

Denny E. Faust JICARILLA APACHE TRIBE
ENVIRONMENTAL PROTECTION OFFICE
DEPUTY OIL & GAS INSPECTOR P.O. BOX 507

DULCE, NEW MEXICO 87528

SUBMIT 1 COPY TO

NATURAL RESOURCE DEPT

AND OIL & GAS ADMINISTRATION

3 pib AND OIL & GAS ADMINISTRATION
Top-vis A bedrock
2 closed

PIT
Approved

Address: 200 Amoco Court, Farmington, NM 87401

Location: Unit or Qtr/Qtr Sec 6 Sec 14 T 26N R 5W County Rio Arriba

Land Type: RANGE

Pit dimensions: length 28', width 22', depth 5'

Footage from reference: 78'

Direction from reference: 21 Degrees X East of North
West of South X

(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)

(Downgradient dry wash greater than ten feet in width)

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

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

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

(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)

(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)

RANKING SCORE (TOTAL POINTS): 0

BT601

Blow PIT

Date Remediation Started: _____

Date Completed: 8/13/98Remediation Method: Excavation ☒Approx. cubic yards 75

(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. RISK ASSESSED.

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 3' (NORTH SIDEWALL)Sample date 8/10/98 Sample time 0915

Sample Results

Soil: Benzene (ppm) 0.207 Water: Benzene (ppb) _____Total BTEX (ppm) 199.880 Toluene (ppb) _____Field Headspace (ppm) 1,218 Ethylbenzene (ppb) _____TPH (ppm) 1,420 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

8/13/98PRINTED 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 ☒

NO _____

(REASON)

RA. Attached

SIGNED:

Kee C Mammall

DATE:

9-9-98

3003922578

CLIENT: <u>AMOCO</u>	BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	LOCATION NO: <u>BT601</u> C.O.C. NO: <u>6116</u>
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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 C</u> WELL #: <u>6E</u> PIT: <u>BLOW</u> QUAD/UNIT: <u>B</u> SEC: <u>14</u> TWP: <u>26N</u> RNG: <u>5W</u> PM: <u>NM</u> CNTY: <u>RA</u> ST: <u>NM</u> QTR/FOOTAGE: <u>790' FNL / 1850' FEL</u> CONTRACTOR: <u>P&S</u>	DATE STARTED: <u>8/10/98</u> DATE FINISHED: _____ ENVIRONMENTAL SPECIALIST: <u>NV</u>
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EXCAVATION APPROX. <u>28</u> FT. x <u>22</u> FT. x <u>5</u> FT. DEEP.	CUBIC YARDAGE: <u>75</u>
DISPOSAL FACILITY: <u>ON-SITE</u>	REMEDIALATION METHOD: <u>LANDFARM</u>
LAND USE: <u>RANGE</u>	LEASE: <u>C</u> FORMATION: <u>DR</u>

FIELD NOTES & REMARKS:	PIT LOCATED APPROXIMATELY <u>78</u> FT. <u>SE</u> FROM WELLHEAD. DEPTH TO GROUNDWATER: <u>>100'</u> NEAREST WATER SOURCE: <u>>1000'</u> NEAREST SURFACE WATER: <u>>1000'</u> NMDCD RANKING SCORE: <u>0</u> NMDCD TPH CLOSURE STD: <u>5000</u> PPM SOIL AND EXCAVATION DESCRIPTION:
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CHECK ONE:
☒ PIT ABANDONED
☐ STEEL TANK INSTALLED
☐ FIBERGLASS TANK INSTALLED

SIDEWALLS - MOSTLY DR, YELLOW BROWN TO DUSKY RED SILTY SAND TO SILTY CLAY, NON COHESIVE TO COHESIVE, SLIGHTLY MOIST FIRM, NO APPARENT STAINING OBSERVED HC ODOOR DETECTED W/IN EXCAVATION & IN NORTH, SOUTH SIDEWALL DUM SAMPLES.

BOTTOM - BEDROCK (SHALE), VERY HARD, HC ODOOR DETECTED W/IN OVM SAMPLE.

