

Denny E. Toust
DEPUTY OIL & GAS INSPECTOR

OCT 6 1999

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

BJ548

SUBMIT 1 COPY TO
NATURAL RESOURCE DEPT

AND OIL & GAS ADMINISTRATION

Blow (I) - OK
Blow (II) - OK
Sep/Tank Drain - OK

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 148-42
Location: Unit or Qtr/Qtr Sec 6 Sec 24 T²S²N R⁵W County RIO ARriba
Pit Type: Separator Dehydrator Other Blow (I)
Land Type: RANGE

Pit Location: Pit dimensions: length 38', width 30', depth 20'
(Attach diagram) Reference: wellhead X, other
Footage from reference: 160'
Direction from reference: 22 Degrees East of North
X West of South X

Depth To Groundwater:

(Vertical distance from
contaminants to seasonal
high water elevation of
groundwater)

RECEIVED
AUG 24 1999

Less than 50 feet (20 points)
50 feet to 99 feet (10 points)
Greater than 100 feet (0 points) 0

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)
Greater than 100 feet (0 points) 0

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) 0

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) 0

Distance To SurfaceWater:

(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) 0

RANKING SCORE (TOTAL POINTS): 0

85548

BLOW PIT (I)

Date Remediation Started: _____

Date Completed: 4/23/98Remediation Method: Excavation ☒Approx. cubic yards 700

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: ExcavationGroundwater 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 15' (SOUTH SIDEWALL)Sample date 4/22/98 Sample time 1245

Sample Results

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

Total BTEX (ppm) _____ Toluene (ppb) _____

Field Headspace (ppm) 99.4 Ethylbenzene (ppb) _____TPH (ppm) 975 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 4/23/98 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: Ken C. Marshall DATE: 4-29-98

CLIENT: <u>AMOCO</u>	BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	LOCATION NO: <u>87548</u> C.O.C. NO: <u>5749</u>
----------------------	--	---

FIELD REPORT: CLOSURE VERIFICATION	PAGE No: <u>1</u> of <u>1</u>
------------------------------------	-------------------------------

LOCATION: NAME: <u>JICA CONTR. 148</u> WELL #: <u>42</u> PIT: <u>BLow (I)</u> QUAD/UNIT: <u>G</u> SEC: <u>24</u> TWP: <u>25N</u> RNG: <u>5W</u> PM: <u>NM</u> CNTY: <u>RA</u> ST: <u>NM</u> QTR/FOOTAGE: <u>SW/4 NE/4</u> CONTRACTOR: <u>P&S</u>	DATE STARTED: <u>4/22/98</u> DATE FINISHED: _____ ENVIRONMENTAL SPECIALIST: <u>NU</u>
--	---

EXCAVATION APPROX. <u>38</u> FT. x <u>30</u> FT. x <u>20</u> FT. DEEP.	CUBIC YARDAGE: <u>700</u>
DISPOSAL FACILITY: <u>ON-SITE</u>	REMEDIAATION METHOD: <u>LANDFARMED</u>
LAND USE: <u>RANGE</u>	LEASE: <u>TIC 148</u> FORMATION: <u>OK</u>

FIELD NOTES & REMARKS:	PIT LOCATED APPROXIMATELY <u>160</u> FT. <u>SW</u> FROM WELLHEAD
DEPTH TO GROUNDWATER: <u>>100'</u>	NEAREST WATER SOURCE: <u>>1000'</u> NEAREST SURFACE WATER: <u>>1000'</u>
NMOC D RANKING SCORE: <u>0</u>	NMOC D TPH CLOSURE STD: <u>5000</u> PPM
SOIL AND EXCAVATION DESCRIPTION:	

CHECK ONE:	
<input checked="" type="checkbox"/>	PIT ABANDONED
<input type="checkbox"/>	STEEL TANK INSTALLED
<input type="checkbox"/>	FIBERGLASS TANK INSTALLED

MOSTLY OK. YELL. BROWN SAND, NON COHESIVE, SLIGHTLY MOIST, FIRM, VERY SMALL ISOLATED PATCHES OF STAINING ON SOUTH SIDEWALL ONLY, NO APPARENT HC ODOR OBSERVED W/IN EXCAVATION, HC ODOR DETECTOR IN SOUTH SIDEWALL DUM SAMPLE ONLY.

