

State of Colorado  
Energy & Carbon Management Commission

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Report taken by:  
Laurel Anderson

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>KERR MCGEE OIL &amp; GAS ONSHORE LP</u> | Operator No: <u>47120</u>                 | <b>Phone Numbers</b>         |
| Address: <u>P O BOX 173779</u>                               |   | Phone: <u>(970) 515-1110</u> |
| City: <u>DENVER</u> State: <u>CO</u> Zip: <u>80217-3779</u>  |   | Mobile: <u>( )</u>           |
| Contact Person: <u>Macy Kiel</u>                             | Email: <u>DJRemediation_Forms@oxy.com</u> |                              |

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 35444 Initial Form 27 Document #: 403704266

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

Yes  Multiple Facilities

Facility Type: TANK BATTERY Facility ID: 486704 API #: \_\_\_\_\_ County Name: WELD  
 Facility Name: HUDSON 12-26A EICHTH FACILITY Latitude: 40.104912 Longitude: -104.636135  
TB  
 \*\* correct Lat/Long if needed: Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_  
 QtrQtr: SWSW Sec: 26 Twp: 2N Range: 65W Meridian: 6 Sensitive Area? Yes

Facility Type: SPILL OR RELEASE Facility ID: 487258 API #: \_\_\_\_\_ County Name: WELD  
 Facility Name: Hudson 12-26A/Eichth Facility Latitude: 40.104957 Longitude: -104.636320  
 \*\* correct Lat/Long if needed: Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_  
 QtrQtr: SWSW Sec: 26 Twp: 2N Range: 65W Meridian: 6 Sensitive Area? Yes

## SITE CONDITIONS

General soil type - USCS Classifications SM

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? Yes

### **Other Potential Receptors within 1/4 mile**

County Road 1,010 feet (ft) south. No other potential receptors were identified within 1/4 mile of the site.

# 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                                    |
|--------------|----------------|------------------|---|
| UNDETERMINED | GROUNDWATER    | TBD              | Groundwater Samples/Laboratory Analytical Results |
| Yes          | SOILS          | TBD              | 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.

Decommissioning activities were completed at the Husdon 12-26A, Eichth Facility on June 21, 2024. Groundwater was not encountered during excavation activities. Visual inspection and field screening of soil at one aboveground storage tank (AST), one produced water vessel (PWV), one emission control device (ECD), two meter houses, three potholes, and one separator were conducted following removal activities, and soil samples (AST01@0.5', PWVW01@ 3', PWV-B01@5', SEP01-INLET@5', and SEP01-OUTLET@5') were submitted for analysis of full list Table 915-1 constituents to determine if a release occurred. Laboratory analytical results indicated that benzene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene (TMBs), polycyclic aromatic hydrocarbon (PAH), pH, arsenic, barium, cadmium, and/or chromium impacts exceeding the ECOM Table 915-1 allowable levels or site-specific background levels were present at the former AST and PWV locations. A verification sample was collected at the AST01@0.5' location and confirmed the initial benzo(a)anthracene exceedance. As such, a Form 19 Initial/Supplemental Spill/Release Report (Document No. 403834238) was submitted on June 27, 2024 and the ECOM issued Spill/Release Point ID 487258. The facility soil sample locations are depicted on Figure 1. The PID readings and soil sample results are summarized in Tables 1 and 2, respectively.

Assessment activities are ongoing and details will be submitted in a subsequent Form 27 Supplemental report.

## 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 ):

Between June 21 and July 31, 2024, excavation activities were conducted to address remaining soil impacts at the former AST and PWV locations. Confirmation soil samples were collected from the base of the AST excavation at a depth of 2 feet below ground surface (ft bgs), and from the base and sidewalls of the PWV excavation at depths of 8 ft bgs and 5 ft bgs, respectively. The samples were submitted for analysis of the site-specific waste profile, including Table 915-1 organic constituents, pH, and select Table 915-1 metals, using ECOM-approved methods. Laboratory analytical results indicated that soil at the final extents of the excavation is within the ECOM Table 915-1 allowable levels or within background levels. Per the General Comment issued by the ECOM for Form 27 Document No. 404001472, additional sample volume will be collected at AST01@2' and at the final extents of the PWV excavation and run for the remaining full list Table 915-1 constituents.

### Proposed Groundwater Sampling

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

Groundwater was not encountered during facility decommissioning activities.

### 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 June 21, 2024, visual inspections and field screening of soil were conducted at the hatch and loadout of the AST, three sidewalls of the PWV excavation, three potholes, two meter houses, and one ECD. Based on the inspection and screening results, hydrocarbon-impacted soils were 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 ECOM Operator Guidance for Oil & Gas Facility Closure document.

# SITE INVESTIGATION REPORT

## SAMPLE SUMMARY

### Soil

Number of soil samples collected 12

Number of soil samples exceeding 915-1 11

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

Approximate areal extent (square feet) 600

### NA / ND

-- Highest concentration of TPH (mg/kg) 51.7

-- Highest concentration of SAR 2.44

BTEX > 915-1 Yes

Vertical Extent > 915-1 (in feet) 8

### 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?

Eighteen background soil samples (Native-BG01@0.5' through Native-BG06@0.5', Native-BG07@3' through Native-BG12@3', and Native-BG07@6' through Native-BG12@6') were collected from the native material during Hudson 12-26A wellhead decommissioning activities (Remediation No. 35064), located approximately 1,200 ft north and a similar NRCS soil type (Osgood Sand and Valent Sand). The soil type was also field verified to be the same at both locations. The background soil samples were submitted for analysis of electrical conductivity (EC), sodium adsorption ratio (SAR), pH, boron, and Table 915-1 metals, using ECMC approved methods. Laboratory analytical results indicate that levels of pH, arsenic, barium, and hexavalent chromium are naturally high in the native soil. The background sample analytical results are summarized in Table 2. The background sample locations are depicted on Figure 2.

