

State of Colorado
Oil and Gas Conservation Commission

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Document Number:

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Receive Date:

Report taken by:

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>(720) 434-2215</u>
City: <u>DENVER</u> State: <u>CO</u> Zip: <u>80203</u>		Mobile: <u>()</u>
Contact Person: <u>Ray Gorka</u>	Email: <u>rgorka@kpk.com</u>	

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

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

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>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 SM Most Sensitive Adjacent Land Use Rangeland
 Is domestic water well within 1/4 mile? No 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

No residences or habitable structures are within a quarter mile of the well; County Road 10B is 650 feet south of the site; SURFACE WATER: Abandoned Ditch, a USFWS-mapped riverine wetland, is located approximately 1,500 feet south of the site. The 100 year floodplain is not located within 1/4 mile of the site; High Priority habitat is mapped over the site; Greater Sage Grouse General Habitat Management Area is mapped over the site; Pronghorn Migration Corridors is mapped over the site; Greater Sage Grouse Priority Habitat Management Area is mapped 995 feet south-southwest of the site; Greater Sage Grouse Lek Site is mapped 1,185 feet north of the site. No Bald Eagle Roost sites or Bald Eagle Active Nest site half mile buffers are within 1/4 mile of the site. CPW has been contacted about the above-listed buffers. There is 1 domestic 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	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.

When the facility was owned by Bonanza Creek, a release was observed along a flowline right-of-way while conducting routine inspections. 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. Excavation efforts will take place to define the vertical and horizontal extent of the release.

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 in 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 were provided in a previous Form 27 submittal. Soil sampling was not conducted in October 2019 due to the elevated field screening results. Based on the results of the PID field screening, additional excavation was necessary to remove impacted soil associated with the release. Surface samples and background samples were collected on 9/15/2022. Analytical results from the most recent sampling event indicate excavation is still required since samples were collected from depths of 2 feet, 3 feet, and 4 feet bgs. Final vertical and horizontal extent of excavation area will be based on results from collected grab soil samples. Confirmation soil samples will be collected as described in the Rule 915.e.(2) Guidance Document.

Proposed Groundwater Sampling

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

If encountered, a grab groundwater sample will be collected from the excavation. Groundwater samples will be analyzed for Table 915-1 Organic Compounds in Groundwater and Table 915-1 inorganic parameters.

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):

Additional investigation is required to determine the extent of the impacts. Once excavation has begun it may be warranted to delineate the extent of the excavation utilizing Geoprobng or drilling equipment, depending on excavation status, and analytical results.

SITE INVESTIGATION REPORT

SAMPLE SUMMARY

Soil

Number of soil samples collected 16

Number of soil samples exceeding 915-1 16

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

Approximate areal extent (square feet) 2000

NA / ND

-- Highest concentration of TPH (mg/kg) 2070

-- Highest concentration of SAR 18.3

BTEX > 915-1 No

Vertical Extent > 915-1 (in feet) 4

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 _____

_____ 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) _____

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?

6 background samples were collected at 2 feet bgs. Background sample locations are provided on the attached soil sample location map.

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?

Analytical results from the most recent sampling event (9/15/2022) indicate excavation is still required since samples were collected from depths of 2 feet, 3 feet, and 4 feet bgs. Final vertical and horizontal extent of excavation area will be based on results from collected grab soil samples. Confirmation soil samples will be collected as described in the Rule 915.e.(2) Guidance Document and will be analyzed for TPH (C6-C36), Table 915-1 Organic Compounds in Soil, Table 915-1 metals, and Table 915-1 Soil Suitability for Reclamation (Electrical conductivity, Sodium adsorption ratio, and pH by saturated paste method, boron (hot water soluble). At a minimum, one grab sample will be collected from each side of the excavation walls as well as from the base of the excavation area. If needed, extent borings may be installed, and soil samples collected to evaluate the extent of soil impacts. COGCC will be provided with a 48 hr notice prior to any sampling event.

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.

