FORM
27
Rev 6/99

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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

FOR OGCC USE ONLY
Received 6/29/2010 Rifle COGCC

OGCC Employee:
☒ Spill ☐ Complaint
☐ Inspection ☐ NOAV
Tracking No: 2607359

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: 16800
Name of Operator: Delta Petroleum Corporation
Address: 370 17th Street, Ste 4300
City: Denver State: CO Zip: 80202

Contact Name and Telephone:
William Monroe
No: 970-424-5230
Fax: 970-424-5233

API Number: NA
County: Mesa
Facility Name: 4A Water Pipeline 417866
Facility Number: NA
Well Name: NA
Well Number: NA
Location: (QtrQtr, Sec, Twp, Rng, Meridian): NW SW S23 T9S R93W Latitude: 39.26009 Longitude: 107.74311

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.): grazing

Soil type, if not previously identified on Form 2A or Federal Surface Use Plan: stoney clay loam

Potential receptors (water wells within 1/4 mi, surface waters, etc.): surface water (Losa Ditch, Bogue Gulch)

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

Impacted Media (check):		Extent of Impact:	How Determined:
☑	Soils	L220' x W8' x D0.5' run-out, L163' x W8' x D10' in trench.	visual observation, excavation
☑	Vegetation	220' x 8'	visual observation
☐	Groundwater		
☐	Surface Water		

REMEDIATION WORKPLAN

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

See Form 19, tracking # 2607359. Use of the pipeline was immediately discontinued until repairs are made and pipeline is lined with resistant liner. Water samples were collected upstream and downstream of the spill site on both Losa Ditch and Bogue Gulch, and soil samples were collected from the spill site, at the terminus of the run-out, and from the soils excavated from around the pipeline. Saturated and stained soil volumes were used to calculate approximate spill volume. Olsson Associates was contracted to perform site assessment, including soil and water sampling. Visual pipeline inspection was immediately conducted throughout the field.

Describe how source is to be removed:

Pipeline excavation revealed two corrosion pitting leaks, sized 3/16" and 3/8". Pipe corrosion was analyzed by Champion Technologies, and determined to be biological. The damaged section of pipeline was replaced, and will remain out of service until cleaned, treated with biocide, and corrosion resistant lining is installed. The saturated soils surrounding the pipeline were excavated, stockpiled, and sampled.

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.:

Analytical data indicate elevated SAR in soils in the run-out area of the spill, but no other parameters were above the Table 910-1 concentrations. The SAR contaminated soil will be used as pipeline bedding material at depths greater than 3' below the ground surface. Excavated soils to be used in the top 3' will be sampled for compliance with Table 910-1, and if found to be contaminated, the soils will be treated and resampled, or transported for disposal in the Mesa County Landfill. Preliminary data indicates that the Losa ditch and pond are not impacted by the leak, however, if further testing reveals contamination, the affected water will be removed for disposal at the Danish Flats facility.

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