

State of Colorado Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203
Phone: (303) 894-2100 Fax: (303) 894-2109



Document Number:

401852935

Receive Date:

Report taken by:

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: HIGHPOINT OPERATING CORPORATION	Operator No: 10071	Phone Numbers
Address: 1099 18TH ST STE 2300		
City: DENVER	State: CO Zip: 80202	
Contact Person: Rusty Frishmuth	Email: rfrishmuth@hpres.com	
		Phone: (303) 312-8718
		Mobile: (303) 518-2290

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: _____ Initial Form 27 Document #: 401852935

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 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: WELL	Facility ID: _____	API #: 123-05034	County Name: WELD
Facility Name: STATE 36-1	Latitude: 40.097070	Longitude: -104.388525	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: SENW	Sec: 36	Twp: 2N	Range: 63W Meridian: 6 Sensitive Area? Yes

SITE CONDITIONS

General soil type - USCS Classifications SM Most Sensitive Adjacent Land Use Agriculture

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? Yes

Other Potential Receptors within 1/4 mile

None identified.

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
UNDETERMINED	GROUNDWATER	NA	NA
UNDETERMINED	SOILS	NA	NA

INITIAL ACTION SUMMARY

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

A partially buried 100 bbl produced water tank will be removed during P&A activities. Following removal of the water tank, each side wall of the tank grave will be screened for VOC concentration using a PID detector and will be observed for potential petroleum hydrocarbon impact such as staining and/or odor. One grab soil sample will be collected from the sidewall exhibiting the highest VOC concentration and/or greatest evidence of potential hydrocarbon impact. Additionally, one grab soil sample will be collected from the floor of the tank grave. If groundwater is encountered in the bottom of the tank grave, a grab groundwater sample will be collected in place of a floor soil sample. Samples will be collected per USEPA methods and strict chain-of-custody standards will be followed. The soil samples will be submitted to an accredited lab for analysis of benzene, toluene, ethylbenzene, and xylene (BTEX), and total petroleum hydrocarbons (TPH)-gasoline range organic (GRO) by USEPA 8260C, TPH-diesel range organics (DRO) by USEPA Method 8015C. The floor soil sample (or sidewall side wall sample if groundwater is encountered) will also be submitted for analysis of pH by USEPA Method 9045D, specific conductance (EC) by USEPA Method 9050A, and sodium adsorption ration (SAR) by USDA Agricultural Handbook 60 method (20B). If groundwater is encountered the sample will be submitted for analysis of BTEX by USEPA 8260C.

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):

One grab soil sample will be collected from the sidewall exhibiting the highest VOC concentration and/or greatest evidence of potential hydrocarbon impact. Additionally, one grab soil sample will be collected from the floor of the tank grave unless groundwater is encountered. Samples will be collected per USEPA methods and strict chain-of-custody standards will be followed. The soil samples will be submitted to an accredited lab for analysis of benzene, toluene, ethylbenzene, and xylene (BTEX), and total petroleum hydrocarbons (TPH)-gasoline range organic (GRO) by USEPA 8260C, TPH diesel range organics (DRO) by USPEA Method 8015C. The floor soil sample (or sidewall side wall sample if groundwater is encountered) will also be submitted for analysis of pH by USEPA Method 9045D, specific conductance (EC) by USEPA Method 9050A, and sodium adsorption ration (SAR) by USDA Agricultural Handbook 60 method (20B).

Proposed Groundwater Sampling

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

If groundwater is encountered a grab water sample will be collected and submitted for laboratory analysis of BTEX by USEPA 8260C.

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 _____ 0
Number of soil samples exceeding 910-1 _____
Was the areal and vertical extent of soil contamination delineated? _____
Approximate areal extent (square feet) _____

NA / ND

_____ Highest concentration of TPH (mg/kg) _____
_____ Highest concentration of SAR _____
_____ BTEX > 910-1 _____
_____ Vertical Extent > 910-1 (in feet) _____

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
_____ 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

SOURCE REMOVAL SUMMARY

Describe how source is to be removed.

NA

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.

NA

Soil Remediation Summary

☐ In Situ

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

☐ Ex Situ

- _____ Excavate and offsite disposal
- _____ If Yes: Estimated Volume (Cubic Yards) _____
- _____ 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.

NA

REMEDIATION PROGRESS UPDATE

PERIODIC REPORTING

Frequency: ☐ Quarterly ☐ Semi-Annually ☐ Annually ☒ Other Partially Buried Vessel Removal and Site Investigation

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? _____

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: _____

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.

NA

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 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). 01/10/2019

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

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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: Rusty Frishmuth

Title: EHS Manager

Submit Date: _____

Email: rfrishmuth@hpres.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: _____

Date: _____

Remediation Project Number: _____

COA Type

Description

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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

401853420	MAP
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Total Attach: 1 Files

General Comments

User Group

Comment

Comment Date

		Stamp Upon Approval
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Total: 0 comment(s)