration, water infiltration, and microbial activity, which will promote plant growth.

## **12.0 Recontouring**

The Oil and Gas Location is relatively flat, as shown on the attached Construction Layout Drawing. There will be no anticipated cut or fill needed to support well drilling. Minimal topsoil will be disturbed. Topsoil will be stockpiled on the location and will be restored on the reclaimed area. The reclaimed area will be blended with the surrounding

surface to restore the natural grade and hydrology patterns. Staked stormwater wattles will be placed to protect the area from stormwater run on and runoff.

### 13.0 Re-establish and Stabilize Drainage Features

During interim reclamation, the Oil and Gas Location will be recontoured to blend with the pre-disturbance surface and restore natural drainage patterns. Reclamation during the first growing season will stabilize the soils to avoid stormwater runoff. While vegetation is establishing, wattles will be placed, as needed, along perimeters of the pad corresponding to surface flow direction to prevent erosion runnels and avoid soils or sediment from leaving the location.

### 14.0 Establish Desired Plant Community (1003.e)

The segregated soil horizons will be replaced in their original relative positions and contoured to support revegetation. The area will be tilled to re-establish a seedbed. The anticipated seed mix was identified as a site-specific seed mix in coordination with the Natural Resource Conservation Service District Conservationist, the Las Animas County Extension Service, and the surface owner. The seed mix is listed in table 2. The seed weight (pounds/acre) and application rate will be provided to the operator by the seed mix provider. The seed mix will be certified weed-free.

**Table 2. Anticipated Seed Mix**

Anticipated Species	Mix
Blue Grama	20%
Sideoats Grama	25%
Western Wheatgrass	30%
Buffalo Grass	15%
Green Needlegrass	10%
TOTAL	100%

### 15.0 Seedbed Preparation and Seeding (1003.e)

Salvaged topsoil will be replaced and contoured to maximize erosion control and soil stability. Soil amendment may be introduced at this stage to promote moisture retention and soil stabilization. Seedbed preparation will be conducted immediately before seeding to ensure that the seedbed provides the maximum benefit for revegetation success. The reclamation provider will confirm whether drill seeding will be performed to further promote vegetation. Drill seeding is typically conducted on slopes flatter than 3:1. Interim reclamation will be performed during the first growing season after well drilling is complete and within the anticipated 6 months described in Rule 1003.b. Early spring and fall typically are preferred seeding periods to coincide with increased precipitation and conditions favorable to seed germination.

### 16.0 Fencing

Livestock fencing will be installed, as approved by the landowner, to restrict unauthorized access and discourage unnecessary surface disturbance, in accordance with Rules 603.h and 1002.a.(1).

### 17.0 Management of Invasive Plants (1003.f)

The site operator will be trained on noxious and invasive weeds to monitor at the location. Weed treatment will be conducted, where needed, to prevent establishment and spread of noxious weeds. The weed treatment will be conducted according to Colorado Department of Agriculture recommendations by weed species.

### 18.0 Proposed Interim Reclamation Drawing

The interim reclamation area is shown on the attached Facility Layout Drawing. It shows surface flow direction and stormwater controls for control of erosion and stormwater runoff.

## 19.0 Reclamation Monitoring, Inspection, Maintenance, and Reporting

The site operator will be on location approximately twice weekly to monitor the wellhead, location, and flowline. The vegetative success will be monitored as part of these routine site visits. Invasive weeds, evidence of erosion, and areas requiring reseeding will be identified and addressed through weed treatment, adapting stormwater controls, and application of additional seed and soil amendment or fertilizer. Vegetative success will be considered at least 80 percent of pre-disturbance reference area cover, consistent with Rule 1003.e.(2). A plant count for plant density will be conducted to assess percent cover. Documentation will include the operator's maintenance records for the location, stormwater inspections, and Change Management Checklist.

## 20.0 Interim Reclamation Completion Notice, Form 4 [1003.e.(3)]

DEO will submit a Form 4 Sundry Notice describing the reclamation procedures, any mitigation measures, any changes to the final land use, and the total vegetative cover. A minimum of four photos will be taken during the growing season showing each cardinal direction to document the success of interim reclamation. One photo will document the total cover of live perennial vegetation of adjacent or nearby undisturbed land or the reference area.

