

Date Remediation Started: _____ Date Completed: 7/21/98

Remediation Method: Excavation ☒ Approx. cubic yards 225
 (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. BEDROCK BOTTOM.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 DocumentsSample depth 4' (EAST SIDEWALK)Sample date 7/20/98 Sample time 1000

Sample Results

Soil: Benzene	(ppm)	<u>ND</u>	Water: Benzene	(ppb)	_____
Total BTEX	(ppm)	<u>1,070</u>	<u>1.070</u> Toluene	(ppb)	_____
Field Headspace	(ppm)	<u>833</u>	Ethylbenzene	(ppb)	_____
TPH	(ppm)	<u>55.4</u>	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 7/21/98 PRINTED NAME Jeffrey C. Blagg, P.E. #11607SIGNATURE 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: Keith C. Manda DATE: 9-9-98

3003922054

CLIENT: <u>CONOCO</u>	BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	LOCATION NO: <u>CA589</u> C.D.C. NO: <u>6103</u>
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FIELD REPORT: CLOSURE VERIFICATION		PAGE No: <u>1</u> of <u>1</u>
LOCATION: NAME <u>TIGARUA</u> WELL #: <u>12</u> PIT: <u>SEP/PROD.</u>		DATE STARTED: <u>7/20/98</u> DATE FINISHED: _____
QUAD/UNIT: <u>B SEC: 35 TWP: 26N RNG: 4W PM: NM CNTY: RA ST: NM</u>		ENVIRONMENTAL SPECIALIST: <u>NV</u>
QTR/FOOTAGE: <u>905' ENL/1520' FEL</u> CONTRACTOR: <u>JVC</u>		

EXCAVATION APPROX. <u>37</u> FT. x <u>27</u> FT. x <u>7</u> FT. DEEP.	CUBIC YARDAGE: <u>225</u>
DISPOSAL FACILITY: <u>ON-SITE</u>	REMEDIATION METHOD: <u>LANDFARM</u>
LAND USE: <u>RANGE</u>	LEASE: <u>CONTRACT #106</u> FORMATION: <u>MV</u>

FIELD NOTES & REMARKS:	PIT LOCATED APPROXIMATELY <u>93</u> FT. <u>582E</u> FROM WELLHEAD.
DEPTH TO GROUNDWATER: <u>>100'</u>	NEAREST WATER SOURCE: <u>>1000'</u> NEAREST SURFACE WATER: <u>>1000'</u>
NMOC D RANKING SCORE: <u>0</u>	NMOC D TPH CLOSURE STD: <u>5000</u> PPM
SOIL AND EXCAVATION DESCRIPTION:	

CHECK ONE:
☒ PIT ABANDONED
☐ STEEL TANK INSTALLED
☐ FIBERGLASS TANK INSTALLED

SIDEWALLS - FROM GRADE TO 4' MED BROWN CLAY, SLIGHTLY PLASTIC, FIRM TO STIFF, 4'-7' BELOW GRADE CONSISTED OF LT. MED. LT. GRAY CLAY, DESCRIPTION SIMILAR TO ABOVE, NO APPARENT STRAINING OR HC ODOR OBSERVED OR DETECTED W/IN EXCAVATION, STRONG HC ODOR IN EAST SIDEWALL OVM SAMPLE ONLY.

BOTTOM - BEDROCK (SHALE) MED. LT. GRAY IN COLOR, VERY HARD, SLIGHT HC ODOR IN OVM SAMPLE.

BEDROCK
Bottom

CLOSED

FIELD 418.1 CALCULATIONS

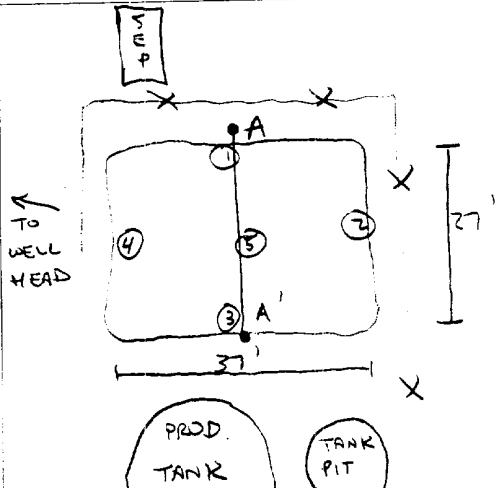
TIME	SAMPLE I.D.	LAB No:	WEIGHT (g)	mL. FREON	DILUTION	READING	CALC. ppm

