

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 McElvain Oil & Gas Properties, Inc. Telephone: 303-893-0933 e-mail address: DebbyP@McElvain.com		
Address. 1050 17 <sup>th</sup> Street Suite 1800 , Denver, CO 80265		
Facility or well name Bear Com 28-1 API # 30-039-26519 U/L or Qtr/Qtr M Sec 28 T 26N R 2W		
County. Rio Arriba Latitude 36.45119 N Longitude -107.06099 W NAD. 1927 <input checked="" type="checkbox"/> 1983 <input type="checkbox"/>		
Surface Owner Federal <input checked="" type="checkbox"/> State <input type="checkbox"/> Private <input type="checkbox"/> Indian <input type="checkbox"/>		
<b>Pit</b> Type: Drilling <input checked="" type="checkbox"/> Production <input type="checkbox"/> Disposal <input type="checkbox"/> Workover <input type="checkbox"/> Emergency <input type="checkbox"/> Lined <input checked="" type="checkbox"/> Unlined <input type="checkbox"/> Liner type: Synthetic <input checked="" type="checkbox"/> Thickness 12 mil Clay <input type="checkbox"/> Pit Volume 19,948 bbls bbl	<b>Below-grade tank</b> Volume bbl Type of fluid: Construction material 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) 0
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) 0
<b>Ranking Score (Total Points)</b>		0

**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 your 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:	
The soils tested clean and no soil remediation was required per attached Envirotech Inc. Report.	RCVD NOV 16 '07
The Pit was closed on 11/1/07.	Oil Cons. Div.
	DIST. 2

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. 11/13/2007

Printed Name/Title Deborah K Powell Signature *Deborah K Powell*

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.

Approval: Deputy Oil & Gas Inspector, District #3  
Printed Name/Title Signature *Deborah K Powell* Date: NOV 28 2007

# ENVIROTECH INC.

**PRACTICAL SOLUTIONS FOR A BETTER TOMORROW**

September 27, 2007

Project No. 06039-007

Mr. Art Merrick  
McElvain Oil & Gas Properties, Inc.  
P.O. Box 2596  
Farmington, New Mexico 87413

Phone: (505) 325-5220  
Cell: (505) 320-2679  
Fax: (505) 325-6090

**RE: SAMPLING OF RESERVE PITS FOR TPH, BTEX, AND CHLORIDE AT THE BEAR COM 28-1  
WELLSITE, RIO ARRIBA COUNTY, NEW MEXICO**

Dear Mr. Merrick:

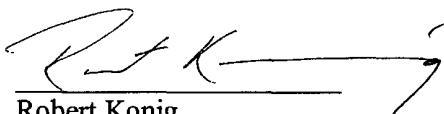
Enclosed please find the analytical results from the sampling of the reserve pit at the Bear 28-1, Rio Arriba County, New Mexico. A 5-point composite sample of drilling mud from the pit was collected and transported to Envirotech Laboratory for analysis via USEPA Method 8015 for TPH, USEPA Method 8021 for BTEX, and chlorides. These activities were performed at the above-referenced site on September 13, 2007.

The site was ranked according to NMOCD guidance for unlined surface impoundments. The site was ranked as a 5000 ppm closure for Total Petroleum Hydrocarbons (TPH) and was screened for organic vapors using a Photo-Ionization Detector (PID). The sample was analyzed at Envirotech's Laboratory for Benzene, Ethylbenzene, Toluene, and Total Xylenes (BTEX) via USEPA Method 8021 and also tested for levels of Total Chlorides.

Results for these tests passed NMOCD standards for closure for TPH (ppm), BTEX (ppm), and Benzene (ppm) measurements.

We appreciate the opportunity to be of service. Should you have any questions or require additional information, please contact our office at (505) 632-0615.

Respectfully Submitted,  
**ENVIROTECH, INC.**



Robert Konig  
Staff Scientist  
[rkonig@envirotech-inc.com](mailto:rkonig@envirotech-inc.com)

RCVD NOV 16 '07

OIL CONS. DIV.

