

District I  
P.O. Box 1920, Hobbs, NM  
District II  
P.O. Drawer DD, Artesia, NM 88211  
District III  
Rio Brazos Rd, Aztec, NM 87410

State of New Mexico  
Energy, Minerals and Natural Resources Department

Bedrock

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

**PIT REMEDIATION AND CLOSURE REPORT**

Operator: Amoco Production Company Telephone: (505) - 326-9200  
Address: 200 Amoco Court, Farmington, New Mexico 87401  
Facility Or: FLORANCE # 21A  
Well Name  
Location: Unit or Qtr/Qtr Sec C Sec 1 T29N R 9W County SAN JUAN  
Pit Type: Separator Dehydrator Other ABANDONED PRODUCTION TANK  
Land Type: BLM ☒, State ☐, Fee ☐, Other ☐

Pit Location: Pit dimensions: length 15', width 15', depth 7'  
Attach diagram) Reference: wellhead ☒, other ☐  
Footage from reference: 116'  
Direction from reference: 64 Degrees ☒ East North ☐  
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

Date Remediation Started: \_\_\_\_\_ Date Completed: 9/11/00  
Remediation Method: Excavation ☒ Approx. cubic yards 45  
(Check all appropriate sections) Landfarmed \_\_\_\_\_ Insitu Bioremediation \_\_\_\_\_  
Other COMPOSTED

Remediation Location: Onsite \_\_\_\_\_ Offsite NYE GC B#1E (E-7-29-9)  
(ie. landfarmed onsite, name and location of offsite facility) TRANSPORTED TO CROUCH MESA 3/01.<sup>AD</sup>

General Description Of Remedial Action: \_\_\_\_\_  
Excavation, BEDROCK BOTTOM. RISK ASSESSED.

Ground Water 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 7' (PIT BOTTOM)  
Sample date 9/11/00 Sample time 0800  
Sample Results

Benzene(ppm) 7.9  
Total BTEX(ppm) 200.6  
Field headspace(ppm) 211  
TPH 8,970 ppm

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 9/11/00

SIGNATURE

B. Shaw

PRINTED NAME  
AND TITLE

Buddy D. Shaw  
ENVIRONMENTAL COORDINATOR

CLIENT: <u>BP-AMOCO</u>	BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	LOCATION NO: <u>80787</u> C.O.C. NO: <u>8163</u>
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FIELD REPORT: CLOSURE VERIFICATION		PAGE No: <u>1</u> of <u>1</u>
LOCATION: NAME: <u>FLORANCE</u>	WELL #: <u>21A</u>	PIT: <u>PROD. TANK</u>
QUAD/UNIT: <u>C</u> SEC: <u>1</u> TWP: <u>29N</u> RNG: <u>9W</u> PM: <u>NM</u> CNTY: <u>SI</u> ST: <u>NM</u>	DATE STARTED: <u>8-28-00</u> DATE FINISHED: <u>9-1-00</u>	
GTR/FOOTAGE: <u>NE/4 NW/4</u>	CONTRACTOR: <u>FLINT</u>	
		ENVIRONMENTAL SPECIALIST: <u>BLAGG</u>

EXCAVATION APPROX. 15 FT. x 15 FT. x 7 FT. DEEP. CUBIC YARDAGE: 45

DISPOSAL FACILITY: NYE GC 8/E (E-7-29-9) REMEDIATION METHOD: LF/COMPOST

LAND USE: RANGE LEASE: NMSF 027201 FORMATION: MV

FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 116 FT. S64°E FROM WELLHEAD.

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

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

SOIL AND EXCAVATION DESCRIPTION:

CHECK ONE:

☒ PIT ABANDONED

☐ STEEL TANK INSTALLED

☐ FIBERGLASS TANK INSTALLED

SANDY SILT, DRY, V. FIRM, Gray/Green, Non cohesive.  
W/CLAY FROM SURFACE TO 5' BES.

NO HC STAIN, MINOR ODOR ON ALL SAMPLES.

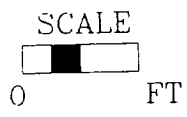
Beginning @ 5', Shale Bedrock, Firm, slightly moist, minor HC ODOR & STAIN.

