

# State of Colorado Oil and Gas Conservation Commission

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403144127

Receive Date:

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Report taken by:

GREG DERANLEAU

## 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 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.

Closure request is not available for an Initial Site Investigation and Remediation Workplan.

### OPERATOR INFORMATION

Name of Operator: CORAL PRODUCTION CORP	Operator No: 20275	Phone Numbers Phone: (303) 6233573 Mobile: ( )
Address: 1600 STOUT ST STE 1500		
City: DENVER	State: CO Zip: 80202	
Contact Person: JIM WIEGER	Email: jimwieger@qwestoffice.net	

### PROJECT, PURPOSE & SITE INFORMATION

#### PROJECT INFORMATION

Remediation Project #: 21402 Initial Form 27 Document #: 402908271

#### 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: WELL	Facility ID: _____	API #: 121-06740	County Name: WASHINGTON
Facility Name: JOST A 2	Latitude: 40.040220	Longitude: -103.375290	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: SWNW	Sec: 24	Twp: 1N	Range: 54W Meridian: 6 Sensitive Area? No

#### SITE CONDITIONS

General soil type - USCS Classifications OH

Most Sensitive Adjacent Land Use PASTURELAND,  
DRY LAND  
FARMING

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**

**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	produced water pit 0-3'	analytical resul

**INITIAL ACTION SUMMARY**

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

IN PROCESS OF REMOVING ALL EQUIPMENT TO FACILITATE SOIL INVESTIGATION. ANY VISIBLY STAINED SOIL WILL BE REMOVED AND STOCKPILED ONSITE UNTIL CONFIRMATION SAMPLING HAS BEEN COMPLETED.

**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 ):

Soil sampling will be conducted at the pit location, treater pad, tank battery, and wellhead pad. Samples will be analyzed for TPH and BTEX. Grab sample will be taken at the pit area for the pit bottom an grab samples for the pit banks. 2 composite samples will be taken from a grid at the tank battery. One composite sample each will be taken from the treater pad and wellhead. One composite sample each will be taken for inorganics at the tank battery and pit and analyzed for EC, SAR, pH and boron. One background sample will be taken for inorganics.

**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**

Number of soil samples collected 27

Number of soil samples exceeding 915-1 5

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

Approximate areal extent (square feet) 2500

### **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 915-1

### **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.

### **NA / ND**

Highest concentration of TPH (mg/kg)

Highest concentration of SAR

BTEX > 915-1 No

Vertical Extent > 915-1 (in feet) 5

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)

## **OTHER INVESTIGATION INFORMATION**

☐ Were impacts to adjacent property or offsite impacts identified?

☒ Were background samples collected as part of this site investigation?

BACKGROUND SAMPLE WAS OBTAINED FOR INORGANICS.

☐ 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.

SOURCES HAVE BEEN ELIMINATED DURING THE PROCESS OF PLUGGING AND ABANDONING OF LOCATION.

## **REMEDICATION 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.

VISIBLY IMPACTED OIL SOILS AT THE TANKS PAD AND WELLHEAD WERE EXCAVATED TO STOCKPILE FOR SUBSEQUENT DISPOSAL. CONFIRMATION SAMPLING INDICATED CONCENTRATIONS BELOW TABLE 915-1 MCL. THE PIT AREA EXCEEDED SAR CONCENTRATION IN COMPOSITE SAMPLE.. ADDITIONAL SAMPLING FOR INORGANICS WAS PERFORMED ON 8/3/22 TO DELINEATE EXTENT OF HIGH SAR SOILS. PIT BOTTOM IS 8' BELOW SURFACE. PROPOSE TO PUSH IMPACTED PIT BANKS IN, TO A DEPTH OF 3', AND CAP WITH LAYER OF AGRICULTURAL GYPSUM THEN FILL WITH NON-IMPACTED SOIL TO NATURAL CONTOURS.

## **Soil Remediation Summary**

☐ In Situ

☒ Ex Situ

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

Yes \_\_\_\_\_ Excavate and offsite disposal  
\_\_\_\_\_ If Yes: Estimated Volume (Cubic Yards) \_\_\_\_\_ 30  
Name of Licensed Disposal Facility or COGCC 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.

General Liability insurance coverage of \$1,000,000 per occurrence. \$60,000 bond F/B/o COGCC.

Operator anticipates the remaining cost for this project to be: \$ 25000

### 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

COGCC Disposal Facility ID #, if applicable:

Non-COGCC Disposal Facility:

Volume of E&P Waste (liquid) in barrels

E&P waste (liquid) description

COGCC Disposal Facility ID #, if applicable:

Non-COGCC 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 COGCC 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.