## 21.0 Best Management Practices

**Table 3. Best Management Practices**

<b>Best Management Practices</b>
<b>Topsoil</b> - Topsoil will be stockpiled on the location and will be restored on the reclaimed area. Salvaged topsoil will be replaced and contoured to maximize erosion control and soil stability.
<b>Erosion control</b> – Erosion controls will be installed and maintained to prevent stormwater run on, runoff, and erosion. Erosion controls are shown on the attached Facility Layout Drawing.
<b>Weed control</b> – The location will be monitored for the presence of invasive weeds. Invasive weeds will be treated to prevent them from establishing or spreading.
<b>Seed mix</b> – The operator will use the certified weed-free seed mix identified in this plan and in coordination with the surface owner.
<b>Seeding method and Timing</b> – Drill seeding or other method to promote vegetative success will be conducted during the first favorable growing season and within 6 months of completion of well development.
<b>Fencing</b> – Fencing will be installed to restrict unauthorized access and discourage unnecessary surface disturbance.
<b>Recontouring</b> - Disturbed areas will be recontoured to blend with the pre-disturbance surface and restore natural drainage patterns.
<b>Monitoring</b> – The location will be monitored for vegetative success. It will be reseeded where needed to establish 80 percent of pre-disturbance cover.

### Attachments

Construction Layout Drawing  
Facility Layout Drawing showing Interim Reclamation



SCALE: 1" = 30'

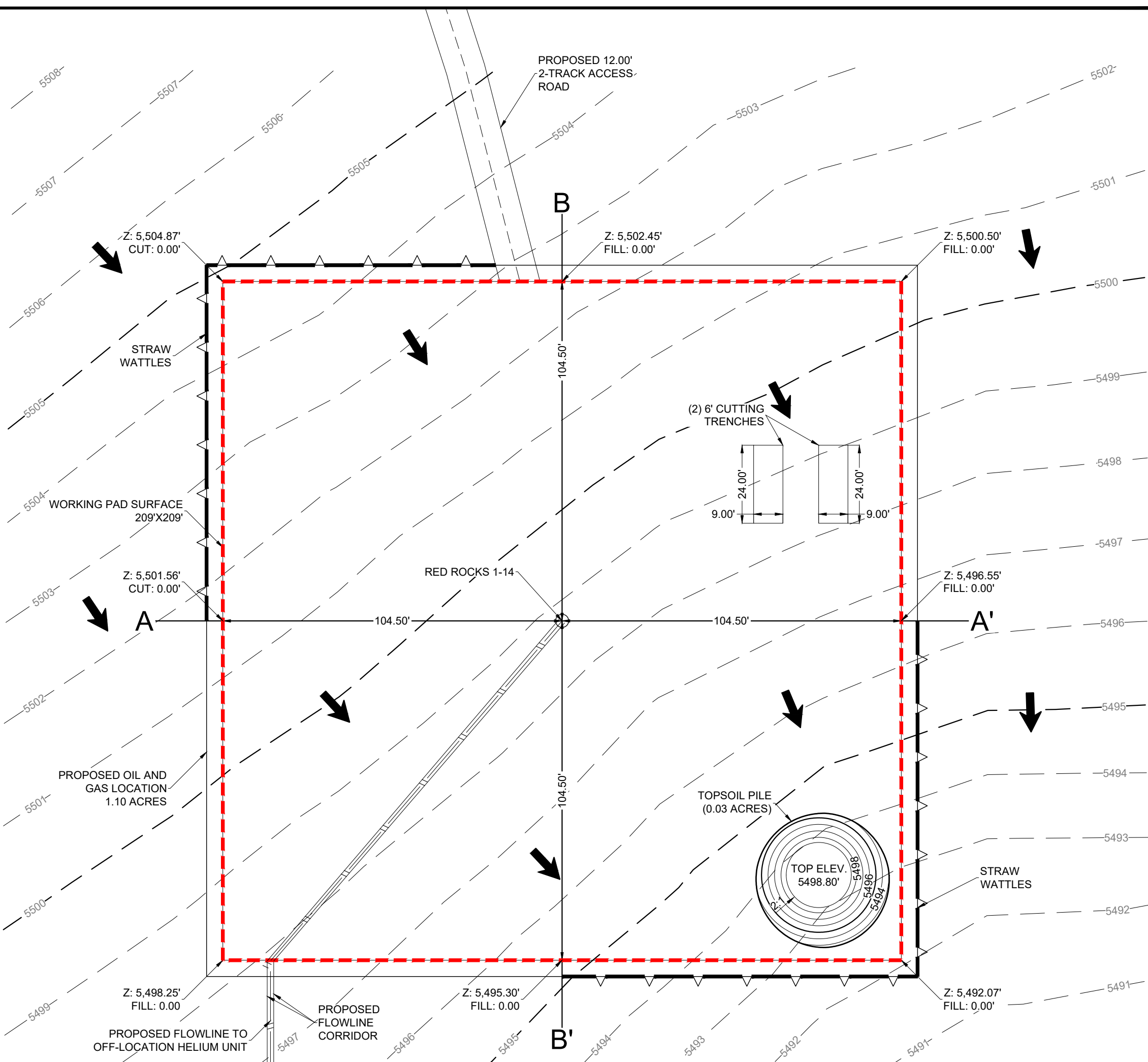
- EXISTING 1' CONTOUR
- EXISTING 5' CONTOUR
- PROPOSED FLOWLINE
- WORKING PAD SURFACE
- OIL AND GAS LOCATION
- STRAW WATTLES
- WELLHEAD
- DRAINAGE

