

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
1220 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

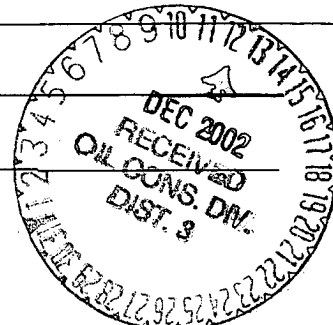
Risk
bedrock
plume
defined

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

(Revised 3/9/94)

PIT REMEDIATION AND CLOSURE REPORT

Operator: Western Oil and Mineral Ltd. Telephone: _____
Address: 30-045-21835
Facility Or: Marron #6A CH-MV, Meter 89364
Well Name _____
Location: Unit or Qtr/Qtr Sec 7C Sec 24 T 27 R 8 County San Juan
Pit Type: Separator _____ Dehydrator X Other _____
Land Type: BLM X, State _____, Fee _____ Other _____



Pit Location: Pit dimensions: length 25', width 25', depth 2'

(Attach diagram)

Reference: wellhead X, other _____

Footage from reference: 65'

Direction from reference: 130 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>20</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): 20

Date Remediation Started: 08/10/94 Date completed: 08/10/94

Remediation Method: Excavation _____ Approx. cubic yards _____

(Check all appropriate sections.)

Landfarmed _____ Insitu Bioremediation _____

Other Backfill pit without excavation

Remediation Location: Onsite N/A Offsite N/A
(i.e. landfarmed onsite, name and location of offsite facility)

General Description of Remedial Action: EPNG lines not marked. Soil gray, strong hydrocarbon odor. Hit rock 8'.

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 8'

Sample Date 08/10/94 Sample time 14:47

Sample Results

Benzene(ppm) Not reported

Total BTEX(ppm) Not reported

Field headspace(ppm) 832

TPH 4110

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
and Title

Scott T. Pope
Senior Env. Scientist



PIT CLOSURE REQUEST

Marron #6A CH-MV
Meter/Line ID 89364

SITE DETAILS

Legals - Twn: 27N

Rng: 8W

Sec: 24

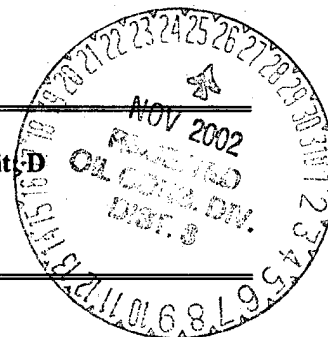
Unit: D

NMOCD Hazard Ranking: 20

Land Type: BLM

Operator: Western Oil and Mineral Ltd.

Pit Closure Date: 8/10/94



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 8 feet (ft) below ground surface (bgs) where bedrock was encountered and a soil sample was collected for field headspace analysis and laboratory analysis for TPH. Groundwater was not encountered in the test pit. Headspace analysis indicated an organic vapor content of 832 ppm; laboratory analysis indicated a TPH concentration of 4,110 mg/kg. The headspace analysis and TPH measurement exceeded recommended remediation levels for the Hazard Ranking Score of 20.

No soil was disposed of offsite. The pit was backfilled with site soil, topped with clean soil from the surrounding berms, and graded in a manner to direct surface runoff away from the pit area.

A Phase II boring was completed to 20.5 ft bgs. No groundwater was encountered in the soil boring. One laboratory sample was collected at 20-20.5 ft bgs. Headspace analysis indicated an organic vapor content of 0 ppm; laboratory analysis indicated a benzene concentration of <0.5 mg/kg, a total BTEX concentration of <3 mg/kg, and a TPH concentration of <20 mg/kg. The benzene, 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 production pit location for the following reasons:

- The primary source, discharge to the pit, has been removed for over eight years.
- The test pit was backfilled and the former pit area graded to direct surface runoff away from the former pit.
- The clean soil from the berms placed on top of the excavation would limit the potential for direct contact with hazardous constituents by livestock or the public; i.e., current direct contact exposure pathways are unlikely to be completed.
- Bedrock was encountered at 8 feet bgs making further excavation impractical.
- Groundwater was not encountered in the soil boring to 20 ft bgs.
- There are no water supply wells or other sources of fresh water extraction within 1,000 feet of the site.