SCALE
0 FT

PIT PERIMETER

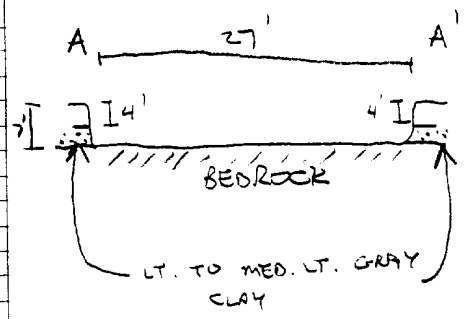
OVM RESULTS

PIT PROFILE



SAMPLE ID	FIELD HEADSPACE PID (ppm)
1 @ 4'	0.0
2 @ 4'	833
3 @ 4'	0.0
4 @ 3'	0.0
5 @ 7'	20.9

SAMPLE ID	ANALYSIS	TIME
(2) @ 4'	TPH/BTEX	1000
<u>BOTH PASSED</u>		



TRAVEL NOTES: CALLOUT: 7/16/98 - AFTER. ONSITE: 7/20/98 - MORN.

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

Client: Blagg / Conoco
Sample ID: 2 @ 4'
Laboratory Number: D665
Chain of Custody No: 6103
Sample Matrix: Soil
Preservative: Cool
Condition: Cool and Intact

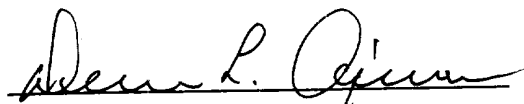
Project #: 04034-10
Date Reported: 07-21-98
Date Sampled: 07-20-98
Date Received: 07-20-98
Date Extracted: 07-21-98
Date Analyzed: 07-21-98
Analysis Requested: 8015 TPH

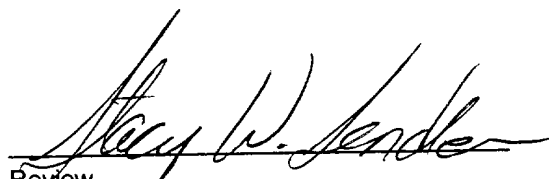
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	29.4	0.2
Diesel Range (C10 - C28)	26.0	0.1
Total Petroleum Hydrocarbons	55.4	0.2

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 B #12 Separator / Production Tank Pit.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Blagg / Conoco	Project #:	04034-10
Sample ID:	2 @ 4'	Date Reported:	07-21-98
Laboratory Number:	D665	Date Sampled:	07-20-98
Chain of Custody:	6103	Date Received:	07-20-98
Sample Matrix:	Soil	Date Analyzed:	07-21-98
Preservative:	Cool	Date Extracted:	07-21-98
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	ND	8.8
Toluene	ND	8.4
Ethylbenzene	130	7.6
p,m-Xylene	565	10.8
o-Xylene	373	5.2
Total BTEX	1,070	

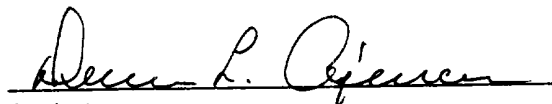
ND - Parameter not detected at the stated detection limit.

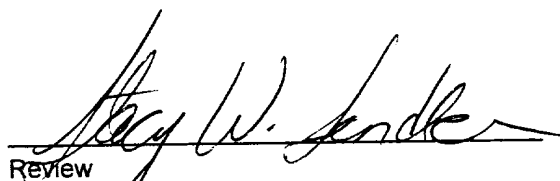
Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	99 %
	Bromofluorobenzene	99 %

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: Jicarilla B #12 Separator / Production Tank Pit.


