

District I  
P.O. Box 1980, Hobbes, NM

District II  
P.O. Drawer DD, Artes, NM 88211

District III  
1000 Rio Brazos Rd, Aztec, NM 87410

State of New Mexico  
Energy, Minerals and Natural Resource Department

OIL CONSERVATION DIVISION  
P.O. Box 2088  
Santa Fe, New Mexico 87504-2088

SUBMIT 1 COPY TO  
APPROPRIATE  
DISTRICT OFFICE  
AND 1 COPY TO  
SANTA FE OFFICE  
(Revised 3/9/94)

Blow - risk non vulnerable  
sep risk non vulnerable

PIT REMEDIATION AND CLOSURE REPORT

RECEIVED

AUG 12 1999

Telephone: (505) 326-9216

Operator: AMOCO PRODUCTION COMPANY

Address: 200 AMOCO COURT, FARMINGTON, NM 87401

Facility Or: STATE GAS COM B-B#1

Well Name

Location: Unit or Qtr Qtr Sec SW/SW Sec 16 T. 31 R 12 County SAN JUAN

Pit Type: Separator Dehydrator Other BLOW DOWN

Land Type: BLM ~~BLM~~ State ~~BLM~~ Fee Other

OIL CON. DIV.  
DIST. 3

Pit Location: Pit dimensions: Length 51 width 55 depth 8  
(Attach diagram)

Reference: wellhead XX Other

Footage from reference: 180'

Direction from reference: 147 Degrees South East North  
of  
West South

Depth To Ground Water:	Less than 50 feet	(20 points)	
(Vertical Distance from	50 feet to 99 feet	(10 points)	
contaminants to seasonal	Greater than 100 feet	(0 points)	0
high water elevation of			
ground water)			

Wellhead Protection Area:	Yes	(20 points)	
(less than 200 feet from a private	No	(0 points)	0
domestic water source, or, less than			
1000 feet from all other water sources)			

Distance To Surface Water:	Less than 200 feet	(20 points)	
(Horizontal distance to perennial	200 feet to 1000 feet	(10 points)	
lakes, ponds, rivers, streams, creeks,	Greater than 1000 feet	(0 points)	0
irrigation canals and ditches)			

RANKING SCORE (TOTAL POINTS): 0

Date Remediation Started: 06/08/94 Date Completed: 06/08/94  
Remediation Method: Excavation XX Approx. cubic yards 831

Landfarmed \_\_\_\_\_ Insitu Bioremediation \_\_\_\_\_

Other \_\_\_\_\_  
\_\_\_\_\_

Remediation Location: Onsite XX Offsite \_\_\_\_\_  
(ie. landfarmed onsite,  
name and location of  
offsite facility)

General Description of Remediation Action: \_\_\_\_\_

CONTAMINATED SOIL WAS REMEDIATED BY DILUTION AND AERATION. RISK ASSESSED.

Ground Water Encountered: No X Yes \_\_\_\_\_ Depth \_\_\_\_\_

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

Sample location See Attached

Sample depth 8

Sample date 06/08/94 Sample time 09:00:00

Sample Results

Benzene (ppm) \_\_\_\_\_

Total BTEX (ppm) \_\_\_\_\_

Field headspace (ppm) 385 @ 8' 10/23/97 RV

TPH 902

Ground Water Sample: Yes \_\_\_\_\_ No XX (If yes, attach sample results)

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

DATE 07/24/94 5/25/98 RV

SIGNATURE

BS Shaw

PRINTED NAME BUDDY SHAW E.C.  
AND TITLE

# PIT LOCATION DIAGRAM

Operator: AMOCO PRODUCTION CO.

