

State of New Mexico  
Energy, Minerals and Natural Resources Department  
OIL CONSERVATION DIVISION  
P.O. Box 2088  
Santa Fe, New Mexico 87504-2088

Failed BTEX 110

RECEIVED  
OK  
RISK Analysis  
SEP 23 1999  
OIL CON. DIV.  
DIST. 3

**PIT REMEDIATION AND CLOSURE REPORT**

Operator: Phillips Petroleum (Williams Field Services) Telephone: (801) 584-6361  
Address: P.O. Box 58900, Salt Lake City, Utah 84158-0900  
WellName: SJ 29-5 UNIT #38-32 ( 86228 )  
Location: Unit or Qtr/Qtr Sec M Sec 32 T 29N R 5W County Rio Arriba  
PitType Dehydrator  
LandType: State

Pit Location: Pit dimensions: length 24 ft., width 21 ft., depth 12 ft.  
(Attach diagram)

Reference: Wellhead

Footage from reference: 82 ft.

Direction from reference: 7 Degrees West of North

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)	0
high water elevation of			
ground water)			

Wellhead Protection Area:	Yes	(20 points)	
(Less than 200 feet from a private	No	(0 points)	0
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 1,000 feet	(10 points)	
lakes, ponds, rivers, streams, creeks,	Greater than 1,000 feet	(0 points)	0
irrigation canals and ditches)			

Ranking Score (TOTAL POINTS): 0

Date Remediation Started: 11/6/96

Date Completed: 11/18/96

Remediation Method: Excavation ☒

Approx. Cubic Yard 233

(check all appropriate sections)

Landfarmed ☒Insitu Bioremediation ☒

Other Landfarmed soil after mechanical aeration.

LANDFARM HEADSPACE: 0 ppm

Remediation Location: Onsite ☒ Offsite(ie. landfarmed onsite,  
name and location of  
offsite facility)

## General Description Of Remedial Action:

The pit was excavated to remove gross petroleum contamination. The excavated material was mechanically aerated and placed into an onsite landfarm. Returned to site 4/6/99 and utilized hydraulic probe to collect sample at 20-22'. TPH: 76.1 HS: 103

Ground Water Encountered: No

Final Pit:

Closure Sampling:

(if multiple samples, attach  
sample results and diagram  
of sample locations and  
depths)

Sample location SJ 29-5 #38-32 EX-V-01

A composite sample, made up of 4 points from each excavation face, was collected..

Sample depth Up to 12.5 feet

Sample date 11/12/96

Sample time 11:15

Sample Result

Benzene (ppm) 4.21

Total BTEX (ppm) 562

Field Headspace (ppm)

TPH (ppm) 1,910

Ground Water Sample: No

I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO  
THE BEST OF MY KNOWLEDGE AND BELIEF

DATE 9-20-99

SIGNATURE  FOR WFSPRINTED NAME  
AND TITLEMARK HARVEY  
PROJECT COORDINATOR

## PIT RETIREMENT FORM

Date: 11/6/96

Weather \_\_\_\_\_

Well Name ST 29-5 #38-32 Operator PHILLIPS PETROLEUM Sec 32 T 29N R 5W UL 865'S

Land Type: BLM STATE FEE INDIAN

County RIO ARriba

One Call Made (505-765-1234)?	Y	N
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Line Marking Evident?	Y	N
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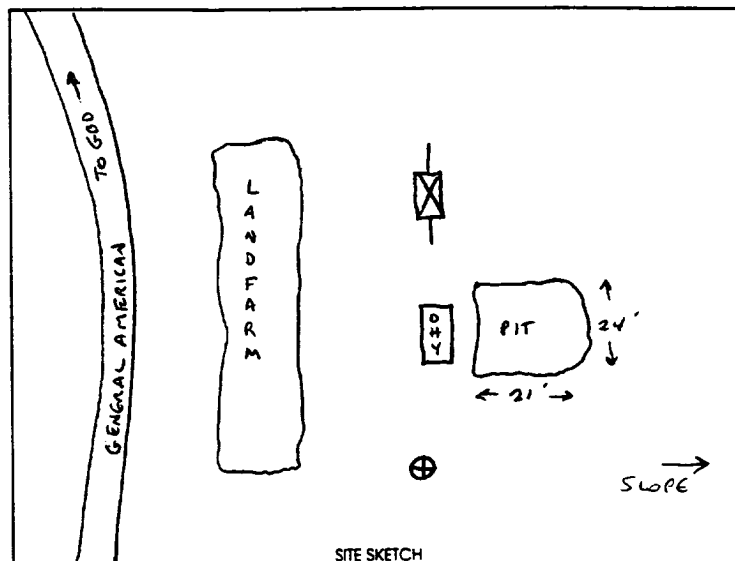
**Pit Location:**Reference Wellhead X Other       

