

State of Colorado  
Oil and Gas Conservation Commission

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Document Number:  
403046558  
Receive Date:  
05/13/2022

Report taken by:  
Laurel Anderson

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: <u>KP KAUFFMAN COMPANY INC</u> | Operator No: <u>46290</u>                     | Phone Numbers<br>Phone: <u>(208) 2018280</u><br>Mobile: <u>( )</u> |
| Address: <u>1700 LINCOLN ST STE 4550</u>         |   |  |
| City: <u>DENVER</u>                              | State: <u>CO</u>                              | Zip: <u>80203</u>  |
| Contact Person: <u>Jennifer Galles</u>           | Email: <u>PrimaryContractor@marcomllc.net</u> |  |

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 19616 Initial Form 27 Document #: 402762330

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: <u>SPILL OR RELEASE</u>         | Facility ID: <u>480275</u> | API #: _____                  | County Name: <u>WELD</u>  |
| Facility Name: <u>E. Stieber Consolidation</u> | Latitude: <u>40.043547</u> | Longitude: <u>-104.857700</u> |   |
| ** correct Lat/Long if needed: Latitude: _____ |                            | Longitude: _____              |   |
| QtrQtr: <u>NWNE</u>                            | Sec: <u>23</u>             | Twp: <u>1N</u>                | Range: <u>67W</u> Meridian: <u>6</u> Sensitive Area? <u>Yes</u> |

SITE CONDITIONS

General soil type - USCS Classifications SC Most Sensitive Adjacent Land Use Ag  
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

## SITE INVESTIGATION PLAN

### TYPE OF WASTE:

- |  |  |  |
|--|--|--|
| <input checked="" type="checkbox"/> E&P Waste      | <input type="checkbox"/> Other E&P Waste             | <input type="checkbox"/> Non-E&P Waste |
| <input checked="" type="checkbox"/> Produced Water | <input type="checkbox"/> Workover Fluids             | _____                                  |
| <input checked="" type="checkbox"/> Oil            | <input type="checkbox"/> Tank Bottoms                |  |
| <input checked="" type="checkbox"/> Condensate     | <input type="checkbox"/> Pigging Waste               |  |
| <input type="checkbox"/> Drilling Fluids           | <input type="checkbox"/> Rig Wash                    |  |
| <input type="checkbox"/> Drill Cuttings            | <input type="checkbox"/> Spent Filters               |  |
|  | <input type="checkbox"/> Pit Bottoms                 |  |
|  | <input type="checkbox"/> Other (as described by EPA) | _____                                  |

### DESCRIPTION OF IMPACT

| Impacted? | Impacted Media | Extent of Impact | How Determined          |
|-----------|----------------|------------------|-------------------------|
| Yes       | GROUNDWATER    | TBD              | Monitoring well samples |
| Yes       | SOILS          | TBD              | Soil 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.

The flowline has been repaired and the impacted soil in the immediate area has been removed.

### 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 ):

The number of soil samples will be determined once impacts are delineated. Confirmation soil samples were collected by MarCom 3/2/22. Lab report and summary table of results are attached.

#### Proposed Groundwater Sampling

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

6 monitoring wells were installed at the site; 4 were removed during excavation activities. MW installation to occur within 4 weeks after soil borings are completed, pending driller availability. 7 MWs will be installed - replacing the 4 that were destroyed, plus 3 additional wells, including one on the north side of CR8. Domestic well at nearby residence is sampled bi-weekly.

#### 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 ):

COGCC has approved the application of GAC, which was completed.  
 Soil borings are to be performed through direct push technology, logged for lithology and impact observations, and soil samples collected, with a minimum of 1 sample per boring.  
 Following receipt of laboratory data from soil borings, data will be analyzed, and any modifications to proposed monitoring wells will be requested (if any, depending on soil results). Monitoring wells will then be installed. Proposed drilling and construction information will be provided prior to installation.

