

Dennis E. Faust
DEPUTY OIL & GAS INSPECTOR

AUG 13 1999

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

85422

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

PIT REMEDIATION AND CLOSURE REPORT

Approved

Operator: AMOCO PRODUCTION COMPANY Telephone: (505) 326-9200

Address: 200 Amoco Court, Farmington, NM 87401

Facility or Well Name: JICARILLA ~~XXXX~~ C * 4E

Location: Unit or Qtr/Qtr Sec M Sec 24 T 26N R 5W County RIO ARIZONA

Pit Type: Separator Dehydrator Other BLOW

Land Type: RANGE

Pit Location: Pit dimensions: length —, width —, depth 10'
(Attach diagram)

Reference: wellhead X, other —

Footage from reference: 150

Direction from reference: 15 Degrees — East of North —
X West of South X

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)	<u>10</u>

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)	<u>0</u>

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)	<u>0</u>

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)	<u>0</u>

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)	<u>0</u>

RANKING SCORE (TOTAL POINTS): 10

Date Remediation Started: _____ Date Completed: 8-26-96

Remediation Method: Excavation X Approx. cubic yards N/A
Check all appropriate sections) Landfarmed _____ Insitu Bioremediation _____
Other TEST HOLE - NO CONTAMINATION

Remediation Location: Onsite — Offsite _____
(i.e. landfarmed onsite, name and location of offsite facility)

General Description of Remedial Action: Excavation - TEST HOLE IN PIT BOTTOM

Groundwater Encountered: No X 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 10'

Sample date 8-26-96 Sample time _____

Sample Results

Soil: Benzene	(ppm)	_____	Water: Benzene	(ppb)	_____
Total BTEX	(ppm)	_____	Toluene	(ppb)	_____
Field Headspace	(ppm)	<u>1</u>	Ethylbenzene	(ppb)	_____
TPH	(ppm)	<u>20</u>	Total Xylenes	(ppb)	_____

Groundwater Sample: Yes _____ No X (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 8-26-96 PRINTED NAME Buddy D. Shaw
SIGNATURE Buddy D. Shaw AND TITLE Environmental Coordinator

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

APPROVED: YES X NO _____ (REASON) _____

SIGNED: Kee C. Mamm DATE: 8-26-96

RESULTS TO BOB McLEY 8-26-96

CLIENT: <u>Amoco</u>	BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	LOCATION NO: <u>BJ422</u> C.D.C. NO: _____
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FIELD REPORT: PIT CLOSURE VERIFICATION

LOCATION: JICARILLA C #4E	PIT TYPE: BLOW	DATE STARTED: 3-26-96
QUAD/UNIT: M SEC: 24 TWP: 26N RNG: 5W BM: Nn CNTY: RA ST: NM		DATE FINISHED: _____
QTR/FOOTAGE: 790' FSL 990' FWL	CONTRACTOR: PAUL	ENVIRONMENTAL SPECIALIST: PEG

EXCAVATION APPROX. _____ FT. x _____ FT. x _____ FT. DEEP. CUBIC YARDS: N/A
DISPOSAL FACILITY: ON-SITE REMEDIATION METHOD: LANDFARM ?
LAND USE: RANGE LEASE: # 108 FORMATION: _____

FIELD NOTES & REMARKS:	PIT LOCATED APPROXIMATELY <u>150</u> FEET <u>S/S°W</u> FROM WELLHEAD.		
DEPTH TO GROUNDWATER: <u>>50'</u>	NEAREST WATER SOURCE: <u>>1000'</u>	NEAREST SURFACE WATER: <u>>1000'</u>	
NMOCID RANKING SCORE: <u>10</u>	NMOCID TPH CLOSURE STD: <u>1000</u> PPM		

