

State of Colorado Oil and Gas Conservation Commission

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Document Number:

401217756

Receive Date:

02/23/2017

Report taken by:

CHRIS CANFIELD

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.

Refer to Rules 340, 905, 906, 907, 908, 909, and 910

OPERATOR INFORMATION

Name of Operator: <u>ENERGY SEARCH CO ADDBA ENERGY SEARCH CO INC</u>		Operator No: <u>27635</u>	Phone Numbers	
Address: <u>PO BOX 1896</u>		Phone: <u>(308) 340-3242</u>		
City: <u>EDWARDS</u>	State: <u>CO</u>	Zip: <u>81632</u>		Mobile: <u>()</u>
Contact Person: <u>Brett Robuck</u>		Email: <u>rp1lc@msn.com</u>		

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 10065 Initial Form 27 Document #: 401217756

PURPOSE INFORMATION

- | | |
|--|--|
| <input type="checkbox"/> 901.e. Sensitive Area Determination | <input type="checkbox"/> 909.c.(5), Rule 910.b.(4): Remediation of impacted ground water |
| <input type="checkbox"/> 909.c.(1), Rule 905: Pit or PW vessel closure | <input type="checkbox"/> Rule 909.e.(2)A.: Notice completion of remediation in accordance with Rule 909.b. |
| <input checked="" type="checkbox"/> 909.c.(2), Rule 906: Spill/Release Remediation | <input type="checkbox"/> Rule 909.e.(2)B.: Closure of remediation project |
| <input type="checkbox"/> 909.c.(3), Rule 907.e.: Land treatment of oily waste | <input type="checkbox"/> Rule 906.c.: Director request |
| <input type="checkbox"/> 909.c.(4), Rule 908.g.: Centralized E&P Waste Management Facility closure | <input type="checkbox"/> Other _____ |

SITE INFORMATION

N Multiple Facilities (in accordance with Rule 909.c.)

Facility Type: <u>LOCATION</u>	Facility ID: <u>319844</u>	API #: _____	County Name: <u>ADAMS</u>
Facility Name: <u>GINTHER-61S67W 20SWNW</u>		Latitude: <u>39.951929</u>	Longitude: <u>-104.919602</u>
** correct Lat/Long if needed: Latitude: _____ Longitude: _____			
QtrQtr: <u>SWNW</u>	Sec: <u>20</u>	Twp: <u>1S</u>	Range: <u>67W</u> Meridian: <u>6</u> Sensitive Area? <u>No</u>

SITE CONDITIONS

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

Is domestic water well within 1/4 mile? Yes 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

☐ 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	approx 550 cu yd soil	PID screenings, soil 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.

Initial soil and groundwater evaluation was completed adjacent to site facilities and ancillary equipment. Single location indicated contamination in both soil and groundwater. Additional soil borings and monitoring wells were completed adjacent to source to evaluate the extent of contamination. No remediation activities have yet been conducted.

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):

Initial sampling completed. Samples were collected from TH-16 @ 15', TH-16 @ 25', SB-1 @ 10', SB-2 @ 10', SB-4 @ 13', SB-5 @ 15.5', SB-8 @ 14', SB-10 @ 9', and sampled for TVPH and BTEX.

Proposed Groundwater Sampling

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

Initial sampling completed. Samples were collected from TH-15, TH-16, and TH-21, and sampled for TVPH and BTEX. Monitoring wells TH-18 and TH-19 were dry at the time of the sampling.

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

Number of soil samples collected 9

Number of soil samples exceeding 910-1 4

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

Approximate areal extent (square feet) 37

NA / ND

-- Highest concentration of TPH (mg/kg) 5189

NA Highest concentration of SAR

BTEX > 910-1 Yes

Vertical Extent > 910-1 (in feet) 15

Groundwater

Number of groundwater samples collected 2

Was extent of groundwater contaminated delineated? Yes

Depth to groundwater (below ground surface, in feet) 28'

Number of groundwater monitoring wells installed 6

Number of groundwater samples exceeding 910-1 1

-- Highest concentration of Benzene (µg/l) 55.4

-- Highest concentration of Toluene (µg/l) 4.56

-- Highest concentration of Ethylbenzene (µg/l) 62.4

-- Highest concentration of Xylene (µg/l) 295

NA Highest concentration of Methane (mg/l)

Surface Water

0 Number of surface water samples collected

Number of surface water samples exceeding 910-1

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.

Source area soil will be excavated, transported from site, and properly disposed of at the Denver Regional Landfill South. Confirmational soil samples will be taken to ensure site soils are below COGCC standards.

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.

Following soil excavation, confirmational soil samples will be taken to ensure site soils are below COGCC standards. Groundwater will be tested quarterly for four quarters to confirm groundwater has not been impacted.

Soil Remediation Summary

☐ In Situ

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

☒ Ex Situ

Yes _____ Excavate and offsite disposal
If Yes: Estimated Volume (Cubic Yards) _____ 550
Name of Licensed Disposal Facility or COGCC Facility ID # _____ 1005633
_____ 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
Yes _____ Other _____ four quarters of monitoring

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.

The CTL/Thompson report dated January 9th, 2017, reported that groundwater sample collected from monitoring well TH-16 contained levels of Benzene above COGCC standards. Subsequent sampling of the TH-16 well, conducted by Western Environment and Ecology, Inc. on January 25th, 2017, indicated that all analyte concentrations were below COGCC standards. Groundwater will be sampled on a quarterly basis, for four quarters, to confirm that groundwater has not been impacted.

REMEDATION PROGRESS UPDATE

PERIODIC REPORTING

Frequency: ☒ Quarterly ☐ Semi-Annually ☐ Annually ☐ Other _____

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? _____

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.

Backfilled with clean off site material

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 approve the seed mix? _____

If NO, does the seed mix comply with local soil conservation district recommendations? _____

IMPLEMENTATION SCHEDULE

PRIOR DATES

Date of Surface Owner notification/consultation, if required. 12/01/2016

Actual Spill or Release date, if known. _____

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 12/13/2016

Date of commencement of Site Investigation. 12/13/2016

Date of completion of Site Investigation. 02/07/2017

REMEDIAL ACTION DATES

Date of commencement of Remediation. 05/01/2017

Date of completion of Remediation. 05/31/2017

SITE RECLAMATION DATES

Date of commencement of Reclamation. 05/01/2017

Date of completion of Reclamation. 05/31/2017

OPERATOR COMMENT

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

Signed: ` Jack McCartney _____

Title: Agent _____

Submit Date: ` 02/23/2017 _____

Email: jack@mccartneyengineering.com _____

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: CHRIS CANFIELD _____

Date: 02/23/2017 _____

Remediation Project Number: 10065 _____

COA Type**Description**

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Attachment Check List**Att Doc Num****Name**

401217756	FORM 27-INITIAL-SUBMITTED
401217998	SITE INVESTIGATION REPORT

Total Attach: 2 Files

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

		Stamp Upon Approval
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Total: 0 comment(s)