

District I

P.O. Box 1980, Hobbs, NM

District II

P.O. Drawer DD, Artesia, NM 88211

District III

1000 Rio Brazos Rd, Aztec, NM 87410

State of New Mexico
Energy, Minerals and Natural Resources 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

Approved
[Signature]

PIT REMEDIATION AND CLOSURE REPORTOperator: Amoco Production Company Telephone: (505) - 326-9200Address: 200 Amoco Court, Farmington, New Mexico 87401Facility Or: FRED PEASEL "L" #1E
Well NameLocation: Unit or Qtr/Qtr Sec I Sec 32 T 28N R 10W County SAN JUANPit Type: Separator X Dehydrator Other Land Type: BLM X, State , Fee , Other Pit Location: Pit dimensions: length 15', width 15', depth 8'
(Attach diagram)Reference: wellhead X, other Footage from reference: 140'Direction from reference: 45 Degrees X East North
of
 West South X

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) 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 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) 0

RANKING SCORE (TOTAL POINTS): 0

Date Remediation Started: _____ Date Completed: 2-16-95

Remediation Method: Excavation X Approx. cubic yards 50
 (Check all appropriate sections) Landfarmed _____ Insitu Bioremediation _____
 Other COMPOST

Remediation Location: Onsite X Offsite _____
 (ie. landfarmed onsite, name and location of offsite facility)

General Description Of Remedial Action: _____

Excavation - LIMITED LATERALLY BY SEPARATOR

Ground Water Encountered: No X 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 4'

Sample date 2-16-95 Sample time _____

Sample Results

Benzene(ppm) _____

Total BTEX(ppm) _____

Field headspace(ppm) 1149

TPH 5300 ppm

Ground Water Sample: Yes _____ No X (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 2-23-95

SIGNATURE

B. Shaw

PRINTED NAME
AND TITLE

Buddy D. Shaw
Environmental Coordinator

RESULTS TO JOHNNY 2-17-85 PEO

CLIENT: <u>AMOCO</u>	BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	LOCATION NO: <u>B0220</u> C.O.C. NO: <u>—</u>
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FIELD REPORT: PIT CLOSURE VERIFICATION

LOCATION: NAME: <u>FRED FENSEL L</u> WELL #: <u>1E</u> PIT: <u>SEP.</u>	DATE STARTED: <u>2-16-95</u>
QUAD/UNIT: <u>I</u> SEC: <u>32</u> TWP: <u>28N</u> RNG: <u>10W</u> BM: <u>NM</u> CNTY: <u>SJ</u> ST: <u>NH</u>	DATE FINISHED: _____
QTP/FOOTAGE: <u>NE/SE</u> CONTRACTOR: <u>EPC</u>	ENVIRONMENTAL SPECIALIST: <u>REG</u>

EXCAVATION APPROX 15 FT. x 15 FT. x 8 FT. DEEP. CUBIC YARDS: 50
DISPOSAL FACILITY ON SITE REMEDIATION METHOD: COMPOST
LAND USE: RANGE LEASE: SF-046563 FORMATION: _____

FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 140 FEET S45°E FROM WELLHEAD
DEPTH TO GROUNDWATER: >100' NEAREST WATER SOURCE: >1000' NEAREST SURFACE WATER: >1000'
NMOC BANKING SCORE: 0 NMOC TPH CLOSURE STD: 5000 PPM

SOIL AND EXCAVATION DESCRIPTION: PIT DISPOSITION: STEEL TANK TO BE INSTALLED
MOIST, BROWN, SAND - ODR - NO STAIN VISIBLE -
EXCAVATED TO SANDSTONE BOTTOM, - LATERAL EXCAVATION LIMITED BY SEPARATOR.

