

Denny S. Faust
DEPUTY OIL & GAS INSPECTOR

AUG 09 1999

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

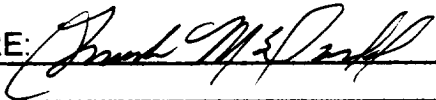

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JUN 24 1999
OIL CON. DIV.
DIST. 3

Approved
Pit Remediation and Closure Report

Operator:	Taurus Exploration U.S.A., Inc			Telephone:	(505) 325-6800		
Address:	2198 Bloomfield Hwy, Farmington, NM 87401						
Facility or Well Name:	Jicarilla 89-2A						
Location:	Unit or Qtr/QTR Sec "D" Sec 14, T 27 N, R 3 W County			Rio Arriba			
Pit Type:	Separator:	Dehydrator:	Other: X - Abandoned Separator Pit				
Land Type:	Range						
Pit Location:	Pit dimensions: length: 15 ft width: 15 ft depth: 5 ft						
(Attach Diagram)							
Reference:		wellhead: X other:					
Footage from reference:		185 feet					
Direction from reference:		5	Degrees	East	North	X	
					of		
				X 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	

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

Pit Remediation and Closure Report

Date Remediation Started: <u>7/27/98</u>		Date Completed <u>7/28/98</u>	
Remediation Method: (Check all appropriate sections)	Excavation: <u>X</u>	Approx. cubic yd <u>25</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:		Soil was excavated and landfarmed on location.	
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>West Wall @ 4 feet below surface. Pit bottom & walls were analyzed for Headspace (see attachment).</u>		
	Bedrock encountered @ <u>5 feet below surface.</u>		
	Sample depth: <u>4 feet</u>		
	Sample date: <u>7/28/98</u>	Sample time: <u>1115</u>	
Sample Results:			
<u>Soil:</u>		<u>Water:</u>	
Benzene (ppm)	<u>ND</u>	Benzene (ppb)	_____
Total BTEX (ppm)	<u>0.0725</u>	Toluene (ppb)	_____
Field Headspace (ppm)	<u>840</u>	Ethylbenzene (ppb)	_____
TPH (ppm)	<u><12.2</u>	Total Xylenes (ppb)	_____
Groundwater Sample: (If yes, attach sample results.)	Yes: _____	No: <u>X</u>	
I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF			
DATE: <u>8/25/98</u>		Frank McDonald	
SIGNATURE: <u></u> AND TITLE: <u>Env. Division Manager</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></u>		DATE: <u>9-2-98</u>	

Client : Taurus Exploration U.S.A. Inc.

Date Started : July 27, 1998 Date Completed : July 28, 1998

Location : Jicarilla 89 - 2A		Overview of Location and Sampling :	
Qued : D Section : 14			
Range : 3 W Township: 27 N			
Pit : Abandoned Separator Pit Reference : 185' N 5 W from wellhead Initial Size : 15' x 15' x 2' deep Final Size : 15' x 15' x 5' deep Yds. Excavated : 25 cy Depth to Groundwater: >100' Nearest Water Source: >1000' Nearest Surface Water: >1000' Nearest Ephemeral Stream: >1000' EPO Ranking Score: 0 TPH Closure Standard: 5000			
Comments : Top soil - 5' Soil is moist, dark brown, sand with heavy gray/black staining, and a strong hydrocarbon odor. 5' Bedrock. Entire pit is encased in sandstone A sample from the west wall at 4' was sent to IML for GRO/DRO and BTEx analysis.		Pit Profile : East to West :	
Pit Profile : North to South : 		Pit Profile : East to West : 	

Environmental Specialist : VC

Cimarron Oilfield Services

GASOLINE RANGE ORGANICS - GRO**Taurus Exploration U.S.A., Inc.**

Project ID:	Jicarilla 89-2A Sep. Pit	Report Date:	08/12/98
Sample ID:	W. Wall @ 4'	Date Sampled:	07/28/98
Lab ID:	0398G04279	Date Received:	07/30/98
Sample Matrix:	Soil	Date Analyzed:	08/06/98
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:**
Reported By: _____

COPY



Reviewed By: _____

DIESEL RANGE ORGANICS - DRO**Taurus Exploration U.S.A., Inc.**

Project ID:	Jicarilla 89-2A Sep. Pit	Report Date:	08/03/98
Sample ID:	W. Wall @ 4'	Date Sampled:	07/28/98
Lab ID:	0398G04279	Date Received:	07/30/98
Sample Matrix:	Soil	Date Analyzed:	08/03/98
Condition:	Cool/Intact		

TPH DIESEL-RANGE (MOD EPA 8015)	RESULT	DETECTION LIMIT
Diesel-Range Petroleum Hydrocarbons	7.2	5.0 mg/kg

ND - Analyte not detected at the stated detection limit.

