

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:
403236936
Receive Date:
12/01/2022

Report taken by:
Candice (Nikki) Graber

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>1700 LINCOLN ST STE 4550</u>		
City: <u>DENVER</u>	State: <u>CO</u>	Zip: <u>80203</u>
Contact Person: <u>Craig Meis</u>	Email: <u>cmeis@kpk.com</u>	Phone: <u>(970) 261-3567</u>
		Mobile: <u>()</u>

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 18594 Initial Form 27 Document #: 402707643

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

Yes Multiple Facilities

Facility Type: <u>PIT</u>	Facility ID: <u>118555</u>	API #: _____	County Name: <u>WELD</u>
Facility Name: <u>PAUL HEINZE1</u>	Latitude: <u>40.034628</u>	Longitude: <u>-104.916813</u>	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: <u>NESW</u>	Sec: <u>20</u>	Twp: <u>1N</u>	Range: <u>67W</u> Meridian: <u>6</u> Sensitive Area? <u>No</u>
Facility Type: <u>SPILL OR RELEASE</u>	Facility ID: <u>479232</u>	API #: _____	County Name: <u>WELD</u>
Facility Name: <u>Paul Heinze #1 Flowline</u>	Latitude: <u>40.035140</u>	Longitude: <u>-104.917660</u>	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: <u>NESW</u>	Sec: <u>20</u>	Twp: <u>1N</u>	Range: <u>67W</u> Meridian: <u>6</u> Sensitive Area? <u>No</u>

Facility Type: SPILL OR RELEASE Facility ID: 480128 API #: _____ County Name: WELD
Facility Name: Paul Heinze #1 Flowline (No. 2) Latitude: 40.035030 Longitude: -104.917750
** correct Lat/Long if needed: Latitude: _____ Longitude: _____
QtrQtr: NESW Sec: 20 Twp: 1N Range: 67W Meridian: 6 Sensitive Area? No

Facility Type: SPILL OR RELEASE Facility ID: 480864 API #: _____ County Name: WELD
Facility Name: Paul Heinze #1 (2018) Latitude: 40.035140 Longitude: -104.917660
** correct Lat/Long if needed: Latitude: _____ Longitude: _____
QtrQtr: NESW Sec: 20 Twp: 1N Range: 67W Meridian: 6 Sensitive Area? No

SITE CONDITIONS

General soil type - USCS Classifications SM 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

Other Potential Receptors within 1/4 mile

In a designated high priority habitat area due to near by Bald Eagle nesting site. Riverine and Freshwater Emergent Wetlands within 200 south and east feet of release points. Nearest residence is approximately 1,600 feet southeast. There aren't any domestic water wells within a quarter mile of the site. The site is not located within 1/4 mile of the 100 year floodplain.

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 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	Analytical Testing
Yes	SOILS	6200 ft2	Excavation Extent

INITIAL ACTION SUMMARY

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

Associated wells (Paul Heinze #1 and #2) have been shut-in since discovery of the releases. Excavation and disposal of impacted soil has been an ongoing process since the discovery of the releases.

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):

Analytical results for soil samples collected from soil borings SB-1 through SB-14 installed in June 2022 show that SAR and EC levels exceed Table 915-1 soil suitability for reclamation standards. Soil samples will be collected from MW-1 through MW-6 while drilling. At least 1 soil sample will be collected from each boring and analyzed for Table 915-1 constituents. Soil borings SB-15, SB-16, and SB-17 will be installed to evaluate background soil quality and analyzed for Table 915-1 inorganic and soil suitability for reclamation constituents. Additional wells or borings may be installed and sampled according to this plan. Excavation has been completed in the third release area, and confirmation soil samples were collected on 11/28/2022. Soil samples will be analyzed for Table 915-1 constituents. Soil sample locations for the excavation are provided as an attachment.

Proposed Groundwater Sampling

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

In accordance with COAs included in document #403061877, groundwater monitoring wells MW-1 through MW-6 will be installed at the locations shown on the attached Proposed Monitoring Well Location Figure. The wells will be installed with 2-inch diameter PVC well materials. Groundwater samples will be collected quarterly from each well and submitted for Table 915-1 organic and inorganic groundwater constituents.

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):

See the proposed scope in the the Site Investigation Plan section.

SITE INVESTIGATION REPORT

SAMPLE SUMMARY

Soil

NA / ND

Number of soil samples collected 56

-- Highest concentration of TPH (mg/kg) 1353

Number of soil samples exceeding 915-1 50 -- Highest concentration of SAR 37.3

Was the areal and vertical extent of soil contamination delineated? No BTEX > 915-1 No

Approximate areal extent (square feet) 6200 Vertical Extent > 915-1 (in feet) 10

Groundwater

Number of groundwater samples collected 0 Highest concentration of Benzene (µg/l) _____

Was extent of groundwater contaminated delineated? No Highest concentration of Toluene (µg/l) _____

Depth to groundwater (below ground surface, in feet) _____ Highest concentration of Ethylbenzene (µg/l) _____

Number of groundwater monitoring wells installed _____ Highest concentration of Xylene (µg/l) _____

Number of groundwater samples exceeding 915-1 _____ 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?

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 the proposed scope in the the Site Investigation Plan section.

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.

Soil excavation activities are complete pending confirmation soil sample analytical data. Impacted soil from releases #1 and #2 has been excavated and hauled to a certified disposal location. Waste manifests for soil are attached. Additional excavation has been conducted for release #3, and confirmation sampling was completed on 11/28/2022. All removed groundwater has been disposed of at a certified disposal location.

