

State of Colorado Oil and Gas Conservation Commission



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

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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.

OGCC Employee:

☐ Spill ☐ Complaint
☐ Inspection ☐ NOAV

Tracking No:

CAUSE OF CONDITION BEING INVESTIGATED AND REMEDIATED

☐ Spill or Release ☐ Plug & Abandon ☐ Central Facility Closure ☐ Site/Facility Closure ☒ Other (describe): Response to NOAV 200425334

OGCC Operator Number: 46290

Name of Operator: KP Kauffman Company

Address: 1675 Broadway Suite 2800

City: Denver

State: CO Zip: 80202

Contact Name and Telephone:

Susana Lara-Mesa

No: 303-825-4822

Fax: 303-825-4825

API Number: 05-123-07787

County: WELD

Facility Name:

Facility Number: 239999

Well Name: AMOCO-CHARTER SCHNEIDER

Well Number: Unit B #6

Location: (QtrQtr, Sec, Twp, Rng, Meridian): SENE 33 1N 67W 6

Latitude: 40.009358 Longitude: -104.888332

TECHNICAL CONDITIONS

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

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.): Mixed, Agricultural & Residential

Soil type, if not previously identified on Form 2A or Federal Surface Use Plan: Weld loam, 1 to 3 percent slope

Potential receptors (water wells within 1/4 mi, surface waters, etc.): 12 water wells. Permits attached

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

Impacted Media (check):

Extent of Impact:

How Determined:



Soils



Vegetation



Groundwater

Unknown

TBD



Surface Water

REMEDIALATION WORKPLAN

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

After request from Diana Burn on June 11, 2014, witnessed Bradenhead test were performed on June 26, 2014 on 12 wells (Form 17 attached) after the inspector came back from vacation. As shown on the Form 17, none of these wells had any Bradenhead pressure. After being notified and pursuant to COGCC Staff request, KPK started supplying potable water to Mr. Tom Morton on February 27, 2015. On February 27, 2015 gas samples were collected from all four wells via needle valve installed at the wellhead and connected to the casing string. A sample cylinder is threaded onto the needle valve which is then opened and the sample cylinder is filled, then purged three (3) times before collecting the actual sample. Once the gas sample has been collected, a temperature reading of the gas is measured using a laser thermometer. These samples are being analyzed for composition at a certified laboratory following GPA 2286 procedure. Further samples will be collected upon approval of this work plan and a full compositional and isotopic analysis will be performed following the recommendation from DIG. Additionally, a workover rig was moved on February 26, 2015 to start pulling rods and tubing on the Amoco-Charter Schneider Unit B #6 in order to run a CBL and perform a mechanical integrity test on this well. A workover rig will move to the remaining three wells upon approval of this plan to commence logging and casing integrity operations. Workover, recompletion, remediation and other downhole records will be submitted via Form 4 as requested by Chris Canfield during a meeting held on March 2, 2015.

Describe how source is to be removed:

If proven that cement coverage is deficient according to current rules (317Aa and 317j) in the Amoco-Charter Schneider Unit B #6, Amoco-Charter Schneider #12, Seltzer 1-A, and Wagner A-2, KPK will immediately remediate the well(s) upon approval of Form 4 by the COGCC in order to ensure 200' of cement coverage above the Sussex and 50' below the base of the Fox Hills. KPK will also perform a MIT in order to determine casing integrity. If the well(s) is(are) able to hold 300 psi of casing pressure, any potential leak can be isolated and the well will be repaired with cement upon approval of Form 4 by the COGCC.

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.:

If necessary, a remediation plan will be submitted for COGCC review and approval upon completion of the investigation and removal and/or control of any sources discovered.



Tracking Number: _____
Name of Operator: K.P. Kauffman Company
OGCC Operator No: 46290
Received Date: _____
Well Name & No: Amoco-Charter Schneider Unit B #6
Facility Name & No: 239999

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REMEDIATION WORKPLAN (Cont.)

OGCC Employee: Chris Canfield

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

KPK will continue to monitor the complainant's well quarterly and will monitor the surrounding wells (Morelli, No. 752947 and Lockard, No. 753680) annually until determined that the water quality is in compliance with current rules, or until it is proven that the wells owned and operated by KPK are not the source of contamination. Testing method and analysis is described below. All laboratory analysis will be submitted to the COGCC upon completion. KPK reiterates that the filing of this Form 27 is not an admission of any liability regarding potential groundwater impact and KPK reserves any rights to amend, delete, or supplement the information contained herein and to dispute, rebut or otherwise respond to any additional materials or data that may be submitted by the COGCC.

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.

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:

KPK will collect gas samples at the wellhead of each well via needle valve connected to the casing string. These samples will be analyzed for composition and isotopic makeup following. Gas compositional analysis will be performed by Gas Chromatography (GC) follows GPA standard 2261-00. The carbon isotope analysis of hydrocarbon gases will be performed by online GC Combustion Isotope Ratio Mass Spectrometry (GC-C-IRMS) and hydrogen isotope analysis by online GC Pyrolysis Isotope Ratio Mass Spectrometry (GC-P-IRMS) following published procedures (Dumke et al. 1989, Anal. Chem. 61: 2149-2154), with multi-point calibration. KPK has engaged DIG to perform these tests. Water sampling will be performed by APEX Consulting and the testing will be performed by Accutest Laboratories. The water wells will be analyzed following Rule 609e(2). If free or dissolved gas is found at concentrations greater than 1.0 mg/l, such gas will be analyzed for isotopic makeup following procedures described above. The following methods will be used for water analysis: BTEX (SW846 8260B), TPH-GRO (SW846 8015B, SW846 3510C), Methane, Ethane, and Propane (RSK175MOD), Dissolved Metals (EPA 200.7, EPA 200.8), General Chemistry (SM 2320B-2011, EPA 300.0/SW846 9056, SM 2540C-2011, SM 2510B-2011, SM4500HB+-2011/9040C).

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

E&P waste will be managed in accordance with COGCC 900 Series Rules

IMPLEMENTATION SCHEDULE

Date Site Investigation Began: 02-25-2015 Date Site Investigation Completed: _____ Date Remediation Plan Submitted: 03-05-2015
Remediation Start Date: 02-26-2015 Anticipated Completion Date: 05-01-2015 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: Susana Lara-Mesa

Signed: [Signature]

Title: VP Engineering

Date: 03-05-2015

OGCC Approved: _____ Title: _____ Date: _____