

*Denny E. Faust*  
DEPUTY OIL & GAS INSPECTOR

AUG 09 1999

Jicarilla Apache Tribe  
Environmental Protection Office  
P.O. Box 507  
Dulce, New Mexico 87528

OK  
**RECEIVED**  
AUG 09 1999

**OIL CON. DIV.**  
**DIST. 3**

**Pit Remediation and Closure Report**

Operator:	Burlington Resources	Telephone:	(505) 326-9700
Address:	P.O. Box 4289, Farmington, NM 87499-4289		
Facility or Well Name:	Jicarilla 96 # 6A	DP #	29232 A
Location:	Unit or Qtr/QTR Sec "E" Sec 2, T 26 N, R 3 W County Rio Arriba		
Pit Type:	Separator: <input checked="" type="checkbox"/> Dehydrator: <input type="checkbox"/> Other: <input type="checkbox"/>		
Land Type:			
Pit Location:	Pit dimensions: length: 22 ft width: 18 ft depth: 3 ft		
(Attach Diagram)	Reference: wellhead: <input checked="" type="checkbox"/> other: <input type="checkbox"/>		
	Footage from reference: 103 feet		
	Direction from reference: 130 Degrees East North <input checked="" type="checkbox"/>		
	West South		
Depth To Groundwater:	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 elevations of			
groundwater)			
Distance to an Ephemeral Stream:	Less than 100 feet	(10 points)	
(Downgradient dry wash greater than	Greater than 100 feet	(0 points)	0
ten feet in width)			
Distance to Nearest Lake, Playa, or Watering	Less than 100 feet	(10 points)	
Pond: (Downgradient lakes, playas, and	Greater Than 100 feet	(0 points)	0
livestock or wildlife watering ponds)			
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 100 feet	(20 points)	
(Horizontal distance to perennial	100 feet to 1000 feet	(10 points)	
lakes, ponds, rivers, streams, creeks,	Greater than 1000 feet	(0 points)	0
irrigation canals and ditches.)			
RANKING SCORE (TOTAL SCORE):			0

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Pit Remediation and Closure Report

Date Remediation Started: <u>8/22/96</u>		Date Completed: _____	
Remediation Method: (Check all appropriate sections)	Excavation:	<u>X</u>	Approx. cubic yards: <u>150</u>
	Landfarmed:	<u>X</u>	Insitu Bioremediation: _____
	Other:	_____	
Remediation Location: (I.e. landfarmed on site, name and location of off site location)	On-site:	<u>X</u>	Off-site: _____
	General Description of Remedial Action: <u>Excavated contaminated material down to sandstone.</u>		
Groundwater Encountered: No: <u>X</u> Yes: _____ Depth: _____			
Final Pit Closure Sampling: (If multiple samples, attach sample results and diagram of sample locations and depths.)		Sample location: <u>See Pit Closure Verification sheet</u>	
		Sample depth: <u>9 ft</u>	
		Sample date: <u>8/22/96</u> Sample time: <u>11:45</u>	
Sample Results:			
<u>Soil:</u>		<u>Water:</u>	
Benzene (ppm) <u>0.57</u>		Benzene (ppb) _____	
Total BTEX (ppm) <u>46.97</u>		Toluene (ppb) _____	
Field Headspace (ppm) <u>147</u>		Ethylbenzene (ppb) _____	
TPH (ppm) <u>3,190</u>		Total Xylenes (ppb) _____	
Groundwater Sample: Yes: _____		No: <u>X</u>	
(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 <u>8-22-96</u>		PRINTED NAME <u>Gary L. Garretson</u>	
SIGNATURE <u>[Signature]</u>		AND TITLE <u>Lease Operator - H</u>	
AFTER REVIEW OF THE PIT CLOSURE INFORMATION PIT CLOSURE IS APPROVED IN ACCORDANCE TO THE JICARILLA APACHE TRIBE PIT CLOSURE ORDINANCE			
APPROVED: YES <u>X</u> NO _____ (REASON) _____			
SIGNED: <u>[Signature]</u>		DATE: <u>10-1-96</u>	