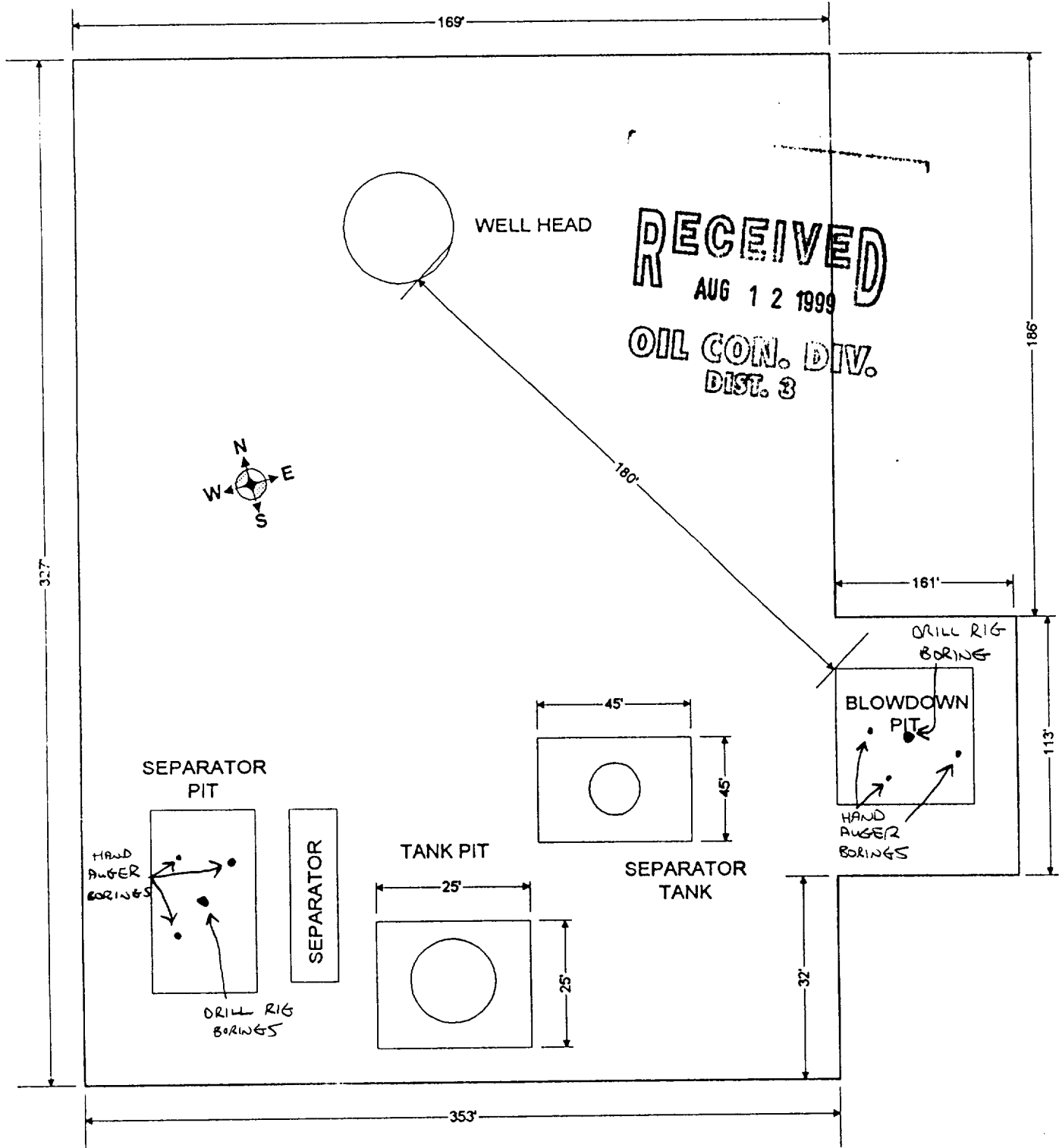
Telephone: (505) 326-9219

Address: 200 AMOCO COURT, FARMINGTON, NM 87401

Facility Or: STATE GAS UNIT BB #1

Well Name

Location: Unit or Qtr/Qtr Sec M Sec 16 T 31N R 12W County SAN JUAN



BOTH PITS PREVIOUSLY DENIED CLOSURE - AMOCO D  
LETTER CORRESPONDENCE DATED 12/17/96.

