

State of Colorado
Energy & Carbon Management Commission

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Report taken by:
Krystal Heibel

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>RED HAWK PETROLEUM LLC</u>	Operator No: <u>10503</u>	Phone Numbers
Address: <u>575 N DAIRY ASHFORD STE 210</u>		Phone: <u>(713) 574-7906</u>
City: <u>HOUSTON</u> State: <u>TX</u> Zip: <u>77079</u>		Mobile: <u>()</u>
Contact Person: <u>Jared Clark</u>	Email: <u>jclark@pedevco.com</u>	

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 35054 Initial Form 27 Document #: 403726123

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: <u>SPILL OR RELEASE</u>	Facility ID: <u>463829</u>	API #: _____	County Name: <u>WELD</u>
Facility Name: <u>Staudinger Heater Treater</u>	Latitude: <u>40.624300</u>	Longitude: <u>-104.242000</u>	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: <u>NWNE</u>	Sec: <u>31</u>	Twp: <u>8N</u>	Range: <u>61W</u> Meridian: <u>6</u> Sensitive Area? <u>Yes</u>

SITE CONDITIONS

General soil type - USCS Classifications GW Most Sensitive Adjacent Land Use HPH for pronghorn antelope

Is domestic water well within 1/4 mile? Yes 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

HPH for the pronghorn antelope

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	100' x 50'	Visually

INITIAL ACTION SUMMARY

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

The spill was the result of a fire. Briggsdale FD extinguished the fire and the well was shut in. Vessels were emptied and cleanup of the water and oil began. Stained soil was stockpiled on location and remediation has been completed. Approximately 10 bbls of oil and 5 bbls of produced water were recovered. A Form 22 (Doc #401989924) was submitted April 18, 2019 per Rule 602.h. Confirmation samples collected on September 17, 2024, demonstrated that TPH impacts have been remediated. On March 17, 2025, background samples were collected from similar depths and material as confirmation samples. Based on the analytical results from the samples collected to date, Red Hawk is requesting the closure of remediation project #35054.

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):

Fifteen (15) soil samples were collected and submitted to a NELAC-accredited laboratory for the ECOM Table 915-1 list of analytes. Based on the depth to groundwater indicated by the nearest permitted well (56' bgs DWR permit #333080) the Operator is requesting the use of residential soil screening levels. Based on the laboratory analytical data from the confirmation soil sampling event, all constituents of concern from the Series 900 Rules Table 915-1 are below the regulatory standards or within background concentrations. The elevated pH in samples appears to be de minimis and may not be associated with E&P activities.

Proposed Groundwater Sampling

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

Groundwater was not encountered during investigation 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):

SITE INVESTIGATION REPORT

SAMPLE SUMMARY

Soil

Number of soil samples collected 18
Number of soil samples exceeding 915-1 8
Was the areal and vertical extent of soil contamination delineated? Yes
Approximate areal extent (square feet) 5000

NA / ND

-- Highest concentration of TPH (mg/kg) 869
-- Highest concentration of SAR 8
BTEX > 915-1 No
Vertical Extent > 915-1 (in feet) 1

Groundwater

Number of groundwater samples collected 0
Was extent of groundwater contaminated delineated? No
Depth to groundwater (below ground surface, in feet) 195
Number of groundwater monitoring wells installed _____
Number of groundwater samples exceeding 915-1 _____

ND Highest concentration of Benzene (µg/l) _____
NA Highest concentration of Toluene (µg/l) _____
ND Highest concentration of Ethylbenzene (µg/l) _____
ND Highest concentration of Xylene (µg/l) _____
ND 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?

Three background samples were be collected from within the well pad area at similar depths as confirmation samples since this is an active oil and gas location. The arsenic, barium, and selenium concentrations from all background soil sample locations were above the Table 915-1 standard which are attributable to background levels.

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.

Surface material stock piled and removed to disposal.

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.

Surface material stock piled and removed to disposal. Area back-filled with road base material on location.