Analyst


Review

6103

[illegible]

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

CA589

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 B #12</u>	
Location: Unit or Qtr/Qtr Sec <u>B</u> Sec <u>35</u> T <u>26N</u> R <u>4W</u> County <u>RIO ARriba</u>	
Land Type: <u>RANGE</u>	
Date Remediation Started: <u>7/20/98</u> Date Completed: <u>5/19/99</u>	
Remediation Method: Landfarmed ☒ Approx. cubic yards <u>225</u>	
Composted ☐	
Other ☐	
Depth To Groundwater: (pts.) <u>0</u>	Final Closure Sampling:
Distance to an Ephemeral Stream (pts.) <u>0</u>	Sampling Date: <u>5/17/99</u> Time: <u>0800</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>45.0</u> Method <u>8015</u>
RANKING SCORE (TOTAL POINTS): <u>0</u>	Other ☐
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 ☒ NO ☐ (REASON) _____	
SIGNED: <u>Kee C. M...</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>CA589</u> C.O.C. NO: <u>665</u>
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FIELD REPORT: LANDFARM/COMPOST PILE CLOSURE VERIFICATION

LOCATION NAME: <u>JICARUA</u>	B	WELL #: <u>12</u>	PITS: <u>SEP/PROD.</u>	DATE STARTED: <u>5/17/99</u>
QUAD UNIT <u>B</u>	SEC: <u>35</u>	TWP: <u>26N</u>	RNG: <u>4W</u>	PM: <u>NM</u> CNTY: <u>RA</u> ST: <u>NM</u>
DEPT FOOTAGE <u>NW/4 NE/4</u>	CONTRACTOR: <u>JVC</u>			ENVIRONMENTAL SPECIALIST: <u>NV</u>

SOIL REMEDIATION:

REMEDICATION SYSTEM: LANDFARM APPROX. CUBIC YARDAGE: 225
LAND USE: RANGE LIFT DEPTH (ft): 1.5 - 2

FIELD NOTES & REMARKS:

DEPTH TO GROUNDWATER: >100' NEAREST WATER SOURCE: >1000' NEAREST SURFACE WATER: >1000'
OVM CLOSURE SCORE: 0 NMCD TPH CLOSURE STD: 5000 PPM 7/20/98

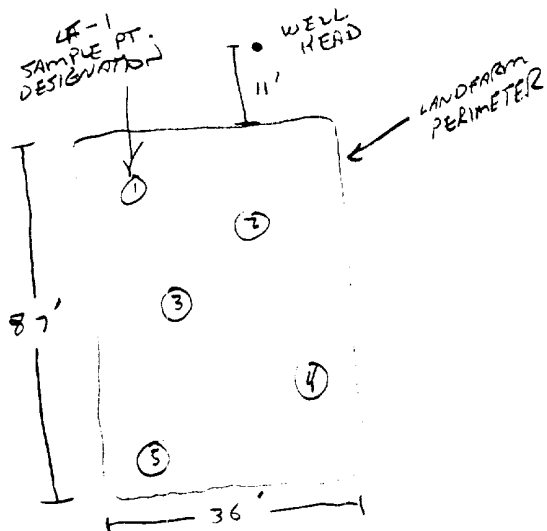
DUSKY RED/LT. GRAY SILTY SAND TO SILTY CLAY, COHESIVE TO SLIGHTLY PLASTIC, SLIGHTLY MOIST FIRM, SAMPLING DEPTHS RANGE FROM 6-18 INCHES, NO NOTICEABLE DISCOLORATION OR 'STAINING' OBSERVED, NO APPARENT HC ODOR IN OVM SAMPLE, COLLECTED 5 PT. COMPOSITE FOR LAB ANALYSIS.

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	0.0	LF-1	TPH (8015)	0800	45.0

SCALE

0 1 FT

TRAVEL NOTES: CALLOUT: NA ONSITE: 5/17/99

Client:	Blagg / CONOCO
Sample ID:	LF - 1
Laboratory Number:	F269
Chain of Custody No:	6675
Sample Matrix:	Soil
Preservative:	Cool
Condition:	Cool and Intact

Project #:	403410
Date Reported:	05-19-99
Date Sampled:	05-17-99
Date Received:	05-18-99
Date Extracted:	05-18-99
Date Analyzed:	05-19-99
Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	1.2	0.2
Diesel Range (C10 - C28)	43.8	0.1
Total Petroleum Hydrocarbons	45.0	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 B #12 Landfarm. 5 Pt. Composite.**

James L. O'Brien
Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

Client / Project Name BAREG/ CONOCO	
Sampler: NTV	
Sample No./ Identification	Sample Date LF-1 5/12/99
Relinquished by: (Signature)	Relinquished by: (Signature)
Relinquished by: (Signature)	Relinquished by: (Signature)