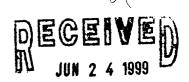
# DEPUTY OIL & GAS INSPECTOR

AUG 0 9 1999 Type Evel

# Jicarilla Apache Tribe Environmental Protection Office P.O. Box 507 Dulce, New Mexico 87528 Pit Remediation and Closure Report



OIL COM. DIV.

Operator:	Taurus Explorati	on U.S.A.,	Inc	Telephone:		(505)	325-6800			
Address:	2198 Bloomfield	Hwy, Farm	ington,	NM 87401						
Facility or Well I	Name:	Jicarilla 95	-4							
Location:	Unit or Qtr/QTR	Sec "M" S	ec 26,	T 27 N, R	3 W	Count	у	Rio /	Arriba	
Pit Type:	Separator:	Dehydrato	r: (	Other: X - A	band	oned	Separator F	Pit		
Land Type:	Range									
Pit Location:	Pit dimensions:	length: 30	ft	width: 20 ft		depth	30 ft			
(Attach Diagram	)									· ·
	Reference:	wellhead: 2	Χ	other:			<u></u>			
Footage	e from reference:	93 fee	et							
Direction	n from reference:	80		Degrees	<u>X</u>	East	North			
							of			Ì
			_			West	South	X		
Depth To Groun	dwater:		L	ess than 50	feet		(20 points)			l
(Vertical distanc	e from			0 feet to 99			(10 points)		_	1
contaminants to	seasonal		Great	er than 100	feet		(0 points)		0	
high water eleva	itions of									
groundwater)										ļ
	_									İ
<b>Y</b>	phemeral Stream			ss than 100			(10 points)		_	
l' -	dry wash greater t	han	Great	er than 100	feet		(0 points)		0	
ten feet in width	)									
				. 4 400	· e ·		(40			
1	rest Lake, Playa,			ss than 100			(10 points)		^	
,	idient lakes, playa		Greate	er Than 100	teet		(0 points)		0	
llivestock or wild	life watering pond	IS)								
L					V		(20 points)			
Wellhead Prote					Yes		(20 points)		0	
ll'	feet from a private				No		(0 points)			
H	source, or less th									
1000 feet from a	all other water sou	irces)								
Distance To Sur	face Mater		م ا	ss than 100	) feet		(20 points)			
Distance To Sur				ss than 100 feet to 1000			(10 points)			
11`	ance to perennial vers, streams, cre	aks		er than 1000			(0 points)		0	,
irrigation canals		una,	Jieak	. (ildii 1000	, 1001		(o ponto)			
ningation canals	a id dito 165. )		RAI	NKING SCO	RE (	TOTA	L SCORE):		0	

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

# Pit Remediation and Closure Report

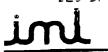
Date Remediation Started:	11/23/98	Date Completed	12/3/98
Remediation Method:	Excavation:	Х	Approx. cubic yards: 650
(Check all appropriate	Landfarmed:	X	Insitu Bioremediation:
sections)	Other:		-
Remediation Location:	On-site:	X	Off-site:
(I.e. landfarmed on site,			
name and location of			
off site location)			
General Description of Remedial	Action:	Soil was excavat	ted and landfarmed on location.
		· · · · · · · · · · · · · · · · · · ·	
Groundwater Encountered:	No: X	Yes:	Depth:
Final Pit	Sample location	:Pit bottom @ 30	feet below surface. Pit
Closure Sampling:	walls were analy	zed for Headspa	ce (see attachment).
(If multiple samples,	<u> </u>		
attach sample results			
and diagram of sample	Sample depth:	30 feet	
locations and depths.)	Sample date:	12/2/98	Sample time: 12:30
Sample Results:	· ·		· · ·
Soil:			Water:
Benzene (ppm)	ND	-	Benzene (ppb)
Total BTEX (ppm)		-	Toluene (ppb)
Field Headspace (ppm)		- Etl	hylbenzene (ppb)
TPH (ppm)		-	ital Xylenes (ppb)
Groundwater Sample:	Yes:	-	No: X
(If yes, attach sample results.)	100.	-	
(ii yes, attacii sample results.)			
I HEREBY CERTIFY THAT TH	IE INFORMATI	ON ABOVE IS T	RUE AND COMPLETE TO
THE BEST OF MY KNOWLED			1102,110 00 12,2 10
	OL AND DEEM	<b>-:</b>	
DATE: 12/8/98			Frank McDonald
21	<b></b> ()		
SIGNATURE LAND	1/15/)//	AND TITLE:	Env. Division Manager
AFTER REVIEW OF THE PIT	CLOSURE IN	ORMATION PI	CLOSURE IS APPROVED
IN ACCORDANCE TO THE JI			
THE ACCORDANCE TO THE CO			02000112 011011111102
APPROVED: Yes:	No:	(Reason)	
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	110	7	
SIGNED M	and	•	DATE: 12-9-98