SOIL AND EXCAVATION DESCRIPTION: PIT DISPOSITION: ABANDONED

TEST HOLE DUG IN PIT BOTTOM. NO STAIN / NO ODOR

SOIL AT BOTTOM CONSISTS OF MOIST, BRN, FIRM, SILTY-CLAY - 0

FIELD 418.1 CALCULATIONS

FIELD 418.1 CALCULATIONS						
SAMPLE I.D.	LAB No:	WEIGHT (g)	mL. FREON	DILUTION	READING	CALC. ppm
TH1 @ 10'	1800	10.0	20.0	1	10	20

SCALE

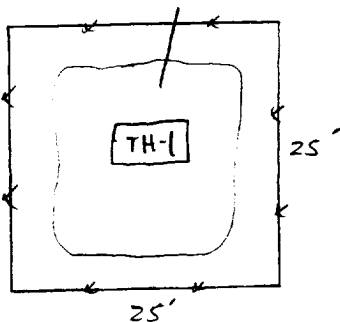


0 5 10 FT

PIT PERIMETER

OVM RESULTS

PIT PROFILE

[illegible]

TRAVEL NOTES: CALLOUT: 8-26-96 ONSITE: 8-26-96 1520

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:	Amoco	Project #:	
Sample ID:	TH #1 @ 10'	Date Analyzed:	8-26-96
Project Location:	Jicarilla C # 4E	Date Reported:	8-27-96
Laboratory Number:	TPH #1800	Sample Matrix:	Soil

Parameter -----	Result, mg/kg -----	Detection Limit, mg/kg -----
Total Recoverable Petroleum Hydrocarbons	20	10

ND = Not Detectable at stated detection limits.

QA/QC:	QA/QC Sample TPH mg/kg -----	Duplicate TPH mg/kg -----	% *Diff. -----
	1,420	1,344	5

*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: Blow Pit - BJ422

R. E. O'Neil
Analyst

Nelson Velf
Review

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

BT 422

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

PIT REMEDIATION AND CLOSURE REPORT

Operator: AMOCO PRODUCTION COMPANY **Telephone:** (505) 326-9200
Address: 200 Amoco Court, Farmington, NM 87401
Facility or Well Name: JICARILLA C #4E
Location: Unit or Qtr/Qtr Sec M Sec 24 T 26N R 4W County RIO ARIZONA
Pit Type: Separator ☒ Dehydrator ☐ Other PRODUCTION TANK COMBO.
Land Type: RANGE

Pit Location: Pit dimensions: length 30', width 25', depth 15'
(Attach diagram) Reference: wellhead ☒, other ☐
Footage from reference: 90'
Direction from reference: 80 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)	<u>10</u>

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)	<u>0</u>

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)	<u>0</u>

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)	<u>0</u>

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)	<u>0</u>

RANKING SCORE (TOTAL POINTS): 10

Date Remediation Started: _____ Date Completed: 8/28/96

Remediation Method: Excavation X Approx. cubic yards 400
Check all appropriate sections) Landfarmed X Insitu Bioremediation _____
Other _____

Remediation Location: Onsite X Offsite _____
(i.e. landfarmed onsite, name and location of offsite facility)

General Description of Remedial Action: Excavation

Groundwater Encountered: No X 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 8'

Sample date 8/26/96 Sample time 1502

Sample Results

Soil: Benzene	(ppm)	<u>0.02</u>	Water: Benzene	(ppb)	_____
Total BTEX	(ppm)	<u>0.31</u>	Toluene	(ppb)	_____
Field Headspace	(ppm)	<u>350</u>	Ethylbenzene	(ppb)	_____
TPH (8015)	(ppm)	<u>1.9</u>	Total Xylenes	(ppb)	_____

Groundwater Sample: Yes _____ No X (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 8/28/96 PRINTED NAME Buddy D. Shaw

