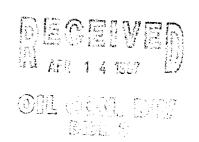


Meter Number:02346
Location Name:N. E. Haynes Lease No. 3
Location:TN-24 RG-05
SC-16 UL-P
6 - Jicarilla
NMOCD Zone:OUTSIDE
Hazard Ranking Score:00



# 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

GENERAL	Meter: 62-346 Location: N.E. Haynes   ease No. 3  Operator #: 6286 Operator Name: 600000 - Masse  Coordinates: Letter: P Section 6 Township: 24 Range: 5  Or Latitude Longitude  Pit Type: Dehydrator Location Drip: X Line Drip: Other:  Site Assessment Date: 07/08/94 Area: 67 Run: 72						
SITE ASSESSMENT	NMOCD Zone:  (From NMOCD  Maps)  Inside  Outside  (2)  Depth to Groundwater  Less Than 50 Feet (20 points)  Greater Than 100 Ft (0 points)  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?  Horizontal Distance to Surface Water Body  Less Than 200 Ft (20 points)  (3)  Horizontal Distance to Surface Water Body  Less Than 200 Ft (20 points)  (3)  Name of Surface Water Body  (Surface Water Body: Perennial Rivers, Major Wash. Streams, Creeks, Irrigation Canais, Ditches, Lakes, Ponds)  C stance to Nearest Ephemeral Stream  (1) < 100'(Navajo Pits Only)  (2) > 100'  TOTAL HAZARD BANKING GROPE						
(A)	TOTAL HAZARD RANKING SCORE: POINTS						
REMARKS	Remarks: Realine Book-Outside Vulnerable Zone Topo-Outside One pit on site, pit is dry, will close one pit.						
RE	$\rho_{i} = \rho_{i}$						



## FIELD SERVICES LABORATORY ANALYTICAL REPORT

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

## SAMPLE IDENTIFICATION

	SAMPLE	IDENTIFICA	ATION					
	Field	ID		Lab ID				
SAMPLE NUMBER:	TK82		947	489				
MTR CODE   SITE NAME:	02346			N.E. Ha reshease 10				
SAMPLE DATE   TIME (Hrs):	09-18-0		1213					
PROJECT:	LicPits							
DATE OF TPH EXT.   ANAL.:	9-2	0-95						
DATE OF BTEX EXT.   ANAL.:	9/19/95		9/21/95					
TYPE ! DESCRIPTION:	VG	A91 <b> </b> \$*	Light trop	un Soud 2	nd Ciby			
Field Remarks: (N-57.3)(S-314.0)(E-39.5)(ω-72.3)  RESULTS								
PARAMETER	RESULT	UNITS		QUALIFIE	RS			
TAIDINETER	1120021		DF	0	M(g)	V(ml)		
BENZENE	23.16	MG/KG	2	Ù				
TOLUENE	13.0	MG/KG	2	b, DI				
ETHYL BENZENE	33.6	MG/KG	2	Î				
TOTAL XYLENES	163	MG/KG	12	15				
TOTAL BTEX	313	MG/KG	2					
TPH (418.1)	1640 184CX	MG/KG			0.52	28		
HEADSPACE PID	295	PPM						
PERCENT SOLIDS	93.0	%						
ne Surrogate Recovery was at arrative:	TPH is by EPA Method 4	for this sampl	le All QA/QC	was accepta				
F = Dilution Factor Used	<u> </u>			ل				
oproved By:			Date:	9-22	-95			

-5.0

0

#### EL PASO NATURAL GAS EPA METHOD 8020 - BTEX SOILS

File : C:\LABQUEST\CHROM001\092195-1.012 Method : C:\LABQUEST\METHODS\9001.MET

Sample ID : 947489,4.97G,50U Acquired : Sep 21, 1995 20:50:20 Printed : Sep 21, 1995 21:16:56

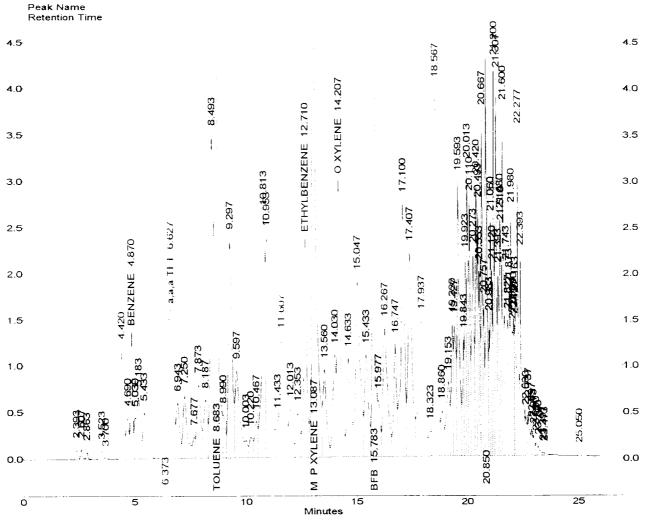
User : MARLON

#### Channel A Results

5.0

RET TIME	AREA	CONC (ug/L)
4.870	8714. 0	58.6475
6.627	17133 6	371.1249
8.683	64069284	231.0057
12.710	22083148	82.4836
13.087	81776424	294.0789
14.207	28625346	112.4246
15.783	70000176	96.5664
	4.870 6.627 8.683 12.710 13.087 14.207	4.870 8714.0 6.627 17133.5 8.683 64069284 12.710 22083148 13.087 81776424 14.207 28625346

# C:\LABQUEST\CHROM001\092195-1.012 -- Channel A



#### **BTEX SOIL SAMPLE WORKSHEET**

File	е	:	947489	Date Pr	rinted :	9/22/95	
Soil Mas	s (g)	:	4.97	Multiplier	(L/g) :	0.00101	
Extraction vol. (mL)		:	20	DF (Analy	tical) :	400	
Shot Volume (uL)		:	50	DF (Re	eport) :	0.40241	
							Det. Limit
Benzene	(ug/L)	:	58.60	Benzene	(mg/Kg):	23.581	1.006
Toluene	(ug/L)	:	231.00	Toluene	(mg/Kg):	92.958	1.006
Ethylbenzene	(ug/L)	:	82.50	Ethylbenzene	(mg/Kg):	33.199	1.006
p & m-xylene	(ug/L)	:	294.00	p & m-xylene	(mg/Kg):	118.310	2.012
o-xylene	(ug/L)	:	112.00	o-xylene	(mg/Kg):	45.070	1.006
				Total xylenes	(mg/Kg):	163.380	3.018
				Total BTEX	(mg/Kg):	313.119	

\* Test Method for Oil and Grease and Fetroleum Hydrocarbons in Water and Soil \* Perkin-Elmer Model 1600 FT-IR Analysis Report \* 75/09/20 15:29 Sample identification 747489 initial mass of sample, g 0.520 Volume of sample after extraction, ml 28.000 Petroleum hydrosarbons, pom 18441.350 Net absorbance if hydrocarbons (2930 cm-1) 9.590