BEDROCK
BOTTOM

RISK ASSESSED

~~CONDITIONAL~~

FIELD 418.1 CALCULATIONS

FIELD FOR CALCULATIONS						
SAMPLE ID.	LAB No.	WEIGHT (g)	mL. FREON	DILUTION	READING	CALC. ppm
WS@4'	1372	10.0	20.0	10	265	5300

SCALE

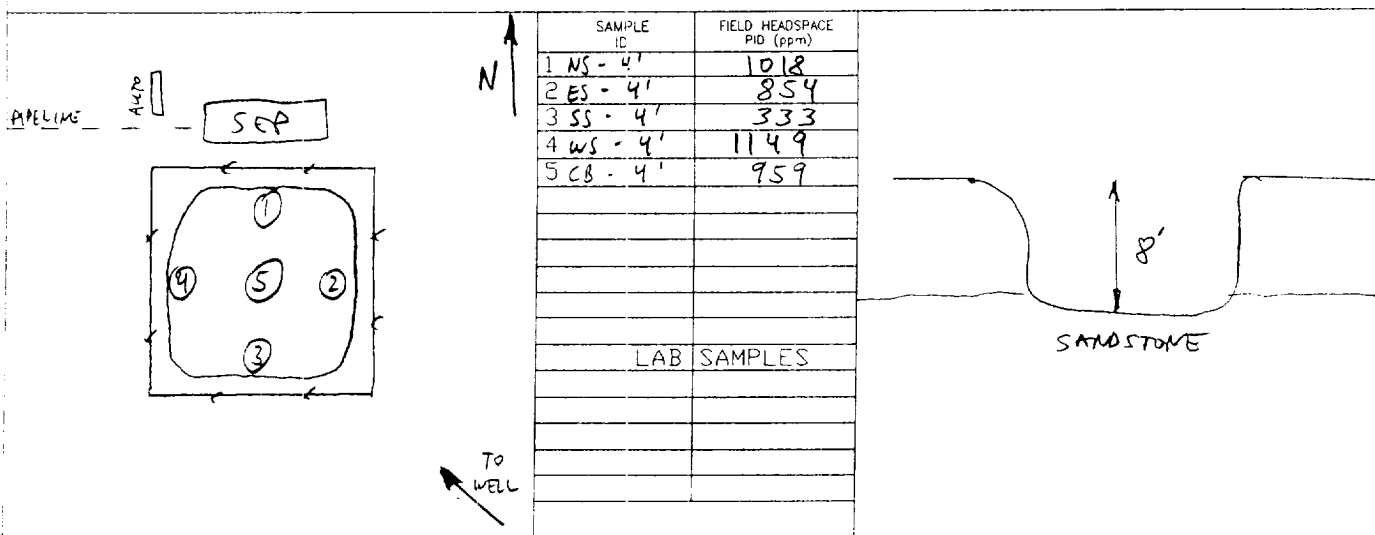


0 5 10 FT

PIT PERIMETER

OVM RESULTS

PIT PROFILE



TRAVEL NOTES: CALLOUT: 2-15-95 ONSITE: 2-16-95 1300

Well Name:

Well Site location:

Pit Type:

Producing Formation:

Pit Category:

Horizontal Distance to Surface Water:

Vicinity Groundwater Depth:

Fred Feasel L #1E

Unit I, Sec. 32, T28N, R10W

Separator Pit

Basin Dakota

Area III

> 1000 ft.

> 100 ft.

RISK ASSESSMENT

Pit remediation activities were terminated when trackhoe encountered sandstone bedrock at 8 feet below grade.

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

1. Past production fluids were contained locally by a relatively shallow sandstone bedrock located 8 feet below grade. Groundwater levels located on or close to the well pad are estimated to be at a much greater depth below sandstone bedrock.
2. Topographic information does not indicate off site lateral fluid migration near the earthen pit.
3. Daily discharge into the earthen pit has been terminated (pit abandoned). Prior discharge into the pit is believed to be under 5 barrels per day.
4. Field headspace readings (OVM/PID) on Basin Dakota type locations do not reflect direct correlation to total BTEX per USEPA Method 8020 concentrations. Listed below are several typical AMOCO Basin Dakota pit soil analyses comparing headspace to Benzene and total BTEX results.