PROPOSE TO FILL PITS WITH BANK MATERIAL UP TO 3 FEET FROM SURFACE CAP WITH AGRICULTURAL GYPSUM AND FILL TO NATURAL CONTOUR WITH UNAFFECTED BANK SOIL. THE AREA WILL BE GRADED TO NATURAL CONTOURS. SEEDING PROGRAM WILL CONSIST OF A DRYLAND PASTURE MIX AS SHOWN IN ATTACHMENT. THE ADDITIONAL DISTURBED AREAS WILL GRADED AND SEEDED AS DESCRIBED ABOVE.

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? No \_\_\_\_\_

If YES, does the seed mix comply with local soil conservation district recommendations? \_\_\_\_\_

Did the local soil conservation district provide the seed mix? No \_\_\_\_\_

### SITE RECLAMATION DATES

Proposed date of commencement of Reclamation. 09/01/2022

Proposed date of completion of Reclamation. 09/05/2022

## 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). 02/02/2022

Proposed site investigation commencement. \_\_\_\_\_

Proposed completion of site investigation. \_\_\_\_\_

### 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**

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

Signed: JIM WIEGER

Title: GEOLOGIST

Submit Date: 08/23/2022

Email: jimwieger@qwestoffice.net

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: GREG DERANLEAU

Date: 10/25/2022

Remediation Project Number: 21402

**COA Type****Description**

	Operator shall test imported topsoil for full Table 915-1 suite of parameters to ensure topsoil is of equivalent agronomic properties, or better than, reference area topsoil properties. Refer to 915.B Operator Guidance found on COGCC Website.
	Attached seed mix (Doc #403144243) includes introduced species (e.g. Dahurian Wildrye, Siberian Wheatgrass, Smooth Brome, etc). Operator shall provide documentation of requested seed mix, either from surface owner or in consultation with local county NRCS, within the Reclamation Plan on the next Supplemental Form 27. If surface owner did not request seed mix, consult with local county NRCS.
	This Form 27 is approved to accept information into the record and establish conditions of approval for future investigation, remediation, and supplemental reporting. All work must be done in accordance with and demonstrate compliance with COGCC 900 Series and other applicable rules.
	On next Supplemental Form 27, include documentation that supports project closure under the residential SSLs in Table 915-1 rather than the Protection of Groundwater SSLs. Provide confirmation samples that include the full Table 915-1 suite of parameters.
	On next Supplemental Form 27, provide as an attachment a detailed Reclamation Plan that meets the requirements of Rule 915.b. Check the box indicating that the Form includes a Rule 915.b: Request to leave elevated inorganics in situ.
	On next Supplemental Form 27, provide photo documentation of the areas before and after soil removal (confirmation soil sampling) as requested on document #402908271.
	On next Supplemental Form 27, change "Is surface water within ¼ mile?" to = YES.
	On next Supplemental Form 27, change "Is domestic water well within ¼ mile?" to = YES.
	On next Supplemental Form 27, change Sensitive Area to = YES.
9 COAs	

**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**

403144127	FORM 27-SUPPLEMENTAL-SUBMITTED
403144214	SOIL SAMPLE LOCATION MAP
403144218	ANALYTICAL RESULTS
403144243	RECLAMATION FIGURE
403144245	RECLAMATION FIGURE
403144307	ANALYTICAL RESULTS

Total Attach: 7 Files

### General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Environmental	<p>Prior Form 27 Comments and COAs:</p> <p>402908271 12/27/21 "Confirmation samples should be collected from the areas that had visibly impacted soils removed. Photo documentation of the areas before and after soil removal (confirmation soil sampling) should be provided on subsequent Form 27. Discrete soil samples should be collected at the depth of riser plugging (tanks, separator, wellhead, etc.), for the purpose of facility closure documentation. Discrete samples are required for confirmation sampling. A lab familiar with agricultural analysis must be used for the Soil Suitability for Reclamation parameters. Guidance documents for facility closure are available on the COGCC website."</p> <p>403041601 5/13/22 "Burial of the salt impacted soil shall be contingent on the acceptance of a Reclamation plan per Rule 915.b."</p> <p>403073293 6/30/22 "The screening level inorganics data from the pit sampling indicates elevated salt levels. The inorganics impact needs to be delineated in support of developing a Reclamation plan per Rule 915.b."</p>	10/14/2022
Environmental	Operator has not completed full delineation of Soil Suitability for Reclamation parameters. Specifically areas north of SS-11 and SS-08 and east of SS-05 have not been assessed. "Reclamation Plan" section does not meet the standards required for relief to be granted under Rule 915.b. Referring to COGCC Reclamation Group for further review.	10/14/2022
Environmental	Operator has not demonstrated in this or prior Form 27s that pathway to groundwater is not complete. Nearby domestic water well (<1/4 mile from pits) indicates depth to ground water of 38'. This location is within 500' of surface water (Shears Draw) and should be listed as a sensitive area.	10/14/2022

Total: 3 comment(s)