

State of Colorado
Energy & Carbon Management Commission

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Report taken by:
Chris Sanchez

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 ECMC 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>MURFIN DRILLING COMPANY INC</u>	Operator No: <u>61650</u>	Phone Numbers Phone: <u>(316) 858-8664</u> Mobile: <u>()</u>
Address: <u>250 N WATER ST STE 300</u>		
City: <u>WICHITA</u>	State: <u>KS</u>	Zip: <u>67202</u>
Contact Person: <u>Cristina Goodrich</u>	Email: <u>cgoodrich@murfininc.com</u>	

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 41017 Initial Form 27 Document #: 404228032

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>WELL</u>	Facility ID: _____	API #: <u>009-06489</u>	County Name: <u>BACA</u>
Facility Name: <u>S E CAMPO UNIT 1101W</u>	Latitude: <u>37.027856</u>	Longitude: <u>-102.550383</u>	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: <u>SWNE</u>	Sec: <u>1</u>	Twp: <u>35S</u>	Range: <u>46W</u> Meridian: <u>6</u> Sensitive Area? <u>Yes</u>
Facility Type: <u>LOCATION</u>	Facility ID: <u>321111</u>	API #: _____	County Name: <u>BACA</u>
Facility Name: <u>S E CAMPO UNIT-635S46W 1SWNE</u>	Latitude: <u>37.027856</u>	Longitude: <u>-102.550383</u>	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: <u>SWNE</u>	Sec: <u>1</u>	Twp: <u>35S</u>	Range: <u>46W</u> Meridian: <u>6</u> Sensitive Area? <u>Yes</u>

SITE CONDITIONS

General soil type - USCS Classifications GM _____

Most Sensitive Adjacent Land Use range 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? No _____

Other Potential Receptors within 1/4 mile

Within Comanche National Grassland, within Lesser Prairie Chicken Connectivity Area High Priority Habitat and Lesser Prairie Chicken Estimated Occupied Range 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 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 type="checkbox"/> Other (as described by EPA) | _____ |

DESCRIPTION OF IMPACT

Impacted?	Impacted Media	Extent of Impact	How Determined
UNDETERMINED	GROUNDWATER	TBD	lab analysis if encountered
No	SOILS	TBD	lab analysis

INITIAL ACTION SUMMARY

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

On 8/28/25, initial assessment of the wellhead cut/cap was completed per approved IF27 document number 404228032. Grab soil samples were collected from the N-E-S-W sides and the floor of the of the wellhead cut/cap excavation and field screened using a PID. There were no potential impacts observed from visual, olfactory, and PID screening. Only the floor soil sample was submitted to Origins Laboratory in Denver, Colorado for full ECMC Table 915-1 analysis. All TPH and Organics results are non-detect in the floor sample, confirming the absence of petroleum hydrocarbon impacts. The Lead concentration in the floor soil sample were slightly elevated above the Table 915-1 Protection of Groundwater Soil Screening Level limits, but well under the Residential Soil Screening Level limits. The SAR result was slightly above background local cleanup level. See attached figures, tables, photo log, closure checklist, and laboratory analytical reports for all work completed to-date.

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):

Murfin plans to horizontally and vertically delineate the elevated SAR in the floor sample. Murfin would like to request ECMC approval for a reduced analysis of SAR only for delineation confirmation soil samples at the wellhead.

Proposed Groundwater Sampling

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

Per approved IF27 404228032.

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):

Initial assessment of the injection line per approved IF27 document number 404228032. The United States Forest Service (USFS) has directed Murfin to put an indefinite hold on all offsite injection line assessment ground disturbance in the Campo Field within Comanche National Grassland until further notice while they review previous archeological surveys. Murfin has not been granted USFS permission to do the offsite injection line assessment per approved IF27 document number 404228032. It is unknown at this time when USFS permission will be granted.

