

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:

403060656

Receive Date:

11/21/2022

Report taken by:

Kari Brown

Site Investigation and Remediation Workplan (Initial 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>Ray Gorka</u>	Email: <u>rgorka@kpk.com</u>	
		Phone: <u>(303) 8254822</u>
		Mobile: <u>(720) 434-</u>

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 26277 Initial Form 27 Document #: 403060656

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>WELL</u>	Facility ID: _____	API #: <u>123-09913</u>	County Name: <u>WELD</u>
Facility Name: <u>UPRR 43 PAN AM I 27</u>		Latitude: <u>40.063838</u>	Longitude: <u>-104.996651</u>
		** correct Lat/Long if needed: Latitude: _____	Longitude: _____
QtrQtr: <u>NWSW</u>	Sec: <u>10</u>	Twp: <u>1N</u>	Range: <u>68W</u> Meridian: <u>6</u> Sensitive Area? <u>Yes</u>
Facility Type: <u>OFF-LOCATION FLOWLINE</u>	Facility ID: <u>465479</u>	API #: _____	County Name: <u>WELD</u>
Facility Name: <u>Wellhead Line 10NESW</u>		Latitude: <u>40.065320</u>	Longitude: <u>-104.992100</u>
		** correct Lat/Long if needed: Latitude: _____	Longitude: _____
QtrQtr: <u>NESW</u>	Sec: <u>10</u>	Twp: <u>1N</u>	Range: <u>68W</u> Meridian: <u>6</u> Sensitive Area? <u>Yes</u>

SITE CONDITIONS

General soil type - USCS Classifications OH

Most Sensitive Adjacent Land Use Crop Land

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? No

Other Potential Receptors within 1/4 mile

Approximately 4 residences, possibly 3 habitable structures are within a quarter mile of the well; County road 7 is 635' to the West; County road 10 is 1,935' to the south of the well'. The wellhead is 1220' Southeast of the nearest surface water and 1461' Northeast of a second irrigation Ditch. The 100 year floodplain is not within a 1/4 mile of the site. High Priority habitat is not within a quarter mile of the site. There are no Bald Eagle Roost site or Bald Eagle Active Nest site half mile buffer within a quarter mile of the site. There is 1 domestic water well 2,089' Southeast of the flowline. The National Wetlands Inventory does not show any wetlands within a quarter mile.

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	TBD	Sampling / labs

INITIAL ACTION SUMMARY

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

This form has been prepared to provide notice of the plugging and abandonment of the UPRR 43 PAN AM I #27 wellhead and removal of associated flowlines. The flowline will be permanently removed. The off-location flowline system pre-removal notice was submitted under the Form 44s attached in the related forms tab. The plug and abandonment Wellhead pre-removal notice was submitted under the Form 42s attached in the related forms tab. In accordance with COGCC Rule 911.a., soil and groundwater (if present) samples will be collected and submitted for laboratory analysis to determine if concentrations and values are in compliance with COGCC Table 915-1. Visual inspection and field screening of soils around the wellhead and associated flowline will be conducted during sampling activities. Soil samples will be taken and bagged every 100' along the flowline route and left on the surface for field inspection. GPS data will be collected for all soil sample locations as well as a photo log. At the other end of the flowline, when it enters the header, the soil under and around this connection will also be screened for compliance with COGCC Rule 911.a., soil and groundwater (if present) samples will be collected and submitted for laboratory analysis to determine if concentrations and values are in compliance with COGCC Table 915-1. Visual inspection and field screening of soils around this separator connection will be conducted during sampling activities. Soil vapor screening will also be performed around the separator.

