

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Submit 1 copy to
appropriate
District Office
and 1 copy to
the Santa Fe Office

(Revised 3/9/94)

*Risk
Defined
plume*

PIT REMEDIATION AND CLOSURE REPORT

30-045-21080

Operator: Amoco by EPFS Telephone _____

Address: _____

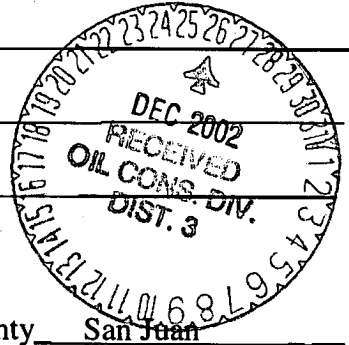
Facility Or: Hare Gas Com E#1 Meter 87595

Well Name _____

Location: Unit or Qtr/Qtr Sec N Sec 6 T 29 R 9 County San Juan

Pit Type: Separator _____ Dehydrator _____ Other Drip

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



Pit Location: Pit dimensions: length 17', width 16', depth 3'

(Attach diagram)

Reference: wellhead X, other _____

Footage from reference: 112'

Direction from reference: 86 Degrees X 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) <u>10</u>
high water elevation of		
ground water.)		

Wellhead Protection Area:	Yes (20 points)
(Less than 200 feet from a private	No (0 points) <u>0</u>
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) <u>0</u>
irrigation canals and ditches.)		

RANKING SCORE (TOTAL POINTS): 10

Date Remediation Started: 05/05/94 Date completed: 05/05/94

Remediation Method: Excavation X Approx. cubic yards 40
(Check all appropriate sections.) Landfarmed _____ Insitu Bioremediation _____

Other _____

Remediation Location: Onsite _____ Offsite Tierra
(i.e. landfarmed onsite, name and location of offsite facility)

General Description of Remedial Action: Some line markers. Fence torn down. Started remediating to 12'. Soil black.
10' soil still little black on floor and east wall of pit, 12' PID 403

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 Four walls and center of pit composite

Sample depth 12'

Sample Date 05/05/94 Sample time 10:50

Sample Results

Benzene(ppm) <0.25

Total BTEX(ppm) 182

Field headspace(ppm) 403

TPH 4830

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 1/8/03

Signature Scott T. Pope

Printed Name Scott T. Pope
and Title Senior Env. Scientist

Hare Gas Com E #1
Meter/Line ID 87595

SITE DETAILS

Legals - Twn: 29N	Rng: 9W	Sec: 6	Unit: N
NMOCD Hazard Ranking: 10		Land Type: FEE	
Operator: Amoco Production Company		Pit Closure Date: 5/5/94	

RATIONALE FOR RISK-BASED CLOSURE

The pit noted above was assessed and ranked according to the criteria in the New Mexico Oil Conservation Division's (NMOCD) Unlined Surface Impoundment Closure Guidelines.

A test pit was excavated to 12 feet (ft) below ground surface (bgs) and a soil sample was collected for field headspace and laboratory analysis for TPH. Groundwater was not encountered in the test pit. Headspace analysis indicated an organic vapor content of 403 ppm, laboratory analysis indicated a benzene concentration of <0.25 mg/kg, a total BTEX concentration of 182 mg/kg, and a TPH concentration of 4,830 mg/kg. The total BTEX and TPH measurement exceeded recommended remediation levels for the Hazard Ranking Score of 10.

Approximately 40 cubic yards of soil were excavated and hauled to Tierra, a commercial landfarm, for treatment and disposal. The pit was backfilled with clean soil and graded in a manner to direct surface runoff away from the pit area.

A Phase II boring was completed to 17 ft bgs. No groundwater was encountered in the soil boring. One laboratory sample was collected at 15-17 ft bgs. Headspace analysis indicated an organic vapor content of 1 ppm, laboratory analysis indicated a benzene concentration of <0.025 mg/kg, a total BTEX concentration of <0.10 mg/kg, and a TPH concentration of 109 mg/kg. The benzene, total BTEX, and TPH concentrations were below recommended remediation levels for the Hazard Ranking Score.

No Phase III activities were conducted.

El Paso Field Services requests closure of the above mentioned pit location for the following reasons:

- The primary source, discharge to the pit, has been removed for over eight years.
- Impacted soils were excavated to the practical extent of the equipment and subsurface conditions
- The test pit was backfilled and the former pit area graded to direct surface runoff away from the former pit.
- Backfilling the pit with clean soil eliminated the potential for direct contact with hazardous constituents by livestock or the public; i.e., direct contact exposure pathways are incomplete.
- There are no water supply wells or other sources of fresh water extraction within 1,000 feet of the site.
- Groundwater was not encountered in the soil boring to 17 ft bgs.
- Benzene, total BTEX, and TPH concentrations at the bottom of the Phase II boring were below recommended remediation levels for the Hazard Ranking Score.