WELLHEAD ELEVATIONS  
GRADED ELEVATION: 5,498.75'  
UNGRADED ELEVATION: 5,498.75'

EARTHWORK QUANTITIES:  
CUT: 185 CY  
FILL: 35 CY  
TOPSOIL (6"): 150 CY  
EXPORT: 0 CY  
FILL FACTOR: 1.15

DISTURBANCE ACREAGES:  
WORKING PAD SURFACE (AC): 1.00  
OIL & GAS LOCATION (AC): 1.10  
PROPOSED ACCESS ROAD (AC): 0.04  
FLOWLINE CORRIDOR (AC): 0.09

- NOTES:
- THIS SITE HAS NO NECESSARY EXCAVATION, AS THE DRILL RIG IS SELF-LEVELING. ALL EARTHWORK FOR THE SITE IS TOPSOIL PRESERVATION ONLY.
  - FLOWLINE CORRIDOR ACREAGE ONLY INCLUDES ACREAGE OUTSIDE OF OIL AND GAS AREA.



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WWW.TOPOGRAPHIC.COM

## CONSTRUCTION LAYOUT - PLAN VIEW

RED ROCKS 1-14 LAS ANIMAS COUNTY  
NE 1/4 NW 1/4 SEC. 1 T30S R55W 6<sup>TH</sup> P.M.

DESERT EAGLE OPERATING

PRELIMINARY, THIS DOCUMENT SHALL NOT BE RECORDED FOR ANY PURPOSE AND SHALL NOT BE USED OR VIEWED OR RELIED UPON AS A FINAL ENGINEERING OR SURVEY DOCUMENT.

DATE:	10/03/2022
DRAWN BY:	TJM
REVIEWED BY:	CCC
SCALE:	1" = 30'
SHEET:	1 OF 4
REVISION:	
XXX	XXXX/XX
XXX	XXXX/XX
XXX	XXXX/XX