5			Oi ,	
4			2	
10'		10'		
West	East	South		North
	Pit Profile : East to West :			Pit Profile North to South
		A sample from the center bottom at 30' was sent to IML for GRO/DRO and BTEX analysis.	A sample from the center bottom a for GRO/DRO and BTEX analysis	A sample fro
	Meter Runs	odor,	soil and a strong hydrocarbor odor	soil and a str
	_	5' - 30' Soil is moist gray, sandy loam with gray/green	s moist gray, sand	5'-30' Soil i
		on odor.	staining and a strong hydrocarbon odor	staining and
Laidiel Schaiatol Lit	→ Calula	Top Soil - 5' Soil is moist brown, sandy loam with gray	Sail is moist, brow	Comments. Top Soil - 5'
	]- ]-		12	
Fiberglass Pit	- -		5000 11	TPH Closure Standard:
	< < (iii)		0 10	NMOCD Ranking Score:
	======================================		>1000' 9	Nearest Surface Water:
			>1000' 8	Nearest Water Source:
Production Tank	/ Fiberglass Pit		>100' 7	Depth to Groundwater:
			6	
	Separators	C.Etm@30" 343	5	Yds, Excavated: 650 cy
			deep 4	Final Size: 30' x 20' x 30' deep
Cation Committee			3	Initial Size: 12'x12'x3' deep
Surface Gradient	-	S.Wall@27 313	2	Of wellhead
	-¢	N.Wall@27 170		Reference: 93' S80E
1	Wellhead		Sample #	Pit Separator
		•	- 1	4
			Township: 27N	Range: 3W
7			Section: 26	Quad M
7				Location: Jicarilla 95-4
ampling:	Overview of Location and Sampling:			

Environmental Specialist: BS

**Cimarron Oillield Services** 

Page \_\_l\_\_of\_\_l\_



ie (505) 326-4737 Fax (505) 325-4182

2506 West Main Street, Farmington, NM 87401

# **GASOLINE RANGE ORGANICS - GRO**

# **Energen Resources**

Project ID: Sample ID:

Lab ID:

Jicarilla 95-4 Sep. Pit

C. Bottom @ 30' 0398G06951

Sample Matrix:

Soil

Condition:

Report Date:

12/07/98

Date Sampled: Date Received: 12/02/98 12/02/98

Date Analyzed:

12/03/98

Cool/Intact

TPH GAS-RANGE (MODIEPA 8015) RESULT DETECTION L	

Gasoline-Range Petroleum Hydrocarbons

<10.0

10.0 mg/Kg

ND - Analyte not detected at the stated detection limit.

Reference:

Comments:

# Inter-Mountain Laboratories, Inc.

2506 West Main Street, Farmington, NM 87401

Phone (505) 326-4737 Fax (505) 325-4182

# **DIESEL RANGE ORGANICS - DRO**

# **Energen Resources**

Project ID.

Jicarilla 95-4 Sep. Pit

Sample ID:

C. Bottom @ 30'

Lab ID. Sample Matrix: 0398G06951

Condition:

Soil Cool/Intact Report Date:

12/07/98

Date Sampled:

12/02/98

Date Received:

12/02/98

Date Analyzed:

12/03/98

TPH DESEL RANGE (MOD EPA BOTS)	RESULT	DETECTION LIMIT
And the second s		10.0 mg/Kg

Diesel-Range Petroleum Hydrocarbons

58

10.0 mg/Kg

ND - Analyte not detected at the stated detection limit.

