

Denny E. Faust
DEPUTY OIL & GAS INSPECTOR

AUG 24 1999

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

CA635

OK
Risk

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

PIT REMEDIATION AND CLOSURE REPORT

Operator: CONOCO, INC. Telephone: (505) 324-5884

Address: 3315 Bloomfield Hwy., Farmington, NM 87401

Facility or Well Name: JICARILLA BR C #11

Location: Unit or Qtr/Qtr Sec H Sec 22 T 25N R 4W County RIO ARriba

Pit Type: Separator ☒ Dehydrator ☐ Other ☐

Land Type: RANGE

Pit Location:
(Attach diagram)

Pit dimensions: length 22', width 25', depth 8'

Reference: wellhead ☒, other ☐

Footage from reference: 25'

Direction from reference: 62 Degrees ☐ East of North ☒
☒ West of South ☐

Depth To Groundwater:

(Vertical distance from
contaminants to seasonal
high water elevation of
groundwater)

Less than 50 feet (20 points)
50 feet to 99 feet (10 points)
Greater than 100 feet (0 points) 0

Distance to an Ephemeral Stream

(Downgradient dry wash greater than
ten feet in width)

Less than 100 feet (10 points)
Greater than 100 feet (0 points) 0

Distance to Nearest Lake, Playa, or Watering Pond

(Downgradient lakes, playas and
livestock or wildlife watering ponds)

Less than 100 feet (10 points)
Greater than 100 feet (0 points) 0

Wellhead Protection Area:

(Less than 200 feet from a private
domestic water source, or: less than
1000 feet from all other water sources)

Yes (20 points)
No (0 points) 0

Distance To Surface Water:

(Horizontal distance to perennial
lakes, ponds, rivers, streams, creeks,
irrigation canals and ditches)

Less than 100 feet (20 points)
100 feet to 1000 feet (10 points)
Greater than 1000 feet (0 points) 0

RANKING SCORE (TOTAL POINTS): 0

Date Remediation Started: _____ Date Completed: 9/15/98

Remediation Method: Excavation ☒

(check all appropriate sections)

Landfarmed ☒

Other _____

Approx. cubic yards 125

In situ Bioremediation _____

Remediation Location:

Onsite ☒ Offsite _____

(i.e. landfarmed onsite, name and location of offsite facility)

General Description of Remedial Action: Excavation. BEDROCK BOTTOM. RISK ASSESSED.

Groundwater Encountered:

No ☒ Yes _____ Depth _____

Final Pit:

Closure Sampling:

(if multiple samples, attach sample results and diagram of sample locations and depths)

Sample location see Attached Documents

Sample depth 4' (EAST SIDEWALL)

PIT BOTTOM @ 9' - OUM = 446 ppm

Sample date 9/15/98

Sample time 1045

Sample Results

Soil: Benzene (ppm) _____

Water: Benzene (ppb) _____

Total BTEX (ppm) _____

152 Toluene (ppb) _____

Field Headspace (ppm) 0.0446

Ethylbenzene (ppb) _____

TPH (ppm) ND

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 9/15/98 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. Mammal DATE: 10-1-98

3003921157

CLIENT: <u>CONOCO</u>	BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	LOCATION NO: <u>CA635</u> C.O.C. NO: _____
-----------------------	--------------------------------------------------------------------------------	-----------------------------------------------

FIELD REPORT: CLOSURE VERIFICATION		PAGE No: <u>1</u> of <u>1</u>
LOCATION: NAME: <u>JICARILLA BR C</u> WELL #: <u>11</u> PIT: <u>SEP.</u>		DATE STARTED: <u>9/15/98</u> DATE FINISHED: _____
QUAD/UNIT: <u>H SEC. 22 TWP. 25N RNG. 4W</u> PM: <u>NM CNTY: RA ST: NM</u>		ENVIRONMENTAL SPECIALIST: <u>NU</u>
QTR/FOOTAGE: <u>1640' FNL/1000' FEL</u> CONTRACTOR: <u>JVC</u>		

EXCAVATION APPROX. <u>22</u> FT. x <u>25</u> FT. x <u>8</u> FT. DEEP	CUBIC YARDAGE: <u>125</u>
DISPOSAL FACILITY: <u>ON-SITE</u>	REMEDIATION METHOD: <u>LANDFARM</u>
LAND USE: <u>RANGE</u>	LEASE: <u>CONTRACT # 66</u> FORMATION: <u>PC</u>

FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY <u>25</u> FT. <u>N62W</u> FROM WELLHEAD.	
DEPTH TO GROUNDWATER: <u>>100'</u>	NEAREST WATER SOURCE: <u>>1000'</u> NEAREST SURFACE WATER: <u>>1000'</u>
NMOCB RANKING SCORE: <u>0</u>	NMOCB TPH CLOSURE STD: <u>5000</u> PPM
SOIL AND EXCAVATION DESCRIPTION:	

CHECK ONE:

- ☒ PIT ABANDONED
☐ STEEL TANK INSTALLED
☐ FIBERGLASS TANK INSTALLED

SIDEWALLS - TOP HALF DK. YELL. ORANGE TO BROWN SAND, NON COHESIVE, FIRM.
 BOTTOM HALF DUSKY RED CLAY, SLIGHTLY PLASTIC, STIFF TO VERY STIFF.
 SLIGHTLY MOIST, NO APPARENT STAINING OR HC ODOR OBSERVED /
 DETECTED W/IN EXCAVATION, NO APPARENT HC ODOR IN ANY OF
 THE OVM SAMPLES.

BOTTOM - BEDROCK (CLAYSTONE), DUSKY RED, VERY DENSE TO HARD, STRONG HC ODOR
 DETECTED IN OVM SAMPLE.

BEDROCK
BOTTOM

RISK ASSESSED

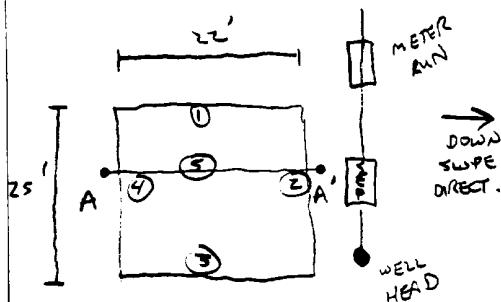
FIELD 4181 CALCULATIONS

TIME	SAMPLE I.D.	LAB No:	WEIGHT (g)	mL. FREON	DILUTION	READING	CALC. ppm
1045	② e 4'	TPH-2035	5	20	1:1	5	ND

SCALE

0 FT

PIT PERIMETER

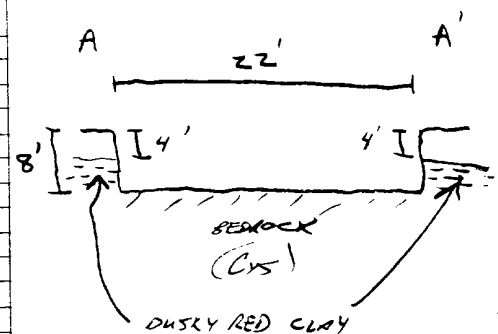
OVM
RESULTS

SAMPLE ID	FIELD HEADSPACE PID (ppm)
1 e 4'	0.0
2 e 4'	0.0
3 e 4'	0.0
4 e 4'	0.0
5 e 9'	446

LAB SAMPLES

SAMPLE ID	ANALYSIS	TIME

PIT PROFILE



TRAVEL NOTES:

CALLOUT: _____

ONSITE: _____

9/15/98 -

Well Name:

Well Site location:

Pit Type:

Producing Formation:

Pit Category:

Horizontal Distance to Surface Water:

Vicinity Groundwater Depth:

Jicarilla BR C #11

Unit H, Sec. 22, T25N, R4W

Separator Pit

Pictured Cliffs

Non Vulnerable

> 1000 ft.

> 100 ft.

RISK ASSESSMENT (non-vulnerable area)

Pit remediation activities were terminated when trackhoe encountered claystone bedrock at 8 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 claystone bedrock located 8 feet below grade. Groundwater levels located on or close to the well pad are estimated to be at a much greater depth below claystone 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 (pit abandoned). Prior discharge into the pit is believed to be under 5 barrels per day.
4. Well site located within the non-vulnerable area and is approximately 0.55 miles northwest of the nearest vulnerable area boundary (Canon de los Ojitos wash).

(Refer to Schmitz Ranch Quadrangle, New Mexico - Rio Arriba County, 7.5 Minute Series (Topographic), 1963, (vulnerable area boundary developed by Mr. William C. Olson, Hydrogeologist, Environmental Bureau, New Mexico Oil Conservation Division).

Based upon the information given, we conclude that the subsurface lateral impact from the earthen pit is very limited and that the claystone bottom creates enough of an 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.

BLAGG ENGINEERING, INC.

