

*Deputy Asst. Trust*  
DEPUTY ASST. TRUST

DEC 3 1997

*Approved*

Meter Number: 95903

Location Name: GALLEGOS CANYON UNIT#400E

Location: TN-28 RG-12

SC-25 UL-G

3 - Navajo

NMOCD Zone: OUTSIDE

Hazard Ranking Score: 00

RECEIVED  
APR 14 1997

OIL COAL ENV.  
DISK 2

**RATIONALE FOR RISK-BASED CLOSURE OF PRODUCTION PITS  
LOCATED OUTSIDE OF THE VULNERABLE ZONE  
IN THE SAN JUAN BASIN**

This production pit location was ranked according to the criteria in the New Mexico Oil Conservation Division's Unlined Surface Impoundment Closure Guidelines and received a ranking score of zero. The estimated depth to groundwater is greater than 100-feet beneath ground surface (bgs), the pit is not in a well head protection area, and there are no surface water bodies within 1,000 horizontal feet of the pit location.

The primary source, discharge to the pit has been removed. There has been no discharge to the pits for at least 4 years and the pits have been closed for at least one year.

Each pit was backfilled with clean soil and graded in a manner to divert precipitation away from the excavated area. Minimal infiltration of rainfall is expected. Any rainfall that does infiltrate the ground surface must migrate through clean backfill before reaching the residual hydrocarbons.

There is no source material at the ground surface, so direct contact of hydrocarbons with livestock and the populous is not likely.

In general, outside of the vulnerable area and alluvial valleys, bedrock material is generally encountered within 20 feet of the ground surface. Bedrock material in the San Juan Basin consists of interbedded sandstones, shales and clays. According to Freeze and Cherry, 1979, the hydraulic conductivity of the bedrock material are as follows:

Sandstone	$10^{-9}$ to $10^{-13}$ cm/sec
Shale	$10^{-12}$ to $10^{-16}$ cm/sec
Clay	$10^{-12}$ to $10^{-15}$ cm/sec

Based on this information, the residual hydrocarbons should not migrate to groundwater.

Natural process (bioremediation) are degrading the residual hydrocarbon to carbon dioxide and water and will continue until the source is gone, therefore minimizing any impact to the environment.

Based on the above information, it is highly unlikely that any source material will impact groundwater or ever find an exposure pathway to affect human health and therefore El Paso Field Services Company (EPFS) requests closure of this pit location.



## FIELD PIT SITE ASSESSMENT FORM

EL PASO FIELD SERVICES

## GENERAL

Meter: 95-903 Location: Gallegos Canyon Unit #400E  
Operator #: 0203 Operator Name: Amoco P/L District: Angel Peak  
Coordinates: Letter: G Section 25 Township: 28 Range: 12  
Or Latitude \_\_\_\_\_ Longitude \_\_\_\_\_  
Pit Type: Dehydrator \_\_\_\_\_ Location Drip: X Line Drip: \_\_\_\_\_ Other: \_\_\_\_\_  
Site Assessment Date: 9/13/94 Area: 01 Run: 32

## SITE ASSESSMENT

## NMOCD Zone:

(From NMOCD  
Maps)

Inside

## Land Type:

BLM ☐ (1)State ☐ (2)Fee ☐ (3)Indian Navajo

Outside

☐ (1)☒ (2)

## Depth to Groundwater

Less Than 50 Feet (20 points) ☐ (1)50 Ft to 99 Ft (10 points) ☐ (2)Greater Than 100 Ft (0 points) ☒ (3)

## Wellhead Protection Area :

Is it less than 1000 ft from wells, springs, or other sources of  
fresh water extraction? , or ; Is it less than 200 ft from a private  
domestic water source? ☐ (1) YES (20 points) ☒ (2) NO (0 points)

## Horizontal Distance to Surface Water Body

Less Than 200 Ft (20 points) ☐ (1)200 Ft to 1000 Ft (10 points) ☐ (2)Greater Than 1000 Ft (0 points) ☒ (3)Name of Surface Water Body Horn Canyon(Surface Water Body : Perennial Rivers, Major Wash, Streams, Creeks,  
Irrigation Canals, Ditches, Lakes, Ponds)

Distance to Nearest Ephemeral Stream ☐ (1) < 100' (Navajo Pits Only)  
☒ (2) > 100'