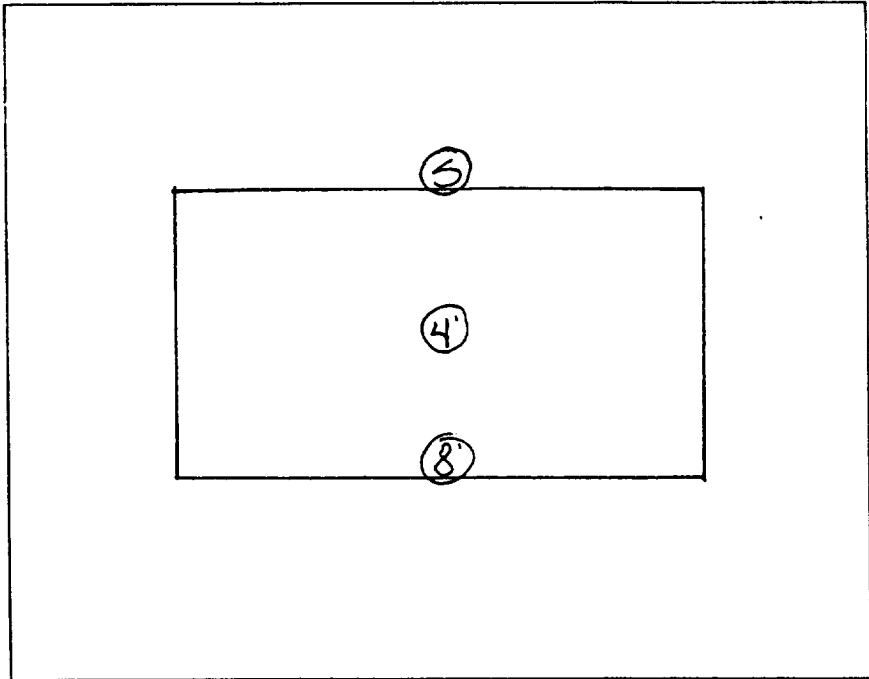
NU

# FINAL PIT CLOSURE SAMPLING REPORT

Operator: AMOCO PRODUCTION COMPANY Telephone: (505) 326-9216  
 Address: 200 AMOCO COURT, FARMINGTON, NM 87401  
 Facility Or: STATE GAS COM B-B#1  
 Well Name \_\_\_\_\_  
 Location: Unit or Qtr/Qtr Sec SW/SW Sec 16 T 31 R 12 County SAN JUAN

Depth	TPH
Surface	19800 ppm
2 ft.	ppm
4 ft.	6780 ppm
6 ft.	ppm
8 ft.	902 ppm
10 ft.	ppm
12 ft.	ppm
14 ft.	ppm
16 ft.	ppm
18 ft.	ppm
20 ft.	ppm
ft.	ppm
ft.	ppm
ft.	ppm

**SIDE VIEW**



8 FT.

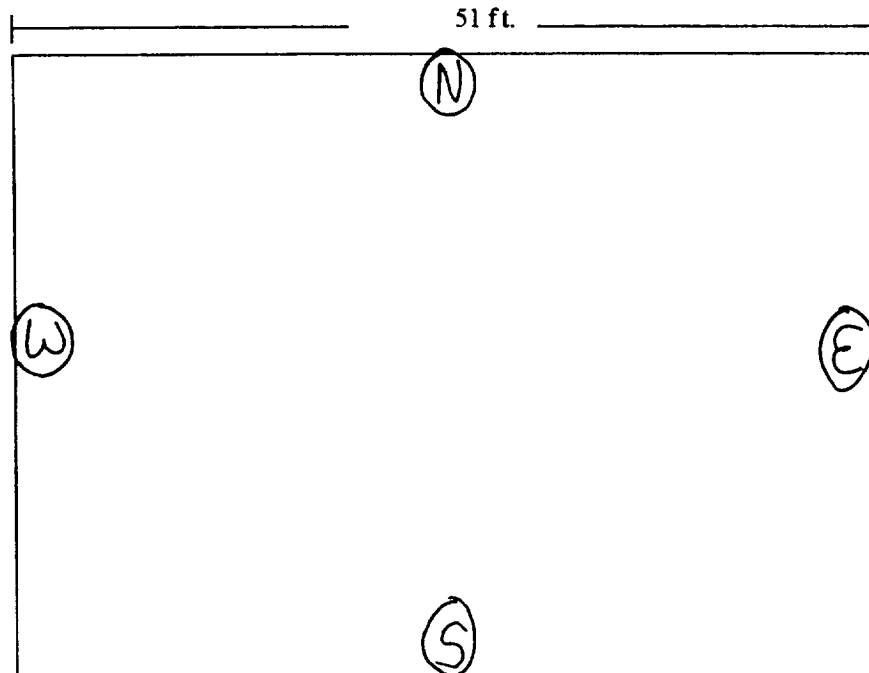
sum

385 ppm

915

**TOP VIEW**

North Side	834 ppm
East Side	651 ppm
South Side	736 ppm
West Side	444 ppm



North

55 ft.

