

Date Remediation Started: 10/12/98 Date Completed: 10/12/98

Remediation Method: Excavation ☒ Approx. cubic yards 15 CY

(Check all appropriate sections)

Landfarmed ☒

In situ Bioremediation _____

Other _____

Remediation Location: Onsite ☒ Offsite _____
(i.e. landfarmed onsite,
name and location of
offsite facility)

General Description of Remedial Action: REMOVED CONTAMINATED SOIL USING
A BACKHOE, SPREAD ON LOCATION IN SOIL FARM

Groundwater Encountered: No ☒ Yes _____ Depth _____

Final Pit: Sample location Pit Bottom - CENTER 4 Banks N, S, E, W
Closure Sampling: GAS ND PPM
(if multiple samples, DIE ND PPM
attach sample results METHOD: 8015M
and diagram of sample PID = 2.2 PPM
locations and depths)

Sample depth 4'
Sample date 10/12/98 Sample time 4:15 P

Sample Results

Soil: Benzene (ppm) N/A Water: Benzene (ppb) N/A

Total BTEX (ppm) N/A Toluene (ppb) N/A

Field Headspace (ppm) 97.2 Ethylbenzene (ppb) N/A

TPII 8015M (ppm) GAS 21 PPM Total Xylenes (ppb) N/A
DIE 2200 PPM

Groundwater Sample: Yes _____ No ☒ (If yes, attach sample results)

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

DATE 11/2/98 PRINTED NAME SHAWN ADAMS

SIGNATURE [Signature] AND TITLE ENV. CONSULTANT

AFTER REVIEW OF THE PIT CLOSURE INFORMATION, PIT CLOSURE IS APPROVED IN ACCORDANCE TO
THE JICARILLA APACHE TRIBE PIT CLOSURE ORDINANCE.

APPROVED: YES ☒ NO _____ (REASON) _____

SIGNED: [Signature] DATE: 12-7-98

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 23-Oct-98

Client:	Contract Environmental Services, Inc.	Client Sample Info:	Martin Whittaker #57 DEHY
Work Order:	9810044	Client Sample ID:	MW57DEHY-508 Pit Floor Rock
Lab ID:	9810044-03A	Matrix:	SOIL
Project:	Martin Whittaker	Collection Date:	10/12/98 4:15:00 PM
		COC Record:	4389

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		SW8015				
T/R Hydrocarbons: C10-C28	2200	25		mg/Kg	1	Analyst: HR 10/22/98
GASOLINE RANGE ORGANICS		SW8015				
T/R Hydrocarbons: C6-C10	21	0.9		mg/Kg	5	Analyst: HR 10/20/98

Qualifiers:

PQL - Practical Quantitation Limit

ND - Not Detected at Practical Quantitation Limit

J - Analyte detected below Practical Quantitation Limit

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Surr: - Surrogate

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING IMPROVES YOUR PERFORMANCE

1 of 1

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 23-Oct-98

Client:	Contract Environmental Services, Inc.	Client Sample Info:	Martin Whittaker #57 DEHY
Work Order:	9810044	Client Sample ID:	MW57DEHY-509 4 Wall Comp
Lab ID:	9810044-04A	Matrix:	SOIL
Project:	Martin Whittaker	Collection Date:	10/12/98 4:20:00 PM
		COC Record:	4389

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		SW8015				
T/R Hydrocarbons: C10-C28	ND	25		mg/Kg	1	Analyst: HR 10/22/98
GASOLINE RANGE ORGANICS		SW8015				
T/R Hydrocarbons: C6-C10	ND	0.18		mg/Kg	1	Analyst: HR 10/20/98

Qualifiers:

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1 of 1

CONTRACT ENVIRONMENTAL

Daily Site Sheet

Elm Ridge Resources

Site Name: MARTIN WHITTAKER No 57 DEHY P.T

Date: 10-12-98

Time Started: _____

Time Finished: _____

Pit starting size: 10X10X4

Pit size when finished: 10X10X4

Land farm size: _____

Distance to wash > or < 100': _____

Distance to lake or pond: _____

Distance to private or domestic water source > or < 1000': _____

P.I.D. Readings

North wall: _____

South wall: _____

East wall: _____

West wall: _____

Land farm: _____

Equipment used: P.S.D. PIP, BACKHOE, JAMES KIRBY, LINDA WILSON

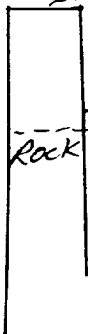
Remarks: TWO SAMPLES TO Lab MW57 DEHY-508 P.T Floor 97.2 PPM
MW57 DEHY-509 4wall Comp 2.2 PPM
Rock Floor 4'

SAMPLE NO DESCRIPTION PID (PPM) Site Diagram

1) MW57 DEHY-508 P.T Floor 97.2

2) MW57 DEHY-509 4wall Comp 2.2 PPM

VERT
SAMPLES

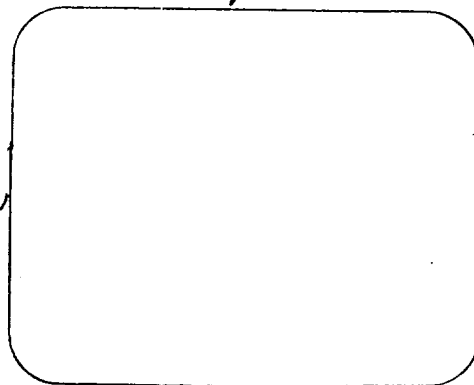


497.2 PPM

Rock

WASH
+
PIPE
10'

1.1
PPM



DEHY 4'

N 1.4 PPM

ROAD
E 8'
2.1 PPM

S
0.9 PPM
BANK 4'

ON SITE

Page ____ of ____

Color	White - On Site	Yellow - LAB	Pink - Sampler	Goldenrod - Client
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Elm Ridge Resources

Risk Analysis

Prepared by:
Contract Environmental Services, Inc.

Prepared for:
Oil Conservation Division - District III

Jicarilla Apache Tribe - EPO

Date: 12/2/98

Location: Martin Whittaker # 57 Dehydrator Pit
NW / NW, Sec 05, T23N, R5W

Lease Number:

Resources

Ground Water: 100 feet +

Closest Surface Water: No down gradient perennial bodies within 1000 feet
(visual inspection of the area)

Water Sources: No private water source is located within 1000 feet
of this site.

Risk Management

Natural Barriers: Natural soil permeability is one natural barrier that
will protect ground water from site contamination.

Additional
Investigation: This earthen pit had bedrock at 4' of depth. Field-
testing and laboratory analysis was done on this
earthen pit. The results of this analysis and
testing are shown in the following pages. All data
is supported with lab result sheets and field data
sheets found in this closure package.

Additional
Investigation: (continued)

Table 1. Field and laboratory results summary.

	Sample			
	Depth	Field Headspace Results	Laboratory Results	Remarks
	(feet)	(PPM)	(PPM)	
MW57- 508	4'	97.2	Gas = 21 Die = 2220	Pit Bottom
MW57- 509	4'	2.2	Gas = ND Die = ND	4 Banks NSEW

Risk

The following table and conclusion summarize the risk this contamination sources poses to the ground water.

Table 2. Total risk table.