DIST. 3

Enclosure: Analytical Results

Cc: Client File 06039

# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

## EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

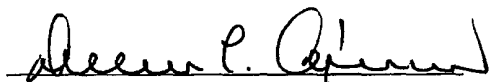
Client:	McElvain	Project #:	06039-007
Sample ID:	Bear Com	Date Reported:	09-17-07
Laboratory Number:	43076	Date Sampled:	09-13-07
Chain of Custody No:	3383	Date Received:	09-13-07
Sample Matrix:	Soil	Date Extracted:	09-14-07
Preservative:	Cool	Date Analyzed:	09-17-07
Condition:	Cool & Intact	Analysis Requested:	8015 TPH

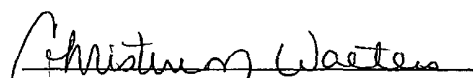
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	399	0.2
Diesel Range (C10 - C28)	3,770	0.1
Total Petroleum Hydrocarbons	4,170	0.2

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **Bear Com 28 #001**

  
Analyst

  
Review

# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8015 Modified  
Nonhalogenated Volatile Organics  
Total Petroleum Hydrocarbons

## Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	09-17-07 QA/QC	Date Reported:	09-17-07
Laboratory Number:	43073	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	09-17-07
Condition:	N/A	Analysis Requested:	TPH

	I-Cal Date	I-Cal RF	G-Cal RF	% Difference	Accept Range
Gasoline Range C5 - C10	05-07-07	9.9960E+002	1.0000E+003	0.04%	0 - 15%
Diesel Range C10 - C28	05-07-07	9.9960E+002	1.0000E+003	0.04%	0 - 15%

Blank Conc. (mg/L - mg/Kg)	Concentration	Detection Limit
Gasoline Range C5 - C10	ND	0.2
Diesel Range C10 - C28	ND	0.1
Total Petroleum Hydrocarbons	ND	0.2

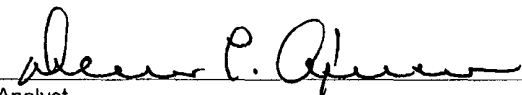
Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Accept Range
Gasoline Range C5 - C10	17.0	16.9	0.6%	0 - 30%
Diesel Range C10 - C28	2,600	2,580	0.8%	0 - 30%

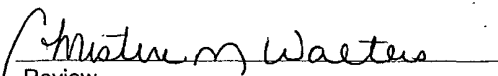
Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept Range
Gasoline Range C5 - C10	17.0	250	266	99.6%	75 - 125%
Diesel Range C10 - C28	2,600	250	2,840	99.6%	75 - 125%

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: QA/QC for Samples 43073 - 43077, 43080

  
Analyst

  
Review

# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

## EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	McElvain	Project #:	06039-007
Sample ID:	Bear Com	Date Reported:	09-17-07
Laboratory Number:	43076	Date Sampled:	09-13-07
Chain of Custody:	3383	Date Received:	09-13-07
Sample Matrix:	Soil	Date Analyzed:	09-17-07
Preservative:	Cool	Date Extracted:	09-14-07
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	24.7	0.9
Toluene	60.1	1.0
Ethylbenzene	41.8	1.0
p,m-Xylene	478	1.2
o-Xylene	56.4	0.9
Total BTEX	661	

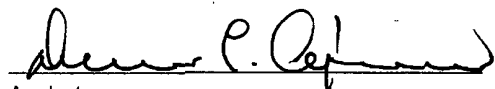
ND - Parameter not detected at the stated detection limit.

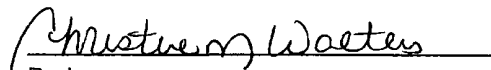
Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	99.0 %
	1,4-difluorobenzene	99.0 %
	Bromochlorobenzene	99.0 %

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: Bear Com 28 #001

  
Analyst

  
Review

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PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

## EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	N/A	Project #:	N/A
Sample ID:	09-17-BTEX QA/QC	Date Reported:	09-17-07
Laboratory Number:	43070	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	09-17-07
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	1.1598E+008	1.1621E+008	0.2%	ND	0.1
Toluene	1.0195E+008	1.0216E+008	0.2%	ND	0.1
Ethylbenzene	8.0962E+007	8.1125E+007	0.2%	ND	0.1
p,m-Xylene	1.5312E+008	1.5343E+008	0.2%	ND	0.1
o-Xylene	7.3622E+007	7.3769E+007	0.2%	ND	0.1