Reference:**Comments:**
Reported By: _____
Reviewed By: _____**COPY**

VOLATILE AROMATIC HYDROCARBONS**Taurus Exploration U.S.A., Inc.**

Project ID: Jicarilla 89-2A
Sample ID: W. Wall @ 4'
Lab ID: 0398G04279
Sample Matrix: Soil
Condition: Cool/Intact

Report Date: 08/13/98
Date Sampled: 07/27/98
Time Sampled: 12:09pm
Date Received: 07/31/98
Date Extracted: NA
Date Analyzed: 08/11/98

Target Analyte	Concentration (ppb)	Detection Limit (ppb)
Benzene	ND	10.0
Toluene	ND	50.0
Ethylbenzene	72.5	50.0
m,p-Xylenes	ND	50.0
o-Xylene	ND	50.0

ND - Analyte not detected at the stated detection limit.

Quality Control:	<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Acceptance Limits</u>
	Bromofluorobenzene	96%	70%-130%

Reference: Method 5030, Purge and Trap; Method 8021B, Aromatic Volatile Organics; Test Methods for Evaluating Solid Wastes, SW-846, United States Environmental Protection Agency, Revision 2, December, 1996.

Comments:



Analyst



Review

COPY

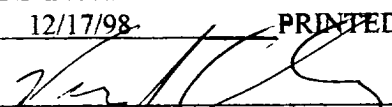
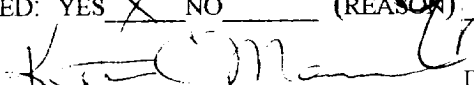


CHAIN OF CUSTODY RECORD

Client/Project Name		Project Location		ANALYSES / PARAMETERS						
Taurus Exploration USA Inc		Tearilla 84-2A		Separate						
Sampler: (Signature)		Chain of Custody Tape No.		Remarks						
Yes										
Sample No./ Identification	Date	Time	Lab Number	Matrix	No. of Containers					
JL 84-2A W. 111124	7/28/98	11:15		Soil	1					
<div>COPY</div> <div>SA.</div>										
						X20				
						X20				
						X20				
						X20				
						X20				
						X20				
						X20				
						X20				
						X20				
Relinquished by: (Signature)		Date	Time	Received by: (Signature)	Date					
[Signature]		7/28/98	7:15	[Signature]	7/29/98					
Relinquished by: (Signature)		Date	Time	Received by: (Signature)	Date					
[Signature]		7/29/98	8:05	[Signature]	7/29/98					
Relinquished by: (Signature)		Date	Time	Received by Laboratory: (Signature)	Date					
[Signature]				[Signature]	7/30/98					
<div>Inter-Mountain Laboratories, Inc.</div> <div><div><input type="checkbox"/> 1633 Terra Avenue Sheridan, Wyoming 82801 Telephone (307) 672-8945</div><div><input type="checkbox"/> 1701 Phillips Circle Gillette, Wyoming 82718 Telephone (307) 682-8945</div><div><input type="checkbox"/> 2506 West Main Street Farmington, NM 87401 Telephone (505) 326-4737</div><div><input type="checkbox"/> 1160 Research Drive Bozeman, Montana 59718 Telephone (406) 586-8450</div><div><input type="checkbox"/> 11183 State Hwy. 30 College Station, TX 77845 Telephone (409) 776-8945</div></div> <div>54047</div>										

**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 89 - 2 A</u>	
Location: Unit or Qtr/Qtr Sec <u>D</u> Sec <u>14</u> T <u>27 N</u> R <u>3 W</u> County <u>Rio Arriba</u>	
Land Type: <u>Range</u>	
Date Remediation Started: <u>July 27, 1998</u> Date Completed: <u>November 10, 1998</u>	
Remediation Method: Landfarmed <u>X</u> Approx. cubic yards <u>25</u>	
Composed <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>RANKING SCORE (TOTAL POINTS): <u>0</u></p>	<p style="text-align: center;">Final Closure Sampling:</p> <p>Sampling Date: <u>11/10/98</u> Time: <u>15:45</u></p> <p>Sample Results:</p> <p>Field Headspace (ppm) <u>1.2</u></p> <p>TPH (ppm) <u><10</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>12/17/98</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>use as backfill</u>	
SIGNED: <u></u> DATE: <u>12-9-98</u>	

Client : Taurus Exploration USA Inc.

