

State of Colorado Oil and Gas Conservation Commission

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402660431

Receive Date:

04/15/2021

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 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: TOP OPERATING COMPANY	Operator No: 39560	Phone Numbers Phone: (303) 727-9915 Mobile: ()
Address: 3609 S WADSWORTH BLVD STE 340		
City: LAKEWOOD State: CO Zip: 80235		
Contact Person: Paul Herring	Email: paul.herring@topoperating.com	

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 15517

Initial Form 27 Document #: 402398543

PURPOSE INFORMATION

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

SITE INFORMATION

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

Facility Type: TANK BATTERY	Facility ID: 426981	API #:	County Name: WELD
Facility Name: Stamp 31-2 426981	Latitude: 40.186687	Longitude: -105.048643	
	** correct Lat/Long if needed: Latitude: 40.187067	Longitude: -105.048726	
QtrQtr: NENW	Sec: 31	Twp: 3N	Range: 68W Meridian: 6 Sensitive Area? Yes

SITE CONDITIONS

General soil type - USCS Classifications SC

Most Sensitive Adjacent Land Use Union Reservoir, approx. 700' east of site

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? Yes

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
No	GROUNDWATER	NA	laboratory analytical results
No	SOILS	NA	laboratory analytical results

INITIAL ACTION SUMMARY

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

Crack observed in fiberglass partially buried produced water vessel. Produced water was removed from vessel to investigate further. Excavation activities commenced to assess potential petroleum hydrocarbon impacted soil. Water vessel was removed for further investigation/excavation activities following Initial Form 27 approval.

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):

Proposed Groundwater Sampling

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

Groundwater samples will be collected from MW-01 through MW-24 for laboratory analysis of BTEX following EPA Method 8260D. Monitoring well locations are presented in Figure 1.

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 83

Number of soil samples exceeding 910-1 2

Was the areal and vertical extent of soil contamination delineated? No

Approximate areal extent (square feet) 14880

NA / ND

-- Highest concentration of TPH (mg/kg) 711

-- Highest concentration of SAR 1.5

BTEX > 910-1 Yes

Vertical Extent > 910-1 (in feet) 4

Groundwater

Number of groundwater samples collected 49

Was extent of groundwater contaminated delineated? Yes

Depth to groundwater (below ground surface, in feet) 6'

Number of groundwater monitoring wells installed 24

Number of groundwater samples exceeding 910-1 1

-- Highest concentration of Benzene (µg/l) 4050

-- Highest concentration of Toluene (µg/l) 2680

-- Highest concentration of Ethylbenzene (µg/l) 186

-- Highest concentration of Xylene (µg/l) 892

NA Highest concentration of Methane (mg/l)

Surface Water

0 Number of surface water samples collected

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?

☐ 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.

Source removal activities were completed in May and June 2020 via excavation and hydrovac. Backfilling activities commenced in July 2020. Approximately 2,800 lbs of groundwater amendment was applied to the excavation prior to backfilling to aid in addressing any potential groundwater/soil impacts remaining at the site or downgradient of the excavation.

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.

Remediation action plan not necessary at this time.

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) _____ 4670

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

Yes _____ Other _____ Groundwater removed from excavation (hydrovac) and transferred to frac tank onsite for disposal

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 samples will be collected from MW-01 through MW-24 following installation activities and submitted for laboratory analysis of BTEX following EPA Method 8260D. Groundwater samples will be collected quarterly from the site.

REMEDIATION PROGRESS UPDATE

PERIODIC REPORTING

Frequency: ☒ Quarterly ☐ Semi-Annually ☐ Annually ☐ Other _____

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:

None.

Volume of E&P Waste (solid) in cubic yards 4670

E&P waste (solid) description petroleum hydrocarbon impacted soil

COGCC Disposal Facility ID #, if applicable: _____

Non-COGCC Disposal Facility: Front Range Landfill

Volume of E&P Waste (liquid) in barrels 45

E&P waste (liquid) description produced water and petroleum
hydrocarbon impacted groundwater

COGCC Disposal Facility ID #, if applicable: _____

Non-COGCC Disposal Facility: 40 bbls of produced water from tank
to NGL (LaSalle), 5 bbls of
groundwater onsite in frac tank.

REMEDIATION COMPLETION REPORT

REMEDIATION COMPLETION SUMMARY

Is this a Final Closure Request for this Remediation Project? No _____

Do all soils meet Table 910-1 standards? _____

Does the previous reply indicate consideration of background concentrations? _____

Are the only residual soil impacts pH, SAR, or EC at depths greater than 3 feet below ground surface? _____

Does Groundwater meet Table 910-1 standards? Yes _____

Is additional groundwater monitoring to be conducted? Yes _____

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.

Reclamation activities will be completed per the COGCC 1000 series rules.

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? _____

If NO, does the seed mix comply with local soil conservation district recommendations? _____

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). 05/14/2020

Date of commencement of Site Investigation. _____

Date of completion of Site Investigation. _____

REMEDIAL ACTION DATES

Date of commencement of Remediation. _____

Date of completion of Remediation. _____

SITE RECLAMATION DATES

Date of commencement of Reclamation. _____

Date of completion of Reclamation. _____

OPERATOR COMMENT

Two additional quarters of groundwater sampling events (2Q21 and 3Q21) will be collected for BTEX assuming no concentrations of BTEX exceeding Table 915-1 are observed. TOP would like to request site closure under Table 910-1 if two additional quarters of groundwater samples, BTEX concentrations below Table 915-1 are obtained.

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

Signed: Paul Herring

Title: Landman

Submit Date: 04/15/2021

Email: paul.herring@topoperating.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: CHRIS CANFIELD

Date: 04/21/2021

Remediation Project Number: 15517

Condition of Approval**COA Type****Description**

0 COA	

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**

402660431	FORM 27-SUPPLEMENTAL-SUBMITTED
402660482	ANALYTICAL RESULTS
402660484	OTHER
402660485	ANALYTICAL RESULTS
402660492	SOIL SAMPLE LOCATION MAP
402660499	GROUND WATER ELEVATION MAP
402660505	GROUND WATER ELEVATION MAP
402660506	GROUND WATER SAMPLE LOCATION
402660507	ANALYTICAL RESULTS
402660508	ANALYTICAL RESULTS
402660511	ANALYTICAL RESULTS
402660512	ANALYTICAL RESULTS

Total Attach: 12 Files

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

		Stamp Upon Approval
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Total: 0 comment(s)