Form 3160-5 \*(December 1989)

### **UNITED STATES** DEPARTMENT OF THE INTERIOR **BUREAU OF LAND MANAGEMENT**

FORM APPROVED Budget Bureau No. 1004-0135 Expires: September 30, 1990

6. If Indian, Allottee or Tribe Name

5. Lease Designation and Serial No. SF-078214

### SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill, deepen or reentry to a different reservoir. Hee 'APPLICATION FOR DERMIT" for such proposals

		U:	SE AFFLICATION FOR PE	COMP TO Such prope	5415				
									7. If Unit or CA, Agmt. Design.:
			SUBMIT IN TRIPLICA	TE					
1.	Type of Well:	oil well	gas well	X othe	r				8. Well Name and No.:
2.	Name of Operator:		Energen Resources	3					McCord 8E
3.	Address of Operator:		2198 Bloomfield Hw	y. Farmington,	NM	87401			9. API Well No.:
4.	Location of Well: (Foo	otage, Sec	, T., R., M., or Survey Descr	iption)					30-045-26161
1	016' FSL & 834	' FEL	Sec. 28	T 30	N	R	13	<b>w</b>	10. Field & Pool/Exploratory Area:  Basin Dakota
					+ + <b>*</b> c				11. County or Parish, State: San Juan, New Mexico

12.	CHECK APPROPRIA	ATE BOX(s) TO	INDICATE NATURE	OF NOTICE, REPORT, OF	R OTHER DATA
	TYPE OF SUBMISSION	D IS A		TYPE OF AC	TION
	Notice of Intent	DE G	EUV EIII	Abandonment	Change of Plans
		YON DE	1 7 19 <del>99 9</del>	Recompletion	New Construction
	X Subsequent Report	. 8100		Plugging Back	Non-Routine Fracturing
			OM. DIV	Casing Repair	Water Shut-Off
	Final Abandonment N		M. 9	Altering Casing	Conversion to Injection
			X	Other: Production	Tank Spill
	٠,			(Note: Report results of	of multiple completion on Well
			<u> </u>	Completion or Recomp	eletion Report and Log form.)

On 9/8/98, a production tank spill occurred due to vandalism (the load valve had been opened). The spill area was excavated to a depth of 25 feet. A depth of 42 feet was reached utilizing a Geoprobe, where bedrock was encountered. Soil samples were taken at 12 feet, 25 feet, and 40 to 42 feet, which provided BTEX and TPH concentrations below NMOCD and BLM guidelines. Soils were landfarmed on location and also on the McCord 13E location. The landfarm was tested on 8/27/99, and a composite sample provided a TPH concentration below NMOCD and BLM guidelines. See the attached for complete details.

14. Thereby certify that the foregoing is true and correct.  Signed:	Gary Brink	Title: <b>Production Superintendent</b>	Date: 10 21 99	
(This space for Federal or State office use)  Approved by  Conditions of approval, if any:	Title	Date		

<sup>13.</sup> DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

Energen Resources Inc.
McCord # 8 E
September 98 Spill
1850' FSL & 790' FEL
Unit Letter "P" of Section 28, T-30-N, R-13-W
NMPM, San Juan County, New Mexico

A 190-bbl spill of produced hydrocarbons was estimated to have occurred on September 8, 1998 and was reported on September 10, 1998. The spill is attributed to vandalism (load valve removed from production tank). Liquid hydrocarbons escaped through the removed load valve and migrated towards the existing lined pit tank and south-southeast. Liquid hydrocarbons exited the existing bermed area and migrated on location and along the access road. Liquid hydrocarbons did not reach any waterways.

On September 16, 1998 Cimarron Environmental Services began excavation of the spill area. Excavation of the spill area continued until practical extent was achieved. Quality Assurance/Quality Control (QA/QC) was conducted utilizing continual headspace analysis during excavation. All hydrocarbon staining was removed and landfarmed onsite. During removal of the lined fiberglass pit, black heavy staining occurred. The heavy black staining was not believed to be associated with the recent spill, but was excavated to a depth of 25 feet to achieve closure. The site was assessed utilizing a Geoprobe mounted on a one-ton pickup. Test holes were drilled to bedrock. Test hole # 1 was drilled within the immediate spill area. Test holes # 2, and # 3 were drilled between the spill area and an adjacent ephemeral stream (see attached diagram). Each test hole was analyzed utilizing headspace protocol. Results of the sampling follows:

