

DEPUTY OIL & GAS SUPERVISOR

001 0 8 1999

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

Blow (I) - OK
Blow (II) - OK
Blow (III) - OK
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 CONTRACT 148 - 17
Location: Unit or Qtr/Qtr Sec I Sec 15 T 25N R 5W County RIO ARIZONA
Pit Type: Separator Dehydrator Other BLOW (I)
Land Type: RANGE

Pit Location: Pit dimensions: length 22', width 20', depth 20'
(Attach diagram) Reference: wellhead X, other
Footage from reference: 138'
Direction from reference: 43 Degrees East North X
X West South

Depth To Groundwater:
(Vertical distance from
contaminants to seasonal
high water elevation of
groundwater)

RECEIVED
AUG 24 1999

Less than 50 feet	(20 points)	<u>0</u>
50 feet to 99 feet	(10 points)	<u>0</u>
Greater than 100 feet	(0 points)	<u>0</u>

Distance to an Ephemeral Stream
(Downgradient dry wash greater than
ten feet in width)

OIL CON. DIV.
DIST. 3

Less than 100 feet	(10 points)	<u>0</u>
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)	<u>0</u>
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)	<u>0</u>
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)	<u>0</u>
100 feet to 1000 feet	(10 points)	<u>0</u>
Greater than 1000 feet	(0 points)	<u>0</u>

RANKING SCORE (TOTAL POINTS): 0

BT557 Blow PIT (I)

Date Remediation Started: _____ Date Completed: 5/26/98Remediation Method: Excavation ☒ Approx. cubic yards 175
Check all appropriate sections) Landfarmed ☒ Insitu Bioremediation _____
Other _____Remediation Location: Onsite _____ Offsite ☒ TICA. CONTR. 148-174 (A-15-25-5)
(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: Sample location see Attached Documents
Closure Sampling: _____
(if multiple samples,
attach sample results
and diagram of sample
locations and depths) Sample depth 15' (WEST SIDEWALK)
Sample date 5/26/98 Sample time 1230

Sample Results

Soil: Benzene	(ppm)	_____	Water: Benzene	(ppb)	_____
Total BTEX	(ppm)	_____	Toluene	(ppb)	_____
Field Headspace	(ppm)	<u>0.0</u>	Ethylbenzene	(ppb)	_____
TPH	(ppm)	<u>ND</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 5/26/98 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: Kate C. Mamm DATE: 6-15-98

