

# State of Colorado Oil and Gas Conservation Commission

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402531378

Receive Date:

11/12/2020

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>KP KAUFFMAN COMPANY INC</u>	Operator No: <u>46290</u>	<b>Phone Numbers</b>
Address: <u>1675 BROADWAY, STE 2800</u>		Phone: <u>(303) 825-4822</u>
City: <u>DENVER</u> State: <u>CO</u> Zip: <u>80202</u>		Mobile: <u>(720) 317-8161</u>
Contact Person: <u>Max Knop</u>	Email: <u>mknop@kpk.com</u>	

### PROJECT, PURPOSE & SITE INFORMATION

#### PROJECT INFORMATION

Remediation Project #: 11876Initial Form 27 Document #: 401776946

#### 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>SPILL OR RELEASE</u>	Facility ID: <u>441100</u>	API #: _____	County Name: <u>JACKSON</u>
Facility Name: <u>SPILL/RELEASE POINT</u>	Latitude: <u>40.781138</u>	Longitude: <u>-106.240976</u>	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: <u>SWNW</u>	Sec: <u>2</u>	Twp: <u>9N</u>	Range: <u>79W</u> Meridian: <u>6</u> Sensitive Area? <u>Yes</u>

#### SITE CONDITIONS

General soil type - USCS Classifications SMMost Sensitive Adjacent Land Use RangelandIs domestic water well within 1/4 mile? NoIs surface water within 1/4 mile? NoIs 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	200' x 10'	Visual and soil analysis

## INITIAL ACTION SUMMARY

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

During the previous operator, Bonanza Creek, and while conducting routine inspections, a release was observed along a flowline right of way. Approximately 7.4 bbl of oil and produced water were discharged to the ground surface. The well was shut-in immediately to stop the release. Incident response personnel were contacted to cleanup the discharged oil/water. The ground was frozen and the fluid was pooled on the ground surface.

## 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 ):

KPK field screened the release location area October 2019. Field screening results from ambient temperature head space measurements within the release area showed elevated readings at 7 of the 11 screening locations. Summary of field screening results have been provided in the attached site map. Soil sampling was not conducted in October 2019 due to the elevated field screening results. Based results of the PID field screening, excavation is necessary to remove impacted soil associated the release. Final vertical and horizontal extent of excavation area will be based on results from collected grab soil samples. All soil samples will be analyzed for TPH - DRO, GRO & ORO, BTEX, pH, EC, and SAR and verified compliant with COGCC Table 910 -1.

### 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 4

Number of soil samples exceeding 910-1 1

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

Approximate areal extent (square feet) 2000

### 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   

### 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.

### NA / ND

-- Highest concentration of TPH (mg/kg) 1000

NA Highest concentration of SAR   

   BTEX > 910-1 No

   Vertical Extent > 910-1 (in feet) 0

   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?

☐ 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? Yes \_\_\_\_\_

## SOURCE REMOVAL SUMMARY

Describe how source is to be removed.

Impacted soil with analytical results exceeding Table 910-1 thresholds will be excavated and disposed of at the Walden Land Treatment Facility.

## 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.

Area showing elevated readings from PID field screening will be excavated until total horizontal and vertical extent of the historical contamination is defined. Final vertical and horizontal extent of excavation area will be based on results from collected discrete soil samples. Discrete soil samples will be collected from the base and walls of the final area of excavation. Discrete soil samples will be collected from investigation area showing no elevated PID readings. All soil samples will be analyzed for TPH - DRO, GRO & ORO, BTEX, pH, EC, and SAR and verified compliant with COGCC Table 910-1.

Excavation activities are scheduled to begin July 2021 and will continue until confirmation samples can be collected.

## 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) \_\_\_\_\_ 50

Name of Licensed Disposal Facility or COGCC Facility ID # \_\_\_\_\_ 427373

\_\_\_\_\_ Excavate and onsite remediation

\_\_\_\_\_ Land Treatment

\_\_\_\_\_ Bioremediation (or enhanced bioremediation)

\_\_\_\_\_ Chemical oxidation

\_\_\_\_\_ Other \_\_\_\_\_

## Groundwater Remediation Summary

No \_\_\_\_\_ Bioremediation ( or enhanced bioremediation )

No \_\_\_\_\_ Chemical oxidation

No \_\_\_\_\_ Air sparge / Soil vapor extraction

No \_\_\_\_\_ Natural Attenuation

No \_\_\_\_\_ 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

**Frequency:** ☐ Quarterly ☐ Semi-Annually ☐ Annually ☒ Other KPK to provide update once soil analysis is received

**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: \_\_\_\_\_

## 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? \_\_\_\_\_

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.

Line was repaired and tested. Soil has been tilled periodically.

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? Yes

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

## IMPLEMENTATION SCHEDULE

### **PRIOR DATES**

Date of Surface Owner notification/consultation, if required. 03/12/2015

Actual Spill or Release date, if known. 03/12/2015

### **SITE INVESTIGATION DATES**

Date of Initial Actions described in Site Investigation Plan (start date). 03/12/2015

Date of commencement of Site Investigation. 03/12/2015

Date of completion of Site Investigation. 10/24/2019

### **REMEDIAL ACTION DATES**

Date of commencement of Remediation. 03/12/2015

Date of completion of Remediation. \_\_\_\_\_

### **SITE RECLAMATION DATES**

Date of commencement of Reclamation. \_\_\_\_\_

Date of completion of Reclamation. \_\_\_\_\_

**OPERATOR COMMENT**

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

Signed: ` Max Knop

Title: Gen Mangr of Air Quality

Submit Date: ` 11/12/2020

Email: mknop@kpk.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: 12/18/2020

Remediation Project Number: 11876

**COA Type****Description**

	Provide notice to Environmental staff, Kris Neidel (kris.neidel@state.co.us) or 970-871-1963 72hrs prior to mobilization at beginning of all sampling events.
	COA repasted here from doc #40216926, all previous COA's remain valid: All confirmation samples should be discrete samples, not composite samples as provided here (9/26/2018, 8/25/2016).
	COA repasted here from doc #40216926, all previous COA's remain valid:  The "increase" in DRO of sample SS04 (8/25/2016 at 487mg/kg to 9/26/2018 at 1000mg/kg), indicates that the area is not well defined. One additional discrete sample should be collected at the eastern extent of spill. The area of SS04 should have a total of 3 discrete samples.

**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**

402531378	FORM 27-SUPPLEMENTAL-SUBMITTED
402531464	SITE MAP

Total Attach: 2 Files

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

Environmental	A minimum of one sample, near SS02 shall be for full COGCC table 910-1. PAH's and metals have not been analyzed in past sampling.	12/18/2020
Environmental	It appears that DRO is the primary contaminant of concern, why screen soil with a PID?	12/18/2020

Total: 2 comment(s)