# BURLINGTON RESOURCES

## PIT CLOSURE VERIFICATION SHEET

Location: Licacilla 96 #6 A DP# 29232A Lease No. BLM #09-000096  
 Contractor: Philips Env Consultant Initials: gyp  
 Date Started: 8-22-96 Date Finished: \_\_\_\_\_

### Excavation & Soil Information

Dimensions (approx.): 23' FT. x 22' FT. x 08' FT. Deep Cubic Yards: (bcy) 150  
 Soil Remediated ☒ On Site ☐ Off Site If off site name location (s) \_\_\_\_\_

PIT PERIMETER	PIT PROFILE

OVM Results:								
Sample ID	1	2	3	4	5	6	7	8
Headspace PID (ppm)	27	112	219	214	194			
Sample ID	9	10	11	12	13	Comp 1	Comp 2	Comp 3
Headspace PID (ppm)						147		

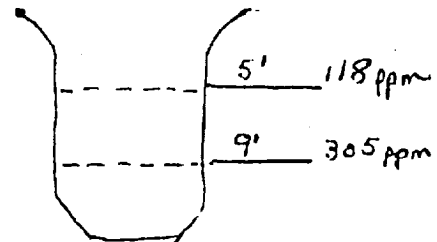
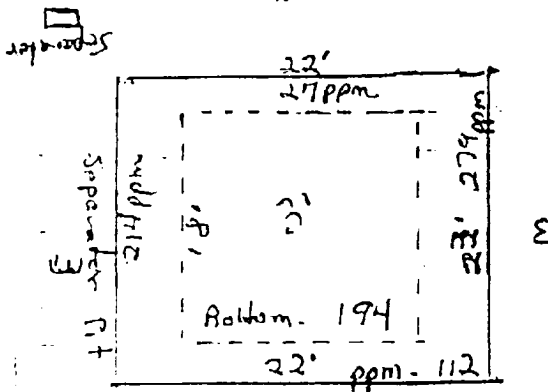
Laboratory Results:		
Sample ID	mb-29232A-2-U	
BTEX RM8020 (ppm)	46.47	
TPH RM8015 (ppm)	3190.0	

8-22-96  
 Trench 96 \* 6A. 3 mks from 10  
 Spot Lines  
 work Permit - 96081915570671  
 start digging @ 10:20 am

STRM  
 H&L RPS  
 CANADIAN

Picture # 4 -  
 Picture # 546 - @ 11:45 am  
 27 26

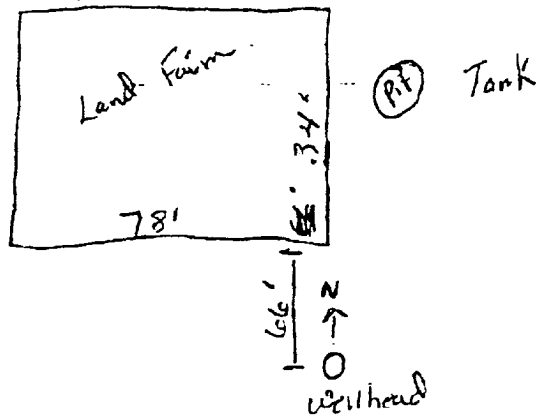
use old fencing that came  
 off the location



Composite - 147  
 9' on West Side 3' wide - Rest of Pit 8' - Solid Rock  
 S

Took Samples @ 11:30 am  
 Will move Hoe with Schmitz to 98 \* 2A  
 Truck on Location within 30 minutes  
 Hoe loaded @ 11:36 am to move to 98 \* 2A

Left location @ 2:10 PM -



American Environmental Network, Inc.

# GAS CHROMATOGRAPHY RESULTS

TEST : EPA 8015 MODIFIED (DIRECT INJECT)  
 CLIENT : PHILIP ENVIRONMENTAL  
 PROJECT # : 16256  
 PROJECT NAME : MOI PIT REM.