CLIENT: <u>AMOCO</u>	BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	LOCATION NO: <u>BT557</u> C.O.C. NO: _____																																								
FIELD REPORT: CLOSURE VERIFICATION		PAGE No: <u>1</u> of <u>1</u>																																								
LOCATION: NAME: <u>JICA. CONTR. 148</u> WELL #: <u>17</u> PIT: <u>Blow I</u> QUAD/UNIT: <u>I</u> SEC: <u>15</u> TWP: <u>25 N</u> RNG: <u>5 W</u> PM: <u>NM</u> CNTY: <u>RA</u> ST: <u>NM</u> QTR/FOOTAGE: <u>NE 1/4 SE 1/4</u> CONTRACTOR: <u>PFS</u>		DATE STARTED: <u>5/26/98</u> DATE FINISHED: _____ ENVIRONMENTAL SPECIALIST: <u>NV</u>																																								
EXCAVATION APPROX. <u>22</u> FT. x <u>20</u> FT. x <u>20</u> FT. DEEP. CUBIC YARDAGE: <u>175</u> DISPOSAL FACILITY: <u>JICA. CONTR. 148-177</u> REMEDIATION METHOD: <u>LANDFARM</u> LAND USE: <u>RANGE</u> LEASE: <u>JIC 148</u> FORMATION: <u>CK</u>																																										
FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY <u>138</u> FT. <u>N43W</u> FROM WELLHEAD. DEPTH TO GROUNDWATER: <u>>100'</u> NEAREST WATER SOURCE: <u>>1000'</u> NEAREST SURFACE WATER: <u>>1000'</u> NMOC RANKING SCORE: <u>0</u> NMOC TPH CLOSURE STD: <u>5000</u> PPM SOIL AND EXCAVATION DESCRIPTION:																																										
<p style="margin-left: 40px;"> MOSTLY MOD. TO DR. YELL. BROWN SAND, LOW COHESIVE SLIGHTLY MOIST, FIRM, NO APPARENT STAINING OR HC ODOR OBSERVED w/in EXCAVATION, NO APPARENT HC ODOR OBSERVED w/in ANY OF THE OVM SAMPLES. PIT BOTTOM CONSIST OF PALE ORANGE BEDROCK (SANDSTONE), VERY HARD, NO APPARENT STAINING OR HC ODOR. </p>																																										
<div style="display: flex; justify-content: space-between; align-items: flex-start;"> <div style="width: 30%;"> <p><u>BEDROCK BOTTOM</u></p> <p><u>CLOSED</u></p> <p>WELL P & A D 4/27/93.</p> <p>SCALE 0 FT</p> </div> <div style="width: 60%;"> <p style="text-align: center;">FIELD 418.1 CALCULATIONS</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>TIME</th> <th>SAMPLE I.D.</th> <th>LAB No:</th> <th>WEIGHT (g)</th> <th>mL. FREON</th> <th>DILUTION</th> <th>READING</th> <th>CALC. ppm</th> </tr> </thead> <tbody> <tr> <td>1230</td> <td>④ 2' 15"</td> <td>TPH-1981</td> <td>5</td> <td>20</td> <td>1:1</td> <td>4</td> <td>ND</td> </tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table> </div> </div>			TIME	SAMPLE I.D.	LAB No:	WEIGHT (g)	mL. FREON	DILUTION	READING	CALC. ppm	1230	④ 2' 15"	TPH-1981	5	20	1:1	4	ND																								
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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: 4 @ 15'
Project Location: Jicarilla Contract 148 - 17
Laboratory Number: TPH-1981

Project #:
Date Analyzed: 05-26-98
Date Reported: 05-26-98
Sample Matrix: Soil

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

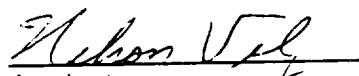
ND = Not Detectable at stated detection limits.

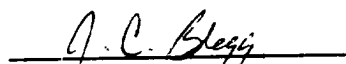
QA/QC:	QA/QC Sample TPH mg/kg	Duplicate TPH mg/kg	% *Diff.
	1684	1712	1.65

*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 (I) - BJ557


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

4 @ 15'

Jicarilla Contract 148 - 17

TPH-1981

Project #:

Date Analyzed:

Date Reported:

Sample Matrix:

05-26-98

05-26-98

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	Duplicate TPH mg/kg	% Diff.
	----- 1684	----- 1712	----- 1.65

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

Comments: Blow Pit (I) - BJ557

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

85557

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 CONTRACT 148-17
Location: Unit or Qtr/Qtr Sec I Sec 15 T 25N R 5W County RIO ARriba
Pit Type: Separator Dehydrator Other BLOW PIT (II)
Land Type: RANGE

Pit Location: Pit dimensions: length 32', width 33', depth 20'
(Attach diagram) Reference: wellhead X, other
Footage from reference: 168'
Direction from reference: 53 Degrees East of North X
X 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)	<u>0</u>
	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)	<u>0</u>
	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)	<u>0</u>
	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)	<u>0</u>
	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)	<u>0</u>
	Greater than 1000 feet	(0 points)	<u>0</u>

RANKING SCORE (TOTAL POINTS): 0

Date Remediation Started: _____ Date Completed: 5/26/98

Remediation Method: Excavation ☒ Approx. cubic yards 600
 Check all appropriate (actions) 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: Sample location see Attached Documents

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

Sample depth 16' (WEST SIDEWALL)

Sample date 5/26/98 Sample time 1330

Sample Results

Soil: Benzene	(ppm)	_____	Water: Benzene	(ppb)	_____
Total BTEX	(ppm)	_____	Toluene	(ppb)	_____
Field Headspace	(ppm)	<u>0.0</u>	Ethylbenzene	(ppb)	_____
TPH	(ppm)	<u>ND</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 5/26/98 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: Kee C. Mamm DATE: 6-15-98

