

State of Colorado Oil and Gas Conservation Commission

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402753522

Receive Date:

07/20/2021

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.

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
Address: <u>1675 BROADWAY, STE 2800</u>		Phone: <u>(303) 8254822</u>
City: <u>DENVER</u>	State: <u>CO</u>	Zip: <u>80202</u>
Contact Person: <u>Jeff Rickard</u>	Email: <u>jrickard@kpk.com</u>	Mobile: <u>()</u>

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 16995 Initial Form 27 Document #: 402611133

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: Request for Closure

SITE INFORMATION

No ☐ Multiple Facilities ☐

Facility Type: <u>LOCATION</u>	Facility ID: <u>332996</u>	API #: <u></u>	County Name: <u>WELD</u>
Facility Name: <u>JOHNSON-62N68W 30SWNE</u>		Latitude: <u>40.110850</u>	Longitude: <u>-105.043375</u>
		** correct Lat/Long if needed: Latitude: <u>40.111050</u>	Longitude: <u>-105.043173</u>
QtrQtr: <u>SWNE</u>	Sec: <u>30</u>	Twp: <u>2N</u>	Range: <u>68W</u>
		Meridian: <u>6</u>	Sensitive Area? <u>No</u>

SITE CONDITIONS

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

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:**☒ **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	Undetermined

INITIAL ACTION SUMMARY

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

KPK is requesting to remove the 100 bbl produced water storage vessel, which meets the definition of a partially buried vessel, from the JOHNSON #32-30 Tank Battery. The well associated to the tank battery is being P&A'd and the facility is planned to be removed. The partially buried storage vessel will be permanently closed per Rule 905.b.

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):

Five (5) discrete soil samples will be collected from the base of the produced water vessel (~3 ft below ground surface) to verify soil was not impacted from the operation of the partially buried produced water vessel. Analysis for grab samples included Table 915-1 analytes. See attached site map for partially buried vessel location and proposed sampling locations.

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 5
Number of soil samples exceeding 915-1 0
Was the areal and vertical extent of soil contamination delineated? Yes
Approximate areal extent (square feet) 0

Groundwater

Number of groundwater samples collected 0
Was extent of groundwater contaminated delineated? No
Depth to groundwater (below ground surface, in feet) 0
Number of groundwater monitoring wells installed 0
Number of groundwater samples exceeding 915-1 0

Surface Water

0 Number of surface water samples collected
Number of surface water samples exceeding 915-1 0
If surface water is impacted, other agency notification may be required.

NA / ND

-- Highest concentration of TPH (mg/kg) 68
-- Highest concentration of SAR 2.73
BTEX > 915-1 No
Vertical Extent > 915-1 (in feet) 0

Highest concentration of Benzene (µg/l) 0
Highest concentration of Toluene (µg/l) 0
Highest concentration of Ethylbenzene (µg/l) 0
Highest concentration of Xylene (µg/l) 0
Highest concentration of Methane (mg/l) 0

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) 0 Volume of liquid waste (barrels) 0

☐ 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.

If soil is found to be impacted due to the operation of the partially buried produced water vessel, Form 19 will be submitted reporting the associated release. Impacted soil will be excavated until soil sample analyses results show no exceedances of Table 915-1 thresholds.

REMEDIAL 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.

Impacted soil will be excavated and disposed of at a certified disposal facility.

Soil Remediation Summary

☐ In Situ

☒ Ex Situ

0 Bioremediation (or enhanced bioremediation) Yes Excavate and offsite disposal

0 Chemical oxidation If Yes: Estimated Volume (Cubic Yards) 0

_____ Air sparge / Soil vapor extraction
_____ Natural Attenuation
_____ Other _____

_____ 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.

REMEDIATION PROGRESS UPDATE

PERIODIC REPORTING

Approved Reporting Schedule:

☐ Quarterly ☐ Semi-Annually ☐ Annually ☐ Other _____

☐ **Request Alternative Reporting Schedule:**

☐ Semi-Annually ☐ Annually ☐ Other _____

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? _____

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 _____

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? Yes _____

Does the previous reply indicate consideration of background concentrations? _____

Does Groundwater meet Table 915-1 standards? Yes _____

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.

