

AP – 119

Q2 2013 GWMR

02 / 12 / 2013

TABLE 2

## CONCENTRATIONS OF BTEX &amp; CARBON TETRACHLORIDE IN GROUNDWATER

PRO-KEM, INC.  
 LOVINGTON YARD  
 LEA COUNTY, NEW MEXICO  
 NMOCD REFERENCE NO: AP-119

SAMPLE LOCATION	SAMPLE DATE	METHODS: EPA SW 846-8260b							
		BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL-BENZENE (mg/L)	M,P-XYLENES (mg/L)	O-XYLENES (mg/L)	TOTAL XYLENE (mg/L)	TOTAL BTEX (mg/L)	CARBON TERTRACHLORIDE (mg/L)
MW-1	10/24/2012	<0.001	<0.001	<0.001	<0.002	<0.001	<0.003	<0.003	0.180
MW-1	1/29/2013	<0.001	<0.001	<0.001	<0.002	<0.001	<0.003	<0.003	0.134
MW-1	5/9/2013	<0.001	<0.001	<0.001	<0.002	<0.001	<0.003	<0.003	0.167
MW-2	10/24/2012	<0.010	<0.010	<0.010	<0.020	<0.010	<0.030	<0.030	1.55
MW-2	1/29/2013	<0.001	<0.001	<0.001	<0.002	<0.001	<0.003	<0.003	1.50
MW-2	5/9/2013	<0.001	<0.001	<0.001	<0.002	<0.001	<0.003	<0.003	0.181
MW-3	10/24/2012	<0.001	<0.001	<0.001	<0.002	<0.001	<0.003	<0.003	0.034
MW-3	1/29/2013	<0.001	<0.001	<0.001	<0.002	<0.001	<0.003	<0.003	0.020
MW-3	5/9/2013	<0.001	<0.001	<0.001	<0.002	<0.001	<0.003	<0.003	0.012
<b>WQCC Standard</b>		<b>0.01</b>	<b>0.75</b>	<b>0.75</b>	<b>TOTAL XYLENES</b>		<b>0.62</b>		<b>0.002</b>

**TABLE 1**

**GROUNDWATER ELEVATION DATA**

**PRO-KEM, INC.  
LOVINGTON YARD  
LEA COUNTY, NEW MEXICO  
NMOCD REF NO: AP-119**

<b>WELL NUMBER</b>	<b>DATE MEASURED</b>	<b>CASING WELL ELEVATION</b>	<b>DEPTH TO WATER</b>	<b>CORRECTED GROUNDWATER ELEVATION</b>	<b>TOTAL WELL DEPTH</b>	<b>FREE PRODUCT THICKNESS</b>
MW-1	10/24/12	3,895.67	65.43	3,830.24	73.06	0.00
MW-1	01/29/13	3,895.67	65.66	3,830.01	73.01	0.00
MW-1	05/09/13	3,895.67	66.02	3,829.65	72.58	0.00
MW-2	10/24/12	3,894.33	64.81	3,829.52	69.87	0.00
MW-2	01/29/13	3,894.33	65.17	3,829.16	69.84	0.00
MW-2	05/09/13	3,894.33	63.44	3,830.89	69.85	0.00
MW-3	10/24/12	3,894.13	65.51	3,828.62	70.68	0.00
MW-3	01/29/13	3,894.13	65.75	3,828.38	70.68	0.00
MW-3	05/09/13	3,894.13	66.11	3,828.02	70.75	0.00



May 14, 2013

JOEL LOWRY

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: LOVINGTON YARD (AP1-119)

Enclosed are the results of analyses for samples received by the laboratory on 05/09/13 9:13.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in cursive script that reads "Celey D. Keene".

Celey D. Keene

Lab Director/Quality Manager

**Analytical Results For:**

 Basin Environmental Service  
 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received:	05/09/2013	Sampling Date:	05/09/2013
Reported:	05/14/2013	Sampling Type:	Water
Project Name:	LOVINGTON YARD (AP1-119)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

**Sample ID: MW-3 (H301110-01)**

Volatile 8260		mg/L		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Carbon tetrachloride*</b>	<b>0.012</b>	0.001	05/10/2013	ND	0.019	92.9	0.0200	7.76	
Benzene*	<0.001	0.001	05/10/2013	ND	0.019	94.1	0.0200	5.33	
Toluene*	<0.001	0.001	05/10/2013	ND	0.019	93.9	0.0200	5.09	
Ethylbenzene*	<0.001	0.001	05/10/2013	ND	0.019	94.8	0.0200	4.29	
m+p - Xylene*	<0.002	0.002	05/10/2013	ND	0.039	97.4	0.0400	5.37	
o-Xylene*	<0.001	0.001	05/10/2013	ND	0.019	94.2	0.0200	5.17	
Total Xylenes*	<0.003	0.003	05/10/2013	ND	0.058	96.4	0.0600	5.30	

<i>Surrogate: Dibromofluoromethane</i>	<i>97.8 %</i>	<i>70.2-143</i>
<i>Surrogate: Toluene-d8</i>	<i>101 %</i>	<i>73.8-118</i>
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>98.5 %</i>	<i>48-134</i>