RISK	CHOICE
Extremely Low	X
Low	
Moderate	
High	

Risk Analysis

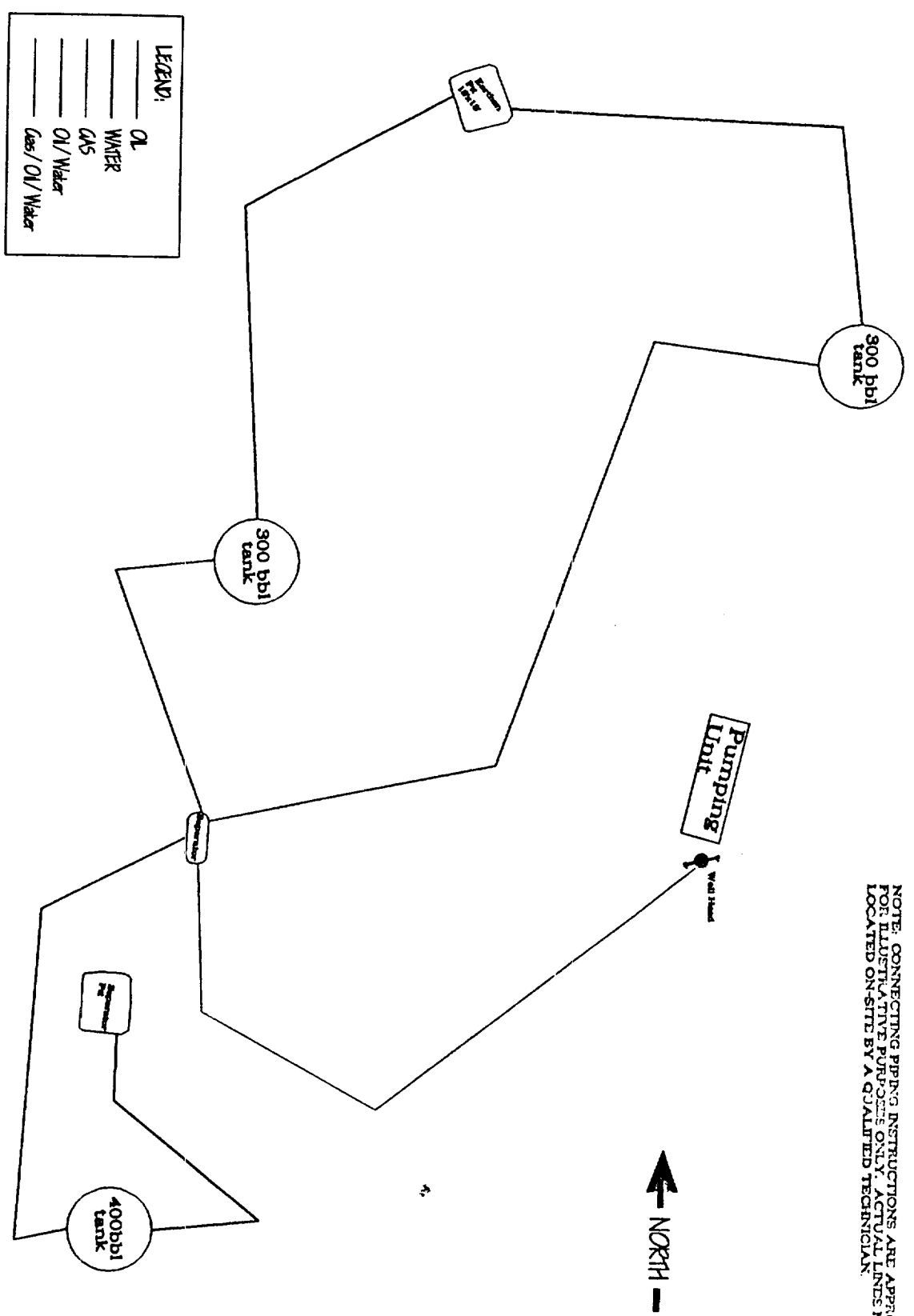
Contract Environmental Services, Inc.
Post Office Box 3376
Farmington, New Mexico 87499

The ground water under this site is at almost no danger of being impacted by contamination from this site. From the low laboratory and field-test results and the restrictive geologic soil barriers it is concluded that the risk of resource contamination is extremely low.

Risk Analysis

Contract Environmental Services, Inc.
Post Office Box 3376
Farmington, New Mexico 87499

NOTE: CONNECTING PIPING INSTRUCTIONS ARE APPROXIMATE FOR ILLUSTRATIVE PURPOSES ONLY. ACTUAL LINES MUST BE LOCATED ON-SITE BY A QUALIFIED TECHNICIAN.



