

# State of Colorado Energy & Carbon Management Commission

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Document Number:

403526241

Receive Date:

11/28/2023

Report taken by:

Kyle Waggoner

## Site Investigation and Remediation Workplan (Initial Form)

This form shall be submitted to the Director for approval prior to the initiation of site investigation and remediation activities. However, this shall not preclude the Operator from taking immediate action to protect public health or safety, the environment, wildlife, or livestock.

This Form 27 describes site conditions as currently understood by the Operator; approval of this Form 27 by COGCC is based on the site conditions accurately described herein; any changes in site conditions identified during or subsequent to the performance of the approved workplan may necessitate additional investigation or remediation which shall be described on a supplemental Form 27. This Form 27 is intended to provide basic information regarding the proposed site investigation and remediation actions, but the workplan may be more fully described in attached documentation.

Closure request is not available for an Initial Site Investigation and Remediation Workplan.

### OPERATOR INFORMATION

Name of Operator: <u>DESERT EAGLE OPERATING LLC</u>	Operator No: <u>10797</u>	<b>Phone Numbers</b>
Address: <u>17101 PRESTON RD SUITE 105</u>		Phone: <u>(214) 886-5098</u>
City: <u>DALLAS</u> State: <u>TX</u> Zip: <u>75248</u>		Mobile: <u>( )</u>
Contact Person: <u>Wesley Marshall</u>	Email: <u>wmarshall@prohelium.com</u>	

### PROJECT, PURPOSE & SITE INFORMATION

#### PROJECT INFORMATION

Remediation Project #: 32957 Initial Form 27 Document #: 403526241

#### PURPOSE INFORMATION

- ☐ Rule 913.c.(1): Pit or Cuttings Trench closure.
- ☐ Rule 913.c.(2): Buried or partially buried vessel closure, which will be by removal.
- ☐ Rule 913.c.(3): Remediation of Spill and Releases pursuant to Rule 912.
- ☐ Rule 913.c.(4): Land treatment of Oily Waste pursuant to Rule 905.e.
- ☐ Rule 913.c.(5): Closure of Centralized E&P Waste Management Facilities pursuant to Rule 907.h.
- ☐ Rule 913.c.(6): Remediation of impacted Groundwater pursuant to Rule 915.e.(3).D, and the contaminant concentrations in Table 915-1.
- ☐ Rule 913.c.(7): Investigation and remediation of natural gas in soil or Groundwater.
- ☐ Rule 913.c.(8): When requested by the Director due to any potential risk to soil, Groundwater, or surface water.
- ☐ Rule 913.c.(9): Decommissioning of Oil and Gas Facilities.
- ☐ Rule 913.g: Changes of Operator.
- ☐ Rule 915.b: Request to leave elevated inorganics in situ.
- ☒ Other: Rule 905.g (2) Drill Cuttings

#### SITE INFORMATION

No Multiple Facilities

Facility Type: <u>WELL</u>	Facility ID: _____	API #: <u>071-09930</u>	County Name: <u>LAS ANIMAS</u>
Facility Name: <u>Red Rocks 35-08</u>	Latitude: <u>37.471889</u>	Longitude: <u>-103.539533</u>	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: <u>NWSE</u>	Sec: <u>35</u>	Twp: <u>29S</u>	Range: <u>55W</u> Meridian: <u>6</u> Sensitive Area? <u>No</u>

#### SITE CONDITIONS

General soil type - USCS Classifications ML Most Sensitive Adjacent Land Use Rangeland

Is domestic water well within 1/4 mile? No Is surface water within 1/4 mile? No

Is groundwater less than 20 feet below ground surface? No

## SITE INVESTIGATION PLAN

### TYPE OF WASTE:

☒ E&P Waste      ☐ Other E&P Waste      ☐ Non-E&P Waste

☐ Produced Water

☐ Workover Fluids

☐ Oil

☐ Tank Bottoms

☐ Condensate

☐ Pigging Waste

☐ Drilling Fluids

☐ Rig Wash

☒ Drill Cuttings

☐ Spent Filters

☐ Pit Bottoms

☐ Other (as described by EPA)

### DESCRIPTION OF IMPACT

Impacted?	Impacted Media	Extent of Impact	How Determined
UNDETERMINED	SOILS	UA	Visual

### INITIAL ACTION SUMMARY

Description of initial action or emergency response measures taken to abate, investigate, and/or remediate impacts associated with E&P Waste.