P.O. Box 87, Bloomfield, New Mexico 87413

Phone: (505)632-1199 Fax: (505)632-3903

FIELD MODIFIED EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client: Conoco
Sample ID: 2 @ 4'
Project Location: Jicarilla BR C # 11
Laboratory Number: TPH-2035

Project #:
Date Analyzed: 09-15-98
Date Reported: 09-15-98
Sample Matrix: Soil

Parameter	Result, mg/kg	Detection Limit, mg/kg
Total Recoverable Petroleum Hydrocarbons	ND	20

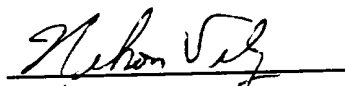
ND = Not Detectable at stated detection limits.

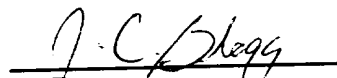
QA/QC:	QA/QC Sample TPH mg/kg	Duplicate TPH mg/kg	% *Diff.
	236	220	7.02

*Administrative Acceptance limits set at 30%.

Method: Modified Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No.4551, 1978

Comments: Separator Pit - CA635


Analyst


Review

BLAGG ENGINEERING, INC.

P.O. Box 87, Bloomfield, New Mexico 87413

Phone: (505)632-1199 Fax: (505)632-3903

Field TPH-Worksheet

Max Characters:

Client:

Conoco

Project #:

Sample ID:

2 @ 4'

Date Analyzed:

09-15-98

Project Location:

Jicarilla BR C # 11

Date Reported:

09-15-98

Laboratory Number:

TPH-2035

Sample Matrix:

Soil

Sample Weight:

5.00 grams

Volume Freon:

20.00 mL

Dilution Factor:

1 (unitless)

TPH Reading:

5 mg/kg

TPH Result:

20.0 mg/kg

Reported TPH Result:

20 mg/kg

Actual Detection Limit:

20.0 mg/kg

Reported Detection Limit:

20 mg/kg

QA/QC:

Original
TPH mg/kg

Duplicate
TPH mg/kg

%
Diff.

236

220

7.02

Comments:

*****Max Characters*****

Comments:

Separator Pit - CA635

CA635

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

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

ON-SITE SOIL REMEDIATION REPORT

Operator: <u>Conoco, Inc.</u>		Telephone: <u>(505) 324-5884</u>	
Address: <u>3315 Bloomfield Hwy., Farmington, NM 87401</u>			
Facility or Well Name: <u>JICARILLA BR C #11</u>			
Location: Unit or Qtr/Qtr Sec <u>H</u> Sec <u>22</u> T <u>25N</u> R <u>4W</u> County <u>RIO ARriba</u>			
Land Type: <u>RANGE</u>			
Date Remediation Started: <u>9/15/98</u>		Date Completed: <u>5/19/99</u>	
Remediation Method: Landfarmed <input checked="" type="checkbox"/>		Approx. cubic yards <u>125</u>	
Composted <input type="checkbox"/>			
Other <input type="checkbox"/>			
Depth To Groundwater: (pts.) <u>0</u>		Final Closure Sampling:	
Distance to an Ephemeral Stream (pts.) <u>0</u>		Sampling Date: <u>5/14/99</u> Time: <u>1350</u>	
Distance to Nearest Lake, Playa, or Watering Pond (pts.) <u>0</u>		Sample Results:	
Wellhead Protection Area: (pts.) <u>0</u>		Field Headspace (ppm) <u>0.0</u>	
Distance To Surface Water: (pts.) <u>0</u>		TPH (ppm) <u>60.2</u> Method <u>8015</u>	
RANKING SCORE (TOTAL POINTS): <u>0</u>		Other <input type="checkbox"/>	
I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF			
DATE <u>5/19/99</u>		PRINTED NAME <u>Jeffrey C. Blagg, P.E. #11607</u>	
SIGNATURE <u>Jeffrey C. Blagg</u>		AND TITLE <u>President</u>	
AFTER REVIEW OF THE SOIL REMEDIATION INFORMATION, ON-SITE REMEDIATION IS APPROVED IN ACCORDANCE TO THE JICARILLA APACHE TRIBE PIT CLOSURE ORDINANCE.			
APPROVED: YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> (REASON) <input type="checkbox"/>			
SIGNED: <u>Keith M. [Signature]</u>		DATE: <u>6-3-99</u>	

CLIENT: <u>CONOCO</u>	BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	LOCATION NO: <u>CA635</u> C.D.C. NO: <u>6668</u>
-----------------------	--------------------------------------------------------------------------------	-----------------------------------------------------

