

State of Colorado Oil and Gas Conservation Commission

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Document Number:

403241253

Receive Date:

12/06/2022

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>		Phone: <u>(303) 825-4822</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>	Mobile: <u>()</u>

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 11879 Initial Form 27 Document #: 401769517

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>447185</u>	API #: _____	County Name: <u>JACKSON</u>
Facility Name: <u>SPILL/RELEASE POINT</u>		Latitude: <u>40.756420</u>	Longitude: <u>-106.208360</u>
		** correct Lat/Long if needed: Latitude: _____	Longitude: _____
QtrQtr: <u>NENE</u>	Sec: <u>13</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 SM Most Sensitive Adjacent Land Use Rangeland

Is domestic water well within 1/4 mile? Yes Is surface water within 1/4 mile? No

Is groundwater less than 20 feet below ground surface? No

Other Potential Receptors within 1/4 mile

There is no residence within a quarter mile of the release. There are no habitable structures within a quarter mile of the release. County Road 19A is located within a quarter mile of the site. No lakes, rivers, streams, or 100-year flood plains within a quarter mile of the site. High Priority habitat is not within a quarter mile of the release. There are no Bald Eagle Roost sites, or Bald Eagle active nest site half mile buffer within a quarter mile of the release. There is 1 water well within a quarter mile of the site.

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	190'x4'	Visual extent and laboratory 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.

KPK was notified of a release at the site, and immediately dispatched crews, to shut in the line. Additional crews were dispatched, and Free product was removed utilizing a Hyrdovac to eliminate hydrocarbons transporting across the site. The remaining soil was tilled and treated in place.

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):

MarCom collected 4 at depth confirmation soil samples under COGCC Table 915-1 as well as 6 at depth background samples on 9/15/2022. Analytical results indicate continue exceedance of COGCC Table 915-1 standards for inorganics (Arsenic, SAR, PH). MarCom proposes to collect additional soil samples as described in the Rule 915.e.(2) Guidance Document and will be analyzed for Table 915-1 Soil Suitability for Reclamation (Electrical conductivity, Sodium adsorption ratio, and pH by saturated paste method, boron (hot water soluble) in order to further delineate vertically and horizontally.

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):

Further vertical and horizontal delineation soil sampling.

SITE INVESTIGATION REPORT

SAMPLE SUMMARY

Soil

Number of soil samples collected 13

Number of soil samples exceeding 915-1 13

Was the areal and vertical extent of soil contamination delineated? No

Approximate areal extent (square feet) 760

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 915-1

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.

NA / ND

NA Highest concentration of TPH (mg/kg)

-- Highest concentration of SAR 20.8

BTEX > 915-1 No

Vertical Extent > 915-1 (in feet) 2

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?

A bar ditch carried the produced water off location. KPK continues to till the bar ditch to remediate the impact.

☐ 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?

Further vertical and horizontal delineation soil sampling.

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.

The source of the impacts was shut in when the release was discovered. Free product was removed utilizing a Hydrovac to eliminate hydrocarbons transporting across the site. All impacted soil will be excavated and hauled to a certified disposal location. Waste disposal manifests will be provided in a supplemental form 27. Work will proceed following direction from consultation with Colorado Parks and Wildlife and the US Fish and Wildlife Agency. The remaining impacted soil will be tilled at least once annually until the impact has been removed and confirmation soil samples are compliant with COGCC Table 915-1.

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.

The impacted soil will be tilled at least once annually until the impact has been remediated. Confirmation soil samples will be collected as described in the Rule 915.e.(2) Guidance Document and will be analyzed Table 915-1 Soil Suitability for Reclamation (Electrical conductivity, Sodium adsorption ratio, and pH by saturated paste method, boron (hot water soluble). Samples will be collected in accordance to COGCCs table 915-1 sample collection guidelines table. If needed, extent borings may be installed, and soil samples collected to further evaluate the extent of soil impacts. COGCC will be provided with a 48 hr. notice prior to any sampling event.