Reference:

Comments:

Phone (506) 326-4737 Fgx (505) 325-4162

2506 West Main Street, Farmington, NM 87401

# **VOLATILE AROMATIC HYDROCARBONS**

### **Energen Resources**

Project ID:

Jicarilla 95-4 Sep. Pit

Report Date: 12/07/98

Sample ID:

C. Bottom @ 30'

Date Sampled: 122/98

Lab ID: Sample Matrix: 0398G06951

12:30

Sample Matrix

Soil

Date Received: 12/02/98
Date Extracted: NA

Condition: Cool/Intact

Date Analyzed: 12/03/98

Time Sampled:

3atgel-Analyze	Caticatration (pph)	Datection: Elmit (upla)
Benzene	ND	1.0
Toluene	1.7	1.0
Ethylbenzene	ND	1.0
m,p-Xylenes	3.8	1.0
o-Xylene	1.3	1.0

ND - Analyte not detected at the stated detection limit.

**Quality Control:** 

Surrogate

Percent Recovery

Acceptance Limits

Bromofluorobenzene

91%

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



# CHAIN OF CUSTODY RECORD

58211	11183 State Hwy. 30 College Station, TX 77845 Telephone (409) 776-8945		1160 Research Drive Bozeman, Montana 59718 Telephone (406) 586-8450	treet 7401 26-4737	/2506 West Main Street Farmington, NM 87401 Telephone (505) 326-4737	cle /2 9 82718 F 682-8945 T	)1 Phillips Ci ette, Wyomir ephone (307)		1633 Terra Avenue Sheridan, Wyoming 82801 Telephone (307) 672-8945	
			es, Inc	oratorie	Inter-Mountain Laboratories, Inc	nter-Mou				
12/98/ 1440		/ig.vus		1						
Date Time	re)	ratory: (Signatu	Received by laboratory: (Signature)	Time	Date		(		Relinquished by: (Signature)	
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Date Time		jnature)	d by: (Sig	Time	Date	/	V		Relinquished by: (Signature)	
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	).	(T) (A)	No. of Contain	Matrix	er	Lab Number	Time	Date	Sample No./	
ırks	Remarks		ers	, so	Chain of Custody Tape No.	Chain o	11/2	-	Sampler: (Signature)	
		/			Sant Landing			1 1 1		
•	ANAI VSES / PARAMETERS	ANA			Project Location		1. Notetion	A Some	Client/Project Name	
						- - - - - -			Laboratories, Inc.	_

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

# ON-SITE SOIL REMEDIATION REPORT

Operator: Taurus Exploration USA Inc.	Telephone:(505) 325 - 6800								
Address: 2198 Bloomfield Hwy, Farmingt	on N.M. 87401								
Facility or Well Name: <u>Jicarilla 95-4</u>									
Location: Unit or Qtr/Qtr Sec_M_Sec_2	26 T 27 N R 3 W County Rio Arriba								
Land Type: Range									
Date Remediation Started: 11/23/98 D	ate Completed: 12/15/98								
Remediation Method: Landfarmed X	Approx. cubic yards650								
Composted									
Other									
Depth to Groundwater: (pts) 0	Final Closure Sampling:								
Distance to an Ephemeral Stream (pts) 0	Sampling Date: <u>12/15/98</u> Time: <u>09:30</u>								
Distance to Nearest Lake,	Sample Results:								
Playa, or Watering Pond (pts)0	Field Headspace (ppm) 39								
Wellhead Protection Area (pts)0	TPH (ppm) <27 Method 8015								
Distance to Surface Water (pts)0	Other: Total BTEX was ND								
RANKING SCORE (TOTAL POINTS): 0									
	OVE IS TRUE AND COMPLETE TO THE BEST OF MY								
KNOWLEDGE AND BELIEF									
DATE: 1/6/99 PRINTED NA	MEVIRGIL CHAVEZ								
SIGNATURE JUJ	AND TITLE ENV. SPECIALIST								
AFTER REVIEW OF THE SOIL REMEDIATION INFO	RMATION. ON-SITE SOIL REMEDIATION IS								
APPROVED IN ACCORDANCE TO THE JECARILLA A APPROVED: YES X NO (REASON)	APACHE IRIBE PIT CLUSURE URDINALYCE.								
	ATE: 1 - 7 - 99								