FIELD REPORT: LANDFARM/COMPOST PILE CLOSURE VERIFICATION

LOCATION: NAME <u>JICARUA BR</u> C WELL #: <u>11</u> PITS: <u>SEP.</u>	DATE STARTED: <u>5/14/99</u>
QUAD/UNIT: <u>H</u> SEC: <u>22</u> TWP: <u>25N</u> RNG: <u>4W</u> PM: <u>Nm</u> CNTY: <u>RA</u> ST: <u>NM</u>	DATE FINISHED: _____
STR/FOOTAGE: <u>SE 1/4 NE 1/4</u> CONTRACTOR: <u>JVC</u>	ENVIRONMENTAL SPECIALIST: <u>NV</u>

SOIL REMEDIATION:

REMEDICATION SYSTEM: LANDFARM APPROX. CUBIC YARDAGE: 125
 LAND USE: RANGE LIFT DEPTH (ft): 1.5

FIELD NOTES & REMARKS:

DEPTH TO GROUNDWATER: >100' NEAREST WATER SOURCE: >1000' NEAREST SURFACE WATER: >1000'
 NMOCD RANKING SCORE: 0 NMOCD TPH CLOSURE STD: 5000 PPM 9/15/98

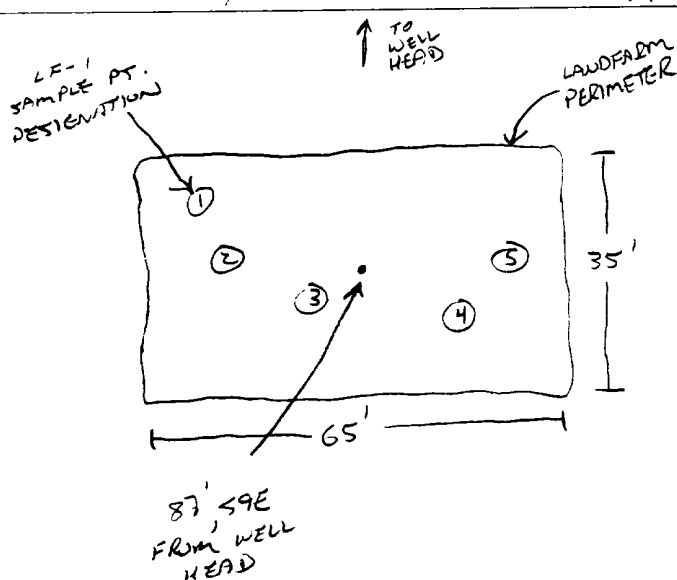
DUSKY RED SILTY SAND TO CLAY COHESIVE, SLIGHTLY MOIST, FIRM SAMPLING DEPTHS RANGE FROM 6 TO 12 INCHES, NO APPARENT STRAINING OR DISCOLORATION OBSERVED, NO APPARENT HC BOOR DETECTED w/in OVM SAMPLE, COLLECTED 5 PT. COMPOSITE SAMPLE FOR LAB ANALYSIS.

CLOSED

FIELD 418.1 CALCULATIONS

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

SKETCH/SAMPLE LOCATIONS ↑ N



OVM RESULTS

SAMPLE ID	FIELD HEADSPACE PID (ppm)
LF-1	0.0

LAB SAMPLES

SAMPLE ID	ANALYSIS	TIME	RESULTS
LF-1	TPH (8015)	1350	60.2

SCALE

0 FT

TRAVEL NOTES: CALL OUT: NA

ONSITE: 5/14/99

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

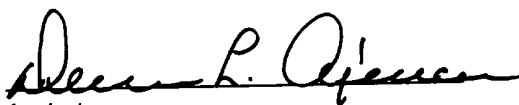
Client:	Blagg / CONOCO	Project #:	403410
Sample ID:	LF - 1	Date Reported:	05-19-99
Laboratory Number:	F268	Date Sampled:	05-14-99
Chain of Custody No:	6668	Date Received:	05-18-99
Sample Matrix:	Soil	Date Extracted:	05-18-99
Preservative:	Cool	Date Analyzed:	05-19-99
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

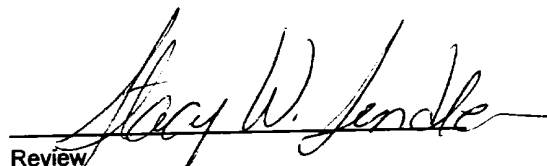
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	1.3	0.2
Diesel Range (C10 - C28)	58.9	0.1
Total Petroleum Hydrocarbons	60.2	0.2

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: Jicarilla BR C #11 Landfarm. 5 Pt. Composite.


Analyst


Review

٥٥٥٥

[illegible]