

District I

P.O. Box 1980, Hobbs, NM

District II

P.O. Drawer DD, Artesia, NM 88211

District III

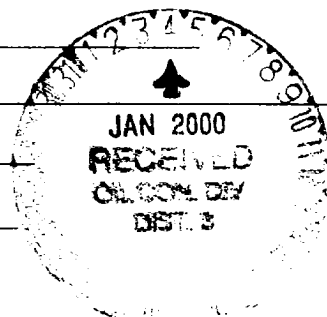
1000 Rio Brazos Rd, Aztec, NM 87410

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088SUBMIT 1 COPY TO
APPROPRIATE
DISTRICT OFFICE
AND 1 COPY TO
SANTA FE OFFICEPIT REMEDIATION AND CLOSURE REPORTOperator: Energen Resources (Taurus Exploration) Telephone: (505) 326-6131Address: 2198 Bloomfield Highway Farmington, NM 87401Facility Or: McCroden A #1

Well Name

Location: Unit or Qtr/Qtr Sec A Sec 9 T 25N R 3W County Rio ArribaPit Type: Separator Dehydrator Other Production UnitLand Type: BLM State Fee X Other Pit Location: Pit dimensions: Length 35 ft, width 20 ft, depth 20 ft
(Attach diagram)Reference: wellhead X other Footage from reference: 150 ftDirection from reference: 20 Degrees East North X
of
X West South 

Depth to Ground Water: (vertical distance from contaminants to seasonal highwater elevation of ground water)	<u>>100 feet</u>	<u> </u> Less than 50 feet	(20 points)	<u> </u>
		<u> </u> 50 ft to 99 feet	(10 points)	<u> </u>
		<u>X</u> Greater than 100 feet	(0 points)	<u>0</u>

Wellhead Protection Area: (less than 200 feet from a private domestic water source, or: less than 1000 feet from all other water sources).	<u> </u> Yes	(20 points)	<u> </u>
	<u>X</u> No	(0 points)	<u>0</u>

Distance to Surface Water: (Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, irrigation canals and ditches.)	<u> </u> Less than 200 feet	(20 points)	<u> </u>
	<u> </u> 200 feet to 1000 feet	(10 points)	<u> </u>
	<u>X</u> Greater than 1000 feet	(0 points)	<u>0</u>

P:\pits\PrC@_WK3

RANKING SCORE (TOTAL POINTS): 0

Date Remediation Started: 8/25/98 Date Completed: 1/27/99

Excavation X Approx. cubic yards 500

Landfarmed X Insitu Bioremediation _____

Other _____

Remediation Method: Onsite X Offsite _____

(Check all appropriate
sections)

General Description of Remedial Action : On 8/26/98, the pit was excavated to a depth of 20 feet.
A soil sample was obtained from the west wall of the pit at a depth of 18 feet utilizing
U.S.E.P.A. protocol and sent to IML for BTEX and GRO/DRO analysis. Excavated soils
were landfarmed on site. On 1/27/99, the landfarm was tested and provided concentrations
below NMOCD guidelines.

Ground Water Encountered: No X Yes _____ Depth _____

Final Pit:

Closure Sampling:
(if multiple samples,
attach sample results

and diagram of sample
locations and depths)

Sample location West Wall

Sample depth 18 feet

Sample date 8/26/98

Sample time 12:10

Sample Results

Benzene(ppm) 0.260

Total BTEX (PPM) 137.130

Field Headspace (ppm) 165

TPH <42

Ground Water Sample: Yes _____ No X (if yes, attach sample results)

I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETED TO THE BEST
OF MY KNOWLEDGE AND BELIEF.