Test Hole	# 1	Test Hole	# 2	Test Hole	# 3
Depth (feet)	Results (ppm)	Depth (feet)	Results (ppm)	Depth (feet)	Results (ppm)
5	2.2	5	25	5	1.7
10	1.8	10	21	10	8.6
15	Non-detect	15	35	15	Non-detect
20	5.4	20	79	20 (bedrock)	22
25	348	25	4		
30	372	30 (bedrock)	Non-detect		
35	276				
42 (bedrock)	156				

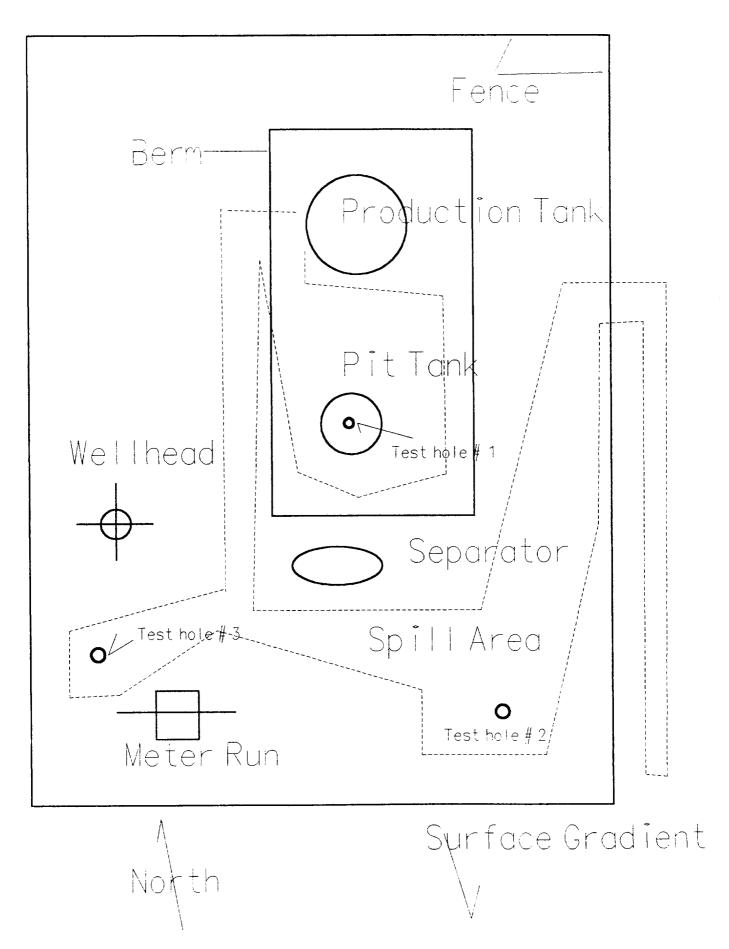
A sample from test hole #1 at bedrock was submitted to Inter-Mountain Laboratories (IML) for Gasoline Range Organics (GRO)/Diesel Range Organics (DRO) analysis (USEPA Method 8015) and Benzene, Toluene, ethyl-Benzene, and Xylenes (BTEX) analysis (USEPA Method 8020). Results of the analysis are attached.

Landfarm sampling was provided by Cimarron Environmental Services on August 27,1999. Nine 5-point samples were extracted and analyzed. Results of Sample 15

provided a GRO/DRO concentration of <161 parts per million (ppm) and a Headspace concentration of 12 ppm.

