

State of Colorado  
Oil and Gas Conservation Commission

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Document Number:  
402573317  
Receive Date:  
01/13/2021

Report taken by:  
Steven Arauza

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 COGCC 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.

Refer to Rules 340, 905, 906, 907, 908, 909, and 910

OPERATOR INFORMATION

Name of Operator: LARAMIE ENERGY LLC	Operator No: 10433	<b>Phone Numbers</b>
Address: 1401 17TH STREET SUITE #1400		Phone: (970) 9019007
City: DENVER State: CO Zip: 80202		Mobile: (970) 9019007
Contact Person: Matt Kasten	Email: mkasten@laramie-energy.com	

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 16364 Initial Form 27 Document #: 402573317

PURPOSE INFORMATION

- 901.e. Sensitive Area Determination
- 909.c.(1), Rule 905: Pit or PW vessel closure
- 909.c.(2), Rule 906: Spill/Release Remediation
- 909.c.(3), Rule 907.e.: Land treatment of oily waste
- 909.c.(4), Rule 908.g.: Centralized E&P Waste Management Facility closure
- 909.c.(5), Rule 910.b.(4): Remediation of impacted ground water
- Rule 909.e.(2)A.: Notice completion of remediation in accordance with Rule 909.b.
- Rule 909.e.(2)B.: Closure of remediation project
- Rule 906.c.: Director request
- Other

SITE INFORMATION

N Multiple Facilities ( in accordance with Rule 909.c. )

Facility Type: SPILL OR RELEASE	Facility ID: 478891	API #:	County Name: MESA
Facility Name: Vega 5A	Latitude: 39.266170	Longitude: -107.726410	
** correct Lat/Long if needed: Latitude:		Longitude:	
QtrQtr: NWNW	Sec: 24	Twp: 9S	Range: 93W Meridian: 6 Sensitive Area? Yes

SITE CONDITIONS

General soil type - USCS Classifications GC Most Sensitive Adjacent Land Use non-crop land /  
 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

Stock ponds visual on Google earth but not found during on-site. Once weather conditions change and snow melts, if water is in ponds, they will be field screened to determine quick measurements. It is not expected during the duration of the project that the water will be able to be sampled.

# 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 checked="" 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
Yes	SOILS	TBD	Soil sampling for delineation during excavation

## INITIAL ACTION SUMMARY

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

After discovery, location was shut in and recovery of fluids began immediately. Fluids that escaped from the failed secondary containment did not leave working surface of location. All free fluids, and frozen impacted snow were recovered and introduced back to the system. Due to the failed containment, Laramie is in the process of moving all equipment associated within tank battery and moving to new location on pad. After tank removal, heavy equipment will be used to delineate impacted area.

## 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 ):

During delineation, soil samples will be collected by a 3rd party consultant. Heavy equipment will be used to excavate impacted area. Grab samples of the excavation walls (4) and bottom (1) will be a minimum; but if excavation is larger than normal dig and haul projects, additional samples will be collected. Due to the snow, it is unsure at the moment of exact dimensions, but information discovered during the excavation will be provided in supplemental forms.

### Proposed Groundwater Sampling

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

Ground water is not to be expected during delineation. If ground water is discovered, a 3rd party consultant will be utilized to collect samples. If ground water is encountered, Laramie will notify COGCC and prepare a supplemental form with information about next approach for remediation.

### Proposed Surface Water Sampling

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

Surface water during this project was not located during initial sampling event.

## Additional Investigative Actions

Additional alternative investigative actions described in attached Site Investigation Plan ( summary ):

After tank/equipment removal, location will be a priority to begin excavation work for impacted areas. All work will be documented in supplemental forms for reference.

# SITE INVESTIGATION REPORT

## SAMPLE SUMMARY

### Soil

Number of soil samples collected 2  
Number of soil samples exceeding 910-1 2  
Was the areal and vertical extent of soil contamination delineated? No  
Approximate areal extent (square feet) 7000

### NA / ND

--          Highest concentration of TPH (mg/kg) 25700  
--          Highest concentration of SAR 40  
         BTEX > 910-1 Yes  
         Vertical Extent > 910-1 (in feet) 2

### 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 910-1         

         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  
0 Number of surface water samples exceeding 910-1  
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 will be collected in the next phase of this remediation during excavation.

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?

After tank/equipment removal, delineation by heavy equipment will commence. Soil sampling for table 910-1 will be utilized for all samples associated with impacted areas for clearance, and background samples will be analyzed for EC, pH, SAR, and Arsenic.

# REMEDIAL ACTION PLAN

## SOURCE REMOVAL SUMMARY

Describe how source is to be removed.

Impacted area will be delineated by PID, Soil sampling, and utilization of heavy equipment to remove area of concern.

## 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.

Impacts to soil will be removed and cleared by heavy equipment. Impacted soils will be transported to Greenleaf for disposal via dump truck. Soil samples will be collected to ensure effectiveness of impacted soil removal by heavy equipment. After tank removal, soil delineation will occur. With the winter months and freezing temps, this project is suspected to take longer than normal. Approximation of 2 months time is estimated to obtain NFA on project. All timeline schedules will be provided in supplemental forms when available.

