

# State of Colorado Oil and Gas Conservation Commission

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FOR OGCC USE ONLY  
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REM 9146

## 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): \_\_\_\_\_

OGCC Employee  
☒ Spill ☐ Complaint  
☐ Inspection ☐ NOAV  
Tracking No: 400812766

OGCC Operator Number: <u>96155</u>	Contact Name and Telephone: _____
Name of Operator: <u>Whiting Oil &amp; Gas Corporation</u>	<u>Kyle Waggoner</u>
Address: <u>1700 Broadway Ste 2300</u>	No: <u>970-407-3008</u>
City: <u>Denver</u> State: <u>CO</u> Zip: <u>80290</u>	Fax: <u>432-686-6586</u>
API Number: <u>05-123-15596</u>	County: <u>Weld</u>
Facility Name: _____	Facility Number: <u>441208 328137</u>
Well Name: <u>Nelson Ranches #C-1</u>	Well Number: _____
Location: (QtrQtr, Sec, Twp, Rng, Meridian): <u>NWSE, 18, 10N, 58W, 6PM</u>	Latitude: <u>40.836343</u> Longitude: <u>-103.905900</u>

### TECHNICAL CONDITIONS

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

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.): Rangeland

Soil type, if not previously identified on Form 2A or Federal Surface Use Plan: Kim-Mitchell complex 0-6% slopes

Potential receptors (water wells within 1/4 mi, surface waters, etc.): none within 1/4 mile

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

Impacted Media (check):	Extent of Impact:	How Determined:
<input checked="" type="checkbox"/> Soils	Full extent unknown; known extent approx. 125x65x10 ft	soil borings
<input type="checkbox"/> Vegetation	_____	_____
<input type="checkbox"/> Groundwater	_____	_____
<input type="checkbox"/> Surface Water	_____	_____

### REMEDIAL WORKPLAN

Describe initial action taken (if previously provided, refer to that form or document):

Form 19 (Document # 400817070) previously submitted. Initial action included repairing loose union, liquid was contained and impacted soil was excavated. Confirmatory soil borings indicate impact remains which needs to be further delineated.

Describe how source is to be removed:

Further soil borings are needed to delineate extent of impacts. Following delineation, several remedial options will be considered.

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.:

Several remedial options are being evaluated for technical and economical feasibility. It is anticipated that in-situ chemical oxidation will be utilized for remediation.



REMEDIATION WORKPLAN (Cont.)

Tracking Number:	400812766
Name of Operator:	Whiting Oil and Gas Corp.
OGCC Operator No:	96155
Received Date:	6/18/2015
Well Name & No:	Nelson Ranches C-1
Facility Name & No:	

OGCC Employee: R. Allison

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

Groundwater is not expected to be encountered.

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.

Reclamation activities at the site will be compliant with COGCC regulations.

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:

Further soil sampling is required to delineate the extent of impacts.

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

To be determined.

IMPLEMENTATION SCHEDULE

Date Site Investigation Began:	3/20/15	Date Site Investigation Completed:	ongoing	Date Remediation Plan Submitted:	
Remediation Start Date:	TBD	Anticipated Completion Date:	TBD	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: Kyle Waggoner

Signed:

Title: Field Regulatory Manager

Date:

OGCC Approved: \_\_\_\_\_ Title: Northeast EPS Date: 6/24/2015