

FORM
27
Rev 6/99

State of Colorado
Oil and Gas Conservation Commission

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



#8413

FOR OGCC USE ONLY

Received
4/30/2014

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): _____

OGCC Operator Number: _____	Contact Name and Telephone: _____
Name of Operator: _____	_____
Address: _____	No: _____
City: _____ State: _____ Zip: _____	Fax: _____
API Number: _____	County: _____
Facility Name: _____	Facility Number: _____
Well Name: _____	Well Number: _____
Location: (QtrQtr, Sec, Twp, Rng, Meridian): _____ Latitude: _____ Longitude: _____	

TECHNICAL CONDITIONS

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

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.): _____

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.): _____

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

Impacted Media (check):	Extent of Impact:	How Determined:
Soils	_____	_____
Vegetation	_____	_____
Groundwater	_____	_____
Surface Water	_____	_____

REMEDIATION WORKPLAN

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

Describe how source is to be removed:

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.:



REMEDIAL WORKPLAN (Cont.)

OGCC Employee: R. Allison

Tracking Number: _____
Name of Operator: Whiting Oil and Gas
OGCC Operator No: 96155
Received Date: 4/30/2014
Well Name & No: _____
Facility Name & No: Terrace Field Pits - Various

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.

The pit will be filled and graded to match adjacent topography. 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:

The results of the excavation and soil treatment will be provided under a separate cover.

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

The impacted soil will be treated on site via exsitu chemical oxidation. The treated soil will be used to backfill the excavation.

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: Kyle Waggoner

Signed: _____

Title: Environmental Compliance Specialist

Date: 5/14/14

OGCC Approved: _____

Title: Northeast EPS

Date: 5/12/2014

Condition of Approval: Confirm the latitude and longitude coordinates (decimal degrees, NAD83) of the physical location of each pit and/or tin horn investigated. Report the coordinates for each location on subsequent reports.

API Number	Facility Name	Facility Number	Well Name	Well Number	QtrQtr	Sec	Twp	Rng	Meridian	Latitude	Longitude	USGS Soil Type
05-123-19651	NELSON RANCHES A#7	251847	NELSON RANCHES	A #7	NWSE	20	10N	58W	6	40.82281	-103.888256	Haverson loam 0-3% slopes
05-123-15596	NELSON RANCHES C-1	247798	NELSON RANCHES	C-1	NWSE	18	10N	58W	6	40.83654	-103.905766	Kim-Mitchell complex 0-6% slopes
05-123-19400	BRENNAN 1	251597	BRENNAN	1	NWNW	32	10N	58W	6	40.8003	-103.895271	Kim-Mitchell complex 0-6% slopes
05-123-19668	JOHNSTON 1	251863	JOHNSTON	1	NWSW	32	10N	58W	6	40.79292	-103.896339	Haverson loam 0-3% slopes
05-123-17083	MOTIS 1-6	249281	MOTIS	1-6	SWNW	6	9N	57W	6	40.78248	-103.800081	Ascalon fine sandy loam 0-6% slopes
05-123-19445	MOTIS 2	251642	MOTIS	2	SENE	1	9N	58W	6	40.7813	-103.804787	Ascalon fine sandy loam 0-6% slopes
05-123-15051	NELSON RANCHES A-4	247254	NELSON RANCHES	A-4	NWSE	17	10N	58W	6	40.83659	-103.887355	Kim-Mitchell complex 0-6% slopes
05-123-20227	NELSON RANCHES F-1	258829	NELSON RANCHES	F-1	NWNE	30	10N	58W	6	40.81469	-103.905702	Kim-Mitchell complex 0-6% slopes
05-123-19650	UHL 1	251846	UHL	1	NWSW	29	10N	58W	6	40.80742	-103.8966	Kim-Mitchell complex 0-6% slopes
05-123-19977	UHL 2	257450	UHL	2	NWNW	29	10N	58W	6	40.81467	-103.896637	Shingle clay loam 0-9% slopes
05-123-19786	WALKER 1	89481	WALKER	1	NWNE	31	10N	58W	6	40.80023	-103.905629	Kim-Mitchell complex 0-6% slopes

Notes:

API American Petroleum Institute
 % percent
 QtrQtr Quarter Quarter
 Rng Range
 Sec Section
 Twp Township
 USGS United States Geological Survey

