

State of Colorado  
Energy & Carbon Management Commission

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Report taken by:  
CHRIS CANFIELD

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: VERDAD RESOURCES LLC	Operator No: 10651	<b>Phone Numbers</b>
Address: 1125 17TH STREET SUITE 550		Phone: (720) 8456901
City: DENVER State: CO Zip: 80202		Mobile: ( )
Contact Person: Michael Cugnetti	Email: mcugnetti@verdadresources.com	

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 34324 Initial Form 27 Document #: 403702986

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: WELL	Facility ID: _____	API #: 001-08116	County Name: ADAMS
Facility Name: TIPPERARY 1	Latitude: 39.976931	Longitude: -104.682030	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: NESE	Sec: 8	Twp: 1S	Range: 65W Meridian: 6 Sensitive Area? Yes

Facility Type: WELL	Facility ID: _____	API #: 001-09472	County Name: ADAMS
Facility Name: TIPPERARY 34-8	Latitude: 39.973936	Longitude: -104.685519	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: SWSE	Sec: 8	Twp: 1S	Range: 65W Meridian: 6 Sensitive Area? Yes

Facility Type: LOCATION Facility ID: 320116 API #: County Name: ADAMS  
Facility Name: GREAT WESTERN TIPPERARY 1 Latitude: 39.976900 Longitude: -104.682015  
\*\* correct Lat/Long if needed: Latitude: Longitude:  
QtrQtr: NESE Sec: 8 Twp: 1S Range: 65W Meridian: 6 Sensitive Area? Yes

Facility Type: OFF-LOCATION FLOWLINE Facility ID: 476232 API #: County Name: ADAMS  
Facility Name: Wellhead Line 1 Latitude: 39.977028 Longitude: -104.681470  
\*\* correct Lat/Long if needed: Latitude: Longitude:  
QtrQtr: NESE Sec: 8 Twp: 1S Range: 65W Meridian: 6 Sensitive Area? Yes

Facility Type: OFF-LOCATION FLOWLINE Facility ID: 476233 API #: County Name: ADAMS  
Facility Name: Wellhead Line 1 Latitude: 39.977028 Longitude: -104.681457  
\*\* correct Lat/Long if needed: Latitude: Longitude:  
QtrQtr: NESE Sec: 8 Twp: 1S Range: 65W Meridian: 6 Sensitive Area? Yes

### **SITE CONDITIONS**

General soil type - USCS Classifications SC Most Sensitive Adjacent Land Use residential  
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**

pasture, dog kennel

# SITE INVESTIGATION PLAN

## TYPE OF WASTE:

E&P Waste     
  Other E&P Waste     
  Non-E&P Waste

Produced Water

Workover Fluids

No anticipated waste impacts, confirmation for facility decommissioning

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
UNDETERMINED	SOILS	to be determined	visual, olfactory, PID and laboratory 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.

Existing equipment is being removed and 2 wells P&A'ed. No impacts are anticipated, but will be investigated. All removed equipment footprints and surrounding trenches including wellheads, tank battery, flowlines, separator, or other equipment on location will have visual, olfactory, PID inspection and oil tank, water tank, wellheads, separator, flowlines will have confirmation by laboratory analysis. Laboratory analysis will consist of TPH, EC, SAR, pH, Boron, BTEX, naphthalene, 1,2,4-trimethylbenzene and 1,3,5-trimethylbenzene. Photos will be taken and attached to a supplemental form 27 of areas under equipment once the equipment has been removed.

## 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 ):

Oil tank, water tank, wellheads, separator, flowlines will have confirmation by laboratory analysis. Laboratory analysis will consist of TPH, EC, SAR, pH, Boron, BTEX, naphthalene, 1,2,4-trimethylbenzene and 1,3,5-trimethylbenzene.

### Proposed Groundwater Sampling

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

### 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

### NA / ND

Number of soil samples collected      10

ND      Highest concentration of TPH (mg/kg) \_\_\_\_\_

Number of soil samples exceeding 915-1      0

\_\_\_\_\_ Highest concentration of SAR \_\_\_\_\_

Was the areal and vertical extent of soil contamination delineated? Yes \_\_\_\_\_

BTEX > 915-1 No \_\_\_\_\_

Approximate areal extent (square feet) \_\_\_\_\_ 0

Vertical Extent > 915-1 (in feet) \_\_\_\_\_ 0

**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?

Background samples were collected adjacent to the facility pad on the property.

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.

No anticipated waste impacts, confirmation investigation for facility decommissioning.

**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.

No anticipated waste impacts, confirmation investigation for facility decommissioning.

**Soil Remediation Summary**

In Situ

Ex Situ

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

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

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

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

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

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

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

\_\_\_\_\_ 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.



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.

Site will be reclaimed per ECMC 1000 series rules. Access road and pad will be reclaimed. All culverts will be removed. Grade will be recontoured to match surrounding area. Area will be cross ripped and tilled to alleviate compaction. Landowner will select crop and grass for reseeding.

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. 06/19/2024

Proposed date of completion of Reclamation. 11/30/2024

## 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). 05/21/2024

Proposed site investigation commencement. 05/21/2024

Proposed completion of site investigation. 06/10/2024

### 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**

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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: Michael Cugnetti

Title: Director of EHS&R

Submit Date: 07/16/2024

Email: mcugnetti@verdadresources.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 CANFIELD

Date: 08/22/2024

Remediation Project Number: 34324

**COA Type****Description**

	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.
	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.
2 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.

<b>Att Doc Num</b>	<b>Name</b>
403856595	FORM 27-SUPPLEMENTAL-SUBMITTED
403856609	PHOTO DOCUMENTATION
403856610	ANALYTICAL RESULTS
403856611	SITE INVESTIGATION REPORT
403856612	SOIL SAMPLE LOCATION MAP
403856613	ANALYTICAL RESULTS
403856614	ANALYTICAL RESULTS
403856616	ANALYTICAL RESULTS
403856617	ANALYTICAL RESULTS

Total Attach: 9 Files

**General Comments**

<b>User Group</b>	<b>Comment</b>	<b>Comment Date</b>
		Stamp Upon Approval

Total: 0 comment(s)