CLIENT: <u>AMOCO</u>	BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	LOCATION NO: <u>BJS57</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>JICA. CONTR. 148</u> WELL #: <u>17</u> PIT: <u>BLOW II</u>	DATE STARTED: <u>5/26/98</u> DATE FINISHED: _____
QUAD/UNIT: <u>I SEC: 15</u> TWP: <u>25N</u> RNG: <u>5W</u> PM: <u>NM CNTY: RA ST: NM</u>	ENVIRONMENTAL SPECIALIST: <u>NV</u>
QTR/FOOTAGE: <u>NE 1/4 SE 1/4</u> CONTRACTOR: <u>P & S</u>	

EXCAVATION APPROX. <u>32</u> FT. x <u>33</u> FT. x <u>20</u> FT. DEEP. CUBIC YARDAGE: <u>600</u>
DISPOSAL FACILITY: <u>ON-SITE</u> REMEDIATION METHOD: <u>LANDFARM</u>
LAND USE: <u>RANGE</u> LEASE: <u>JIC 148</u> FORMATION: <u>CK</u>

FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY <u>168</u> FT. <u>N53W</u> FROM WELLHEAD.
DEPTH TO GROUNDWATER: <u>2100'</u> NEAREST WATER SOURCE: <u>21000'</u> NEAREST SURFACE WATER: <u>21000'</u>

NMOCB RANKING SCORE: <u>0</u> NMOCB TPH CLOSURE STD: <u>5000</u> PPM	CHECK ONE: <input checked="" type="checkbox"/> PIT ABANDONED <input type="checkbox"/> STEEL TANK INSTALLED <input type="checkbox"/> FIBERGLASS TANK INSTALLED
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SOIL AND EXCAVATION DESCRIPTION:

MOSTLY MOD. TO DR. YELL. BROWN SAND, NON COHESIVE, SLIGHTLY MOIST, FIRM, NO APPARENT STAINING OR HC ODOR OBSERVED W/IN EXCAVATION, NO APPARENT HC ODOR OBSERVED IN ANY OF THE OVM SAMPLES, PIT BOTTOM CONSIST OF PALE ORANGE BEDROCK (SANDSTONE), VERY HARD, NO APPARENT STAINING OR HC ODOR.

<p>BECKX BOTTOM</p> <p>SCALE</p> <p>0 FT</p>	<p>CLOSED</p> <p>WELL P & S 4/27/93</p> <p>FIELD 418.1 CALCULATIONS</p> <table border="1"> <thead> <tr> <th>TIME</th> <th>SAMPLE I.D.</th> <th>LAB No:</th> <th>WEIGHT (g)</th> <th>mL. FREON</th> <th>DILUTION</th> <th>READING</th> <th>CALC. ppm</th> </tr> </thead> <tbody> <tr> <td>1330</td> <td>④ @ 16'</td> <td>TPH-1982</td> <td>5</td> <td>20</td> <td>1:1</td> <td>5</td> <td>ND</td> </tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>	TIME	SAMPLE I.D.	LAB No:	WEIGHT (g)	mL. FREON	DILUTION	READING	CALC. ppm	1330	④ @ 16'	TPH-1982	5	20	1:1	5	ND																
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<p>PIT PERIMETER</p>	<p>OVM RESULTS</p> <table border="1"> <thead> <tr> <th>SAMPLE ID</th> <th>FIELD HEADSPACE PID (ppm)</th> </tr> </thead> <tbody> <tr><td>1 @ 14'</td><td>0.0</td></tr> <tr><td>2 @ 14'</td><td>0.0</td></tr> <tr><td>3 @ 14'</td><td>0.0</td></tr> <tr><td>4 @ 16'</td><td>0.0</td></tr> <tr><td>5 @ 20'</td><td>0.0</td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </tbody> </table> <p>LAB SAMPLES</p> <table border="1"> <thead> <tr> <th>SAMPLE ID</th> <th>ANALYSIS</th> <th>TIME</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table>	SAMPLE ID	FIELD HEADSPACE PID (ppm)	1 @ 14'	0.0	2 @ 14'	0.0	3 @ 14'	0.0	4 @ 16'	0.0	5 @ 20'	0.0											SAMPLE ID	ANALYSIS	TIME																<p>PIT PROFILE</p>
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TRAVEL NOTES: CALLOUT: _____	ONSITE: <u>5/26/98</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	Project #:	
Sample ID:	4 @ 16'	Date Analyzed:	05-26-98
Project Location:	Jicarilla Contract 148 - 17	Date Reported:	05-26-98
Laboratory Number:	TPH-1982	Sample Matrix:	Soil

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

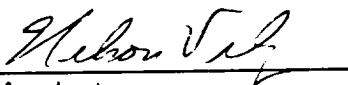
ND = Not Detectable at stated detection limits.