PIT CLOSURE REQUEST

- Benzene, total BTEX, and TPH concentrations in the soil sample collected at the base of the Phase II soil boring at 20 ft bgs were non-detect, indicating that no significant downward constituent migration is occurring.
- Residual hydrocarbons in the soil will likely degrade by natural attenuation with minimal risk to human health and the environment.

ATTACHMENTS

Field Pit Assessment Form

Revised Field Pit Assessment Form

Field Pit Remediation/Closure Form

Phase II Soil Boring Log

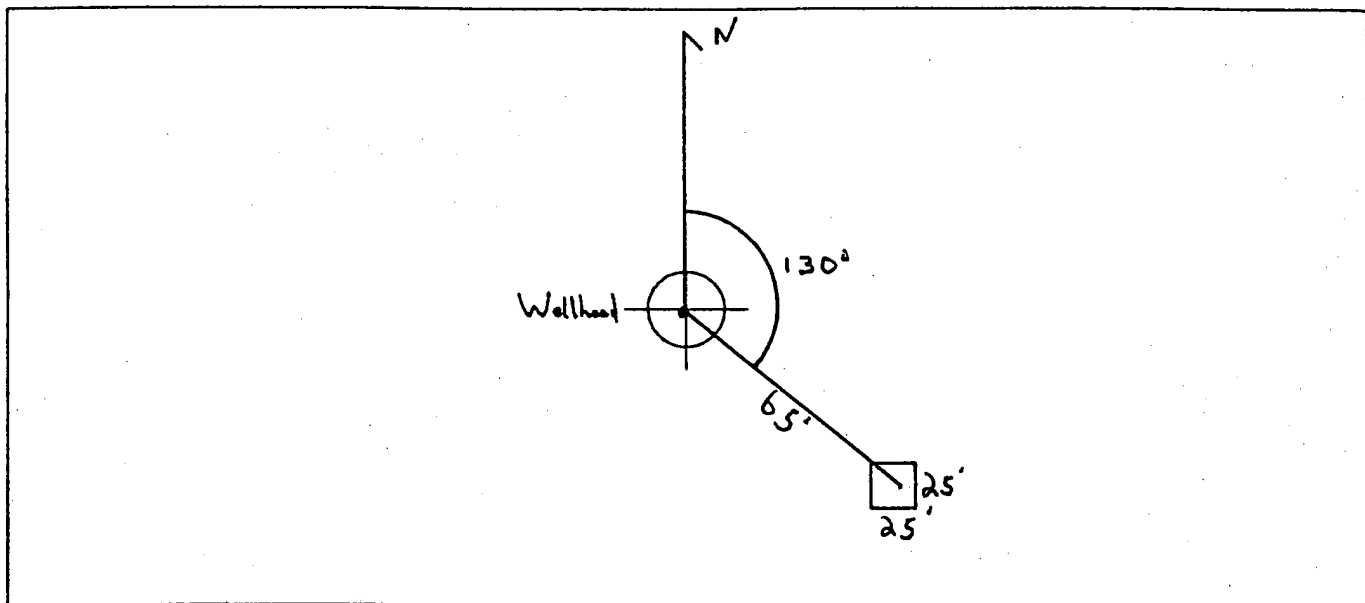
Laboratory Analytical Results

PUSH-IN

ORIGINAL PIT LOCATION

ORIGINAL PIT LOCATION

Original Pit : a) Degrees from North 130° Footage from Wellhead 65'
b) Length : 25' Width : 25' Depth : 2'



REMARKS

Remarks :

Pictures @ 1118 (13-16)Dump Truck

Completed By:

Cory Chance
Signature

5/27/94
Date

REVISED
FIELD PIT SITE ASSESSMENT FORM

GENERAL	<p>Meter: <u>89364</u> Location: <u>Marron #6A CH-MV</u></p> <p>Operator #: _____ Operator Name: _____ P/L District: _____</p> <p>Coordinates: Letter: <u>D</u> Section <u>24</u> Township: <u>27</u> Range: <u>8</u></p> <p>Or Latitude _____ Longitude _____</p> <p>Pit Type: Dehydrator _____ Location Drip: _____ Line Drip: _____ Other: _____</p> <p>Site Assessment Date: <u>4/14/98</u> Area: _____ Run: _____</p>
SITE ASSESSMENT	<p>NMOCD Zone: (From NMOCD Maps)</p> <p style="margin-left: 150px;">Inside <input type="checkbox"/> (1) Outside <input checked="" type="checkbox"/> (2)</p> <p>Land Type:</p> <p style="margin-left: 150px;">BLM <input checked="" type="checkbox"/> (1) State <input type="checkbox"/> (2) Fee <input type="checkbox"/> (3) Indian _____</p> <p>Depth to Groundwater</p> <p>Less Than 50 Feet (20 points) <input checked="" type="checkbox"/> (1) 50 Ft to 99 Ft (10 points) <input type="checkbox"/> (2) Greater Than 100 Ft (0 points) <input type="checkbox"/> (3)</p> <p>Wellhead Protection Area</p> <p>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?</p> <p style="text-align: center;"><input type="checkbox"/> (1) YES (20 points) <input checked="" type="checkbox"/> (2) NO (0 points)</p> <p>Horizontal Distance to Surface Water Body</p> <p>Less Than 200 Ft (20 points) <input type="checkbox"/> (1) 200 Ft to 1000 Ft (10 points) <input type="checkbox"/> (2) Greater Than 1000 Ft (0 points) <input checked="" type="checkbox"/> (3)</p> <p>Name of Surface Water Body _____</p> <p>(Surface Water Body: Perennial Rivers, Streams, Creeks, Irrigation Canals, Ditches, Lakes, Ponds)</p> <p>Distance to Nearest Ephemeral Stream <input type="checkbox"/> (1) < 100' (Navajo Pits Only) <input type="checkbox"/> (2) > 100'</p> <p>TOTAL HAZARD RANKING SCORE: <u>20</u> POINTS</p>
REMARKS	<p>Remarks : <u>Site has been re-assessed, due to initial assessment including washes as a Surface Water Body. Site is <50' vertical from center of Smith Canyon</u></p>



FIELD SERVICES LABORATORY
ANALYTICAL REPORT

PIT CLOSURE PROJECT - Soil Samples Outside the GWV Zone

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	mk 251	945895
MTR CODE SITE NAME:	89364	N/A
SAMPLE DATE TIME (Hrs):	8-10-94	1447
SAMPLED BY:	N/A	
DATE OF TPH EXT. ANAL.:	8-11-94	8-11-94
DATE OF BTEX EXT. ANAL.:	N/A	N/A
TYPE DESCRIPTION:	VG	Light brown sand clay

REMARKS:

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q	M(g)	V(ml)
TPH (418.1)	4110	MG/KG			2.14	28
HEADSPACE PID	832	PPM				
PERCENT SOLIDS	90.0	%				

-- TPH is by EPA Method 418.1 --

Narrative:

DF = Dilution Factor Used

Approved By:

Date:

9/2/94

FIELD PIT REMEDIATION/CLOSURE FORM

GENERAL

Meter: 89364 Location: Marion #6 A CH-MU
 Coordinates: Letter: A Section 24 Township: 27 Range: 8
 Or Latitude _____ Longitude _____
 Date Started : 8-10-94 Run: 13 51

FIELD OBSERVATIONS

Sample Number(s): MK 251
 Sample Depth: 8 Feet
 Final PID Reading 332 PID Reading Depth 8' Feet
 Yes No
 Groundwater Encountered ☐ ☒ Approximate Depth _____ Feet

CLOSURE

Remediation Method :
 Excavation ☐ Approx. Cubic Yards _____
 Onsite Bioremediation ☐
 Backfill Pit Without Excavation ☒
 Soil Disposition:
 Envirotech ☐ Tierra ☐
 Other Facility ☐ Name: _____
 Pit Closure Date: 8-18-94 Pit Closed By: DEI

REMARKS

Remarks : FPNG LINES NOT MARK SOIL GRAY STRONG
HYDROCARBON ODOR HIT ROCK 8'

Signature of Specialist: Morgan Killion

CHAIN OF CUSTODY RECORD

[illegible]

RECORD OF SUBSURFACE EXPLORATION

PHILIP SERVICES CORP.

