

State of Colorado
Energy & Carbon Management Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203
Phone: (303) 894-2100 Fax: (303) 894-2109



Document Number:
403599299
Receive Date:
02/01/2024
Report taken by:
Laurel Anderson

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 ECMC 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 Phone: <u>(720) 868-9848</u> Mobile: <u>(303) 550-8872</u>
Address: <u>1700 LINCOLN ST STE 4550</u>		
City: <u>DENVER</u>	State: <u>CO</u>	Zip: <u>80203</u>
Contact Person: <u>John Peterson</u>	Email: <u>jpeterson@kpk.com</u>	

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 35586 Initial Form 27 Document #: 403599299

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>123-12426</u>	County Name: <u>WELD</u>
Facility Name: <u>RUEBEL ET AL 36-1</u>	Latitude: <u>40.003290</u>	Longitude: <u>-104.606480</u>	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: <u>SESE</u>	Sec: <u>36</u>	Twp: <u>1N</u>	Range: <u>65W</u> Meridian: <u>6</u> Sensitive Area? <u>Yes</u>

Facility Type: <u>LOCATION</u>	Facility ID: <u>323010</u>	API #: _____	County Name: <u>WELD</u>
Facility Name: <u>RUEBEL ET AL-61N65W 36SESE</u>	Latitude: <u>40.003400</u>	Longitude: <u>-104.606723</u>	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: <u>SESE</u>	Sec: <u>36</u>	Twp: <u>1N</u>	Range: <u>65W</u> Meridian: <u>6</u> Sensitive Area? <u>Yes</u>

Facility Type: OFF-LOCATION FLOWLINE	Facility ID: 476374	API #:	County Name: WELD
Facility Name: Wellhead Line 36-1	Latitude: 40.001200	Longitude: -104.605600	
** correct Lat/Long if needed: Latitude:		Longitude:	
QtrQtr: SESE	Sec: 36	Twp: 1N	Range: 65W Meridian: 6 Sensitive Area? Yes

SITE CONDITIONS

General soil type - USCS Classifications SM Most Sensitive Adjacent Land Use Wetlands and Box Elder Creek

Is domestic water well within 1/4 mile? No 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

Ruebel 36-1 is located in agricultural land/prairie with adjacent wetlands and Box Elder Creek situated directly north and west of the site. Denver Hudson Canal is located approximately 690 feet (ft.) east of the site. County Road 24 borders the south end of the site near the tank battery. The nearest residential/commercial occupied buildings are 970 ft. southwest of the site. Three water wells are within 1/4-mile of the site, with the nearest domestic water well 0.3 miles west of the site. Depth to water is approximately 40 ft. below ground surface (Permit 19548-R-R). The following HPHs are present at the Site: Aquatic Native Species Conservation Waters, Mule Deer Migration Corridors Mule Deer Severe Winter Range Mule Deer Winter Concentration Area. The site is located within 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
UNDETERMINED	SOILS	TBD	Field inspection/soil sampling/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.

This form has been prepared to provide notice of the decommissioning of the RUEBEL ET AL 36-1 wellhead (API 05-123-12426, Location 323010) and off-location flowline (Facility ID 476374, Location 476374). Proposed decommissioning activities at the associated tank battery are detailed in a separate Form 27 Initial (Document #403649507) per the ECMC's instructions. Visual inspection and field screening of soils will be conducted following decommissioning operations. Soil and groundwater (if present) samples will be collected and submitted for laboratory analysis in accordance with Rule 915.e(2) Guidance Document to determine if Contaminants of Concern are in compliance with ECMC Table 915-1. A topographic Site Location Map is attached.

KPK will submit a Form 42 and Form 44 for pre-abandonment notice of flowline pursuant to Rule 1105.d. During flowline abandonment, any liquids evacuated from the flowline will be contained and disposed per the requirements of Rule 905. These Forms will be included in a Supplemental Form 27.

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):

Following decommissioning activities, soil will be field screened at the associated wellhead and flowline. If impacted soils are encountered, characterization samples will be collected from the area(s) exhibiting the highest degree of impacts based on visual, olfactory, and/or field screening observations. If impacts are not observed, soil samples will be collected from the ground surface and excavations associated with the former wellhead and flowline infrastructure and/or the area(s) most likely to have been impacted during the operational life of the facility. Soil samples will be submitted for laboratory analysis using ECMC-approved methods appropriate for detecting contaminants of concern in ECMC Table 9151. Proposed soil sample and screening locations are attached.

Proposed Groundwater Sampling

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

Groundwater is not anticipated during decommissioning activities as depth to water is approximately 40 ft. below ground surface (Permit 19548-R-R). However, if groundwater is encountered during wellhead facility decommissioning activities, a minimum of one grab sample will be collected as soon as practical. Groundwater samples will be submitted for laboratory analysis of benzene, toluene, ethylbenzene, total xylenes (BTEX), naphthalene, 1,2,4-trimethylbenzene (1,2,4-TMB), and 1,3,5-trimethylbenzene (1,3,5-TMB), using ECMC-approved methods appropriate for detecting contaminants of concern outlined in ECMC Table 915-1.

