FORM 27 Rev 3/16

State of Colorado
Oil and Gas Conservation Commission

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

OPERATOR INFORMATON

Name of Operator: CHEVRON USA INC Operator No: 16700
Address: 6301 DEAUVILLE BLVD
City: MIDLAND State: TX Zip: 79706
Contact Person: Adriane Gifford Email: agifford@chevron.com

Phone Numbers
Phone: (713) 372-1022
Mobile: (832) 270-3436

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 10501 Initial Form 27 Document #: 401379557

PURPOSE INFORMATION

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

SITE INFORMATION

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

Facility Type: PIT Facility ID: 102571 API #: County Name: RIO BLANCO
Facility Name: RANGLEY WEBER STATION 47 Latitude: 40.094781 Longitude: -108.811852
** correct Lat/Long if needed: Latitude: 40.094902 Longitude: 108.811965
QtrQtr: NWNE Sec: 35 Twp: 2N Range: 102W Meridian: 6 Sensitive Area? Yes

SITE CONDITIONS

General soil type - USCS Classifications GC
Most Sensitive Adjacent Land Use Dry Land
Is domestic water well within 1/4 mile? No
Is surface water within 1/4 mile? Yes
Is groundwater less than 20 feet below ground surface? Yes

Other Potential Receptors within 1/4 mile

No wells, White River approximately 600 ft. North and 1200 ft. West of Site Location.

SITE INVESTIGATION PLAN

TYPE OF WASTE:

- [x] **E&P Waste**
  - [ ] Produced Water
  - [x] Oil
  - [ ] Condensate
  - [ ] Drilling Fluids
  - [ ] Drill Cuttings
- [ ] **Other E&P Waste**
  - [ ] Workover Fluids
  - [ ] Tank Bottoms
  - [ ] Pigging Waste
  - [ ] Rig Wash
  - [ ] Spent Filters
  - [ ] Pit Bottoms
  - [ ] Other (as described by EPA) _____
- [ ] **Non-E&P Waste** _____

DESCRIPTION OF IMPACT

Impacted?	Impacted Media	Extent of Impact	How Determined
Yes	SOILS	HC Impacts near MW-1	Soil Boring-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.

Advancement of a total of six soil borings (SB-01 through SB-06) and installation of two down-gradient monitoring wells (MW-04 and MW-05) was completed to address the COAs described in document # 401203492 (REM PROJ # 8564). See attached Soil Characterization Report - PIT CS-47.

PROPOSED SAMPLING PLAN

Proposed Soil Sampling

- [x] Will soil samples be collected as part of this investigation? (Number, type (grab/composite), analyses, and locations of samples):

Advance up to 18 soil borings (12 proposed and 6 contingent) to determine the lateral extent of petroleum hydrocarbons in soil. At each soil boring collect up to 3 samples at varying intervals. Refer to Soil Characterization Report - PIT CS-47 for details on proposed assessment.

Proposed Groundwater Sampling

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

Refer to Soil Characterization Report - PIT CS-47 for details on proposed assessment.

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: 19
Number of soil samples exceeeding 910-1: 8
Was the areal and vertical extent of soil contamination delineated? Yes
Approximate areal extent (square feet): 3600

NA / ND

-- Highest concentration of TPH (mg/kg): 28150
-- Highest concentration of SAR: 12
BTEX > 910-1: No
Vertical Extent > 910-1 (in feet): 13

Groundwater

Number of groundwater samples collected: 13
Was extent of groundwater contaminated delineated? Yes
Depth to groundwater (below ground surface, in feet): 12`
Number of groundwater monitoring wells installed: 1
Number of groundwater samples exceeding 910-1: 0

-- Highest concentration of Benzene (µg/l): 0.65
-- Highest concentration of Toluene (µg/l): 0.56
ND Highest concentration of Ethylbenzene (µg/l):
ND Highest concentration of Xylene (µg/l):
NA Highest concentration of Methane (mg/l):

Surface Water

0 Number of surface water samples collected
0 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?

Please refer to attached "Soil and Groundwater Characterization Report – Pit CS-47B, No. 10501, Facility ID: 102571, Rangely Weber Station 47, Rio Blanco County, Colorado" dated April 10, 2018

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

MW-2, which is located hydraulically upgradient of observed hydrocarbon impacts to soil. Please refer to attached "Soil and Groundwater Characterization Report – Pit CS-47B, No. 10501, Facility ID: 102571, Rangely Weber Station 47, Rio Blanco County, Colorado" dated April 10, 2018

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

Volume of solid waste (cubic yards): 1
Volume of liquid waste (barrels): 1

☒ Is further site investigation required?

Please refer to attached "Soil and Groundwater Characterization Report – Pit CS-47B, No. 10501, Facility ID: 102571, Rangely Weber Station 47, Rio Blanco County, Colorado" dated April 10, 2018

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.

Currently assessing the vertical and horizontal extents of hydrocarbons in soil. Following assessment, a remedial action plan will be developed describing the approach to remediate hydrcarbon impacts.

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 assessing the vertical and horizontal extents of hydrocarbons in soil. Following assessment, a remedial action plan will be developed describing the approach to remediate hydrcarbon impacts.

Soil Remediation Summary

☐ **In Situ**

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

☐ **Ex Situ**

- ____ Excavate and offsite disposal
  - If Yes: Estimated Volume (Cubic Yards) ____
  - Name of Licensed Disposal Facility or COGCC 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.

REMEDIATION 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: _____

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.

TBD

Is the described reclamation complete? _____

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. _____

Actual Spill or Release date, if known. _____

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 05/15/2017

Date of commencement of Site Investigation. 05/15/2017

Date of completion of Site Investigation. 12/13/2017

REMEDIAL ACTION DATES

Date of commencement of Remediation. _____

Date of completion of Remediation. _____

SITE RECLAMATION DATES

Date of commencement of Reclamation. _____

Date of completion of Reclamation. _____

OPERATOR COMMENT

Attention: Kris Neidel
(970) 871-1963
(970) 846-5097 (cell)
(970) 879-5327 (fax)
kris.neidel@state.co.us

Please refer to attached “Soil and Groundwater Characterization Report – Pit CS-47B, No. 10501, Facility ID: 102571, Rangely Weber Station 47, Rio Blanco County, Colorado” dated April 10, 2018

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

Signed:` Christopher Beall Title: Associate Geologist

Submit Date:` 04/10/2018 Email: Christopher.Beall@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: KRIS NEIDEL Date: 05/21/2018

Remediation Project Number: 10501

COA Type	Description

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
401602419	FORM 27-SUPPLEMENTAL-SUBMITTED
401602427	SITE INVESTIGATION REPORT

Total Attach: 2 Files

General Comments

User Group	Comment	Comment Date
Environmental	All soils and groundwater should comply with COGCC table 910-1.	05/21/2018
Environmental	This report does not propose a plan to resolve the groundwater and subsurface contamination, approval of this document is ONLY acceptance of the data.	05/18/2018
Environmental	Table 5 reports detectable Hydrocarbon in Groundwater. The table does not identify the hydrocarbon as an exceedance.	05/18/2018

Total: 3 comment(s)