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?

Assessment activities are ongoing and will be summarized in a subsequent Form 27 Supplemental report.

## 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.

Approximately 120 cubic yards of impacted soil were removed from the site and transported to the Buffalo Ridge Landfill in Keenesburg, Colorado for disposal. Disposal records are kept on file and are available upon request. The excavation areas were backfilled and contoured to match pre-existing 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 data indicate that soil at the final excavation extents is within the ECMC Table 915-1 allowable levels or background levels for a reduced set of Table 915-1 analytes. Per the General Comment issued by the ECMC for Form 27 Document No. 404001472, additional sample volume will be collected at AST01@2' and at the final extents of the PWV excavation and run for the remaining full list Table 915-1 constituents. Groundwater was not encountered in the facility excavations. Assessment activities are ongoing and will be summarized in a subsequent Form 27 Supplemental report.

### **Soil Remediation Summary**

In Situ

Ex Situ

\_\_\_\_\_ Bioremediation ( or enhanced bioremediation )

Yes \_\_\_\_\_ Excavate and offsite disposal

\_\_\_\_\_ Chemical oxidation

If Yes: Estimated Volume (Cubic Yards) \_\_\_\_\_ 120

\_\_\_\_\_ Air sparge / Soil vapor extraction

Name of Licensed Disposal Facility or ECMC Facility ID # \_\_\_\_\_

\_\_\_\_\_ Natural Attenuation

No \_\_\_\_\_ 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.



Does Groundwater meet Table 915-1 standards? \_\_\_\_\_

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.

The site will be reclaimed in accordance with ECMC 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. 06/24/2024

Actual Spill or Release date, or date of discovery. 06/24/2024

### SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 06/21/2024

Proposed site investigation commencement. 06/21/2024

Proposed completion of site investigation. 12/18/2025

### REMEDIAL ACTION DATES

Proposed start date of Remediation. 06/21/2024

Proposed date of completion of Remediation. 12/18/2025

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

The impacts identified at the AST01 @0.5' location were removed via excavation. Following excavation activities, a confirmation soil sample was collected from the base of the shallow excavation at 2 ft bgs (AST01@2'), as shown in the attached analytical tables and Figure 1. The sample was submitted for analysis of the site-specific waste profile and results were within the ECMC Table 915-1 allowable levels or background levels; however, per the General Comment issued by the ECMC for Form 27 Document No. 404001472, additional sample volume will be collected at AST01@2' and at the final extents of the PWV excavation and run for the remaining full list Table 915-1 constituents.

The background samples collected as part of the Hudson 12-26A wellhead decommissioning activities were collected from a sand NRCS soil type which matches the general lithology of the NRCS soil type at the Hudson 12-26A, Eichth facility, as depicted in Figure 2. Furthermore, the samples were collected within the same rangeland. As such, Kerr-McGee is requesting to continue applying the backgrounds from the Hudson 12-26A wellhead to this remediation number.

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

Signed: Macy Kiel

Title: HSE Advisor

Submit Date: 07/24/2025

Email: DJRemediation\_Forms@oxy.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: Laurel Anderson

Date: 01/23/2026

Remediation Project Number: 35444

## COA Type

## Description

|       |  |
|-------|--|
|       | <p>ECMC has previously denied the use of background samples from Remediation Project #35064 with the following COA: "Background samples from Remediation Project #35064 are invalid for this location as they were collected within a separate NRCS soil type and are over 1300' away. These samples shall be omitted from future background determination calculations. In the future Operator shall refrain from presenting invalid background samples and instead obtain background samples from locations sufficiently away from the impacted area to reflect conditions not impacted by oil and gas activity, from similar depths, and soil horizons or lithologic materials for comparison to confirmation soil samples".</p> <p>Additionally, ECMC notes multiple background samples presented under REM 35064 were collected on the former working pad surface, in close proximity to a spill which daylighted to the surface at the wellhead and in close proximity to the off-location flowline, and at depths not comparable to soil samples collected as part of the subject Remediation Project (REM 35444).</p> <p>If Operator maintains that off-location background samples associated with REM 35064 should be considered under the subject remediation project, then Operator shall provide field notes, photo documentation, bore logs, soil classification determination and any other relevant documentation from both REM 35064 and REM 35444 to support their position for ECMC to review. If Operator chooses to collect additional background samples, then Operator shall obtain samples from locations sufficiently away from the impacted areas to reflect conditions not impacted by oil and gas activity, from similar depths, hydrologic conditions, and soil horizons or lithologic materials for comparison to confirmation soil samples.</p> |
| 1 COA |  |

## 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                             |
|-------------|----------------------------------|
| 404245665   | FORM 27-SUPPLEMENTAL-SUBMITTED   |
| 404245719   | SOIL SAMPLE LOCATION MAP         |
| 404245720   | SOIL SAMPLE LOCATION MAP         |
| 404245724   | ANALYTICAL DATA SUMMARY TABLE(S) |

Total Attach: 4 Files

## General Comments

| <u>User Group</u> | <u>Comment</u> | <u>Comment Date</u> |
|-------------------|----------------|---------------------|
|                   |                | Stamp Upon Approval |

Total: 0 comment(s)