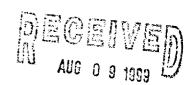
Denny S. Fourt DEPUTY OIL & GAS INSPECTOR

AUG 0 9 1999

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



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 67 # 7 DP # 53081A Unit or Qtr/QTR Sec "D" Sec 7, T 26 N, R 4 W Location: County Rio Arriba Pit Type: Separator: X Deh drator: Land Type: Jicarilla Apache Pit Location: Pit dimensions: length: 14 ft width: 10 ft depth: 2 ft (Attach Diagram) Reference: wellhead: X other: Footage from reference: 108 feet Direction from reference: 140 Degrees East North of 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) 10 high water elevations of groundwater) Less than 100 feet Distance to an Ephemeral Stream: (10 points) (Downgradient dry wash greater than Greater than 100 feet (0 points) 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 (0 points) livestock or wildlife watering ponds) Wellhead Protection Area: Yes (20 points) (Less than 200 feet from a private No (0 points) 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 (0 points) irrigation canals and ditches.) 10 RANKING SCORE (TOTAL SCORE):

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

Pit Remediation and Closure Report

Date Remediation Started:	10/31/96	Date Completed	:	
Remediation Method:	Excavation:	X	Approx. cubic yar	ds: 752
(Check all appropriate	Landfarmed:	X	Insitu Bioremedia	tion:
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:	Excavated conta	aminated material.	
Groundwater Encountered:	No: X	Yes:	Depth:	
Final Pit	Sample location	: See Pit Closure	Verification sheet	
Closure Sampling:				
(If multiple samples,				
attach sample results				
and diagram of sample	Sample depth:	25 ft at	sandstone	
locations and depths.)	Sample date:	11/5/96	Sample time:	11:00 & 12:10
Sample Results:			-	
Soil:		_	Water:	
Benzene (ppm)	1,244 Bottom / 0	0.028 Walls	Benzene (ppb)	
Total BTEX (ppm)	30.125 Bottom /	ND Walls	Toluene (ppb)	
Field Headspace (ppm)	147 Bottom / 15	Four-Wall E	thylbenzene (ppb)	
TPH (ppm)	1,161.5 Bottom	ND Wall To	otal Xylenes (ppb)	
Groundwater Sample:	Yes:	_	No: X	
(If yes, attach sample results.)				
			···	
I HEREBY CERTIFY THAT TH	E INFORMATI	ON ABOVE IS	TRUE AND COM	IPLETE TO
THE BEST OF MY KNOWLED	GE AND BELI	EF		
DATE _11/7/96	PRINTED	NAME Gu	L Garret	SON
1 1 1		,		+
SIGNATURE Supply	AND	TITLE Lea	ic Operator	
AFTER REVIEW OF THE PIT	CLOSURE INF	ORMATION P	IT CLOSURE IS	APPROVED
IN ACCORDANCE TO THE J	ICARILLA APA	CHE TRIBE PIT	CLOSURE ORD	DINANCE
			, ,,	
APPROVED: Yes:	No:	(Reason) Sp	ray / (1056	
SIGNED: Habert 1	1-		DATE: ///8/	96

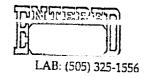
PIT CLOSURE VERIFICATION SHEET

Location: Figure 19 Contractor: Pictus Date Started: 10-	10. 6. 7 t 0 En l Con 5/-96 Dat	asultant Initials:	50.50 June	, <u>A</u> I	ease No.	Cont. # 6	-Tribul
Excavation & Soil Information Dimensions (approx.): Soil Remediated	28' FT.:	x <u>29</u> FT ff Site If off si	.xte name loca	FT. Dec	ep Cubic Y	ards: (bey	752
PIT F	ERIMETER	N	T	p	TT PROFIL	Ē	
					22 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		
*	0 - 3 3 g			298ppm	1	7 F	<u> </u>
me tem	<u> </u>		•	380 ppm	İ] 141 141	
				330 ppm		122	f+
			2	1/7ppin	Sinclston	e 25	<u> </u>
OVM Results:			- h		······································		
Sample ID	1	2 3	4	5	6	7	8
Headspace PID (ppm)		13 147	05	147	6.2	07	
Sample ID	9	10 11	12	13	Comp 1	Comp 2	Comp 3
Headspace PID (ppm)		1			Bottone 14.7	4-100,500.	ή-

Laboratory			
Results:	Betters	4- 2011	
Sample ID	mc-536811-3-5	#16-5 3081A-4-V	
BTEX RM8020 (ppm)	30.125	ND	
TPH RM8015 (ppm)	1161.5	CU	

OFF. (505) 325-5667





TPH - Gasoline / Diesel Range Organics

Attn:

Craig A. Bock

Company: Burlingron Resources

Address:

3535 E. 30th Street

City, State: Farmington, NM 87401

Burlington Resources - Jicarilla 67 #7

Project Name: **Project Location:**

M6-53081A-3V; Bottom @ 25ft.