Well Name:

Well Site location:

Pit Type:

Producing Formation:

Pit Category:

Horizontal Distance to Surface Water:

Vicinity Groundwater Depth:

State GC BB #1

Unit M, Sec. 16, T31N, R12W

Blow Pit

Basin Dakota

Non Vulnerable

> 1000 ft.

> 100 ft.

## **RISK ASSESSMENT (non-vulnerable area)**

Pit remediation activities were terminated when loader reached practical extent for abandoned pit at 8 ft. below grade.

No past or future threat to surface water or groundwater is likely based on the following considerations:

1. Groundwater levels located on or close to the well pad are estimated to be at a much greater depth below presumed shallow sandstone bedrock (based on informal site observation of adjacent sandstone outcrop).
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 0.11 miles northwest of the nearest vulnerable area boundary (Farmington Glade).

**(Refer to Adobe Downs 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 vertical and lateral impact to groundwater is very unlikely. AMOCO requests pit closure approval on this location.

CLIENT: <u>AMOCO</u>	<b>BLAGG ENGINEERING, INC.</b> P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	LOCATION NO: <u>WEE</u>  C.D.C. NO: <u>5420</u>
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## FIELD REPORT: LANDFARM/COMPOST PILE CLOSURE VERIFICATION

LOCATION: NAME: <u>STATE GC BB</u> WELL #: <u>1</u> PITS: <u>BLOW</u> QUAD/UNIT: <u>M SEC: 16 TWP: 31N RNG: 12W PM: NM CNTY: SJ ST: NM</u> QTP/FOOTAGE: <u>SW/4 SW/4</u> CONTRACTOR: <u>WHOLE EARTH</u>	DATE STARTED: <u>10/23/97</u> DATE FINISHED: _____ ENVIRONMENTAL SPECIALIST: <u>NV/JCB</u>
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### SOIL REMEDIATION:

 REMEDIATION SYSTEM: DILUTION & AERATION

 APPROX. CUBIC YARDAGE: 831

 LAND USE: RANGE

 LIFT DEPTH (ft): NA

### FIELD NOTES & REMARKS:

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

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

BORING CONDUCTED @ PIT CENTER ACCORDING TO PIT CLOSURE REPORT, REACHED 10' DEPTH BELOW GRADE, SOIL CONSIST OF DK. YELL. BROWN SILTY SAND TO CLAY W/ NO DISCOLORATION BUT CONTAINED STRONG HC ODOR, COLLECTED 3 SAMPLE PTS. USING HAND AUGER (1'-2' DEPTH BELOW GRADE) IN PIT AREA, 5 PT. COMPOSITE COLLECTED FOR LAB ANALYSIS OF SUPPOSEDLY DILUTED & AERATED SOIL PLACED BACK INTO EXCAVATED AREA.

### FIELD 418.1 CALCULATIONS

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

### SKETCH/SAMPLE LOCATIONS

SEE SITE MAP

### OVM RESULTS

### LAB SAMPLES

SAMPLE ID	FIELD HEADSPACE PID (ppm)	SAMPLE ID	ANALYSIS	TIME	RESULTS
DA-1	200.6	DA-1	TPH (GDS)	1130	ND
QCB'	385				

SCALE



0 FT

### TRAVEL NOTES:

 CALLOUT: NA

 ONSITE: 10/23/97

# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

## EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

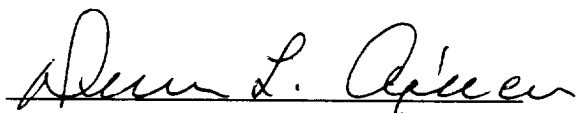
Client:	Blagg / AMOCO	Project #:	04034-10
Sample ID:	DA - 1	Date Reported:	10-28-97
Laboratory Number:	C367	Date Sampled:	10-23-97
Chain of Custody No:	5420	Date Received:	10-24-97
Sample Matrix:	Soil	Date Extracted:	10-27-97
Preservative:	Cool	Date Analyzed:	10-28-97
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

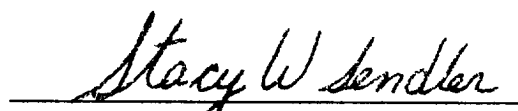
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	ND	0.2
Diesel Range (C10 - C28)	ND	0.1
Total Petroleum Hydrocarbons	ND	0.2

ND - Parameter not detected at the stated detection limit.

