

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:

402988469

Receive Date:

03/21/2022

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>1675 BROADWAY, STE 2800</u>		Phone: <u>(208) 2018280</u>
City: <u>DENVER</u> State: <u>CO</u> Zip: <u>80202</u>		Mobile: <u>()</u>
Contact Person: <u>Jennifer Galles</u>	Email: <u>Primarycontractor@marcomllc.net</u>	

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 19616 Initial Form 27 Document #: 402762330

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>480275</u>	API #: _____	County Name: <u>WELD</u>
Facility Name: <u>E. Stieber Consolidation</u>	Latitude: <u>40.043547</u>	Longitude: <u>-104.857700</u>	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: <u>NWNE</u>	Sec: <u>23</u>	Twp: <u>1N</u>	Range: <u>67W</u> Meridian: <u>6</u> Sensitive Area? <u>Yes</u>

SITE CONDITIONS

General soil type - USCS Classifications SC Most Sensitive Adjacent Land Use Ag

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

SITE INVESTIGATION PLAN

TYPE OF WASTE:

- | | | |
|--|--|--|
| <input checked="" type="checkbox"/> E&P Waste | <input type="checkbox"/> Other E&P Waste | <input type="checkbox"/> Non-E&P Waste |
| <input checked="" type="checkbox"/> Produced Water | <input type="checkbox"/> Workover Fluids | |
| <input checked="" type="checkbox"/> Oil | <input type="checkbox"/> Tank Bottoms | |
| <input checked="" type="checkbox"/> Condensate | <input type="checkbox"/> Pigging Waste | |
| <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Rig Wash | |
| <input type="checkbox"/> Drill Cuttings | <input type="checkbox"/> Spent Filters | |
| | <input type="checkbox"/> Pit Bottoms | |
| | <input type="checkbox"/> Other (as described by EPA) | |

DESCRIPTION OF IMPACT

Impacted?	Impacted Media	Extent of Impact	How Determined
Yes	GROUNDWATER	TBD	Monitoring well samples
Yes	SOILS	TBD	Soil samples

INITIAL ACTION SUMMARY

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

The flowline has been repaired and the impacted soil in the immediate area has been removed.

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):

The number of soil samples will be determined once impacts are delineated. Confirmation soil samples were collected by MarCom 3/2/22. Lab report and summary table of results are attached. Please also see attached map which indicates where impacts remain and proposed treatment area. Proposed soil borings are also indicated on this map.

Proposed Groundwater Sampling

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

6 monitoring wells were installed at the site; 4 were removed during excavation activities. See attached map of proposed soil boring and monitoring well installation. MW installation to occur within 4 weeks after soil borings are completed, pending driller availability.

Grab samples of groundwater were collected from potholes on the north side of County Road 8; analytical results are currently pending.

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):

COGCC has approved the application of GAC, which is proposed to be completed by 3/31/22. Application areas are indicated on attached map. Following GAC application, MarCom requests COGCC approval for immediate backfill of the excavation due to the irrigation pipe that runs immediately west of the excavation, which will flood the excavation area. Backfill to be completed within 3 weeks of the GAC approval. Soil borings will then be performed through direct push technology, logged for lithology and impact observations, and soil samples collected, with a minimum of 1 sample per boring. Soil borings are proposed to be completed within 4 weeks of the excavation backfill. Following receipt of laboratory data from soil borings, data will be analyzed, and any modifications to proposed monitoring wells will be requested (if any, depending on soil results). Monitoring wells will then be installed. Proposed drilling and construction information will be provided prior to installation.

SITE INVESTIGATION REPORT

SAMPLE SUMMARY

Soil

Number of soil samples collected 32

Number of soil samples exceeding 915-1 29

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

Approximate areal extent (square feet) 7500

NA / ND

-- Highest concentration of TPH (mg/kg) 768

-- Highest concentration of SAR 4.67

BTEX > 915-1 Yes

Vertical Extent > 915-1 (in feet) 9

Groundwater

Number of groundwater samples collected 23

Was extent of groundwater contaminated delineated? No

Depth to groundwater (below ground surface, in feet) 8'

Number of groundwater monitoring wells installed 6

Number of groundwater samples exceeding 915-1 3

-- Highest concentration of Benzene (µg/l) 330

-- Highest concentration of Toluene (µg/l) 110

-- Highest concentration of Ethylbenzene (µg/l) 13

-- Highest concentration of Xylene (µg/l) 1200

NA 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?

Impacts have been observed on the western excavation wall via soil staining. Additional potential for off-site impacts on the north side of CR8 are currently being investigated through soil and groundwater samples; analytical results are pending. Additional soil borings are proposed to delineate soil impacts.

☐ 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) 2200

Volume of liquid waste (barrels) 407

☒ Is further site investigation required?

Soil borings and monitoring wells are proposed with the attached map and this submittal to delineate impacts to soil and groundwater.

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.

Soil: Removal and disposal, plus in-situ treatment with GAC

Water: Pumping for disposal.