Sampled by:

JP DC/HR

Date: Date:

5-Nov-96 Time:

7-Nov-96

Date:

COC No .:

Sample No.

Job No.

11:00

7-Nov-96

C2104

12756

2-1000

Analyzed by: Sample Matrix:

Soil

Laboratory Analysis

Parameter		Result	Unit of Measure	Detection Limit	Unit of Measure
Gasoline Range Organics (C5 - C9)		920.1	mg/kg	5.0	mg/kg
Diesel Range Organics (C10 - C28)		241.4	mg/kg	5.0	mg/kg
	TOTAL	1161.5	mg/kg		

Quality Assurance Report

GRO QC No.:

0493-STD

DRO QC No.:

0489-STD

Calibration Check

Parameter	Method Blank	Unit of Measure	True Value	Analyzed Value	% Diff	Limit
Gasoline Range (C5 - C9)	< 50	рріз	1,350	1,343	0.5	15%
Diesei Range (C10 - C28)	<5.0	ppm	100	107	7.1	15%

Matrix Svike

Parameter	1- Percent Recovered	2 - Percent Recovered	Limit	%RSD	Limit
Gasoline Range (C5-C9)	111	92	(70-130)	13	20%
Diesel Range (C10-C28)	90	95	(70-130)	4	20%





LAB: (505) 325 1550

AROMATIC VOLATILE ORGANICS

Attn:

OFF: (505) 325,5667

Craig A. Bock

Company: Burlington Resources

Address:

3535 E. 30th Street

City, State: Farmington, NM 87401

Date:

7-Nov-96 C2104

COC No . Sample No.

12756

Job No.

2-1000

Project Name:

Burlington Resources - Jicarilla 67 #7 M6-53081A-3V; Bottom @ 25ft.

Project Location: Sampled by:

JP

Date: Date: 5-Nov-96 Time:

11:00

Analyzed by: Sample Matrix: DC Soil

6-Nov-96

Laboratory Analysis

Component	-	Result	Units of Measure	Detection Limit	Units of Measure
Benzene		1244.2	ug/kg	0.2	ug/kg
Toluene		971.1	ug/kg	0.2	ug/kg
Ethylbenzene		3697.1	ug/kg	0.2	ug/kg
m,p-Xylene		19586.1	ug/kg	0.2	ug/kg
o-Xylene		4626.7	ug/kg	0.2	ug/kg
	TOTAL	30125.2	ug/ kg		

Method - SW-846 EFA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by:
Date: 11/7/96

OFF: (505) 325-5667



いいいいかいままったっ LAB: (505) 325-1556

AROMATIC VOLATILE ORGANICS

Attn:

Craig A. Bock

Company: Burlington Resources

Address:

3535 E. 30th Street

City, State: Farmington, NM 87401

Date:

7-Nov-96

COC No.:

C2104

Sample No. Job No.

12757 2-1000

Project Name: Project Location:

Rudington Pasources - Jicarille 67 #7 M6-53081A-4V; 4 Wall Composite

Sampled by:

JP

Dato:

S-Nov-36 Time.

12:10

Analyzed by: Sample Matrix:

DC Sail

Date: 6-Nov-96

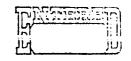
Laboratory Analysis

raramater		Result	Units of Messure	Detection Limit	Units of Messure
<u> Велгеле</u>		<0.2	ug/ka		
Toluene			ug/kg	0.2	ug/kg
Ethyibenzene		9.2	ug/kg	0.2	ug/kg
m,p-Xvlene		4.3	ug/kg	0.2	ug/kg
p-Xylene		12.5	ug/kg	0.2	ug/kg
уле <i>пе</i>		2.3	ug/kg	0.2	ug/kg
	TOTAL	28.3	ug/kg		

Method - SW-846 EPA Method 8020 Arometic Volatile Organics by Gas Chromatography

Approved by: Oate:





LAB: (505) 325-1556

TPH - Gasoline / Diesel Range Organics

Attn:

OFF: (505) 325-5667

Craig A. Bock

Date:

7-Nov-96

Company: Burlington Resources

COC No .:

C2104

Address:

3535 E. 30th Street

Sample No.

12757

City, State: Farmington, NM 87401

Job No.