## Soil Remediation Summary

In Situ

Ex Situ

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

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

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

If Yes: Estimated Volume (Cubic Yards) \_\_\_\_\_ 500

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

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

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

No \_\_\_\_\_ Excavate and onsite remediation

\_\_\_\_\_ Other \_\_\_\_\_

\_\_\_\_\_ 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.

Groundwater is not expected to be encountered during delineation. If ground water is discovered, sampling and remediation approach will/might change and a supplemental form will be submitted for approval and notification about discovery.

# REMEDIATION PROGRESS UPDATE

## PERIODIC REPORTING

Frequency:  Quarterly  Semi-Annually  Annually  Other Progress reports will be submitted when data is available and/or scope changes, or NFA is requested.

Report Type:  Groundwater Monitoring  Land Treatment Progress Report  O&M Report  
 Other \_\_\_\_\_

## 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:

N/A - material excavated is expected to be disposed of and will not be used for beneficial reuse.

Volume of E&P Waste (solid) in cubic yards \_\_\_\_\_ 500

E&P waste (solid) description \_\_\_\_\_ soil with condensate impacts

COGCC Disposal Facility ID #, if applicable: \_\_\_\_\_

Non-COGCC Disposal Facility: Greenleaf \_\_\_\_\_

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

E&P waste (liquid) description \_\_\_\_\_ NA

COGCC Disposal Facility ID #, if applicable: \_\_\_\_\_

Non-COGCC Disposal Facility: NA \_\_\_\_\_

## 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.

Import fill will be brought in to fill excavation to existing grade of working surface of pad. Reclaim and seeding will not be part of this project due to release staying on working surface.

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 approve the seed mix? No \_\_\_\_\_

If NO, does the seed mix comply with local soil conservation district recommendations? No \_\_\_\_\_

# IMPLEMENTATION SCHEDULE

## **PRIOR DATES**

Date of Surface Owner notification/consultation, if required. \_\_\_\_\_

Actual Spill or Release date, if known. \_\_\_\_\_

## **SITE INVESTIGATION DATES**

Date of Initial Actions described in Site Investigation Plan (start date). 01/07/2021

Date of commencement of Site Investigation. 01/06/2021

Date of completion of Site Investigation. \_\_\_\_\_

## **REMEDIAL ACTION DATES**

Date of commencement of Remediation. 01/18/2021

Date of completion of Remediation. \_\_\_\_\_

## **SITE RECLAMATION DATES**

Date of commencement of Reclamation. \_\_\_\_\_

Date of completion of Reclamation. \_\_\_\_\_

**OPERATOR COMMENT**

After REM # is established, spill 478891 will be requested for closure and work will proceed under REM. COA's pertaining to initial Form 19 will be satisfied in supplemental Form 19 when closure of spill 478891 is requested.  
All info on sampling, depth, vertical, horizontal will be updated during delineation to be more accurate.

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

Signed: Matt Kasten \_\_\_\_\_

Title: Project Manager \_\_\_\_\_

Submit Date: 01/13/2021 \_\_\_\_\_

Email: mkasten@laramie-energy.com \_\_\_\_\_

Based on the information provided herein, this Application for Site Investigation and Remediation Workplan complies with COGCC Rules and applicable orders and is hereby approved.

COGCC Approved: Steven Arauza \_\_\_\_\_

Date: 01/26/2021 \_\_\_\_\_

Remediation Project Number: 16364 \_\_\_\_\_

**COA Type****Description**

	If historical impacts are discovered, operator shall report historical impacts via an eForm 19 (Initial w/ Supplemental) and shall collect representative soil samples for the complete Table 915-1 list. This eForm 19 may include a closure request referencing the Remediation Project number assigned upon approval of this report.
	Per Rule 915.f, if Remediation is not completed by January 15, 2022, then the Operator will comply with the current version of Table 915-1.
	Submit Supplemental eForm 19 to request closure of Spill/Release ID #478891. Supplemental report shall comply with outstanding COAs (e.g., Root Cause), indicate that work is proceeding under an approved eForm 27 and shall reference the Remediation Project number assigned upon approval of this report.

**Attachment Check 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**

402573317	FORM 27-INITIAL-SUBMITTED
402573380	SITE MAP

Total Attach: 2 Files

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

Environmental	Updated "Other Potential Receptors within 1/4-mile" information on this form based on information provided by the operator in duplicative eForm 27 doc #402566048.	01/26/2021
Environmental	Note to operator: A 10-Day Supplemental Report, required via Rule 912.b.(4) has not been received by the COGCC as of 1/26/2021. While an Initial F27 (doc #402566048) was received within 10-days of the Spill Discovery Date, the submission of a Form 27 does not satisfy the requirement to submit a Form 19 within 10-days of the Spill Discovery Date required by Rule 912.b.(4).  The duplicative eForm 27 (doc #402566048) received 1/5/2021 has been deleted from the COGCC eForm system in favor of this eForm 27 (doc #402573317).  Failure to submit a Form 19 Supplemental Spill/Release Report within 10 days of the Discovery Date for future incidents may result in penalty enforcement action.	01/26/2021

Total: 2 comment(s)