Distance from: 82'

[illegible]

Starting Pit Dimensions 10' x 10' x 2'

Final Pit Dimensions 21 x 21 x 12 1/2



Organic Vapor Readings: Start \_\_\_\_\_ Soil Description: SILTY SAND + CLAY  
 @ 2' \_\_\_\_\_ " " "  
 @ 4' \_\_\_\_\_ SILTY SAND  
 @ 6' \_\_\_\_\_ " "  
 @ 8' \_\_\_\_\_ " "  
 @ \_\_\_\_\_  
 @ \_\_\_\_\_

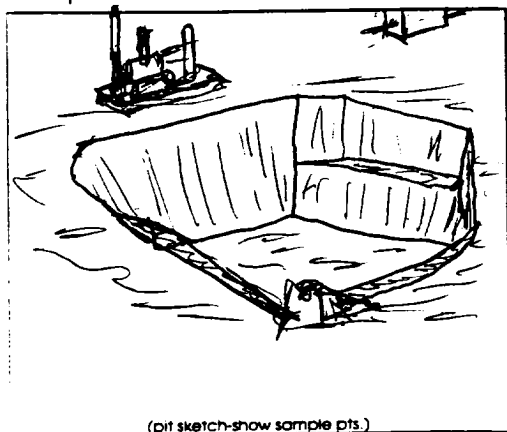
Well Proximity To: Residence, Domestic Water Well, Stock Well \_\_\_\_\_  
Arroyo, Wash, Lake, Stream Wash ~ 200 Yds NE \_\_\_\_\_  
Estimated or Known Distance to Ground Water \_\_\_\_\_

Source of Backfill (If other than processed material) \_\_\_\_\_

Samples collected:		Type	Progress:	Verification:	ID	
					SJ29-5 #38-32 EX-V-01	soil / water
					SJ29-5 #38-32 LF-V-01	soil / water
						soil / water

Sample sent to Lab Via: Courier

Hand Carried Other \_\_\_\_\_ Preservative: (ICE) Other \_\_\_\_\_



Comments: SET UP + BEGIN EXCAVATION — MATERIAL HAS STRONG  
HYDROCARBON OIL — CONC DIMINISHES W/ DEPTH — TERRACE CUT ON  
NORTH SIDE FOR STABILITY — ~~WASTE SOIL VENT~~<sup>NT</sup> SLOUGHING SOIL LIMITS  
EXCAVATION — TREAT LANDFARM W/ FERTILIZER + RETURN TO HOLE TO  
ENHANCE RESIDUAL DEGRADATION IN-SITU —

Soil Shipped to: \_\_\_\_\_  
Prepared by: M. J. [Signature]



## Organic Analysis - Pit Closure

### Williams Field Services

Project ID: OCD Pits  
Sample ID: SJ 29-5 #38-32 EX-V-01  
Lab ID: 5622  
Sample Matrix: Soil  
Preservative: Cool  
Condition: Intact

Report Date: 11/18/96  
Date Sampled: 11/12/96  
Date Received: 11/12/96  
Date Extracted: 11/13/96  
Date Analyzed: 11/15/96

Target Analyte	Concentration (mg/kg)	Detection Limit (mg/kg)
<b>Total Aromatic Hydrocarbons</b>	<b>562</b>	
Benzene	4.21	3.92
Toluene	149	3.92
Ethylbenzene	25.5	3.92
m,p-Xylenes	317	7.84
o-Xylene	66.3	3.92
<b>Total Recoverable Petroleum Hydrocarbons</b>	<b>1,910</b>	<b>241</b>

Quality Control:	<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Acceptance Limits</u>
	Trifluorotoluene	105	81 - 117%
	Bromofluorobenzene	104	74 - 121%

**Reference:** Method 5030, Purge and Trap; Method 8020, Aromatic Volatile Organics;  
Test Methods for Evaluating Solid Wastes, SW-846, United States  
Environmental Protection Agency, Final Update I, July, 1992.

Method 3550 - Sonication Extraction; Test Methods for Evaluating Solid Waste,  
SW-846, United States Environmental Protection Agency, September, 1986;  
Method 418.1 - Petroleum Hydrocarbons, Total Recoverable; Chemical Analysis of  
Water and Waste, United States Environmental Protection Agency, 1978.

