

State of Colorado
Oil and Gas Conservation Commission



1120 Lincoln Street, Suite 801, Denver, Colorado 80203 (303)894-2100 Fax:(303)894-2109

#70

FOR OGCC USE ONLY

RECEIVED
4/29/2014

SITE INVESTIGATION AND REMEDIATION WORKPLAN

This form shall be submitted to the Director for approval prior to the initiation of site investigation and remediation activities. Form 27 is intended to be used whenever possible. Additional documentation will be required when large volumes of soil and groundwater have been impacted or involve large facilities with multiple source areas. See Rule 910. Attach as many pages as needed to fully describe the proposed work.

CAUSE OF CONDITION BEING INVESTIGATED AND REMEDIATED

Spill or Release Plug & Abandon Central Facility Closure Site/Facility Closure Other (describe): On-going Investigation and Remediation

OGCC Employee:

Spill Complaint
 Inspection NOAV

Tracking No:

OGCC Operator Number: <u>16700</u>	Contact Name and Telephone: <u>Marcelo Barberis</u>
Name of Operator: <u>Chevron USA Inc</u>	No: <u>713-372-0289</u>
Address: <u>1400 Smith Street, Room 07084</u>	Fax: <u>bmal@chevron.com</u>
City: <u>Houston</u> State: <u>TX</u> Zip: <u>77002</u>	
API Number: <u>COGCC Project No. 70</u>	County: <u>Rio Blanco</u>
Facility Name: <u>Wilson Creek</u>	Facility Number: <u>93352</u>
Well Name: <u>Wilson Creek Unit 16</u>	Well Number: <u>NA</u>
Location: (QtrQtr, Sec, Twp, Rng, Meridian): <u>E/2, SE/4, 27, 3 North, 94 West, 06</u> Latitude: <u>NA</u> Longitude: <u>NA</u>	

TECHNICAL CONDITIONS

Type of Waste Causing Impact (crude oil, condensate, produced water, etc): Crude, Condensate, Produced Water

Site Conditions: Is location within a sensitive area (according to Rule 901e)? Y N If yes, attach evaluation.

Adjacent land use (cultivated, irrigated, dry land farming, industrial, residential, etc.): E&P, recreation (BLM), ranching

Soil type, if not previously identified on Form 2A or Federal Surface Use Plan: _____

Potential receptors (water wells within 1/4 mi, surface waters, etc.): Wilson Creek

Description of Impact (if previously provided, refer to that form or document):

Impacted Media (check):	Extent of Impact:	How Determined:
<input type="checkbox"/> Soils	<u>Refer to attached scope of work.</u>	_____
<input type="checkbox"/> Vegetation	<u>Refer to attached scope of work.</u>	_____
<input type="checkbox"/> Groundwater	<u>Refer to attached scope of work.</u>	_____
<input type="checkbox"/> Surface Water	<u>Refer to attached scope of work.</u>	_____

REMEDIATION WORKPLAN

Describe initial action taken (if previously provided, refer to that form or document):
Refer to attached scope of work dated April 4, 2014:
"2014 Proposed Work Plan for the Chevron North America Exploration and Production Company, Wilson Creek Unit, Rio Blanco County, Colorado. COGCC Project No. 70"

Describe how source is to be removed:
Refer to attached scope of work dated April 4, 2014:
"2014 Proposed Work Plan for the Chevron North America Exploration and Production Company, Wilson Creek Unit, Rio Blanco County, Colorado. COGCC Project No. 70"

Describe how remediation of existing impacts is to be accomplished, including removal and disposal at an injection well or licensed facility, land treatment on site, removal of impacted groundwater, insitu bioremediation, burning of oily vegetation, etc.:
Refer to attached scope of work dated April 4, 2014:
"2014 Proposed Work Plan for the Chevron North America Exploration and Production Company, Wilson Creek Unit, Rio Blanco County, Colorado. COGCC Project No. 70"



Tracking Number: Name of Operator: OGCC Operator No: Received Date: Well Name & No: Facility Name & No:

REMEDIATION WORKPLAN (Cont.)

OGCC Employee:

If groundwater has been impacted, describe proposed monitoring plan (# of wells or sample points, sampling schedule, analytical methods, etc.):

Refer to attached scope of work dated April 4, 2014:

"2014 Proposed Work Plan for the Chevron North America Exploration and Production Company, Wilson Creek Unit, Rio Blanco County, Colorado. COGCC Project No. 70"

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. Use additional sheet for description if required.

Refer to attached scope of work dated April 4, 2014:

"2014 Proposed Work Plan for the Chevron North America Exploration and Production Company, Wilson Creek Unit, Rio Blanco County, Colorado. COGCC Project No. 70"

Attach samples and analytical results taken to verify remediation of impacts. Show locations of samples on an onsite schematic or drawing.