Excavation area will be backfilled with clean fill dirt appropriate for the area. Area will be re-contoured to match surrounding contour and reseeded.

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? Yes _____

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

Did the local soil conservation district provide the seed mix? No _____

SITE RECLAMATION DATES

Proposed date of commencement of Reclamation. 06/08/2021

Proposed date of completion of Reclamation. 06/08/2023

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. _____

Actual Spill or Release date, or date of discovery. _____

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 03/08/2021

Proposed site investigation commencement. 02/08/2021

Proposed completion of site investigation. _____

REMEDIAL ACTION DATES

Proposed start date of Remediation. 02/08/2021

Proposed date of completion of Remediation. _____

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

KPK is requesting closure of remediation project #16995.

No visual, olfactory, or screening evidence of contamination was observed after removing the PBV. Discrete soil samples show no evidence of contamination. No ground water was encountered. Initial background sample taken on 3/1/21 is suspected to be topsoil based on sample results. Additional background samples were taken on 6/8/21 for background arsenic levels since excavation samples were above the Table 915-1 arsenic standard.

Sample map, sample results and photos are attached.

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

Signed: Jeff Rickard

Title: Regulatory

Submit Date: 07/20/2021

Email: jrickard@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: CHRIS CANFIELD

Date: 09/13/2021

Remediation Project Number: 16995

Condition of Approval

COA Type

Description

	Operator will submit relevant photo documentation. The photos submitted with the subject Supplemental Form 27 only show the location after the excavation had been backfilled and graded.
	Operator shall submit a current map of the subject location including the most recent excavation limits, soil boring locations, and monitoring well locations. Monitoring well locations must include the reference elevations being used to gauge groundwater elevations. GPS data used to create the map must comply with COGCC Rule 216.
	Operator will address the pH values exceeding Table 915-1 Cleanup Concentrations.
	On the Remediation Completion Report tab, the Operator checked "Compliant with Rule 913.h.(3)?" Rule 913.h.(3) concerns closure of groundwater remediation projects once an Operator has four (4) consecutive quarters of sampling and analysis demonstrating compliance with Table 915-1 and WQCC Regulation 41 Groundwater quality standards. The Operator has not encountered Groundwater during the subject activities
	Operator will, as required by Rule 915.e.(1)A, submit their field notes, photographs, and measurements including all field screening results. Field measurements and field tests will be conducted using appropriate equipment, calibrated and operated according to manufacturer specifications, by personnel trained and familiar with the equipment.
	On the Remediation Completion Report tab, the Operator checked "Compliant with Rule 913.h.(2)?" Rule 913.h.(2) applies only if the Operator has requested a variance pursuant to Rule 502. There is no record of a variance being requested.
	COGCC does not approve the operator's request for closure of REM 16995.

	The Operator will complete the collection and analysis of confirmation samples as described in their approved Initial Form 27 (document 402611133). In their Initial Form 27, the Operator stated five (5) discrete soil samples would be collected for laboratory analysis. The soil sample location map attached to the initial Form 27 also depicts five (5) soil sample locations. However, the soil sample location map attached to the subject Supplemental Form 27 shows only four (4) sample location. Further, the attached laboratory report includes analytical results for only four (4) soil samples. No explanation was given for the discrepancy.
	Operator will have their laboratory verify the sodium adsorption ratio calculations for #003 2103017-03 (Soil) and #5 (BG), each of which appears to be off by an order of magnitude.
9 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>
402753522	FORM 27-SUPPLEMENTAL-SUBMITTED
402753547	ANALYTICAL RESULTS
402753548	ANALYTICAL RESULTS
402753549	SOIL SAMPLE LOCATION MAP
402753550	ANALYTICAL RESULTS
402753552	PHOTO DOCUMENTATION

Total Attach: 6 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Environmental	COGCC does not approve the operator's request for closure of REM 16995.	09/13/2021

Total: 1 comment(s)