

AND OIL & GAS ADMINISTRATION

AUG 09 1999

OIL CON. DIV
DIST. 3

IV. REMEDIATION AND CLOSURE REPORT

RANKING SCORE (TOTAL POINTS):

Date Remediation Started: _____

Date Completed: 10/20/98Remediation Method: Excavation ☒Approx. cubic yards 750

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 SIDEWALL)Sample date 10/20/98 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>224</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

10/20/98

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:

Ken C Mamm

DATE:

11-18-98

CLIENT: <u>AMOCO</u>	BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	LOCATION NO: <u>8T670</u> C.O.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. APACHE 102</u> WELL #: <u>29</u> PIT: <u>BLOW</u> QUAD/UNIT: <u>G</u> SEC: <u>9</u> TWP: <u>26N</u> RNG: <u>4W</u> PM: <u>NM</u> CNTY: <u>RA</u> ST: <u>NM</u> QTR/FOOTAGE: <u>1560' ENL/1790' FEL</u> CONTRACTOR: <u>P&S</u>	DATE STARTED: <u>10/20/98</u> DATE FINISHED: _____ ENVIRONMENTAL SPECIALIST: <u>NU/JCB</u>
--	--

EXCAVATION APPROX. <u>54</u> FT. x <u>61</u> FT. x <u>7</u> FT. DEEP.	CUBIC YARDAGE: <u>750</u>
DISPOSAL FACILITY: <u>ON-SITE</u>	REMEDIATION METHOD: <u>LANDFARM</u>
LAND USE: <u>RANGE</u>	LEASE: <u>JIC 102</u> FORMATION: <u>MV</u>

FIELD NOTES & REMARKS:	PIT LOCATED APPROXIMATELY <u>153</u> FT. <u>N7E</u> FROM WELLHEAD. DEPTH TO GROUNDWATER: <u>>1000'</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:
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CHECK ONE:
☒ PIT ABANDONED
☐ STEEL TANK INSTALLED
☐ FIBERGLASS TANK INSTALLED

SIDEWALLS - OK. YELL. ORANGE SILTY SAND, NON COHESIVE, SLIGHTLY MOIST FIRM, NO NOTICEABLE STAINING OBSERVED, BOTTOM 3' CONSISTED OF BEDROCK, NO APPARENT HC ODOR DETECTED W/IN EXCAVATION, SLIGHT HC ODOR W/IN WEST SIDEWALL OVM SAMPLE (COLLECTED) FROM TOP OF BEDROCK, ONLY SAMPLE NOT CONSISTING OF BEDROCK COLLECTED FROM EAST SIDEWALL.

BOTTOM - BEDROCK (SANDSTONE) OLIVE TO MED. GRAY, VERY HARD, NO APPARENT HC ODOR IN OVM SAMPLE.

BECKROCK BOTTOM

SCALE

CLOSED

TIME	SAMPLE I.D.	LAB No:	WEIGHT (g)	mL. FREON	DILUTION	READING	CALC. ppm
1230	② @ 4'	TPH-261	5	20	1:1	56	224

PIT PERIMETER

PIT PROFILE

OVM RESULTS

SAMPLE ID	FIELD HEADSPACE PID (ppm)
1 @ 5'	6.0
2 @ 4'	0.0
3 @ 4'	4.3
4 @ 4'	10.3
5 @ 7'	2.5

LAB SAMPLES

SAMPLE ID	ANALYSIS	TIME

 TRAVEL NOTES: CALLOUT: _____ ONSITE: 10/20/98

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:	2 @ 4'	Date Analyzed:	10-20-98
Project Location:	Jicarilla Apache # 102 - 29	Date Reported:	10-20-98
Laboratory Number:	TPH-2061	Sample Matrix:	Soil

Parameter	Result, mg/kg	Detection Limit, mg/kg
Total Recoverable Petroleum Hydrocarbons	220	20

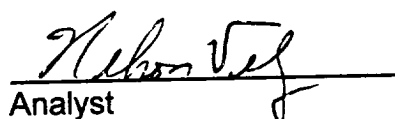
ND = Not Detectable at stated detection limits.