SIGNATURE Buddy D. Shaw AND TITLE Environmental Coordinator

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

APPROVED: YES X NO _____ (REASON) _____

SIGNED: K. C. Manell DATE: 8-29-96

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

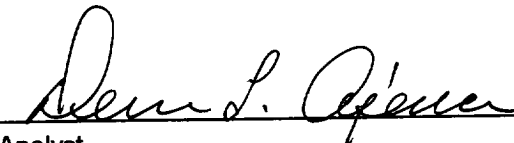
Client:	Amoco / Blagg	Project #:	04034
Sample ID:	E. Side @ 8'	Date Reported:	08-27-96
Laboratory Number:	A502	Date Sampled:	08-26-96
Chain of Custody No:	4895	Date Received:	08-27-96
Sample Matrix:	Soil	Date Extracted:	08-27-96
Preservative:	Cool	Date Analyzed:	08-27-96
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	0.9	0.2
Diesel Range (C10 - C28)	1.0	0.1
Total Petroleum Hydrocarbons	1.9	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 C #4E Sep. / Prod. Pit.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8020 AROMATIC VOLATILE ORGANICS

Client:	Amoco / Blagg	Project #:	04034
Sample ID:	E. side @ 8'	Date Reported:	08-28-96
Laboratory Number:	A502	Date Sampled:	08-26-96
Chain of Custody:	4895	Date Received:	08-27-96
Sample Matrix:	Soil	Date Analyzed:	08-27-96
Preservative:	Cool	Date Extracted:	08-27-96
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	17.1	11.7
Toluene	64.9	11.1
Ethylbenzene	57.1	10.1
p,m-Xylene	121	14.4
o-Xylene	45.9	6.9
Total BTEX	306	

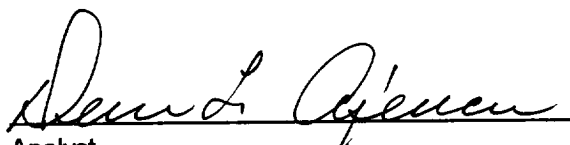
ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	99 %
	Bromofluorobenzene	98 %

References: Method 5030, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8020, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1994.

Comments: Jicarilla C #4E Sep. / Prod. Pit.


Analyst


Review

Use two more Form 570-01

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

8J422

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

ON-SITE SOIL REMEDIATION REPORT

Operator: AMOCO PRODUCTION COMPANY **Telephone:** (505) 326-9200
Address: 200 Amoco Court, Farmington, NM 87401
Facility or Well Name: JICARILLA C #4E
Location: Unit or Qtr/Qtr Sec M Sec 24 T26N R 5W County RIO ARIZONA
Land Type: RANGE

Date Remediation Started: 8/26/96 **Date Completed:** 8/27/97
Remediation Method: Landfarmed X Approx. cubic yards 400
Composted
Other

Depth To Groundwater: (pts.) 10
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): 10

Final Closure Sampling:
Sampling Date: 8/25/97 **Time:** 1035
Sample Results:
Field Headspace (ppm) 0.0
TPH (ppm) 4.2 **Method** 8015
Other

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

DATE 8/27/97 **PRINTED NAME** Buddy D. Shaw
SIGNATURE Buddy D. Shaw **AND TITLE** Environmental Coordinator

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

APPROVED: YES X NO (REASON)

SIGNED: Kurt C. M... [Signature] **DATE:** 9-2-97

CLIENT: <u>AMOCO</u>	BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	LOCATION NO: <u>BT422</u> C.O.C. NO: <u>5399</u>
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FIELD REPORT: LANDFARM/COMPOST PILE CLOSURE VERIFICATION

LOCATION: NAME <u>JICARILLA</u> C WELL #: <u>4E</u> PITS: _____ QUAD/UNIT: <u>M</u> SEC: <u>24</u> TWP: <u>26N</u> RNG: <u>5W</u> PM: <u>NM</u> CNTY: <u>RA</u> ST: <u>NM</u> CITY/FOOTAGE <u>SW/4 SW/4</u> CONTRACTOR: <u>P+S</u>	DATE STARTED: <u>8/25/97</u> DATE FINISHED: _____ ENVIRONMENTAL SPECIALIST: <u>NU</u>
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SOIL REMEDIATION:

