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

#8051

FOR OGCC USE ONLY

RECEIVED 6/27/2013

OGCC 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): drill cuttings

OGCC Operator Number: 10091
Name of Operator: Berry Petroleum Company
Address: 1999 Broadway, Suite 3700
City: Denver State: CO Zip: 80202

Contact Name and Telephone:
Chris Freeman
No: 303-999-4400
Fax: 303-999-4402

API Number: 05-045-11969
Facility Name: Chevron O36B 596
Well Name: Chevron #36-1D

County: Garfield
Facility Number: 335658
Well Number: 36-1D

Location: (QtrQtr, Sec, Twp, Rng, Meridian): SW1/4 SE1/4, Sec 36 T5S R96W Latitude: Longitude:

TECHNICAL CONDITIONS

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

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 and natural gas production

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.): Parachute Creek, 600 feet east; two water well intakes are located just upgradient

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

Impacted Media (check):	Extent of Impact:	How Determined:
☑ Soils	drill cuttings & E&P waste contained within soil berm	laboratory testing
☐ Vegetation		
☐ Groundwater		
☐ Surface Water		

REMEDIATION WORKPLAN

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

Drill cuttings were excavated and tested for Table 910-1 parameters. Testing showed TPH, SAR, and arsenic above the standards.

Describe how source is to be removed:

Drill cuttings were excavated from the drilling pit, stockpiled on the well pad and enclosed by a soil berm.

Additionally, approximately 1.6 cubic yards of E&P waste (similar in composition to existing landfarm material) cleaned from separators on the Berry L-04, M-04, and D-20 pads will be land farmed on location.

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.:

Drill cuttings are being landfarmed on site within a bermed area. Landfarming treatment methods used may include mixing the cuttings with native soil/rock and/or sawdust, periodic tilling, and the addition of a nitrogen amendment. The cuttings will be periodically re-tested for the Table 910-1 standards until all parameters are below the acceptable concentrations. Treated material with SAR greater than 12 after treatment will be buried in the pit to a depth of at least three feet. Background soil samples were also collected and analyzed for arsenic in the vicinity of the pit to characterize natural soil arsenic concentrations.

Submit Page 2 with Page 1

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

REMEDIATION WORKPLAN (Cont.)

OGCC Employee:

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

There are no impacts to groundwater.

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.

After treatment is completed, and background levels of arsenic in the drill cuttings/E&P waste are demonstrated, material will be buried in the reserve pit and compacted. All cuttings with SAR greater than 12 will be buried at least three feet below the reclaimed ground surface. The remainder of the pit will be backfilled using native rock and soil and regraded to conform to the surrounding ground surface. Noxious weeds will be controlled as necessary using approved methods.

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:

Samples will be collected periodically and analyzed for the Table 910-1 parameters to evaluate the progress of remediation and to determine when treatment has been completed.

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

The remediated drill cuttings will be buried in the reserve pit as described above.

IMPLEMENTATION SCHEDULE

Date Site Investigation Began: 9/30/2010	Date Site Investigation Completed: _____	Date Remediation Plan Submitted: _____
Remediation Start Date: 9/30/2010	Anticipated Completion Date: 10/31/2013	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: Bryan Burns Signed: Bryan Burns

Title: Environmental Specialist Date: 6/27/13

OGCC Approved: Carlos Lujan, Ph.D. Title: _____ Date: _____

Digitally signed by Carlos Lujan, Ph.D.
DN: cn=Carlos Lujan, Ph.D., o=COGCC, ou=EPS NW Region, email=carlos.lujan@state.co.us, c=US
Date: 2013.10.31 17:03:34 -06'00'