References: Method 8015, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Comments: **State GC BB #1. Blow Pit. 5 Pt. Composite.**

  
Analyst

  
Review

District I  
P.O. Box 1980, Hobbes, NM

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Energy, Minerals and Natural Resource Department

OIL CONSERVATION DIVISION  
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SANTA FE OFFICE  
(Revised 3/9/94)

**PIT REMEDIATION AND CLOSURE REPORT**

Operator: AMOCO PRODUCTION COMPANY Telephone: (505) 326-9216

Address: 200 AMOCO COURT, FARMINGTON, NM 87401

Facility Or: STATE GAS COM B-B#1

Well Name

Location: Unit or Qtr-Qtr Sec SW/SW Sec 16 T 31 R 12 County SAN JUAN

Pit Type: Separator XX Dehydrator      Other     

Land Type: BLM      State XY Fee      Other     

Pit Location: Pit dimensions: Length 20 width 15 depth 6  
(Attach diagram)

Reference: wellhead XX Other     

Footage from reference: 148'

Direction from reference: 254 Degrees      East North     

of

SOUTH West South     

Depth To Ground Water: (Vertical Distance from contaminants to seasonal high water elevation of ground water)	Less than 50 feet	(20 points)	
	50 feet to 99 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 200 feet	(20 points)	
	200 feet to 1000 feet	(10 points)	
	Greater than 1000 feet	(0 points)	<u>0</u>

RANKING SCORE (TOTAL POINTS): 0



Date Remediation Started: 06/08/94 Date Completed: 06/08/94  
Remediation Method: Excavation XX Approx. cubic yards 66

Landfarmed \_\_\_\_\_ Insitu Bioremediation \_\_\_\_\_

Other \_\_\_\_\_  
\_\_\_\_\_

Remediation Location: Onsite XX Offsite \_\_\_\_\_  
(ie. landfarmed onsite,  
name and location of  
offsite facility)

General Description of Remediation Action: \_\_\_\_\_

CONTAMINATED SOIL WAS REMEDIATED BY DILUTION AND AERIATION.

Ground Water Encountered: No X Yes \_\_\_\_\_ Depth \_\_\_\_\_

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

Sample location See Attached

Sample depth 6

Sample date 06/08/94 Sample time 02:30:00

Sample Results

Benzene (ppm) \_\_\_\_\_

Total BTEX (ppm) \_\_\_\_\_

Field headspace (ppm) 375 @ 6' 10/23/97 915

TPH 774

Ground Water Sample: Yes \_\_\_\_\_ No XX (If yes, attach sample results)

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

DATE 07/24/94 5/25/98 ms

SIGNATURE

Buddy Shaw

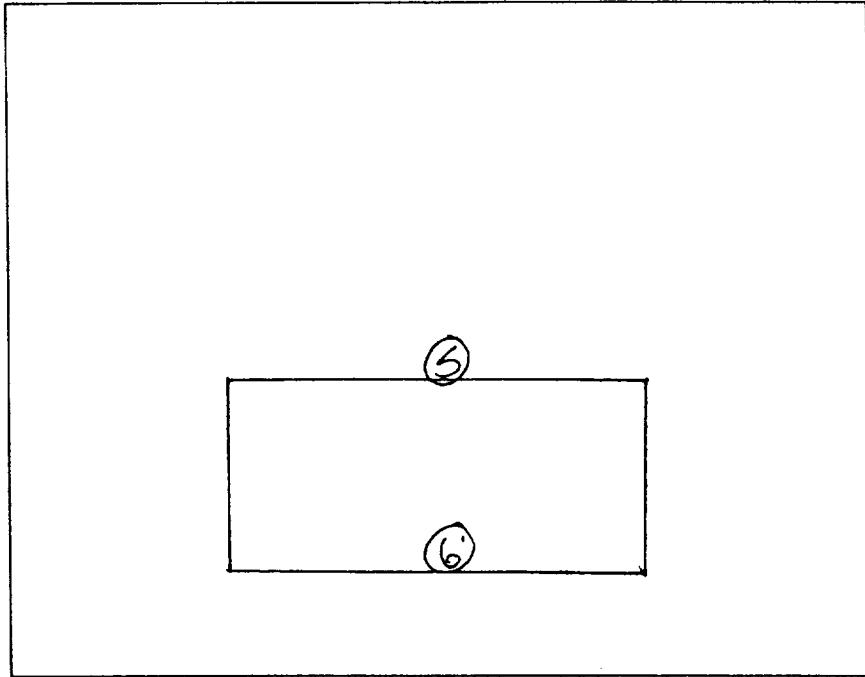
PRINTED NAME BUDDY SHAW E.C.  
AND TITLE

