

State of Colorado  
Energy & Carbon Management Commission

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Document Number:

403850452

Receive Date:

08/05/2024

Report taken by:

Jason Kosola

## 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: MARALEX RESOURCES INC	Operator No: 53255	Phone Numbers Phone: (970) 563-4000 Mobile: ( )
Address: P O BOX 338		
City: IGNACIO State: CO Zip: 81137		
Contact Person: Mollie O'Hare	Email: mollieo@maralexinc.com	

### PROJECT, PURPOSE & SITE INFORMATION

#### PROJECT INFORMATION

Remediation Project #: 33421 Initial Form 27 Document #: 403573005

#### 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: SPILL OR RELEASE	Facility ID: 485052	API #:	County Name: LA PLATA
Facility Name: Tanks	Latitude: 37.136735	Longitude: -107.571685	
** correct Lat/Long if needed: Latitude:		Longitude:	
QtrQtr: NENE	Sec: 2	Twp: 33n	Range: 7w Meridian: N Sensitive Area? Yes

Facility Type: SPILL OR RELEASE	Facility ID: 485053	API #:	County Name: LA PLATA
Facility Name: Drilling Site (mouse hole/rat hole)	Latitude: 37.137217	Longitude: -107.571556	
** correct Lat/Long if needed: Latitude:		Longitude:	
QtrQtr: NENE	Sec: 2	Twp: 33N	Range: 7W Meridian: N Sensitive Area? Yes

## SITE CONDITIONS

General soil type - USCS Classifications GM \_\_\_\_\_

Most Sensitive Adjacent Land Use Crop Land \_\_\_\_\_

Is domestic water well within 1/4 mile? No \_\_\_\_\_

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**

## SITE INVESTIGATION PLAN

### TYPE OF WASTE:

☒ E&P Waste ☐ Other E&P Waste ☒ Non-E&P Waste

☐ Produced Water

☐ Workover Fluids

Fresh water/oily soil

☐ 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
No	SOILS	NONE	Samples
No	SURFACE WATER	NONE	Samples

### INITIAL ACTION SUMMARY

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

Bermed the tanks and stopped the leak.

### 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 ):

2 samples at 8-12" have been taken as indicated in the previously approved Soil Sample Map. When those sample results have been received, they will be communicated in a Form 27S.

Less than a bbl of fresh water (as proven by water analysis) was spilled from tank. ECMC was concerned that the water mixed with a coagulant. If the water actually did mix with the coagulant, scientifically it would not have penetrated the surface. Therefore, once the soil on the pad (including what was under the tanks) has been scraped, the remaining soil will not have been negatively impacted.

#### 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 ):

1 water sample was taken below the site.

### 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 3

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? \_\_\_\_\_

BTEX > 915-1 \_\_\_\_\_

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

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

#### 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

\_\_\_\_\_ 1 Number of surface water samples collected

\_\_\_\_\_ 0 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?

1 background sample will be taken if current samples exceed the Table 915-1. Results will be communicated when samples results are received from lab.

☐ 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.

Tanks have been removed from location. Mouse Hole and Rat Hole were impacted with fresh water when the pump that was used to pump the water to drill failed. Once the well has been completed, Maralex intends to scrape contaminated soil off the top of the location and appropriately dispose of that soil. If stained soil remains, that soil will be removed as well.

#### 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.

Discrete samples were taken from location as described in sample plan at a depth of 8". Water Sample was taken from pond below the location.

Once the well has been completed, Maralex intends to scrape contaminated soil off the top of the location and appropriately dispose of that soil. If stained soil remains, that soil will be removed as well.

The three initial sample results will be submitted when they are received from the lab. These samples are indicative of the areas that were impacted by the spill from the drilling operation. If they come back without exceedances, this will indicate that Maralex has effectively remediated the spill and did not affect waters of the state.

The site is still an active well site. The drilling activities have concluded and the new well is in the process of being completed. The well site will soon be turned back to operations and be maintained and operated as an active well site.

#### Soil Remediation Summary

☐ In Situ

☐ Ex Situ

\_\_\_\_\_ Bioremediation ( or enhanced bioremediation )  
\_\_\_\_\_ Chemical oxidation  
\_\_\_\_\_ Air sparge / Soil vapor extraction  
\_\_\_\_\_ Natural Attenuation  
\_\_\_\_\_ Other \_\_\_\_\_

\_\_\_\_\_ Excavate and offsite disposal  
\_\_\_\_\_ If Yes: Estimated Volume (Cubic Yards) \_\_\_\_\_  
\_\_\_\_\_ Name of Licensed Disposal Facility or ECMC Facility ID # \_\_\_\_\_  
\_\_\_\_\_ 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.

## 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.

Operator has adequate financial assurance to address the anticipated costs of remediation.

Operator anticipates the remaining cost for this project to be: \$ 3000

### 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:

## REMEDIATION COMPLETION REPORT

### REMEDIATION 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.

no reclamation needed as this is an active location.

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. \_\_\_\_\_

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. 08/24/2023

Actual Spill or Release date, or date of discovery. 08/18/2023

### **SITE INVESTIGATION DATES**

Date of Initial Actions described in Site Investigation Plan (start date). 08/25/2023

Proposed site investigation commencement. 08/25/2023

Proposed completion of site investigation. 10/25/2023

### **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

Reattached are all results (in PDF) that we have received from the lab for our soil and water samples. While we had submitted most of these reports before, the inspector requested additional tables that the lab typically provides so we have attached everything from the lab here. These results demonstrate that the Mollie Corynne 3C well is in compliance with the 915 table and that no harm was done to the health, safety, welfare of the environment, nor to anything nor anyone, and that this issue is resolved.

Regarding additional soil samples that ECMC requested in previous COAs, in a phone conversation on May 17, 2024, Inspector Jason Kasola stated that if we could provide a water analysis from the well that showed the water was clean, we did not need to take additional soil samples. We have provided this third-party water analysis in previous reports, along with the soil samples and a water sample. Moreover, we tried to resubmit this water analysis again here, but unfortunately, it appears the ECMC site is not able to accept more than 7 attachments at a time, as it would not attach to this report. We will resubmit the water analysis from the well again today in an additional Form 27s for ease of reference.

While we had attached a sample map in our previous reports, the background sample was not listed on those maps so we have attached here a full map showing where all samples were taken from.

All of our soil and water samples, as well as the water analysis from the well, demonstrate that this well is in compliance after the small spill under the tanks during drilling, as well as the spill during drilling around the Rat and Mouse holes.  
Thank you.

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

Signed: Mollie O'Hare

Title: E.A.

Submit Date: 08/05/2024

Email: mollieo@maralexinc.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: Jason Kosola

Date: 09/04/2024

Remediation Project Number: 33421

## 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

403850452	INVESTIGATION/REMEDIATION WORKPLAN (SUPPLEMENTAL)
403868776	ANALYTICAL RESULTS
403868777	ANALYTICAL RESULTS
403868794	MAP
403876950	ANALYTICAL RESULTS
403876999	ANALYTICAL RESULTS
403877001	ANALYTICAL RESULTS
403877002	ANALYTICAL RESULTS
403909424	FORM 27-SUPPLEMENTAL-SUBMITTED

Total Attach: 9 Files

## General Comments

### User Group

### Comment

### Comment Date

Environmental	-No analytical Table 915-1 summary table attached. -3 attachments are in an unreadable format. They appear to be QC tables from the lab. -Soil sampling is inadequate to demonstrate compliance with Table 915-1.	09/04/2024
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Total: 1 comment(s)