

FORM
27
Rev 6/99State of Colorado
Oil and Gas Conservation Commission

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

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.

RECEIVED
 OCT 09 2014
COGCC

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: 10352

Name of Operator: CM Production, LLC

Address: 390 Union Boulevard, Suite 620

City: Lakewood

State: CO Zip: 80228

Contact Name and Telephone:

Mr. John Teff

No: 303.534.0199 x 207 Cell 720.299.1101

Fax: 303.479.1318

API Number: 05-121-07034

County: Washington

Facility Name: Warren* S.J. #1 62N 49W 11NW SW

Facility Number: 317041, Remediation #8179

Well Name: S.J. Warren #1

Well Number: _____

Location: (QtrQtr, Sec, Twp, Rng, Meridian): NW SW Section 11, T2N R49W 6 Latitude: 40.152639 Longitude: -102.831747

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.): cultivated, center-pivot farming

Soil type, if not previously identified on Form 2A or Federal Surface Use Plan: Keith-Kuma Complex (Unit #33)

Potential receptors (water wells within 1/4 mi, surface waters, etc.): See attached report

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

Impacted Media (check):

Extent of Impact:

How Determined:



Soils

25 feet by 25 feet by 18 feet deep

Skim Pit Excavation Oversight and Soil Sampling



Vegetation



Groundwater



Surface Water

REMEDIATION WORKPLAN

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

CM Production excavated the former skim pit at the S.J. Warren #1 site. Olsson Associates (Olsson) performed environmental oversight of the excavation and collected confirmation soil samples from the sidewalls and bottom of the excavation on August 13, 2014. See attached report.

Describe how source is to be removed:

CM Production is proposing to land treat the E&P waste impacted soils from the skim pit on location. See attached report.

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.:

Land treatment on site - See attached report.



REMEDIATION WORKPLAN (Cont.)

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

OGCC Employee: _____

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

The depth to groundwater is expect to be at depths of more than 200 feet in the area of the site based on the static water level depths reported to the Division of Water Resources for permitted water wells in the area. Groundwater was not observed in the excavation of the skim pit.

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 skim pit excavation will be filled with clean soil from an area adjacent to the site and will be compacted and restored to grade. The area from which the clean soil is obtained will be used to land treat the E&P waste impacted soils from the former skim pit, per Rule 907, to meet the COGCC Table 910-1 concentration levels for petroleum hydrocarbon constituents. See attached report.

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:

No further site investigation is required. See attached report for the locations of the confirmation soil samples.

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

The E&P waste impacted soils are to be landtreated on location. Please see attached report.

IMPLEMENTATION SCHEDULE

Date Site Investigation Began: 03/27/2014 Date Site Investigation Completed: 08/13/2014 Date Remediation Plan Submitted: 02/10/2014
Remediation Start Date: 08/13/2014 Anticipated Completion Date: 08/30/2017 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: James W. Hix - as agent for CM Production, LLC

Signed: _____

Title: Senior Geologist - Olsson Associates

Date: 10/09/2014

*James W. Hix as Agent for
CM Production, LLC*

OGCC Approved: _____ Title: _____ Date: _____