SITE INVESTIGATION REPORT

SAMPLE SUMMARY

Soil

NA / ND

_____ Natural Attenuation
_____ Other _____

_____ 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.

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 _____

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.

Murfin is adequately bonded as shown by submitted Form 3A Doc: 403418364 and has General Liability insurance.

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: _____

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? _____

Does the previous reply indicate consideration of background concentrations? _____

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.

Reclamation will be completed in accordance with ECMC 1000 Series Rules or as agreed upon with the Surface Owner.

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. _____

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. 09/01/2025

Proposed completion of site investigation. 02/28/2026

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

Murfin would like to request ECMC approval for a reduced analysis of SAR only for delineation confirmation soil samples at the wellhead.

All TPH and Organics results are non-detect in the floor sample, confirming the absence of petroleum hydrocarbon impacts. Water well documents available on Colorado Division of Water Resources online database for water well receipt number 9072875 approximately 345' NE from the wellhead state a static groundwater level of 120' bgs. Per ECMC Rule 915.a., operators will adhere to the concentrations for soil cleanup in Table 915-1. Operators will use Residential Soil Screening Level Concentrations as cleanup levels.

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

Signed: David Castro

Title: Senior Project Scientist

Submit Date: 11/18/2025

Email: dcastro@eagle-enviro.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: 05/29/2026

Remediation Project Number: 41017

COA Type**Description**

	Operator shall define the vertical and lateral extent of impacts to soil. Additional sampling is required to fully delineate the vertical and lateral impacts to soil Operator shall collect confirmation soil samples for Full Table 915-1 Contaminants of Concern
	Operator shall provide justification for use of Residential SSL including but not limited to depth to groundwater and the local lithology.
	ECMC acknowledges the request for a reduced analyte suite and does not approve it at this time. Operator shall collect samples for Full Table 915-1 Contaminants of Concern
	Operator shall continue Quarterly Reporting until the Site Assessment is completed, and the remediation area demonstrates Compliance with Full Table 915-1 Standards
	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.
	Analytical data from background sample BG-02@3' and BG-02@4' @ Latitude 37.03035, Longitude -102.57220, does not appear to be representative of background conditions near the production facility. Operator shall provide justification for the use of BG-02@3' and BG-02@4' @ Latitude 37.03035, Longitude -102.57220 for their site-specific background determination.
6 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**

404441043	INVESTIGATION/REMEDATION WORKPLAN (SUPPLEMENTAL)
404441124	SITE INVESTIGATION REPORT
404441126	LABORATORY ANALYTICAL REPORT
404441127	LABORATORY ANALYTICAL REPORT
404441129	LABORATORY ANALYTICAL REPORT
404441136	LABORATORY ANALYTICAL REPORT
404441147	LABORATORY ANALYTICAL REPORT
404441149	LABORATORY ANALYTICAL REPORT
404441150	LABORATORY ANALYTICAL REPORT
404441151	LABORATORY ANALYTICAL REPORT

404441152	LABORATORY ANALYTICAL REPORT
404441153	MAP
404441154	SOIL SAMPLE LOCATION MAP
404441155	SOIL SAMPLE LOCATION MAP
404441156	PHOTO DOCUMENTATION
404441157	SITE INVESTIGATION REPORT
404441158	ANALYTICAL DATA SUMMARY TABLE(S)
404441160	ANALYTICAL DATA SUMMARY TABLE(S)
404441162	ANALYTICAL DATA SUMMARY TABLE(S)
404441163	ANALYTICAL DATA SUMMARY TABLE(S)
404441165	ANALYTICAL DATA SUMMARY TABLE(S)
404441174	LABORATORY ANALYTICAL REPORT
404441175	LABORATORY ANALYTICAL REPORT
404441177	LABORATORY ANALYTICAL REPORT
404676998	FORM 27-SUPPLEMENTAL-SUBMITTED

Total Attach: 25 Files

General Comments

User Group	Comment	Comment Date
		Stamp Upon Approval

Total: 0 comment(s)