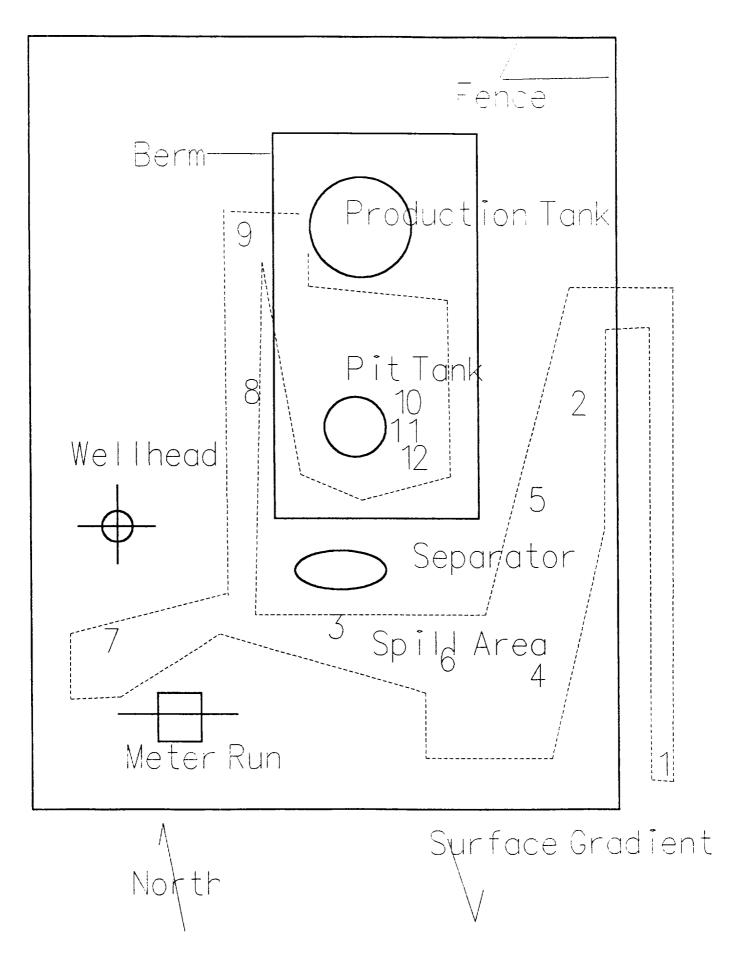
Having determined lateral and vertical extent as well as achieving action levels below NMOCD and BLM requirements, this area should be considered to have reached "final closure". Energen Resources Inc. has removed and remediated all soils to the extent practical. By filling the excavation, and installation of a permanent liner, the driving force created by additional fluids will be eliminated. Based on this information and the physical location of the original spill, there is little to no risk to human health and environment.

# Energen Pesquinces - McCord 8 E



					Overview of Location and Sampling:
Location: McCord # 8 E	Ш				
1					
Quad: P	Section:	28			
Township: 30 N	Range:	13 W			
Pit : Soill		Sample #	Location	OVM	
Reference: 50' West		_	@ 5 feet	58	
from wellhead	ad	2	@ 10 feet	63	SEE ATTACHED DIAGRAM
Initial Size :		က	@ 4 feet	12	
Final Size		4	@ 12 feet	436	
Yds, Excavated: 1500 cy	>	5	@ 8 feet	78	
	•	9	@ 8 feet	56	
Depth to Groundwater:	>100'	7	@ 10 feet	24	
Nearest Water Source:	>1000,	8	@ 5 feet	89	
Nearest Surface Water:	>1000,	6	@ 12 feet	24	
NMOCD Ranking Score:	0	10	@ 20 feet	765	
TPH Closure Standard:	2000	11	@ 25 feet	348	
		12	@ 40-42 feet	156	
Sample # Location	MVO	Sample #	Location	δ	
1					
Comments:	om #4.#11.a	nd # 12 area	as sent to IML fo	or BTEX ar	Samples from #4 #11, and #12 areas sent to IML for BTEX and GRO/DRO analysis.
Soil is light	Soil is light brown sandy loam	loam			
Bedrock en	countered @	42 feet. De	Bedrock encountered @ 42 feet. Depth was reached utilizing Geoprobe.	d utilizing	Geoprobe.
Heavy blac	k staining was s nit leakage	s apparent un Black stain	nder tiberglass ing mav be due	pit removes	Heavy black staining was apparent under tiberglass pit removal. There was no evidence of the parties of lack staining may be due to previous usage as an earthen pit.
				-	
·					

# Energen Pesources - Modard & E



2506 W. Main Street Farmington, New Mexico 87401

Frank McDonald Cimarron Oilfield Service Co. P. O. Box 3235 Farmington, NM 87401 October 27, 1998

Mr. McDonald:

Enclosed, please find the reports for the samples submitted for Taurus Exploration to our laboratory for analysis on October 14, 1998.

If you should have any questions about the results of these analyses, please don't hesitate to call at your convenience.

We appreciate your business!