Drill cuttings were placed on a lined and bermed area awaiting the soil analysis.

### PROPOSED SAMPLING PLAN

#### Proposed Soil Sampling

☒ Will soil samples be collected as part of this investigation? ( Number, type (grab/composite), analyses, and locations of samples ):

DEO collected a 5-point composite sample from the drill cuttings stored on a lined, bermed area on the wellpad. Individual aliquots were collected across the horizontal extent of the cuttings pile. They were collected from random depths below the surface of the cuttings pile that ensure capture of the vertical profile of the cuttings pile from the surface to the base. The composite sample was analyzed for constituents in Table 915-1 by Eurofin Denver, an accredited commercial lab. Attached is a RR 35-08 Site Location and Soil Sample diagram.

#### Proposed Groundwater Sampling

☐ Will groundwater samples be collected as part of this investigation? ( Number, analyses, and locations of samples ):

#### Proposed Surface Water Sampling

☐ Will surface water samples be collected as part of this investigation? ( Number, analyses, and locations of samples ):

The location has no nearby surface water or receiving water.

### Additional Investigative Actions

☐ Additional alternative investigative actions described in attached Site Investigation Plan ( summary ):

## SITE INVESTIGATION REPORT

### SAMPLE SUMMARY

Soil

NA / ND

Number of soil samples collected 1

Number of soil samples exceeding 915-1 0

Was the areal and vertical extent of soil contamination delineated? No

Approximate areal extent (square feet) 1296

-- Highest concentration of TPH (mg/kg) 62

-- Highest concentration of SAR 17

BTEX > 915-1 No

Vertical Extent > 915-1 (in feet) 3

#### Groundwater

Number of groundwater samples collected 0

Was extent of groundwater contaminated delineated? No

Depth to groundwater (below ground surface, in feet)

Number of groundwater monitoring wells installed

Number of groundwater samples exceeding 915-1

Highest concentration of Benzene (µg/l)

Highest concentration of Toluene (µg/l)

Highest concentration of Ethylbenzene (µg/l)

Highest concentration of Xylene (µg/l)

Highest concentration of Methane (mg/l)

#### Surface Water

0 Number of surface water samples collected

Number of surface water samples exceeding 915-1

If surface water is impacted, other agency notification may be required.

### OTHER INVESTIGATION INFORMATION

☐ Were impacts to adjacent property or offsite impacts identified?

☐ Were background samples collected as part of this site investigation?

☐ Was investigation derived waste (IDW) generated as part of this investigation?

Volume of solid waste (cubic yards)

Volume of liquid waste (barrels)

☐ Is further site investigation required?

## REMEDIAL ACTION PLAN

### SOURCE REMOVAL SUMMARY

Describe how source is to be removed.

The drill cuttings pile will be removed and hauled to a waste facility that accepts E&P waste in accordance with ECMC Rule 905.b (1),(3) and Rule 905.g (2) A.

### REMEDIATION SUMMARY

Describe how remediation of existing impacts to soil and groundwater is to be accomplished (i.e. summarize remedial action plan). Provide a brief narrative description including: technical justification, schedule for implementation, estimated time to attain NFA status, plus plans and specifications for the selected remedial action technology.

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. 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.

