

State of Colorado
Oil and Gas Conservation Commission



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

FOR OGCC USE ONLY

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.

OGCC Employee:
 Spill Complaint
 Inspection NOAV
 Tracking No:

CAUSE OF CONDITION BEING INVESTIGATED AND REMEDIATED

Spill or Release Plug & Abandon Central Facility Closure Site/Facility Closure Other (describe): _____

OGCC Operator Number: <u>96155</u>	Contact Name and Telephone: <u>Mark Keyes</u>
Name of Operator: <u>Whiting Oil & Gas Corporation</u>	No: <u>970-407-3007</u>
Address: <u>1700 Broadway, Suite 2300</u>	Fax: <u>432-686-6586</u>
City: <u>Denver</u> State: <u>CO</u> Zip: <u>80290</u>	

API Number: <u>05-123-38060 - 38067</u>	County: <u>Weld</u>
Facility Name: <u>Razor 27J Well Pad</u>	Facility Number: <u>434267</u>
Well Name: <u>Razor (8 Well Pad)</u>	Well Number: <u>27J</u>
Location: (QtrQtr, Sec, Twp, Rng, Meridian): <u>NWSE 27 T10N R58W</u> Latitude: <u>40.808650</u> Longitude: <u>-103.848944</u>	

TECHNICAL CONDITIONS

Type of Waste Causing Impact (crude oil, condensate, produced water, etc): 99% flowback water and 1% crude oil

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: Epping silt loam, 0-9% slopes and Kim Mitchell, 0-6% slopes

Potential receptors (water wells within 1/4 mi, surface waters, etc.): Unnamed/Intermittent drainage located approximately 1,300 feet south (down-gradient)

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	<u>50' x 20'</u>	<u>Visually/Soil Samples collected on 3/3/15 and 3/9/15</u>
<input type="checkbox"/> Vegetation	_____	_____
<input type="checkbox"/> Groundwater	_____	_____
<input type="checkbox"/> Surface Water	_____	_____

REMEDIATION WORKPLAN

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

Soil was scraped from the surface where the release occurred and placed on a liner. An earthen berm was constructed around the soil placed on the liner. Refer to the Form 19 Supplemental (Document # 400796717).

Describe how source is to be removed:

Source removal was conducted by scraping impacted soils based on staining, odors, and laboratory analytical results.

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.:

Remediation was accomplished through impacted soil removal. Confirmation soil samples were collected and analyzed for GRO, DRO, BTEX, SAR, EC, and pH. A soil shredder will be brought on-site to treat the impacted soil, which will be sampled for the analytes discussed above. Once results are below Table 910-1 (if concentration levels, the soil will be returned and recompactd on location.

FORM
27
Rev 8/99

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

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REMEDIATION WORKPLAN (Cont.)

OGCC Employee: _____

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

N/A - Groundwater was not impacted.

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.

Following on-site soil shredding activities and confirmation sampling, the clean soil will be replaced and recompacted on location. The site will be reclaimed in accordance with the COGCC 1000 series rules.

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:

Impacted soils have been scraped from the surface where the release occurred. Analytical results of confirmation soil samples show that all organic and inorganic compounds analyzed for are below their respective COGCC Table 910-1 concentration levels.

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

A soil shredder will be brought on-site to treat the impacted soil, which will be sampled for the analytes discussed above prior to being returned and recompacted on location.

IMPLEMENTATION SCHEDULE

Date Site Investigation Began: 2/13/2015 Date Site Investigation Completed: _____ Date Remediation Plan Submitted: Not Applicable
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: Rylee Waggoner Signed: [Signature]
Title: Field Regulatory Manager Date: 2/15/15

OGCC Approved: _____ Title: _____ Date: _____