Environmental Specialist : JE Comments: Soil is moist, pale brown, sandy/loam, with minor visible staining and a slight hydrocarbon odor. A sample from composite # 5 was sent to IML for GRO/DRO and BTEX analysis. Sample # 3 W 12 ᇹ 26 ဖ α თ ഗ Comp 1 Comp 4 Comp 3 Comp 5 Location MVO 26.4 ၽွ 14 12 3 Overview of Landfarm and Sampling surface gradient land farm S S S 4 S S road meter run seperator  $\omega_{N}$ land farm ယ  $\omega_{\omega_N}$ well head meter run N seperator tank production tank seperator pit north

Date Started: November 23, 1998 Date Completed: December 15, 1998

Phone (505) 326-4737 Fax (505) 325-4182

2506 West Main Street, Farmington, NM 87401

# **GASOLINE RANGE ORGANICS - GRO**

### **ENERGEN RESOURCES**

Project ID:

Jicarilla 95-4

Sample ID:

Landfarm Comp #5

Lab ID:

0398G07581

Sample Matrix:

Soil

Condition:

Cool/Intact

Report Date:

12/31/98

Date Sampled:

12/15/98

Date Received:

12/18/98

Date Analyzed:

12/30/98

	OD 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:

Reviewed By

Phone (505) 326-4737 Fax (505) 325-4182

2506 West Main Street, Farmington, NM 87401

# **DIESEL RANGE ORGANICS - DRO**

#### **ENERGEN RESOURCES**

Project ID:

Jicarilla 95-4

Sample ID:

Landfarm Comp #5

Lab ID:

0398G07581

Cool/Intact

Sample Matrix: Condition:

Soil

Report Date:

12/31/98

Date Sampled:

12/15/98

Date Received:

12/18/98

Date Analyzed:

12/30/98

RESULT

**DETECTION LIMIT** 

**TPH DIESEL-RANGE (MOD EPA 8015)**Diesel-Range Petroleum Hydrocarbons

22

5.0 mg/Kg

ND - Analyte not detected at the stated detection limit.

Reference:

Comments:

Reported By:

7 Reviewed By

Phone (505) 326-4737 Fax (505) 325-4182

2506 West Main Street, Farmington, NM 87401

# **VOLATILE AROMATIC HYDROCARBONS**

### **Energen Resources**

01/04/99 Jicarilla 95-4 Report Date: Project ID: 12/15/98 Date Sampled: Landfarm Comp. #5 Sample ID: Time Sampled: 9:30 0398G07581 Lab ID: Date Received: 1218/98 Soil Sample Matrix: Date Extracted: NA Condition: Cool/Intact 12/24/98 Date Analyzed:

Target Analyte	Concentration (ppm)	Detection Limit (ppm)
Benzene	ND	0.5
Toluene	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	1.0
o-Xylene	ND	0.5

ND - Analyte not detected at the stated detection limit.

Quality Control: Surrogate Percent Recovery Acceptance Limits

a,a,a-TFT 93% 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:

Whenyy



# CHAIN OF CUSTODY RECORD

1633 Terra Avenue Sheridan, Wyoming 82801 Telephone (307) 672-8945			Relinquished by: (Signature)	A THE TANK OF THE PROPERTY OF	Relinquished by: (Signature)	Min	Relinquished by: (Signature)						The second secon			PMOHS	Candlaran	Sample No./ Identification		William	Sampler: (Signature)	Client/Project Name	
1701 Phillips Cir Gillette, Wyomin Telephone (307)	ا ا					1/ 0/45	101										12-15-80 1930	Date Time			//9/	770	
2506 We 25718 Farming 32-8945 Telephor	iter-Mountai																	Lab Number			Chain of Custody Tape No.	Project I	
2506 West Main Street Farmington, NM 87401 Telephone (505) 326-4737	Inter-Mountain Laboratories, Inc.		Date Time			1101 35412	Date Time										يم: ا	Matrix			dy Tape No.	Project Location	
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11183 State Hwy. 30 11183 State Hwy. 30 3718 College Station, TX 77845 3450 Telephone (409) 776-8945		lews	by laboratory: (Signature)		ге)		re)										^ X	beo Niex	5 8 8		/ / /	ANALYSES / PARAMETERS	7
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