

*Denny S. Faust*  
DEPUTY OIL & GAS INSPECTOR

MAY 04 1998

JICARILLA APACHE TRIBE  
ENVIRONMENTAL PROTECTION OFFICE  
P.O. BOX 507  
DULCE, NEW MEXICO 87528

CA412

SUBMIT 1 COPY TO  
NATURAL RESOURCE DEPT  
AND OIL & GAS ADMINISTRATION

PIT REMEDIATION AND CLOSURE REPORT

*Approved*

Operator: CONOCO, INC. Telephone: (505) 324-5884  
Address: 3315 Bloomfield Hwy., Farmington, NM 87401  
Facility or Well Name: JICARILLA K # 15E  
Location: Unit or Qtr/Qtr Sec A Sec 1 T25N R5W County RIO ARriba  
Pit Type: Separator X Dehydrator      Other       
Land Type: RANGE

Pit Location: Pit dimensions: length 37', width 40', depth 17'  
(Attach diagram) Reference: wellhead X, other       
Footage from reference: 125'  
Direction from reference: 53 Degrees X East of North       
     West      South X

<b>Depth To Groundwater:</b> (Vertical distance from contaminants to seasonal high water elevation of groundwater)	Less than 50 feet 50 feet to 99 feet Greater than 100 feet	(20 points) (10 points) ( 0 points)	<u>0</u>
<b>Distance to an Ephemeral Stream</b> (Downgradient dry wash greater than ten feet in width)	Less than 100 feet Greater than 100 feet	(10 points) ( 0 points)	<u>0</u>
<b>Distance to Nearest Lake, Playa, or Watering Pond</b> (Downgradient lakes, playas and livestock or wildlife watering ponds)	Less than 100 feet Greater than 100 feet	(10 points) ( 0 points)	<u>0</u>
<b>Wellhead Protection Area:</b> (Less than 200 feet from a private domestic water source, or: less than 1000 feet from all other water sources)	Yes No	(20 points) ( 0 points)	<u>0</u>
<b>Distance To Surface Water:</b> (Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, irrigation canals and ditches)	Less than 100 feet 100 feet to 1000 feet Greater than 1000 feet	(20 points) (10 points) ( 0 points)	<u>0</u>

RANKING SCORE (TOTAL POINTS): 0

Date Remediation Started: 8-17-95 Date Completed: \_\_\_\_\_

Remediation Method: Excavation ☒ Approx. cubic yards 700  
 (check all appropriate sections) Landfarmed ☒ Insitu Bioremediation \_\_\_\_\_  
 Other \_\_\_\_\_

Remediation Location: Onsite ☒ Offsite \_\_\_\_\_  
 (i.e. landfarmed onsite, name and location of offsite facility)

General Description of Remedial Action: Excavation, MOST OF EXCAVATION CONSIST  
OF SHALE BEDROCK.

Groundwater Encountered: No ☒ Yes \_\_\_\_\_ Depth \_\_\_\_\_

Final Pit: Sample location see Attached Documents  
 Closure Sampling: \_\_\_\_\_  
 (if multiple samples, attach sample results and diagram of sample locations and depths) Sample depth \_\_\_\_\_

Sample date 8/21/96 Sample time 1015

Sample Results

Soil: Benzene	(ppm)	_____	Water: Benzene	(ppb)	_____
Total BTEX	(ppm)	_____	Toluene	(ppb)	_____
Field Headspace	(ppm)	<u>5.2</u>	Ethylbenzene	(ppb)	_____
TPH	(ppm)	_____	Total Xylenes	(ppb)	_____

Groundwater Sample: Yes \_\_\_\_\_ No ☒ (If yes, attach sample results)

I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF

DATE 8-21-96 PRINTED NAME Jeffrey C. Blagg, P.E. #11607

SIGNATURE Jeffrey C. Blagg AND TITLE President

AFTER REVIEW OF THE PIT CLOSURE INFORMATION, PIT CLOSURE IS APPROVED IN ACCORDANCE TO THE JICARILLA APACHE TRIBE PIT CLOSURE ORDINANCE.