AEN I.D.: 602352

SAMPLE						
ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL FACTOR
07	M6-29238A-2-V	NON-AQ	8/22/96	8/26/96	8/26/96	1
08	M6-29232A-2-V	NON-AQ	8/22/96	8/26/96	8/27/96	10
09	M6-29151B-2-V	NON-AQ	8/22/96	8/26/96	8/26/96	1
PARAMETER	DET. LIMIT	UNITS	07 ✓	08 ✓	09 ✓	
FUEL HYDROCARBONS, C6-C10	10	MG/KG	550	2700	< 10	
FUEL HYDROCARBONS, C10-C22	5.0	MG/KG	510	380	< 5.0	
HYDROCARBONS, C22-C36	5.0	MG/KG	180	110	5.3	
CALCULATED SUM			1200	3200	5.3	
SURROGATE:						
O-TERPHENYL (%)			116	103	84	
SURROGATE LIMITS	( 66 - 151 )					

CHEMIST NOTES:  
 N/A

GAS CHROMATOGRAPHY RESULTS

TEST : BTEX, MTBE (EPA 8020)  
 CLIENT : PHILIP ENVIRONMENTAL  
 PROJECT # : 16256  
 PROJECT NAME : MOI PIT REM.

AEN I.D.: 608352

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL FACTOR
07	M6-29238A-2-V	NON-AQ	8/22/96	8/26/96	8/27/96	10
08	M6-29232A-2-V	NON-AQ	8/22/96	8/26/96	8/27/96	10
09	M6-29151B-2-V	NON-AQ	8/22/96	8/26/96	8/27/96	1

PARAMETER	DET. LIMIT	UNITS	07 ✓	08 ✓	09 ✓
3FENE	0.025	MG/KG	< 0.25	0.57	< 0.025
TCNE	0.025	MG/KG	5.0	12	< 0.025
ETH. LBENZENE	0.025	MG/KG	4.5	2.4	< 0.025
TOTAL XYLENES	0.025	MG/KG	46	32	< 0.025
METHYL-1-BUTYL ETHER	0.13	MG/KG	< 1.3	< 1.3	< 0.13

SURROGATE:

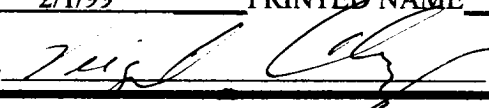
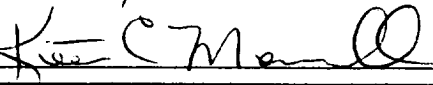
BROMOFLUOROBENZENE (%)	92	130*	89
SURROGATE LIMITS (65 - 120)			

CHEMIST NOTES:

SURROGATE OUTSIDE CONTROL LIMITS DUE TO MATRIX INTERFERENCE.

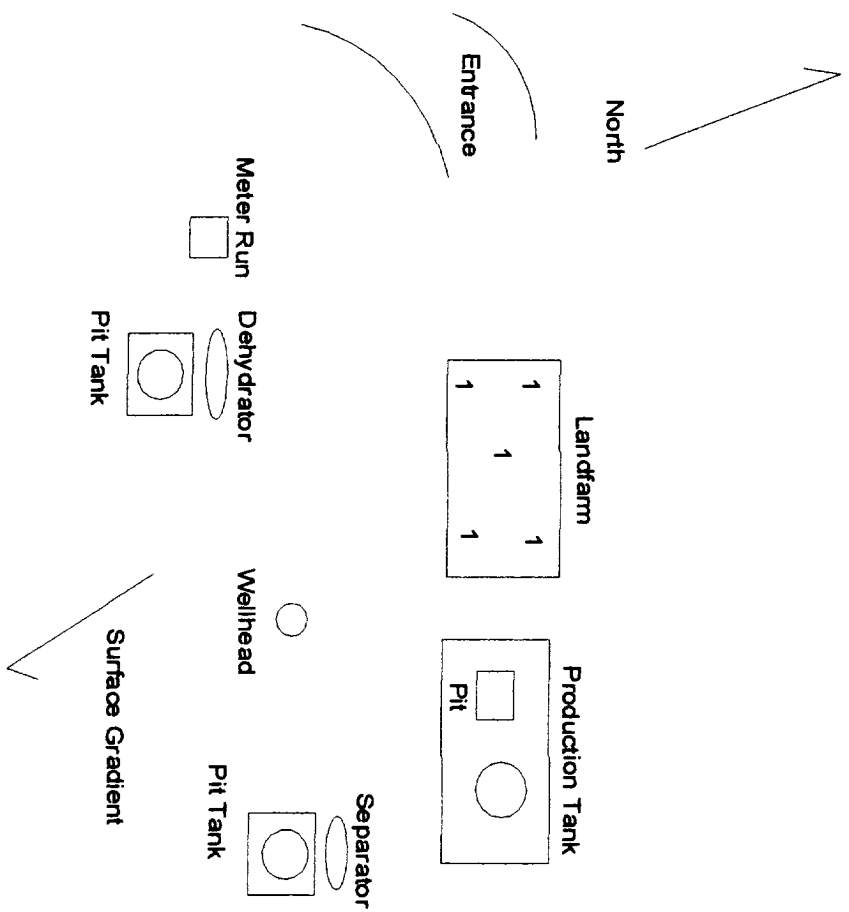
JICARILLA APACHE TRIBE  
ENVIRONMENTAL PROTECTION OFFICE  
P.O. BOX 507  
DULCE, NEW MEXICO 87528