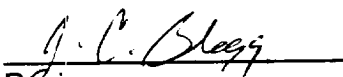
QA/QC:	QA/QC Sample TPH mg/kg	Duplicate TPH mg/kg	% *Diff.
	1684	1712	1.65

*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 (II) - BJ557


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

4 @ 16'

Jicarilla Contract 148 - 17

TPH-1982

Project #:

Date Analyzed:

Date Reported:

Sample Matrix:

05-26-98

05-26-98

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.
	----- 1684	----- 1712	----- 1.65

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

Comments: Blow Pit (II) - BJ557

8J557

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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 CONTRACT 148-17
Location: Unit or Qtr/Qtr Sec I Sec 15 T 25N R 5W County RIO ARriba
Pit Type: Separator Dehydrator Other BLOW (III)
Land Type: RANGE

Pit Location: Pit dimensions: length 50, width 44, depth 27
(Attach diagram) Reference: wellhead X, other
Footage from reference: 153'
Direction from reference: 74 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 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): 0

8J557

BLOW PIT (III)

Date Remediation Started: _____ Date Completed: 5/28/98

Remediation Method: Excavation ☒ Approx. cubic yards 1000
Check all appropriate (actions) 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: Sample location see Attached Documents

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

Sample depth 20'

Sample date 5/28/98 Sample time 0955

Sample Results

Soil: Benzene (ppm)	_____	Water: Benzene (ppb)	_____
Total BTEX (ppm)	_____	Toluene (ppb)	_____
Field Headspace (ppm)	<u>0.0</u>	Ethylbenzene (ppb)	_____
TPH (ppm)	<u>ND</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 5/28/98 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: Kate C McManis DATE: 6-15-98

CLIENT: <u>AMOCO</u>	BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	LOCATION NO: <u>5J557</u> C.D.C. NO: _____																																								
FIELD REPORT: CLOSURE VERIFICATION		PAGE No: <u>1</u> of <u>1</u>																																								
LOCATION: NAME <u>JICA. CONTR. 148</u> WELL #: <u>17</u> PIT: <u>BLow III</u>		DATE STARTED: <u>5/28/98</u> DATE FINISHED: _____																																								
QUAD/UNIT: <u>I</u> SEC: <u>15</u> TWP: <u>25N</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>NEL4 SE14</u> CONTRACTOR: <u>P & S</u>																																										
EXCAVATION APPROX. <u>50</u> FT. x <u>44</u> FT. x <u>27</u> FT. DEEP. CUBIC YARDAGE: <u>1000</u>																																										
DISPOSAL FACILITY: <u>ON-SITE</u> REMEDIATION METHOD: <u>LANDFARM</u>																																										
LAND USE: <u>RANGE</u> LEASE: <u>JIC 148</u> FORMATION: <u>CK</u>																																										
FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY <u>153</u> FT. <u>574W</u> FROM WELLHEAD.																																										
DEPTH TO GROUNDWATER: <u>2100'</u> NEAREST WATER SOURCE: <u>21000'</u> NEAREST SURFACE WATER: <u>21000'</u>																																										
NMOC D RANKING SCORE: <u>0</u> NMOC D TPH CLOSURE STD: <u>5000</u> PPM																																										
SOIL AND EXCAVATION DESCRIPTION:																																										
<p> CHECK ONE: <input checked="" type="checkbox"/> PIT ABANDONED <input type="checkbox"/> STEEL TANK INSTALLED <input type="checkbox"/> FIBERGLASS TANK INSTALLED </p>																																										
<p> MOSTLY MOD. TO DR. YELL. BROWN SAND w/ SOME PEBBLE SIZE GROUT NEAR PIT BOTTOM, NOW COHESIVE, SLIGHTLY MOIST, FIRM, NO APPARENT STAINING OR HC ODOR OBSERVED w/in EXCAVATION, NO APPARENT HC ODOR OBSERVED IN ANY OF THE OVM SAMPLES, BEDROCK ENCOUNTERED 1 FT. BELOW PIT BOTTOM, SOME LT. GRAY DISCOLORATION OBSERVED, NO APPARENT HC ODOR IN OVM SAMPLE. </p>																																										
<div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> BEDROCK BOTTOM </div> <div style="border: 1px solid black; border-radius: 50%; padding: 5px; display: inline-block;"> CLOSED </div> <div style="margin-top: 20px;"> SCALE 0 FT </div>	<div style="text-align: center;">FIELD 418.1 CALCULATIONS</div> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>TIME</th> <th>SAMPLE I.D.</th> <th>LAB No:</th> <th>WEIGHT (g)</th> <th>mL. FREON</th> <th>DILUTION</th> <th>READING</th> <th>CALC. ppm</th> </tr> </thead> <tbody> <tr> <td>0955</td> <td>(4) @ 20'</td> <td>TAH-1983</td> <td>5</td> <td>20</td> <td>1:1</td> <td>5</td> <td>ND</td> </tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>	TIME	SAMPLE I.D.	LAB No:	WEIGHT (g)	mL. FREON	DILUTION	READING	CALC. ppm	0955	(4) @ 20'	TAH-1983	5	20	1:1	5	ND																									<div style="text-align: center;">PIT PROFILE</div>
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SAMPLE ID	ANALYSIS	TIME																																								
TRAVEL NOTES: CALLOUT: _____ ONSITE: <u>5/28/98</u>																																										