The source of the impacts was shut in when the release was discovered. Free product was removed utilizing a Hyrdovac. The ground was frozen, so no excavation was deemed necessary at the time. With analytical data in-hand, Operator plans to excavate the area to eliminate hydrocarbons transporting across the site. All impacted soil will be excavated and disposed of at the Walden Land Treatment Facility. All removed groundwater will be disposed of at a certified disposal location. Waste disposal manifests will be provided with the next form submittal. Work will proceed after consultation with Colorado Parks and Wildlife and the US Fish and Wildlife Agency. MarCom will provide the required 48-hour notification to COGCC prior to beginning work.

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 will be performed to remove impacted soil from the release location. Impacted soil will be brought to a certified disposal facility. Excavation and disposal of impacted soil will proceed until PID field screening results indicate that soil impacts have been removed. Following notification to COGCC, confirmation samples will be collected and analyzed for Table 915-1 constituents. If groundwater is found to be impacted, a groundwater monitoring plan will be submitted for review and approval to address known impacts to groundwater. If additional excavation is required, the extent of the impacts will be delineated using soil borings.

Soil Remediation Summary

In Situ

Ex Situ

_____ Bioremediation (or enhanced bioremediation)

Yes _____ Excavate and offsite disposal

_____ Chemical oxidation

_____ If Yes: Estimated Volume (Cubic Yards) _____ 50

_____ Air sparge / Soil vapor extraction

_____ Name of Licensed Disposal Facility or COGCC Facility ID # _____ 427373

_____ Natural Attenuation

No _____ Excavate and onsite remediation

_____ Other _____

_____ 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.

If groundwater is encountered during remediation, groundwater samples will be collected, and a Groundwater Monitoring (GWM) Plan will be proposed to COGCC. Upon approval of the GWM plan, COGCC will be provided with a 72-hour notice before well installation.

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: \$ 10000 _____

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:

No beneficial use

Volume of E&P Waste (solid) in cubic yards _____ 50

E&P waste (solid) description Hydrocarbon Impacted soils

COGCC Disposal Facility ID #, if applicable: _____

Non-COGCC Disposal Facility: frontrange landfil

Volume of E&P Waste (liquid) in barrels _____ 0

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? _____

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.

Line was repaired and tested. Soil was tilled periodically up until 2021. 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. 09/19/2023

Proposed date of completion of Reclamation. 10/23/2023

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. 03/12/2015

Actual Spill or Release date, or date of discovery. 03/12/2015

SITE INVESTIGATION DATES

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

Proposed site investigation commencement. 03/12/2015

Proposed completion of site investigation. 07/17/2023

REMEDIAL ACTION DATES

Proposed start date of Remediation. 03/12/2015

Proposed date of completion of Remediation. 08/14/2023

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:

Operator was previously prioritizing sites per COGCC guidance. Implementation schedule is being updated to reflect winter conditions prohibiting excavation work until the ground thaws.

OPERATOR COMMENT

Analytical results from the most recent sampling event (9/15/2022) indicate excavation is still required since samples were collected from depths of 2 feet, 3 feet, and 4 feet bgs. Final vertical and horizontal extent of excavation area will be based on results from collected grab soil samples. Confirmation soil samples will be collected as described in the Rule 915.e.(2) Guidance Document and will be analyzed for TPH (C6-C36), Table 915-1 Organic Compounds in Soil, Table 915-1 metals, and Table 915-1 Soil Suitability for Reclamation (Electrical conductivity, Sodium adsorption ratio, and pH by saturated paste method, boron (hot water soluble). At a minimum, one grab sample will be collected from each side of the excavation walls as well as from the base of the excavation area. If needed, extent borings may be installed, and soil samples collected to evaluate the extent of soil impacts. COGCC will be provided with a 48 hr notice prior to any sampling event. Document 402531378 COAs have been addressed with this submission and all previous COAs have been addressed with this submission. Manifest will be provided following excavation and removal of impacted soils in a supplemental form 27.

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: _____

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: 11876

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**

403210239	SOIL SAMPLE LOCATION MAP
403210240	ANALYTICAL RESULTS
403210246	PHOTO DOCUMENTATION
403210891	ANALYTICAL RESULTS

Total Attach: 4 Files

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

User Group	Comment	Comment Date
		Stamp Upon Approval

Total: 0 comment(s)