APPROVED: YES ☒ NO \_\_\_\_\_ (REASON) \_\_\_\_\_

SIGNED: Kevin C. Mammill DATE: 8-21-96

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CLIENT: <u>CONOCO</u>	BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	LOCATION NO: <u>CA412</u> C.O.C. NO: _____
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FIELD REPORT: CLOSURE VERIFICATION	PAGE No: <u>1</u> of <u>1</u>
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LOCATION: NAME: <u>JICARILLA K</u> WELL #: <u>15E</u> PIT: <u>SEP</u>	DATE STARTED: <u>8/21/96</u>
QUAD/UNIT: <u>A</u> SEC: <u>1</u> TWP: <u>25N</u> RNG: <u>5W</u> PM: <u>NM</u> CNTY: <u>RA</u> ST: <u>NM</u>	DATE FINISHED: _____
DATE/FOOTAGE: <u>1095' FNL/790' FEL</u> CONTRACTOR: <u>ARMEI GARZA</u>	ENVIRONMENTAL SPECIALIST: <u>NV</u>

EXCAVATION APPROX. 37 FT. x 40 FT. x 17 FT. DEEP. CUBIC YARDAGE: 700

DISPOSAL FACILITY: ON-SITE REMEDIATION METHOD: LANDFARMED

LAND USE: RANGE LEASE: CONTRACT # 145 FORMATION: MU/DK

FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 125 FT. SS3E FROM WELLHEAD.

DEPTH TO GROUNDWATER: 2100' NEAREST WATER SOURCE: 21000' NEAREST SURFACE WATER: 21000'

NMOC BANKING SCORE: 0 NMOC TPH CLOSURE STD: 5000 PPM

SOIL AND EXCAVATION DESCRIPTION:

CHECK ONE:

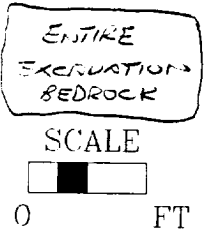
☐ PIT ABANDONED

☒ STEEL TANK INSTALLED

ENTIRE EXCAVATION CONSIST OF BEDROCK, ALL OVM SAMPLES COLLECTED COMPOSED OF DUSKY RED SHALE, SOFT (TOP) TO HARD (TOWARD PIT BOTTOM), NO APPARENT HC OOR DETECTED IN OVM SAMPLES.

BOTTOM - BEDROCK, SHALE, HARD, VERY PALE ORANGE IN COLOR,

DUE TO ENTIRE EXCAVATION CONSISTING MOSTLY OF BEDROCK, NO TPH ANALYSIS WAS CONDUCTED.



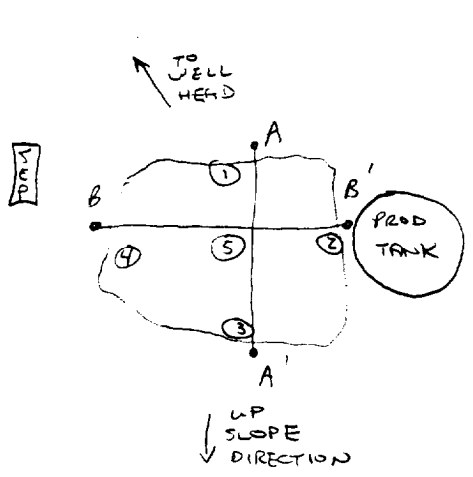
FIELD 418.1 CALCULATIONS

TIME	SAMPLE I.D.	LAB No.	WEIGHT (g)	mL. FREON	DILUTION	READING	CALC. ppm
1015							

PIT PERIMETER

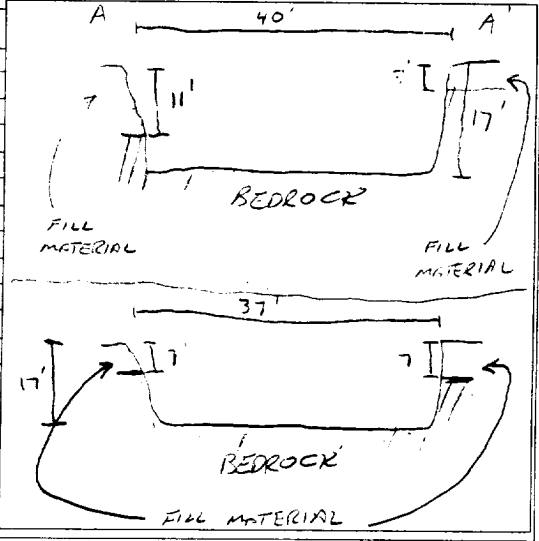
OVM RESULTS

PIT PROFILE



SAMPLE ID	FIELD HEADSPACE PID (ppm)
1 @ 12'	0.0
2 @ 13'	0.0
3 @ 13'	15.4
4 @ 12'	12.3
5 @ 17'	5.2

LAB SAMPLES		
SAMPLE ID	ANALYSIS	TIME



TRAVEL NOTES: CALLOUT: 8/20/96 MORN. ONSITE: 8/21/96 MORN.