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:	4 @ 20'	Date Analyzed:	05-28-98
Project Location:	Jicarilla Contract 148 - 17	Date Reported:	05-28-98
Laboratory Number:	TPH-1983	Sample Matrix:	Soil

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

ND = Not Detectable at stated detection limits.

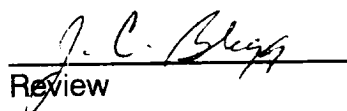
QA/QC:	QA/QC Sample TPH mg/kg	Duplicate TPH mg/kg	% *Diff.
	1684	1712	1.65

*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 (III) - BJ557


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

4 @ 20'

Jicarilla Contract 148 - 17

TPH-1983

Project #:

Date Analyzed:

Date Reported:

Sample Matrix:

05-28-98

05-28-98

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.
	-----	-----	---
	1684	1712	1.65

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

Comments: Blow Pit (III) - BJ557

**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>AMOCO PRODUCTION COMPANY</u>		Telephone: <u>(505) 326-9200</u>
Address: <u>200 Amoco Court, Farmington, NM 87401</u>		
Facility or Well Name: <u>JICARILLA CONTRACT 148-17</u>		
Location: Unit or Qtr/Qtr Sec <u>A</u> Sec <u>15</u> T <u>25N</u> R <u>5W</u> County <u>RIO ARIZONA</u>		
Land Type: <u>RANGE</u>		
Date Remediation Started: <u>5-24-98</u>		Date Completed: <u>1-13-99</u>
Remediation Method: Landfarmed <input checked="" type="checkbox"/> Composted <input type="checkbox"/> Other <input type="checkbox"/>		Approx. cubic yards <u>1600</u>

