

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

*Risk Bedrock
deferral
plume*

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

(Revised 3/9/94)

PIT REMEDIATION AND CLOSURE REPORT

API # 30-039-05991

Operator: Devon Energy Telephone: _____

Address: _____

Facility Or: Nordhaus WN Federal Well, Meter 74491
Well Name

Location: Unit or Qtr/Qtr Sec N Sec 18 T 25 R 7 County Rio Arriba

Pit Type: Separator _____ Dehydrator _____ Other Drip

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

Pit Location: Pit dimensions: length 21', width 23', depth 3'

(Attach diagram)

Reference: wellhead X, other _____

Footage from reference: 54'

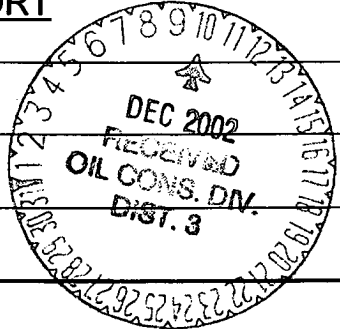
Direction from reference: 331 Degrees X East North _____
of
_____ West South _____

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: 09/21/94 Date completed: 09/21/94

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: 8' hit rock; 10 yds. fill

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 09/21/94 Sample time 15:00

Sample Results

Benzene(ppm) Not reported

Total BTEX(ppm) Not reported

Field headspace(ppm) Not reported

TPH 2370

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

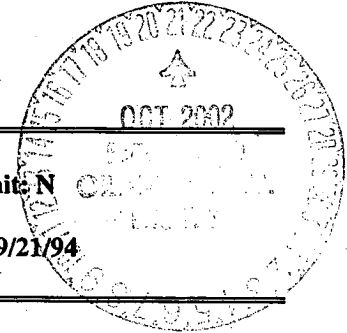
Nordhaus WN Federal Well
Meter/Line ID 74491

SITE DETAILS

Legals - Twn: 25N
NMOCD Hazard Ranking: 20
Operator: Devon Energy

Rng: 7

Sec: 18 Unit: N
Land Type: BLM
Pit Closure Date: 09/21/94



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 214 ppm; laboratory analysis indicated a TPH concentration of 2,370 mg/kg. The TPH concentration exceeded its recommended remediation level for the Hazard Ranking Score of 20.

No soil was disposed of offsite. The pit was backfilled with 10 cubic yards of clean fill on September 21, 1994 and graded in a manner to direct surface runoff away from the pit area.

A Phase II boring was completed on August 24, 1998 with refusal at 21 ft bgs. No groundwater was encountered in the soil boring. One laboratory sample was collected at 20-21 ft bgs. Headspace analysis indicated an organic vapor content of 174 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 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.
- Groundwater was not encountered in the soil boring at 21 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 2 soil boring at 21 ft bgs were non-detect, indicating that no significant downward constituent migration is occurring.
- Residual hydrocarbons, if any, in the soil will degrade by natural attenuation with minimal risk to the environment.
- Bedrock at 8 ft bgs makes further excavation impractical.