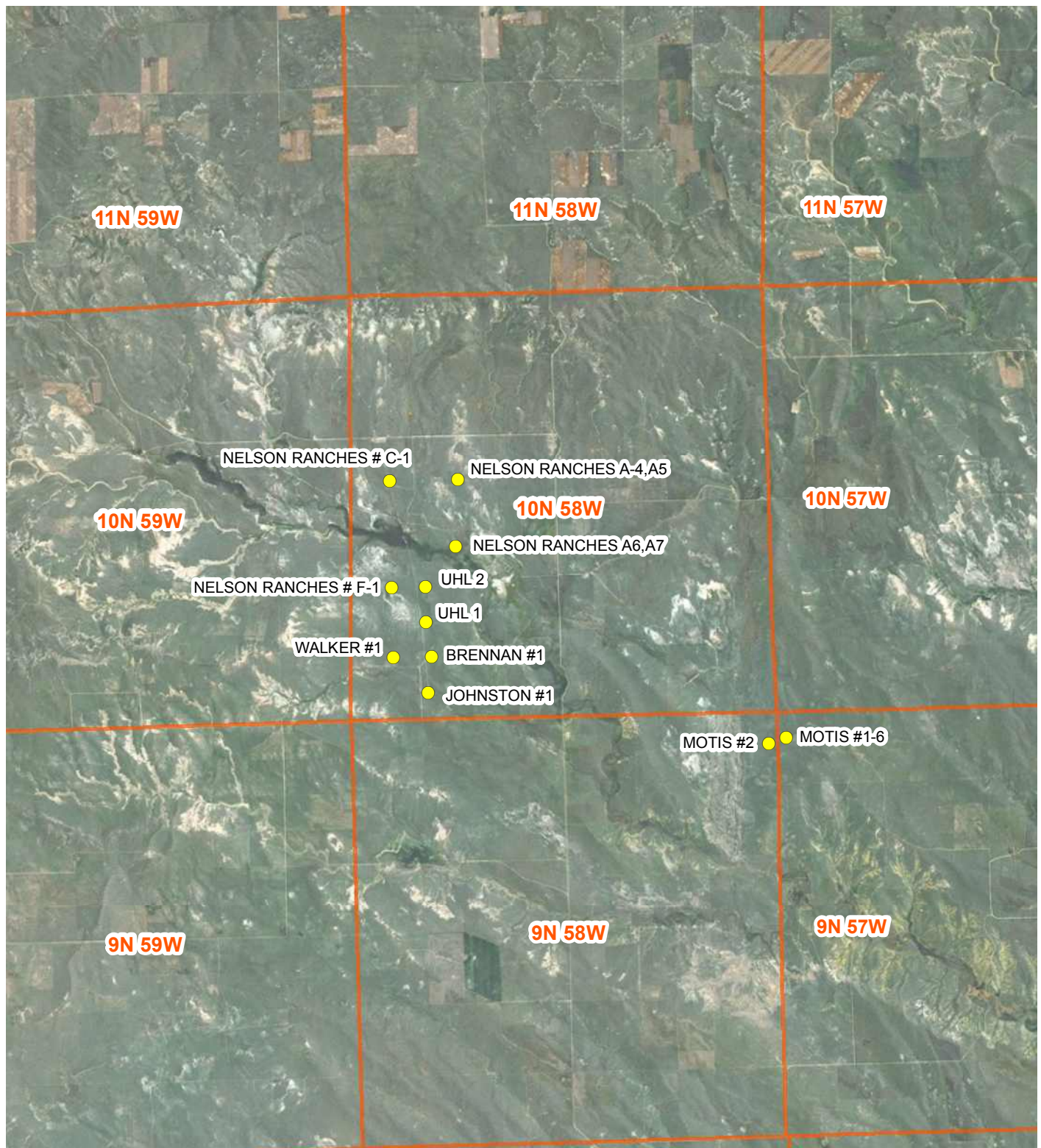


IMAGE COURTESY OF ESRI/BING MAPS

LEGEND

- SITE LOCATION
- TOWNSHIP AND RANGE

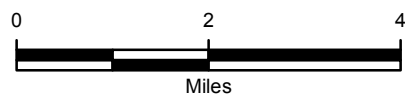


FIGURE 1
SITE LOCATION MAP
PRODUCED WATER PIT CLOSURE
WELD COUNTY, COLORADO

WHITING PETROLEUM CORPORATION

