

State of Colorado
Energy & Carbon Management Commission

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Document Number:
404162661

Receive Date:

Report taken by:

Site Investigation and Remediation Workplan (Supplemental 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 ECOM 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>	Phone Numbers
Address: <u>17330 PRESTON RD STE 200D-208</u>		Phone: <u>(214) 886-5098</u>
City: <u>DALLAS</u> State: <u>TX</u> Zip: <u>75252</u>		Mobile: <u>()</u>
Contact Person: <u>Wesley Marshall</u>	Email: <u>wmarshall@prohelium.com</u>	

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 33149 Initial Form 27 Document #: 403611699

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

Yes Multiple Facilities

Facility Type: <u>LOCATION</u>	Facility ID: <u>485691</u>	API #: _____	County Name: <u>LAS ANIMAS</u>
Facility Name: <u>Red Rocks 1-16</u>	Latitude: <u>37.464488</u>	Longitude: <u>-103.518825</u>	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: <u>NENE</u>	Sec: <u>1</u>	Twps: <u>30S</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

Other Potential Receptors within 1/4 mile

None

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	Unknown	Visual

INITIAL ACTION SUMMARY

Description of initial action or emergency response measures take 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. Drill cuttings were treated as oily waste and trucked off location to the Trinidad Landfill.

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):

Five (5) discreet soil samples have been taken in the area beneath the drill cuttings impermeable tarp, three (3) discreet soil samples were taken immediately adjacent the east of the tarp location, six (6) discreet samples were taken north and slightly west in the area identified as potentially impacted, and one (1) discreet background soil sample was taken approximately 100 yds from any areas potentially impacted by oil and gas operations near the location - Attachment Proposed Soil Sampling Locations Red Rocks 1-16.pdf. Samples were taken in compliance with Rule 905.e. 2 a. Soil samples were tested for contaminants of concern listed in Table 915-1 to assess the impact. The background sample was taken near the location and sufficiently away from the potentially impacted area to reflect conditions not impacted by oil and gas activity. Testing was expanded to include background samples at other Red Rocks locations, see Attachment 03052025 Red Rocks pH - Combined.pdf

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):

This location has no nearby surface water.

Additional Investigative Actions

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

SITE INVESTIGATION REPORT

SAMPLE SUMMARY

Soil

Number of soil samples collected 15
Number of soil samples exceeding 915-1 15
Was the areal and vertical extent of soil contamination delineated? No
Approximate areal extent (square feet) 5377

NA / ND

-- Highest concentration of TPH (mg/kg) 48
-- Highest concentration of SAR 7.3
BTEX > 915-1 No
Vertical Extent > 915-1 (in feet) 0

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?

One discreet background sample was collected approximately 100' upgradient from the areas identified for potential remediation at the Red Rocks 1-16 location. Samples were analyzed for TPH, Table 915-1 Organic Compounds in Soil, Table 915-1 metals, and Table 915-1 Soil Suitability for Reclamation at this location. An expanded Analysis Area was developed to include the locations of Red Rocks 35-15, Red Rocks 1-14, Red Rocks 1-16, and the Red Rocks 35-11 - See Attachment 03052025 Red Rocks pH - Combined.pdf. The third party Environmental Engineering company, Topographic, found the naturally occurring pH levels across the Analysis Area exceed Table 915-1 Cleanup Concentration values. As stated in the report, "Given that the highest recorded pH values were from undisturbed background samples, further delineation is not warranted or feasible." See attached Red Rocks pH Discussion 03062025.pdf.

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

Does this Supplemental Form 27A include changes to a previously approved Remedial Action Plan? No

SOURCE REMOVAL SUMMARY

Describe how source is to be removed.

Drill cuttings were placed in trucks to hauled to an approved waste facility that accepts E&P waste in compliance with Rule 905.b.(1),(3). Attachment RR 1-16 Waste Manifes Dec 2024.pdf

REMEDICATION 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.

Remediation not feasible as background soil samples exceed Table 915-1 Soil Suitability for Reclamation. Topographic Engineering's attached report, Red Rocks pH Discussion 03062025.pdf, states "Given that the highest recorded pH values were from undisturbed background samples, further delineation is not warranted or feasible."

Soil Remediation Summary

In Situ

Ex Situ

_____ Bioremediation (or enhanced bioremediation)

_____ Chemical oxidation

_____ Air sparge / Soil vapor extraction

_____ Natural Attenuation

_____ Other _____

Yes _____ Excavate and offsite disposal

_____ If Yes: Estimated Volume (Cubic Yards) _____ 50

_____ Name of Licensed Disposal Facility or ECMC Facility ID # _____

_____ 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.

REMEDATION 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 Cuttings

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.

