

State of Colorado
Oil and Gas Conservation Commission

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Document Number:
403150134
Receive Date:
11/23/2022
Report taken by:
KRIS NEIDEL

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> | | |
| City: <u>DENVER</u> | State: <u>CO</u> | Zip: <u>80203</u> |
| Contact Person: <u>Craig Meis</u> | Email: <u>cmeis@kpk.com</u> | Phone: <u>(303) 825-4822</u> |
| | | Mobile: <u>(970) 261-3567</u> |

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 15326 Initial Form 27 Document #: 402347332

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>TANK BATTERY</u> | Facility ID: <u>465486</u> | API #: _____ | County Name: <u>JACKSON</u> |
| Facility Name: <u>Dwinell Tank Battery</u> | Latitude: <u>40.822160</u> | Longitude: <u>-106.233316</u> | |
| ** correct Lat/Long if needed: Latitude: _____ | | Longitude: _____ | |
| QtrQtr: <u>NESW</u> | Sec: <u>23</u> | Twp: <u>10n</u> | Range: <u>79W</u> Meridian: <u>6</u> Sensitive Area? <u>Yes</u> |
| Facility Type: <u>SPILL OR RELEASE</u> | Facility ID: <u>473059</u> | API #: _____ | County Name: <u>JACKSON</u> |
| Facility Name: <u>Dwinell Tank Battery</u> | Latitude: <u>40.822144</u> | Longitude: <u>-106.233434</u> | |
| ** correct Lat/Long if needed: Latitude: <u>40.822144</u> | | Longitude: <u>-106.233434</u> | |
| QtrQtr: <u>NESW</u> | Sec: <u>23</u> | Twp: <u>10N</u> | Range: <u>79W</u> Meridian: <u>6</u> Sensitive Area? <u>No</u> |

Facility Type: SPILL OR RELEASE Facility ID: 478606 API #: _____ County Name: JACKSON
Facility Name: Dwinell Battery - Bolted Tank Latitude: 40.822144 Longitude: -106.233434
** correct Lat/Long if needed: Latitude: _____ Longitude: _____
QtrQtr: NESW Sec: 23 Twp: 10N Range: 79W Meridian: 6 Sensitive Area? No

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

There are no residence within a quarter mile of the release. There are no habitable structures within a quarter mile of the release. Local Road 8B is located within a quarter mile of the release. No lakes, rivers, streams, or 100-year flood plains within a quarter mile of the site. Four High Priority habitats are located within a quarter mile of the site, these include, a Greater Sage Grouse Lek site, a Greater Sage Grouse Priority Habitat Management area, a Pronghorn Winter Concentration area, and a Greater Sage Grouse General Habitat Management area. There are no Bald Eagle Roost sites, or Bald Eagle active nest site half mile buffer within a quarter mile of the release. There are no water wells within a quarter mile. The National Wetlands Inventory list no 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 |
|-----------|----------------|------------------|--|
| Yes | SOILS | Unknown | Analytical results of collected 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.

Spill/Release ID 473059 - Facility was shut-in at the time of discovery to prevent further release of fluids from production tanks. Released fluids were contained within containment earthen berms. A vac truck was brought in to remove free standing fluids. Spill/Release ID 478606: The out of service crude oil tank will be removed from location, in order to remove all impacts from the site, if the tank battery is reinstalled, COGCC will be provided with a notice and installation will follow the Current guidelines for site construction requirements. Samples will be collected underneath the Tank Battery as required in the 915-1 guidelines.

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):

Spill/Release ID 478606: Following the removal of the out of service crude oil tank, soil samples will be collected to determine if soil was impacted because of the leak from the bolted tank. If soil is found to have been impacted, excavation activities will be performed to remove impacted soil. If excavation activities are necessary, it's anticipated that remedial activities will overlap with remedial activities associated with Spill/Release ID 473059 and both release will be moved to one form 27. Final and vertical and horizontal extent of excavation will be based on limits of excavation and on results from grab soil samples and photoionization detector (PID) field screening. Please see operator comments for further details. If needed, extent borings may be installed, and soil samples collected to evaluate the extent of soil impacts. COGCC will be provided with a 72 hr notice prior to any sampling event.

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. A Groundwater Monitoring plan with a total of 5 wells, 1 upgradient, 2 cross gradient, 1 down gradient, and 1 at source (Additional wells may be necessary) will be submitted for approval, and Groundwater monitoring will continue until 4 clean consecutive quarters is achieved. COGCC will be provided a 72 Hour notice prior to the installation or sampling of monitoring wells.

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 may be required to determine the extent of the impacts. Once excavation has begun it may be warranted to delineate further the extent of the excavation utilizing Geoprobng or drilling equipment, depending on excavation status, and analytical results. If Geoprobng is necessary to determine the extent of impacts step out borings from the original proposed plan may be warranted to find the full extent of the impacts. If Geoprobng is necessary a supplemental Form 27 will be submitted with a proposed boring plan.

SITE INVESTIGATION REPORT

SAMPLE SUMMARY

Soil

Number of soil samples collected 3
Number of soil samples exceeding 915-1 2
Was the areal and vertical extent of soil contamination delineated? No
Approximate areal extent (square feet) 7300

NA / ND

-- Highest concentration of TPH (mg/kg) 660
NA Highest concentration of SAR _____
BTEX > 915-1 No
Vertical Extent > 915-1 (in feet) 1

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?

MarCom is proposing the collection of 3 background location with two different depths bgs collected at each background (1 @2', 1 @4'). Please refer to the proposed background location map for details.