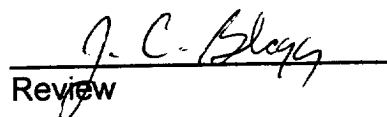
QA/QC:	QA/QC Sample TPH mg/kg	Duplicate TPH mg/kg	% *Diff.
	236	220	7.02

*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: Blow Pit - BJ670


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:

2 @ 4'

Date Analyzed:

10-20-98

Project Location:

Jicarilla Apache # 102 - 29

Date Reported:

10-20-98

Laboratory Number:

TPH-2061

Sample Matrix:

Soil

Sample Weight:

5.00 grams

Volume Freon:

20.00 mL

Dilution Factor:

1 (unitless)

TPH Reading:

56 mg/kg

TPH Result:

224.0 mg/kg

Reported TPH Result:

220 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:

Blow Pit - BJ670

8J670 .. SUBMIT 1 COPY TO
NATURAL RESOURCE DEPT
AND OIL & GAS ADMINISTRATION

RANKING SCORE (TOTAL POINTS): 0

Date Remediation Started: _____ Date Completed: 10/20/98
 Remediation Method: Excavation ☒ Approx. cubic yards 25
 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. EXCAVATION MOSTLY BEDROCK, THEREFORE NO TPH ANALYSIS WAS CONDUCTED.

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 1/2' (PIT BOTTOM)
 Sample date 10/20/98 Sample time 1130

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>NA</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 10/20/98 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: Kent M... DATE: 11-18-98

CLIENT: <u>AMOCO</u>	BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	LOCATION NO: <u>8J670</u> C.D.C. NO: _____																																													
FIELD REPORT: CLOSURE VERIFICATION		PAGE No: <u>1</u> of <u>1</u>																																													
LOCATION: NAME: <u>JICA. APACHE 102</u> WELL #: <u>29</u> PIT: <u>SEP</u> QUAD/UNIT: <u>G</u> SEC: <u>9</u> TWP: <u>26N</u> RNG: <u>4W</u> PM: <u>NM</u> CNTY: <u>RA</u> ST: <u>NM</u> QTR/FOOTAGE: <u>1560' FNL / 1790' FEL</u> CONTRACTOR: <u>P&S</u>		DATE STARTED: <u>10/20/98</u> DATE FINISHED: _____ ENVIRONMENTAL SPECIALIST: <u>NV</u>																																													
EXCAVATION APPROX. <u>19</u> FT. x <u>19</u> FT. x <u>3 1/2</u> FT. DEEP. CUBIC YARDAGE: <u>25</u> DISPOSAL FACILITY: <u>ON-SITE</u> REMEDIATION METHOD: <u>LANDFARM</u> LAND USE: <u>RANGE</u> LEASE: <u>JIC 102</u> FORMATION: <u>MV</u>																																															
FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY <u>96</u> FT. <u>S28E</u> FROM WELLHEAD. DEPTH TO GROUNDWATER: <u>>100'</u> NEAREST WATER SOURCE: <u>>1000'</u> NEAREST SURFACE WATER: <u>>1000'</u> NMCD RANKING SCORE: <u>0</u> NMCD TPH CLOSURE STD: <u>5000</u> PPM SOIL AND EXCAVATION DESCRIPTION: <div style="float: right; border: 1px solid black; padding: 5px; margin-top: 10px;"> CHECK ONE: <input checked="" type="checkbox"/> PIT ABANDONED <input type="checkbox"/> STEEL TANK INSTALLED <input type="checkbox"/> FIBERGLASS TANK INSTALLED </div> <p style="margin-top: 20px;">EXCAVATION MOSTLY BEDROCK, MOD. YEL. BROWN TO MED. GRAY VERY HARD, NO NOTICEABLE STAINING OBSERVED NO APPARENT HC ODOR DETECTED W/IN EXCAVATION OR IN OVM SAMPLE, SAMPLE COLLECTED FROM BEDROCK, THEREFORE NO TPH ANALYSIS WAS CONDUCTED.</p>																																															
<div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <p>EXCAVATION MOSTLY BEDROCK</p> <p style="border: 1px solid black; border-radius: 50%; padding: 2px; display: inline-block;">CLOSED</p> <p>SCALE</p> <div style="display: flex; align-items: center;"> <div style="width: 20px; height: 10px; background-color: black; margin-right: 5px;"></div> <div style="width: 20px; height: 10px; background-color: white; margin-right: 5px;"></div> </div> <p>0 FT</p> </div> <div style="width: 65%;"> <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>1130</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> <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	1130																																				
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SAMPLE ID	ANALYSIS	TIME																																													
TRAVEL NOTES: CALLOUT: _____ ONSITE: <u>10/20/98</u>																																															

