

State of Colorado
Oil and Gas Conservation Commission

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403057775
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Report taken by:
ALEX FISCHER

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: RED MESA HOLDINGS/O&G LLC	Operator No: 10254	Phone Numbers
Address: 5619 DTC PARKWAY - STE 800		Phone: (970) 903-4072
City: GREENWOOD VILLAGE State: CO Zip: 80111		Mobile: ()
Contact Person: Jim Hughes	Email: jimo.hughes@state.co.us	

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 24430 Initial Form 27 Document #: 403057775

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: _____

SITE INFORMATION

No Multiple Facilities

Facility Type: WELL	Facility ID: _____	API #: 067-06139	County Name: LA PLATA
Facility Name: CUSHING (OWP) C-1	Latitude: 37.049730	Longitude: -108.156550	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: NW	Sec: 1	Twp: 32N	Range: 13W Meridian: N Sensitive Area? Yes

SITE CONDITIONS

General soil type - USCS Classifications MH Most Sensitive Adjacent Land Use Grazing
Is domestic water well within 1/4 mile? No Is surface water within 1/4 mile? Yes
Is groundwater less than 20 feet below ground surface? No

Other Potential Receptors within 1/4 mile

Bragg Draw, an ephemeral drainage, is north of this location.

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	GROUNDWATER	TBD	Field screening and analytical results
UNDETERMINED	SOILS	TBD	Field screening and analytical results

INITIAL ACTION SUMMARY

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

The COGCC Orphan Well Program will be plugging the Cushing (OWP) #C-1 well and decommissioning any associated on location flow lines and/or production equipment. Soil samples will be collected in accordance with COGCC Rule 915.e(2)B. Samples will be collected from the wellhead excavation, flow line path(s), as well as any other area likely to have been impacted. Samples will be submitted for laboratory analysis of Table 915-1 constituents.

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):

Soil samples will be collected for laboratory analysis of Table 915-1 constituents from areas most likely to have been impacted. Visual inspection and field screening of soils will be conducted in the areas surrounding the flow line(s) if present, and well head. Based on these observations, soil samples may be collected and submitted for laboratory analysis of Table 915-1 constituents. Discrete soil samples will be collected for confirmation of compliance with Table 915-1.

Proposed Groundwater Sampling

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

If a pathway to groundwater is discovered or groundwater is encountered during remediation activities, a sample(s) will be collected and analyzed for Table 915-1 constituents and notice given to COGCC.

Proposed Surface Water Sampling

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

Empty text box for surface water sampling details.

Additional Investigative Actions

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

Pit Facility ID #115696 will be addressed under a separate Remediation Project.

SITE INVESTIGATION REPORT

SAMPLE SUMMARY

Soil

Number of soil samples collected _____ 0
Number of soil samples exceeding 915-1 _____
Was the areal and vertical extent of soil contamination delineated? _____
Approximate areal extent (square feet) _____

NA / ND

_____ Highest concentration of TPH (mg/kg) _____
_____ Highest concentration of SAR _____
BTEX > 915-1 _____
Vertical Extent > 915-1 (in feet) _____

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?

Background soil conditions will be determined by the analysis of a sample(s) collected from nearby, non-impacted native soil to establish background concentrations.

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 Cushing (OWP) #C-1 well will be plugged and abandoned. Any/all production equipment associated with this well on the Oil and Gas Location will be removed or decommissioned.

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.

Impacted material discovered during the scope of this work plan will be removed and disposed of as E&P waste at an approved facility.

Soil Remediation Summary

In Situ

Ex Situ

_____ Bioremediation (or enhanced bioremediation)

_____ Yes Excavate and offsite disposal

_____ Chemical oxidation

If Yes: Estimated Volume (Cubic Yards) _____ 10

_____ Air sparge / Soil vapor extraction

Name of Licensed Disposal Facility or COGCC Facility ID # _____ 0

_____ Natural Attenuation

_____ Excavate and onsite remediation

_____ Other _____

_____ Land Treatment

_____ Bioremediation (or enhanced bioremediation)

_____ Chemical oxidation

_____ Other _____

Groundwater Remediation Summary

_____ Bioremediation (or enhanced bioremediation)

_____ Chemical oxidation

_____ Air sparge / Soil vapor extraction

_____ Natural Attenuation

_____ 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.

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 Facility closure _____

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.

Reclamation will be in accordance with COGCC 1000 Series Rules, and will be addressed during a separate phase of the OWP work.

