

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Form C-144
June 1, 2004

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

For drilling and production facilities, submit to appropriate NMOCD District Office.
For downstream facilities, submit to Santa Fe office

Pit or Below-Grade Tank Registration or Closure

Is pit or below-grade tank covered by a "general plan"? Yes ☒ No ☐

Type of action: Registration of a pit or below-grade tank ☐ Closure of a pit or below-grade tank ☒

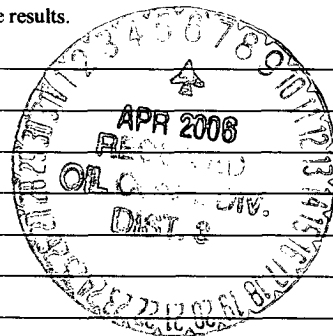
Operator: Elm Ridge Resources Telephone: (505) 632-3476 e-mail address: amackiel@elmridge.net
Address: #20 County Road 5060, Bloomfield, New Mexico, 87413
Facility or well name: State 16 No. 3 API #: 3003924573 U/L or Qtr/Qtr L Sec 16 T 23N R 6W
County: Rio Arriba Latitude 36.222800 Longitude -107.480683 NAD: 1927 ☒ 1983 ☐
Surface Owner: Federal ☐ State ☐ Private ☒ Indian ☐

Pit	Below-grade tank
Type: Drilling <input type="checkbox"/> Production <input checked="" type="checkbox"/> Disposal <input type="checkbox"/> Workover <input type="checkbox"/> Emergency <input type="checkbox"/> Lined <input type="checkbox"/> Unlined <input checked="" type="checkbox"/> Liner type: Synthetic <input type="checkbox"/> Thickness <u> </u> mil Clay <input type="checkbox"/> Pit Volume <u>10</u> bbl	Volume: <u> </u> bbl Type of fluid: <u>Produced Water and Incidental Oil</u> Construction material: <u>Fiberglass</u> Double-walled, with leak detection? Yes <input type="checkbox"/> If not, explain why not.
Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of ground water.)	Less than 50 feet (20 points) 50 feet or more, but less than 100 feet (10 points) 100 feet or more (0 points) 20
Wellhead protection area: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources.)	Yes (20 points) No (0 points) 0
Distance to surface water: (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses.)	Less than 200 feet (20 points) 200 feet or more, but less than 1000 feet (10 points) 1000 feet or more (0 points) 20
	Ranking Score (Total Points) 40

If this is a pit closure: (1) Attach a diagram of the facility showing the pit's relationship to other equipment and tanks. (2) Indicate disposal location: (check the onsite box if you are burying in place) onsite ☐ offsite ☐ If offsite, name of facility . (3) Attach a general description of remedial action taken including remediation start date and end date. (4) Groundwater encountered: No ☒ Yes ☐ If yes, show depth below ground surface ft. and attach sample results.
(5) Attach soil sample results and a diagram of sample locations and excavations.

Additional Comments:

Approximately 60 cubic yards of contaminated soil was excavated and hauled to Envirotech's NMOCD permitted Landfarm



I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that the above-described pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☐, a general permit ☐, or an (attached) alternative OCD-approved plan ☐.

Date: 4-4-06

Printed Name/Title Ms. Amy Mackie - Production Technician

Signature Amy Mackie

Your certification and NMOCD approval of this application/closure does not relieve the operator of liability should the contents of the pit or tank contaminate ground water or otherwise endanger public health or the environment. Nor does it relieve the operator of its responsibility for compliance with any other federal, state, or local laws and/or regulations.

Oil & Gas Inspector, DIST. 2

Approval:

Printed Name/Title

Signature

Date: APR 06 2006

CLIENT: _____	ENVIROTECH INC. <small>ENVIRONMENTAL SCIENTISTS & ENGINEERS 5796 U.S. HIGHWAY 64-3014 FARMINGTON, NEW MEXICO 87401 PHONE: (505) 832-0615</small>	LOCATION NO: _____ C.O.C. NO: _____
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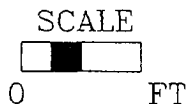
FIELD REPORT: CLOSURE VERIFICATION		PAGE No: <u>1</u> of <u>1</u>
LOCATION: NAME: <u>State 16</u> WELL #: <u>3</u> PIT: <u>TB</u>		DATE STARTED: <u>2/14/06</u> DATE FINISHED: <u>2/17/06</u>
QUAD/UNIT: <u>L</u> SEC: <u>16</u> TWP: <u>23N</u> RNG: <u>6W</u> PM: <u>NMOM</u> CNTY: <u>RA</u> ST: <u>NM</u>		ENVIRONMENTAL SPECIALIST: <u>GWC</u>
QTR/FOOTAGE: <u>1886 FSL</u> <u>747 FWL</u> CONTRACTOR: <u>Franks</u>		

EXCAVATION APPROX. <u>10</u> FT. x <u>20</u> FT. x <u>8</u> FT. DEEP.	CUBIC YARDAGE: <u>60</u>
DISPOSAL FACILITY: <u>Envirotech Landfarm #2</u>	REMEDIATION METHOD: <u>Landfarm</u>
LAND USE: _____	LEASE: <u>E-1207-1</u> FORMATION: <u>Dakota</u>

FIELD NOTES & REMARKS:	PIT LOCATED APPROXIMATELY <u>158</u> FT. <u>330°</u> FROM WELLHEAD.	
DEPTH TO GROUNDWATER: <u><50</u>	NEAREST WATER SOURCE: <u>>1000</u>	NEAREST SURFACE WATER: <u><200</u>
NMOCB RANKING SCORE: <u>40</u>	NMOCB TPH CLOSURE STD: <u>100</u> PPM	
SOIL AND EXCAVATION DESCRIPTION:		
CHECK ONE: <input checked="" type="checkbox"/> PIT ABANDONED <input type="checkbox"/> STEEL TANK INSTALLED		

Approximately 60 yd³ of contaminated soil was hauled to Envirotech's Landfarm #2.