Sharob Williams

Organics Lab Supervisor

Enclosure

xc: File

# Taurus Exploration U.S.A., Inc.

### Case Narrative

On October 14, 1998, one soil sample was submitted to Inter-Mountain Laboratories - Farmington for analysis. The sample was received intact. The sample was identified by project "McCord 8E-Spill". Total Petroleum Hydrocarbons as Diesel Range Organics (DRO); Gasoline Range Organics (GRO); Benzene-Toluene-Ethylbenzene-Xylenes (BTEX) was performed on the sample as per the accompanying Chain of Custody form.

DRO analysis on the sample was performed by Method DRO - USEPA Method for Determination of Diesel Range Organics, Revision 3, 05/08/92. WTPH - D Total Petroleum Hydrocarbons Analytical Methods for Soil, Washington State Department of Ecology, Revision 3, October 1991.

GRO analysis on the sample was performed by Method GRO-USEPA Method for Determination of Gasoline Range Organics, Rev.5, Feb. 1992. WTPH-G Total Petroelum Hydrocarbons Analytical Methods for Soil, Washington State Dept. of Ecology, Rev. 6, 1991.

BTEX analysis on the sample was performed by EPA method 5030B, Purge and Trap, and EPA Method 8021B, Aromatic Volatile Hydrocarbons, using and OI Analytical 4560 Purge and Trap and a Hewlett Packard 5890 Gas Chromatograph, equipped with a photoionization detector.

It is the policy of this laboratory to employ, whenever possible, preparatory and analytical methods which have been approved by regulatory agencies. The methods used in the analyses of the sample reported herein are found in <u>Test Methods for Evaluation of Solid Waste</u>, SW-846,USEPA, 1986 and <u>Methods for Chemical Analysis of Water and Waste</u>, EPA-600/4 -79-020, USEPA, 1983.

Quality control reports appear at the end of the analytical package and may be identified by title. If there are any questions regarding the information presented in this package, please feel free to call at your convenience.

Sharon Williams Organic Analyst

2506 W Main Street Farmington, New Mexico 87401

# **GASOLINE RANGE ORGANICS - GRO**

Taurus Exploration U.S.A., Inc.

Project ID:

McCord 8E-Spill

Report Date: 10/27/98

Sample ID:

Center Bottom @ 40-42'

Date Sampled: 10/13/98

Lab ID: Sample Matrix: 0398G06047 Soil

Date Received: 10/14/98 Date Analyzed: 10/15/98

Condition:

Cool/Intact

Gasoline-Range Petroleum Hydrocarbons

110

5.0 mg/kg

ND - Analyte not detected at the stated detection limit.

Reference:

Comments:

2506 W. Main Street Farmington, New Mexica 87401

## **DIESEL RANGE ORGANICS - DRO**

# Taurus Exploration U.S.A., Inc.

Project ID: Sample ID: McCord 8E-Spill

Report Date:

10/27/98

Sample ID: Lab ID: Center Bottom @ 40-42' 0398G06047

Date Sampled: Date Received: 10/13/98 10/14/98

Sample Matrix:

Soil

Date Analyzed:

10/20/98

Condition:

Cool/Intact

Diesel-Range Petroleum Hydrocarbons

1,085

5.0 mg/kg

ND - Analyte not detected at the stated detection limit.

Reference:

Comments:

Reported By:

Reviewed By:

## **VOLATILE AROMATIC HYDROCARBONS**

Taurus Exploration U.S.A., Inc.

Project ID:

McCord 8E-Spill

Report Date:

10/16/98

Sample ID:

Center @ 40-42'

Date Sampled:

10/13/98

Lab ID:

0398G06047

Time Sampled:

9:50am

Sample Matrix:

Soil

Date Received:
Date Extracted:

10/14/98 NA

Condition:

Cool/Intact

Date Analyzed:

10/15/98

Target Analyte	Concentration (ppb)	Detection Limit (ppb)
Benzene	1,252	10.0
Toluene	4,152	50.0
Ethylbenzene	2,913	50.0
m,p-Xylenes	26,342	50.0
o-Xylene	9,468	50.0

ND - Analyte not detected at the stated detection limit.