Operator anticipates the remaining cost for this project to be: \$ 16000

WASTE DISPOSAL INFORMATION

Was E&P waste generated as part of this remediation? Yes

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

Volume of E&P Waste (solid) in cubic yards 50

E&P waste (solid) description drill cuttings

ECMC Disposal Facility ID #, if applicable: _____

Non-ECMC Disposal Facility: Trinidad Landfill

Volume of E&P Waste (liquid) in barrels 0

E&P waste (liquid) description _____

ECMC Disposal Facility ID #, if applicable: _____

Non-ECMC Disposal Facility: _____

REMEDATION COMPLETION REPORT

REMEDATION COMPLETION SUMMARY

Is this a Final Closure Request for this Remediation Project? No

If YES:

- Compliant with Rule 913.h.(1).
- Compliant with Rule 913.h.(2).
- Compliant with Rule 913.h.(3).

Do all soils meet Table 915-1 standards? No

Does the previous reply indicate consideration of background concentrations? _____

Does Groundwater meet Table 915-1 standards? Yes

Is additional groundwater monitoring to be conducted? _____

Operator shall comply with the ECMC 1000-Series Reclamation Requirements for all impacted and disturbed areas.

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 and will support well operations, 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. The Oil and Gas Location is relatively flat; there was no cut or fill needed to support well drilling. Minimal topsoil was disturbed. Additional topsoil will be brought in if required to facilitate reclamation. 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. The area will be tilled to reestablish 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. Soil will be amended if necessary, straw mulched and crimped. 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. 09/30/2025

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. 10/01/2024

Proposed completion of site investigation. 06/30/2025

REMEDIAL ACTION DATES

Proposed start date of Remediation. 05/01/2025

Proposed date of completion of Remediation. 06/30/2025

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

This well is an inert, low pressure helium gas well that was air drilled, no mud was used, no acidation or fracture stimulation was performed, there were no hydrocarbons or produced water. As provided in the COGCCOPERATOR GUIDANCE RULE 915.E.(2) - SOIL SAMPLING AND ANALYSIS, one background sample was taken sufficiently away from the areas of suspected contaminaiton of approximately 100 ft. and obtained from similar depths and soil horizons for comparison to the confirmation soil sample- see attached Proposed Soil Testing Location Map RR 1-16..pdf. Euro-Fin labs were requested by DEO to comply with the NEW lab reporting guidance rules and the lab report was sent in a secured file. . The requested revision was provided by Eurofin and resubmitted with the documented in the lab report as follows: "REVISION The report being provided is a revision of the original report sent on 2/27/2025. The report (revision 1) is being revised due to client is requesting a secured file. This will cause the original modified date to differ from the issued date." The ECMC again returned the report to Draft as the report from Euro-Fin was not secured in the manner in which the ECMC required. Eurofin was again contacted, a new password protected report was transmitted to DEO on 5/6/2025, and it is the attached file RR 1-16 J202506-1 UDS Level 2 Report Rev(1) Final Report.pdf
No groundwater was encountered. Soil samples were taken asdescribed in Rule 915.e.(2) Guidance documents. Samples were analyzed for TPH, Table 915-1 Organic Compounds in Soil, Table 915-1 metals, and Table 915-1 Soil Suitability for Reclamation at this location and the expanded Analysis Area to include the locations of Red Rocks 35-15, Red Rocks 1-14, Red Rocks 35-08 , and the Red Rocks 35-11 . See Attachment RR 1-16 Table 915-1.pdf. DEO contracted with Topographic, an Environmental Engineering company, to conduct the soil sampling and required analysis. Topographic found the naturally occurring pH levels across the Analysis Area exceed Table 915-1 Cleanup Concentration values. Topographic's environmental engineer stated, "Given that the highest recorded pH values were from undisturbed background samples, further delineation is not warranted or feasible." See Attachmet Red Rocks pH Discussion 03062025.pdf and Attachment 03052025 Red Rocks pH - Combined.pdf. Per COGCC Operator Guidance Rule 915.b, DEO requests leaving materials with elevated concentrations of EC, SAR, or pH in situ and proceeding with reclamation.

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: _____

Email: cathybulf@gmail.com

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

ECMC Approved: _____

Date: _____

Remediation Project Number: 33149

COA Type

Description

0 COA	
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ATTACHMENT 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

404162663	ANALYTICAL DATA SUMMARY TABLE(S)
404162666	MAP
404162668	SOIL SAMPLE LOCATION MAP
404192619	ANALYTICAL RESULTS
404192691	ANALYTICAL RESULTS

Total Attach: 5 Files

General Comments

User Group

Comment

Comment Date

		Stamp Upon Approval
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Total: 0 comment(s)