Is further site investigation required? [] Y [] N If yes, describe:

Refer to attached scope of work dated April 4, 2014:

"2014 Proposed Work Plan for the Chevron North America Exploration and Production Company, Wilson Creek Unit, Rio Blanco County, Colorado. COGCC Project No. 70"

Final disposition of E&P waste (landtreated and disposed onsite, name of licensed disposal facility, recycling, reuse, etc.):

Refer to attached scope of work dated April 4, 2014:

"2014 Proposed Work Plan for the Chevron North America Exploration and Production Company, Wilson Creek Unit, Rio Blanco County, Colorado. COGCC Project No. 70"

IMPLEMENTATION SCHEDULE

Date Site Investigation Began: Date Site Investigation Completed: Date Remediation Plan Submitted: Remediation Start Date: Anticipated Completion Date: Actual Completion Date:

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

Print Name: Christopher Beall (Stantec) Signed: [Signature] Title: Associate Geologist Date: 04/04/14

OGCC Approved: Title: Date:



Stantec Consulting Services Inc.
2000 South Colorado Boulevard, Suite 2-300, Denver CO 80222

April 4, 2014
File: 212201118

Attention: Mr. Chris Canfield, P.G.

State of Colorado Oil and Gas
Conservation Commission
707 Wapiti Court
Suite 204
Rifle, CO 81650

Reference: 2014 Proposed Work Plan for the Chevron North America Exploration and Production Company, Wilson Creek Unit, Rio Blanco County, Colorado. COGCC Project No. 70

Dear Mr. Canfield,

Stantec Consulting Services Inc. (Stantec) and Chevron Environmental Management Company (CEMC) are proposing the following investigations and remedial activities at the Wilson Creek Unit in 2014. This letter is to serve as a basic work plan for 2014. Work plans with additional details may be submitted to the State of Colorado Oil and Gas Conservation Commission (COGCC) as necessary based on changes in scope.

Primary 2014 activities:

- Continue annual groundwater monitoring in place of semi-annual groundwater monitoring as recommended in the 2013 Annual BTEX Groundwater Plume Monitoring and Sampling Report - Wilson Creek Unit, dated March 21, 2014 and as detailed in Table 1 (attached).
 - Groundwater samples will be analyzed for benzene, toluene, ethylbenzene, and xylene (BTEX) using United States Environmental Protection Agency (EPA) Method 8021B.
 - Wells with phase-separated hydrocarbon (PSH) will not be sampled.
 - Purge water generated from well development or groundwater sampling activities may be managed on-site in three ways:
 - Groundwater may be returned to the formation via the same well bore from which it was extracted; or,
 - Groundwater may be solidified using soil from the landfarm and assimilated into that landfarm; or,



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Reference: 2014 Proposed Work Plan for the Chevron North America Exploration and Production Company, Wilson Creek Unit, Rio Blanco County, Colorado. COGCC Project No. 70

- Groundwater may be added into the Class II Underground Injection Control (UIC) disposal system operated on-site by Chevron North America Exploration and Production Company (Chevron).
 - Decontamination water generated from well development or groundwater sampling activities may be managed on-site in two ways:
 - Decontamination water may be solidified using soil from the landfarm and assimilated into that landfarm; or,
 - Decontamination water may be added into the Class II UIC disposal system operated on-site by Chevron.
- Continue annual surface water sampling from the drainage associated with Wilson Creek in place of semi-annual groundwater monitoring as recommended in the 2013 Annual BTEX Groundwater Plume Monitoring and Sampling Report - Wilson Creek Unit, dated March 21, 2014 and as detailed in Table 1 (attached). All three locations (SW-1, SW-2, and Pond-1) are up-gradient from Wilson Creek proper.
 - Surface water samples will be analyzed for BTEX using EPA Method 8021B.
- Continue to suspend operations of Air Sparge System #1 (Trench #2 and Trench #3) during 2014 to allow for continued evaluation of system effectiveness.

In addition, CEMC may elect to perform other site abandonment, documentation, and investigation activities if opportunities to address site impacts arise. Details regarding the scope of work for these potential abandonment, documentation, and investigation activities will be submitted to the COGCC prior to implementation.



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**Reference: 2014 Proposed Work Plan for the Chevron North America Exploration and Production Company,
Wilson Creek Unit, Rio Blanco County, Colorado. COGCC Project No. 70**

Your approval of the proposed activities is requested. Should you have any questions, please contact Marcelo Barberis with CEMC at 713-372-0289 (bmal@chevron.com) or me at 970-214-1126 (christopher.beall@stantec.com).

Regards,

STANTEC CONSULTING SERVICES INC.

Christopher Beall, P.G.
Associate Geologist
Phone: (303) 285-4541
Fax: (303) 7584828
Christopher.Beall@stantec.com

Attachment: Table 1

c. Marcelo Barberis, CEMC
Fairl Dixon, Chevron
Tom Madsen, Stantec

Table 1
2014 Proposed Groundwater and Surface Water Sampling Locations
Wilson Creek Unit,
Rio Blanco County, Colorado
COGCC Project No. 70

September - 2014		
MW-1	MW-20	MW-40
MW-2	MW-21	MW-42
MW-3	MW-22R	MW-43
MW-4	MW-23	MW-44
MW-5	MW-25	MW-45
MW-6	MW-26	MW-46
MW-7	MW-27	MW-47A
MW-8	MW-28	SVE-1
MW-9	MW-29	SVE-2
MW-10	MW-30	SW-1
MW-11	MW-31	SW-2
MW-12	MW-32	Pond-1
MW-13	MW-33	
MW-14	MW-34	
MW-15	MW-35	
MW-16	MW-36	
MW-17	MW-37	
MW-18	MW-38	
MW-19	MW-39	
(50 Locations)		