<b>Well Name:</b>	<b>Jicarilla K # 15E</b>
<b>Well Site location:</b>	Unit A, Sec. 1, T25N, R5W
<b>Pit Type:</b>	Separator Pit
<b>Producing Formation:</b>	Basin Dakota
<b>Pit Category:</b>	Non Vulnerable
<b>Horizontal Distance to Surface Water:</b>	> 1000 ft.
<b>Vicinity Groundwater Depth:</b>	> 100 ft.

## **RISK ASSESSMENT**

Pit remediation activities were terminated when trackhoe encountered sandstone bedrock at 17 feet below grade.

No past or future threat to surface water or groundwater is likely based on the following considerations:

1. Past production fluids were contained locally by a relatively shallow sandstone bedrock located 17 feet below grade. Groundwater levels located on or close to the well pad are estimated to be at a much greater depth below sandstone bedrock.
2. Topographic information does not indicate off site lateral fluid migration near the earthen pit.
3. Daily discharge into the earthen pit has been terminated (steel tank installed). Prior discharge into the pit is believed to be under 5 barrels per day.
4. All OVM samples collected were well below the 100 ppm NMOCD standards for closure.

Based upon the information given, we conclude that the sandstone bottom creates enough of a impermeable barrier as to subdue impact to groundwater below it (please refer to AMOCO's report "Post Excavation Pit Closure Investigation Summary, July, 1995", with cover letter dated November 30, 1995). CONOCO requests pit closure approval on this location.

CA 412

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P.O. BOX 507  
DULCE, NEW MEXICO 87528**

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NATURAL RESOURCE DEPT  
AND OIL & GAS ADMINISTRATION

**ON-SITE SOIL REMEDIATION REPORT**

**Operator:** Conoco, Inc. **Telephone:** (505) 324-5884

**Address:** 3315 Bloomfield Hwy., Farmington, NM 87401

**Facility or Well Name:** JICARILLA K #15 E

**Location:** Unit or Qtr/Qtr Sec A Sec 1 T 25N R 5W County Rio Arriba

**Land Type:** RANGE

**Date Remediation Started:** 8/21/96 **Date Completed:** 8/18/97

**Remediation Method:** Landfarmed ☒ Approx. cubic yards 200

Composted ☐

Other ☐

**Depth To Groundwater:** (pts.) 0

**Distance to an Ephemeral Stream** (pts.) 0

**Distance to Nearest Lake, Playa,  
or Watering Pond** (pts.) 0

**Wellhead Protection Area:** (pts.) 0

**Distance To Surface Water:** (pts.) 0

**RANKING SCORE (TOTAL POINTS):** 0

**Final Closure Sampling:**

**Sampling Date:** 8/15/97 **Time:** 1030

**Sample Results:**

**Field Headspace (ppm)** 45.8

**TPH (ppm)** 104 **Method** 8015

**Other** ☐

I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF

**DATE** 8/18/97 **PRINTED NAME** Jeffrey C. Blagg, P.E. #11607

**SIGNATURE** Jeffrey C. Blagg **AND TITLE** President

AFTER REVIEW OF THE SOIL REMEDIATION INFORMATION, ON-SITE REMEDIATION IS APPROVED IN ACCORDANCE TO THE JICARILLA APACHE TRIBE PIT CLOSURE ORDINANCE.

**APPROVED:** YES ☒ NO ☐ (REASON) ☐

**SIGNED:** Joe C. M...ll **DATE:** 9-2-97

CLIENT: CONOCOBLAGG ENGINEERING, INC.  
P.O. BOX 87, BLOOMFIELD, NM 87413  
(505) 632-1199LOCATION NO: CA412C.O.C. NO: 5377

## FIELD REPORT: LANDFARM/COMPOST PILE CLOSURE VERIFICATION

LOCATION: NAME JICARILLA K WELL #: 15 E PITS: SEP.DATE STARTED: 8/15/97QUAD: UNIT A SEC: 1 TWP: 25 N RNG: 5 W PM: NM CNTY: RA ST: NM

DATE FINISHED: \_\_\_\_\_

UTP/FOOTAGE: NE14 NE14CONTRACTOR: ACMEENVIRONMENTAL  
SPECIALIST: NV

## SOIL REMEDIATION:

REMEDICATION SYSTEM: LANDFARMAPPROX. CUBIC YARDAGE: 200LAND USE: RANGELIFT DEPTH (ft): 12"-24"