Is the described reclamation complete? _____

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? _____

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

Did the local soil conservation district provide the seed mix? _____

SITE RECLAMATION DATES

Proposed date of commencement of Reclamation. _____

Proposed date of completion of Reclamation. _____

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. 08/01/2022

Proposed completion of site investigation. _____

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

This Site Investigation and Remediation Work Plan is being submitted by the COGCC Orphaned Well Program.

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

Signed: Jim Hughes

Title: OWP Western Region EPS

Submit Date: 05/24/2022

Email: jimo.hughes@state.co.us

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: ALEX FISCHER

Date: 08/05/2022

Remediation Project Number: 24430

Condition of Approval

COA Type

Description

	Form 44 not found in well file for offline flowline abandonment. Comply with COGCC Rule 1105 flowline abandonment requirements, including notification and verification requirements.
	Upon discovery of E&P impact during the PA and removal of equipment, the operator must submit a Form 19, investigate the extent of release, and submit a supplemental form 27 with proposed investigation sample sites for COGCC staff approval.
	Final Reclamation shall comply with the COGCC 1000 Series Rules. Consult COGCC Reclamation Specialist regarding interim and/or final reclamation.
	Sampling of inorganics will occur as part of the 915-1 evaluation to demonstrate the contamination of soils due to E&P waste within the root zone. Root zone depth will be determined by the Operator and approved by COGCC. Sampling should occur at discrete intervals in potentially impacted areas with comparable discrete samples in reference areas.
	Operator shall collect sample(s) from comparable, nearby non-impacted native soil for purposes of establishing background soil conditions including pH, electrical conductivity (EC) and sodium adsorption ratio (SAR), per Rule 915.e.(2).D.
	Reseeding with species consistent with the adjacent plant community is encouraged. The Operator will use a seed mixture requested by the surface owner. In the absence of an agreement between the operator and the affected surface owner as to what seed mix should be used, the operator shall consult with a representative of the local soil conservation district to determine the proper seed mix to use in revegetating the disturbed area. A Bureau of Land Management approved seed mix specific to the ecological site would also be acceptable.
	F42 Doc #403105677 states that the on-location flowline will be removed. An adequate number of discrete soil samples will be collected for confirmation of compliance with Table 915-1. Samples locations should focus along hammer unions, couplings, joints, and cut(s) of the flowlines. Based on the inspections, there should be a focus in and around the former tank battery.
	All risers associated with the well/facility, including both flowline and gathering line risers must be removed per 1004 Rules.
	Form 6 Doc #403025316 COA included: 1)Perform bradenhead test prior to MIRU if test has not been performed within six months of plugging. Submit results on Form 17. Contact area environmental protection specialist for sampling and analysis requirements if initial bradenhead pressure is greater than 25 psi. No bradenhead test was found on file. Comply with Form 6 Doc #403025316 COAs. If a bradenhead test was not performed, on a Supplemental F27 provide an explanation to why the bradenhead test was not completed.

9 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.

<u>Att Doc Num</u>	<u>Name</u>
403057775	FORM 27-INITIAL-SUBMITTED
403057823	SOIL SAMPLE LOCATION MAP

Total Attach: 2 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Environmental	<p>Inspection Doc #669400099 noted a 300 bbl crude steel AST.</p> <p>Inspection Doc #674601592 noted Oily soils/wasted on concrete pad, unused gas dehydration vessel near well head.</p> <p>Inspection Doc #685200009 noted oil and oily soils near tank and ". 2 Tanks had recently been removed from the Cushing C-1 battery and earthen berms have been flattened out. 2 uncapped riser pipes remain. Oily soils were covered up with some fresh gravel, a few spots of crude oil were observed on round and mixing with snowmelt."</p> <p>Inspection Doc #674900934 noted impacted material and two risers at the tank battery location.</p> <p>Inspection Doc #685301210 noted impacted material and two risers at the tank battery location.</p> <p>Inspection Doc #674901642 noted two pipe stubs located where the ASTs were have no caps on them and that oil had leaked onto the ground.</p> <p>Inspection Doc #674901767 noted two pipe stubs located where the ASTs with oil staining on the ground.</p>	08/05/2022
Environmental	<p>Pit Facility ID 115696 is listed as the Cushing C-11 and unknown status. It is stated that "Pit Facility ID #115565 will be addressed under a sperate remediation project."</p>	08/05/2022
Environmental	<p>FEE/FED</p> <p>National Wetlands Inventory shows a Riverine approximately 1100 feet north of the well head.</p> <p>High Priority Habitat Mule Deer Severe Winter Range</p> <p>High Priority Habitat Mule Deer Winter Concentration</p> <p>Pipe line = The Red Mesa Gathering System Above Ground</p>	08/04/2022

Total: 3 comment(s)