2-1000

Project Name:

Burlington Resources - Jicarilla 67 #7

Project Location:

M6-53081A-AV; 4 Wall Composite

Sampled by:

Date: Date:

5-Nov-96 Time:

7-Nov-96

12:10

Analyzed by: Sample Matrix:

JP DC/HR Soil

Laboratory Analysis

Parameter-	D	Unit of	Detection (Imit	Unit of
Gasoline Range Organics (C5 - C9)	<5.0	mg/kg	5.0	ma/ka
Diesel Range Organics (C10 - C28)	<5.0	mg/kg	5.0	mg/kg
	TOTAL <5.0	mg/kg		

Quality Assurance Report

GRO QC No.:

0493-STD

DRO QC No.:

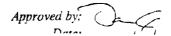
0489-STD

Calibration Check

Parameter	Method Blank	Unit of Measure	True Value	Analyzed Value	% Diff	Limit
Gasoline Range (C5 - C9)	< 50	ppb	1,350	1,343	0.5	15%
Diesel Range (C10 - C28)	< 5.0	ppm	100	107	7.1	15%

Matrix Spike

Parameter	1- Percent Recovered	2 - Petcent Recovered	Limit	%RSD	Limit
Gasoline Range (C5-C9)	111	92	(70-130)	13	20%
Diesel Range (C10-C28)	90	95	(70-130)	4	20%



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

SUBMIT 1 COPY TO NATURAL NESCURCE DEPT AND OIL GAS ADMINISTRATION

ON-SITE SOIL REMEDIATION REPORT

Operator:	RITET TMOTON RESOUR	CES	Telephone:	505) 204 070	
Address:	P.O. BOX 4289, Fa		7.	505) 326-9700	
Facility or W	ell Name: ficacil	10 67 #1	Z DP#.	530814	
Location: Land Type:	Unit: S	iecT.	26 N R. C.	S W County	Re Acriba
Date Remediation Med		31-96	Date Completed:	· · · · · · · · · · · · · · · · · · ·	
	phemeral Stream:	(pts.) / C	Samulia	Final Closure Sam	npling:
Distance to Nea or Watering Pon	rest Lake, Playa, d:	(pts.)	Sampling Date: Sampling Resul		Time
Vellhead Protec		(pts.)	Field Headspa	ICP (ppm)	
Distance to Surfi Ranking Sco	re (Total Points):	(pts.) <u>0</u>	TPH Other	(ppm)	Method
HEREBY CERTIF	Y THAT THE INFORMATION A	NBOVE IS TRUE AND (COMPLETE TO THE BE	ST OF MY KNOWLED	GE AND BELIEF
DATE _		PRINTED NAI	ME		
SIGNATURE		AND	TITLE		
FTER REVIEW OF	THE SOIL REMEDIATION INF TRIBE PIT CLOSURE ORDIN	FORMATION, ON-SITE	REMEDIATION APPRO	OVED IN ACCORDANG	CE TO THE
APPROVED: YES		(REASON)			
SIGNED:		DATE			

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

ON-SITE SOIL REMEDIATION REPORT

Operator: Taurus Exploration USA Inc.	Talanhama (505) 205 (000								
Sportation COA IIIC.	1 elepnone: (505) 325 - 6800								
Address: 2198 Bloomfield Hwy, Farming	gton N.M. 87401								
Facility or Well Name: <u>Jicarilla 67-7</u>									
Location: Unit or Qtr/Qtr Sec G Sec	20 T 25 N R 5 W County Rio Arriba								
Land Type: Range									
Date Remediation Started: 10/31/96 I	Date Completed: 2/3/00								
Remediation Method: Landfarmed X	Approx. cubic yards752								
Composted									
Other									
Depth to Groundwater: (pts) 10	Final Closure Sampling:								
Distance to an Ephemeral Stream (pts) 0	Sampling Date: <u>2/3/99</u> Time: <u>12:00</u>								
Distance to Nearest Lake, Playa, or Watering Pond (pts)0	Sample Results:								
Wellhead Protection Area (pts)0	Field Headspace (ppm) ND								
Distance to Surface Water (pts)0	TPH (ppm) <10 Method 8015								
RANKING SCORE (TOTAL POINTS): 10	Other:								
HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF DATE: 2/11/99 PRINTED NAME VIRGIL CHAVEZ									
SIGNATURE Jus	AND TITLE ENV. SPECIALIST								
AFTER REVIEW OF THE SOIL REMEDIATION INFORMATION. ON-SITE SOIL REMEDIATION IS APPROVED IN ACCORDANCE TO THE JICARILLA APACHE TRIBE PIT CLOSURE ORDINANCE. APPROVED: YESNO (REASON)									
SIGNED DA	TE: 4-5-99								

