

State of Colorado
Energy & Carbon Management Commission

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Document Number:
404005214
Receive Date:
03/03/2025

Report taken by:
Chris Sanchez

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 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>WILLIFORD ENERGY COMPANY</u>	Operator No: <u>96730</u>	Phone Numbers
Address: <u>6060 AMERICAN PLAZA SUITE 760</u>		Phone: <u>(918) 495-2700</u>
City: <u>TULSA</u> State: <u>OK</u> Zip: <u>74135</u>		Mobile: <u>(918) 629-6547</u>
Contact Person: <u>Doug Storts</u>	Email: <u>pds@willifordenergy.com</u>	

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 39333 Initial Form 27 Document #: 404005214

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: <u>SPILL OR RELEASE</u>	Facility ID: <u>486487</u>	API #: _____	County Name: <u>CHEYENNE</u>
Facility Name: <u>RHOADES UNIT 5-4</u>	Latitude: <u>38.878558</u>	Longitude: <u>-102.798545</u>	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: <u>NENE</u>	Sec: <u>32</u>	Twp: <u>13S</u>	Range: <u>48W</u> Meridian: <u>6</u> Sensitive Area? <u>No</u>

Facility Type: <u>SPILL OR RELEASE</u>	Facility ID: <u>486488</u>	API #: _____	County Name: <u>CHEYENNE</u>
Facility Name: <u>RHOADES UNIT 5-4</u>	Latitude: <u>38.878558</u>	Longitude: <u>-102.798545</u>	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: <u>NENE</u>	Sec: <u>32</u>	Twp: <u>13S</u>	Range: <u>48W</u> Meridian: <u>6</u> Sensitive Area? <u>No</u>

SITE CONDITIONS

General soil type - USCS Classifications GC

Most Sensitive Adjacent Land Use Pasture

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

SITE INVESTIGATION PLAN

TYPE OF WASTE:

- | | | |
|--|---|--|
| <input type="checkbox"/> E&P Waste | <input checked="" type="checkbox"/> Other E&P Waste | <input type="checkbox"/> Non-E&P Waste |
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Workover Fluids | _____ |
| <input type="checkbox"/> Oil | <input type="checkbox"/> Tank Bottoms | |
| <input 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 checked="" type="checkbox"/> Other (as described by EPA) | Soil impacted by produce oil from the well (Hydrocarbon Impacted Soil) |

DESCRIPTION OF IMPACT

Impacted?	Impacted Media	Extent of Impact	How Determined
Yes	SOILS	<1 bbl oil	To be determined through onsite investigation.

INITIAL ACTION SUMMARY

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

Please refer to ECMC document # 403977613 and 403977576 for immediate actions taken associated with the historical spill. Visually observed oil stained soil has been removed and placed in a lined containment located at the Rhoades Unit Compressor Station.

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):

Four (4) grab soil samples will be collected as per the sampling diagram (Attachment B).

Proposed Groundwater Sampling

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

If ground water is encountered, a ground water sample will be taken and evaluated. Groundwater was not encountered during removal of visually observed hydrocarbon impacted soil.

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):

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? Yes

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?

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?

Grab soil samples will be obtained to determine that sufficient oil impacted soil has been removed and that closure meeting Table 915-1 thresholds has been met.

REMEDIAL ACTION PLAN

SOURCE REMOVAL SUMMARY

Describe how source is to be removed.

Visually observed hydrocarbon impacted soil was excavated and moved to the lined containment setup in the Rhoades Unit Compressor Station yard. Sampling will be used to confirm soils that remain will meet Table 915-1 standards. Clean soil will be filled into any excavated locations.

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.

Remaining stained surface soils will be scraped, piled on liner, and sampled to determine if they are considered impacted above Table 915 standards. If any contaminated soils are determined, these soils will be loaded and hauled to either the lined containment at the Rhoades Unit Compressor Station for land treatment (if approved) or will be temporarily stored until volumes can be hauled to an approved waste disposal site. Closure samples will be taken and analyzed per the rule, though if contamination is noted of a certain type (e.g., hydrocarbon or salt or metals) any additional samples will be analyzed for the compound(s) that were found to exceed Table 915-1 and not all Table 915 compounds.

Soil Remediation Summary

In Situ

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

Ex Situ

Yes _____ Excavate and offsite disposal
If Yes: Estimated Volume (Cubic Yards) _____ 3
Name of Licensed Disposal Facility or ECMC Facility ID # _____
Yes _____ Excavate and onsite remediation
Yes _____ Land Treatment
No _____ Bioremediation (or enhanced bioremediation)
No _____ Chemical oxidation
Yes _____ Other _____ Using ECMC 905.a(3) if allowed

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.

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 _____

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: \$ 5000 _____

WASTE DISPOSAL INFORMATION

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

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 _____

ECMC Disposal Facility ID #, if applicable: _____

Non-ECMC Disposal Facility: _____

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

E&P waste (liquid) description _____

ECMC Disposal Facility ID #, if applicable: _____

Non-ECMC 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.

Any disturbance will be returned to the active working surface of the well pad for continued operation. When the site is decommissioned at a later date, it will be reclaimed in accordance with 1000 Series regulations.

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? _____

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. 05/05/2024

Proposed date of completion of Reclamation. 06/06/2025

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. 03/26/2024

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 05/06/2024

Proposed site investigation commencement. 03/03/2025

Proposed completion of site investigation. 05/30/2025

REMEDIAL ACTION DATES

Proposed start date of Remediation. 03/03/2025

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

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

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

Signed: Pamela Richards

Title: Analyst

Submit Date: 03/03/2025

Email: prichards@willifordenergy.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: Chris Sanchez

Date: 03/03/2025

Remediation Project Number: 39333

COA Type**Description**

	All previously assigned COAs and CAs shall apply to this Remediation Project.
	ECMC does not approve the Operators request to relocate and treat soils at the Rhoades Unit Compressor Station yard, impacted soils shall be Managed, Stored, and Disposed of in accordance with Rule 905. In addition, the Operator shall provide an approved Centralized E&P Waste Management Facility permitted pursuant to Rule 907. for soils that were previously hauled to the Rhoades Unit Compressor Station yard.
	In accordance with Rule 913.e.(3), Operator will adopt a quarterly reporting schedule (every 90 days). ECMC selected Quarterly under Remediation Progress Update.
	Background sampling locations should be sufficiently away from the impacted area to reflect conditions not impacted by oil and gas activity, and should be obtained from similar depths and soil horizons or lithologic materials for comparison to confirmation soil samples.
	Operator shall adhere to Protection of Groundwater Soil Screening Levels
	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.
	If groundwater is encountered, the Operator shall sample for Inorganic Parameters (total dissolved solids, sulfate, chloride) in addition to the Organic Compounds
	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)). Samples shall be collected from areas exhibiting the highest degree of impacts.
8 COAs	

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**

404005214	FORM 27-INITIAL-SUBMITTED
404112828	AERIAL IMAGE
404112830	SOIL SAMPLE LOCATION MAP

Total Attach: 3 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Environmental	<p>Form returned to DRAFT, Per COA in Form 19, Document # 403977576, Operator shall collect confirmation soil samples as described in the Rule 915.e.(2) Guidance Document. Operator shall propose a sampling plan under the Site Investigation Plan.</p> <p>Operator shall provide additional details for Remedial Action Plan. Operator shall provide additional spill details and site remediation efforts in accordance with Rule 912 and Rule 913.</p> <p>Operator shall consolidate Spill ID 486487 and Spill ID 486488 under the same Remediation Project/ Form 27 Initial Submittal.</p>	12/24/2024

Total: 1 comment(s)