

# State of Colorado Oil and Gas Conservation Commission

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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>	<b>Phone Numbers</b>
Address: <u>1700 LINCOLN ST STE 4550</u>		Phone: <u>(970) 261-3567</u>
City: <u>DENVER</u> State: <u>CO</u> Zip: <u>80203</u>		Mobile: <u>( )</u>
Contact Person: <u>Craig Meis</u>	Email: <u>cmeis@kpk.com</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: <u>SPILL OR RELEASE</u>		Facility ID: <u>480128</u>		API #: _____		County Name: <u>WELD</u>	
Facility Name: <u>Paul Heinze #1 Flowline (No. 2)</u>				Latitude: <u>40.035030</u>		Longitude: <u>-104.917750</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>480864</u>		API #: _____		County Name: <u>WELD</u>	
Facility Name: <u>Paul Heinze #1 (2018)</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>		

## **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:

- ☒ 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	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

Number of soil samples collected 56

#### NA / ND

-- 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.

#### REMEDIATION 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 of 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.

## 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

### Adequacy of Operator's General Liability Insurance and Financial Assurance

Describe the adequacy of the Operator's general liability insurance and Financial Assurance to fully address the anticipated costs of Remediation, including the estimated remaining cost for this project (below).

If this information has been provided on a Form 27 within the last 12 months, provide the Document Number of that form.

KPK has sufficient insurance and bonding to fully address the anticipated costs of Remediation, including the remaining estimated costs for this project. KPK has general liability insurance and financial assurance in compliance with COGCC rules. The cost for remediation is a preliminary estimate only, costs may change upwards or downward based on site-specific information. KPK makes no representation or guarantees as to the accuracy of the preliminary estimate.

Operator anticipates the remaining cost for this project to be: \$ 20000

### 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:

No beneficial use for soil or groundwater

Volume of E&P Waste (solid) in cubic yards 4800

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 20

E&P waste (liquid) description Produced Water

COGCC Disposal Facility ID #, if applicable:

Non-COGCC Disposal Facility: NGL Water Solutions - South Weld SWD1

## 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.

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**

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	COGCC denied this Form for the following reasons: - 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)