A0120

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

Denny Foust
DEPUTY OIL & GAS INSPECTOR

JAN 16 1996

PIT REMEDIATION AND CLOSURE REPORT

Approved

Operator: Amoco Production Company **Telephone:** (505) 326-9200

Address: 200 Amoco Court, Farmington, New Mexico 87401

Facility Or: PAN AMERICAN FEDERAL C 2E
Well Name

Location: Unit or Qtr/Qtr Sec D Sec 19 T 30N R 12W County SAN JUAN

Pit Type: Separator X Dehydrator ___ Other ___

Land Type: BLM X, State ___, Fee ___, Other ___

Pit Location: (Attach diagram)
Pit dimensions: length 21', width 21', depth 3.5'
Reference: wellhead X, other ___
Footage from reference: 117
Direction from reference: 30 Degrees X East North X of ___ 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)	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

A0120

Date Remediation Started: _____ **Date Completed:** 5-19-95

Remediation Method: (Check all appropriate sections) Excavation X Approx. cubic yards 57

Landfarmed X Insitu Bioremediation ___

Other _____

Remediation Location: (ie. landfarmed onsite, name and location of offsite facility) Onsite ___ Offsite X L.C. HELLY #5

General Description Of Remedial Action: Excavation

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 Documents

Sample depth 40"

Sample date 5-19-95 Sample time _____

Sample Results

Benzene(ppm) _____

Total BTEX(ppm) _____

Field headspace(ppm) > 2000

TPH _____

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 8-8-95

SIGNATURE B J Shaw

PRINTED NAME AND TITLE Buddy D. Shaw, Environmental Coordinator

Assuming Approval Dbo Alamo

CLIENT: AMOCO

ENVIROTECH INC.
ENVIRONMENTAL SCIENTISTS & ENGINEERS
5796 U.S. HIGHWAY 64-3014
FARMINGTON, NEW MEXICO 87401
PHONE: (505) 632-0615

LOCATION NO: A0120
C.O.C. NO: 4224

FIELD REPORT: CLOSURE VERIFICATION

PAGE No: 1 of 1

LOCATION: NAME: Pan Am Federal WELL #: "E" 2E PIT: Abandoned Blow down

QUAD/UNIT: NW¼NW¼ SEC: 19 TWP: 30 RNG: 12 PM: NM CNTY: SJ ST: NM

QTR/FOOTAGE: CONTRACTOR: Envirotech

DATE STARTED: 5-19-95
DATE FINISHED: 5-19-95

ENVIRONMENTAL SPECIALIST: HMB

EXCAVATION APPROX. 21 FT. x 21 FT. x 35 FT. DEEP. CUBIC YARDAGE: 57 Cy.

DISPOSAL FACILITY: La Kelly #5 Landfarm REMEDIATION METHOD: Land Farm

LAND USE: Grazing LEASE: NM-048576 FORMATION:

FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 117 FT. NNE FROM WELLHEAD.

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

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

CHECK ONE:
✓ PIT ABANDONED
_ STEEL TANK INSTALLED

SOIL AND EXCAVATION DESCRIPTION:

Light Brown Silty Sand

Abandoned Blow down pit.

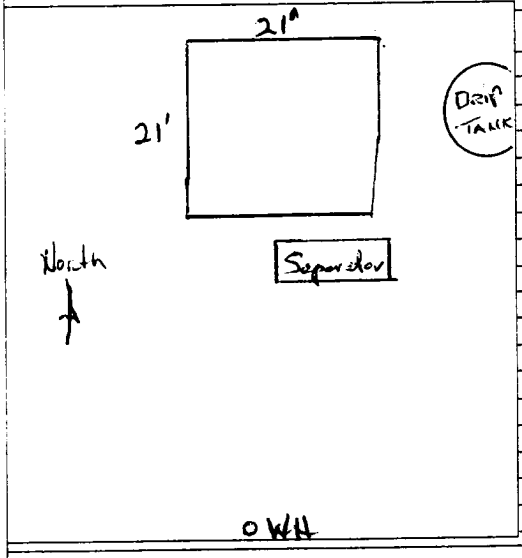
Note OVM @ 24" and bedrock.

FIELD 418.1 CALCULATIONS

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

SCALE
0 FT

PIT PERIMETER



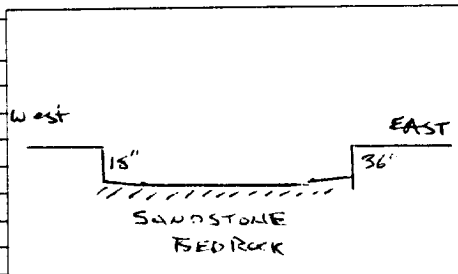
OVM RESULTS

SAMPLE ID	FIELD HEADSPACE PID (ppm)
1 @ 36"	583 ppm
2 @ 40"	Over Range
3 @ 24"	972 ppm
4 @ 18	255 ppm
5	Bedrock

LAB SAMPLES

SAMPLE ID	ANALYSIS	TIME

PIT PROFILE



TRAVEL NOTES: CALLOUT: ONSITE:

cont.

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	Amoco	Project #:	92140
Sample ID:	2 @ 1.5'	Date Reported:	05-23-95
Laboratory Number:	8530	Date Sampled:	05-19-95
Chain of Custody No:	4224	Date Received:	05-22-95
Sample Matrix:	Soil	Date Extracted:	05-22-95
Preservative:	Cool	Date Analyzed:	05-22-95
Condition:	Cool and Intact	Analysis Needed:	TPH

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	ND	10.0

ND = Parameter not detected at the stated detection limit.

