

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

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

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form

2009 MAY 18 PM 2 13

RECEIVED

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: Elm Ridge Exploration	Contact: Amy Mackey
Address: PO Box 156, Bloomfield, NM 87413	Telephone No.: (505) 632-3476 Ext 201
Facility Name: Bisti Coal 2 #2	Facility Type: Gas Well

Surface Owner: State	Mineral Owner:	Lease No.: LG 2062
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LOCATION OF RELEASE

Unit Letter M	Section 2	Township 25N	Range 12W	Feet from the 875	North/South Line FSL	Feet from the 975	East/West Line FWL	County San Juan
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Latitude 36.425347 Longitude -108.086560

NATURE OF RELEASE

Type of Release: Produced Water	Volume of Release: Unknown	Volume Recovered: Unknown
Source of Release: Earth Pit	Date and Hour of Occurrence: Historical	Date and Hour of Discovery: NA
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

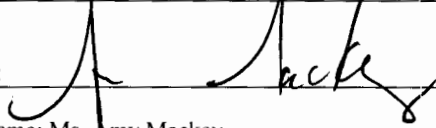
Describe Cause of Problem and Remedial Action Taken.*

Produced Water from gas well at the mentioned location formerly discharged into an earthen pit on location. The well has been altered to no longer drain into an earthen pit, but instead into an AST.

Describe Area Affected and Cleanup Action Taken.*

Earthen pit was dry, and has not been discharged into since before June 16, 2008. A sample was collected from the earthen pit and the sample results are attached to this document for reference. The sample was analyzed for in the field for Total Petroleum Hydrocarbons (TPH) via USEPA Method 418.1 and in Envirotech's laboratory for benzene and total BTEX via USEPA Method 8021, and for total chlorides via USEPA Method 4500B. The sample returned results that were below the 0.2 ppm benzene and the 50 ppm BTEX standards, but above the 100 ppm TPH standard and the 250 ppm total chloride standard, confirming that a release had occurred at this site. The site was then ranked pursuant to the NMOCD Guidelines for the Remediation of Leaks, Spills and Releases. The site was ranked a 10 due to groundwater being greater than 50 feet below ground surface, but less than 100 feet. This set the closure standards to 1000 ppm TPH, 10 ppm benzene and 50 ppm total BTEX. There is no closure standard for total chlorides per the NMOCD Guidelines for the Remediation of Leaks, Spills and Releases. All analytical results were below the closure standards determined for this site.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: 		<u>OIL CONSERVATION DIVISION</u>	
Printed Name: Ms. Amy Mackey		Approved by District Supervisor:	
Title: Administrative Manager		Approval Date:	Expiration Date:
E-mail Address: amackey1@elmr ridge.net		Conditions of Approval:	
Date: _____ Phone: 505-632-3476 Ext 201		Attached <input type="checkbox"/>	

* Attach Additional Sheets If Necessary

PAGE NO: <u>1</u> OF <u>1</u>	ENVIROTECH INC ENVIRONMENTAL SCIENTISTS & ENGINEERS 5796 U.S. HIGHWAY 64 - 3014 FARMINGTON, NEW MEXICO 87401 PHONE: (505) 632-0615	ENVIRONMENTAL SPECIALIST: <u>R. Bennett</u> LAT: <u>36.425347</u> LONG: <u>-108.086560</u>
DATE STARTED: <u>10/29/08</u>		
DATE FINISHED: <u>11/29/08</u>		

FIELD REPORT: BGT / PIT CLOSURE VERIFICATION

LOCATION: NAME: <u>BIST1 CONL 2</u>	WELL #: <u>2</u>	TEMP PIT: <input type="checkbox"/>	PERMANENT PIT: <input checked="" type="checkbox"/>	BGT: <input type="checkbox"/>
LEGAL ADD: UNIT: <u>M</u>	SEC: <u>2</u>	TWP: <u>25N</u>	RNG: <u>12W</u>	PM: <u>NM PM</u>
QTR/FOOTAGE: <u>1700 FNL x 1700 FEL</u>	CNTY: <u>SAN JUAN</u>	ST: <u>NM</u>		
EXCAVATION APPROX: <u>—</u> FT. <input checked="" type="checkbox"/>	<u>—</u> FT. <input checked="" type="checkbox"/>	FT. DEEP CUBIC YARDAGE: <u>—</u>		
DISPOSAL FACILITY: <u>—</u>	REMEDIALATION METHOD: <u>—</u>			
LAND OWNER: <u>State</u>	API: <u>3004527572</u>	BGT / PIT VOLUME: <u>—</u>		
CONSTRUCTION MATERIAL: <u>EARTH</u>	DOUBLE-WALLED, WITH LEAK DETECTION: <u>—</u>			