## FIELD NOTES &amp; REMARKS:

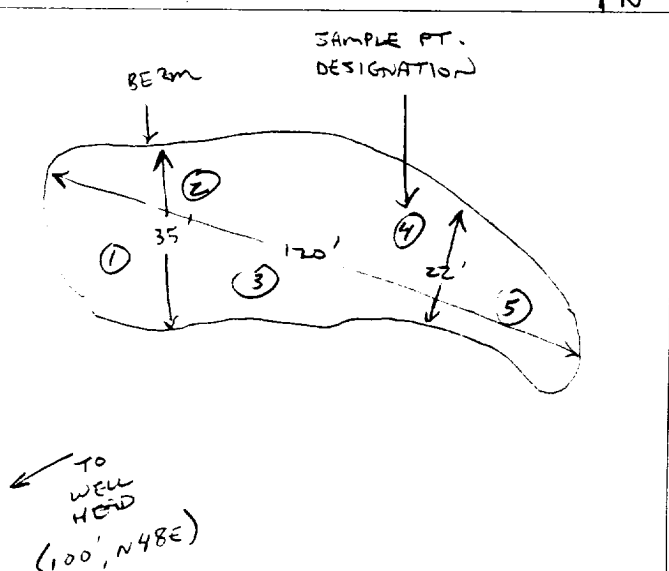
DEPTH TO GROUNDWATER: >100' NEAREST WATER SOURCE: >1000' NEAREST SURFACE WATER: >1000'NMDCD BANKING SCOPE: 0 NMDCD TPH CLOSURE STD: 5000 PPM

MOSTLY DR. YELL. BROWN TO DUSKY RED SAND TO SILTY CLAY, NON COHESIVE TO COHESIVE (SILTY CLAY), SLIGHTLY MOIST FIRM, SOME BEDROCK, SLIGHT HC ODDR IN ODM SAMPLE. 5 FT. COMPOSITE COLLECTED FOR LAB ANALYSIS.

CLOSED

## FIELD 418.1 CALCULATIONS

SAMP. TIME	SAMPLE I.D.	LAB No:	WEIGHT (g)	mL. FREON	DILUTION	READING	CALC. ppm

SKETCH/SAMPLE LOCATIONS 

## OVM RESULTS

## LAB SAMPLES

SAMPLE ID	FIELD HEADSPACE PID (ppm)	SAMPLE ID	ANALYSIS	TIME	RESULTS
LF-1	45.8	LF-1	TPH (8015)	1030	104

SCALE



0 FT

## TRAVEL NOTES:

CALLOUT: NAONSITE: 8/15/97

# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

## EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

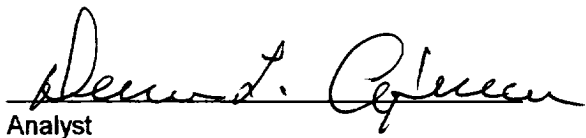
Client:	Blagg / Conoco	Project #:	04034-10
Sample ID:	LF - 1	Date Reported:	08-18-97
Laboratory Number:	B861	Date Sampled:	08-15-97
Chain of Custody No:	5377	Date Received:	08-15-97
Sample Matrix:	Soil	Date Extracted:	08-18-97
Preservative:	Cool	Date Analyzed:	08-18-97
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

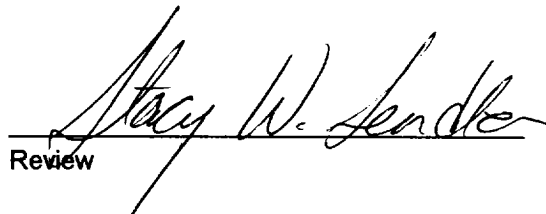
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	0.8	0.2
Diesel Range (C10 - C28)	103	0.1
Total Petroleum Hydrocarbons	104	0.2

ND - Parameter not detected at the stated detection limit.

References: Method 8015, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Comments: Jicarilla K #15E Landfarm. 5 Pt. Composite.

  
Analyst

  
Review

Client/Project Name			Project Location			CHAIN OF CUSTODY RECORD										
BIOGESS/ CONVOCO			LANDFARM			ANALYSIS/PARAMETERS										
Sampler (Signature) S. Mon VEG			Chain of Custody Tape No. 04034-10			ANALYSIS/PARAMETERS										
Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	TPH (8015)					Remarks					
LF-1	8/15/97	1030	B 861	SOIL	1	✓						PRESERV. - COOL 5 PT. COMPOSITE				