August 31, 2006

VIA EMAIL

Mr. Larry Johnson
Environmental Engineer
Oil Conservation Division
New Mexico Energy, Minerals and Natural Resources Department
1625 N. French Drive
Hobbs, New Mexico 88240

Re: Investigation Work Plan, Ram Services Inc., Jal Spill at Cimarex Energy Co. Winningham No. 9 Well, Unit Letter B (NW/4, NE/4), Section 30, Township 25 South, Range 37 East, Lea County, New Mexico (Latitude: N 32°, 06.411', Longitude: W 103°, 11.980')

Dear Mr. Johnson:

Ram Services Inc. (Ram) has retained Ocotillo Environmental, LLC (Ocotillo) to investigate and remediate impacts to soil from a spill that occurred at the Cimarex Energy Co. Winningham No. 9 well (site) on August 22, 2006. Approximately 60 barrels of well residue was spilled at the well site located in the northwest quarter (NW/4) of the northeast quarter (NE/4), Section 30, Township 25 South, Range 37 East, Lea County, New Mexico, when a valve was knocked open on the vacuum truck containing the residue. No fluids were recovered. A C-141 was submitted to the New Mexico Oil Conservation Division (NMOCD) on August 28, 2006, a copy of which is attached. Figure 1 shows the site location.

Based on published literature (1961), well records of the New Mexico State Engineer (NMSE), and well records from the United States Geological Service (USGS) database, groundwater occurs at approximately 187 feet below ground surface (bgs) in wells located nearest the site. No domestic water wells or surface water bodies are located within 1,000 feet of the site. The NMOCD has established soil remediation action levels (RRAL) for benzene, total BTEX and TPH resulting from spills of natural gas liquids ("Guidelines for Remediation of Leaks, Spills and Releases, August 13, 1993"). Remediation levels for benzene, total BTEX and TPH were calculated using the following NMOCD criteria:

Criteria	Result	Ranking Score
Depth-to-Groundwater	>100 Feet	0
Wellhead Protection Area	No	0
Distance to Surface Water Body	>1000 Horizontal Feet	0
		Total: 0

The following RRALs have been assigned based on NMOCD criteria:

Benzene	**10 mg/kg**
Total BTEX	**50 mg/kg**
TPH	**5,000 mg/kg**

The NMOCD does not have an RRAL for chloride, but typically recommends an RRAL of 1,000 mg/kg if groundwater is greater than 100 feet in depth.

Proposed Investigation

Ocotillo proposes to collect soil samples using an air rotary drilling rig to assess the horizontal and vertical limits of the spill for defining the area of remediation. Approximately 18 soil borings will be drilled at the Site, to a depth of approximately 20 feet below ground surface (bgs). Samples will be collected from the surface and every five (5) feet thereafter (i.e., 0-1', 5-6', 10-11', etc.), placed in clean glass sample jars, labeled, chilled in an ice chest and delivered under chain-of-custody control to Environmental Lab of Texas, located in Odessa, Texas, for laboratory analysis. Sampling equipment will be thoroughly cleaned between uses to minimize cross-contamination, and the borings will be filled with bentonite upon completion. Figure 2 shows the boundary of the spill and the proposed boring locations.

A portion of each sample will be collected in a separate glass sample jar for soil headspace gas analysis using the ambient temperature headspace (ATH) method. The ATH method involves placing a soil sample in a clean glass sample jar to approximately ¾ full, sealing the top of the jar with aluminum foil before replacing the cap. After approximately 15 minutes at ambient temperature the concentration of organic vapors in the headspace of the sample jar is measured with a photoionization detector (PID). The probe of the PID is passed through the aluminum foil and measures the concentration of ionizable hydrocarbons in the headspace vapors. The NMOCD allows a PID measurement of 100 parts per million (ppm) or less to be substituted for a laboratory analysis of benzene, toluene, ethylbenzene, and xylene (commonly referred to as BTEX). The NMOCD requires laboratory confirmation for BTEX when a PID measurement exceeds 100 ppm. Headspace analysis cannot replace a laboratory analysis for total petroleum hydrocarbons (TPH). All samples collected from each boring will be analyzed for chlorides, and the sample from each boring that exhibits the highest PID reading will be analyzed for TPH. The samples will also be analyzed for BTEX if PID readings exceed 100 ppm.

The laboratory analyses from samples collected from the soil borings will be compared to the RRALs established by the NMOCD to determine the need for and/or extent of remediation. A geologic log will be prepared for each boring, and an Investigation Report and Remediation Plan will be submitted to the NMOCD. Notification will be given to the NMOCD at least 48 hours in advance of any investigation activities.

If you should have any questions, please contact Mr. Clint Widner with Ram at (505) 395-3502 or myself at (505) 441-7244. I can also be reached by e-mail at cindy.crain@gmail.com.

Sincerely,
Ocotillo Environmental, LLC.