LOCATION APPROXIMATELY: <u>164'</u> FT. <u>100'</u> FROM WELLHEAD
DEPTH TO GROUNDWATER: <u>< 50 SOFT</u>

TEMPORARY PIT - GROUNDWATER 50-100 FEET DEEP

BENZENE ≤ 0.2 mg/kg, BTEX ≤ 50 mg/kg, GRO & DRO FRACTION (8015) ≤ 500 mg/kg, TPH (418.1) ≤ 2500 mg/kg, CHLORIDES ≤ 500 mg/kg

TEMPORARY PIT - GROUNDWATER ≥ 100 FEET DEEP

BENZENE ≤ 0.2 mg/kg, BTEX ≤ 50 mg/kg, GRO & DRO FRACTION (8015) ≤ 500 mg/kg, TPH (418.1) ≤ 2500 mg/kg, CHLORIDES ≤ 1000 mg/kg

☒ PERMANENT PIT OR BGT

BENZENE ≤ 0.2 mg/kg, BTEX ≤ 50 mg/kg, TPH (418.1) ≤ 100 mg/kg, CHLORIDES ≤ 250 mg/kg

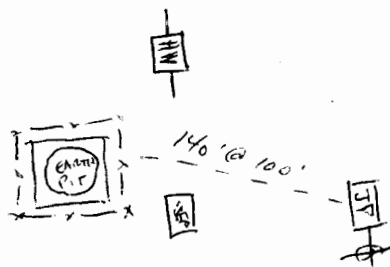
FIELD 418.1 ANALYSIS

TIME	SAMPLE I.D.	LAB NO.	WEIGHT (g)	mL FREON	DILUTION	READING	CALC. (mg/kg)
	200 STD					112	
9:50	SPT CAMP	1	5	20	4	2121	116 ppm
		2					
		3					
		4					
		5					
		6					

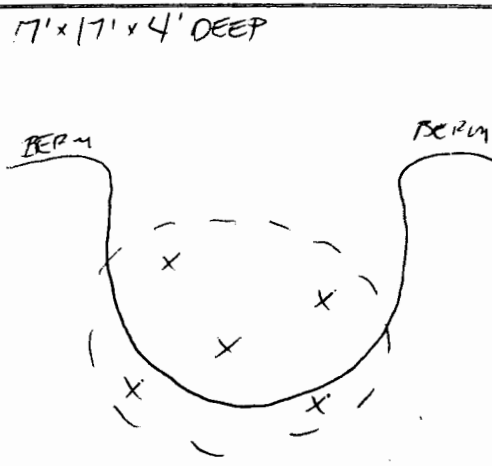
PERIMETER

FIELD CHLORIDES RESULTS

PROFILE



SAMPLE ID	READING	CALC. (mg/kg)



PID RESULTS

SAMPLE ID	RESULTS (mg/kg)
GAS	
SPT CAMP	0.0

LAB SAMPLES		
SAMPLE ID	ANALYSIS	RESULTS
	BENZENE	
	BTEX	
	GRO & DRO	
	CHLORIDES	

NOTES:

NMOCD Ranking 10: Closure 1000 ppm

WORKORDER # _____ WHO ORDERED _____



**EPA METHOD 418.1
TOTAL PETROLEUM
HYDROCARBONS**

Client:	Elm Ridge Exploration	Project #:	03056-0164
Sample No.:	1	Date Reported:	1/21/2009
Sample ID:	5 Point Composite	Date Sampled:	10/29/2008
Sample Matrix:	Soil	Date Analyzed:	10/29/2008
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

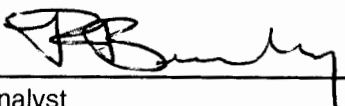
Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	116	5.0

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.