PIT CLOSURE REQUEST

- The TPH concentrations at the bottom of the Phase II boring are approximately 2 percent of the concentration at 12 ft bgs indicating that residual hydrocarbons are likely degrading by natural attenuation with minimal risk to the environment.

ATTACHMENTS

Field Pit Assessment Form
Revised Field Pit Assessment Form
Field Pit Remediation/Closure Form
Phase II Soil Boring Log
Laboratory Analytical Results

REVISED
FIELD PIT SITE ASSESSMENT FORM

GENERAL

Meter: 87595 Location: HARE GAS Com E #1
Operator #: 0203 Operator Name: AMOCO P/L District: Bloomfield
Coordinates: Letter N Section 6 Township: 29 Range: 9
or Latitude _____ Longitude _____
Pit Type: Dehydrator _____ Location Drip: X Line Drip: _____ Other: _____
Site Assessment Date: 4/11/94 Area: 10 Run: 42
Revised Date: 12/11/02

SITE ASSESSMENT

NMOCD Zone:

(from NMCOD Maps)

Land Type:

BLM ☐ (1)

State ☐ (2)

Fee ☒ (3)

Indian _____

Inside ☒ (1)

Outside ☐ (2)

Depth to Groundwater

Less than 50 Feet (20 points) ☐ (1)

50 Feet to 99 Feet (10 Points) ☒ (2)

Greater than 100 Feet (0 Points) ☐ (3)

Well Protection Area

Is it less than 1000 feet from well, spring or other source of fresh water extraction?
or; Is it less than 200 feet from a private domestic water source?

☐ YES (20 Points)

☒ NO (0 Points)

Horizontal Distance to Surface Water Body

Less than 200 Feet (20 points) ☐ (1)

200 Feet to 1000 Feet (10 Points) ☐ (2)

Greater than 1000 Feet (0 Points) ☒ (3)

Name of Surface Water Body CITIZENS Ditch

(Surface Water Body: Perennial River, Stream, Creek, Irrigation Canal, Ditch, Lake, Pond)

Distance to Nearest Ephemeral Stream ☐ (1) < 100 feet (Navajo Pits Only)

☐ (2) > 100 feet

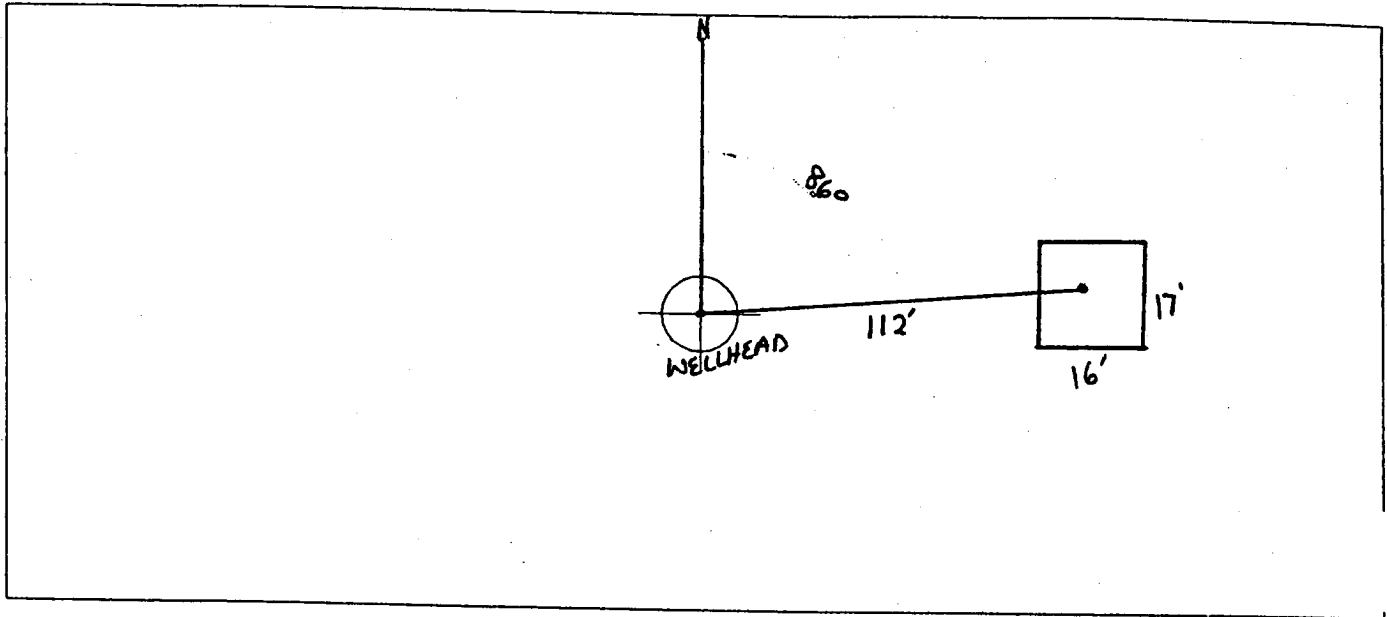
TOTAL HAZARD RANKING SCORE 10 **POINTS**

REMARKS

Remarks: Revision based on re-assessment of depth
to groundwater and distance to well protection
area.