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.

Currently KPK has been excavating and removing impacted soils. Excavation has gone down to the smear zone, with the exception of an area at the NW side of the excavation, which is down below the water table. Additional pothole activities have occurred on the north side of CR8 to collect soil and groundwater samples for additional delineation (results pending).

COGCC has approved applying GAC to the excavation at the smear zone (see attached map). The GAC will then be mixed into the smear zone and compacted to ensure proper carbon placement, followed by backfill of the excavation.

Emergency backfill immediately following GAC application is requested for approval due to irrigation line adjacent to excavation. Soil borings and MW reinstallation to occur according to proposed plan.

Soil Remediation Summary

☒ **In Situ**

_____ Bioremediation (or enhanced bioremediation)

_____ Chemical oxidation

_____ Air sparge / Soil vapor extraction

_____ Natural Attenuation

Yes _____ Other _____ GAC application _____

☒ **Ex Situ**

Yes _____ Excavate and offsite disposal

_____ If Yes: Estimated Volume (Cubic Yards) _____ 2200

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

No _____ Excavate and onsite remediation

No _____ Land Treatment

No _____ Bioremediation (or enhanced bioremediation)

No _____ 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.

Currently 2 monitoring wells are installed on the site. See attached map and site investigation plan for details of proposed monitoring 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

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:

Volume of E&P Waste (solid) in cubic yards 2200

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 407

E&P waste (liquid) description Hydrocarbon impacted water

COGCC Disposal Facility ID #, if applicable:

Non-COGCC Disposal Facility: NGL

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.

Impacted area will be reclaimed to 1100 series 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? _____

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. 09/01/2022

Proposed date of completion of Reclamation. 10/31/2022

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. 07/07/2021

Actual Spill or Release date, or date of discovery. 07/07/2021

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 07/07/2021

Proposed site investigation commencement. 07/07/2021

Proposed completion of site investigation. 06/30/2022

REMEDIAL ACTION DATES

Proposed start date of Remediation. 07/27/2021

Proposed date of completion of Remediation. 09/30/2022

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 to include soil borings and MW installation activities.

OPERATOR COMMENT

Per COGCC, in-situ remediation has been updated to GAC only (no oxidizers). Please see attached map with plan.

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

Signed: ` Jennifer Galles

Title: Consultant

Submit Date: ` 03/21/2022

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: Candice (Nikki) Graber

Date: 03/21/2022

Remediation Project Number: 19616

Condition of Approval**COA Type****Description**

	On the Form 27 Supplemental Report, specify the amount (volume or mass) and name brand of groundwater amendment added to the excavation. Attach the SDS for any additives applied to the excavation or injected at the site.
	The proposed date of commencement of Reclamation in the Site Reclamation Dates section of Doc #402988469 indicates a commencement date of 9/1/2022. Reclamation cannot begin until the site investigation and remediation are complete. Operator shall update this section in the next Supplemental Form 27.
	Operator has not collected or proposed to collect background soil samples. Per Rule 915.e.(2)D. Operator shall collect and analyze nearby non-impacted native soil for the purpose of establishing site specific background conditions.
	Operator indicates the highest concentration of TPH is 768 mg/kg; However, the soil analytical summary table indicates SW-14@8' had a concentration of 794 mg/kg. Operator shall update the soil sample summary section on the next Supplemental Form 27.
	COGCC approves MarCom's request to immediately backfill the excavation following GAC application. However, based on additional site investigation Operator may be required to reinitiate excavation activities once the irrigation pipe has been shutoff for the season.
	COGCC approves of the proposed monitoring well and soil boring locations. However, per COA on Doc #402965303 "Based on site characteristics, operator submittals, and COGCC inspections MW-1 and MW-2 do not properly define vertical and horizontal extent of impacts to groundwater.". As COGCC has previously requested: an additional monitoring well shall be installed between the domestic well and the excavation perimeter, as well as, an additional monitoring well to the north of CR 8. Operator shall include an updated map with these proposed locations for COGCC approval within 45 days of excavation completion.
	Operator shall define the vertical and lateral extent of impacts to soil proposed to be treated in situ.
	Operator shall provide boring logs in accordance with standard environmental practices for the monitoring wells installed on site on. This shall include at minimum: lithology description, USCS classifications, PID readings, sample collection depths, depth to water, and well construction

8 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.

<u>Att Doc Num</u>	<u>Name</u>
402988469	FORM 27-SUPPLEMENTAL-SUBMITTED
402988820	ANALYTICAL RESULTS
402988858	ANALYTICAL RESULTS
402988860	MAP

Total Attach: 4 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Environmental	Any COAs from previous Form 27s that have not been addressed are still applicable.	03/21/2022
Environmental	Confirmation soil samples were collected on 3/2/2022 were not provided as an attachment to Doc #402988469. Operator shall provide these documents on the next Supplemental Form 27.	03/21/2022

Total: 2 comment(s)