ATTACHMENTS

Field Pit Assessment Form

Revised Field Pit Assessment Form

Field Pit Remediation/Closure Form

Phase 2 Soil Boring Log

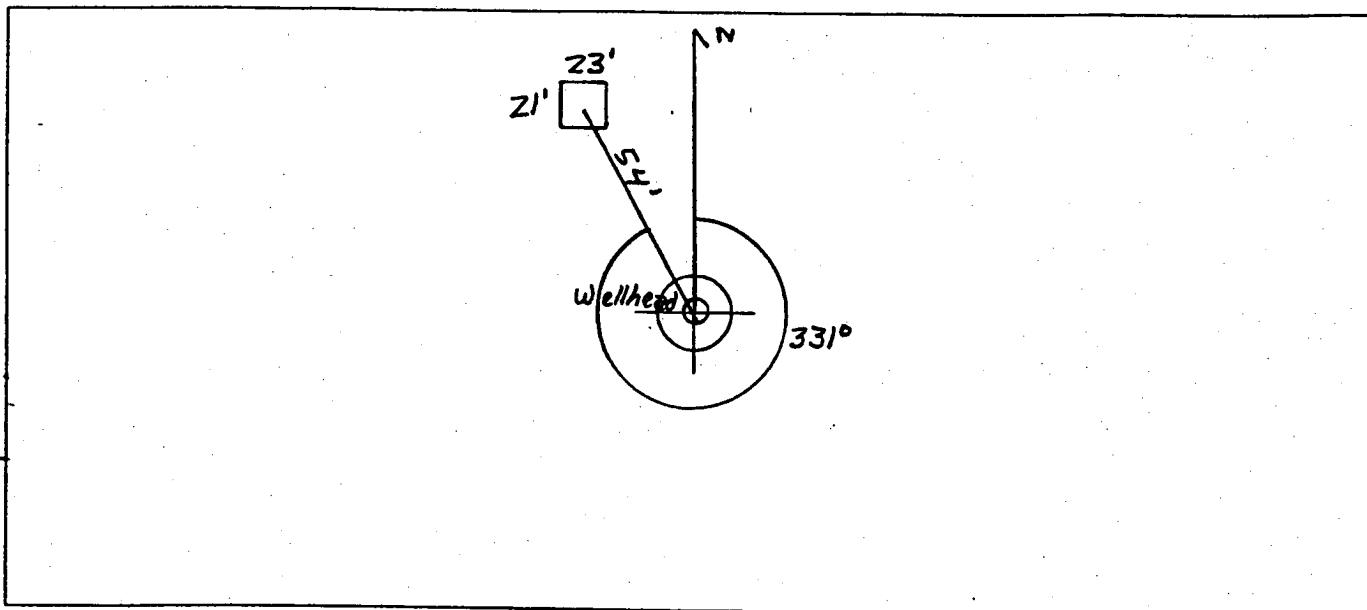
Laboratory Analytical Results

FIELD PIT SITE ASSESSMENT FORM

GENERAL	Meter: <u>74-491</u> Location: <u>Nordhaus W.N. Federal Well</u> Operator #: <u>1790</u> Operator Name: <u>Devon Energy</u> P/L District: <u>Ballard</u> Coordinates: Letter: <u>N</u> Section <u>18</u> Township: <u>25</u> Range: <u>7</u> Or Latitude _____ Longitude _____ Pit Type: Dehydrator _____ Location Drip: ☒ Line Drip: _____ Other: _____ Site Assessment Date: <u>06/30/94</u> Area: <u>07</u> Run: <u>41</u>			
SITE ASSESSMENT	NMOCD Zone: (From NMOCD Maps)		Land Type:	
	Inside ☐ (1) Outside ☒ (2)	BLM ☒ (1) State ☐ (2) Fee ☐ (3) Indian _____		
	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)			
REMARKS	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 <u>with 30 Paluche Canyon</u> (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: <u>30</u> POINTS			
	Remarks : <u>Redline Book - Inside</u> <u>Vulnerable Zone Type - Outside</u> <u>One pit, pit is dry, will close one pit</u>			

ORIGINAL PIT LOCATION

ORIGINAL PIT LOCATION

Original Pit : a) Degrees from North 331° Footage from Wellhead 54'b) Length : 21' Width : 23' Depth : 3'

REMARKS

Remarks :

Pictures @ 1316 (5-8)End DumpOperator name on meter chart is different from the name on the sign. Name from the chart is used here.

Completed By:

Mark Kelly
Signature7/1/94
Date

REVISED
FIELD PIT SITE ASSESSMENT FORM

GENERAL

Meter: 74491 Location: Noedhaus WN Federal Well 1
 Operator #: _____ Operator Name: _____ P/L District: _____
 Coordinates: Letter: N Section 18 Township: 25 Range: 7
 Or Latitude _____ Longitude _____
 Pit Type: Dehydrator _____ Location Drip: _____ Line Drip: _____ Other: _____
 Site Assessment Date: 4/14/98 Area: _____ Run: _____

SITE ASSESSMENT

NMOCD Zone:
(From NMOCD
Maps)

Inside
Outside

Land Type:

☐ (1)
☒ (2)

BLM

State

Fee

Indian

☒ (1)
☐ (2)
☐ (3)