DATE 12/22/99 PRINTED NAME Virgil Chavez

SIGNATURE Virgil Chavez and TITLE Environmental Specialist

Location : McCroden A # 1		Overview of Location and Sampling :																																								
Quad : A	Section : 9																																									
Range : 3W	Township: 25 N																																									
Pit : Production Unit Reference : 150' N 20 W from wellhead Initial Size : 15' x 15' x 2' deep Final Size : 35' x 20' x 20' deep Yds. Excavated : 500 cy Depth to Groundwater: >100' Nearest Water Source: >1000' Nearest Surface Water: >1000' NMOCD Ranking Score: 0 TPH Closure Standard: 5000																																										
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Sample #</th> <th>Location</th> <th>OVM</th> </tr> </thead> <tbody> <tr><td>1</td><td>N Wall @ 18'</td><td>62</td></tr> <tr><td>2</td><td>S Wall @ 18'</td><td>43.2</td></tr> <tr><td>3</td><td>E Wall @ 18'</td><td>106</td></tr> <tr><td>4</td><td>W Wall @ 18'</td><td>165</td></tr> <tr><td>5</td><td>C Bottom @ 20'</td><td>71</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	OVM	1	N Wall @ 18'	62	2	S Wall @ 18'	43.2	3	E Wall @ 18'	106	4	W Wall @ 18'	165	5	C Bottom @ 20'	71	6			7			8			9			10			11			12			Comments : Top soil - 8' Soil is moist, dark brown, sandy/loam with black staining and a strong hydrocarbon odor. 8' - 20' Soil is moist, brown, clay/loam with no staining and a slight hydrocarbon odor. Excavation was limited on west wall due to separator A sample from the west wall at 18' was sent to IML for GRO/DRO and BTEX analysis.	
Sample #	Location	OVM																																								
1	N Wall @ 18'	62																																								
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10																																										
11																																										
12																																										
Pit Profile : North to South : North 1 5 South 2 5		Pit Profile : East to West : East 3 5 West 4 5																																								

Diesel Range Organic - DRO**Taurus Exploration U.S.A., Inc.**

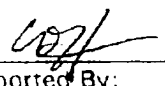
Project ID:	McCroden A#1 Sep. Pit	Report Date:	09/09/98
Sample ID:	W. Wall @ 18'	Date Sampled:	08/26/98
Lab ID:	0398G04970	Date Received:	08/27/98
Sample Matrix:	Soil	Date Analyzed:	09/04/98
Condition:	Cool/Intact		

TPH DIESEL-RANGE (MOD EPA 8015)	RESULT mg/Kg	DETECTION LIMIT
Diesel-Range Petroleum Hydrocarbons	< 5.0	5.0 mg/kg
Total Extractable Petroleum Hydrocarbons	400	5.0 mg/kg

Quality Control:	Surrogate	Percent Recovery	Acceptance Limits
	<u>O-Terphenyl</u>	<u>118%</u>	<u>70-130%</u>

Comments: Hydrocarbon pattern appears to be gasoline.

Reference: USEPA Manual SW-846, Methods, 3510,3550a, 8015Mod, Revision 2, 1996.
Hydrocarbons in Soil - 8015AZ, Revision 0, 1998.


Reported By:


Reviewed By:

COPY

GASOLINE RANGE ORGANICS - GRO

Taurus Exploration U.S.A., Inc.

Project ID:	McCroden A #1 Sep. Pit	Report Date:	09/01/98
Sample ID:	W. Wall @ 18'	Date Sampled:	08/26/98
Lab ID:	0398G04970	Date Received:	08/27/98
Sample Matrix:	Soil	Date Analyzed:	08/28/98
Condition:	Cool/Intact		

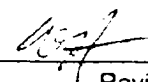
TPH GAS-RANGE (MOD EPA 8D15)	RESULT	DETECTION LIMIT
Gasoline-Range Petroleum Hydrocarbons	37	5.0 mg/kg

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: McCroden A #1 Sep. Pit
Sample ID: W. Wall @ 18'
Lab ID: 0398G04970
Sample Matrix: Soil
Condition: Cool/Intact

Report Date: 09/01/98
Date Sampled: 08/26/98
Time Sampled: 12:10
Date Received: 08/27/98
Date Extracted: NA
Date Analyzed: 08/28/98

Target Analyte	Concentration (ppb)	Detection Limit (ppb)
Benzene	260	100
Toluene	9150	500
Ethylbenzene	65,875	500
m,p-Xylenes	35,980	500
o-Xylene	25,865	500

ND - Analyte not detected at the stated detection limit.

Quality Control:	<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Acceptance Limits</u>
	Bromofluorobenzene	*	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: *Surrogate recovery failed due to matrix interferences.