**Quality Control:** 

Surrogate

Percent Recovery

Acceptance Limits

Bromofluorobenzene

100%

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

48	Remarks					Aluch have	100140		Date Time	1/613		Date   Time		56635
ANALYSES / PARAMETERS	Ren Ren	EL STATE				11   000				110 (CO) (NO		alure)		11183 State Hwy. 30 College Station, TX 77845 Telephone (409) 776-8945
A /	ON	No. of Contain	\ \ \						Received by: (Signature)	2 Kaye Ct	Heceived by: (Signature)	Received by laboratory: (Signature)		1160 Research Drive Bozeman, Montana 59718 Telephone (406) 586-8450
Project Location	dy Tape No.	Matrix	Soul						Date Time Receive	1	bate time Heceive $/\mu/f_{Q_1}$ 1340	Time	Inter-Mountain Laboratories, Inc.	2506 West Main Street 1160 Res Farmington, NM 87401 Bozemar Telephone (505) 326-4737 Telephon
Project	Chain of Custody Tape No.	Lab Number				/ ;	9			P			Inter-Mountai	
NOTAND	M	Date Time	076 AN		/				00	E Company	100010			[7] 1701 Phillips Circle Gillette, Wyoming 82718 Telephone (307) 682-8945
Cilent/Broject Name	Wre)	Sample No./ Identification Da	Jana 0 10. 12 0/1						Relinguarhed by: (Signeture)	14	Beinquished by: (Signature)	Relinquished by: (Signature)		1633 Terra Avenue Sheridan, Wyoming 82801 Telephone (307) 672-8945

			:	! :		Overview	Overview of Landfarm and Sampling:	and Sa	mpling				
Location:	McCord 8E	McCord 8E (Soils landfarmed on McCord 13E	med on McC	ord 13E)				4	145 ft			į	
						9	2 9	7	α	α	6		
Quad:	۵	Section:	28				9		α		) თ	35	
Township	30N	Range:	13W			9	2 9	7	ω	တ တ			Surface
Pit	Production Tank Spill	Tank Spill	Sample #	Location	OVM	ري د	3		÷	10 ft			Gradient
Reference:	Reference: 30 feet N 30 degrees E	) degrees E	7	Comp. 1	3.7		က	40 ft			<b>-</b>	Tank	
	of wellhead	)	3	Comp. 3	QN	S	Ĺ						
; ! !		<u>;</u>	4	Comp. 4	3	30	4 48 ft				Δ.	<u>.</u>	
Size.	Approximately 80' x 205' x 3' deep	aly 3' doon	ဂ ဖ	Comp. 5	0.0	S 4	40	ф			- <u>                                    </u>	Tank	
	× 007 × 00	daen o	2	Comp. 7	9 4		ft	Wellhead					
Cubic Yds:	1,800		. 8	Comp. 8	S S		9	<b>#</b>	\ \				
	-		တ	Comp. 9	6.6	က	3 2	7			Sep	Separator	
6	5 - Point Composites	mposites	10						•		-		
	•		11			٠ -	C	*	<u> </u>				
			12			) 	7	-	ft		-		
						ო	3 2	2			J	 <b>⊠</b>	Meter Run
							80 ft		]	_	-		
										Entrance	8		
Comments	1.1	Soil is moist and sandy.											
Environmer	Environmental Specialist : RB	t : RB											

Energen Resources, Inc.

Client

					Overview of Landfarm and Sampling :
Location:	McCord 8E				
	P Section:	28			10 1011 1112 12 13 13 14 14 15 15 16 16 17 17 18
Township:	30N Range:	13W			To 11 12 13 14 15 16 1/ 00 The state of the
Pi:	Production Tank Spill	Sample #	Location 10	WAO	Wellhead 10
Reference:	Reference: 25 feet N 68 degrees W of wellhead	3 2	Comp. 11	S S 5	Meter 85 ft
Size:	Approximately	4 5 9	Comp. 13 Comp. 14	2.4	Run
Cubic Yds:	1,500	8	Comp. 16 Comp. 17		Surface Gradient Surface Gradient Tank
80	5 - Point Composites	6 1			
		12			
					Entrance
Comments	Soil is moist and sandy.				
	A soil sample from Composite 15 was ser	posite 15 wa	as sent to In	ter-Mount	nt to Inter-Mountain Labs for DRO/GRO analysis.
Environme	Environmental Specialist : RB				

Date Started: June 22, 1999 Date Completed: August 27, 1999

Energen Resources, Inc.

Client :

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

2506 West Main Street, Farmington, NM 8740:

Frank McDonald Cimarron Oilfield Service Co. P. O. Box 3235 Farmington, NM 87401 September 8, 1999

Mr. McDonald:

Enclosed please find the reports for the sample submitted for Energen Resources to our laboratory for analysis on August 30, 1999.

