

State of Colorado
Energy & Carbon Management Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203
Phone: (303) 894-2100 Fax: (303) 894-2109



Document Number:
403982711
Receive Date:
11/12/2024

Report taken by:
Alexander Ahmadian

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>MAGPIE OPERATING INC</u>	Operator No: <u>52530</u>	Phone Numbers Phone: <u>(970) 669-6308</u> Mobile: <u>()</u>
Address: <u>2707 SOUTH COUNTY RD 11</u>		
City: <u>LOVELAND</u>	State: <u>CO</u>	Zip: <u>80537</u>
Contact Person: <u>Ross Warner</u>	Email: <u>ross.magpieoil@gmail.com</u>	

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 26247 Initial Form 27 Document #: 403106811

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>PIT</u>	Facility ID: <u>104642</u>	API #: _____	County Name: <u>ADAMS</u>
Facility Name: <u>FAHK GARRETT 3</u>	Latitude: <u>39.904229</u>	Longitude: <u>-103.777543</u>	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: <u>SESW</u>	Sec: <u>4</u>	Twp: <u>2S</u>	Range: <u>57W</u> Meridian: <u>6</u> Sensitive Area? <u>Yes</u>

Facility Type: <u>LOCATION</u>	Facility ID: <u>319641</u>	API #: _____	County Name: <u>ADAMS</u>
Facility Name: <u>FAHK-GARRETT-62S57W 4NWSW</u>	Latitude: <u>39.904865</u>	Longitude: <u>-103.777726</u>	
** correct Lat/Long if needed: Latitude: <u>39.904151</u>		Longitude: <u>-103.777252</u>	
QtrQtr: <u>NWSW</u>	Sec: <u>4</u>	Twp: <u>2S</u>	Range: <u>57W</u> Meridian: <u>6</u> Sensitive Area? <u>Yes</u>

SITE CONDITIONS

General soil type - USCS Classifications SM

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? Yes

Other Potential Receptors within 1/4 mile

dry arroyo 320' east

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
Yes	SOILS	5'x5'x4'	lab 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.

On 10/16/24, additional vertical delineation of inorganic impacts was completed at the former evaporation pits per approved SF27 document number 403847096. 9 new grab vertical delineation soil samples were collected at PIT-SS-02, PIT-SS-03, PIT-SS-28, PIT-SS-30, PIT-SS-32, PIT-SS-34, PIT-SS-35, PIT-SS-36, and PIT-SS-37 and submitted to Origins Laboratory in Denver, Colorado for ECMC Table 915-1 Soil Suitability for Reclamation analysis only per approved SF27 document number 403670732. 3 of the 9 pit vertical delineation samples passed Table 915-1 limits or background levels. 6 of the vertical delineation samples (PIT-SS-30@8', PIT-SS-32@5.5', PIT-SS-34@5.5', PIT-SS-35@5.5', PIT-SS-36@5.5', and PIT-SS-37@5.5') had results above Table 915-1 limits and background levels. During sample collection using backhoe, claystone refusal was encountered ranging from approximately 5.5' - 8' below the pit bottom throughout. The backhoe could not break through the claystone to get to the 10' intended target depth, so the samples were collected at refusal depth. See attached figures, tables, photos, 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):

Maggie will look into the feasibility and cost effectiveness of multiple options to remediate the elevated inorganics that remain in the pits down to claystone refusal depth and propose a remediation plan on a subsequent SF27 submission.

Proposed Groundwater Sampling

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

Groundwater was not encountered.

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 6/7/24, TB-SS-04@0.5' was collected from the southern portion of the former AST containment berm for potential inorganic impacts, per inspection document number 709100185. TB-SS-04@0.5' was submitted to Origins for Table 915-1 Soil Suitability for Reclamation only analysis, per approved SF27 document number 403670732. All results are within Table 915-1 limits or background levels. No additional investigation at this location is warranted.

SITE INVESTIGATION REPORT

SAMPLE SUMMARY

Soil

NA / ND

Number of soil samples collected 80

Highest concentration of TPH (mg/kg) _____

Number of soil samples exceeding 915-1 34 Highest concentration of SAR _____
 Was the areal and vertical extent of soil contamination delineated? Yes _____ BTEX > 915-1 No
 Approximate areal extent (square feet) 1600 Vertical Extent > 915-1 (in feet) 8

Groundwater

Number of groundwater samples collected 0 Highest concentration of Benzene (µg/l) _____
 Was extent of groundwater contaminated delineated? No Highest concentration of Toluene (µg/l) _____
 Depth to groundwater (below ground surface, in feet) _____ Highest concentration of Ethylbenzene (µg/l) _____
 Number of groundwater monitoring wells installed _____ Highest concentration of Xylene (µg/l) _____
 Number of groundwater samples exceeding 915-1 _____ 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?
 On 3/20/23, 8 background soil samples were collected from 4 locations around the perimeter of the site. At each of the 4 locations, a soil sample was collected from 0.5' and 5' bgs and submitted to Origins for Table 915-1 Soil Suitability for Reclamation and Metals analyses. On 6/7/24, 18 additional background samples were collected from 0.5', 3', and 5' bgs at 6 new sample locations around the perimeter of the site and submitted to Origins for Table 915-1 Soil Suitability for Reclamation only.