LOCATION	HEADSPACE (ppm)	BENZENE (ppm)	TOTAL BTEX (ppm)
Frost, Jack B 1E	1100	0.011	5.889
Berger A1	482	0.084	0.681
Mudge Com B 1E	684	0.017	16.438
L.C. Kelly #5	1235	0.643	13.908

The comparisons listed above demonstrates that headspace testing is not an accurate measurement to Benzene or total BTEX concentrations when above standards for Basin Dakota type pits.

Based upon the information given, we conclude that the subsurface lateral impact from the earthen pit is very limited and that the sandstone bottom creates enough of a permeable barrier as to subdue impact to groundwater below it (please refer to AMOCO's report "Post Excavation Pit Closure Investigation Summary, July, 1995", with cover letter dated November 30, 1995). AMOCO requests pit closure approval on this location.

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:	W. Side @ 4'	Date Analyzed:	2-16-95
Project Location:	Fred Feasel L 1E	Date Reported:	2-16-95
Laboratory Number:	TPH-1372	Sample Matrix:	Soil

Parameter -----	Result, mg/kg -----	Detection Limit, mg/kg -----
Total Recoverable Petroleum Hydrocarbons	5,300	100

ND = Not Detectable at stated detection limits.

QA/QC:	QA/QC Sample TPH mg/kg -----	Duplicate TPH mg/kg -----	% *Diff. -----
	4,760	4,400	8

*Administrative Acceptance limits set at 30%.

Method: Modified Method 418.1, Petroleum Hydrocarbons, Total
Recoverable, Chemical Analysis of Water and Waste,
USEPA Storet No.4551, 1978

Comments: Separator Pit - B0220

R. E. O'Neil
Analyst

Nicholas V. J.
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:

W. Side @ 4'

Date Analyzed:

2-16-95

Project Location:

Fred Feasel L 1E

Date Reported:

2-16-95

Laboratory Number:

TPH-1372

Sample Matrix:

Soil

Sample Weight: 10.00 grams
Volume Freon: 20.00 mL
Dilution Factor: 10 (unitless)
TPH Reading: 265 mg/kg

TPH Result: 5300.0 mg/kg
Reported TPH Result: 5300.0 mg/kg
Actual Detection Limit: 100.0 mg/kg
Reported Detection Limit: 100 mg/kg

QA/QC:

Original
TPH mg/kg

4760

Duplicate
TPH mg/kg

4400

%
Diff.

8

Comments:

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

Comments:

Separator Pit - B0220

CLIENT: <u>AMOCO</u>	BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	LOCATION NO: <u>80220</u> C.O.C. NO: <u>5613</u>
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FIELD REPORT: LANDFARM/CCMPOST PILE CLOSURE VERIFICATION

LOCATION: NAME: <u>FRED FEASEL</u> L. WELL #: <u>1E</u> PITS: <u>Blow/prod, SEP</u>	DATE STARTED: <u>11-22-97</u>
QUAD: UNIT: <u>(1)</u> SEC: <u>32</u> TWP: <u>28N</u> RNG: <u>10W</u> PM: <u>NM</u> CNTY: <u>SS</u> ST: <u>NM</u>	DATE FINISHED: _____
VIEW FOOTAGE: <u>NE/4 SE/4</u> CONTRACTOR: <u>EPC</u>	ENVIRONMENTAL SPECIALIST: <u>NV/EP</u>

SOIL REMEDIATION:

REMEDICATION SYSTEM: COMPOSTED

APPROX. CUBIC YARDAGE: 300-365

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

SOIL IS A LIGHT GRAY CLAY W/ LIGHT BROWN SILTY SAND.

COMPOSTE MATERIAL IS PRESENT. NO STAIN OR HC ODOR.

COMPOSTED STOCK PILE IS APPROX. 35' x 25' x 10' = 325 CUBIC YDS. (APPROX.)