CLOSED

FIELD 418.1 CALCULATIONS

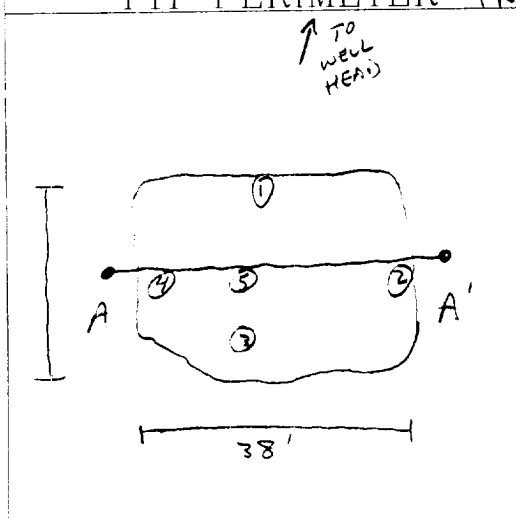
TIME	SAMPLE I.D.	LAB No:	WEIGHT (g)	mL. FREON	DILUTION	READING	CALC. ppm
1245	⑤ @ 23'	TPH-1960	5	20	1:1	5	ND

SCALE



0 FT

PIT PERIMETER AN



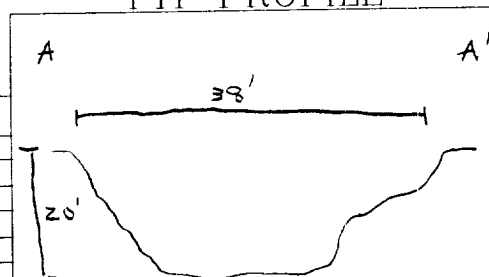
OVM RESULTS

SAMPLE ID	FIELD HEADSPACE PID (ppm)
1 @ 16'	0.0
2 @ 13'	0.0
3 @ 15'	99.4
4 @ 15'	0.0
5 @ 23'	0.0

LAB SAMPLES

SAMPLE ID	ANALYSIS	TIME
③ @ 15'	TPH (8015)	1245
PASSED		

PIT PROFILE



TRAVEL NOTES: CALLOUT: 4/21/98 - AFTER. ONSITE: 4/22/98 - AFTER.

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

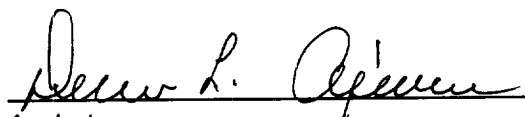
Client:	Blagg / AMOCO	Project #:	04034-10
Sample ID:	3 @ 15'	Date Reported:	04-24-98
Laboratory Number:	D144	Date Sampled:	04-22-98
Chain of Custody No:	5749	Date Received:	04-23-98
Sample Matrix:	Soil	Date Extracted:	04-23-98
Preservative:	Cool	Date Analyzed:	04-23-98
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

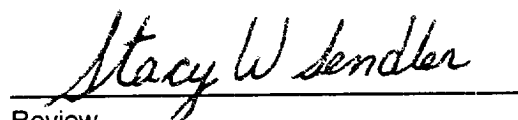
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	133	0.2
Diesel Range (C10 - C28)	842	0.1
Total Petroleum Hydrocarbons	975	0.2

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 148-42 Blow Pit (I).


Analyst


Review

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:	5 @ 23'	Date Analyzed:	04-22-98
Project Location:	Jicarilla Contract 148 - 42	Date Reported:	04-22-98
Laboratory Number:	TPH-1960	Sample Matrix:	Soil

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

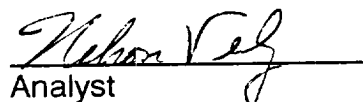
ND = Not Detectable at stated detection limits.

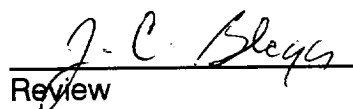
QA/QC:	QA/QC Sample TPH mg/kg	Duplicate TPH mg/kg	% * Diff.
	608	568	6.80

*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 (1) - BJ548


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

5 @ 23'

Jicarilla Contract 148 - 42

TPH-1960

Project #:

Date Analyzed:

Date Reported:

Sample Matrix:

04-22-98

04-22-98

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

608

Duplicate
TPH mg/kg

568

%
Diff.