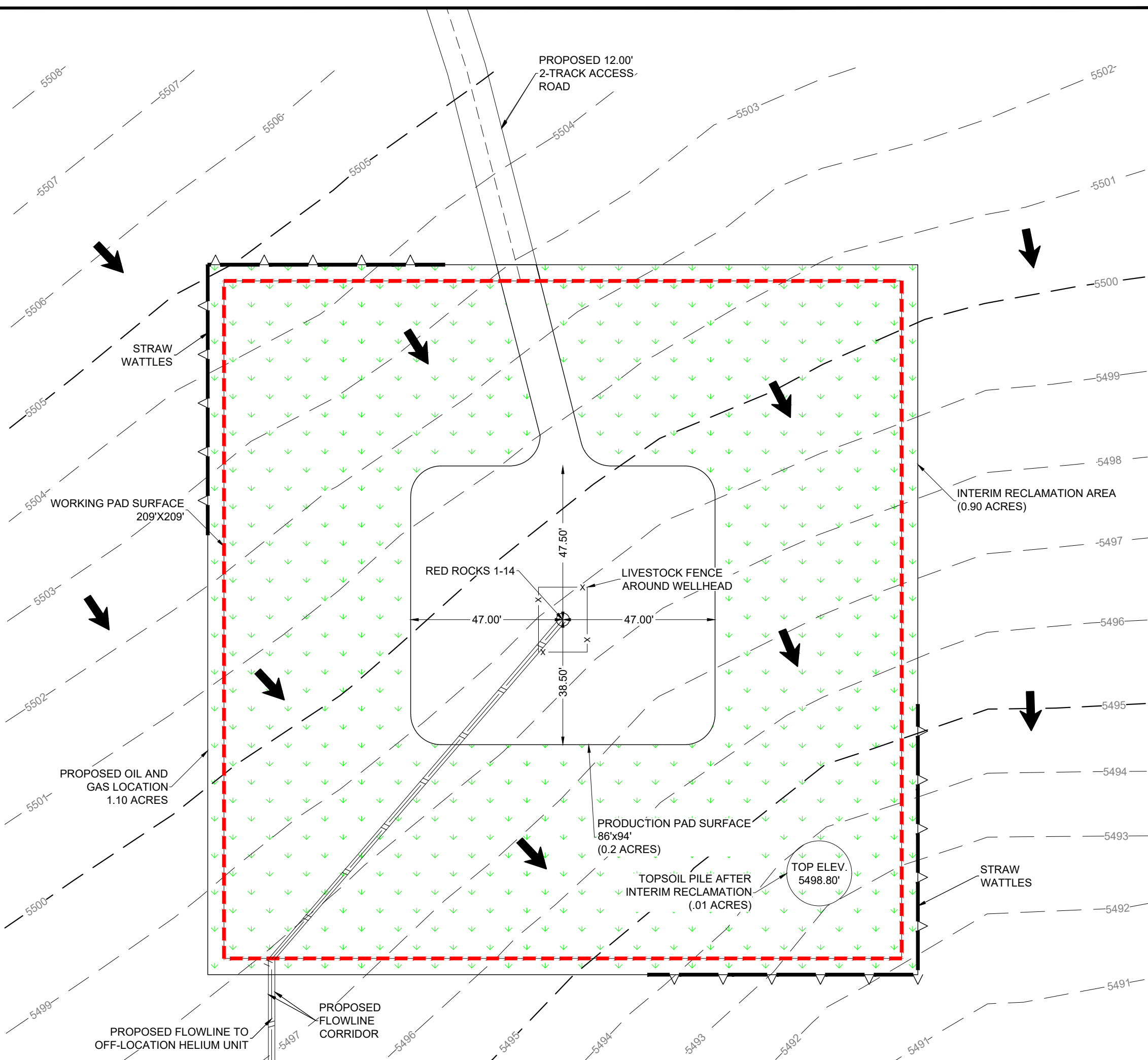


SCALE: 1" = 30'

- EXISTING 1' CONTOUR
- EXISTING 5' CONTOUR
- PROPOSED FLOWLINE
- WORKING PAD SURFACE
- OIL AND GAS LOCATION
- STRAW WATTLES
- WELLHEAD
- INTERIM RECLAMATION AREA
- DRAINAGE

WELLHEAD ELEVATIONS  
GRADED ELEVATION: 5,498.71'  
UNGRADED ELEVATION: 5,498.71'

DISTURBANCE ACREAGES:  
OIL & GAS LOCATION (AC): 1.10  
PRODUCTION PAD SURFACE (AC): 0.20  
INTERIM RECLAMATION (AC): 0.90  
PROPOSED ACCESS ROAD (AC): 0.04  
FLOWLINE CORRIDOR (AC): 0.09



FACILITY LAYOUT

RED ROCKS 1-14 LAS ANIMAS COUNTY  
NE 1/4 NW 1/4 SEC. 1 T30S R55W 6TH P.M.

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DATE:	10/03/2022	DRAWN BY:	TJM	REVIEWED BY:	CCC	SCALE:	1" = 30'	SHEET:	4 OF 4	REVISION:	XXX	XXX	XXX
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