If you have any questions about the results of these analyses, please don't hesitate to call at your convenience.

Thank you for choosing IML for your analytical needs!

Sincerely

Sharoh-Williams

Organics Lab Supervisor

**Enclosure** 

xc: File

2506 West Main Street, Farmington, NM 87401

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

### ENERGEN RESOURCES

### Case Narrative

On August 30, 1999, one soil sample was submitted to Inter-Mountain Laboratories -Farmington for analysis. The sample was received intact. Total Petroleum Hydrocarbons as Diesel Range Organics (8015 DRO); Gasoline Range Organics (8015 GRO) was performed on the sample as per the accompanying Chain of Custody form.

It is the policy of this laboratory to employ, whenever possible, preparatory and analytical methods which have been approved by regulatory agencies. The methods used in the analyses of the sample reported herein are found in "Test Methods for Evaluation of Solid Waste: Physical/Chemical Methods", SW-846, USEPA, November, 1986.

Quality control data appear on the analytical report and may be identified by title. If there are any questions regarding the information presented in this package, please feel free to call at your convenience.

Organic Analyst / IML- Farmington



Inter-Mountain Laboratories, Inc.

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

2506 West Main Street, Farmington, NM 87401

Client:

**Energen Resources** 

Project:

McCord 8E

Sample ID:

Sample #15

Lab ID:

0399W04526

Matrix:

Soil

Condition:

Warm

Date Reported: 09/08/99

Date Sampled: 07/27/99

Date Received: 08/30/99

Date Analyzed: 09/07/99

Parameter	Analytical Result	PQL	Units
Diesel Range Organics - EPA Method 80			<del></del>
Diesel Range Organics	156	5	mg/Kg
Diesel Range Organics as Diesel	156	5	mg/Kg
Total Extractable Hydrocarbons	172	5	mg/Kg
Quality Control - Surrogate Recovery	%	QC Li	mits
o-Terphenyl(SUR-8015)	128	70 -	130

Reference: SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, November, 1986.

Reviewed F

Sharen Willams, Organic Lab Supervisor



Inter-Mountain Laboratories, Inc.

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

2506 West Main Street, Farmington, NM 87401

Client:

**Energen Resources** 

Project:

McCord 8E

Sample ID:

Sample #15 0399W04526

Lab ID: Matrix:

Soil

Condition:

Warm

Date Reported: 09/07/99

Date Sampled: 07/27/99

Date Received: 08/30/99

Date Analyzed: 09/03/99

Analytical Result	PQL	Units		
	<u> </u>	<del></del>		
<5	5	mg/Kg		
<5	5	mg/Kg		
<5	5	mg/Kg		
%	QC Limits			
125	70 - 130			
115	70 - 130			
	Result	Result         PQL           <5		

Reference: SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection

Agency, November, 1986.

GRO/USEPA Method for Determination of Gasoline Range Organics, Revision 5, February 1992.

Reviewed By

Sharon Willams, Organic Lab Supervisor

	(0)	arks							<b>/</b>  -	8	Date	8-3099 1346		<b>8</b> 1887
Ω	ANALYSES / PARAMETERS	Remarks	1/00%	**						Signalated Committee	(ature)	atory: Signature)		treet 11183 State Hwy. 30 7401 College Station, TX 77845 26-4737 Telephone (409) 776-8945
OF CUSTODY RECORD	Project Location #8E		-Matrix	Jac						8 pate Time Received by: (Sign	Date Time Received by: (Signature)	Date Time Required by laboratory:	Inter-Mountain Laboratories, Inc.	1701 Phillips Circle 2506 West Main Street Gillette, Wyoming 82718 Farmington, NM 87401 Telephone (505) 326-4737
CHAIN	Project I	Chain of Custody Tape No.	te Time Lab Number	8/27/99 0937 0394WB4526									Inter-Mountai	1501 Pt 1633 Terra Avenue 1701 Pt Sheridan, Wyoming 82801 Gillette, Telephone (307) 672-8945 Telepho
Laborationes, Inc.	Client/Project Name	Sampler: (Signature)	Sample No./ Identification Da	Sample #15 8/27						Refinquished by: (Signature)	<b>9</b>	Refinquished by: (Signature)		555 Absaraka Sheridan, Wyoming 82801 Telephone (307) 674-7506