### Soil Remediation Summary

☐ In Situ

☒ Ex Situ

Bioremediation ( or enhanced bioremediation )

Yes Excavate and offsite disposal

Chemical oxidation

If Yes: Estimated Volume (Cubic Yards) 48

Air sparge / Soil vapor extraction

Name of Licensed Disposal Facility or COGCC Facility ID #

☐ Natural Attenuation  
☐ Other \_\_\_\_\_

☐ Excavate and onsite remediation  
☐ Land Treatment  
☐ Bioremediation (or enhanced bioremediation)  
☐ Chemical oxidation  
☐ Other \_\_\_\_\_

**Groundwater Remediation Summary**

☐ No Bioremediation ( or enhanced bioremediation )  
☐ No Chemical oxidation  
☐ No Air sparge / Soil vapor extraction  
☐ No Natural Attenuation  
☐ No Other \_\_\_\_\_

**GROUNDWATER MONITORING**

If groundwater has been impacted, describe proposed monitoring plan, including # of wells or sample points, monitoring schedule, analytical methods, points of compliance. Attach a groundwater monitoring location diagram.

No impact to groundwater

## REMEDIATION PROGRESS UPDATE

### PERIODIC REPORTING

#### Approved Reporting Schedule:

☒ Quarterly☐ Semi-Annually☐ Annually☐ Other

#### ☐ Request Alternative Reporting Schedule:

☐ Semi-Annually☐ Annually☐ Other

Rule 913.e:

After initial approval of a Form 27, the Operator will provide quarterly update reports in a Supplemental Form 27 to document progress of site investigation and remediation, unless an alternative reporting schedule has been requested by the Operator and approved by the Director. The Director may request a more frequent reporting schedule based on site-specific conditions.

#### Report Type:

☐ Groundwater Monitoring☐ Land Treatment Progress Report☐ O&M Report☒ Other Drill Cutting Remediation

### Adequacy of Operator's General Liability Insurance and Financial Assurance

Describe the adequacy of the Operator's general liability insurance and Financial Assurance to fully address the anticipated costs of Remediation, including the estimated remaining cost for this project (below).

If this information has been provided on a Form 27 within the last 12 months, provide the Document Number of that form.

In accordance with Rule 705 b., DEO maintains general liability insurance coverage for property damage, bodily injury to third parties, and sudden or accidental pollution that requires Remediation, with no exclusion for claims arising from operator-caused seismicity from oil or gas Wells, in the minimum amount of \$5,000,000 per occurrence. Operator has an approved Form 3 on file and is awaiting confirmation of the receipt of the bond by the ECMC via the Form 3A.

Operator anticipates the remaining cost for this project to be: \$ 20000

### WASTE DISPOSAL INFORMATION

Was E&P waste generated as part of this remediation? No

Describe beneficial use, if any, of E&P Waste derived from this remediation project:

Volume of E&P Waste (solid) in cubic yards

E&P waste (solid) description

COGCC Disposal Facility ID #, if applicable:

Non-COGCC Disposal Facility:

Volume of E&P Waste (liquid) in barrels

E&P waste (liquid) description

COGCC Disposal Facility ID #, if applicable:

Non-COGCC Disposal Facility:

# RECLAMATION PLAN

## RECLAMATION PLANNING

Describe reclamation plan. Discuss existing and new grade recontouring; method and testing of compaction alleviation; and reseeding program, including location of new seed, seed mix and noxious weed prevention. Attach diagram or drawing.

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.  
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. The Oil and Gas Location is relatively flat; there was no cut or fill needed to support well drilling. Minimal topsoil was disturbed. The topsoil was 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 were placed to protect the area from stormwater runoff and runoff. The area will be tilled to re-establish a seedbed. The anticipated seed mix was identified as a sitespecific seed mix in coordination with the Natural Resource Conservation Service District Conservationist, the Las Animas County Extension Service, and the surface owner. The seed weight (pounds/acre) and application rate will be provided to Desert Eagle Operating by the seed mix provider. The seed mix will be certified weed-free. 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. Desert Eagle Operating will monitor noxious and invasive weeds 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.

Is the described reclamation complete? No

Does the reclamation described herein constitute interim or final reclamation of the Oil and Gas Location?