ORIGINAL PIT LOCATION

Original Pit : a) Degrees from North 86° Footage to Wellhead 112'
 b) Degrees from North _____ Footage to Dogleg _____
 Dogleg Name _____
 c) Length : 17' Width : 16' Depth : 3'



Remarks :

STARTED TAKING PICTURES AT 12:22 P.M.
END DUMP

Completed By:

Pat Simpson
 Signature

4-11-94
 Date



FIELD SERVICES LABORATORY

ANALYTICAL REPORT

PIT CLOSURE PROJECT - Soil

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	KP 24	945079
MTR CODE SITE NAME:	87595	N/A
SAMPLE DATE TIME (Hrs):	5/5/94	1050
SAMPLED BY:	N/A	
DATE OF TPH EXT. ANAL.:	5/10/94	5/10/94
DATE OF BTEX EXT. ANAL.:	5/13/94	5/14/94
TYPE DESCRIPTION:	VC	Grey Sand/Clay

REMARKS:

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q	M(g)	V(ml)
BENZENE	40.25	MG/KG				
TOLUENE	40.25	MG/KG				
ETHYL BENZENE	11	MG/KG				
TOTAL XYLENES	170	MG/KG				
TOTAL BTEX	182	MG/KG				
TPH (418.1)	4830	MG/KG			2.02	28
HEADSPACE PID	403	PPM				
PERCENT SOLIDS	87.9	%				

- TPH is by EPA Method 418.1 and BTEX is by EPA Method 8020 -

The Surrogate Recovery was at 390 % for this sample All QA/QC was acceptable.

Surrogate recovery was outside AT I quality control limits due to matrix interference. AT I Results attached.

DF = Dilution Factor Used

Approved By:

Date:

6/15/94



Analytical Technologies, Inc.

GAS CHROMATOGRAPHY RESULTS

TEST : BTEX (EPA 8020)
CLIENT : EL PASO NATURAL GAS CO. ATI I.D.: 405343
PROJECT # : 24324
PROJECT NAME : PIT CLOSURE

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
05	945079	NON-AQ	05/05/94	05/13/94	05/14/94	10
06	945080	NON-AQ	05/05/94	05/13/94	05/14/94	20
07	945081	NON-AQ	05/05/94	05/13/94	05/14/94	20
PARAMETER			UNITS	05	06	07
BENZENE			MG/KG	<0.25	<0.5	<0.5
TOLUENE			MG/KG	<0.25	6.6	18
ETHYLBENZENE			MG/KG	11	20	15
TOTAL XYLENES			MG/KG	170	220	370

SURROGATE:

BROMOFLUOROBENZENE (%) 390* 310* 260*

*OUTSIDE QUALITY CONTROL LIMITS DUE TO MATRIX INTERFERENCE

FIELD PIT REMEDIATION/CLOSURE FORM

GENERAL

Meter: 87595 Location: HARE Gas Com E #1
 Coordinates: Letter: N Section 6 Township: 29 Range: 9
 Or Latitude _____ Longitude _____
 Date Started : 5-5-94 Area: 10 Run: 42

945079

FIELD OBSERVATIONS

Sample Number(s): K.P. #24
 Sample Depth: 12' Feet
 Final PID Reading 403 PID Reading Depth 12' Feet
 Yes No
 Groundwater Encountered ☐ (1) ☒ (2) Approximate Depth _____ Feet

CLOSURE

Remediation Method :
 Excavation ☒ (1) Approx. Cubic Yards 40
 Onsite Bioremediation ☐ (2)
 Backfill Pit Without Excavation ☐ (3)
 Soil Disposition:
 Envirotech ☐ (1) ☒ (3) Tierra
 Other Facility ☐ (2) Name: _____
 Pit Closure Date: 5-5-94 Pit Closed By: B.E.I

REMARKS

Remarks : Some Line markers fence torn down started
Remediating to 12' soil black 10' soil still little black.
ON floor AND EAST wall of Pit, 12' PID 403

Signature of Specialist: Kelly Padilla

RECORD OF SUBSURFACE EXPLORATION

Borehole # BH-1
 Well # _____
 Page 1 of 1

PHILIP ENVIRONMENTAL
 4000 Monroe Road
 Farmington, New Mexico 87401
 (505) 326-2262 FAX (505) 326-2388