Environmental Specialist : JE Size: Comments: Soil is moist, pale brown, sandy/loam, with no visible staining or hydrocarbon odor. Yds: Pit: Quad: Reference 120' S 30 W & Township: Location : 4 100' x 50' x 1.5' 130' x 70' x 1.5' 5 - Point Composites 752 Jicarilla 67-7 from wellhead 60' S 55 E Separator Pit A sample from composite # 1 was sent to IML for GRO/DRO analysis. 25 N G Range: Section : Sample # 5 W 12 10 $\stackrel{\boldsymbol{+}}{=}$ 9 ω တ S 20 ω Comp 2 Comp 1 Comp 4 Location MVO B Overview of Landfarm and Sampling Gradi ent North Landfarm Ft Tank Neter Ru Separators Well head Ent rance N 4 ω 4 Net er Fun ω N Landfarm Ŗ N ω N 4 ω N 4



Inter-Mountain Laboratories, Inc.

Project: Jicarilla 67-7

Sample ID: Landfarm Comp #1

0399W00710

Lab ID:

Matrix: Soil

Condition: Cool/Intact 2506 West Main Street, Farmington, NM 87401

Date Reported: 02/05/99 Date Sampled: 02/03/99

Date Received: 02/04/99

Date Analyzed: 02/05/99

Parameter	Analytical Result	PQL	Units	
METHOD 8015 - GRO				
Gasoline Range Organics Gasoline Range Organics as Gasoline	<5 <5	5 5	mg/Kg mg/Kg	

Reference: GRO - USEPA Method for Determination of Gasoline Range Organics, Revision 5, February 1992.

WTPH-G Total Petroleum Hydrocarbons Analytical Methods for Soil, Washington State Department of Ecology, Revision 3, October 1991

Reviewed By

Sharon Willams, Organic Lab Supervisor



Inter Mountain Laboratories, Inc.

Project:

Jicarilla 67-7

Sample ID:

Landfarm Comp #1

Lab ID:

0399W00710

Matrix:

Soil

Condition:

Cool/Intact

2506 West Main Street, Farmington, NM 87401

Date Reported: 02/10/99 Date Sampled: 02/03/99

Date Received: 02/04/99

Date Analyzed: 02/08/99

Parameter	Analytical Result	PQL	Units	
METHOD 8015 - DRO				
Diesel Range Organics	< 5	5	mg/Kg	
Diesel Range Organics as Diesel	<5	5	mg/Kg	
Quality Control - Surrogate Recovery	%	QC Limits		
o-Terphenyl(SUR-8015)	120	70 - 1		

Reference: DRO - USEPA Method for Determination of Diesel Range Organics. Revision 2, February 1992.

WTPH-D To:al Petroleum Hydrocarbons Analytical Methods for Soil, Washington State Department of Ecology, Revision 3, October 1991.

Reviewed By:

Sharon Willams, Organic Lab Supervisor



CHAIN OF CUSTODY RECORD

1633 Terra Avenue Sheridan, Wyoming 82801 Telephone (307) 672-8945		Relinquished by: (Signature)	Relinquished by: (Signature)	willia !	Relinquished by: (Signature)								100	Candlein Com	Sample No./ Identification	Willias	Enjer CON Sampler: (Signature)	Client/Project Name
1701 P Gillette,			(In the	8									2-3-99	Date		7 5	
ITICH TI	5											i		1700	Time			
Telephone (505) 326-4737 TICE - IVIOUTILATIT LADOFALOTIES, INC. THE CHART CONTROL INC. THE CHART CO	Ž.														Lab Number		Chai	
2506 West Farmington Telephone				~							/				nber		Chain of Clustody Tana No.	Project
LI Italii Laborato 2506 West Main Street Farmington, NM 87401 Telephone (505) 326-4737	T Garage	3	Date	7-4-99	Date					4				50-		, apo	C (Project Location
et 4737		1	Time	(33)	Time										Matrix		67-7	
S, INC. 1160 Research Drive Bozeman, Montana 59718 Telephone (406) 586-8450	Heceived by laboratory: (Signature)		Received by: (Signature)		Received by: (Signature)										No. of Contai		1	
9 59718 -8450	ory: (Signal		ture)		ture)		- (a	77	,0	 				X	(80)	2015	A	
11183 State Hwy. 30 College Station, TX 77845 Telephone (409) 776-8945	es Till FADMINGTON								7								ANALYSES / PARAMETERS	
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53037	24-99		Date	5	Date	931.74								5		Remarks	RS	
)37	Time 1330		Time		Time													