

State of Colorado
Oil and Gas Conservation Commission

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Document Number:

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Receive Date:

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 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.

Report taken by:

OPERATOR INFORMATION

| | | | |
|---|---------------------------------|-----------------|------------------------|
| Name of Operator: KERR MCGEE OIL & GAS ONSHORE LP | Operator No: 47120 | Phone Numbers | |
| Address: P O BOX 173779 | | | Phone: (970) 336-3500 |
| City: DENVER | State: CO | Zip: 80217-3779 | Mobile: (970) 515-1698 |
| Contact Person: Gregory Hamilton | Email: Gregory_Hamilton@oxy.com | | |

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 25604 Initial Form 27 Document #: 403196355

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 #: 123-19014 | County Name: WELD |
| Facility Name: PSC 31-10 | Latitude: 40.242596 | Longitude: -104.878274 | |
| ** correct Lat/Long if needed: Latitude: _____ | | Longitude: _____ | |
| QtrQtr: SENW | Sec: 10 | Twp: 3N | Range: 67W Meridian: 6 Sensitive Area? Yes |

SITE CONDITIONS

General soil type - USCS Classifications SC Most Sensitive Adjacent Land Use Non-crop land
 Is domestic water well within 1/4 mile? Yes Is surface water within 1/4 mile? Yes
 Is groundwater less than 20 feet below ground surface? Yes

Other Potential Receptors within 1/4 mile

Multiple buildings are located within ¼ mile of the facility.
The nearest building is located approximately 620 feet north-northeast of the wellhead.
The nearest domestic water well is located approximately 550 feet northeast of the wellhead.
Surface water is located approximately 375 feet north of the wellhead.
A wetland is located approximately 765 feet west of the wellhead.
The facility is located within a designated high-priority habitat.

SITE INVESTIGATION PLAN

TYPE OF WASTE:

- | | | |
|--|--|--|
| <input checked="" type="checkbox"/> E&P Waste | <input type="checkbox"/> Other E&P Waste | <input type="checkbox"/> Non-E&P Waste |
| <input checked="" type="checkbox"/> Produced Water | <input type="checkbox"/> Workover Fluids | |
| <input checked="" type="checkbox"/> Oil | <input type="checkbox"/> Tank Bottoms | |
| <input checked="" type="checkbox"/> Condensate | <input type="checkbox"/> Pigging Waste | |
| <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Rig Wash | |
| <input type="checkbox"/> Drill Cuttings | <input type="checkbox"/> Spent Filters | |
| | <input type="checkbox"/> Pit Bottoms | |
| | <input type="checkbox"/> Other (as described by EPA) | |

DESCRIPTION OF IMPACT

| Impacted? | Impacted Media | Extent of Impact | How Determined |
|-----------|----------------|------------------------|---|
| No | SOILS | No impacts encountered | Inspection/soil samples/laboratory 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.

Wellhead cut and cap operations were completed at the PSC 31-10 wellhead on January 5, 2023. This work was conducted by Kerr-McGee at the request of the COGCC, given that the operator of the PSC 31-10 well is no longer in existence. Groundwater was not encountered in the wellhead cut and cap excavation area. Visual inspection and field screening of soils around the well and associated pumping equipment was conducted following wellhead cut and cap operations, and a soil sample (WH-B01@6') was submitted for laboratory analysis to determine if a release occurred. A topographic Site Location Map showing the geographic setting of the site location is provided as Figure 1. Soil sample location and field screening data are presented in Table 1. Soil analytical results are summarized in Tables 2 and 3. The wellhead soil sample and field screening locations are illustrated on Figure 2.

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):

On January 5, 2023, a confirmation soil sample was collected from the base of the cut and cap excavation area (WH-B01@6'), at a depth of approximately 6 feet below ground surface (bgs). The soil sample was submitted for laboratory analysis of benzene, toluene, ethylbenzene, total xylenes (BTEX), 1,2,4- and 1,3,5-trimethylbenzene (TMB), naphthalene, total petroleum hydrocarbons (TPH) - gasoline range organics (GRO: C6-C10), diesel range organics (DRO: C10-C28), and oil range organics (ORO: C28-C40), pH, specific conductivity (EC), sodium adsorption ratio (SAR), and boron using standard COGCC-approved methods appropriate for detecting the target analytes in Table 915-1. Analytical results indicate that constituent concentrations in the confirmation soil sample were in compliance with COGCC Table 915-1 standards. Soil analytical results are summarized in Tables 2 and 3. The laboratory analytical report is provided as Attachment A.

Proposed Groundwater Sampling

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

Groundwater was not encountered during wellhead cut and cap operations.