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?
 See Proposed Sampling Plan

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.
 The well has been P&A'd and facility decommissioned. TPH impacted soil at initial soil sample PIT-SS-33@035' has been confirmed removed. Impacts at initial soil sample TB-SS-02@0.5' at the separator were addressed under closed remediation project number 26245.

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.
 TPH impacted soil is confirmed removed. Magpie will look into the feasibility and cost effectiveness of multiple options to remediate the elevated inorganics that remain in the pits down to claystone refusal depth and propose a remediation plan on a subsequent SF27 submission.

Soil Remediation Summary

In Situ Ex Situ

_____ Bioremediation (or enhanced bioremediation) Yes _____ Excavate and offsite disposal
 _____ Chemical oxidation If Yes: Estimated Volume (Cubic Yards) 3
 _____ Air sparge / Soil vapor extraction Name of Licensed Disposal Facility or ECMC Facility ID # _____
 _____ 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.

Magpie has financial assurance bonding per Rule 702 in excess of \$1.2 million and carries General Liability Insurance in the amount of \$5,000,000 per occurrence in compliance with Rule 705. No claim is anticipated for this cleanup effort. Magpie has its own roustabout crew, heavy machinery, and hauling trucks in-house to eliminate vendor costs. Project is 80% complete.

Operator anticipates the remaining cost for this project to be: \$ 10000 _____

WASTE DISPOSAL INFORMATION

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

Describe beneficial use, if any, of E&P Waste derived from this remediation project:

none

Volume of E&P Waste (solid) in cubic yards _____ 3

E&P waste (solid) description impacted soil

ECMC Disposal Facility ID #, if applicable: _____

Non-ECMC Disposal Facility: Buffalo Ridge Landfill

Volume of E&P Waste (liquid) in barrels _____ 0

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.

The site will be reclaimed in accordance with ECMC 1000 Series Reclamation Rules or per surface owner direction. Magpie will look into the feasibility and cost effectiveness of multiple options to remediate the elevated inorganics that remain in the pits down to claystone refusal depth and propose a remediation plan on a subsequent SF27 submission.

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. 04/30/2025

Proposed date of completion of Reclamation. 04/30/2027

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. 12/01/2022

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

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 12/15/2022

Proposed site investigation commencement. 03/20/2023

Proposed completion of site investigation. 10/30/2024

REMEDIAL ACTION DATES

Proposed start date of Remediation. 06/19/2023

Proposed date of completion of Remediation. 04/30/2025

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

Regarding COA #1 on approved SF27 document number 403847096, TB-SS-02 @ 0.5' was addressed and cleared under closed remediation project number 26245, as stated on approved SF27 document number 403407651 under this remediation project. Additional assessment at that sample location is not warranted. The site investigation reports from remediation project 26245 are attached.

During sample collection using backhoe, claystone refusal was encountered ranging from approximately 5.5' - 8' below the pit bottom throughout. The backhoe could not break through the claystone to get to the 10' intended target depth, so the samples were collected at refusal depth.

Magpie will look into the feasibility and cost effectiveness of multiple options to remediate the elevated inorganics that remain in the pits down to claystone refusal depth and propose a remediation plan on a subsequent SF27 submission.

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: 11/12/2024

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: Alexander Ahmadian

Date: 01/29/2025

Remediation Project Number: 26247

COA Type**Description**

COA Type	Description
0 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**

403982711	FORM 27-SUPPLEMENTAL-SUBMITTED
403982826	ANALYTICAL RESULTS
403982828	SITE INVESTIGATION REPORT
403982844	SITE INVESTIGATION REPORT
403982847	ANALYTICAL RESULTS
403982848	ANALYTICAL RESULTS
403982851	ANALYTICAL RESULTS
403982853	ANALYTICAL RESULTS
403982855	ANALYTICAL RESULTS
403982856	ANALYTICAL RESULTS
403982858	ANALYTICAL RESULTS
403983903	SITE INVESTIGATION REPORT

Total Attach: 12 Files

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

User Group	Comment	Comment Date
		Stamp Upon Approval

Total: 0 comment(s)