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

Comments: A-0120 - Pan Am Federal "c" #2E.

Analyst

Review

5796 U.S. Highway 64-3014 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8020
AROMATIC VOLATILE ORGANICS

Client:	Amoco	Project #:	92140
Sample ID:	2 @ 1.5	Date Reported:	05-22-95
Laboratory Number:	8530	Date Sampled:	05-19-95
Chain of Custody:	4224	Date Received:	05-22-95
Sample Matrix:	Soil	Date Analyzed:	05-22-95
Preservative:	Cool	Date Extracted:	05-22-95
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	ND	26.7
Toluene	51.1	20.0
Ethylbenzene	92.5	13.3
p,m-Xylene	137	33.3
o-Xylene	39.2	20.0

SURROGATE RECOVERIES:

Parameter	Percent Recovery
Trifluorotoluene	102 %
Bromofluorobenzene	103 %

Method: Method 5030, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986

Method 8020, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986

ND - Parameter not detected at the stated detection limit.

Comments: Pan Am Federal "C" #2E, A-0120

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8020
AROMATIC VOLATILE ORGANICS

Client:	Amoco	Project #:	92140
Sample ID:	5 @ 1.5'	Date Reported:	05-31-95
Laboratory Number:	8553	Date Sampled:	05-30-95
Chain of Custody:	4235	Date Received:	05-30-95
Sample Matrix:	Soil	Date Analyzed:	05-31-95
Preservative:	Cool	Date Extracted:	05-31-95
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	ND	13.3
Toluene	422	26.6
Ethylbenzene	713	13.3
p,m-Xylene	7,030	39.8
o-Xylene	1,450	26.6

SURROGATE RECOVERIES:

Parameter	Percent Recovery
Trifluorotoluene	98 %
Bromofluorobenzene	100 %

Method: Method 5030, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986

Method 8020, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986

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Comments: Pan Am Federal "C" #2E, A-0120.

Analyst

Review

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Well Name:	**Pan American Federal C 2E**
Well Site location:	Unit D, Sec. 19, T30N, R12W
Pit Type:	Separator Pit
Producing Formation:	Basin Dakota
Pit Category:	Area III
Horizonal Distance to Surface Water:	> 1000 ft.
Vicinity Groundwater Depth:	> 100 ft.

RISK ASSESSMENT

Pit remediation activities were terminated when trackhoe encountered sandstone bedrock at 3.5 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 shallow sandstone bedrock located 3.5 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.

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Well Site location:	Unit D, Sec. 19, T30N, R12W
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Assuming Aquifer Dbo Alamo

CLIENT: AMOCO

ENVIROTECH INC.

ENVIRONMENTAL SCIENTISTS & ENGINEERS
5796 U.S. HIGHWAY 64-3014
FARMINGTON, NEW MEXICO 87401
PHONE: (505) 632-0615

LOCATION NO: A0120
C.O.C. NO: 4224

FIELD REPORT: CLOSURE VERIFICATION

PAGE No: 1 of 1

LOCATION: NAME: Pan Am Federal WELL #: E 2E PIT: Abandoned Blow down

QUAD/UNIT: NW NW SEC: 19 TWP: 30 RNG: 12 PM: NM CNTY: SJ ST: NM

QTR/FOOTAGE: CONTRACTOR: Envirotech

DATE STARTED: 5-19-95
DATE FINISHED: 5-19-95
ENVIRONMENTAL SPECIALIST: JMB

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LAND USE: Grazing LEASE: NM-048576 FORMATION:

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CHECK ONE:
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___ STEEL TANK INSTALLED

SOIL AND EXCAVATION DESCRIPTION:

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Abandoned Blow down pit.

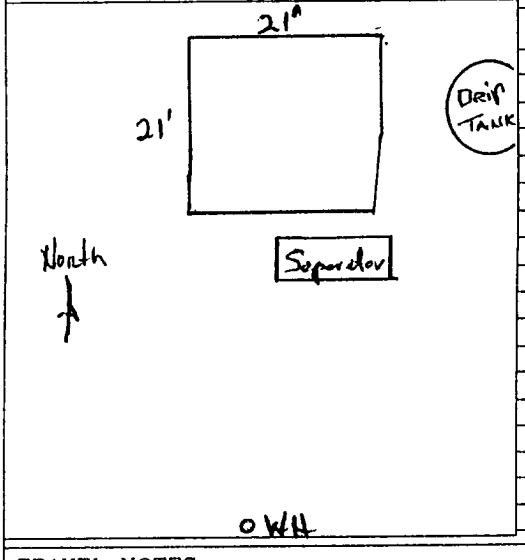
Note OVM @ 24" and bedrock.

FIELD 418.1 CALCULATIONS

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

SCALE
0 FT

PIT PERIMETER



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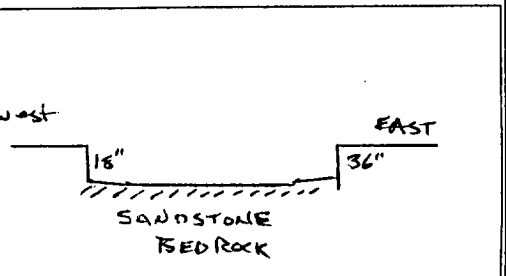
LAB SAMPLES

SAMPLE ID	ANALYSIS	TIME

PIT PROFILE



TRAVEL NOTES: CALLOUT: ONSITE:

CONA