Depth to Groundwater

Less Than 50 Feet (20 points)

50 Ft to 99 Ft (10 points)

Greater Than 100 Ft (0 points)

☒ (1)
☐ (2)
☐ (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)

200 Ft to 1000 Ft (10 points)

Greater Than 1000 Ft (0 points)

☐ (1)
☐ (2)
☒ (3)

Name of Surface Water Body _____

(Surface Water Body: Perennial Rivers, Streams, Creeks, Irrigation Canals, Ditches, Lakes, Ponds)

Distance to Nearest Ephemeral Stream

☐ (1) < 100' (Navajo Pits Only)
☐ (2) > 100'

TOTAL HAZARD RANKING SCORE: 20 POINTS

REMARKS

Remarks : Site has been re-assessed, due to initial assessment including washes as a Surface Water Body. Site is < 50' vertical from center of Palluche Canyon



FIELD SERVICES LABORATORY
ANALYTICAL REPORT

PIT CLOSURE PROJECT - Soil Samples Outside the GWV Zone

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	VW 320	946189
MTR CODE SITE NAME:	74491	N/A
SAMPLE DATE TIME (Hrs):	9-21-94	1500
SAMPLED BY:	N/A	
DATE OF TPH EXT. ANAL.:	9-22-94	9-22-94
DATE OF BTEX EXT. ANAL.:	N/A	N/A
TYPE DESCRIPTION:	VG	Dark brown sand & clay

REMARKS:

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q	M(g)	V(ml)
TPH (418.1)	2370	MG/KG			2.08	28
HEADSPACE PID	24	PPM				
PERCENT SOLIDS	91.1	%				

-- TPH is by EPA Method 418.1 --

Narrative:

DF = Dilution Factor Used

Analyst By: 

Date: 9/20/94

FIELD PIT REMEDIATION/CLOSURE FORM

GENERAL

Meter: 74491 Location: Nordhaus WNW Federal Well #1
 Coordinates: Letter: N Section 18 Township: 25 Range: 7
 Or Latitude _____ Longitude _____
 Date Started : 9-21-94 Run: 02 41

FIELD OBSERVATIONS

Sample Number(s): VW 320
 Sample Depth: ^{VW}12' 8" Feet
 Final PID Reading 2/4 PID Reading Depth ^{VW}12' 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: 9-21-94 Pit Closed By: REL

REMARKS

Remarks : 8' hit rock 10 yds Fill

Signature of Specialist: Vale Wilson

CHAIN OF CUSTODY RECORD

El Paso

[illegible]

RECORD OF SUBSURFACE EXPLORATION

PHILIP SERVICES CORP.

1000 Monroe Road
 Wilmington, 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 NORDBAYS WN FEDERAL WELL 74491

Elevation _____
 Borehole Location LTR: N S: 18 T: 25 R: 7
 GWL Depth NA
 Drilled By K. PADILLA
 Well Logged By H. BRADBURY
 Date Started 8/24/98
 Date Completed 8/24/98

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 at 8'						
10	1	10-11	12	LT BR silty SAND FINE SAND DENSE, dry	SM		0	0	1267 2279	1343 hrs
15	2	15-16	6"	LT BR silty SAND, FINE SAND DENSE, dry.	SM		1	23	48 1144 310	1354 hrs
20	3	20-21	6"	DK GR SILTSTONE hard CEMENTED, dry			0	25	27 174	1421 hrs. <i>hard drilling</i>
25				TOB 21'						
30										
35										
40										

Comments:

HAB 10 20-21' WAS COLLECTED & SENT TO LAB FOR BTEX, TPH
AUGER REFUSAL AT 21', GW NOT ENCOUNTERED. BH GROUTED
TO SURFACE.