**BEDROCK BOTTOM**

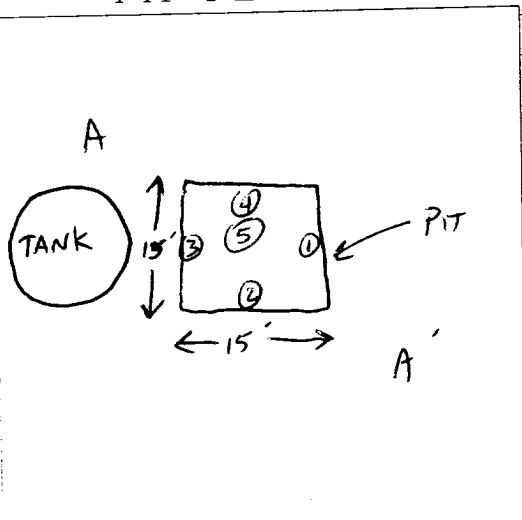
**RISK ASSESSED**

FIELD 418.1 CALCULATIONS

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



PIT PERIMETER



OVM RESULTS

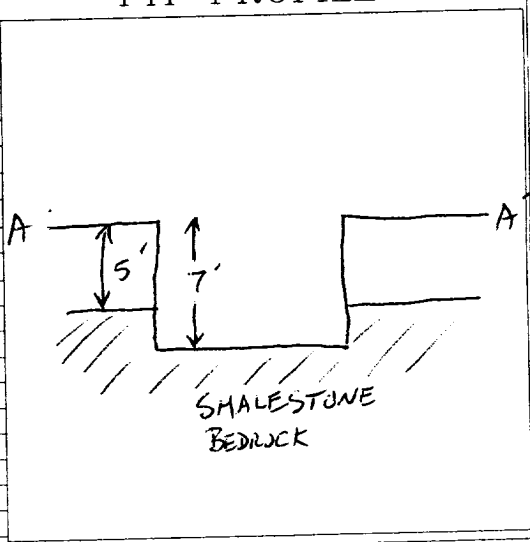
SAMPLE ID	FIELD HEADSPACE PID (ppm)
1 EC 4'	26
2 SC 6'	55
3 WP 6'	104
4 N 7'	118
5 C 7'	211

SAMPLE ID	ANALYSIS	TIME
LC 7'	8/11/00	0900

**BOTH FAILED**

PIT PROFILE



TRAVEL NOTES: CALLOUT: \_\_\_\_\_ ONSITE: \_\_\_\_\_

**Well Name:**

Well Site location:

Pit Type:

Producing Formation:

Pit Category:

Horizontal Distance to Surface Water:

Vicinity Groundwater Depth:

**Florance #21A**

Unit C, Sec. 1, T29N, R9W

Production Tank Pit

Mesa Verde

Non Vulnerable

&gt; 1000 ft.

&gt; 100 ft.

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

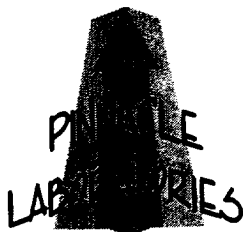
Pit remediation activities were terminated when backhoe encountered competent shale at 7 feet below grade.

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. Well site located within the **non-vulnerable area** and is approximately 0.33 miles south of the nearest vulnerable area boundary (tributary dry wash to the San Juan River).

**(Refer to Archuleta Quadrangle, New Mexico - San Juan County, 7.5 Minute Series (Topographic), Provisional edition, 1985, (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 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 BP AMOCO's (formerly Amoco Production Company) report "Post Excavation Pit Closure Investigation Summary, July, 1995", with cover letter dated November 30, 1995). BP AMOCO therefore request pit closure approval on this location.



2709-D Pan American Freeway NE  
Albuquerque, New Mexico 87107  
Phone (505) 344-3777  
Fax (505) 344-4413

# GAS CHROMATOGRAPHY RESULTS

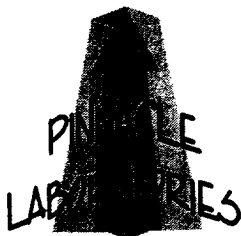
TEST : EPA 8015 MODIFIED (DIRECT INJECT)  
CLIENT : ENVIROTECH, INC.  
PROJECT # : 403410  
PROJECT NAME : BLAGG/BP-AMOCO

PINNACLE I.D.: 009033

SAMPLE			DATE	DATE	DATE	DIL.
D. #	CLIENT I.D.	MATRIX	SAMPLED	EXTRACTED	ANALYZED	FACTOR
01	C @ 5/18068	NON-AQ	09/01/00	09/07/00	09/11/00	1
02	C @ 8/18069	NON-AQ	09/01/00	09/07/00	09/11/00	1
03	C @ 7/18070	NON-AQ	09/01/00	09/07/00	09/11/00	10
PARAMETER		DET. LIMIT	UNITS	C @ 5/18068	C @ 8/18069	C @ 7/18070
FUEL HYDROCARBONS, C6-C10		10	MG/KG	< 10	< 10	6000
FUEL HYDROCARBONS, C10-C22		10	MG/KG	37	16	2400
FUEL HYDROCARBONS, C22-C36		10	MG/KG	54	15	570
CALCULATED SUM:				91	31	8970
SURROGATE:						
D-TERPHENYL (%)				99	101	n/a *
SURROGATE LIMITS		( 66 - 151 )				

## CHEMIST NOTES:

= surrogate not recoverable due to necessary sample dilution.



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# GAS CHROMATOGRAPHY RESULTS

TEST : EPA 8021 MODIFIED  
CLIENT : ENVIROTECH, INC.  
PROJECT # : 403410  
PROJECT NAME : BLAGG/BP-AMOCO

PINNACLE I.D.: 009033

PROJECT NAME		: BLAGG/BP-AMOCO				
SAMPLE			DATE	DATE	DATE	DIL.
S. #	CLIENT I.D.	MATRIX	SAMPLED	EXTRACTED	ANALYZED	FACTOR
3	C @ 7/18070	NON-AQ	09/01/00	09/07/00	09/08/00	20
PARAMETER		DET. LIMIT	UNITS	C @ 7/18070		
BENZENE		0.025	MG/KG	7.9		
TOLUENE		0.025	MG/KG	9.7		
ETHYLBENZENE		0.025	MG/KG	23		
TOTAL XYLENES		0.025	MG/KG	160		

ROGATE:  
BROMOFLUOROBENZENE (%) 109  
SURROGATE LIMITS ( 65 - 120 )

ANALYST NOTES:

1A

TOTAL BTEX 200.6 ppm 25