FIELD 418.1 CALCULATIONS							
TIME	SAMPLE I.D.	LAB No:	WEIGHT (g)	mL. FREON	DILUTION	READING	CALC. ppm
See Method 418.1 Analysis Log							



PIT PERIMETER

OVM RESULTS

PIT PROFILE

	<table border="1" style="width:100%"> <thead> <tr> <th>SAMPLE ID</th> <th>FIELD HEADSPACE P10 (ppm)</th> </tr> </thead> <tbody> <tr><td>1 bottom 1/4</td><td>4</td></tr> <tr><td>2 bottom 1/2</td><td>42</td></tr> <tr><td>3 well</td><td>0</td></tr> <tr><td>4 bottom 3/4</td><td>0</td></tr> <tr><td>5</td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </tbody> </table> <table border="1" style="width:100%"> <thead> <tr> <th colspan="3">LAB SAMPLES</th> </tr> <tr> <th>SAMPLE ID</th> <th>ANALYSIS</th> <th>TIME</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table>	SAMPLE ID	FIELD HEADSPACE P10 (ppm)	1 bottom 1/4	4	2 bottom 1/2	42	3 well	0	4 bottom 3/4	0	5																LAB SAMPLES			SAMPLE ID	ANALYSIS	TIME																						<p>x - bottom sample * - well sample</p>
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TRAVEL NOTES:	CALLOUT: _____	ONSITE: _____
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ENVIROTECH INC.

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

Method 418.1 Analysis Log Total Petroleum Hydrocarbons

Date 2/4/06

Analyst G. Crabtree

Location State 16 Well #3

Instrument Infracal

Job No. 03056-040-026

Sample No.	Sample Description	Sample Wt. (g)	Volume Freon (mL)	Dilution Factor	Abs. Reading	TPH (mg/kg)	OVM (mg/kg)
1	Bottom 5 point composite @ 5'	5.0	20	4	135	540	84
2	Excavated material	5.0	20	40	195	7800	42
3	Wall composite	5.0	20	4	0	0	0
2/17 4	Bottom 5 point composite @ 8'	5.0	20	4	20	80	0

hauled off

Infrared Spectrophotometer Calibration

New Freon _____

Date Standards Prepared _____

Standard Concentration (mg/L)	Absorbance
100	_____
200	<u>1.89 / 1.93</u>
500	_____
1000	_____

I-CAL RF: _____

C-CAL RF: _____

RSD: _____ %

% Difference: _____ %

QA/QC Acceptance Criteria: I-CAL RSD +/- 20%

C-Cal Difference +/- 10%

**EPA METHOD 418.1
TOTAL PETROLEUM
HYDROCARBONS**

Client:	Elm Ridge Resources	Project #:	03056-040-026
Sample No.:	1	Date Reported:	2/15/2006
Sample ID:	Composite sample of bottom @ 5' BGS	Date Sampled:	2/14/2006
Sample Matrix:	Soil	Date Analyzed:	2/14/2006
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

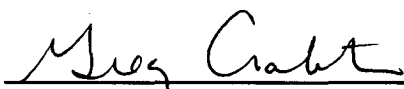
Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	540.0	5.0

ND = Parameter not detected at the stated detection limit.

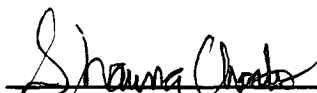
References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **State 16 No. 3**

Instrument callibration checked against 200 ppm standard. Zeroed before each sample



Analyst



Review

**EPA METHOD 418.1
TOTAL PETROLEUM
HYDROCARBONS**

Client:	Elm Ridge Resources	Project #:	03056-040-026
Sample No.:	2	Date Reported:	2/15/2006
Sample ID:	Composite sample of Walls	Date Sampled:	2/14/2006
Sample Matrix:	Soil	Date Analyzed:	2/14/2006
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
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Total Petroleum Hydrocarbons	ND	5.0
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ND = Parameter not detected at the stated detection limit.

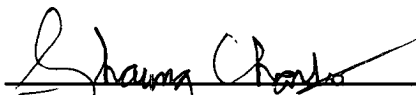
References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **State 16 No. 3**

Instrument callibration checked against 200 ppm standard. Zeroed before each sample



Analyst



Review

**EPA METHOD 418.1
TOTAL PETROLEUM
HYDROCARBONS**

Client:	Elm Ridge Resources	Project #:	03056-040-026
Sample No.:	3	Date Reported:	2/18/2006
Sample ID:	Composite sample of bottom @ 8' BGS	Date Sampled:	2/17/2006
Sample Matrix:	Soil	Date Analyzed:	2/17/2006
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

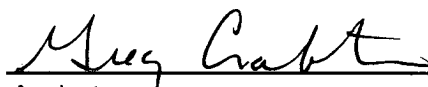
Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	80.0	5.0

ND = Parameter not detected at the stated detection limit.

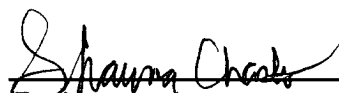
References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **State 16 No. 3**

Instrument callibration checked against 200 ppm standard. Zeroed before each sample



Analyst



Review