**Comments:**

Review



## Organic Analysis - Pit Closure

### Williams Field Services

Project ID: OCD Pits ,  
Sample ID: SJ 29-5 #38-32 EX-V-01  
Lab ID: 5622  
Sample Matrix: Soil  
Preservative: Cool  
Condition: Intact

Report Date: 11/25/96  
Date Sampled: 11/12/96  
Date Received: 11/12/96  
Date Extracted: 11/13/96  
Date Analyzed: 11/15/96

Target Analyte	Concentration (mg/kg)	Detection Limit (mg/kg)
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**Total Aromatic Hydrocarbons****562**

Benzene	4.21	3.92
Toluene	149	3.92
Ethylbenzene	25.5	3.92
m,p-Xylenes	317	7.84
o-Xylene	66.3	3.92


**Total Recoverable Petroleum Hydrocarbons****313****31.6**

Quality Control:	<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Acceptance Limits</u>
	Trifluorotoluene	105	81 - 117%
	Bromofluorobenzene	104	74 - 121%
	O-Terphenyl	93	50 - 150%

**Reference:** Method 5030, Purge and Trap; Method 8020, Aromatic Volatile Organics;  
Test Methods for Evaluating Solid Wastes, SW-846, United States  
Environmental Protection Agency, Final Update I, July, 1992.

EPA Method 8015A, modified. "Nonhalogenated Volatile Organics by Gas  
Chromatography." Test Methods for Evaluating Solid Waste, Physical/  
Chemical Methods, SW-846, 3rd Ed, Final Update I, July, 1992. USEPA.

**Comments:**

  
Review



## Organic Analysis - Pit Closure

### Williams Field Services

Project ID: OCD Pits  
Sample ID: SJ 29-5 #38-32 LF-V-01  
Lab ID: 5623  
Sample Matrix: Soil  
Preservative: Cool  
Condition: Intact

Report Date: 11/18/96  
Date Sampled: 11/12/96  
Date Received: 11/12/96  
Date Extracted: 11/13/96  
Date Analyzed: 11/15/96

Target Analyte	Concentration (mg/kg)	Detection Limit (mg/kg)
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<b>Total Aromatic Hydrocarbons</b>	<b>73.4</b>	
Benzene	ND	0.65
Toluene	9.11	0.65
Ethylbenzene	3.56	0.65
m,p-Xylenes	49.5	1.29
o-Xylene	11.2	0.65

<b>Total Recoverable Petroleum Hydrocarbons</b>	<b>92.8</b>	<b>25.2</b>
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<b>Quality Control:</b>	<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Acceptance Limits</u>
	Trifluorotoluene	102	81 - 117%
	Bromofluorobenzene	112	74 - 121%

**Reference:** Method 5030, Purge and Trap; Method 8020, Aromatic Volatile Organics;  
Test Methods for Evaluating Solid Wastes, SW-846, United States  
Environmental Protection Agency, Final Update I, July, 1992.

Method 3550 - Sonication Extraction; Test Methods for Evaluating Solid Waste,  
SW-846, United States Environmental Protection Agency, September, 1986;  
Method 418.1 - Petroleum Hydrocarbons, Total Recoverable; Chemical Analysis of  
Water and Waste, United States Environmental Protection Agency, 1978.

**Comments:**

Review

Q W A L L A B O R A T O R I E S, I N C.

2911 ROTARY TERRACE, P.O. BOX 562/PITTSBURG, KS 66762/(316)232-1970

LABORATORY REPORT:

REFERENCE #: 9904322

SENT WILLIAMS FIELD SERVICE  
TO: 295 CHIPETA WAY  
SALT LAKE CITY, UTAH 84158  
MARK HARVEY  
PROJECT: NM PITS

DATE REPORTED: 09/17/99  
DATE COLLECTED: 04/06/99  
DATE RECEIVED: 04/09/99

Reference Fraction: 9904322-09A

Sample ID: SJ29-5 #38-32 @20-22/86228

Sample Matrix: SOIL

Sample Date Collected: 04/06/99 09:45:00

TEST	METHOD	RESULT	UNITS	PQL	ANALYZED BY
TPH	SW846-8015	76.1	MG/KG	2	04/17/99 KKL

ND-NONE DETECTED

PQL-PRACTICAL QUANTITATION LIMIT

SU-STANDARD UNITS

B-DETECTED IN METHOD BLANK

APPROVED BY:

*Terry Koester*  
TERRY KOESTER  
LABORATORY DIRECTOR