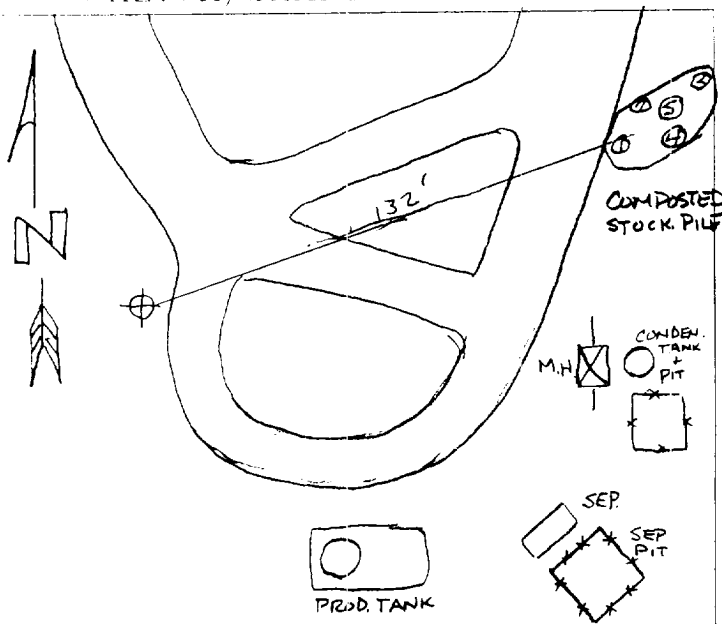
TOOK A SPT COMPOSITE SAMPLE FOR LAB. ANALYSIS.

SOIL WAS CLOSED ON 5/6/96, SEE 5/6/96 FIELD REPORT w/ LETTER DATED 6/6/96 TO NMOCED (BILL OLSON).

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
COMP-1	0.0	COMP-1	8015	1250	ND

SCALE
0 10 FT

TRAVEL NOTES:

CALLOUT: N/A

ONSITE: 11-22-97

1250

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

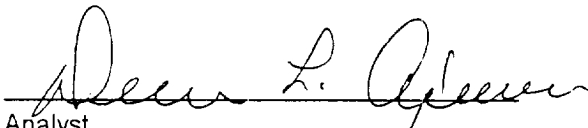
Client:	Blagg / AMOCO	Project #:	04034-10
Sample ID:	Comp. - 1	Date Reported:	11-26-97
Laboratory Number:	C570	Date Sampled:	11-22-97
Chain of Custody No.	5613	Date Received:	11-24-97
Sample Matrix:	Soil	Date Extracted:	11-24-97
Preservative:	Cool	Date Analyzed:	11-25-97
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

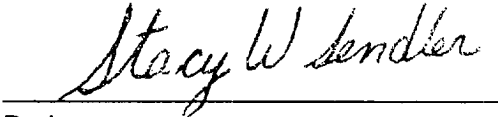
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	ND	0.2
Diesel Range (C10 - C28)	ND	0.1
Total Petroleum Hydrocarbons	ND	0.2

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: Feasel, Fred L #1E Compost Pile. 5 Pt. Composite.


Analyst


Review

CHAIN OF CUSTODY RECORD

Client/Project Name			Project Location		ANALYSIS/PARAMETERS							
Sampler: (Signature)			Chain of Custody Tape No.		Remarks							
Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers							
Comp. - 1	11/22/97		CS70	SOIL	1	TPH (8015)						5 pt. Composite
Sample received cool & intact												
Relinquished by: (Signature)			Date	Time	Received by: (Signature)			Date	Time			
Relinquished by: (Signature)			11/22/97	1600	Received by: (Signature)			11/22/97	1600			
Relinquished by: (Signature)			11/24/97	0805	Received by: (Signature)			11/24/97	0805			
Relinquished by: (Signature)					Received by: (Signature)							

ENVIROTECH INC.

5796 U.S. Highway 64-3014
Farmington, New Mexico 87401

(505) 632-0615