ON-SITE SOIL REMEDIATION REPORT

Operator: <u>Taurus Exploration USA Inc.</u> Telephone: <u>(505) 325 - 6800</u>	
Address: <u>2198 Bloomfield Hwy, Farmington N.M. 87401</u>	
Facility or Well Name: <u>Jicarilla 96 - 6A</u>	
Location: Unit or Qtr/Qtr Sec <u>E</u> Sec <u>2</u> T <u>26 N</u> R <u>3 W</u> County <u>Rio Arriba</u>	
Land Type: <u>Range</u>	
Date Remediation Started: <u>August 22, 1996</u> Date Completed: <u>December 11, 1998</u>	
Remediation Method: Landfarmed <u>X</u> Approx. cubic yards <u>150</u>	
Composted <u>      </u>	
Other <u>      </u>	
<p>Depth to Groundwater: (pts) <u>0</u></p> <p>Distance to an Ephemeral Stream (pts) <u>0</u></p> <p>Distance to Nearest Lake, Playa, or Watering Pond (pts) <u>0</u></p> <p>Wellhead Protection Area (pts) <u>0</u></p> <p>Distance to Surface Water (pts) <u>0</u></p> <p><b>RANKING SCORE</b> <b>(TOTAL POINTS):</b> <u>0</u></p>	<p style="text-align: center;"><b>Final Closure Sampling:</b></p> <p>Sampling Date: <u>12/11/98</u> Time: <u>0900</u></p> <p>Sample Results:</p> <p>Field Headspace (ppm) <u>.6</u></p> <p>TPH (ppm) <u>&lt;29</u> Method <u>8015</u></p> <p>Other: <u>      </u></p>
I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF	
DATE: <u>2/1/99</u> PRINTED NAME <u>VIRGIL CHAVEZ</u>	
SIGNATURE <u></u> AND TITLE <u>ENV. SPECIALIST</u>	
AFTER REVIEW OF THE SOIL REMEDIATION INFORMATION. ON-SITE SOIL REMEDIATION IS APPROVED IN ACCORDANCE TO THE JICARILLA APACHE TRIBE PIT CLOSURE ORDINANCE.	
APPROVED: YES <u>X</u> NO <u>      </u> (REASON) <u>      </u>	
SIGNED: <u></u> DATE: <u>2-12-99</u>	

Client : Taurus Exploration USA Inc.