Date Started : 11/5/98

Date Completed : 11/5/98

Location : <u>Jicarilla 89 - 2 A</u>			Overview of Landfarm and Sampling : <div style="text-align: center;"> </div>																																						
Quad : <u>D</u> Section : <u>14</u>																																									
Township: <u>27 N</u> Range: <u>3 W</u>																																									
Pit : <u>Separator</u> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr> <th style="padding: 2px;">Sample #</th> <th style="padding: 2px;">Location</th> <th style="padding: 2px;">OVM</th> </tr> <tr><td style="padding: 2px;">1</td><td style="padding: 2px;">Comp 1</td><td style="padding: 2px;">1.2</td></tr> <tr><td style="padding: 2px;">2</td><td style="padding: 2px;"></td><td style="padding: 2px;"></td></tr> <tr><td style="padding: 2px;">3</td><td style="padding: 2px;"></td><td style="padding: 2px;"></td></tr> <tr><td style="padding: 2px;">4</td><td style="padding: 2px;"></td><td style="padding: 2px;"></td></tr> <tr><td style="padding: 2px;">5</td><td style="padding: 2px;"></td><td style="padding: 2px;"></td></tr> <tr><td style="padding: 2px;">6</td><td style="padding: 2px;"></td><td style="padding: 2px;"></td></tr> <tr><td style="padding: 2px;">7</td><td style="padding: 2px;"></td><td style="padding: 2px;"></td></tr> <tr><td style="padding: 2px;">8</td><td style="padding: 2px;"></td><td style="padding: 2px;"></td></tr> <tr><td style="padding: 2px;">9</td><td style="padding: 2px;"></td><td style="padding: 2px;"></td></tr> <tr><td style="padding: 2px;">10</td><td style="padding: 2px;"></td><td style="padding: 2px;"></td></tr> <tr><td style="padding: 2px;">11</td><td style="padding: 2px;"></td><td style="padding: 2px;"></td></tr> <tr><td style="padding: 2px;">12</td><td style="padding: 2px;"></td><td style="padding: 2px;"></td></tr> </table>						Sample #	Location	OVM	1	Comp 1	1.2	2			3			4			5			6			7			8			9			10			11		
Sample #	Location	OVM																																							
1	Comp 1	1.2																																							
2																																									
3																																									
4																																									
5																																									
6																																									
7																																									
8																																									
9																																									
10																																									
11																																									
12																																									
Reference: <u>110 ft N 38 E</u>																																									
Size : <u>25' X 15' X 0.5'</u>																																									
Yds : <u>25 cubic yards</u>																																									
1 - <u>5 Point Composites</u>																																									
Comments : <u>Soil is light brown - Sandy loam</u>																																									
<u>No staining or odor</u>																																									
<u>1 - 5 point composite samples analyzed by headspace. Sample # 1 sent to IML for 8015 analysis</u>																																									
<u>1</u>																																									
Environmental Specialist : <u>JE</u>																																									

Ranking Score : 0 Closure Standard : 5000 ppm

Cimarron Oilfield Services

GASOLINE RANGE ORGANICS - GRO**TAURUS EXPLORATION U.S.A., INC.**

Project ID: Jicarilla 89-2A
Sample ID: Land Farm
Lab ID: 0398G06654
Sample Matrix: Soil
Condition: Cool/Intact

Report Date: 11/20/98
Date Sampled: 11/10/98
Date Received: 11/11/98
Date Analyzed: 11/11/98

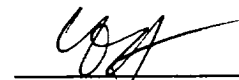
TPH GAS-RANGE (MOD EPA 8015)	RESULT	DETECTION LIMIT
Gasoline-Range Petroleum Hydrocarbons	<5.0	5.0 mg/Kg
Total Purgeable Hydrocarbons	<5.0	5.0 mg/Kg

QUALITY CONTROL - SURROGATE RECOVERY	% Recovery	QC limits
Bromofluorobenzene	110%	70-130%

ND - Analyte not detected at the stated detection limit.

Reference:**Comments:**

Reported By:



Reviewed By:



DIESEL RANGE ORGANICS - DRO**TAURUS EXPLORATION U.S.A., INC.**

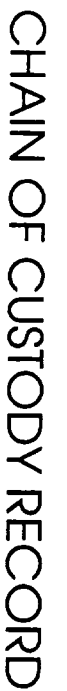
Project ID:	Jicarilla 89-2A	Report Date:	11/20/98
Sample ID:	Land Farm	Date Sampled:	11/10/98
Lab ID:	0398G06654	Date Received:	11/11/98
Sample Matrix:	Soil	Date Analyzed:	11/18/98
Condition:	Cool/Intact		

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

QUALITY CONTROL - SURROGATE RECOVERY	%Recovery	QC Limits
o-Terphenyl	61%*	70-130%

ND - Analyte not detected at the stated detection limit.

Reference:**Comments:** *Surrogate recovery failed to meet established QC limits due to matrix interferences.
Reported By:
Reviewed By:



CHAIN OF CUSTODY RECORD

57635