Geologist Signature

Holly Bradbury



FIELD SERVICES LABORATORY
ANALYTICAL REPORT
PIT CLOSURE PROJECT

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	HAB10	980588
MTR CODE SITE NAME:	74491	Nordhaus WN Federal
SAMPLE DATE TIME (Hrs):	8/24/98	1421
PROJECT:	Phase II Drilling	
DATE OF TPH EXT. ANAL.:	8/28/98	8/28/98
DATE OF BTEX EXT. ANAL.:	8/27/98	8/27/98
TYPE DESCRIPTION:	VG	SOIL

Field Remarks: 20-21'

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	174	PPM				
PERCENT SOLIDS	94.7	%				

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

Surrogate Recovery was at 95.6 % for this sample All QA/QC was acceptable.
ative:

DF = Dilution Factor Used

Approved By:

Dan Savola

Date:

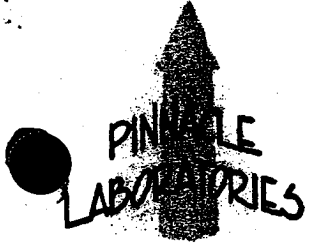
9/14/98



PINNACLE
LABORATORIES

CLIENT	: EL PASO FIELD SERVICES	PINNACLE ID	: 808083
PROJECT #	: (none)	DATE RECEIVED	: 8/28/98
PROJECT NAME	: PHASE II DRILLING	REPORT DATE	: 9/9/98

AEN ID. #	CLIENT DESCRIPTION	MATRIX	DATE COLLECTED
01	980586	NON-AQ	8/24/98
02	980587	NON-AQ	8/24/98
03	980588	NON-AQ	8/24/98



PINNACLE
LABORATORIES

GAS CHROMATOGRAPHY RESULTS

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

PINNACLE I.D.: 808083

SAMPLE			DATE	DATE	DATE	DIL
ID. #	CLIENT I.D.	MATRIX	SAMPLED	EXTRACTED	ANALYZED	FACTOR
01	980586	NON-AQ	8/24/98	8/28/98	8/28/98	1
02	980587	NON-AQ	8/24/98	8/28/98	8/28/98	1
03	980588	NON-AQ	8/24/98	8/28/98	8/28/98	1

PARAMETER	DET. LIMIT	UNITS	01	02	03
FUEL HYDROCARBONS, C6-C10	10	MG/KG	< 10	< 10	< 10
FUEL HYDROCARBONS, C10-C22	5.0	MG/KG	< 5.0	< 5.0	< 5.0
FUEL HYDROCARBONS, C22-C36	5.0	MG/KG	< 5.0	< 5.0	< 5.0
CALCULATED SUM:					

SURROGATE:
 O-TERPHENYL (%) 95 105 108
 SURROGATE LIMITS (66 - 151)

CHEMIST NOTES:
 N/A

[illegible]

the 1990s, the number of people in the United States who are 65 years of age or older has increased by 50% (U.S. Census Bureau, 2000). The number of people aged 65 and older is projected to increase to 20% of the total population by the year 2020 (U.S. Census Bureau, 2000). The increase in the number of people aged 65 and older is expected to be the largest increase in the population of any age group in the United States (U.S. Census Bureau, 2000). The increase in the number of people aged 65 and older is expected to be the largest increase in the population of any age group in the United States (U.S. Census Bureau, 2000).

Trial	Control	MCI	AD
1	95	85	75
2	95	85	75
3	95	80	70
4	95	78	68
5	95	75	65

1. *Chlorophyll a* and *Chlorophyll b* were determined by the method of Lichtenthaler (1987). The total chlorophyll content was determined by the method of Arar and Munk (1990). The carotenoid content was determined by the method of Lichtenthaler and Weil (1983). The total phenolic content was determined by the method of Singleton and Rossi (1965). The total flavonoid content was determined by the method of Zhishen et al. (1999). The total protein content was determined by the method of Lowry et al. (1951). The total amino acid content was determined by the method of Kohn and Kohn (1962). The total nucleic acid content was determined by the method of Burton (1956). The total lipid content was determined by the method of Folch et al. (1957). The total carbohydrate content was determined by the method of Dubois and Gilles (1950). The total mineral content was determined by the method of Ashby et al. (1984). The total organic acid content was determined by the method of Saito and Teraoka (1990). The total alkaloid content was determined by the method of Kohn and Kohn (1962). The total saponin content was determined by the method of Kohn and Kohn (1962). The total tannin content was determined by the method of Kohn and Kohn (1962). The total terpenoid content was determined by the method of Kohn and Kohn (1962). The total steroid content was determined by the method of Kohn and Kohn (1962). The total glycoside content was determined by the method of Kohn and Kohn (1962). The total alkaloid content was determined by the method of Kohn and Kohn (1962). The total saponin content was determined by the method of Kohn and Kohn (1962). The total tannin content was determined by the method of Kohn and Kohn (1962). The total terpenoid content was determined by the method of Kohn and Kohn (1962). The total steroid content was determined by the method of Kohn and Kohn (1962). The total glycoside content was determined by the method of Kohn and Kohn (1962).