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?

Additional investigation may be required to determine the extent of the impacts depending on excavation and analytical findings. Once excavation has begun it may be warranted to delineate further the extent of the excavation utilizing Geoprobng or drilling equipment, depending on excavation status, and analytical results. If Geoprobng is necessary to determine the extent of impacts step out borings from the original proposed plan may be warranted to find the full extent of the impacts. If Geoprobng is necessary a supplemental Form 27 will be submitted with a proposed boring plan.

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.

Impacted soil will be excavated removed from site. Due to limited capacity at the Walden Land Treatment Facility (Location ID 450973), all impacted soil will be disposed of at a certified disposal facility until soil sample results prove no exceedances of Table 915-1 thresholds. All removed groundwater will be disposed of at a certified disposal location. Waste disposal manifests will continue to be provided in supplemental form 27s.

REMEDICATION 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.

Final vertical and horizontal extent of excavation will be based on limits of excavation and on results from soil samples and photoionization detector (PID) field screening. 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). 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. The out of service crude oil tank will be removed from location, in order to remove all impacts from the site, if the tank battery is reinstalled, COGCC will be provided with a notice and installation will follow the Current guidelines for site construction requirements. Samples will be collected underneath the Tank Battery as required in the 915-1 guidelines.

Soil Remediation Summary

In Situ

Ex Situ

_____ Bioremediation (or enhanced bioremediation)

Yes _____ Excavate and offsite disposal

_____ Chemical oxidation

_____ If Yes: Estimated Volume (Cubic Yards) _____ 500

_____ Air sparge / Soil vapor extraction

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

_____ 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 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. A Groundwater Monitoring plan with a total of 5 wells, 1 upgradient, 2 cross gradient, 1 down gradient, and 1 at source (Additional wells may be necessary) will be submitted for approval, and Groundwater monitoring will continue until 4 clean consecutive quarters is achieved. COGCC will be provided a 72 Hour notice prior to the installation of Monitoring wells.

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: \$ 6000 _____

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:

No beneficial use

Volume of E&P Waste (solid) in cubic yards _____ 1444

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 _____ 72

E&P waste (liquid) description Produced Hydrocarbon fluid (Crude Oil & Produced Water)

COGCC Disposal Facility ID #, if applicable: _____

Non-COGCC Disposal Facility: Reprocessed at tank battery

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.

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? _____

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. 08/25/2023

Proposed date of completion of Reclamation. 09/29/2023

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. _____

Actual Spill or Release date, or date of discovery. 03/03/2020

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 11/19/2020

Proposed site investigation commencement. 06/01/2021

Proposed completion of site investigation. 06/30/2023

REMEDIAL ACTION DATES

Proposed start date of Remediation. 10/01/2021

Proposed date of completion of Remediation. 11/17/2023

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:

Updated implementation schedule due to change in season at site location (Access restrictions due to weather) , and site prioritization.

OPERATOR COMMENT

Per discussion on the proposed soil sampling plan, Confirmation soil samples will be collected as described in the Rule 915.e.(2) Guidance Document. 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 72 hr notice prior to any sampling event. Analytical has been collected but will be discarded, due to insufficient information on sample locations, and labeling errors. Attached is the lab report for the analytical discussed for proof analytical was collected. This analytical will be discarded and new analytical will be collected in accordance with the 915.e.(2) guidance doc. COGCC will be provided with a 48 notice prior to confirmation sample collection. The implementation schedule has been altered to return to the site in the late spring 2023 due to site access restrictions caused by weather conditions. Soil boring/sample locations are subject to change due to site characteristics, and extent of excavation.

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: 11/23/2022

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: 15326

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**

| | |
|-----------|--------------------------------|
| 403150134 | FORM 27 DENIED |
| 403222973 | MAP |
| 403222978 | SOIL SAMPLE LOCATION MAP |
| 403222988 | SITE MAP |
| 403222990 | MAP |
| 403222991 | DISPOSAL MANIFESTS |
| 403222999 | PHOTO DOCUMENTATION |
| 403223048 | SOIL SAMPLE LOCATION MAP |
| 403238871 | ANALYTICAL RESULTS |
| 403358860 | FORM 27-SUPPLEMENTAL-SUBMITTED |

Total Attach: 10 Files

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

| | | |
|---------------|---|------------|
| Environmental | This Form 27 cannot be approved based on the information submitted. Therefore Document ID #[403150134] will be denied. The Operator is directed to submit a replacement form. | 02/22/2023 |
|---------------|---|------------|

| | | |
|---------------|--|------------|
| Environmental | <p>COGCC denied this Form for the following reasons:</p> <ul style="list-style-type: none"> - Stained soils are present on pad surface, source removal shall be implemented as soon as practical. - As of last inspection date impacted stockpiled soils were present on the location in the area of proposed SB-7. - Proposed background points are not adequate for a background determination. - A site investigation plan is required for the substantial changes proposed in this Form 27 however, no plan has been proposed. - Both spills 478606 and 473059 mentioned in the proposed sampling plan are already consolidated in this remediation project. - Date of Surface Owner notification/consultation has not been populated. | 02/22/2023 |
| Environmental | <p>If Operator proposes background soil sampling, Operator shall obtain background samples from a minimum of five (5) separate locations as an initial characterization. Background sampling locations should be sufficiently away from the impacted area to reflect conditions not impacted by oil and gas activity, and should be obtained from similar depths and soil horizons or lithologic materials for comparison to confirmation soil samples.</p> | 02/22/2023 |

Total: 3 comment(s)