REMEDIATION SYSTEM: <u>LANDFARMED</u>	APPROX. CUBIC YARDAGE: <u>400</u>
LAND USE: <u>RANGE</u>	LIFT DEPTH (ft): <u>12"-24"</u>

FIELD NOTES & REMARKS:

DEPTH TO GROUNDWATER: 5100' NEAREST WATER SOURCE: >1000' NEAREST SURFACE WATER: >1000'

NMDES PAKING CODE: 10 NMDES TPH CLOSURE STD: 1000 PPM

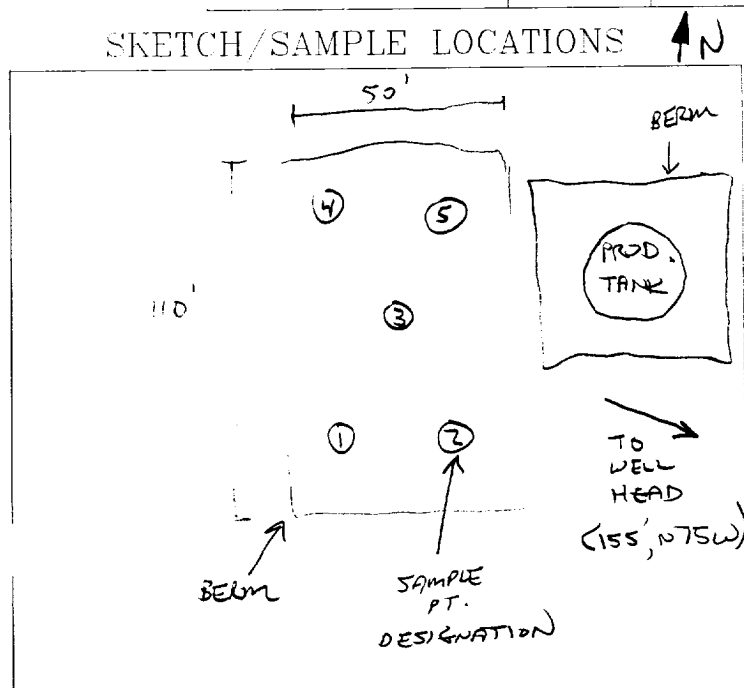
DR. YELL. BROWN SAND, NON COHESIVE, SLIGHTLY MOIST, FIRM, NO APPARENT STAINING OBSERVED @ ANY OF THE SAMPLE PTS., NO APPARENT HC ODOOR IN OVM SAMPLE, 5 PT. COMPOSITE COLLECTED FOR LAB ANALYSIS.

CLOSED

FIELD 418: CALCULATIONS

SAMP. TIME	SAMPLE I.D.	LAB No:	WEIGHT (g)	mL FREQN	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)	1035	4.2

SCALE



TRAVEL NOTES:

CALLOUT: NA

ONSITE: 8/25/97

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

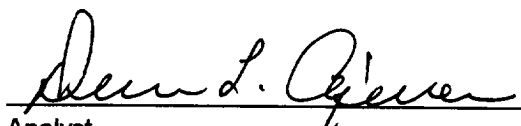
Client:	Blagg / AMOCO	Project #:	04034-10
Sample ID:	LF - 1	Date Reported:	08-26-97
Laboratory Number:	B928	Date Sampled:	08-25-97
Chain of Custody No:	5399	Date Received:	08-25-97
Sample Matrix:	Soil	Date Extracted:	08-25-97
Preservative:	Cool	Date Analyzed:	08-26-97
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

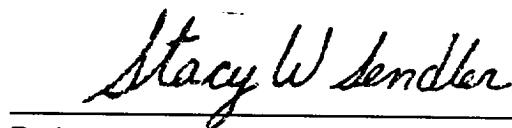
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	4.2	0.2
Diesel Range (C10 - C28)	ND	0.1
Total Petroleum Hydrocarbons	4.2	0.2

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 C #4E Landfarm. 5 Pt. Composite.


Analyst


Review

(505) 632-0615