the 1990s, the number of people in the world who are under 15 years of age is expected to increase from 1.1 billion to 1.5 billion. The number of people aged 65 and over is expected to increase from 250 million to 450 million. The number of people aged 15 and over is expected to increase from 3.5 billion to 4.5 billion. The number of people aged 15 and over is expected to increase from 3.5 billion to 4.5 billion. The number of people aged 15 and over is expected to increase from 3.5 billion to 4.5 billion.

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the 1990s, the number of people in the world who are illiterate has increased from 1.2 billion to 1.5 billion. The number of illiterate people in the world is projected to reach 1.7 billion by the year 2015. The number of illiterate people in the world is projected to reach 1.7 billion by the year 2015.

E. coli O157:H7 was isolated from ground beef samples collected from retail outlets in the United States during the outbreak period.

Figure 1. The effect of the concentration of the *Phytophthora* inoculum on the infection of the roots of the plants. The plants were infected with the inoculum of *Phytophthora* at the concentration of 10², 10³, 10⁴, 10⁵, 10⁶, 10⁷, 10⁸, 10⁹, 10¹⁰, 10¹¹, 10¹², 10¹³, 10¹⁴, 10¹⁵, 10¹⁶, 10¹⁷, 10¹⁸, 10¹⁹, 10²⁰, 10²¹, 10²², 10²³, 10²⁴, 10²⁵, 10²⁶, 10²⁷, 10²⁸, 10²⁹, 10³⁰, 10³¹, 10³², 10³³, 10³⁴, 10³⁵, 10³⁶, 10³⁷, 10³⁸, 10³⁹, 10⁴⁰, 10⁴¹, 10⁴², 10⁴³, 10⁴⁴, 10⁴⁵, 10⁴⁶, 10⁴⁷, 10⁴⁸, 10⁴⁹, 10⁵⁰, 10⁵¹, 10⁵², 10⁵³, 10⁵⁴, 10⁵⁵, 10⁵⁶, 10⁵⁷, 10⁵⁸, 10⁵⁹, 10⁶⁰, 10⁶¹, 10⁶², 10⁶³, 10⁶⁴, 10⁶⁵, 10⁶⁶, 10⁶⁷, 10⁶⁸, 10⁶⁹, 10⁷⁰, 10⁷¹, 10⁷², 10⁷³, 10⁷⁴, 10⁷⁵, 10⁷⁶, 10⁷⁷, 10⁷⁸, 10⁷⁹, 10⁸⁰, 10⁸¹, 10⁸², 10⁸³, 10⁸⁴, 10⁸⁵, 10⁸⁶, 10⁸⁷, 10⁸⁸, 10⁸⁹, 10⁹⁰, 10⁹¹, 10⁹², 10⁹³, 10⁹⁴, 