BEDROCK BOTTOM

RISK ASSESSED

SCALE

0 FT

FIELD 418.1 CALCULATIONS

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

PIT PERIMETER

OVM RESULTS

SAMPLE ID	FIELD HEADSPACE PID (ppm)
1 @ 3'	1,218
2 @ 3'	0.0
3 @ 3'	163.1
4 @ 3'	0.0
5 @ 6'	452

PIT PROFILE

LAB SAMPLES

SAMPLE ID	ANALYSIS	TIME
① @ 3'	TPH/BTEX	09/15
TPH - PASSED		
TOT. BTEX - FAILED		

TRAVEL NOTES:	CALLOUT: <u>8/15/98 - MORN.</u>	ONSITE: <u>8/10/98 - MORN.</u>
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Well Name:	Jicarilla C #6E
Well Site location:	Unit B, Sec. 14, T26N, R5W
Pit Type:	Blow Pit
Producing Formation:	Basin Dakota
Pit Category:	Non Vulnerable
Horizontal Distance to Surface Water:	> 1000 ft.
Vicinity Groundwater Depth:	> 100 ft.

RISK ASSESSMENT (non-vulnerable area)

Pit remediation activities were terminated when trackhoe encountered shale bedrock at 6 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 shale bedrock located 6 feet below grade. Groundwater levels located on or close to the well pad are estimated to be at a much greater depth below shale 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 1.02 miles north of the nearest vulnerable area boundary (Tapacito Creek).

(Refer to Lapis Point 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 shale 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). AMOCO requests pit closure approval on this location.

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

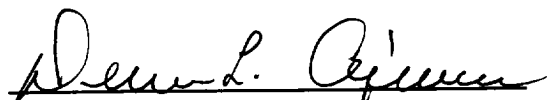
Client:	Blagg / AMOCO	Project #:	04034-10
Sample ID:	1 @ 3'	Date Reported:	08-13-98
Laboratory Number:	D796	Date Sampled:	08-10-98
Chain of Custody No:	6116	Date Received:	08-12-98
Sample Matrix:	Soil	Date Extracted:	08-13-98
Preservative:	Cool	Date Analyzed:	08-13-98
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	1,150	0.2
Diesel Range (C10 - C28)	267	0.1
Total Petroleum Hydrocarbons	1,420	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 C #6E Blow Pit.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Blagg / AMOCO	Project #:	04034-10
Sample ID:	1 @ 3'	Date Reported:	08-13-98
Laboratory Number:	D796	Date Sampled:	08-10-98
Chain of Custody:	6116	Date Received:	08-12-98
Sample Matrix:	Soil	Date Analyzed:	08-13-98
Preservative:	Cool	Date Extracted:	08-13-98
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	207	8.8
Toluene	56,610	8.4
Ethylbenzene	1,710	7.6
p,m-Xylene	100,250	10.8
o-Xylene	41,100	5.2
Total BTEX	199,880	

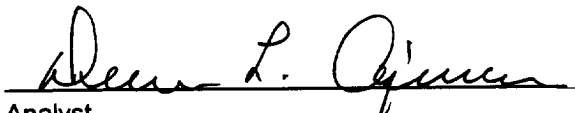
ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	100 %
	Bromofluorobenzene	100 %

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 C #6E Blow Pit.


Analyst


Review

6116

Ref Doc 6116-6117

ENVIROTECH INC.

5796 U.S. Highway 64
Farmington, New Mexico 87401

(505) 632-0615

Sample Receipt			
	Y	N	N/A
Received Intact	✓		
Cool - Ice/Blue Ice	✓		

BT601

PIT REMEDIATION AND CLOSURE REPORT

Operator: <u>AMOCO PRODUCTION COMPANY</u>		Telephone: <u>(505) 326-9200</u>
Address: <u>200 Amoco Court, Farmington, NM 87401</u>		
Facility or Well Name: <u>TICARILLA C #6E</u>		
Location: Unit or Qtr/Qtr Sec <u>B</u> Sec <u>14</u> T <u>26N</u> R <u>5W</u> County <u>RIO ARIZONA</u>		
Pit Type: Separator <input type="checkbox"/> Dehydrator <input type="checkbox"/> Other <u>PRODUCTION TANK</u>		
Land Type: <u>RANGE</u>		

