

State of Colorado Oil and Gas Conservation Commission

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



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Receive Date:

11/26/2019

Report taken by:

KRIS NEIDEL

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: <u>PEAKVIEW OPERATING COMPANY LLC</u> | Operator No: <u>10409</u> | Phone Numbers Phone: <u>(720) 402-3085</u> Mobile: <u>(405) 826-7013</u> |
| Address: <u>1001 17TH ST SUITE 1050</u> | | |
| City: <u>DENVER</u> | State: <u>CO</u> Zip: <u>80202</u> | |
| Contact Person: <u>Wayne Wise</u> | Email: <u>wwise@peakviewenergy.com</u> | |

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 13560 Initial Form 27 Document #: 401848846

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 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: <u>WELL</u> | Facility ID: _____ | API #: <u>081-06185</u> | County Name: <u>MOFFAT</u> |
| Facility Name: <u>KOWACH 1-9</u> | | Latitude: <u>40.485521</u> | Longitude: <u>-107.499655</u> |
| | | ** correct Lat/Long if needed: Latitude: _____ | Longitude: _____ |
| QtrQtr: <u>SESW</u> | Sec: <u>9</u> | Twp: <u>6N</u> | Range: <u>90W</u> Meridian: <u>6</u> Sensitive Area? <u>No</u> |

SITE CONDITIONS

General soil type - USCS Classifications CH Most Sensitive Adjacent Land Use Pasture 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

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 | SOILS | unknown | soil sampling |

INITIAL ACTION SUMMARY

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

See COGCC Document Numbers 401848846 and 402082619.

On 10/7/2019, Peakview conducted excavation activities at the wellhead as proposed in COGCC document number 402082619. One soil sample (SS01) was collected below the previous excavation area at approximately 4 feet bgs. Additionally, groundwater seeped into the excavation during assessment activities. One groundwater sample (GW-01) was collected from the pothole. Laboratory analytical results indicate hydrocarbon impacts to both the soil and groundwater at the site. Excavation and sample locations are depicted on the attached Site Map (Figure 2). Laboratory analytical reports are attached and summarized in Tables 1 and 2.

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):

Up to five soil borings will be advanced to delineate the identified hydrocarbon impacts. Soil samples will be collected from each soil boring location and submitted for laboratory analysis of constituents identified in COGCC Table 910-1. Site assessment activities will be planned for Spring 2020. The proposed soil boring locations are depicted on the attached Site Map (Figure 2).

Proposed Groundwater Sampling

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

If groundwater is encountered during site assessment activities, groundwater samples will be collected and submitted for laboratory analysis of constituents identified in COGCC Table 910-1.

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 1

Number of soil samples exceeding 910-1 1

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

Approximate areal extent (square feet) 300

NA / ND

-- Highest concentration of TPH (mg/kg) 520

-- Highest concentration of SAR 2.7

BTEX > 910-1 No

Vertical Extent > 910-1 (in feet) 6

Groundwater

Number of groundwater samples collected 1

Was extent of groundwater contaminated delineated? No

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

Number of groundwater monitoring wells installed 0

Number of groundwater samples exceeding 910-1 1

-- Highest concentration of Benzene (µg/l) 110

-- Highest concentration of Toluene (µg/l) 36

-- Highest concentration of Ethylbenzene (µg/l) 22

-- Highest concentration of Xylene (µg/l) 47

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?

See PROPOSED SAMPLING PLAN section on previous page.

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.

Remediation options will be evaluated following completion of site assessment activities.

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.

Remediation options will be evaluated following completion of site assessment activities.

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.

REMEDATION 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? ☐ No _____

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: _____

REMEDATION COMPLETION REPORT

REMEDATION 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? _____

Is additional groundwater monitoring to be conducted? _____

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.

All disturbances associated with site assessment will be restored to preexisting conditions.

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). 09/17/2018

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

COA 5 on COGCC document number 402082619 stated to "demonstrate that the three lines have been properly abandoned in accordance to the 1100 Series Rules and that these and other lines are compliant with the 1100 Series Rules". During the excavation in September 2018, there were two 2-inch "orphan" lines and a small section of 8-inch pipe that were uncovered. The 2-inch lines were capped and the 8-inch pipe was removed from the ground. The 8-inch pipe appeared to be a short piece of casing. Proper abandonment of the two 2-inch lines was confirmed by the COGCC and document by Mr. Richard Murray in the Field Inspection Form (COGCC Document Number 693200421).

In response to the COGCC General Comment on COGCC Document Number 401848846 stating "The excavated soil should be handled as E&P waste, outlined in COGCC rules 907", the disposal documentation is attached to this Form.

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

Signed: ` Wayne Wise _____

Title: Operations Engineer _____

Submit Date: ` 11/26/2019 _____

Email: wwise@peakviewenergy.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: KRIS NEIDEL _____

Date: 12/18/2019 _____

Remediation Project Number: 13560 _____

COA Type**Description**

| | |
|--|--|
| | A Form 27 should be submitted by April 1st 2020 with the anticipated start date for the investigation. |
| | If groundwater is encountered during the soil investigation, water samples should be collected and sampled for TPH and BTEX. |
| | It may be necessary to step out from the proposed 5 borehole locations around the wellhead to determine the lateral extent of contamination. |

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**

| | |
|-----------|--------------------------------|
| 402236738 | FORM 27-SUPPLEMENTAL-SUBMITTED |
| 402237621 | MAP |
| 402237622 | SITE MAP |
| 402237624 | ANALYTICAL RESULTS |
| 402239286 | DISPOSAL MANIFESTS |
| 402239522 | ANALYTICAL RESULTS |

Total Attach: 6 Files

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

| | | |
|--|--|---------------------|
| | | Stamp Upon Approval |
|--|--|---------------------|

Total: 0 comment(s)