

Rem 9706

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

FOR OGCC USE ONLY Document 2526521 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 [x] Other (describe): Cuttings management

OGCC Operator Number: 10421 Name of Operator: Petroleum Resource Management Corp. Address: 1580 Lincoln Street, Suite 635 City: Denver State: CO Zip: 80203 Contact Name and Telephone: Rick Obernolte No: (303) 660-9633 Fax: API Number: 05-081-07799 County: Moffat County Facility Name: Duncan Ranch well pad Facility Number: 436485 Well Name: Duncan Ranch 11-89-36 Well Number: 3-4 Location: (QtrQtr, Sec, Twp, Rng, Meridian): Lot 19, Section 36, T11N, R89W, 6th PM Latitude: 40.860331 Longitude: -107.325012

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 [x] N If yes, attach evaluation. Adjacent land use (cultivated, irrigated, dry land farming, industrial, residential, etc.): forested/rangeland Soil type, if not previously identified on Form 2A or Federal Surface Use Plan: Identified on Form 2A - mostly clayey loam Potential receptors (water wells within 1/4 mi, surface waters, etc.): Roaring Fork creek approximately 700 feet to the north west. Description of Impact (if previously provided, refer to that form or document): Impacted Media (check): [] Soils [] Vegetation [] Groundwater [] Surface Water Extent of Impact: How Determined:

REMEDIATION WORKPLAN

Describe initial action taken (if previously provided, refer to that form or document): PRM is requesting permission to spread and dry drill cuttings on the cut portion of the well pad immediately adjacent to the drill cuttings pit. The cuttings were dried during the drilling operation in December 2015, but subsequent snow and rain fall has wetted them. PRM would like to spread the cuttings for drying. Drying will continue for approximately two months (July and August) and cuttings burial is planned for September 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.: The cuttings will be removed from the cuttings pit and spread in the proposed cuttings drying area (110'x140') as wind rows to enhance the drying. The wind row height will not exceed 5 feet. It is estimated that 1200 cubic yards of cuttings will be dried. Attached are preliminary analyses for two drill cuttings samples taken in early June.

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

Page 2 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 have been no impacts to the environment. The operator is asking for permission to manage the drill cuttings by drying them prior to seeking approval from COGCC to permanently bury them.

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.

Updated activities proposed for remediation project 9706, Duncan Ranch well drill cuttings drying and disposal.

Drying Plan: As per discussions between COGCC and the excavation contractor during a site inspection on June 20, 2016, the drill cuttings will be spread in the approved drying area in wind rows not to exceed five (5) feet in height. A nutrient supplement (nitrogen) will be blended with the cuttings to enhance the degradation of the organic components. The drill cuttings wind rows will be tilled at least twice during the drying period to further enhance degradation of the organic components. It is anticipated that the drying period will end in late August when samples of the cuttings and the pit bottom will be obtained for laboratory analyses of the COGCC Table 910-1 parameters. The cuttings were spread and nutrient added between June 24, 2016 and June 27, 2016.

Sampling Plan: As per the Conditions of Approval (COAs) and discussions with Kris Neidel on June 23, 2016, the following sampling plan is proposed for the project. A discrete sample will be taken for laboratory analysis from every 200 cubic yards of cuttings during the late August sampling event. The current estimate for the volume of cuttings removed from the cuttings pit is 1,200 cubic yards. Based on the current estimate there will be six (6) discrete samples taken from the spread cuttings in the sampling event at the end of the drying period. At the same time three (3) discrete soil samples will be taken from the native soils along the southern edge of the drill pad (cut bank) to determine natural soil background levels. If the cuttings analyses fall below the COGCC Table 910-1 parameters then a Sundry Notice will be immediately filed requesting COGCC permission to properly bury the cuttings along the cut bank. If any of the parameters should be above the Table 910-1 limits then the results will be discussed with COGCC personnel for determination of additional remediation efforts.

Supplemental Nutrients: As per discussions with the excavation contractor it was recommended that 600 pounds of nitrogen fertilizer be blended with the 1,200 cubic yards of drill cuttings.

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 [x] N If yes, describe:

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

IMPLEMENTATION SCHEDULE

Date Site Investigation Began: Date Site Investigation Completed: Date Remediation Plan Submitted: Remediation Start Date: 06/24/2016 Anticipated Completion Date: 09/15/2016 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: Rick Oberholte Signed: Title: Agent Date: 06/28/2016

OGCC Approved: [Signature] Title: OPS Date: 7/7/16

The F27 is A update; incorporating the COA's (from initial F27), AND project Development. All Conditions of Approval from project 9706 Apply.