<table><tr><td>Depth To Groundwater:</td><td>(pts.) <u>0</u></td></tr><tr><td>Distance to an Ephemeral Stream</td><td>(pts.) <u>0</u></td></tr><tr><td>Distance to Nearest Lake, Playa, or Watering Pond</td><td>(pts.) <u>0</u></td></tr><tr><td>Wellhead Protection Area:</td><td>(pts.) <u>0</u></td></tr><tr><td>Distance To Surface Water:</td><td>(pts.) <u>0</u></td></tr><tr><td colspan="2">RANKING SCORE (TOTAL POINTS): <u>0</u></td></tr></table>	Depth To Groundwater:	(pts.) <u>0</u>	Distance to an Ephemeral Stream	(pts.) <u>0</u>	Distance to Nearest Lake, Playa, or Watering Pond	(pts.) <u>0</u>	Wellhead Protection Area:	(pts.) <u>0</u>	Distance To Surface Water:	(pts.) <u>0</u>	RANKING SCORE (TOTAL POINTS): <u>0</u>		Final Closure Sampling: Sampling Date: <u>1-11-99</u> Time: <u>1130</u> Sample Results: Field Headspace (ppm) <u>0.0</u> TPH (ppm) <u>1030</u> Method <u>8015</u> Other <u>MULTIPLE SAMPLES - SEE ATTACHED FORM</u>
Depth To Groundwater:	(pts.) <u>0</u>												
Distance to an Ephemeral Stream	(pts.) <u>0</u>												
Distance to Nearest Lake, Playa, or Watering Pond	(pts.) <u>0</u>												
Wellhead Protection Area:	(pts.) <u>0</u>												
Distance To Surface Water:	(pts.) <u>0</u>												
RANKING SCORE (TOTAL POINTS): <u>0</u>													

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

DATE <u>1/13/99</u>	PRINTED NAME <u>Buddy D. Shaw</u>
SIGNATURE <u>Buddy D. Shaw</u>	AND TITLE <u>Environmental Coordinator</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: K. C. M. [Signature] **DATE:** 3-31-99

CLIENT: AMOCOBLAGG ENGINEERING, INC.
P.O. BOX 87, BLOOMFIELD, NM 87413
(505) 632-1199LOCATION NO: 3557C.D.C. NO: 0542

FIELD REPORT: LANDFARM/COMPOST PILE CLOSURE VERIFICATION

LOCATION: NAME: JICARILLA CONTRACT 148 WELL #: 17 PITS: BLOW 1, 2, 3
QUAD/UNIT: A SEC: 15 TWP: 25N RNG: 5W PM: NM CNTY: RA ST: NM
QTR/FOOTAGE: NE/4 NE/4 CONTRACTOR:DATE STARTED: 11.99DATE FINISHED: 1.13.99ENVIRONMENTAL
SPECIALIST: REP

SOIL REMEDIATION:

REMEDIATION SYSTEM: LANDFARMAPPROX. CUBIC YARDAGE: 1600LAND USE: RANGELIFT DEPTH (ft): 1.2

FIELD NOTES & REMARKS:

DEPTH TO GROUNDWATER: 7100' NEAREST WATER SOURCE: 71000' NEAREST SURFACE WATER: 71000'NMOCED RANKING SCORE: 0 NMOCED TPH CLOSURE STD: 5000 PPM

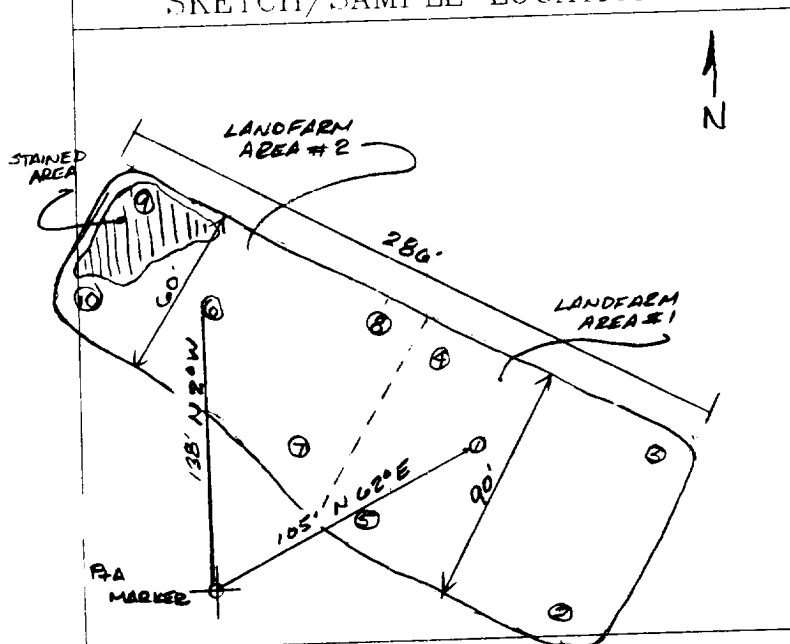
OK YELLOW-ORANGE TO BROWN SAND. NON COHESIVE, SLIGHTLY MOIST, FIRM
LARGE AREA OF STAINING IN LANDFARM #2 AREA (SEE SKETCH BELOW)
NO H.C ODOR DETECTED. SAMPLING DEPTHS RANGE FROM 6"-18"
TOOK A 5 PT. COMPOSITE SAMPLE FROM EACH LANDFARM AREA
FOR LAB ANALYSIS