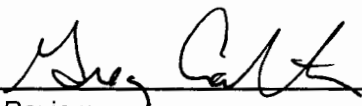
Comments: **Bisti Coal 2-2 Earth Pit**

Instrument calibrated to 200 ppm standard. Zeroed before each sample



Analyst

Roynell Benally
Printed



Review

Greg Crabtree
Printed



CONTINUOUS CALIBRATION
EPA METHOD 418.1
TOTAL PETROLEUM
HYDROCARBONS

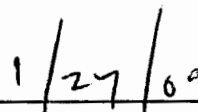
Cal. Date: 29-Oct-08

Parameter	Standard Concentration mg/L	Concentration Reading mg/L
TPH	100	192
	200	
	500	
	1000	

The accepted percent relative deviation (%RSD) of the calibration factor is less than 20% over the working range.



Analyst



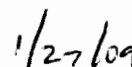
Date

Roynell Benally

Print Name



Review



Date

Greg Crabtree

Print Name



EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	Elmridge	Project #:	03056-0136
Sample ID:	Bisti Coal 2-002	Date Reported:	11-04-08
Laboratory Number:	47933	Date Sampled:	10-29-08
Chain of Custody:	5654	Date Received:	10-29-08
Sample Matrix:	Soil	Date Analyzed:	11-03-08
Preservative:	Cool	Date Extracted:	10-31-08
Condition:	Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	1.2	0.9
Toluene	6.2	1.0
Ethylbenzene	1.2	1.0
p,m-Xylene	4.0	1.2
o-Xylene	2.2	0.9
Total BTEX	14.8	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	97.0 %
	1,4-difluorobenzene	97.0 %
	Bromochlorobenzene	97.0 %

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: Earth Pit Samples, 5pt Comp.

Analyst

Review

Client:	N/A	Project #:	N/A
Sample ID:	11-03-BT QA/QC	Date Reported:	11-04-08
Laboratory Number:	47923	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	11-03-08
Condition:	N/A	Analysis:	BTEX

Calibration and Detection Limits (ug/L)	I-Cal RF:	C-Cal RF:	%Diff.	Blank Conc	Detect. Limit
		Accept. Range 0 - 15%			
Benzene	4.3065E+007	4.3151E+007	0.2%	ND	0.1
Toluene	3.3071E+007	3.3137E+007	0.2%	ND	0.1
Ethylbenzene	2.5284E+007	2.5335E+007	0.2%	ND	0.1
p,m-Xylene	2.5284E+007	2.5335E+007	0.2%	ND	0.1
o-Xylene	2.4071E+007	2.4119E+007	0.2%	ND	0.1

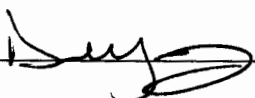
Duplicate Conc. (ug/Kg)	Sample	Duplicate	%Diff.	Accept Range	Detect. Limit
Benzene	1.4	1.3	7.1%	0 - 30%	0.9
Toluene	16.9	17.0	0.6%	0 - 30%	1.0
Ethylbenzene	56.3	56.1	0.4%	0 - 30%	1.0
p,m-Xylene	179	181	0.9%	0 - 30%	1.2
o-Xylene	86.6	86.2	0.5%	0 - 30%	0.9

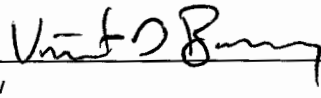
Spike Conc. (ug/Kg)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Range
Benzene	1.4	50.0	50.4	98.1%	39 - 150
Toluene	16.9	50.0	64.6	96.6%	46 - 148
Ethylbenzene	56.3	50.0	104	98.0%	32 - 160
p,m-Xylene	179	100	276	98.7%	46 - 148
o-Xylene	86.6	50.0	133	97.7%	46 - 148

ND - Parameter not detected at the stated detection limit.

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.
Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: QA/QC for Samples 47923 - 47926, 47928, 47930, 47932, 47933, 47942, and 47943.

Analyst 

Review 



Chloride

Client:	Elmridge	Project #:	03056-0136
Sample ID:	Bisti Coal 2-002	Date Reported:	11-04-08
Lab ID#:	47933	Date Sampled:	10-24-08
Sample Matrix:	Soil Extract	Date Received:	10-29-08
Preservative:	Cool	Date Analyzed:	11-04-08
Condition:	Intact	Chain of Custody:	5654

Parameter	Concentration (mg/L)
Total Chloride	290

Reference: U.S.E.P.A., 4500B, "Methods for Chemical Analysis of Water and Wastes", 1983.
Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments: Earth Pit Samples, 5pt Comp.

Analyst

A handwritten signature in black ink, appearing to be 'D. Smith', written over a horizontal line.

Review

A handwritten signature in black ink, appearing to be 'V. J. Berry', written over a horizontal line.

100

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505-632-0615

ENVIROTECH INC.