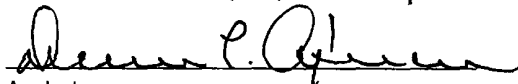
Duplicate Conc. (ug/Kg)	Sample	Duplicate	%Diff	Accept Range	Detect Limit
Benzene	ND	ND	0.0%	0 - 30%	0.9
Toluene	236	235	0.4%	0 - 30%	1.0
Ethylbenzene	110	109	0.9%	0 - 30%	1.0
p,m-Xylene	493	492	0.2%	0 - 30%	1.2
o-Xylene	175	174	0.6%	0 - 30%	0.9

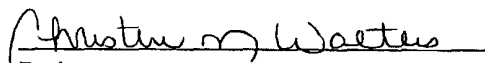
Spike Conc. (ug/Kg)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Range
Benzene	ND	50.0	50.0	100.0%	39 - 150
Toluene	236	50.0	285	99.7%	46 - 148
Ethylbenzene	110	50.0	159	99.6%	32 - 160
p,m-Xylene	493	100	591	99.7%	46 - 148
o-Xylene	175	50.0	224	99.6%	46 - 148

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 43070 - 43072, 43074 - 43080

  
Analyst

  
Review

3383

san juan reproduction 578-129

# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

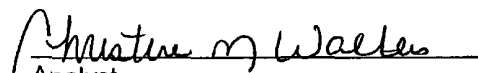
Chloride

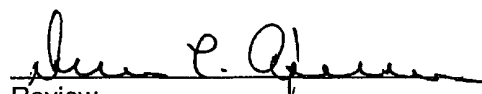
Client:	McElvain	Project #:	06039-007
Sample ID:	Bear Com	Date Reported:	09-24-07
Lab ID#:	43076	Date Sampled:	09-13-07
Sample Matrix:	Soil	Date Received:	09-13-07
Preservative:	Cool	Date Analyzed:	09-24-07
Condition:	Cool and Intact	Chain of Custody:	3383

Parameter	Concentration (mg/Kg)
Total Chloride	1,770

Reference: Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments: Bear Com 28 #001

  
Analyst

  
Review



# CHAIN OF CUSTODY RECORD

3383

Client: <b>Mc ELVIN</b>			Project Name / Location: <b>Bear Com 28 #001</b>			ANALYSIS / PARAMETERS													
Client Address:			Sampler Name: <b>Robert Konig</b>			TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion	RCI	TCLP with H/P	PAH	TPH (418.1) <b>NO (REK)</b>	C1- Added 9/12/07 by R. Konig	Sample Cool	Sample Intact		
Client Phone No.:			Client No.: <b>06039-007</b>																
Sample No./ Identification	Sample Date	Sample Time	Lab No.	Sample Matrix	No./Volume of Containers	Preservative H <sub>2</sub> O <sub>2</sub> HNO <sub>3</sub>		TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion	RCI	TCLP with H/P	PAH	TPH (418.1)	C1- Added 9/12/07 by R. Konig	Sample Cool	Sample Intact
<b>Bear Com</b>	<b>09/13/07</b>	<b>1300</b>	<b>43076</b>	<b>Soil</b>	<b>1</b>			<b>X</b>	<b>X</b>							<b>NO (REK)</b>	<b>✓</b>		
								<b>X</b>	<b>X</b>	<b>REK</b>									
Relinquished by: (Signature) <b>[Signature]</b>						Date	Time	Received by: (Signature) <b>[Signature]</b>						Date	Time				
						<b>09/13/07</b>	<b>1710</b>							<b>09/13/07</b>	<b>1710</b>				
Relinquished by: (Signature)								Received by: (Signature)											
Relinquished by: (Signature)								Received by: (Signature)											

**ENVIROTECH INC.**

5796 U.S. Highway 64 • Farmington, New Mexico 87401 • (505) 632-0615