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, soil samples will be submitted for laboratory analysis of ECMC Table 915-1 organic compounds, total petroleum hydrocarbons (TPH) [C6-C36], and Soil Suitability for Reclamation parameters (pH, electrical conductivity [EC], sodium adsorption ratio [SAR], and boron). If field screening or analytical results indicate that impacts are present, soil samples will be analyzed for the full list of ECMC Table 915-1 contaminants of concern. Field screening data, sample location coordinates, and photographic logs will be provided in a subsequent Form 27-Supplemental document.

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 encountered, contaminated soils will be excavated and transported off-site to a licensed disposal facility.

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.

If reportable impacts to soil or groundwater are encountered, as defined in Rule 912.b., a site-specific remediation plan will be developed and submitted to the ECMC via supplemental Form 27. If reportable impacts are not encountered, a supplemental Form 27 will be submitted requesting closure within 90 days following completion of sampling/assessment activities.

Soil Remediation Summary

In Situ

Ex Situ

_____ Bioremediation (or enhanced bioremediation)

_____ Excavate and offsite disposal

_____ Chemical oxidation
_____ Air sparge / Soil vapor extraction
_____ Natural Attenuation
_____ Other _____

If Yes: Estimated Volume (Cubic Yards) _____
Name of Licensed Disposal Facility or ECMC 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.

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 ECMC rules. The cost for remediation is a preliminary estimate only and is based only on analytical costs to conduct closure sampling at this time, costs may change upwards 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 _____

ECMC Disposal Facility ID #, if applicable: _____

Non-ECMC Disposal Facility: _____

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

E&P waste (liquid) description _____

ECMC Disposal Facility ID #, if applicable: _____

Non-ECMC 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 ECMC 1000 Series Reclamation Rules.

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. _____

Proposed date of completion of Reclamation. _____

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. _____

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

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 02/14/2024

Proposed site investigation commencement. _____

Proposed completion of site investigation. _____

REMEDIAL ACTION DATES

Proposed start date of Remediation. _____

Proposed date of completion of Remediation. _____

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 oil and gas location is located within a CPW-mapped 500 ft buffer of the Ordinary High Water Mark of the Box Elder Creek for protection of Aquatic Native Species Conservation Water High Priority Habitat. KPK will implement stormwater BMPs and erosion control measures as needed to prevent fine-grained sediment and impacted stormwater runoff from entering surface water. Due to the proximity to a mapped wetland, KPK will use secondary containment for all liquid containers. Operator will implement stormwater BMPs and erosion control measures to prevent sediment and stormwater runoff from entering the wetlands.

This Form 27 serves as notification for the decommissioning of the RUEBEL ET AL 36-1 wellhead (API 05-123-12426) and off-location flowline (Facility ID 476374). Decommissioning activities are planned to begin the week of February 14, 2024 which may be adjusted due to unforeseen circumstances, land access, and/or weather delays. In accordance with Rule 913.d.(2). KPK will submit a Supplemental Form 27 with an updated implementation schedule at least 14 days in advance of any schedule changes.

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

Signed: Katherine Kahn

Title: Senior Hydrogeologist

Submit Date: 02/01/2024

Email: kkahn@quandaryconsultants.com

Based on the information provided herein, this Application for Site Investigation and Remediation Workplan complies with ECMC Rules and applicable orders and is hereby approved.

ECMC Approved: Laurel Anderson

Date: 06/03/2024

Remediation Project Number: 35586

COA Type**Description**

	Operator will provide notice to ECMC Area EPS at least 48 hours prior to backfill, monitoring well installation, or any sampling events performed on location.
	Operator's attached figure outlining Proposed Soil Sample and Field Screening Locations is inadequate. Operator shall collect and submit for laboratory analysis (Full Table 915-1) soil samples from all areas most likely to have been impacted during the operational life of the flowline. These areas include, but are not limited to: where flowlines connect to the wellhead, surface equipment, risers, valves, or manifolds; where flowlines bend or were repaired in the past and at joints and hammer unions; where Flowlines connect to flowlines or equipment of different material; and where flowlines cross wetlands, drainages and/or surface water or are in contact with shallow groundwater.
	Operator shall analyze all proposed samples for the complete Table 915-1 Contaminants of Concern. If analytes are detected in the initial waste characterization sample(s), even if they are at a concentration below the respective allowable level outlined in Table 915-1, Operator shall collect confirmation samples for analysis of all Table 915-1 Contaminants of Concern until Operator has submitted sufficient characterization data to request and receive Director Approval of a reduced list of contaminants of concern.
	In accordance with Rule 913.e.(3), Operator will adopt a quarterly reporting schedule (90 days). ECMC has selected Quarterly under the approved reporting schedule.
	Operator shall fully populate the implementation schedule in accordance with Rule 913.d on the next Form 27.
	Operator shall conduct a closure investigation in accordance with Rule 911.a.(4) Guidance Document and include field screening results, along with photo documentation, on Form 27 Supplemental.
6 COAs	

ATTACHMENT 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**

403599299	INVESTIGATION/REMEDATION WORKPLAN (INITIAL)
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403604539	SITE MAP
403674625	SOIL SAMPLE LOCATION MAP
403810806	FORM 27-INITIAL-SUBMITTED

Total Attach: 4 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Environmental	Form RTD on 1/8/2024 with the following comment: "Per guidance documents off location wellheads and flowlines should be submitted on a seperate form than the tank batteries." Form RTD on 1/29/2024 per Operator request.	01/08/2024

Total: 1 comment(s)