CLOSEDAPPROX. 175 C.Y. TRANSPORTED
FROM 148-174

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 (BD15)	1130	12.1
LF-2	0.0	LF-2	" "	1150	1030

SCALE

0 FT

TRAVEL NOTES:

CALLOUT: N/AONSITE: 11.99

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

Client: Blagg / AMOCO
Sample ID: LF - 1
Laboratory Number: E491
Chain of Custody No: 6542
Sample Matrix: Soil
Preservative: Cool
Condition: Cool and Intact

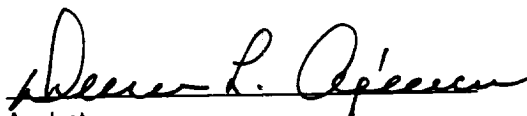
Project #: 04034-10
Date Reported: 01-13-99
Date Sampled: 01-11-99
Date Received: 01-12-99
Date Extracted: 01-12-99
Date Analyzed: 01-13-99
Analysis Requested: 8015 TPH

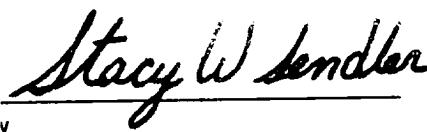
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	5.4	0.2
Diesel Range (C10 - C28)	6.7	0.1
Total Petroleum Hydrocarbons	12.1	0.2

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 Contract 148 - 17 Landfarm. 5 Pt. Composite.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

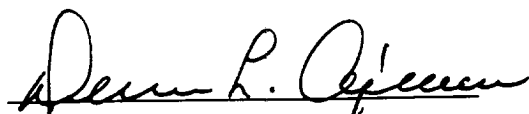
Client:	Blagg / AMOCO	Project #:	04034-10
Sample ID:	LF - 2	Date Reported:	01-13-99
Laboratory Number:	E492	Date Sampled:	01-11-99
Chain of Custody No:	6542	Date Received:	01-12-99
Sample Matrix:	Soil	Date Extracted:	01-12-99
Preservative:	Cool	Date Analyzed:	01-13-99
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	10.9	0.2
Diesel Range (C10 - C28)	1,020	0.1
Total Petroleum Hydrocarbons	1,030	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 Contract 148 - 17 Landfarm. 5 Pt. Composite.


Analyst


Review

CHAIN OF CUSTODY RECORD

6542

Client / Project Name			Project Location			ANALYSIS / PARAMETERS											
BLACK/AMOCO			SICAPULA CONTRACT 148-17														
Sampler: REP			Client No. 04034-10			No. of Containers		Remarks									
Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix		TPH	8015										
LF-1	1.11.99	1130	E491	SOIL		1	✓										SPR COMPOSITE
LF-2	1.11.99	1150	E492	SOIL		1	✓										SPR COMPOSITE
																	SAMPLES PRESERVE
																	COOL
Relinquished by: (Signature)			Date			Time			Received by: (Signature)			Date			Time		
Relinquished by: (Signature)			11/29/99			0730			Received by: (Signature)			1.12.99			0730		
Relinquished by: (Signature)									Received by: (Signature)								
Relinquished by: (Signature)									Received by: (Signature)								
<div> <div> <div>5796 U.S. Highway 64</div> <div>Farmington, New Mexico 87401</div> <div>(505) 632-0615</div> </div> <div> <div>ENVIROTECH INC.</div> </div> </div>																	
<div> <div>Sample Receipt</div> <div> <div>Received Intact</div> <div>✓</div> </div> <div> <div>Cool - Ice/Blue Ice</div> <div>✓</div> </div> </div>																	

By CAC'S 6541-6544