☐ Interim ☐ Final

Did the Surface Owner provide the seed mix? No

If YES, does the seed mix comply with local soil conservation district recommendations? \_\_\_\_\_

Did the local soil conservation district provide the seed mix? No

## SITE RECLAMATION DATES

Proposed date of commencement of Reclamation. 02/01/2024

Proposed date of completion of Reclamation. 02/14/2024

## IMPLEMENTATION SCHEDULE

Per Rule 913.d.(2): Any change from the approved implementation schedule will be requested at least 14 days in advance, and the Operator may not make the change without the Director's approval.

### PRIOR DATES

Date of Surface Owner notification/consultation, if required. \_\_\_\_\_

Actual Spill or Release date, or date of discovery. \_\_\_\_\_

### SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). \_\_\_\_\_

Proposed site investigation commencement. 10/02/2023

Proposed completion of site investigation. 12/15/2023

### REMEDIAL ACTION DATES

Proposed start date of Remediation. \_\_\_\_\_

Proposed date of completion of Remediation. \_\_\_\_\_

Per Rule 913.d.(2): Any change from the approved implementation schedule will be requested at least 14 days in advance, and the Operator may not make the change without the Director's approval.

☐ Change from approved implementation schedule per Rule 913.d.(2).

Basis for change in implementation schedule:

**OPERATOR COMMENT**

Desert Eagle Operating endeavors to operate in a manner that protects public health, safety, welfare, the environment and wildlife resources.

I hereby certify all statements made in this form are to the best of my knowledge true, correct, and complete.

Signed: Cathy Bulf

Title: Manager

Submit Date: 11/28/2023

Email: Cathybulf@gmail.com

Based on the information provided herein, this Application for Site Investigation and Remediation Workplan complies with COGCC Rules and applicable orders and is hereby approved.

COGCC Approved: Kyle Waggoner

Date: 12/01/2023

Remediation Project Number: 32957

**COA Type****Description**

	Operator shall fully populate the implementation schedule in accordance with Rule 913.d on the subsequent Supplemental Form 27.
	With the subsequent Supplemental Form 27, Operator shall provide all waste manifests for all E&P Waste, inspection derived wastes, and oily waste (soil and groundwater) hauled off-site for disposal during the course of this site investigation as required by Rule 905.b.(3).
	If impacted soils are encountered during Drill Cuttings removal, the impacted soil will be segregated for proper offsite disposal and the lateral and vertical extent of impacts shall be determined with appropriate confirmation soil sampling.
	In accordance with 913.d.(1) Operator will investigate impacts to soil, Groundwater, and surface water as soon as the impacts are discovered.
	Operator lists Phantom Landfill as means of disposal. In a conversation with the Operator there was another Landfill mentioned as a means of disposal. Operator shall update the Disposal Facility where Drill Cuttings/E&P Waste will be hauled for disposal. Operator shall update/indicate the Name of the Licensed Disposal Facility or ECMC Facility ID # under the Soil Remediation Summary section on the next Supplemental Form 27.
	Operator shall collect confirmation soil samples under the Drill Cuttings pile after removal to assure compliance with Table 915-1 Standards, Operator shall collect confirmation soil samples as described in the Rule 915.e.(2) Guidance Document. Operator will analyze soil samples for TPH (C6-C36), Table 915-1 Organic Compounds in Soil, Table 915-1 metals, and Table 915-1 Soil Suitability for Reclamation (Electrical conductivity, Sodium adsorption ratio, and pH by saturated paste method, boron (hot water soluble)).
6 COAs	

**Attachment Check List**

Upon approval, the approved Form 27 and all listed attachments will be indexed to the Remediation Project file. Only the approved Form 27 will also be indexed to the related Facilities.

**Att Doc Num****Name**

403526241	INVESTIGATION/REMEDATION WORKPLAN (INITIAL)
403592348	RECLAMATION FIGURE
403607364	ANALYTICAL RESULTS
403607693	ANALYTICAL RESULTS
403607930	SOIL SAMPLE LOCATION MAP
403612168	FORM 27-INITIAL-SUBMITTED

Total Attach: 6 Files

**General Comments**

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Environmental	Additional analytical constituents exceeding Table 915-1 concentration levels or present were not highlighted as exceedances in the table.	12/01/2023

Total: 1 comment(s)