Pit Location: (Attach diagram)	Pit dimensions: length <u>18'</u> , width <u>12'</u> , depth <u>4'</u>	
	Reference: wellhead <u>X</u> , other _____	
	Footage from reference: <u>123'</u>	
	Direction from reference: <u>64</u> Degrees <u>X</u> East of North _____ _____ West of South <u>X</u>	

Depth To Groundwater: (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>
Distance to an Ephemeral Stream (Downgradient dry wash greater than ten feet in width)	Less than 100 feet Greater than 100 feet	(10 points) (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 Greater than 100 feet	(10 points) (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 No	(20 points) (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 100 feet to 1000 feet Greater than 1000 feet	(20 points) (10 points) (0 points)	<u>0</u>
RANKING SCORE (TOTAL POINTS):			<u>0</u>

Date Remediation Started: _____

Date Completed: 8/10/98Remediation Method: Excavation ☒Approx. cubic yards 20

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 2' (NORTH SIDEWALL)Sample date 8/10/98 Sample time 1030

Sample Results

Soil: Benzene (ppm) _____ Water: Benzene (ppb) _____

Total BTEX (ppm) _____ Toluene (ppb) _____

Field Headspace (ppm) 0.0 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 8/10/98 PRINTED NAME Buddy D. ShawSIGNATURE 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 ☒ NO _____ (REASON) _____SIGNED: Kew C M... DATE: 9-9-98

CLIENT: <u>AMOCO</u>	BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	LOCATION NO: <u>8T601</u> C.D.C. NO: _____
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FIELD REPORT: CLOSURE VERIFICATION		PAGE No: <u>1</u> of <u>1</u>
LOCATION: NAME: <u>JICARILLA</u> C WELL #: <u>6E</u> PIT: <u>PROD.</u>		DATE STARTED: <u>8/10/98</u> DATE FINISHED: _____
QUAD/UNIT: <u>8</u> SEC: <u>14</u> TWP: <u>26N</u> RNG: <u>5W</u> PM: <u>NM</u> CNTY: <u>RA</u> ST: <u>NM</u>		ENVIRONMENTAL SPECIALIST: <u>NV</u>
QTR/FOOTAGE: <u>790' FNL / 1850' FEL</u> CONTRACTOR: <u>P & S</u>		

EXCAVATION APPROX. <u>18</u> FT. x <u>12</u> FT. x <u>4</u> FT. DEEP.	CUBIC YARDAGE: <u>20</u>
DISPOSAL FACILITY: <u>ON-SITE</u>	REMEDIATION METHOD: <u>LANDFARM</u>
LAND USE: <u>RANGE</u>	LEASE: <u>C</u> FORMATION: <u>DR</u>

FIELD NOTES & REMARKS:	PIT LOCATED APPROXIMATELY <u>123</u> FT. <u>564E</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:
<input checked="" type="checkbox"/> PIT ABANDONED
<input type="checkbox"/> STEEL TANK INSTALLED
<input type="checkbox"/> FIBERGLASS TANK INSTALLED

SIDEWALLS - DR. YELL. BROWN SAND TO SILTY SAND, NON COHESIVE, SLIGHTLY MOIST, FIRM TO DENSE NO APPARENT STAINING OR HC ODOR OBSERVED / DETECTED w/in EXCAVATION, NO APPARENT HC ODOR IN ANY OF THE OVM SAMPLES.

BOTTOM - BEDROCK (SHALE) VERY HARD, DR. YELL. BROWN IN COLOR, NO APPARENT HC ODOR IN OVM SAMPLE.

BEDROCK
BOTTOM

(CLOSED)

FIELD 418.1 CALCULATIONS

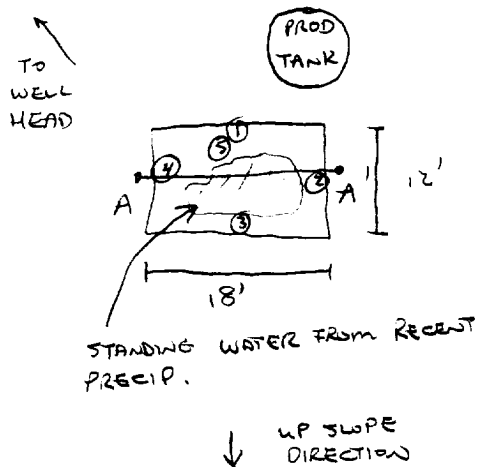
TIME	SAMPLE I.D.	LAB No:	WEIGHT (g)	mL. FREON	DILUTION	READING	CALC. ppm
1030	① 2'	TPH-2009	5	20	1:1	5	ND