Soil Remediation Summary☒ In Situ☐ Ex Situ

☐ No Bioremediation (or enhanced bioremediation)

☐ No Chemical oxidation

☐ No Air sparge / Soil vapor extraction

☐ No Natural Attenuation

☐ Yes Other mechanical tilling

☐ Excavate and offsite disposal

☐ If Yes: Estimated Volume (Cubic Yards) _____

☐ 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

☐ 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

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: \$ 8500

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

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? No

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. 03/25/2024

Proposed date of completion of Reclamation. 05/24/2024

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. 08/03/2016

Actual Spill or Release date, or date of discovery. 08/03/2016

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 07/28/2016

Proposed site investigation commencement. 07/28/2016

Proposed completion of site investigation. 10/20/2023

REMEDIAL ACTION DATES

Proposed start date of Remediation. 07/28/2016

Proposed date of completion of Remediation. 09/13/2024

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

Under the prior operator, Bonanza Creek, three initial soil sample analytical results came back above COGCC Table 910-1 concentration levels for inorganics. The soil was treated in place and resampled a year later. The subsequent analytical results indicated continued exceedance of COGCC Table 910-1 standards for inorganics. KPK has been operating the facility since the spring of 2018 and has continued tilling/discing the impacted. Soil samples collected on 09-26-2018 indicate that inorganics have come down near Table 910-1 levels, but are not below the threshold. On 09-15-2022, MarCom collected 4 at depth confirmation soil samples under COGCC Table 915-1 as well as 6 at depth background samples. Analytical results indicate continue exceedance of COGCC Table 915-1 standards for inorganics (Arsenic, SAR, PH).

MarCom proposes to have KPK till the site at least once more in 2023 and collect additional soil samples in the spring at 2' and 4' intervals in order to vertically & horizontally delineate the site. Confirmation soil samples will be collected as described in the Rule 915.e.(2) Guidance Document and will be analyzed Table 915-1 Soil Suitability for Reclamation (Electrical conductivity, Sodium adsorption ratio, and pH by saturated paste method, boron (hot water soluble). If analytical results indicate that tilling is no longer effective KPK will look into alternative actions for remediation. A form 27 supplemental was submitted for this is quarter 3 of 2022 (Doc. 403171384) this form was still in process when the 4th quarter 2022 form (Doc. 403241253) was submitted.

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

Signed: Harrison Coleman

Title: Environmental Scientist

Submit Date: 12/06/2022

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: 11879

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**

403241253	FORM 27-SUPPLEMENTAL-SUBMITTED
403242340	SITE MAP
403242349	MAP
403242377	SOIL SAMPLE LOCATION MAP
403243795	ANALYTICAL RESULTS
403243798	ANALYTICAL RESULTS
403243827	PHOTO DOCUMENTATION
403243897	SOIL SAMPLE LOCATION MAP
403243900	SOIL SAMPLE LOCATION MAP
403248823	ANALYTICAL RESULTS
403251539	CORRESPONDENCE

Total Attach: 11 Files

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

Environmental	This Form 27 cannot be approved based on the information submitted. Therefore Document ID #[403241253] will be denied. The Operator is directed to submit a replacement form.	02/23/2023
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Environmental	<p>COGCC has denied this form for the following reasons:</p> <ul style="list-style-type: none"> - Per COA on Document #403171384 "Operator reports that the location is not within a high priority habitat however the location is within a mapped Greater Sage Grouse Priority Habitat Management Area. Operator shall consult with Colorado Parks and Wildlife and submit correspondence on the next Supplemental Form 27" <p>This has not been complied with.</p> <ul style="list-style-type: none"> -Per COAs on Document #401840122: <p>A more aggressive treatment of 910-1 exceedances may be necessary.</p> <p>Initial spill date was 8/2/2016. All natural attenuation (land treatment) activity should be completed within three years of initial spill date (8/2/2019).</p> <p>Completion of land treatment is now more than 2 years overdue. Therefore Operator shall propose a more aggressive means of remediating impacts on the next Supplemental Form 27.</p> <p>This has not been complied with.</p> <ul style="list-style-type: none"> - Form contradicts itself. Initial action summary indicates Operator was notified and immediately dispatched crews in the Operator comments Operator indicates the spill was under a previous Operator. - Operator has continued to submit previously provided analytical despite repeatedly being instructed to discontinue this practice. 	02/23/2023
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Total: 2 comment(s)