# FINAL PIT CLOSURE SAMPLING REPORT

Operator: AMOCO PRODUCTION COMPANY Telephone: (505) 326-9216  
 Address: 200 AMOCO COURT, FARMINGTON, NM 87401  
 Facility Or: STATE GAS COM B-B#1  
 Well Name \_\_\_\_\_  
 Location: Unit or Qtr Qtr Sec SW/SW Sec 16 T 31 R 12 County SAN JUAN

Depth	TPH
Surface	485 ppm
2 ft.	ppm
4 ft.	1420 ppm
6 ft.	774 ppm
8 ft.	ppm
10 ft.	ppm
12 ft.	ppm
14 ft.	ppm
16 ft.	ppm
18 ft.	ppm
20 ft.	ppm
ft.	ppm
ft.	ppm
ft.	ppm

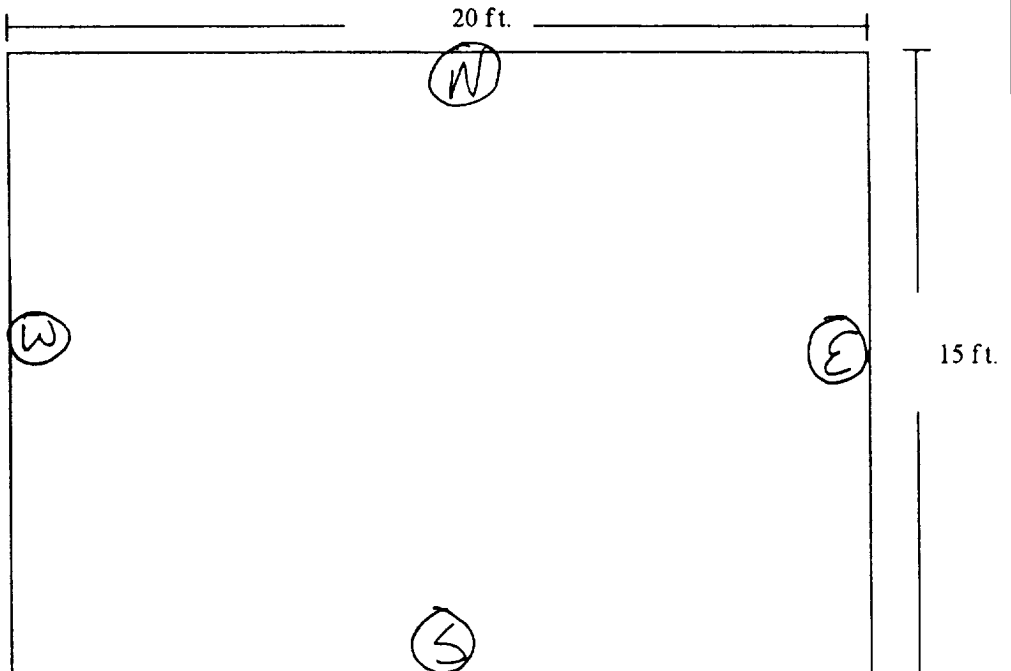
**SIDE VIEW**



6 FT. sum  
375 925

**TOP VIEW**

North Side	337 ppm
East Side	693 ppm
South Side	586 ppm
West Side	221 ppm



<b>Well Name:</b>	<b>State GC BB #1</b>
Well Site location:	Unit M, Sec. 16, T31N, R12W
Pit Type:	Separator 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 loader reached practical extent for abandoned pit at 6 ft. below grade and for safety concerns (underground piping and surface equipment).

No past or future threat to surface water or groundwater is likely based on the following considerations:

1. Groundwater levels located on or close to the well pad are estimated to be at a much greater depth below presumed shallow sandstone bedrock (based on informal site observation of adjacent sandstone outcrop).
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 0.11 miles northwest of the nearest vulnerable area boundary (Farmington Glade).

**(Refer to Adobe Downs 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 vertical and lateral impact to groundwater is very unlikely. AMOCO requests pit closure approval on this location.