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):

5 Grab soil samples will be collected below and/or adjacent to the Wellhead, as defined in the Rule 911.a.(4) guidance document, for field screening purposes. Along the flowline every 100' screening will be conducted to identify impacts. Discrete Soil samples will be collected for laboratory analysis in any area observing hydrocarbon impacts, flowline transitions, flowline bends, valves, at ends of flowlines, and the location with the highest PID. GPS data will be collected for all soil sample and screening locations. Screening levels will indicate full or partial lab analysis of soil samples. Additionally, soil sample(s) will be collected in the area most likely to be impacted by produced water to confirm soil suitability for reclamation. The sample(s) will be submitted for laboratory analysis of COGCC Table 915.1 Inorganics constituent. Refer to operator comments for full details on soil sampling plan and lab analysis. Refer to the Proposed Sample Location Map.

Proposed Groundwater Sampling

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

If groundwater is encountered during decommissioning and/or abandonment activities, a grab sample will be collected as soon as practical. If contaminated soil is in contact with groundwater or if free product/hydrocarbon sheen are observed, the release will be reported in accordance with Rule 912.b. Groundwater samples will be submitted for laboratory analysis of BTEX, naphthalene, 1,2,4-trimethylbenzene, and 1,3,5-trimethylbenzene by EPA Method 8260.

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):

If no impacts are observed, a minimum of one soil sample from the wellhead, header riser, and associated flowline excavations will be submitted for laboratory analysis of BTEX, naphthalene, and total petroleum hydrocarbons (TPH) - gasoline range organics (GRO: C6-C10) by United States Environmental Protection Agency (USEPA) Method 8260D, TPH - diesel range organics (DRO: C10-C28) and oil range organics (ORO: C28-C40) by USEPA Method 8015D, pH, specific conductance (EC) and sodium adsorption ratio (SAR) by saturated paste method, and boron by hot water soluble soil extract method. If impacts are encountered, a minimum of one soil sample will be submitted for laboratory analysis of the full COGCC Table 915-1 analytical suite. If impacts are encountered, a minimum of one soil sample will be submitted for laboratory analysis of the full COGCC Table 915-1 analytical suite.

SITE INVESTIGATION REPORT

SAMPLE SUMMARY

Soil

Number of soil samples collected 0

Number of soil samples exceeding 915-1

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

Approximate areal extent (square feet) _____

NA / ND

_____ Highest concentration of TPH (mg/kg) _____

_____ Highest concentration of SAR _____

_____ BTEX > 915-1 _____

_____ Vertical Extent > 915-1 (in feet) _____

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?

☐ 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?

REMEDIAL ACTION PLAN

SOURCE REMOVAL SUMMARY

Describe how source is to be removed.

If a suspected release is identified and confirmed through soil screening and/or laboratory analysis, impacted soils will be removed and transported to a licensed disposal facility in accordance with Rules 905 and 906. If impacted soil accumulates 10 yards or more a form 19 will be submitted for a historical release.

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.

Potential impacts that meet the criteria in Rule 912.b. will be reported to the Director in accordance with that Rule and a site-specific soil and/or groundwater remediation plan will be developed and submitted to the COGCC via a supplemental Form 27 in accordance with Rule 913. If reportable impacts are not encountered, a supplemental Form 27 requesting closure will be submitted within 90 days following completion of sampling activities. Field screening and applicable laboratory analytical results will be reported in all submittals. E&P waste records of material transported off-site are kept on file and available upon request. Operator will submit Form 27 within 45 days of site investigation completion, detailing the findings and completion of the P&A activities.

Soil Remediation Summary

☐ In Situ

_____ Bioremediation (or enhanced bioremediation)
_____ Chemical oxidation
_____ Air sparge / Soil vapor extraction
_____ Natural Attenuation
_____ Other _____

☐ Ex Situ

_____ 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

_____ 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.

If groundwater is encountered during P&A activities or potential 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?

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:

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.

The site will be reclaimed in accordance with COGCC 1000 Series Reclamation Rules. The surface owner is planning a housing development on this quarter section.