TOTAL HAZARD RANKING SCORE: 0 POINTS

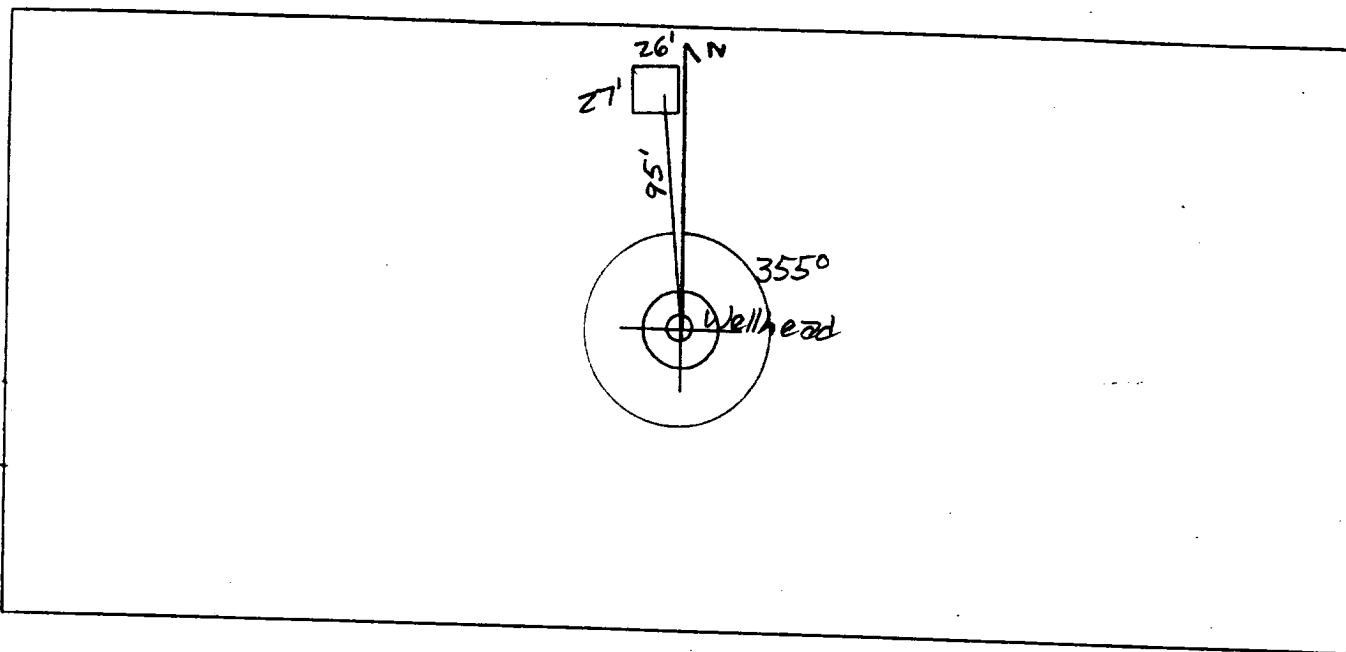
## REMARKS

Remarks : Redline Book - Outside Vulnerable Zone - Outside  
Four pits, location drip pit is dry. Will close one pit.

PUSH IN

# ORIGINAL PIT LOCATION

Original Pit : a) Degrees from North 355° Footage from Wellhead 95'  
 b) Length : 27' Width : 26' Depth : 3'



## REMARKS :

Pictures @ 1328, Roll 1

Dump Truck

Redline book shows location in unit A, location  
 sign says unit G.

Completed By:

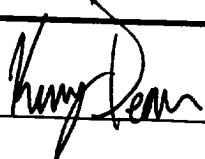
Sarah Kelly

Signature

9/13/94

Date

# FIELD PIT REMEDIATION/CLOSURE FORM

<b>GENERAL</b>	<p>Meter: <u>95903</u> Location: <u>Gallegos Canyon Unit #400 E</u></p> <p>Coordinates: Letter: <u>G</u> Section <u>25</u> Township: <u>28</u> Range: <u>12</u></p> <p>Or Latitude _____ Longitude _____</p> <p>Date Started : <u>10/20/94</u> Run: <u>01</u> <u>32</u></p>
<b>FIELD OBSERVATIONS</b>	<p>Sample Number(s): <u>KD343</u></p> <p>Sample Depth: <u>12'</u> Feet</p> <p>Final PID Reading <u>539</u> PID Reading Depth _____ Feet</p> <p style="text-align: center;">Yes      No</p> <p>Groundwater Encountered <input type="checkbox"/> <input checked="" type="checkbox"/> Approximate Depth _____ Feet</p>
<b>CLOSURE</b>	<p>Remediation Method :</p> <p>Excavation <input type="checkbox"/> Approx. Cubic Yards _____</p> <p>Onsite Bioremediation <input type="checkbox"/></p> <p>Backfill Pit Without Excavation <input checked="" type="checkbox"/></p> <p>Soil Disposition:</p> <p>Envirotech <input type="checkbox"/> Tierra <input type="checkbox"/></p> <p>Other Facility <input type="checkbox"/> Name: _____</p> <p>Pit Closure Date: <u>10/20/94</u> Pit Closed By: <u>B.E.I</u></p>
<b>REMARKS</b>	<p>Remarks : <u>Dug test hole to 12', Took PID sample, Closed pit</u></p> <p>_____</p> <p>_____</p>
	<p>Signature of Specialist: <u></u></p>



## FIELD SERVICES LABORATORY

### ANALYTICAL REPORT

#### PIT CLOSURE PROJECT - Soil Samples Outside the GWV Zone

#### SAMPLE IDENTIFICATION

SAMPLE NUMBER:

Field ID

Lab ID

MTR CODE | SITE NAME:

SAMPLE DATE | TIME (Hrs):

SAMPLED BY:

DATE OF TPH EXT. | ANAL.:

DATE OF BTEX EXT. | ANAL.:

TYPE | DESCRIPTION:

KS 343

946430

95903

N/A

10-20-94

1325

N/A

10-26-94

N/A

N/A

VL

Light brown sand

REMARKS:

#### RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q	M(g)	V(ml)
TPH (418.1)	8700	MG/KG			0.93	28
HEADSPACE PID	539	PPM				
PERCENT SOLIDS	90.4	%				

-- TPH is by EPA Method 418.1 --

Narrative:

DF = Dilution Factor Used

Approved By:

Date:

11/3/94

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*****
Test Method for
Oil and Grease and Petroleum Hydrocarbons
in Water and Soil
Perkin-Elmer Model 1600 FT-IR
Analysis Report
*****

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94/10/26 11:28

Sample identification  
946430

Initial mass of sample, g  
0.930

Volume of sample after extraction, ml  
28.000

Petroleum hydrocarbons, ppm  
3704.261  
Net absorbance of hydrocarbons (2930 cm<sup>-1</sup>)  
0.564