10⁹⁵, 10⁹⁶, 10⁹⁷, 10⁹⁸, 10⁹⁹, 10¹⁰⁰, 10¹⁰¹, 10¹⁰², 10¹⁰³, 10¹⁰⁴, 10¹⁰⁵, 10¹⁰⁶, 10¹⁰⁷, 10¹⁰⁸, 10¹⁰⁹, 10¹¹⁰, 10¹¹¹, 10¹¹², 10¹¹³, 10¹¹⁴, 10¹¹⁵, 10¹¹⁶, 10¹¹⁷, 10¹¹⁸, 10¹¹⁹, 10¹²⁰, 10¹²¹, 10¹²², 10¹²³, 10¹²⁴, 10¹²⁵, 10¹²⁶, 10¹²⁷, 10¹²⁸, 10¹²⁹, 10¹³⁰, 10¹³¹, 10¹³², 10¹³³, 10¹³⁴, 10¹³⁵, 10¹³⁶, 10¹³⁷, 10¹³⁸, 10¹³⁹, 10¹⁴⁰, 10¹⁴¹, 10¹⁴², 10¹⁴³, 10¹⁴⁴, 10¹⁴⁵, 10¹⁴⁶, 10¹⁴⁷, 10¹⁴⁸, 10¹⁴⁹, 10¹⁵⁰, 10¹⁵¹, 10¹⁵², 10¹⁵³, 10¹⁵⁴, 10¹⁵⁵, 10¹⁵⁶, 10¹⁵⁷, 10¹⁵⁸, 10¹⁵⁹, 10¹⁶⁰, 10¹⁶¹, 10¹⁶², 10¹⁶³, 10¹⁶⁴, 10¹⁶⁵, 10¹⁶⁶, 10¹⁶⁷, 10¹⁶⁸, 10¹⁶⁹, 10¹⁷⁰, 10¹⁷¹, 10¹⁷², 10¹⁷³, 10¹⁷⁴, 10¹⁷⁵, 10¹⁷⁶, 10¹⁷⁷, 10¹⁷⁸, 10¹⁷⁹, 10¹⁸⁰, 10¹⁸¹, 10¹⁸², 10¹⁸³, 10¹⁸⁴, 10¹⁸⁵, 10¹⁸⁶, 10¹⁸⁷, 10¹⁸⁸, 10¹⁸⁹, 10¹⁹⁰, 10¹⁹¹, 10¹⁹², 10¹⁹³, 10¹⁹⁴, 10¹⁹⁵, 10¹⁹⁶, 10¹⁹⁷, 10¹⁹⁸, 10¹⁹⁹, 10²⁰⁰, 10²⁰¹, 10²⁰², 10²⁰³, 10²⁰⁴, 10²⁰⁵, 10²⁰⁶, 10²⁰⁷, 10²⁰⁸, 10²⁰⁹, 10²¹⁰, 10²¹¹, 10²¹², 10²¹³, 10²¹⁴, 10²¹⁵, 10²¹⁶, 10²¹⁷, 10²¹⁸, 10²¹⁹, 10²²⁰, 10²²¹, 10²²², 10²²³, 10²²⁴, 10²²⁵, 10²²⁶, 10²²⁷, 10²²⁸, 10²²⁹, 10²³⁰, 10²³¹, 10²³², 10²³³, 10²³⁴, 10²³⁵, 10²³⁶, 10²³⁷, 10²³⁸, 10²³⁹, 10²⁴⁰, 10²⁴¹, 10²⁴², 10²⁴³, 10²⁴⁴, 10²⁴⁵, 10²⁴⁶, 10²⁴⁷, 10²⁴⁸, 10²⁴⁹, 10²⁵⁰, 10²⁵¹, 10²⁵², 10²⁵³, 10²⁵⁴, 10²⁵⁵, 10²⁵⁶, 10²⁵⁷, 10²⁵⁸, 10²⁵⁹, 10²⁶⁰, 10²⁶¹, 10²⁶², 10²⁶³, 10²⁶⁴, 10²⁶⁵, 10²⁶⁶, 10²⁶⁷, 10²⁶⁸, 10²⁶⁹, 10²⁷⁰, 10²⁷¹, 10²⁷², 10²⁷³, 10²⁷⁴, 10²⁷⁵, 10²⁷⁶, 10²⁷⁷, 10²⁷⁸, 10²⁷⁹, 10²⁸⁰, 10²⁸¹, 10²⁸², 10²⁸³, 10²⁸⁴, 10²⁸⁵, 10²⁸⁶, 10²⁸⁷, 10²⁸⁸, 10²⁸⁹, 10²⁹⁰, 10²⁹¹, 10²⁹², 10²⁹³, 10²⁹⁴, 10²⁹⁵, 10²⁹⁶, 10²⁹⁷, 10²⁹⁸, 10²⁹⁹, 10³⁰⁰, 10³⁰¹, 10³⁰², 10³⁰³, 10³⁰⁴, 10³⁰⁵, 10³⁰⁶, 10³⁰⁷, 10³⁰⁸, 10³⁰⁹, 10³¹⁰, 10³¹¹, 10³¹², 10³¹³, 10³¹⁴, 10³¹⁵, 10³¹⁶, 10³¹⁷, 10³¹⁸, 10³¹⁹, 10³²⁰, 10³²¹, 10³²², 10³²³, 10³²⁴, 10³²⁵, 10³²⁶, 10³²⁷, 10³²⁸, 10³²⁹, 10³³⁰, 10³³¹, 10³³², 10³³³, 10³³⁴, 10³³⁵, 10³³⁶, 10³³⁷, 10³³⁸, 10³³⁹, 10³⁴⁰, 10³⁴¹, 10³⁴², 10³⁴³, 10³⁴⁴, 10³⁴⁵, 10³⁴⁶, 1