Analyst



Review

COPY



CHAIN OF CUSTODY RECORD

COPY

Client/Project Name		Project Location		Separate for		ANALYSES / PARAMETERS								
Taurus Exploration USA Inc		McCracken A #1		P.T.										
Sampler: (Signature)		Chain of Custody Tape No.				Remarks								
Sample No./ Identification	Date	Time	Lab Number	Matrix	No. of Containers	X-15 X-20 PTX								
10-11-11-11-11-11	5/24/83	12:10		Soil	1	X								
[Large diagonal line across the table]														
Relinquished by: (Signature)	Date	Time	Received by: (Signature)		Date	Time								
[Signature]	5/24/83	14:20	[Signature]		5/24/83	14:21								
Relinquished by: (Signature)	Date	Time	Received by: (Signature)		Date	Time								
[Signature]	8-27-88	10:47	[Signature]											
Relinquished by: (Signature)	Date	Time	Received by laboratory: (Signature)		Date	Time								
[Signature]			[Signature]											

Inter-Mountain Laboratories, Inc.

☐ 1633 Terra Avenue Sheridan, Wyoming 82801 Telephone (307) 672-8945	☒ 1701 Phillips Circle Gillette, Wyoming 82718 Telephone (307) 682-8945	☒ 2506 West Main Street Farmington, NM 87401 Telephone (505) 326-4737	☐ 1160 Research Drive Bozeman, Montana 59718 Telephone (406) 586-8450	☐ 11183 State Hwy. 30 College Station, TX 77845 Telephone (409) 776-8945
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54123

Date Started : August 25, 1998 Date Completed : January 27, 1999

Ranking Score : 0_Closure Standard : 5000 ppm



Inter-Mountain Laboratories, Inc.

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

2506 West Main Street, Farmington, NM 87401

Client: Energen Resources

Project: McGroden A #1

Sample ID: Landfarm Comp #2

Lab ID: 0399W00621

Matrix: Soil

Condition: Warm

Date Reported: 02/02/99

Date Sampled: 01/27/99

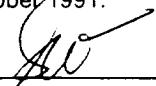
Date Received: 01/27/99

Date Analyzed: 02/01/99

Parameter	Analytical Result	PQL	Units
METHOD 8015 - DIESEL RANGE ORGANICS			
Diesel Range Organics	<5	5	mg/Kg
Diesel Range Organics as Diesel	<5	5	mg/Kg
Quality Control - Surrogate Recovery			
o-Terphenyl(SUR-8015)	71	70 - 130	

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

WTPH-D 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.

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

2506 West Main Street, Farmington, NM 87401

Client: Energen Resources

Project: McGroden A #1

Sample ID: Landfarm Comp #2

Lab ID: 0399W00621

Matrix: Soil

Condition: Warm

Date Reported: 01/29/99

Date Sampled: 01/27/99

Date Received: 01/27/99

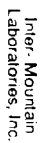
Date Analyzed: 01/28/99

Parameter	Analytical Result	PQL	Units
BTEX - METHOD 8021B			
Benzene	20	10	ppb
Toluene	<50	50	ppb
Ethylbenzene	<50	50	ppb
Xylenes (total)	171	50	ppb
GRO - METHOD 8015			
Gasoline Range Organics	13	5	mg/Kg
Gasoline Range Organics as Gasoline	<5	5	mg/Kg

Reference: Method 8021, Volatile Organic Compounds, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, United States Environmental Protection Agency, SW-846, Volume IB, December 1987.

Reviewed By: 

Sharon Willams, Organic Lab Supervisor



CHAIN OF CUSTODY RECORD

Client/Project Name		Project Location		ANALYSES / PARAMETERS	
Elierson		McGordon A # 1			
Sampler: (Signature)		Chain of Custody Tape No.			
Sample No./ Identification		Date	Time	Lab Number	Matrix
1-37-99		0930			Soil
No. of Containers		8015 8020			
X		X			
Remarks		Rush			
Relinquished by: (Signature)		Date	Time	Received by: (Signature)	
1-37-99		1430			
Relinquished by: (Signature)		Date	Time	Received by: (Signature)	
1-37-99		1430			
Relinquished by: (Signature)		Date	Time	Received by laboratory: (Signature)	
1-37-99		1430			
Inter-Mountain Laboratories, Inc.		50033			
1633 Terra Avenue Sheridan, Wyoming 82801 Telephone (307) 672-8945		1701 Phillips Circle Gillette, Wyoming 82718 Telephone (307) 682-8945		2506 West Main Street Farmington, NM 87401 Telephone (505) 326-4737	
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