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**State of Colorado**  
**Oil and Gas Conservation Commission**

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



#7277

RECEIVED

SEP 3 - 2012

COGCC

COGCC Employee

☐ Spill ☐ Complaint  
☐ Inspection ☐ NOAV

Tracking No:

## 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): Reclaim Drilling Pits

OGCC Operator Number: 24461

Name of Operator: Diversified Operating Corporation

Address: 15000 W 6th Ave. Suite 102

City: Golden State: CO Zip: 80401

Contact Name and Telephone:

Bill Warburton

No: 303 384-9611

Fax: 303 384-9612

API Number: 05-123-31744-00

County: Weld

Facility Name:

Facility Number:

Well Name: Hillman

Well Number: 9-1

Location: (QtrQtr, Sec, Twp, Rng, Meridian): NENE Sec 9 T10N R59W 6th PM Latitude: 40.85717 Longitude: -103.97657

### TECHNICAL CONDITIONS

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

Soil type, if not previously identified on Form 2A or Federal Surface Use Plan: Bushman Fine Sandy Loam

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

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

Impacted Media (check):



Soils



Vegetation



Groundwater



Surface Water

Extent of Impact:

Small oil stain on berm

How Determined:

Visual

### REMEDIALTION WORKPLAN

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

Inspection dated 08/20/2012 Doc Number 663300450. The drilling reserve pit was used as a test pit during production testing and has a slight oil stain on the berm. The Fresh water pit, south of the reserve pit, has had no produced water or oil in it.

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.:

DOC would like to back fill the fresh water pit as soon as possible since the extremely dry weather has it dried out. DOC would like permission to remove the oil stained soil from the berm, sample the pit bottom to check for contamination and backfill the reserve pit if it passes inspection. There is minimal oil contaminated soil which will be wind rowed and treated on location. It will be spread on location once it is tested and passes the contamination criteria.



REMEDIATION WORKPLAN (Cont.)

Tracking Number: 1761345  
Name of Operator: DOC  
OGCC Operator No: 24461  
Received Date: 9/3/12  
Well Name & No: Hillman 9-1  
Facility Name & No: \_\_\_\_\_

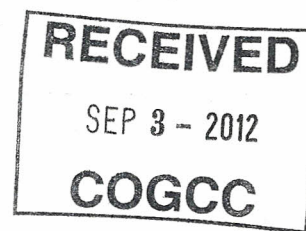
OGCC Employee: Axelsson

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

No ground water has been contaminated.

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.

Location will be leveled and seeded after the pits are backfilled.



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:

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

This is a request to landtreat the contaminated soil.

IMPLEMENTATION SCHEDULE

Date Site Investigation Began: \_\_\_\_\_ Date Site Investigation Completed: \_\_\_\_\_ Date Remediation Plan Submitted: 08/28/2012  
Remediation Start Date: 09/15/2012 Anticipated Completion Date: 08/01/2013 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: Bill Warburton

Signed: Bill Warburton

Title: Petroleum Engineer

Date: 08/28/2012

OGCC Approved: John Cohen

Title: EPS

Date: 9/13/12

See conditions of approval.



**Conditions of Approval:**

- COGCC approves backfilling the fresh water pit with the understanding that no E&P waste or produced fluids were stored in the pit;
- Prior to closure of the reserve pit, confirmation soil samples will be required from the area where the stained soil is removed on the berm and from the bottom of the pit to verify compliance with Table 910-1 standards.
- Land treatment of oily waste can be performed on site in strict accordance with COGCC Rule 907.e.(2) as follows:

*e. Oily waste. Oily waste includes those materials containing crude oil, condensate or other E&P waste, such as soil, frac sand, drilling fluids, and pit sludge that contain hydrocarbons.*

*(1) Oily waste may be treated or disposed as follows:*

- A. Disposal at a commercial solid waste disposal facility;*
- B. Land treatment onsite; or*
- C. Land treatment at a centralized E&P waste management facility permitted in accordance with Rule 908.*

*(2) Land treatment requirements:*

- A. Free oil shall be removed from the oily waste prior to land treatment.*
- B. Oily waste shall be spread evenly to prevent pooling, ponding, or runoff.*
- C. Contamination of stormwater runoff, ground water, or surface water shall be prevented.*
- D. Biodegradation shall be enhanced by disking, tilling, aerating, or addition of nutrients, microbes, water or other amendments, as appropriate.*
- E. Land-treated oily waste incorporated in place or beneficially reused shall not exceed the concentrations in Table 910-1.*
- F. When a threatened or significant adverse environmental impact from onsite land treatment exists, operators shall submit a Site Investigation and Remediation Workplan, Form 27, for approval by the Director. Treatment shall thereafter be completed in accordance with the workplan and Rules 909. and 910.*
- G. When land treatment occurs in an area not being utilized for oil and gas operations, operators shall obtain prior written surface owner approval.*

- Once the stained soil has been excavated provide COGCC the following information:
  - Total volume of contaminated soil in cubic yards;
  - Diagram depicting sample locations from reserve pit;
  - Laboratory report verifying remaining soil in reserve pit complies with Table 910-1 standards;
  - Site diagram depicting location of land treatment area;

- At a minimum the land treated material shall be sampled annually to verify degradation of the hydrocarbons and/or compliance with Table 910-1. Results shall be submitted annually with a reference to the conditionally approved Form 27 document # 1761345.
- Once confirmation sampling verifies treatment in compliance with Table 910-1 standards, the material can be reused on site.
- When Table 910-1 standards have been achieved, submit a closure request with the analytical results referencing Form 27 document #1761345.