Project Name EPNG PITS
 Project Number 14509 Phase 6000 / 77
 Project Location Zone E1 87595

Elevation _____
 Borehole Location _____
 GWL Depth _____
 Logged By CM CHANCE
 Drilled By M. DONOHUE K. Padilla
 Date/Time Started 6/14/95 - 0655
 Date/Time Completed 6/14/95 - 0800

Well Logged By CM Chance
 Personnel On-Site K. Padilla, E. Rivera, D. Salazar
 Contractors On-Site _____
 Client Personnel On-Site _____

Drilling Method 4 1/4" ID HSA
 Air Monitoring Method PID, CGI

Depth (Feet)	Sample Number	Sample Interval	Sample Type & Recovery (inches)	Sample Description Classification System: USCS	USCS Symbol	Depth Lithology Change (feet)	Air Monitoring			Drilling Conditions & Blow Counts
							Units: PPM	S		
							BZ	BH	HS	
0				Backfill to 12'						
5										
10										
15	1	15-17	10"	Basile, SAND, vf-f sand, sl moist, loose			0	0	0	0722L
20				TOB 17'						
25										
30										
35										
40										

Comments: 15-17' sample (CMC 53) sent to lab (BTEX & TPH). BH grouted to surface. Sample was bagged & iced prior to containerization.

Geologist Signature _____

FIELD SERVICES LABORATORY ANALYTICAL REPORT

PIT CLOSURE PROJECT - Soil Samples Inside the GWV Zone

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	cmc 53	946899
MTR CODE SITE NAME:	87595	N/A
SAMPLE DATE TIME (Hrs):	6-14-95	0722
SAMPLED BY:	N/A	
DATE OF TPH EXT. ANAL.:	6/15/95	6-15-95
DATE OF BTEX EXT. ANAL.:	6-16-95	6-16-95
TYPE DESCRIPTION:	VG	Light Brown Sand & Clay

REMARKS:

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q	M(g)	V(ml)
BENZENE	<0.025	MG/KG	1			
TOLUENE	<0.025	MG/KG	1			
ETHYL BENZENE	<0.025	MG/KG	1			
TOTAL XYLENES	<0.025	MG/KG	1			
TOTAL BTEX	<0.10	MG/KG				
TPH (418.1)	109	MG/KG			2.02	28
HEADSPACE PID	1	PPM				
PERCENT SOLIDS	96.2	%				

-- TPH is by EPA Method 418.1 and BTEX is by EPA Method 8020 --

The Surrogate Recovery was at 98 % for this sample All QA/QC was acceptable.

Negative:

1 results attached for BTEX and mod. Fred 8015

DF = Dilution Factor Used

Approved By:

J.P.

Date:

6/28/95

GAS CHROMATOGRAPHY RESULTS

TEST : BTEX (EPA 8020)
CLIENT : EL PASO NATURAL GAS CO. ATI I.D.: 506376
PROJECT # : 24324
PROJECT NAME : PIT CLOSURE/PHASE II

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
07	946897	NON-AQ	06/13/95	06/16/95	06/16/95	1
08	946898	NON-AQ	06/14/95	06/16/95	06/16/95	1
09	946899	NON-AQ	06/14/95	06/16/95	06/16/95	1

PARAMETER	UNITS	07	08	09
BENZENE	MG/KG	<0.025	<0.025	<0.025
TOLUENE	MG/KG	0.31	<0.025	<0.025
ETHYLBENZENE	MG/KG	0.31	0.91	<0.025
TOTAL XYLENES	MG/KG	5.4	3.6	<0.025

SURROGATE:

BROMOFLUOROBENZENE (%)	116	132*	98
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*OUTSIDE ATI QUALITY CONTROL LIMITS DUE TO MATRIX INTERFERENCE



Analytical Technologies, Inc.

GAS CHROMATOGRAPHY RESULTS

TEST : EPA 8015 MODIFIED
CLIENT : EL PASO NATURAL GAS CO. ATI I.D.: 506376
PROJECT # : 24324
PROJECT NAME : PIT CLOSURE/PHASE II

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
08	946898	NON-AQ	06/14/95	06/16/95	06/16/95	1
09	946899	NON-AQ	06/14/95	06/16/95	06/16/95	1
10	946900	NON-AQ	06/14/95	06/16/95	06/17/95	1

PARAMETER	UNITS	08	09	10
FUEL HYDROCARBONS	MG/KG	32	<5	<5
HYDROCARBON RANGE		C8-C18	-	-
HYDROCARBONS QUANTITATED USING		DIESEL	-	-

SURROGATE:

O-TERPHENYL (%)	97	96	96
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