SCALE



0 FT

PIT PERIMETER



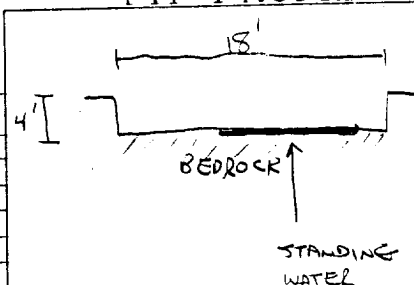
OVM RESULTS

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

LAB SAMPLES

SAMPLE ID	ANALYSIS	TIME

PIT PROFILE



TRAVEL NOTES:	CALLOUT: <u>8/5/98 - MORN.</u>	ONSITE: <u>8/10/98 - MORN.</u>
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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
Sample ID: 1 @ 2'
Project Location: Jicarilla C # 6E
Laboratory Number: TPH-2009

Project #:
Date Analyzed: 08-10-98
Date Reported: 08-10-98
Sample Matrix: Soil

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

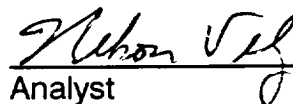
ND = Not Detectable at stated detection limits.

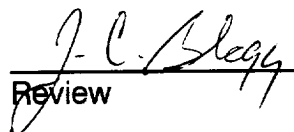
QA/QC:	QA/QC Sample TPH mg/kg	Duplicate TPH mg/kg	% *Diff.
	228	244	6.78

*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: Production Tank Pit - BJ601


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:

AMOCO

Project #:

Sample ID:

1 @ 2'

Date Analyzed:

08-10-98

Project Location:

Jicarilla C # 6E

Date Reported:

08-10-98

Laboratory Number:

TPH-2009

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.

228

244

6.78

Comments: *****Max Characters*****

Comments: Production Tank Pit - BJ601

87601

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

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

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 #6E
Location: Unit or Qtr/Qtr Sec B Sec 14 T 26N R 5W County RIO ARRIBA
Pit Type: Separator ☒ Dehydrator ☐ Other ☐
Land Type: RANGE

Pit Location: Pit dimensions: length 19', width 17', depth 5'
(Attach diagram) Reference: wellhead X, other ☐
Footage from reference: 120'
Direction from reference: 87 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>0</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): 0

BTG01

SEP. PIT

Date Remediation Started: _____

Date Completed: _____

8/10/98

Remediation Method: Excavation ☒

Approx. cubic yards _____

50

Check all appropriate sections)

Landfarmed ☒

Insitu Bioremediation _____

Other _____

Remediation Location:
(i.e. landfarmed onsite,
name and location of
offsite facility)Onsite ☒ Offsite _____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 2' (NORTH SIDEWALL)Sample date 8/10/98Sample time 0800

Sample Results

Soil: Benzene (ppm) _____

Water: Benzene (ppb) _____

Total BTEX (ppm) _____

Toluene (ppb) _____

Field Headspace (ppm) 0.0

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

8/10/98

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 ☒

NO _____

(REASON) _____

SIGNED:

K. C. Marshall

DATE:

9-9-98

CLIENT: <u>AMOCO</u>	BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	LOCATION NO: <u>BT601</u> C.D.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 C</u> WELL #: <u>GE</u> PIT: <u>SEP</u> QUAD/UNIT: <u>B</u> SEC: <u>14</u> TWP: <u>26N</u> RNG: <u>5W</u> PM: <u>NM CNTY: RA</u> ST: <u>NM</u> QTR/FOOTAGE: <u>790' FNL / 1850' FEL</u> CONTRACTOR: <u>P+S</u>	DATE STARTED: <u>8/10/98</u> DATE FINISHED: _____ ENVIRONMENTAL SPECIALIST: <u>NV</u>
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EXCAVATION APPROX. <u>19</u> FT. x <u>17</u> FT. x <u>5</u> FT. DEEP.	CUBIC YARDAGE: <u>50</u>
DISPOSAL FACILITY: <u>ON-SITE</u>	REMEDIATION METHOD: <u>LANDFARM</u>
LAND USE: <u>RANGE</u>	LEASE: <u>C</u> FORMATION: <u>DR</u>