6.80

Comments:

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

Comments:

Blow Pit (I) - BJ548

Client/Project Name				Project Location				ANALYSIS/PARAMETERS											
BLAGE/Amoco				TICARUA Contact 148-42															
Sampler (Signature)				Chain of Custody Tape No.				No. of Containers											
John VLF				0403410				TPH (8015)											
Sample No./ Identification		Sample Date	Sample Time	Lab Number		Sample Matrix		Remarks											
③ @ 15'		4/22/98	1245	D144		5012		PRESERV. - COOL											

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

87548

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 148-42
Location: Unit or Qtr/Qtr Sec G Sec 24 T 25N R 5W County RIO ARriba
Pit Type: Separator Dehydrator Other BLOW (II)
Land Type: RANGE

Pit Location: Pit dimensions: length 30', width 21', depth 20'
(Attach diagram) Reference: wellhead X, other
Footage from reference: 140'
Direction from reference: 60 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)	
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)	

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)	

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)	

Distance To SurfaceWater:

(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

Date Remediation Started: _____ Date Completed: 4/22/98

Remediation Method: Excavation ☒ Approx. cubic yards 250
 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: Sample location see Attached Documents
 Closure Sampling: _____
 (if multiple samples, attach sample results and diagram of sample locations and depths)

Sample depth 16' (WEST SIDEWALK)

Sample date 4/22/98 Sample time 1425

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 4/22/98 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. Mammall DATE: 4-29-98

TRAVEL NOTES: CALLOUT: 4/21/98 - AFTER. ONSITE: 4/22/98 - AFTER.

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 @ 16'
Project Location: Jicarilla Contract 148 - 42
Laboratory Number: TPH-1962

Project #:
Date Analyzed: 04-22-98
Date Reported: 04-22-98
Sample Matrix: Soil

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

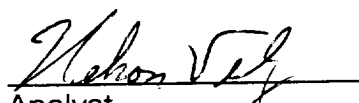
ND = Not Detectable at stated detection limits.

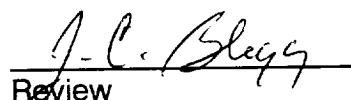
QA/QC:	QA/QC Sample TPH mg/kg	Duplicate TPH mg/kg	% *Diff.
	608	568	6.80

* 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) - BJ548


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 - 42

TPH-1962

Project #:

Date Analyzed:

Date Reported:

Sample Matrix:

04-22-98

04-22-98

Soil

Sample Weight: 5.00 grams
Volume Freon: 20.00 mL
Dilution Factor: 1 (unitless)
TPH Reading: 3 mg/kg

TPH Result: 12.0 mg/kg
Reported TPH Result: 12 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. -----
	608	568	6.80

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

Comments: Blow Pit (II) - BJ548

85548

**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

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 - 42
Location: Unit or Qtr/Qtr Sec G Sec 24 T 25N R 5W County RIO ARriba
Pit Type: Separator ☒ Dehydrator ☐ Other PRODUCTION TANK
Land Type: RANGE

Pit Location: Pit dimensions: length 18', width 18', depth 9'
(Attach diagram) Reference: wellhead ☒, other ☐
Footage from reference: 135'
Direction from reference: 24 Degrees ☒ East of North ☒
West 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

Date Remediation Started: _____ Date Completed: 4/22/98

Remediation Method: Excavation ☒ Approx. cubic yards 100
 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 & WEST SIDEWALL.