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1. *Journal of the American Medical Association*, 1997; 277: 1033-1036.

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1. *Chlorophyll a* and *Chlorophyll b* were determined by the method of Arar and Collins (1971) using a Shimadzu 1601 UV-Visible Spectrophotometer.

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PINNACLE
LABORATORIES

GAS CHROMATOGRAPHY RESULTS

REAGENT BLANK

TEST	: EPA 8015 MODIFIED (DIRECT INJECT)	PINNACLE I.D.	: 808083
BLANK I.D.	: 082898	DATE EXTRACTED	: 8/28/98
CLIENT	: EL PASO FIELD SERVICES	DATE ANALYZED	: 8/28/98
PROJECT #	: (none)	SAMPLE MATRIX	: NON-AQ
PROJECT NAME	: PHASE II DRILLING		

PARAMETER	UNITS	
FUEL HYDROCARBONS, C6-C10	MG/KG	< 10
FUEL HYDROCARBONS, C10-C22	MG/KG	< 5.0
FUEL HYDROCARBONS, C22-C36	MG/KG	< 5.0

ERROGATE:
ERPHENYL (%) 130
SURROGATE LIMITS (80 - 151)

CHEMIST NOTES:
N/A

PLEASE FILL THIS FORM IN COMPLETELY.

COMPANY: El Paso Field Services
ADDRESS: 770 W. NAVAJO
FARMINGTON, N.M. 87401
PHONE: (505) 599-2144
FAX: (505) 599-2261
BILL TO: Above
COMPANY:
ADDRESS:

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:

980586	8/24/98	0946	Soi
980587	8/24/98	1143	Soi
980588	8/24/98	1421	Soi

PROJ. NO.:	(RUSH) ☐ 24hr ☐ 48hr ☐ 72hr ☐ 1 WEEK	(NORMAL) ☒
PROJ. NAME: Phase II Drilling	CERTIFICATION REQUIRED: ☐ NM ☐ SDWA ☐ OTHER	
P.O. NO.:	METHANOL PRESERVATION ☐	
SHIPPED VIA: Fed Ex	COMMENTS: FIXED FEE ☐	

Signature: *[Signature]* Time: 0810
Printed Name: *W. Allen* Date: 6/27/88
Company: *Marathon Hopper*
EPFS

Signature:	Time:
Printed Name:	Date:
Company:	

BTEX SOIL SAMPLE WORKSHEET

File : 980588
Soil Mass (g) : 5.21
Extraction vol. (mL) : 10
Shot Volume (uL) : 50

Date Printed : 8/31/98
Multiplier (L/g) : 0.00096
CAL FACTOR (Analytical): 200
CAL FACTOR (Report): 0.19194

Benzene (ug/L) : <0.5
Toluene (ug/L) : <0.5
Ethylbenzene (ug/L) : <0.5
p & m-xylene (ug/L) : <1.0
o-xylene (ug/L) : <0.5

DILUTION FACTOR:	1	Det. Limit
Benzene (mg/Kg):	#VALUE!	0.480
Toluene (mg/Kg):	#VALUE!	0.480
Ethylbenzene (mg/Kg):	#VALUE!	0.480
p & m-xylene (mg/Kg):	#VALUE!	0.960
o-xylene (mg/Kg):	#VALUE!	0.480
Total xylenes (mg/Kg):	#VALUE!	1.440
Total BTEX (mg/Kg):	#VALUE!	