## SITE INVESTIGATION REPORT

## SAMPLE SUMMARY

### Soil

Number of soil samples collected 36  
Number of soil samples exceeding 915-1 13  
Was the areal and vertical extent of soil contamination delineated? No  
Approximate areal extent (square feet) 7500

### NA / ND

-- Highest concentration of TPH (mg/kg) 794  
-- Highest concentration of SAR 4.67  
BTEX > 915-1 Yes  
Vertical Extent > 915-1 (in feet) 9

### Groundwater

Number of groundwater samples collected 25  
Was extent of groundwater contaminated delineated? No  
Depth to groundwater (below ground surface, in feet) 8'  
Number of groundwater monitoring wells installed 6  
Number of groundwater samples exceeding 915-1 3

-- Highest concentration of Benzene (µg/l) 330  
-- Highest concentration of Toluene (µg/l) 110  
-- Highest concentration of Ethylbenzene (µg/l) 13  
-- Highest concentration of Xylene (µg/l) 1200  
NA Highest concentration of Methane (mg/l)

### 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.

## OTHER INVESTIGATION INFORMATION

Were impacts to adjacent property or offsite impacts identified?

Impacts have been observed on the western excavation wall via soil staining. Additional potential for off-site impacts on the north side of CR8 are currently being investigated through soil and groundwater samples; analytical results indicate impacts exist. Additional soil borings and monitoring wells are proposed to delineate soil impacts.

Were background samples collected as part of this site investigation?

4 background soil samples have been collected and analyzed.

Was investigation derived waste (IDW) generated as part of this investigation?

Volume of solid waste (cubic yards) 2200 Volume of liquid waste (barrels) 407

Is further site investigation required?

Soil borings and monitoring wells are proposed to delineate impacts to soil and groundwater.

## 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.

Soil: Removal and disposal, plus in-situ treatment with GAC

Water: Pumping for disposal.

### 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.

Currently KPK has excavated and removed impacted soils. Additional pothole activities have occurred on the north side of CR8 to collect soil and groundwater samples for additional delineation; results indicate impacts exist in those areas. Therefore, an additional monitoring well will be installed.

GAC was applied to the western portion of the excavation.

Soil borings and MW reinstallation to occur according to proposed plan.

### Soil Remediation Summary

In Situ

Bioremediation ( or enhanced bioremediation )

Chemical oxidation

Air sparge / Soil vapor extraction

Natural Attenuation

Yes  Other  GAC application \_\_\_\_\_

Ex Situ

Yes  Excavate and offsite disposal

If Yes: Estimated Volume (Cubic Yards) \_\_\_\_\_ 2200

Name of Licensed Disposal Facility or COGCC Facility ID # \_\_\_\_\_

No  Excavate and onsite remediation

No  Land Treatment

No  Bioremediation (or enhanced bioremediation)

No  Chemical oxidation

Other \_\_\_\_\_

**Groundwater Remediation Summary**

No  Bioremediation ( or enhanced bioremediation )

No  Chemical oxidation

No  Air sparge / Soil vapor extraction

No  Natural Attenuation

Yes  Other  GAC applied to smear zone. \_\_\_\_\_

**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.

Currently 2 monitoring wells are installed on the site. Additional monitoring wells will be installed following backfill of the excavation.

# REMEDIATION PROGRESS UPDATE

## PERIODIC REPORTING

### Approved Reporting Schedule:

Quarterly     Semi-Annually     Annually     Other    Bi weekly domestic well sampling results

### Request Alternative Reporting Schedule:

Semi-Annually     Annually     Other    Request change of frequency to monthly as domestic well results have all been below regulatory values. Following backfill and MW installation, we will request a change to quarterly.