Cindy K. Crain, P.G.
Environmental Manager

CC: Mr. Brad Roberts, Ram Services

C141 DOCUMENTATION

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company Ram Services, Inc.	Contact Clint Widner
Address PO Drawer 1245 Jal, NM	Telephone No. 505 631-8886
Facility Name Ram Truck Yard	Facility Type

Surface Owner G. Fulfer	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
B	30	25-S	37-E	660	North Line	980	East Line	Lea

188'

Latitude _____ Longitude _____

NATURE OF RELEASE

Type of Release WORK OVER FLUID	Volume of Release 60 BBL / Volume Recovered NONE
Source of Release VACUUM TRUCK	Date and Hour of Occurrence 8-22-06 / Date and Hour of Discovery 8-23-06 Noon
Was Immediate Notice Given? ☐ Yes ☒ No ☐ Not Required	If YES, To Whom?
By Whom?	Date and Hour
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

OPEN VAIVES ON VACUUM TRUCK

Describe Area Affected and Cleanup Action Taken.*

ORDERED BY STATE TROOPER-OFFICER SAYNES FIRST RESPONDER. COVER FLUIDS THAT WAS LEFT ON SOIL - on Location

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: Clint Widner	OIL CONSERVATION DIVISION
Printed Name: Clint Widner	Approved by District Supervisor: ENVIRENGR
Title: Station Manager	Approval Date: 5-29-07 Expiration Date: 8-29-07
E-mail Address:	Conditions of Approval: FINAL C-141 w/ ATTACHMENTS Attached ☐
Date: 8-28-06 Phone: 505 631-8886	

* Attach Additional Sheets If Necessary

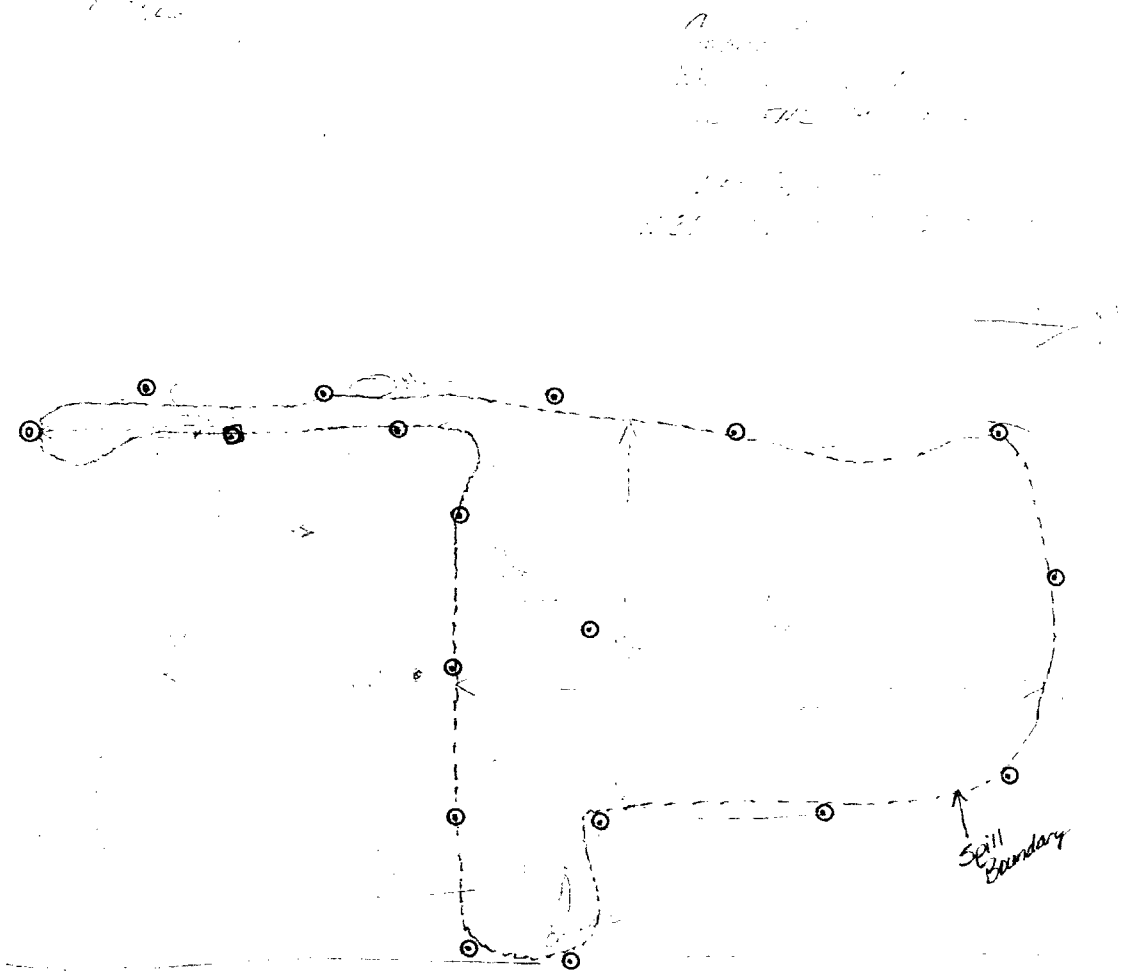
NOTE: HH COMPLETED THIS SITE

incident - nPAC0715132579
application - pPAC0715132721

RP#1377

30025286370000

FIGURES



Legend

--- Spill Boundary

⊙ Proposed Soil Boring Location

FIGURE 2
Lea County, NM
Site Location
Ram Services, Inc.
Jal Spill