

State of Colorado
Oil and Gas Conservation Commission

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Document Number:
401349237

Receive Date:

Report taken by:

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.

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

OPERATOR INFORMATION

Name of Operator: CHEVRON PIPELINE COMPANY	Operator No: 16690	Phone Numbers Phone: (801) 9752339 Mobile: (801) 5053766
Address: 2750 COUNTY ROAD 102		
City: RANGELY	State: CO	Zip: 81648
Contact Person: Patrick Green	Email: patrick.t.green@chevron.com	

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 10149 Initial Form 27 Document #: 401259499

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: SPILL OR RELEASE	Facility ID: 449632	API #: _____	County Name: RIO BLANCO
Facility Name: SPILL/RELEASE POINT	Latitude: 40.131022	Longitude: -108.920253	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: NESW	Sec: 23	Twp: 2N	Range: 103W Meridian: 6 Sensitive Area? No

SITE CONDITIONS

General soil type - USCS Classifications ML Most Sensitive Adjacent Land Use Federal BLM Land

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

Wildlife and Federal BLM land open for recreational use.

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 type="checkbox"/> Produced Water | <input type="checkbox"/> Workover Fluids | _____ |
| <input checked="" type="checkbox"/> Oil | <input type="checkbox"/> Tank Bottoms | |
| <input 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	SOILS	92,600 sq/ft	Visual

INITIAL ACTION SUMMARY

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

Valves were closed to isolate the leaking section of pipe and clamps were installed on the pipe to control the leak. The pipe was cut around the leak locations and a new pipe was welded in place. The pipeline was shut in, purged of free liquid, and will be plugged and abandoned. A catchment basin was constructed approximately 0.8 miles downgradient from the release site for the recovery of spilled product. All spilled product was stopped from migrating further downstream and contained by a previously constructed weir dam located approximately 1.8 miles from the spill. Vacuum trucks were mobilized on March 5, 2017 to recover fluids from the up gradient side of the berm and the dam. Water flushing of product was conducted to mobilize this material to catchment basins where the product and all water was removed via vacuum truck and recovered by Chevron Upstream. Impacted and/or stained soils are being removed via excavator / hand shoveling and transferred to the Chevron Upstream landfarm for remediation compliant to COGCC rules and standards.

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):

Refer to the "Request to Ammend the COGCC Table 910-1 Analyte List Specific for the Rangely C4 Incident Remediation Workplan"

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):

Refer to the "Request to Ammend the COGCC Table 910-1 Analyte List Specific for the Rangely C4 Incident Remediation Workplan"

SITE INVESTIGATION REPORT

SAMPLE SUMMARY

Soil

Number of soil samples collected 144

Number of soil samples exceeding 910-1 82

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

Approximate areal extent (square feet) 92600

NA / ND

-- Highest concentration of TPH (mg/kg) 44590

-- Highest concentration of SAR 22

BTEX > 910-1 Yes

Vertical Extent > 910-1 (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 910-1

 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 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?

Refer to the attached "Request to Amend the COGCC Table 910-1 Analyte List Specific for the Rangely C4 Incident Remediation Workplan"

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?

Refer to the attached "Request to Amend the COGCC Table 910-1 Analyte List Specific for the Rangely C4 Incident Remediation Workplan"

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.

Damaged section of pipeline was cut out and replaced on March 16, 2017 and was sent in for analysis. This pipeline section is permanently abandoned.

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.

A remediation work plan has been submitted that describes the specifics on how the site will be remediated to COGCC Table 910-1 limits. In summary, CPL will use the combination of soil excavation and enhanced microbial degradation to achieve Table 910-1 limits and develop and implement a site restoration plan to restore impacted and disturbed rangeland areas. Of note, all recoverable water (Spill Release Site to Siphon V Dam) has been removed via vacuum truck and disposed of through Chevron Upstream's (CNAEP) water treatment system and all excavated soil has been/will be transferred to CNAEP land farm for treatment to Table 910-1 limits.