Date Started : August 22, 1996 Date Completed : December 11, 1998

Location : <u>Jicarilla 96 - 6A</u>			Overview of Landfarm and Sampling :																																									
Quad : <u>E</u> Section : <u>2</u>																																												
Township: <u>26 N</u> Range: <u>3 W</u>																																												
Pit :	Separator	<table border="1"><thead><tr><th>Sample #</th><th>Location</th><th>OV</th></tr></thead><tbody><tr><td>1</td><td>Comp 1</td><td>0.6</td></tr><tr><td>2</td><td></td><td></td></tr><tr><td>3</td><td></td><td></td></tr><tr><td>4</td><td></td><td></td></tr><tr><td>5</td><td></td><td></td></tr><tr><td>6</td><td></td><td></td></tr><tr><td>7</td><td></td><td></td></tr><tr><td>8</td><td></td><td></td></tr><tr><td>9</td><td></td><td></td></tr><tr><td>10</td><td></td><td></td></tr><tr><td>11</td><td></td><td></td></tr><tr><td>12</td><td></td><td></td></tr></tbody></table>	Sample #	Location	OV	1	Comp 1	0.6	2			3			4			5			6			7			8			9			10			11			12					
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11																																												
12																																												
Reference <u>95'</u> North from wellhead.																																												
Size: <u>30' x 50' x 1'</u>																																												
Yds : <u>150</u>																																												
<u>1</u> <u>5 - Point Composites</u>																																												
Comments : <u>Soil is moist, light brown, sandy/loam, with no staining or hydrocarbon odor.</u>																																												
<u>A sample from composite # 1 was sent to IML for GRO/DRO analysis.</u>																																												
Environmental Specialist : <u>JE</u>																																												





## DIESEL RANGE ORGANICS - DRO

### ENERGEN RESOURCES

Project ID:	Jicarilla 96-6A	Report Date:	12/31/98
Sample ID:	Landfarm Comp #1	Date Sampled:	12/11/98
Lab ID:	0398G07296	Date Received:	12/11/98
Sample Matrix:	Soil	Date Analyzed:	12/23/98
Condition:	Cool/Intact		

TPH DIESEL RANGE (MOD EPA 8015)	RESULT	DETECTION LIMIT
Diesel-Range Petroleum Hydrocarbons	24	5.0 mg/Kg

ND - Analyte not detected at the stated detection limit.

**Reference:**

**Comments:**

Reported By:

Reviewed By:



## GASOLINE RANGE ORGANICS - GRO

### ENERGEN RESOURCES


Project ID:	Jicarilla 96-6A	Report Date:	12/31/98
Sample ID:	Landfarm Comp #1	Date Sampled:	12/11/98
Lab ID:	0398G07296	Date Received:	12/11/98
Sample Matrix:	Soil	Date Analyzed:	12/30/98*
Condition:	Cool/Intact		

TPH GAS-RANGE (MOD EPA 8015)	RESULT	DETECTION LIMIT
Gasoline-Range Petroleum Hydrocarbons	<5.0	5.0 mg/Kg

ND - Analyte not detected at the stated detection limit.

#### Reference:

**Comments:** \*Sample was analyzed within holding times, however, due to instrument problems and QC failure, the sample had to be re-analyzed to verify results.

  
Reported By:

  
Reviewed By:



# CHAIN OF CUSTODY RECORD

Client/Project Name <b>Evergreen Resources</b>			Project Location <b>Sic. 96.6A</b>		ANALYSES / PARAMETERS		
Sampler: (Signature) <i>William G. Gato</i>			Chain of Custody Tape No.				
Sample No./ Identification	Date	Time	Lab Number	Matrix	No. of Containers	Remarks	
Lab 1000 Comp H 1	12/11/98	0900		Soil	8015 620/1000 1 X		
<div style="display: flex; justify-content: space-between;"> <div> <p>Relinquished by: (Signature) <i>William G. Gato</i></p> <p>Relinquished by: (Signature)</p> <p>Relinquished by: (Signature)</p> </div> <div> <p>Date 12-11-98</p> <p>Date</p> <p>Date</p> </div> <div> <p>Time 1417</p> <p>Time</p> <p>Time</p> </div> <div> <p>Received by: (Signature)</p> <p>Received by: (Signature)</p> <p>Received by laboratory: (Signature) <i>Bill Gato</i></p> </div> </div>							
Relinquished by: (Signature)			Date		Time		
Relinquished by: (Signature)			Date		Time		
Relinquished by: (Signature)			Date		Time		