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 Documents

Sample depth 4' (NORTH SIDEWALL)

Sample date 4/22/98 Sample time 1340

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 4/22/98 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 M... DATE: 4-29-98

CLIENT: <u>AMOCO</u>	BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	LOCATION NO: <u>BT548</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>42</u> PIT: <u>SEP/PROD</u>		DATE STARTED: <u>4/22/98</u> DATE FINISHED: _____
QUAD/UNIT: <u>G SEC 24</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>SW/4 NE/4</u> CONTRACTOR: <u>P & S</u>		

EXCAVATION APPROX. <u>18</u> FT. x <u>18</u> FT. x <u>9</u> FT. DEEP.	CUBIC YARDAGE: <u>100</u>
DISPOSAL FACILITY: <u>ON-SITE</u>	REMEDIALATION METHOD: <u>LANDFARMED</u>
LAND USE: <u>RANGE</u>	LEASE: <u>JIC 148</u> FORMATION: <u>DK</u>

FIELD NOTES & REMARKS:		PIT LOCATED APPROXIMATELY <u>135</u> FT. <u>N24E</u> FROM WELLHEAD.
DEPTH TO GROUNDWATER: <u>>100'</u>	NEAREST WATER SOURCE: <u>>1000'</u>	NEAREST SURFACE WATER: <u>>1000'</u>
NMOCED RANKING SCOPE: <u>0</u>	NMOCED 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

mostly dk yell. brown sand to silty sand, non to slightly cohesive, dry to slightly moist firm to dense, no apparent staining or HC odor observed w/in excavation, west sidewall consist of mostly greenish gray bedrock, no apparent HC odor in any of the OVM samples.

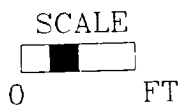
bottom - greenish gray bedrock, shale/sandstone, very hard, no apparent HC odor observed w/in excavation or OVM sample.

BEDROCK
BOTTOM

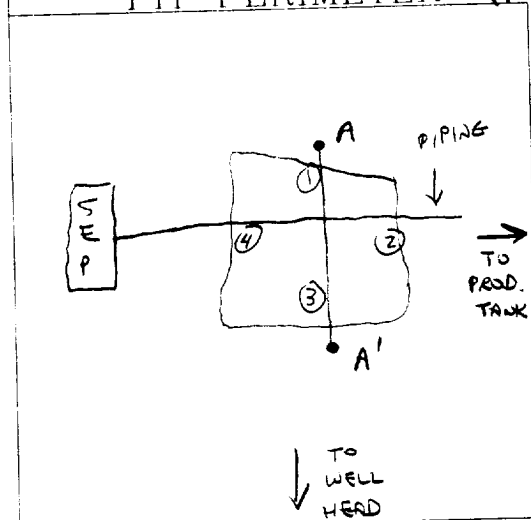
CLOSED

FIELD 418.1 CALCULATIONS

TIME	SAMPLE I.D.	LAB No:	WEIGHT (g)	mL. FREON	DILUTION	READING	CALC. ppm
1340	① e 4'	TPH-1961	5	20	1:1	4	ND



PIT PERIMETER

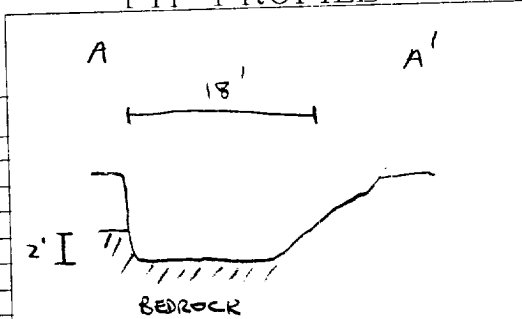


OVM RESULTS

SAMPLE ID	FIELD HEADSPACE PID (ppm)
1 e 4'	0.0
2 e 5'	0.0
3 e 5'	0.0
4 e 4'	0.0
5 e 9'	0.0

LAB SAMPLES		
SAMPLE ID	ANALYSIS	TIME

PIT PROFILE



TRAVEL NOTES:	CALLOUT: <u>4/21/98 - AFTER.</u>	ONSITE: <u>4/22/98 - AFTER.</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:	1 @ 4'	Date Analyzed:	04-22-98
Project Location:	Jicarilla Contract 148 - 42	Date Reported:	04-22-98
Laboratory Number:	TPH-1961	Sample Matrix:	Soil

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

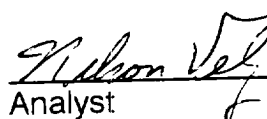
ND = Not Detectable at stated detection limits.