**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 APACHE 102-29</u>		
Location: Unit or Qtr/Qtr Sec <u>4</u> Sec <u>9</u> T <u>26N</u> R <u>4W</u> County <u>RIO ARriba</u>		
Land Type: <u>RANGE</u>		
Date Remediation Started: <u>10-20-98</u>		Date Completed: <u>5/17/99</u>
Remediation Method: Landfarmed <input checked="" type="checkbox"/>		Approx. cubic yards <u>775</u>
Composted <input type="checkbox"/>		
Other <input type="checkbox"/>		
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 SurfaceWater: (pts.) <u>0</u> RANKING SCORE (TOTAL POINTS): <u>0</u>		Final Closure Sampling: Sampling Date: <u>5-13-99</u> Time: <u>1035</u> Sample Results: Field Headspace (ppm) <u>0.0</u> TPH (ppm) <u>2.3</u> Method <u>TPH (80.5)</u> Other <input type="checkbox"/>
I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEGE AND BELIEF DATE <u>5/17/99</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 <input checked="" type="checkbox"/> NO <input type="checkbox"/> (REASON) _____ SIGNED: <u>K. C. M...</u> DATE: <u>6-18-99</u>		

CLIENT: <u>AMOCO</u>	BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	LOCATION NO: <u>83670</u> C.D.C. NO: <u>6926</u>
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FIELD REPORT: LANDFARM/COMPOST PILE CLOSURE VERIFICATION

LOCATION: NAME: <u>SCABILLA APACHE 102</u> WELL #: <u>29</u> PITS: <u>SEP, BLOW</u>	DATE STARTED: <u>5.13.99</u>
QUAD/UNIT: <u>G</u> SEC: <u>9</u> TWP: <u>26N</u> RNG: <u>4W</u> PM: <u>NM</u> CNTY: <u>RA</u> ST: <u>NM</u>	DATE FINISHED: _____
SIT/FOOTAGE: <u>SW/4 NE/4</u> CONTRACTOR: <u>P+S</u>	ENVIRONMENTAL SPECIALIST: <u>REP.</u>

SOIL REMEDIATION:

REMEDICATION SYSTEM: LANDFARM APPROX. CUBIC YARDAGE: 775
 LAND USE: RANGE LIFT DEPTH (ft): 1.5'

FIELD NOTES & REMARKS:

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

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

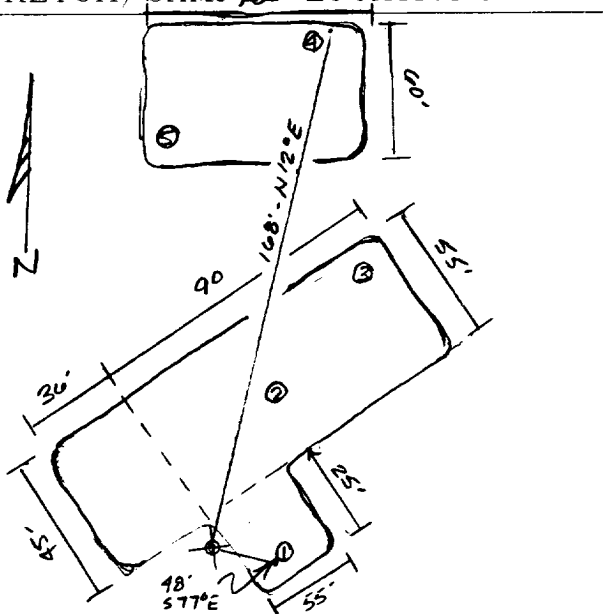
OK. YELLOWISH BROWN SAND, NON COHESIVE, SLIGHTLY MOIST - MOIST, FIRM
 NO APPARENT STRAINING, NO HC ODOR DETECTED. SAMPLING DEPTHS RANGE
 FROM 6" - 12" COLLECTED A SPT COMPOSITE SAMPLE FOR LAB ANALYSIS

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)	1035	2.3

SCALE

0  55 FT

TRAVEL NOTES: CALLOUT: NA ONSITE: 5.13.99

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: F249
Chain of Custody No: 6926
Sample Matrix: Soil
Preservative: Cool
Condition: Cool and Intact

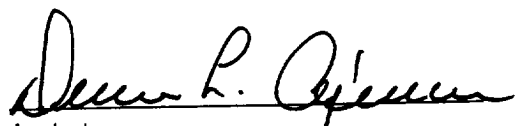
Project #: 403410
Date Reported: 05-17-99
Date Sampled: 05-13-99
Date Received: 05-14-99
Date Extracted: 05-17-99
Date Analyzed: 05-17-99
Analysis Requested: 8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	0.9	0.2
Diesel Range (C10 - C28)	1.4	0.1
Total Petroleum Hydrocarbons	2.3	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 Apache 102 - 29 Landfarm. 5 Pt. Composite.


Analyst


Review

6926

ENVIROTECH INC.