CLIENT: <u>AMOCO</u>	BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	LOCATION NO: <u>WEE</u> C.D.C. NO: <u>5420</u>
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## FIELD REPORT: LANDFARM/COMPOST PILE CLOSURE VERIFICATION

LOCATION: NAME: <u>STATE GC BB</u> WELL #: <u>1</u> PITS: <u>SEP</u> QUAD/UNIT: <u>M</u> SEC: <u>16</u> TWP: <u>31N</u> RNG: <u>12W</u> PM: <u>NM</u> CNTY: <u>SJ</u> ST: <u>NM</u> QIP/FOOTAGE: <u>SW/4</u> <u>SW/4</u> CONTRACTOR: <u>WHOLE EARTH</u>	DATE STARTED: <u>10/23/97</u> DATE FINISHED: _____ ENVIRONMENTAL SPECIALIST: <u>NV/JCB</u>
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### SOIL REMEDIATION:

REMEDICATION SYSTEM: DILUTION & AERATION

APPROX. CUBIC YARDAGE: 66

LAND USE: RANGE

LIFT DEPTH (ft): NA

### FIELD NOTES & REMARKS:

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

NMOCD PARKING SCORE: 0 NMOCD TPH CLOSURE STD: 5000 PPM

CONDUCTED BORING 2 PIT CENTER ACCORDING TO PIT CLOSURE REPORT, REACHED 7' DEPTH BELOW GRADE. SOIL CONSIST OF MED. GRAY SAND w/ STRONG HC ODOR BETWEEN 2'-7' BELOW GRADE. DRILLED SECOND BORING IN PIT AREA DOWN TO 5' BELOW GRADE w/ NO DISCOLORATION OR HC OBSERVED. COLLECTED 2 SAMPLE PTS. USING HAND AUGER (1'-2' DEPTH BELOW GRADE), 5 PT. COMPOSITE COLLECTED FOR LAB ANALYSIS OF SUPPOSEDLY DILUTED & AERATED SOIL. PLACED BACK INTO EXCAVATED AREA.

### FIELD 418.1 CALCULATIONS

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

### SKETCH/SAMPLE LOCATIONS

SEE SITE MAP

### OVM RESULTS

### LAB SAMPLES

SAMPLE ID	FIELD HEADSPACE PID (ppm)	SAMPLE ID	ANALYST	TIME	RESULTS
DA-1	75.4	DA-1	TPH (8015)	10/15	ND
⑤ E6'	375				

SCALE

0  FT

### TRAVEL NOTES:

CALLOUT: NA

ONSITE: 10/23/97

# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

## EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

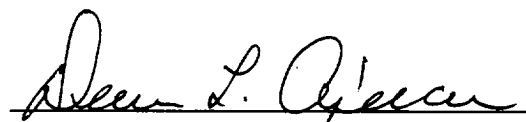
Client:	Blagg / AMOCO	Project #:	04034-10
Sample ID:	DA - 1	Date Reported:	10-28-97
Laboratory Number:	C366	Date Sampled:	10-23-97
Chain of Custody No:	5420	Date Received:	10-24-97
Sample Matrix:	Soil	Date Extracted:	10-27-97
Preservative:	Cool	Date Analyzed:	10-28-97
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

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

ND - Parameter not detected at the stated detection limit.

References: Method 8015, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Comments: **State GC BB #1. Separator Pit. 5 Pt. Composite.**

  
Analyst

  
Review

Client/Project Name		Project Location		ANALYSIS/PARAMETERS									
BLAGE / ANOCO		STATE GC 88 #1											
Sampler: (Signature)		Chain of Custody Tape No.											
Melton VEG		01034-10											
Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers					Remarks			
DA-1	10/23/97	1015	C366	SOIL	1	✓					BOTH SAMPLES PRESERV. - COOL SEPARATOR PIT		
DA-1	10/23/97	1125	C367	SOIL	1	✓					BLOW PIT		
											BOTH SAMPLES		
											ARE 5 PT.		
											COMPOSITE		
Relinquished by: (Signature)			Date	Time	Received by: (Signature)							Date	Time
Melton VEG			10/24/97	1501	Christina M Blake							10/24/97	15:01
Relinquished by: (Signature)					Received by: (Signature)								
Relinquished by: (Signature)					Received by: (Signature)								

ENVIROTECH INC.  
5796 U.S. Highway 64-3014  
Farmington, New Mexico 87401  
(505) 632-0615