REMEDATION 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.

Excavation has been performed to remove impacted soil from associated facilities. Impacted soil will be brought to a certified disposal facility. If groundwater is found to be impacted, a revised groundwater monitoring plan will be submitted for review and approval to address identified impacts to groundwater.

Excavation and disposal of impacted soil proceeded until field screening results indicated soil impacts had been removed. Confirmation samples were collected following notification to COGCC once field screening results indicated impacts had been removed. Results are currently pending.

Soil Remediation Summary

In Situ

Ex Situ

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

_____ Chemical oxidation If Yes: Estimated Volume (Cubic Yards) 4800

_____ Air sparge / Soil vapor extraction

_____ Natural Attenuation

_____ Other _____

_____ Name of Licensed Disposal Facility or COGCC Facility ID # _____

_____ No 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.

In accordance with COAs included in document #403061877, groundwater monitoring wells MW-1 through MW-6 will be installed at the locations shown on the attached Proposed Monitoring Well Location Figure. The wells will be installed with 2-inch diameter PVC well materials. Groundwater samples will be collected quarterly from each well and submitted for Table 915-1 organic and inorganic groundwater constituents.

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.

Upon receiving confirmation sample analytical that shows all impacts have been removed, KPK will submit request for Backfill to the state. Upon completion of the backfill KPK will consult with the landowner on seeding preference. Reclamation will commence following the 1000 series reclamation 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? No _____

If YES, does the seed mix comply with local soil conservation district recommendations? _____

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

SITE RECLAMATION DATES

Proposed date of commencement of Reclamation. 02/27/2023

Proposed date of completion of Reclamation. 03/25/2024

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. 01/17/2021

Actual Spill or Release date, or date of discovery. 01/17/2021

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 01/18/2021

Proposed site investigation commencement. 11/28/2022

Proposed completion of site investigation. 01/29/2024

REMEDIAL ACTION DATES

Proposed start date of Remediation. 05/09/2018

Proposed date of completion of Remediation. 01/23/2023

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:

Updated schedule based on work completed to date and approved remedial activities. Site investigation work was approved in the last quarter's Form 27 submission and will proceed in Q4 2022.

OPERATOR COMMENT

This Form 27 is being submitted as a quarterly update since Doc # 403060891 was submitted on 8/23/2022 and approved (after return to draft) on 11/15/2022. COAs from Doc # 403060891 have been addressed. Boring logs have been updated with the sample depths for each boring. The implementation schedule has been updated to reflect additional excavation followed by 4 quarters of static groundwater monitoring. Language has been updated to reflect all impacts will be delineated. The analytical summary table has been updated to replace ND values with laboratory detection limits. Groundwater impacts section has been updated to reflect it is impacted. A combined soil disposal manifest PDF has been attached, and a single water disposal manifest has been attached. The liquid waste disposal section has been updated in the remediation progress update section. The disposed water was reported as produced water on the waste disposal manifest, so Operator has populated pertinent sections as such.

Additional excavation work and confirmation sampling was completed on 11/28/2022. Monitoring well and background soil borings were scheduled for 11/21/2022, but the work has been postponed due to other drilling projects taking longer than anticipated. Once a new date has been scheduled, COGCC will be provided with an update at least 48 hours prior to site investigation work. Furthermore, Operator will be utilizing a trained wildlife biologist with stop work authority for field work. Initial correspondence with CPW indicated the eagle nest listed on the priority list was destroyed. However, more recent correspondence indicated a new nest is present South of the previously destroyed nest. CPW has stated that work can proceed with oversight. A Bald eagle Nest assessment will be completed the week of December 5 by the wildlife biologist and findings will be reported to CPW, along with proposed work schedule. A copy of this correspondence has been attached.

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

Signed: Josiah Reamy

Title: Project Manager

Submit Date: 12/01/2022

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: _____

Date: _____

Remediation Project Number: 18594

COA Type

Description

COA Type	Description
0 COA	

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

403236936	FORM 27-SUPPLEMENTAL-SUBMITTED
403237203	LOGS
403237205	DISPOSAL MANIFESTS
403237207	DISPOSAL MANIFESTS
403237211	ANALYTICAL RESULTS
403237213	ANALYTICAL RESULTS
403237215	ANALYTICAL RESULTS
403237217	ANALYTICAL RESULTS
403237225	PHOTO DOCUMENTATION
403237264	SITE INVESTIGATION PLAN
403237266	SOIL SAMPLE LOCATION MAP
403237326	CORRESPONDENCE
403246386	CORRESPONDENCE

Total Attach: 13 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Environmental	This Form 27 cannot be approved based on the information submitted. Therefore Document ID #[403236936] will be denied. The Operator is directed to submit a replacement form.	02/22/2023
Environmental	<p>COGCC denied this Form for the following reasons:</p> <ul style="list-style-type: none"> - COGCC, CPW, and KPK have had significant discussions and about this remediation and CPW is requesting restricted access until the bald eagle nest fledges. - Multiple attached soil borings are labeled SB-f - Proposed monitoring wells are not adequate to fully characterize the multiple spills at this location. - Operator shall clarify if produced water was removed from the excavation and if this constitutes an additional spill. - Lab analytical is provided from 2018 but no corresponding figure or description has been provided. 	02/22/2023

Total: 2 comment(s)