### 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 \_\_\_\_\_

## 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    2200

E&P waste (solid) description    Hydrocarbon impacted soil

COGCC Disposal Facility ID #, if applicable: \_\_\_\_\_

Non-COGCC Disposal Facility:    Front Range Landfill

Volume of E&P Waste (liquid) in barrels    407

E&P waste (liquid) description    Hydrocarbon impacted water

COGCC Disposal Facility ID #, if applicable: \_\_\_\_\_

Non-COGCC Disposal Facility:    NGL

# 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.

Impacted area will be reclaimed to 1100 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 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. 07/10/2022

Proposed date of completion of Reclamation. 08/01/2022

## 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. 07/07/2021

Actual Spill or Release date, or date of discovery. 07/07/2021

### SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 07/07/2021

Proposed site investigation commencement. 07/07/2021

Proposed completion of site investigation. 06/30/2022

### REMEDIAL ACTION DATES

Proposed start date of Remediation. 07/27/2021

Proposed date of completion of Remediation. 09/30/2022

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: Jennifer Galles

Title: Consultant

Submit Date: 05/13/2022

Email: PrimaryContractor@marcomllc.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: Laurel Anderson

Date: 05/26/2022

Remediation Project Number: 19616

### Condition of Approval

**COA Type**

**Description**

|  |   |
|--|---|
|  | COGCC denies Operator's request to reduce domestic well sampling frequency to monthly. Analytical results from March 11, 2022, indicate GRO was detected in the domestic well. Operator shall resample the domestic well as soon as possible and notify COGCC EPS Nikki Graber (Nikki.Graber@state.co.us) with a date and time for proposed sampling once determined. Operator shall sample for GRO, DRO and TPH in addition to Table 915-1 constituents on a bi-weekly basis at minimum. If GRO is detected in subsequent laboratory analytical reports; Operator shall immediately notify EPS Nikki Graber upon receipt.  |
|  | Due to exceedances of Table 915-1 concentration levels for groundwater in MW-4 and MW-6 - Operator shall check the box for Rule 913.c.(6): Remediation of impacted Groundwater pursuant to Rule 915.e.(3).D, and the contaminant concentrations in Table 915-1 in addition to Rule 913.c.(3): Remediation of Spill and Releases pursuant to Rule 912 under the Purpose Information section on the next Supplemental Form 27.  |
|  | Per COA on Doc 402988469: COGCC approves of the proposed monitoring well and soil boring locations. However, per COA on Doc #402965303 "Based on site characteristics, operator submittals, and COGCC inspections MW-1 and MW-2 do not properly define vertical and horizontal extent of impacts to groundwater.". As COGCC has previously requested: an additional monitoring well shall be installed between the domestic well and the excavation perimeter, as well as, an additional monitoring well to the north of CR 8.<br><br>Operator shall include an updated map with these proposed locations for COGCC approval within 45 days of excavation completion. |
|  | Per COA on Doc 402988469: On the Form 27 Supplemental Report, specify the amount (volume or mass) and name brand of groundwater amendment added to the excavation. Attach the SDS for any additives applied to the excavation or injected at the site.<br><br>Note: This work was completed on 03/31/2022.  |
|  | The proposed date of commencement of Reclamation in the Site Reclamation Dates section of Doc #40046558 indicates a commencement date of 7/10/2022. Reclamation cannot begin until the site investigation and remediation are complete. Operator shall update this section in the next Supplemental Form 27.  |
|  | All unaddressed COAs/CAs from previously approved forms/inspections still apply. Additionally, all COAs applied to the GRIP apply to this remediation project.  |

6 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.

| <u>Att Doc Num</u> | <u>Name</u>                    |
|--------------------|--------------------------------|
| 403046558          | FORM 27-SUPPLEMENTAL-SUBMITTED |
| 403049100          | ANALYTICAL RESULTS             |
| 403049102          | ANALYTICAL RESULTS             |
| 403049103          | ANALYTICAL RESULTS             |

Total Attach: 4 Files

### General Comments

| <u>User Group</u> | <u>Comment</u>   | <u>Comment Date</u> |
|-------------------|--|---------------------|
| Environmental     | Per comment on Doc #402988469: Confirmation soil samples were collected on 3/2/2022 were not provided as an attachment to Doc #402988469. Operator shall provide these documents on the next Supplemental Form 27.   | 05/16/2022          |
| Environmental     | Operator shall add the following to the Other Potential Receptors within 1/4 mile section: Directly adjacent to County Road 8 and occupied residence, ~350' from mapped High Priority Habitat - Aquatic Native Species Conservation Waters, ~750' 100-year floodplain. | 05/16/2022          |

Total: 2 comment(s)