FIELD NOTES & REMARKS:	PIT LOCATED APPROXIMATELY <u>120</u> FT. <u>S87E</u> FROM WELLHEAD. DEPTH TO GROUNDWATER: <u>>100'</u> NEAREST WATER SOURCE: <u>>1000'</u> NEAREST SURFACE WATER: <u>>1000'</u> NMDCD RANKING SCORE: <u>0</u> NMDCD TPH CLOSURE STD: <u>5000</u> PPM SOIL AND EXCAVATION DESCRIPTION: SIDEWALLS: MOSTLY DR. YELL. BROWN TO DUSKY RED SILTY SAND TO SILTY CLAY, NON COHESIVE, SLIGHTLY MOIST FIRM TO STIFF NO APPARENT STAINING OR HC ODOR OBSERVED / DETECTED W/IN EXCAVATION, NO APPARENT HC ODOR IN ANY OF THE OVM SAMPLES. BOTTOM - BEDROCK (SANDSTONE) DR. YELL. BROWN IN COLOR, VERY HARD, NO APPARENT HC ODOR IN OVM SAMPLE.
------------------------	--

BEDROCK BOTTOM

CLOSED

SCALE

0 FT

FIELD 418.1 CALCULATIONS

TIME	SAMPLE I.D.	LAB No:	WEIGHT (g)	mL. FREON	DILUTION	READING	CALC. ppm
0800	① C2'	TPH-2008	5	20	1:1	4	ND

PIT PERIMETER

OVM RESULTS

SAMPLE ID	FIELD HEADSPACE PID (ppm)
1 C2'	0.0
2 C2'	0.0
3 C3'	0.0
4 C2'	0.0
5 C5'	0.0

LAB SAMPLES

SAMPLE ID	ANALYSIS	TIME

PIT PROFILE

TRAVEL NOTES:	CALLOUT: <u>8/5/98 - MORN.</u>	ONSITE: <u>8/10/98 - MORN.</u>
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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
Sample ID: 1 @ 2'
Project Location: Jicarilla C # 6E
Laboratory Number: TPH-2008

Project #:
Date Analyzed: 08-10-98
Date Reported: 08-10-98
Sample Matrix: Soil

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

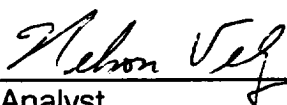
ND = Not Detectable at stated detection limits.

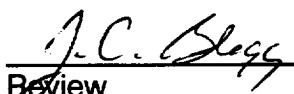
QA/QC:	QA/QC Sample TPH mg/kg	Duplicate TPH mg/kg	% *Diff.
	228	244	6.78

*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 - BJ601


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:

Sample ID:

Project Location:

Laboratory Number:

AMOCO

1 @ 2'

Jicarilla C # 6E

TPH-2008

Project #:

Date Analyzed:

Date Reported:

Sample Matrix:

08-10-98

08-10-98

Soil

Sample Weight:

5.00 grams

Volume Freon:

20.00 mL

Dilution Factor:

1 (unitless)

TPH Reading:

4 mg/kg

TPH Result:

16.0 mg/kg

Reported TPH Result:

16 mg/kg

Actual Detection Limit:

20.0 mg/kg

Reported Detection Limit:

20 mg/kg

QA/QC:

Original
TPH mg/kg

228

Duplicate
TPH mg/kg

244

%
Diff.

