

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



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

**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 Employee:

☐ Spill   ☐ Complaint

☐ Inspection   ☐ NOAV

Tracking No: \_\_\_\_\_

OGCC Operator Number: 46685

Name of Operator: Kinder Morgan CO2 Company

Address: 7801 Hwy 491

City: Cortez   State: CO   Zip: 81321

Contact Name and Telephone:

Bob Clayton

No: 970-799-1103

Fax: 970-882-5521

API Number: 05-083-06697

County: Montezuma

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

Facility Number: \_\_\_\_\_

Well Name: YG-1

Well Number: \_\_\_\_\_

Location: (QtrQtr, Sec, Twp, Rng, Meridian): SWNE 14 37N 18W N PM   Latitude: 37.46631   Longitude: -108.79869

**TECHNICAL CONDITIONS**

Type of Waste Causing Impact (crude oil, condensate, produced water, etc): salt water draining from 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.): Conservation Reserve Program Lands

Soil type, if not previously identified on Form 2A or Federal Surface Use Plan: Map Unit 144, Wetherill Loam, 3 to 6 percent slopes

Potential receptors (water wells within 1/4 mi, surface waters, etc.): NA

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

Impacted Media (check):

☒ Soils

☐ Vegetation

☐ Groundwater

☐ Surface Water

Extent of Impact:

1' x 50' swale draining into 6' x 6' shallow pool

NA

NA

NA

How Determined:

chloride staining of soil

**REMEDIAL WORKPLAN**

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

On September 20, 2012, COGCC staff conducted a site inspection of YG-1. The inspector identified a breach in the cuttings containment berm allowing salt water to run away from lined containment. After completion of inspection, rig operations were closed down in order to clean up the contaminated soils, and reconstruct the damaged berm. Salt water ran down a one foot by 50 foot swale into a 6 foot by 6 foot shallow pool. Water had evaporated from the puddle leaving behind white salt crystals.

**Describe how source is to be removed:**

A front end loader was utilized to remove the contaminated soil to a depth of 7 inches and 12 feet in width from the swale and shallow pool.

**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 contaminated soil was placed within lined and bermed containment adjacent to the reserve pit. Analytical samples of the cuttings, cement, and contaminated soil and were found to meet the standards of the Montezuma County solid waste disposal facility.



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.):  
NA

**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.

Per the approved COGCC Form 2A, disturbed portions of the well pad not necessary for operation and maintenance of the well would be re-counterered and roughened to blend into the surrounding terrain. In addition, a landowner approved seed mix would be applied at the appropriate time using seeding and mulching methods outlined in the required CDPHE SWMP.

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:

Analytical sampling and report is underway and will be provided to the COGCC on March 25, 2013 per the NOAV letter dated February 11, 2013.

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

Drill cuttings, cement, and contaminated soil were disposed of December 12, 2012 at the Montezuma County Solid Waste Disposal Facility. Please attached Montezuma County Solid Waste Disposal Facility Fact Sheet.

**IMPLEMENTATION SCHEDULE**

Date Site Investigation Began: \_\_\_\_\_ Date Site Investigation Completed: \_\_\_\_\_ Date Remediation Plan Submitted: \_\_\_\_\_  
Remediation Start Date: \_\_\_\_\_ Anticipated Completion Date: \_\_\_\_\_ 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: BOB CLAYTON Signed: [Signature]  
Title: SUPERINTENDENT Date: 2-18-2013

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