Field Data Recorded : _____ Date: _____
 Reviewed : _____ Date: _____
 Drawn : _____ Date: _____

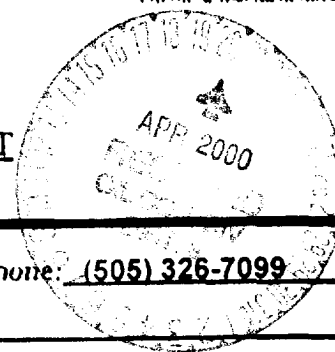
Elm Ridge Resources
Martin Whittaker 57
 Sec. 5, T25N, R5W
 Rio Arriba County, NM

Contract Environmental Services, Inc.
 505-325-1198
 Farmington, New Mexico

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

SUBMIT COPY TO
NATURAL RESOURCES DEPT
MINING & GAS ADMINISTRATION

ON-SITE SOIL REMEDIATION REPORT



Operator: Elm Ridge Resources Telephone: (505) 326-7099

Address: 312 W La Plata, Farmington NM 87401

Facility or Well Name: Martin Whittaker #57

Location: Unit or Qtr/Qtr Sec NE/NW Sec 5 T 23N R 5W County Rio Arriba

Land Type: Jicarilla Range

Date Remediation Started: 10-12-98 Date Completed: 9-14-99

Remediation Method: Landfilled X Approx. cubic yards 14

Composted:

Other:

Depth To Groundwater: (pts.) 0

Distance to an Ephemeral Stream (pts.) 0

Distance to Nearest Lake, Playa, or Watering Pond (pts.) 0

Wellhead Protection Area: (pts.) 0

Distance To Surface Water: (pts.) 0

Final Closure Sampling:

Sampling Date: 9-14-99 Time: 1500

Sample Results:

Field Headspace (ppm) 0.0

TPH (ppm) GROUND Method 8015

Other: DRO 41

RANKING SCORE (TOTAL POINTS): 0

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

DATE 9-23-99 PRINTED NAME Bill Schaaphok

SIGNATURE Bill Schaaphok AND TITLE Environmental Specialist

AFTER REVIEW OF THE SOIL REMEDIATION INFORMATION, ON-SITE REMEDIATION IS APPROVED IN ACCORDANCE TO THE JICARILLA APACHE TRIBE PIT CLOSURE ORDINANCE

APPROVED: YES NO (REASON)

SIGNED: DATE:

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 22-Sep-99

Client:	Elm Ridge Resources, Inc.	Client Sample Info:	MW #57
Work Order:	9909053	Client Sample ID:	Landfarm Dehy Pit
Lab ID:	9909053-01A	Matrix:	SOIL
Project:	Elm Ridge Landfarms	Collection Date:	9/14/99 3:00:00 PM
		COC Record:	10319

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		SW8015B				Analyst: HR
T/R Hydrocarbons: C10-C28	41	25		mg/Kg	1	9/20/99
GASOLINE RANGE ORGANICS		SW8015B				Analyst: DM
T/R Hydrocarbons: C6-C10	ND	0.18		mg/Kg	1	9/16/99

Qualifiers:

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1 of 1

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TECHNOLOGY BUILDING / INDUSTRIAL / ONE FARM ROAD

Location : <u>Martin Whittaker # 57</u>		Overview of Landfarm and Sampling :																																								
Quad : <u>NE/NW</u> Section : <u>5</u>																																										
Township: <u>23N</u> Range: <u>5W</u>																																										
Pit : <u>Dehydrator</u>																																										
Reference: <u>15' 580°W</u> <u>AXI H-11 wellhead</u>		<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%;">Sample #</th> <th style="width: 15%;">Location</th> <th style="width: 15%;">OVM</th> </tr> </thead> <tbody> <tr><td>1</td><td>1-1</td><td>0.0</td></tr> <tr><td>2</td><td></td><td></td></tr> <tr><td>3</td><td></td><td></td></tr> <tr><td>4</td><td></td><td></td></tr> <tr><td>5</td><td></td><td></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	1-1	0.0	2			3			4			5			6			7			8			9			10			11			12		
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Size: <u>25' x 15' x 1'</u>																																										
Yds: <u>14</u>																																										
1-5 - Point Composite																																										
Comments: <u>Darkly brown, light brown, slight strong scattered, no odor,</u> <u>sample depth 8" to 12"</u>																																										
Environmental Specialist :																																										