Is the described reclamation complete? _____

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? _____

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

Did the local soil conservation district provide the seed mix? _____

SITE RECLAMATION DATES

Proposed date of commencement of Reclamation. 02/01/2023

Proposed date of completion of Reclamation. 04/28/2023

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. 02/08/2022

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

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 12/21/2022

Proposed site investigation commencement. 01/01/2023

Proposed completion of site investigation. 01/30/2023

REMEDIAL ACTION DATES

Proposed start date of Remediation. 01/02/2023

Proposed date of completion of Remediation. 02/01/2023

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 COMMENT

This form 27 I is being submitted prior to the start of the P&A activities. Photographs, analytical, updated maps, field notes, and any updated findings will be submitted with the supplemental Form 27. 5 Grab soil samples will be collected below and/or adjacent to the Wellhead, as defined in the Rule 911.a.(4) guidance document, for field screening purposes. Along the flowline every 100' screening will be conducted to identify impacts. Discrete Soil samples will be collected for laboratory analysis in any area observing hydrocarbon impacts, flowline transitions, flowline bends, valves, at ends of flowlines, and the location with the highest PID. GPS data will be collected for all soil sample and screening locations. If field screening efforts indicate no impacts present soil samples will be analyzed for BTEX, naphthalene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene., total petroleum hydrocarbons (TPH) - gasoline range organics (GRO: C6-C10) by United States Environmental Protection Agency (USEPA) Method 8260D, TPH - diesel range organics (DRO: C10-C28) and oil range organics (ORO: C28-C40) by USEPA Method 8015D, pH, specific conductance (EC) and sodium adsorption ratio (SAR) by saturated paste method, and boron by hot water soluble soil extract method. If field screening efforts indicate the presence of soil impacts from organics or inorganics, soil samples will be analyzed for TPH PH (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).". Refer to the Proposed Sample Location Map. Proposed soil sample locations are shown on the Proposed Sample Location Map. Additionally, soil sample(s) will be collected in the area most likely to be impacted by produced water to confirm soil suitability for reclamation. The sample(s) will be submitted for laboratory analysis of COGCC Table 915.1 Inorganics constituent. . Refer to the Proposed Sample Location Map. If you are looking at the map for both the the I-27 and The I-33, from the 90 degree turn heading north on the I-27 flowline there are two separate flowlines that lead to the header. Separate sampling plans have been provided for both P&A events even though both portions of flowline are right next to each other. This is to ensure there is no confusion of sampling locations when only looking at one sites map.

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

Signed: Levi Kirk

Title: Project Manager

Submit Date: 11/21/2022

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: Kari Brown

Date: 12/06/2022

Remediation Project Number: 26277

COA Type

Description

	Operator will provide notice to COGCC EPS Nikki Graber (nikki.graber@state.co.us) at least 48 hours prior to site investigation activities.
	Operator states: "If a suspected release is identified and confirmed through soil screening and/or laboratory analysis, impacted soils will be removed and transported to a licensed disposal facility in accordance with Rules 905 and 906. If Impacted soil accumulates 10 yards or more a form 19 will be submitted for a historical release." Per Rule 912.b.(1).G. Operator is required to submit a Form 19i for a suspected or actual Spill or Release of any volume where the volume cannot be immediately determined. Additionally, the reporting of the discovery of 10 or more cubic yards of impacted soil is not contingent upon the analysis of samples confirming exceedance of Table 915-1 standards.
	Operator states: "Soil samples will be taken and bagged every 100' along the flowline route and left on the surface for field inspection." COGCC believes this method is not appropriate for collecting accurate headspace readings using a PID. PID screening must take place within one hour of soil sampling and be overseen and conducted by a competent environmental person. Operator shall provide field screening readings when submitting the Form 27 Supplemental Site Investigation.
3 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.

Att Doc Num

Name

403060656	FORM 27-INITIAL-SUBMITTED
403187746	SITE MAP
403235870	SOIL SAMPLE LOCATION MAP

Total Attach: 3 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
		Stamp Upon Approval

Total: 0 comment(s)