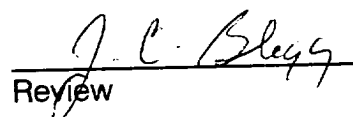
QA/QC:	QA/QC Sample TPH mg/kg	Duplicate TPH mg/kg	% *Diff.
	608	568	6.80

*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 / Production Tank Pit - BJ548


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 @ 4'

Jicarilla Contract 148 - 42

TPH-1961

Project #:

Date Analyzed:

Date Reported:

Sample Matrix:

04-22-98

04-22-98

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.

608

568

6.80

Comments:

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

Comments:

Separator / Production Tank Pit - BJ548

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

85548

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 148-#42 ⁹¹ CONTRACT # 148-42
Location: Unit or Qtr/Qtr Sec 4 Sec 24 T 25N R 5W County RIO ARriba
Land Type: RANGE
Date Remediation Started: 4/22/98 Date Completed: 1/12/99
Remediation Method: Landfarmed ☒ Approx. cubic yards 1050
Composted ☐
Other ☐

		Final Closure Sampling:	
Depth To Groundwater:	(pts.) <u>0</u>	Sampling Date:	<u>1/4/99</u> Time: <u>1230</u>
Distance to an Ephemeral Stream	(pts.) <u>0</u>	Sample Results:	<u>(LF-1 & LF-2)</u>
Distance to Nearest Lake, Playa, or Watering Pond	(pts.) <u>0</u>	Field Headspace (ppm)	<u>0.0</u>
Wellhead Protection Area:	(pts.) <u>0</u>	TPH (ppm)	<u>943</u> Method <u>8015</u>
Distance To Surface Water:	(pts.) <u>0</u>	Other	<u>MULTIPLE SAMPLES - REFER TO ATTACHED FORM</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 1/12/99 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. Man DATE: 3-31-99

CLIENT: <u>AMOCO</u>	BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	LOCATION NO: <u>83548</u> C.O.C. NO: <u>6324</u>
----------------------	--	---

FIELD REPORT: LANDFARM/COMPOST PILE CLOSURE VERIFICATION

LOCATION: NAME <u>SCARILLA V 148</u> WELL #: <u>42</u> PITS: <u>SEP, BLOW, PROD.</u>	DATE STARTED: <u>1/4/99</u> DATE FINISHED: <u>1/12/99</u>
QUAD/UNIT: <u>G SEC: 24 TWP: 25N RNG: 5W PM: NM CNTY: RA ST: NM</u>	ENVIRONMENTAL SPECIALIST: <u>REP</u>
DIRECTION: <u>SW/4 NE/4</u> CONTRACTOR: <u>P+S</u>	

SOIL REMEDIATION:	
REMEDICATION SYSTEM: <u>LANDFARM</u>	APPROX. CUBIC YARDAGE: <u>1050</u>
LAND USE: <u>RANGE</u>	LIFT DEPTH (ft): <u>1-2'</u>

FIELD NOTES & REMARKS:
DEPTH TO GROUNDWATER: <u>>100'</u> NEAREST WATER SOURCE: <u>>1000'</u> NEAREST SURFACE WATER: <u>>1000'</u>

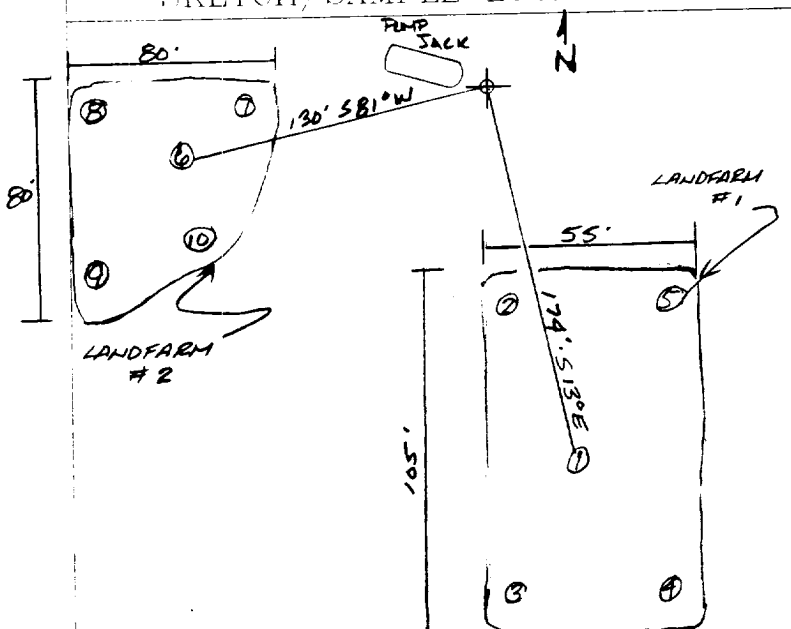
NMDCI RANKING SCORE: 0 NMDCI TPH CLOSURE STD: 5000 PPM
 PK YELLOW - ORANGE TO LT. BROWN SAND, NON COHESIVE, SLIGHTLY MOIST, FIRM.
 NO STAINING OBSERVED OR HC ODOR DETECTED. SAMPLING DEPTHS FROM - 6" - 18"
 COLLECTED 5 PT SAMPLE FROM EACH LANDFARM FOR LAB ANALYSIS

