

State of Colorado
Energy & Carbon Management Commission1120 Lincoln Street, Suite 801, Denver, Colorado 80203
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403986407

Receive Date:

11/07/2024

Report taken by:

Krystal Heibel

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 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: INVESTMENT EQUIPMENT LLC	Operator No: 10330	Phone Numbers
Address: 558 CASTLE PINES PKWY UNIT B-4		Phone: (361) 935-5633
City: CASTLE PINES	State: CO	Zip: 80108
Contact Person: Brent Bongers	Email: bbongers@impetroresources.com	Mobile: ()

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 18894 Initial Form 27 Document #: 402646539

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: PIT	Facility ID: 117586	API #:	County Name: WASHINGTON
Facility Name: COLORADO STATE 1 & 2	Latitude: 39.751264	Longitude: -103.272980	
** correct Lat/Long if needed: Latitude:		Longitude:	
QtrQtr: SWNW	Sec: 36	Twp: 3S	Range: 53W
Meridian: 6	Sensitive Area?		Yes

Facility Type: PIT	Facility ID: 117587	API #:	County Name: WASHINGTON
Facility Name: COLORADO "A" 1	Latitude: 39.750951	Longitude: -103.272409	
** correct Lat/Long if needed: Latitude:		Longitude:	
QtrQtr: NESW	Sec: 36	Twp: 3S	Range: 53W
Meridian: 6	Sensitive Area?		Yes

Facility Type: LOCATION		Facility ID: 470686	API #:	County Name: WASHINGTON	
Facility Name: Colorado State		Latitude: 39.751120		Longitude: -103.273620	
** correct Lat/Long if needed: Latitude: Longitude:					
QtrQtr: SWNW	Sec: 36	Twp: 3S	Range: 53W	Meridian: 6	Sensitive Area? No

Facility Type: OFF-LOCATION FLOWLINE		Facility ID: 470717	API #:	County Name: WASHINGTON	
Facility Name: Production Line		Latitude: 39.751120		Longitude: -103.273620	
** correct Lat/Long if needed: Latitude: Longitude:					
QtrQtr: SWNW	Sec: 36	Twp: 3S	Range: 53W	Meridian: 6	Sensitive Area? Yes

Facility Type: OFF-LOCATION FLOWLINE		Facility ID: 470718	API #:	County Name: WASHINGTON	
Facility Name: Production Line		Latitude: 39.751120		Longitude: -103.273620	
** correct Lat/Long if needed: Latitude: Longitude:					
QtrQtr: SWNW	Sec: 36	Twp: 3S	Range: 53W	Meridian: 6	Sensitive Area? Yes

Facility Type: SPILL OR RELEASE		Facility ID: 472607	API #:	County Name: WASHINGTON	
Facility Name: SPILL/RELEASE POINT		Latitude: 39.750917		Longitude: -103.272504	
** correct Lat/Long if needed: Latitude: Longitude:					
QtrQtr: NWSW	Sec: 36	Twp: 3S	Range: 53W	Meridian: 6	Sensitive Area? No

Facility Type: SPILL OR RELEASE		Facility ID: 484866	API #:	County Name: WASHINGTON	
Facility Name: Colorado State		Latitude: 39.751120		Longitude: -103.273620	
** correct Lat/Long if needed: Latitude: Longitude:					
QtrQtr: SWNW	Sec: 36	Twp: 3S	Range: 53W	Meridian: 6	Sensitive Area? No

SITE CONDITIONS

General soil type - USCS Classifications SW Most Sensitive Adjacent Land Use Cropland

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

SITE INVESTIGATION PLAN

TYPE OF WASTE:

- ☐ E&P Waste ☐ Other E&P Waste ☒ Non-E&P Waste
- ☐ Produced Water ☐ Workover Fluids ☐ No waste is currently anticipated
- ☐ 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
No	GROUNDWATER	N/A	Not encountered
Yes	SOILS	400' x 400'	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.

Sample results from the initial sampling event revealed that three cells exceeded the Table 915 standard for Boron (sample numbers 28, 34, and 37). The soil within these three cells will be removed from the landfarm and transported to the Pawnee waste facility for disposal during 4Q2024 and waste manifests will be provided. Four cells exceeded the Table 915 standard for SAR (sample numbers 2, 35, 38, and 42). The soil within these cells will remain in place where it will be treated using gypsum during 4Q 2024. Forty-one of forty-two cells exceeded the Table 915 standard for pH. Cell 38 did not exceed the standard, however, cell 38 slightly exceeded the SAR standard so the soil within cell 38 will remain in place where it will be treated using gypsum during 4Q 2024. The only soil removed from the landfarm are the Boron impacted cells; all other soils will be treated using gypsum during 4Q 2024.

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):

Proposed Groundwater Sampling

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

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):

SITE INVESTIGATION REPORT

SAMPLE SUMMARY

Soil

NA / ND

Number of soil samples collected 62

Number of soil samples exceeding 915-1 12

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

Approximate areal extent (square feet) 100

ND Highest concentration of TPH (mg/kg)

Highest concentration of SAR

BTEX > 915-1 No

Vertical Extent > 915-1 (in feet) 22

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

NA Highest concentration of Benzene (µg/l)

NA Highest concentration of Toluene (µg/l)

NA Highest concentration of Ethylbenzene (µg/l)

NA Highest concentration of Xylene (µg/l)

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?

