

District I
P.O. Box 1980, Hobbs, NM
District II
Drawer DD, Artesa, 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

sep-risk bedrock
blow - closed

SUBMIT 1 COPY TO
APPROPRIATE
DISTRICT OFFICE
AND 1 COPY TO
SANTA FE OFFICE

reproducible
field notes

PIT REMEDIATION AND CLOSURE REPORT

C4957

Operator: Amoco Production Company Telephone: (505) - 326-9200
Address: 200 Amoco Court, Farmington, New Mexico 87401
Facility Or: HARE GC DIE
Well Name
Location: Unit or Qtr/Qtr Sec 6 Sec 14 T 29N R 11W County SAN JUAN
Pit Type: Separator ☒ Dehydrator ☐ Other ☐
Land Type: BLM ☐ State ☐ Fee ☒ Other COM. AGMT

Pit Location: Pit dimensions: length 18', width 20', depth 14'
(Attach diagram)
Reference: wellhead ☒, other ☐
Footage from reference: 180'
Direction from reference: 25 Degrees ☒ East North ☐
of
☐ West South ☒

Depth To Ground Water: Less than 50 feet (20 points) 10
(Vertical distance from 50 feet to 99 feet (10 points) 0
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) 10
lakes, ponds, rivers, streams, creeks, Greater than 1000 feet (0 points) 0
irrigation canals and ditches)

RANKING SCORE (TOTAL POINTS): 20

Date Remediation Started: _____ Date Completed: 1/7/94

Remediation Method: Excavation ☒ Approx. cubic yards 190
(Check all appropriate sections) Landfarmed ☒ Insitu Bioremediation _____
Other _____

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

General Description of Remedial Action: BEDROCK BOTTOM. 95'
PIT EXCAVATED & SOILS COMPOSTED ON-SITE, VENT
WELLS INSTALLED BY SIDEWALLS DUE TO PIPING & EQUIP.
ADJACENT TO PIT AREA. RISK ASSESSED. 71V

Ground Water Encountered: No ☒ Yes _____ Depth _____

Final Pit: Sample location REFER TO "CLOSURE VERIFICATION" SHEET
Closure Sampling: _____
(if multiple samples, attach sample results and diagram of sample locations and depths)
Sample depth _____
Sample date _____ Sample time _____
Sample Results
Benzene(ppm) _____
Total BTEX(ppm) _____
Field headspace(ppm) _____
TPH _____

Ground Water 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 4/27/94 5/23/98 95'
SIGNATURE B. Shaw PRINTED NAME AND TITLE Buddy D. Shaw Environmental Coordinator

C4957

5796 US HWY. 64, FARMINGTON, NM 87401
(505) 632-0615

COCR 3307

FIELD REPORT: CLOSURE VERIFICATION

JOB No: 92140
PAGE No: 1 of 1

LOCATION: LEASE: HARE GC WELL: D1E QD: SW 1/4 NE 1/4 (6)
SEC: 14 TWP: 29N RNG: 11W BM: NM CNTY: SAN JUAN ET: NM PIT: SEP
CONTRACTOR: F. VELASQUEZ
EQUIPMENT USED: TRACKHOE

DATE STARTED: 1/7/94
DATE FINISHED: 1/7/94

ENVIRONMENTAL SPECIALIST: nv

SOIL REMEDIATION: QUANTITY: 18 x 20' x 14'

DISPOSAL FACILITY: UNKNOWN

LAND USE: RANGE

SURFACE CONDITIONS: UNKNOWN

FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 60 YARDS S25E FROM WELLHEAD.

DEPTH TO GROUNDWATER: ~~7100~~ 910 2100

NEAREST WATER SOURCE: 300-500'

NEAREST SURFACE WATER: 300'

ALL OUM SAMPLES HIGHLY CONTAMINATED. CLAY
INTERVAL @ 7' - 10' GRAY, STRONG OOR. FINE SAND BELOW
CLAY DOWN TO TOTAL DEPTH OF EXCAVATION. BOTTOM
VERY HARD, SHALY. COLLECTED LAB SAMPLES ① @ 8' &
② @ 14' FOR 418.1. VENT WELLS TO BE INSTALLED OVER
FIELD 418.1 CALCULATIONS TO PIPING & EQUIP.