Proposed Surface Water Sampling

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

Additional Investigative

Actions

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

On January 5, 2023, visual inspection and field screening of soils was conducted at 4 sidewall locations within the wellhead cut and cap excavation area and 4 locations at the ground surface adjacent to the cut and cap excavation. Based on the inspection and screening results, hydrocarbon-impacted soil was not observed at the soil screening locations. As a result, no soil samples were submitted for laboratory analysis from these areas in accordance with the COGCC Operator Guidance for Oil & Gas Facility Closure document. Soil sample location and field screening data are presented in Table 1. Soil analytical results are summarized in Tables 2 and 3. The soil sample and field screening locations are illustrated on Figure 2. The laboratory analytical report is provided as Attachment A. The field notes and a photographic log are provided as Attachment B.

SITE INVESTIGATION REPORT

SAMPLE SUMMARY

Soil

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

NA / ND

ND Highest concentration of TPH (mg/kg) _____
-- Highest concentration of SAR 1.74
BTEX > 915-1 No
Vertical Extent > 915-1 (in feet) 0

Groundwater

Number of groundwater samples collected 0
Was extent of groundwater contaminated delineated? Yes
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 samples BG-01@3', BG-01@6', BG-02@3', and BG-02@6' were collected from native material adjacent to the wellhead cut and cap excavation area. The background soil samples were submitted for laboratory analysis of the Soil Suitability for Reclamation Parameters using standard COGCC-approved methods appropriate for detecting the target analytes in Table 915-1. Analytical results for the background soil samples are presented in Table 3.

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.

Laboratory results indicate that constituent concentrations in the soil sample collected from the base of the wellhead cut and cap excavation area (WH-B01@6') were in compliance with COGCC Table 915-1 standards; therefore no soils were removed during wellhead cut and cap operations. The excavation area was subsequently backfilled and contoured to match pre-existing site conditions.

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.

Laboratory results indicate that constituent concentrations in the soil sample collected from the base of the wellhead cut and cap excavation area (WH-B01@6') were in compliance with COGCC Table 915-1 standards. Groundwater was not encountered in the cut and cap excavation area. Based on the analytical and soil screening data presented herein, assessment is complete at this site and no further activities are required. As such, Kerr- McGee is requesting a No Further Action (NFA) determination for this location.

Soil Remediation Summary

In Situ

- Bioremediation (or enhanced bioremediation)
- Chemical oxidation
- Air sparge / Soil vapor extraction
- Natural Attenuation
- Other _____

Ex Situ

- Excavate and offsite disposal
- If Yes: Estimated Volume (Cubic Yards) _____
- Name of Licensed Disposal Facility or COGCC Facility ID # _____
- Excavate and onsite remediation
- 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.

Is additional groundwater monitoring to be conducted? _____

Operator shall comply with the COGCC 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.

The site will be reclaimed in accordance with COGCC 1000 Series Reclamation Rules.

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. 07/28/2022

Actual Spill or Release date, or date of discovery. _____

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 01/05/2023

Proposed site investigation commencement. 01/05/2023

Proposed completion of site investigation. 01/05/2023

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:

KMOG will not conduct operations related to this form between 11/15/2022 – 3/15/2023 as this location resides within a Bald Eagle Winter Night Roost Habitat.

OPERATOR COMMENT

Kerr-McGee has conducted the activities described herein at the request of the COGCC, given the fact the operator of the PSC 31-10 well is no longer in existence. In accordance with COGCC Rule 911.a., and consistent with the COGCC's request, Kerr-McGee's activities have included the collection and submittal of a soil sample for laboratory analysis to determine if concentrations and values are in compliance with COGCC Table 915-1. Laboratory results indicate that constituent concentrations in the soil sample collected from the base of the wellhead cut and cap excavation area (WH-B01@6') were in compliance with COGCC Table 915-1 standards. Based on the analytical and soil screening data presented herein, assessment is complete at this site and no further activities are required. As such, Kerr McGee is requesting a No Further Action (NFA) determination for this location.

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

Signed: Gregory Hamilton

Title: Environmental Consultant

Submit Date: _____

Email: Gregory_Hamilton@oxy.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: _____

Date: _____

Remediation Project Number: 25604

COA Type**Description**

| COA Type | Description |
|----------|-------------|
| 0 COA | |

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**

| | |
|-----------|--------------------------|
| 403362360 | PHOTO DOCUMENTATION |
| 403362362 | SITE MAP |
| 403362364 | SOIL SAMPLE LOCATION MAP |
| 403362365 | ANALYTICAL RESULTS |
| 403362367 | ANALYTICAL RESULTS |

Total Attach: 5 Files

General Comments**User Group****Comment****Comment Date**

| User Group | Comment | Comment Date |
|------------|---------|---------------------|
| | | Stamp Upon Approval |

Total: 0 comment(s)