300 Monroe Road
Farmington, New Mexico 87401
(505) 326-2262 FAX (505) 326-2388

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

Project Number 19643 Phase 1001.77
Project Name EPFS PITS >10
Project Location Marcon #6A CH-MV 89364

Elevation _____
Borehole Location LTR: D S: 24 T: 27 R: 8
GWL Depth NA
Drilled By K. PADILLA
Well Logged By C. CHANCE
Date Started 6/29/98
Date Completed 6/29/98

Drilling Method 4 1/4 ID HSA
Air Monitoring Method PID

Depth (Feet)	Sample Number	Sample Interval	Sample Type & Recovery (inches)	Sample Description Classification System: USCS	USCS Symbol	Depth Lithology Change (feet)	Air Monitoring Units: PPM			Drilling Conditions & Blow Counts
							BZ	BH	S/HS	
0										BZ=Breathing Zone BH=Borehole S/HS=Sample/Headspace
5				Excavation Sample Collected @ 8'						-Hard @ ~6-7'
10	1	10-11	6	Lt br silty CLAY, vstiff, non plastic, dry			0	5	$\frac{37}{28}$	-1525h
15	2	15-16	8	DK Br silty CLAY, stiff, nonplastic, dry			0	18	$\frac{14}{8}$	-1544h
20	3	20-22.5	6	Br silty CLAY, stiff, nonplastic dry			0	4	$\frac{0}{0}$	-1558h
25				TOB 20.5'						
30										
35										
40										

Comments:

CMC 401 (ad 20.5) sent to lab for BTEX, TPH. No GW
encountered. BH grazed to surface

Geologist Signature

Cory Chance



FIELD SERVICES LABORATORY
ANALYTICAL REPORT
PIT CLOSURE PROJECT

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	CMC401	980498
MTR CODE SITE NAME:	89364	Marron #6A CH-MV
SAMPLE DATE TIME (Hrs):	6/29/98	1558
PROJECT:	Phase II Drilling	
DATE OF TPH EXT. ANAL.:	7/7/98	7/8/98
DATE OF BTEX EXT. ANAL.:	7/6/98	7/7/98
TYPE DESCRIPTION:	VG	SOIL

Field Remarks: 20-20.5'

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q	M(g)	V(ml)
BENZENE	<0.5	MG/KG				
TOLUENE	<0.5	MG/KG				
ETHYL BENZENE	<0.5	MG/KG				
TOTAL XYLENES	<1.5	MG/KG				
TOTAL BTEX	<3	MG/KG				
TPH (MOD.8015)	<20	MG/KG				
HEADSPACE PID	0	PPM				
PERCENT SOLIDS	91.2	%				

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

The Surrogate Recovery was at 95.3 % for this sample All QA/QC was acceptable.
ative:

DF = Dilution Factor Used

Approved By:

John Lard

Date:

7/22/98

GAS CHROMATOGRAPHY RESULTS

TEST : EPA 8015 MODIFIED (DIRECT INJECT)
CLIENT : EL PASO FIELD SERVICES
PROJECT # : (none)
PROJECT NAME : PHASE II DRILLING

AEN I.D.: 807309

SAMPLE		MATRIX	DATE	DATE	DATE	DIL.
ID. #	CLIENT I.D.		SAMPLED	EXTRACTED	ANALYZED	FACTOR
01	980497	NON-AQ	6/29/98	7/7/98	7/8/98	1
02	980498	NON-AQ	6/29/98	7/7/98	7/8/98	1

PARAMETER	DET. LIMIT	UNITS	01	02
FUEL HYDROCARBONS, C6-C10	10	MG/KG	< 10	< 10
FUEL HYDROCARBONS, C10-C22	5.0	MG/KG	< 5.0	< 5.0
FUEL HYDROCARBONS, C22-C36	5.0	MG/KG	< 5.0	< 5.0

CALCULATED SUM:

ERROGATE:
TERPHENYL (%) 91 96
SURROGATE LIMITS (66 - 151)

CHEMIST NOTES:
N/A

PLEASE FILL THIS FORM IN COMPLETELY.