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) 76

Name of Licensed Disposal Facility or ECMC Facility ID # _____

No Excavate and onsite remediation

Land Treatment

Bioremediation (or enhanced bioremediation)

Chemical oxidation

Other _____

Groundwater Remediation Summary

No Bioremediation (or enhanced bioremediation)

No Chemical oxidation

No Air sparge / Soil vapor extraction

No Natural Attenuation

No 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.

JH Blades policy No. JHB2M101233 \$3MM any single occurrence

Operator anticipates the remaining cost for this project to be: \$ 5600

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:

No beneficial use.

Volume of E&P Waste (solid) in cubic yards 76

E&P waste (solid) description Contaminated road base material

ECMC Disposal Facility ID #, if applicable:

Non-ECMC Disposal Facility: Pawnee Waste Landfill

Volume of E&P Waste (liquid) in barrels 60

E&P waste (liquid) description Produced water

ECMC Disposal Facility ID #, if applicable:

Non-ECMC Disposal Facility: Expedition

REMEDIATION COMPLETION REPORT

REMEDIATION COMPLETION SUMMARY

Is this a Final Closure Request for this Remediation Project? Yes

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? Yes

Does the previous reply indicate consideration of background concentrations? Yes

Does Groundwater meet Table 915-1 standards? Yes

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.

Existing contaminated material has been removed and replaced with clean road base on location. Water tanks were emptied at the time of the incident to ensure no additional release. The site is remaining as an active oil and gas location, there are no current plans for decommissioning or reclamation activities.

Is the described reclamation complete? Yes

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. 04/01/2019

Proposed date of completion of Reclamation. 04/17/2019

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. 03/06/2019

Actual Spill or Release date, or date of discovery. 03/06/2019

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 03/06/2019

Proposed site investigation commencement. 03/06/2019

Proposed completion of site investigation. 03/06/2019

REMEDIAL ACTION DATES

Proposed start date of Remediation. 03/06/2019

Proposed date of completion of Remediation. 04/17/2019

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

Based on the analytical results from the samples collected to date, Red Hawk is requesting the closure of remediation project #35054. Additional soil samples on the attached lab report are associated with rem #35060.

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

Signed: Lauren Glazier

Title: Consultant

Submit Date: 04/07/2025

Email: lglazier@cgrs.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: Krystal Heibel

Date: 06/30/2025

Remediation Project Number: 35054

COA Type**Description**

	<p>Based on the information presented, it appears that no further action is necessary at this time and the ECMC approves the closure request. However, if future conditions at the site indicate contaminant concentrations in soils exceeding ECMC standards or if groundwater is found to be impacted, then further investigation and/or remediation activities may be required.</p> <p>The surface area disturbed by the remediation activity shall be reclaimed in accordance with the 1000 Series Reclamation Rules. For locations with active ongoing oil and gas operations, comply with Rule 1003 interim reclamation requirements and for locations that will no longer have active oil and gas operations, comply with Rule 1004 Final Reclamation requirements.</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**

404153201	INVESTIGATION/REMEDATION WORKPLAN (SUPPLEMENTAL)
404153296	LABORATORY ANALYTICAL REPORT
404153300	ANALYTICAL DATA SUMMARY TABLE(S)
404153302	SOIL SAMPLE LOCATION MAP
404261534	FORM 27-SUPPLEMENTAL-SUBMITTED

Total Attach: 5 Files

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

Environmental	Based on the Operator's assessment of background conditions at the subject location, arsenic, selenium, and barium results for confirmation soil samples appear to be representative of background as opposed to E&P activities. Therefore, the Operator's demonstration of background will be accepted as an alternative to the default standard in ECMC's Table 915-1.	06/30/2025
Environmental	Based on the information presented, it appears the elevated pH samples appear to be de minimis in quantity or within the range of background pH; therefore, elevated pH may not be associated with E&P activities. It appears that no further remedial action is necessary at this time and the ECMC approves the closure request. However, should future conditions at the site indicate contaminant concentrations in soils exceeding ECMC standards or background levels or if groundwater is found to be impacted, then further investigation and/or remediation activities may be required.	06/30/2025
Environmental	"Confirmation samples collected on September 17, 2024, demonstrated that TPH impacts have been remediated. On March 17, 2025, background samples were collected from similar depths and material as confirmation samples."	06/30/2025

Total: 3 comment(s)