Refer to the attached "Request to Amend Soils in Three Pilot Areas with Nitrogen to Enhance Biodegradation of Total Petroleum Hydrocarbons (TPH) at the Rangely C4 Incident Site"

Soil Remediation Summary

In Situ

Yes _____ Bioremediation (or enhanced bioremediation)

_____ Chemical oxidation

_____ Air sparge / Soil vapor extraction

Yes _____ Natural Attenuation

_____ Other _____

Ex Situ

No _____ Excavate and offsite disposal

If Yes: Estimated Volume (Cubic Yards) _____

Name of Licensed Disposal Facility or COGCC Facility ID # _____

Yes _____ Excavate and onsite remediation

Yes _____ Land Treatment

No _____ Bioremediation (or enhanced bioremediation)

No _____ Chemical oxidation

No _____ 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.

NA.

REMEDIATION PROGRESS UPDATE

PERIODIC REPORTING

Frequency: Quarterly Semi-Annually Annually Other Refer to attached "Request to Ammend the COGCC Table 910 -1 Analyte List Specific for the Rangely C4"

Report Type: Groundwater Monitoring Land Treatment Progress Report O&M Report

Other Refer to attached "Request to Ammend the COGCC Table 910-1 Analyte List Specific for Rangely C4"

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:

Impacted soils from this incident are transferred to Chevron Upstream's (CNAEP) landfarm facility (Facility ID 149001) for land treatment and recovered water is introduced into CNAEP's West End Water Plant to recover oil.

Volume of E&P Waste (solid) in cubic yards 2377

E&P waste (solid) description Impacted soils

COGCC Disposal Facility ID #, if applicable: 149001

Non-COGCC Disposal Facility:

Volume of E&P Waste (liquid) in barrels 11636

E&P waste (liquid) description Impacted water

COGCC Disposal Facility ID #, if applicable:

Non-COGCC Disposal Facility: CNAEP's West End Water Plant

REMEDIATION COMPLETION REPORT

REMEDIATION COMPLETION SUMMARY

Is this a Final Closure Request for this Remediation Project? No

Do all soils meet Table 910-1 standards? _____

Does the previous reply indicate consideration of background concentrations? _____

Are the only residual soil impacts pH, SAR, or EC at depths greater than 3 feet below ground surface? _____

Does Groundwater meet Table 910-1 standards? _____

Is additional groundwater monitoring to be conducted? _____

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.

A site restoration or reclamation plan is being developed and will be submitted to COGCC and BLM by August 1, 2017 since additional excavation and remedations efforts are being conducted currently and would likley affect some of the site restoration plan details.

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. 03/05/2017

Actual Spill or Release date, if known. 03/05/2017

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 03/05/2017

Date of commencement of Site Investigation. 03/09/2017

Date of completion of Site Investigation. _____

REMEDIAL ACTION DATES

Date of commencement of Remediation. 03/05/2017

Date of completion of Remediation. _____

SITE RECLAMATION DATES

Date of commencement of Reclamation. _____

Date of completion of Reclamation. _____

OPERATOR COMMENT

Refer to the attached "Request to Amend Soils in Three Pilot Areas with Nitrogen to Enhance Biodegradation of Total Petroleum Hydrocarbons (TPH) at the Rangely C4 Incident Site" and the Urea Safety Data Sheet.

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

Signed: Brent Lucyk

Title: Senior Geologist

Submit Date: _____

Email: brent.lucyk@stantec.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: _____

Date: _____

Remediation Project Number: 10149

COA Type

Description

<u>COA Type</u>	<u>Description</u>

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

401349262	REMEDIAL ACTION PLAN
401349273	REMEDIAL ACTION PLAN

Total Attach: 2 Files

General Comments

User Group

Comment

Comment Date

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
		Stamp Upon Approval

Total: 0 comment(s)