6.78

Comments:

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

Comments:

Separator Pit - BJ601

65600

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

Address: 200 Amoco Court, Farmington, NM 87401

Facility or Well Name: JICARILLA CUE

Location: Unit or Qtr/Qtr Sec B Sec 14 T 26N R 5W County RIO ARIZONA

Land Type: RANGE

Date Remediation Started: 8-10-98

Date Completed: 2/10/99

Remediation Method: Landfarmed ☒

Approx. cubic yards 145

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: 2-8-99 Time: 1030

Sample Results:

Field Headspace (ppm) 0.0

TPH (ppm) 2.5 Method 8015

Other ☐

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

DATE 2/10/99 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 ☒ NO ☐ (REASON) _____

SIGNED: K. C. M. [Signature] DATE: 3-31-99

CLIENT: <u>AMOCO</u>	BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	LOCATION NO: <u>B5601</u> C.D.C. NO: <u>6567</u>
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FIELD REPORT: LANDFARM/COMPOST PILE CLOSURE VERIFICATION

LOCATION: NAME: <u>SCARILLA C</u>	WELL #: <u>GE</u>	PITS: <u>SEP, BLOW, PROD</u>	DATE STARTED: <u>2.8.99</u>
QUAD/UNIT: <u>B</u>	SEC: <u>14</u>	TWP: <u>26N</u>	RNG: <u>5W</u>
PM: <u>NM</u>	CNTY: <u>RA</u>	ST: <u>NM</u>	DATE FINISHED: _____
QTP/FOOTAGE: <u>NW/4 NE/4</u>		CONTRACTOR: <u>P&S</u>	ENVIRONMENTAL SPECIALIST: <u>REP</u>

SOIL REMEDIATION:

REMEDICATION SYSTEM: LANDFARM

APPROX. CUBIC YARDAGE: 145

LAND USE: RANGE

LIFT DEPTH (ft): 1-1.5'

FIELD NOTES & REMARKS:

DEPTH TO GROUNDWATER: >100' NEAREST WATER SOURCE: >1000' NEAREST SURFACE WATER: >1000'

NMOCU RANKING SCORE: 0 NMOCU TPH CLOSURE STD: 5000 PPM

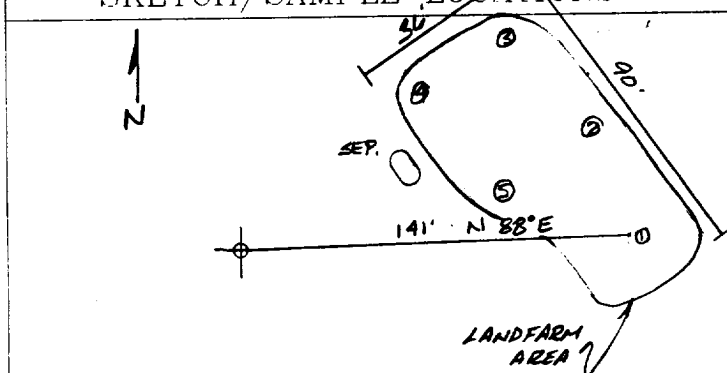
MODERATE YELLOWISH BROWN SAND. NON COHESIVE, SLIGHTLY MOIST, FIRM.
NO VISIBLE STAINING OBSERVED. NO HC ODOR DETECTED. SAMPLING DEPTHS
RANGE FROM 6"-12". TOOK A 5 FT. COMPOSITE SAMPLE FOR LAB. ANALYSIS.

CLOSED

FIELD 418.1 CALCULATIONS

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

SKETCH/SAMPLE LOCATIONS



OVM RESULTS

LAB SAMPLES

SAMPLE ID	FIELD HEADSPACE PID (ppm)	SAMPLE ID	ANALYSIS	TIME	RESULTS
LF-1	0.0	LF-1	TPH (8015)	1030	2.5

SCALE

0 1 FT

TRAVEL NOTES:

CALLOUT: N/A

ONSITE: 2.8.99

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons


Client:	Blagg / AMOCO	Project #:	403410
Sample ID:	LF - 1	Date Reported:	02-10-99
Laboratory Number:	E617	Date Sampled:	02-08-99
Chain of Custody No:	6567	Date Received:	02-09-99
Sample Matrix:	Soil	Date Extracted:	02-10-99
Preservative:	Cool	Date Analyzed:	02-10-99
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	0.5	0.2
Diesel Range (C10 - C28)	2.0	0.1
Total Petroleum Hydrocarbons	2.5	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 C 6E Landfarm. 5 Pt. Composite.


Analyst


Review

6567

(505) 632-0615