

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

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



received 07/08/2011  
Project 5924  
Remediation 200315116

**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): Production Pit Closure

OGCC Employee:

☐ Spill ☐ Complaint  
☐ Inspection ☐ NOAV

Tracking No:

OGCC Operator Number: 08667

Name of Operator: Petroglyph Operating Company, Inc

Address: PO Box 979

City: La Veta State: CO Zip: 81055

Contact Name and Telephone:

Tom Melland

No: 719-742-5570

Fax: 719-742-5571

API Number: 055-06254

County: Huerfano #055

Facility Name: \_\_\_\_\_

Facility Number: 263115

Well Name: MARTINEZ

Well Number: 07-15

Location: (QtrQtr, Sec, Twp, Rng, Meridian): SWSE 7 29S 66W 6 Latitude: 37.531539 Longitude: -104.820636

**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.): Non Crop Land / Rangeland / Timber

Soil type, if not previously identified on Form 2A or Federal Surface Use Plan: Olney-Progresso

Potential receptors (water wells within 1/4 mi, surface waters, etc.): Surface Water - 2439' Ground Water - 600' Water Well - 3663'

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

Impacted Media (check):

Extent of Impact:

How Determined:

☐

Soils

☐

Vegetation

☐

Groundwater

☐

Surface Water

**REMEDIATION WORKPLAN**

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

Produced water from this well was stored in pit.

Describe how source is to be removed:

Produced water is no longer being store in the pit.

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.:

Produced water will no longer be produced.



**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.):

It is not expected that the produced water stored in this pit communicated with or affected the 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.

Remaining back berm soil and native soil gathered during recontouring will be used to backfill the pit. The top 3 feet of the sides of the pit will be scraped and buried under 3 feet of overburden within the bottom of the pit. If top soil is available it will be overlain on the fill material. Additional top soil will be brought in if needed. Seeds will be planted for re-vegetation of native grasses.

**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.):

Pit is dry. Produced water will no longer be produced.

**IMPLEMENTATION SCHEDULE**

Date Site Investigation Began: 5/2011 Date Site Investigation Completed: 5/2011 Date Remediation Plan Submitted: 7/8/2011  
Remediation Start Date: Immediate Anticipated Completion Date: 3rd QTR 2011 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: Tom Melland Signed: Thomas W. Melland

Title: District Manager Date: 7/8/2011

OGCC Approved: \_\_\_\_\_ Title: \_\_\_\_\_ Date: \_\_\_\_\_

Notify COGCC when closure process is completed.

#### METALS

Analytical results demonstrate that background concentrations of arsenic (As) exceed Table 910-1 concentration levels. Analytical results demonstrate that concentrations of As in soils in the pit also exceed Table 910-1 concentration levels and the pit concentrations are less than or within analytical uncertainty of being equal to the background concentrations. The analytical results are summarized below:

METAL	BACKGROUND CONCENTRATION (MG/KG)	PIT CONTENTS, SOIL/BEDROCK BELOW PIT OR IMPACTED MEDIA (MG/KG)	TABLE 901-1 CONCENTRATION LEVELS (MG/KG)
Arsenic	2.2	1.2-3.9	0.39

COGCC and CDPHE have consulted and agree that operators do not need to request variances from CDPHE for instances where the concentrations of metals in impacted soils are equal to or less than background concentrations, but do not meet Table 910-1 concentration values. Operators must ensure that remaining pit contents are covered with a minimum of 3 feet of backfill and soil. The soil horizons must be replaced in their original relative position, and reclaimed in accordance with 1000 Series Rules.