☒ Were background samples collected as part of this site investigation?

5 Background samples were taken on 8/1/2023 for metals (BM1, BM2, BM3, BM4, BM5). Previously, two Background samples were collected 12/18/2021 (Background North, and Background South).

☒ Was investigation derived waste (IDW) generated as part of this investigation?

Volume of solid waste (cubic yards) 647

Volume of liquid waste (barrels) 0

☐ Is further site investigation required?

No, Based on sample results, excavation of soils to place in the treatment area included all berm soils and soils below berms to a depth of 6' bgs where Soil Suitability results remain below standards.

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.

Pit excavation of hydrocarbon impacted soil was removed and disposed of a Pawnee Waste facility. ~107 cu yds of soil was removed and disposed of, waste manifest attached in remedial report summary. See attached Remedial Action Plan for additional details.

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.

(11/7/2024) Soils exhibiting high pH, EC, and / or SAR will be treated by placing gypsum in the landfarm and tiling with heavy machinery. Quarterly sampling will continue to monitor the progress of the treatment and identify any boron exceedance. Boron impacted soils when identified will be removed for disposal at Pawnee Waste Facility. The treatment area will be monitored for control of noxious weeds, silt fence and soil berms have been established to prevent run off. Soils that exhibit concentrations below Table 915 Soil suitability will be returned to farming. Following completion of treatment Soil Suitability for Reclamation sampling will be performed within the landfarm footprint to confirm that impacts are no longer present. NFA status and Reclamation of surface is estimated to begin Fall 2025. Report attached.

(8/2/2024) Approximately 12,000 cubic yards including all berm soils and the soils within 6' bgs of the berms have been excavated and stockpiled. The Pit areas will be regraded to match surrounding area topography to create a level working surface. Sodic soils will be spread across 4 acres of the approximately 5 acre location at a depth 2'.

Soil Remediation Summary

☒ In Situ

☒ Ex Situ

_____ Bioremediation (or enhanced bioremediation)

_____ Chemical oxidation

_____ Air sparge / Soil vapor extraction

_____ Natural Attenuation

Yes Other Gypsum _____

Yes _____ Excavate and offsite disposal

If Yes: Estimated Volume (Cubic Yards) _____ 107

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.

N/A

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 Remediation progress update

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.

Operator is bonded per rule 702 and complies with GL Insurance per Rule 705

Operator anticipates the remaining cost for this project to be: \$ 10000

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:

Contaminated Soil was disposed of at Pawnee Waste Facility

Volume of E&P Waste (solid) in cubic yards 647

E&P waste (solid) description contaminated soil

ECMC Disposal Facility ID #, if applicable:

Non-ECMC Disposal Facility: Pawnee Waste

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

E&P waste (liquid) description

ECMC Disposal Facility ID #, if applicable:

Non-ECMC 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? No

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 ECMC 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.

After the site has been closed out of remediation and transferred into reclamation, silt fence and the containment berms will be removed and the site will be returned to the original grade. De-compaction will include ripping the site 18 inches deep from north to south and east to west, giving the site a cross-rip with heavy equipment. At that point the site will be a workable field and will be turned over to the farmer for crop production. The farmer will provide the seed and maintain weed control. Seed will be placed across entire footprint of the Site as shown on attached Figure 1 Treatment Area Map. The site will be monitored while communicating with the farmer on weed control, stormwater, and crop production. Reports with photo logs showing crop health during growing seasons will be filed and with 2 healthy growing seasons, we look forward to requesting closure of reclamation.

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. 09/01/2025

Proposed date of completion of Reclamation. 12/01/2025

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. 09/15/2023

Actual Spill or Release date, or date of discovery. 02/25/2020

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 08/02/2021

Proposed site investigation commencement. 08/02/2021

Proposed completion of site investigation. 04/04/2024

REMEDIAL ACTION DATES

Proposed start date of Remediation. 05/01/2023

Proposed date of completion of Remediation. 09/01/2025

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

Off-Location Flowline 470717 and Off-Location Flowline 4070718 were closed under Form 44 (Document #402912648) submitted on 12/29/2021.

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

Signed: Amber Barnett

Title: Compliance Specialist

Submit Date: 11/07/2024

Email: abarnett@ardorenvironmental.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:

Date:

Remediation Project Number: 18894

COA Type**Description**

0 COA	

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**

403986407	FORM 27 DENIED
403986491	SITE INVESTIGATION REPORT
404085219	FORM 27-SUPPLEMENTAL-SUBMITTED

Total Attach: 3 Files

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

Environmental	ECMC has denied this Form 27 for data validation. Operator will provide laboratory analytical report(s) as a stand-alone attachment(s) on the replacement Supplemental Form 27. The Laboratory Report PDF(s) must be secured by the issuing laboratory; If there is a difference between the creation date and secured date of the PDF, Operator shall provide an explanation in the case narrative of the associated report. ECMC will not review combined PDFs with lab reports.	02/06/2025
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Total: 1 comment(s)