SHADED AREAS ARE FOR LABORATORY USE ONLY

PROJECT MANAGER: John Lambdin

COMPANY: El Paso Field Services Co.
ADDRESS: 770 W. Navajo

PHONE: Farmington, NM 87401
(505) 599-2144
FAX: (505) 599-2261

BILL TO: Above
COMPANY:
ADDRESS:

980497 1/29/98 1255 Soil
980498 7/29/98 1558 Soil

Petroleum Hydrocarbons (418.1) TRPH

(MOD.8015) Diesel/Direct Inject

(M8015) Gas/Purge & Trap

8021 (BTEX)/8015 (Gasoline)

8021 (BTEX) ☐ MTBE ☐ TMB ☐ PCE

8021 (TCL)

8021 (EDX)

8021 (HALO)

8021 (CUST)

504.1 EDB ☐ / DBCP ☐

8260 (TCL) Volatile Organics

8260 (Full) Volatile Organics

8260 (CUST) Volatile Organics

8260 (Landfill) Volatile Organics

Pesticides /PCB (608/8081)

Herbicides (615/8151)

Base/Neutral/Acid Compounds GC/MS (625/8270)

Polynuclear Aromatics (610/8310)

General Chemistry:

Priority Pollutant Metals (13)

Target Analyte List Metals (23)

RCRA Metals (8)

RCRA Metals by TCLP (Method 1311)

Metals:

NUMBER OF CONTAINERS

PROJ. NO:

PROJ. NAME: Phase II Drilling

P.O. NO:

SHIPPED VIA: FedEx

SAMPLE RECEIPT

RECEIVED

RECEIVED

RECEIVED

RECEIVED

(RUSH) ☐ 24hr ☐ 48hr ☐ 72hr ☐ 1 WEEK

(NORMAL) ☒

CERTIFICATION REQUIRED: ☐ NM ☐ SDWA ☐ OTHER

METHANOL PRESERVATION ☐

COMMENTS: FIXED FEE ☐

Signature: [Signature] Time: 1045

Printed Name: Mark Hopper Date: 7/6/98

Company: EPFS

Signature: [Signature] Time:

Printed Name: Date:

Company:

Signature: Time:

Printed Name: Date:

Company:

BTEX SOIL SAMPLE WORKSHEET

File	:	980498	Date Printed	:	7/16/98
Soil Mass (g)	:	5.18	Multiplier (L/g)	:	0.00097
Extraction vol. (mL)	:	10	CAL FACTOR (Analytical)	:	200
Shot Volume (uL)	:	50	CAL FACTOR (Report)	:	0.19305

	DILUTION FACTOR:	1	Det. Limit
Benzene (ug/L) : <0.5	Benzene (mg/Kg):	#VALUE!	0.483
Toluene (ug/L) : <0.5	Toluene (mg/Kg):	#VALUE!	0.483
Ethylbenzene (ug/L) : <0.5	Ethylbenzene (mg/Kg):	#VALUE!	0.483
p & m-xylene (ug/L) : <1.0	p & m-xylene (mg/Kg):	#VALUE!	0.965
o-xylene (ug/L) : <0.5	o-xylene (mg/Kg):	#VALUE!	0.483
	Total xylenes (mg/Kg):	#VALUE!	1.448
	Total BTEX (mg/Kg):	#VALUE!	



7-24-98 Anal.
7-24-98 Exam.

Page _____ of _____

White - Testing Laboratory **Canary - EPNG Lab** **Pink - Field Sampler**