FIELD 418.1 CALCULATIONS

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

RISK
ASSESSMENT

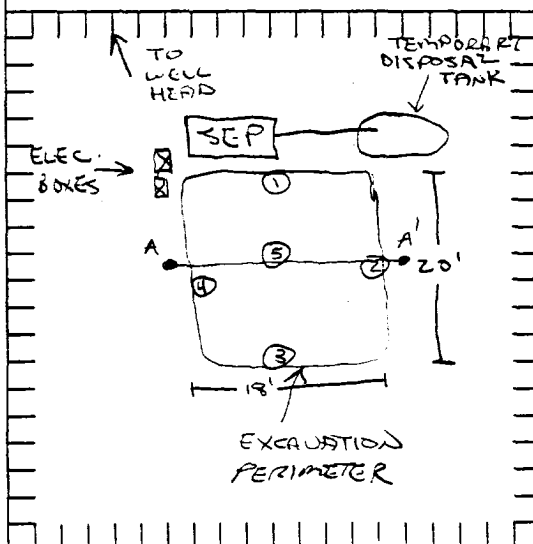
925

SCALE

0

FEET

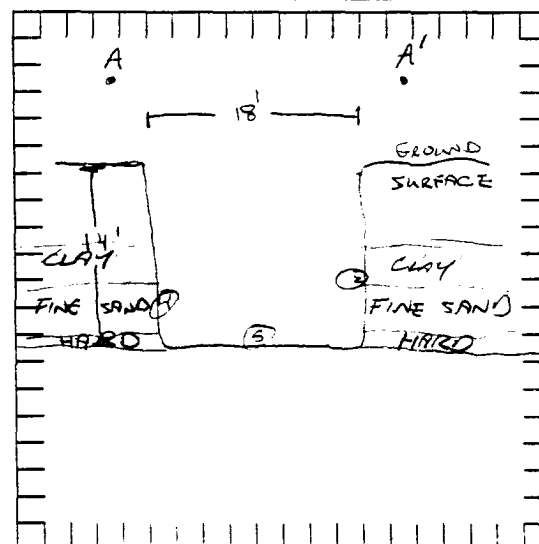
PIT PERIMETER



OVM RESULTS

[illegible]

PIT PROFILE



TRAVEL NOTES: CALLOUT: 1/6/94 ONSITE: 1/7/94

2

Well Name:	Hare GC D #1E
Well Site location:	Unit G, Sec. 14, T29N, R11W
Pit Type:	Separator Pit
Producing Formation:	Basin Dakota
Pit Category:	Vulnerable
Horizontal Distance to Surface Water:	< 1000 ft.
Vicinity Groundwater Depth:	< 100 ft.

RISK ASSESSMENT

Pit remediation activities were terminated when trackhoe encountered competent shale at 14 feet below grade.

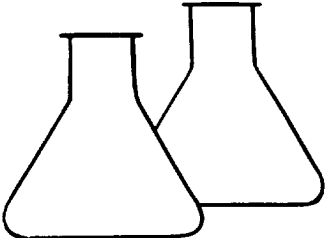
No past or future threat to surface water or groundwater is likely based on the following considerations:

1. Groundwater levels located on or close to the well pad are estimated to be at a much greater depth below shallow shale 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 shale bottom creates enough of a impermeable 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 therefore request pit closure approval on this location.



ENVIROTECH LABS

5796 US HIGHWAY 64-3014 • FARMINGTON, NEW MEXICO 87401

PHONE: (505) 632-0615 • FAX: (505) 632-1865

EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:	Amoco	Project #:	92140
Sample ID:	1 @ 8'	Date Sampled:	01-07-94
Laboratory Number:	6716	Date Received:	01-07-94
Sample Matrix:	Soil	Date Analyzed:	01-10-94
Preservative:	Cool	Date Reported:	01-10-94
Condition:	Cool & Intact	Analysis Needed:	TPH

Parameter -----	Concentration (mg/kg) -----	Det. Limit (mg/kg) -----
Total Petroleum Hydrocarbons	552	10

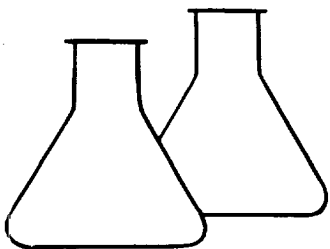
ND = Parameter not detected at the stated detection limit.
N/A = Not applicable

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

Comments: Hare GC D1E Sep. Pit C4957

Tony - Tintano
Analyst

Maria D. Young
Review



ENVIROTECH LABS

5796 US HIGHWAY 64-3014 • FARMINGTON, NEW MEXICO 87401

PHONE: (505) 632-0615 • FAX: (505) 632-1865

EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:	Amoco	Project #:	92140
Sample ID:	5 @ 14'	Date Sampled:	01-07-94
Laboratory Number:	6717	Date Received:	01-07-94
Sample Matrix:	Soil	Date Analyzed:	01-10-94
Preservative:	Cool	Date Reported:	01-10-94
Condition:	Cool & Intact	Analysis Needed:	TPH

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
-----	-----	-----
Total Petroleum Hydrocarbons	15.1	10.0

ND = Parameter not detected at the stated detection limit.
N/A = Not applicable

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

Comments: Hare GC D1E Sep. Pit C4957

Tony Tristano
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