CLOSED

FIELD 418.1 CALCULATIONS

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

SKETCH/SAMPLE LOCATIONS



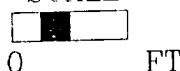
OVM RESULTS

SAMPLE ID	FIELD HEADSPACE PID (ppm)
LF-1	0.0
LF-2	0.0

LAB SAMPLES

SAMPLE ID	ANALYSIS	TIME	RESULTS
LF-1	TPH (8015)	1200	54.7
LF-2	" "	1230	943

SCALE



TRAVEL NOTES:

CALLOUT: N/A

ONSITE: 1-4-99

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:	01-06-99
Laboratory Number:	E448	Date Sampled:	01-04-99
Chain of Custody No:	6324	Date Received:	01-05-99
Sample Matrix:	Soil	Date Extracted:	01-05-99
Preservative:	Cool	Date Analyzed:	01-06-99
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

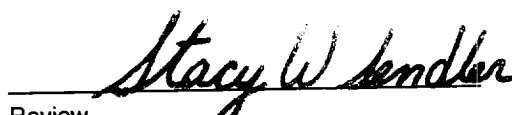
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	6.6	0.2
Diesel Range (C10 - C28)	48.1	0.1
Total Petroleum Hydrocarbons	54.7	0.2

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 - 42 Landfarm. 5 Pt. Composite.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

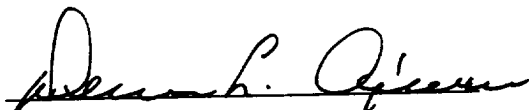
Client:	Blagg / AMOCO	Project #:	04034-10
Sample ID:	LF - 2	Date Reported:	01-06-99
Laboratory Number:	E449	Date Sampled:	01-04-99
Chain of Custody No:	6324	Date Received:	01-05-99
Sample Matrix:	Soil	Date Extracted:	01-05-99
Preservative:	Cool	Date Analyzed:	01-06-99
Condition:	Cool and Intact	Analysis Requested:	8015 TPH


Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	3.6	0.2
Diesel Range (C10 - C28)	939	0.1
Total Petroleum Hydrocarbons	943	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 - 42 Landfarm. 5 Pt. Composite.


Analyst


Review

6324

Client / Project Name		Project Location		ANALYSIS / PARAMETERS							
BLA66/AMOCO		SCARILLA CONTACT 148-42									
Sampler: REP		Client No. C4034-10		No. of Containers		TPH (8015)				Remarks	
Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix							
LF-1	1.4.99	1200	E4R	SOIL	1	✓					SPT COMPOSITE
LF-2	1.4.99	1230	E4R	SOIL	1	✓					SPT COMPOSITE
											BOTH SAMPLES PRESERVE - COOL
Relinquished by: (Signature) [Signature]			Date	Time	Received by: (Signature) [Signature]	Date	Time	Sample Receipt			
Relinquished by: (Signature) [Signature]					Received by: (Signature) [Signature]			Y	N	N/A	
Relinquished by: (Signature)					Received by: (Signature)			Received Intact			
Relinquished by: (Signature)					Received by: (Signature)			Cool - Ice/Blue Ice			