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 Basin Environmental Service  
 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received:	05/09/2013	Sampling Date:	05/09/2013
Reported:	05/14/2013	Sampling Type:	Water
Project Name:	LOVINGTON YARD (AP1-119)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

**Sample ID: MW-2 (H301110-02)**

Volatile 8260		mg/L		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Carbon tetrachloride*</b>	<b>0.181</b>	0.001	05/10/2013	ND	0.019	92.9	0.0200	7.76	
Benzene*	<0.001	0.001	05/10/2013	ND	0.019	94.1	0.0200	5.33	
Toluene*	<0.001	0.001	05/10/2013	ND	0.019	93.9	0.0200	5.09	
Ethylbenzene*	<0.001	0.001	05/10/2013	ND	0.019	94.8	0.0200	4.29	
m+p - Xylene*	<0.002	0.002	05/10/2013	ND	0.039	97.4	0.0400	5.37	
o-Xylene*	<0.001	0.001	05/10/2013	ND	0.019	94.2	0.0200	5.17	
Total Xylenes*	<0.003	0.003	05/10/2013	ND	0.058	96.4	0.0600	5.30	

<i>Surrogate: Dibromofluoromethane</i>	<i>101 %</i>	<i>70.2-143</i>
<i>Surrogate: Toluene-d8</i>	<i>100 %</i>	<i>73.8-118</i>
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>99.2 %</i>	<i>48-134</i>

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\*=Accredited Analyte

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 P.O. Box 301  
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 Fax To: (575) 396-1429

Received:	05/09/2013	Sampling Date:	05/09/2013
Reported:	05/14/2013	Sampling Type:	Water
Project Name:	LOVINGTON YARD (AP1-119)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

**Sample ID: MW-1 (H301110-03)**

Volatile 8260		mg/L		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Carbon tetrachloride*</b>	<b>0.167</b>	0.001	05/10/2013	ND	0.019	92.9	0.0200	7.76	
Benzene*	<0.001	0.001	05/10/2013	ND	0.019	94.1	0.0200	5.33	
Toluene*	<0.001	0.001	05/10/2013	ND	0.019	93.9	0.0200	5.09	
Ethylbenzene*	<0.001	0.001	05/10/2013	ND	0.019	94.8	0.0200	4.29	
m+p - Xylene*	<0.002	0.002	05/10/2013	ND	0.039	97.4	0.0400	5.37	
o-Xylene*	<0.001	0.001	05/10/2013	ND	0.019	94.2	0.0200	5.17	
Total Xylenes*	<0.003	0.003	05/10/2013	ND	0.058	96.4	0.0600	5.30	
<hr/>									
Surrogate: Dibromofluoromethane	101 %	70.2-143							
Surrogate: Toluene-d8	102 %	73.8-118							
Surrogate: 4-Bromofluorobenzene	99.0 %	48-134							

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Celey D. Keene, Lab Director/Quality Manager

**Notes and Definitions**

- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- \*\* Samples not received at proper temperature of 6°C or below.
- \*\*\* Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C  
Samples reported on an as received basis (wet) unless otherwise noted on report



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Celey D. Keene, Lab Director/Quality Manager

# Cardinal Laboratories

101 East Marland  
Hobbs, NM 88240  
Tel (575) 393-2326  
Fax (575) 393-2476

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Company Name: **Basin Environmental Service Technologies, LLC** Phone #: **(575)396-2378**

Address: **P.O. Box 301  
Lovington, NM 88260** Fax #: **(575)396-1429**

Contact Person: \_\_\_\_\_ E-mail: **pm@basinenv.com prokem@windstream.net**

Invoice to: **Basin Environmental Service Technologies, LLC**

Project #: \_\_\_\_\_ Project Name: **Lovington Yard (API-119)**

Project Location: **Lea Co., NM** Sampler Signature: *Joel Young*

## ANALYSIS REQUEST (Circle or Specify Method No.)

LAB ID	SAMPLE ID	(G/RAB or (C)OMP	# CONTAINERS	MATRIX				PRESERVATIVE METHOD					SAMPLING		BTEX 8021B	Carbon Tetrachloride	Turn Around Time if different from standard	Hold	
				WATER	SOIL	AIR	SLUDGE	HCL	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	NaOH	ICE	NONE	DATE					TIME
1 <i>(LAB USE ONLY)</i>	<del>MW-2</del> <i>MW-3</i> *	G	2	X				X				X		5/9/13	800	X	X		
2	<del>MW-3</del> <i>MW-2</i>	G	2	X				X				X		5/9/13	815	X	X		
3	MW-1	G	2	X				X				X		5/9/13	830	X	X		

Relinquished by: \_\_\_\_\_ Company: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Received by: *Joel Henson* Company: \_\_\_\_\_ Date: *5/9/13* Time: *4:13*

INST *54* °C  
OBS *3* °C  
COR \_\_\_\_\_ °C

**LAB USE ONLY**

Intact Y/N

Headspace Y/N/NA

Log-in Review \_\_\_\_\_

Carrier # \_\_\_\_\_

**REMARKS:**

Dry Weight Basis Required

TRRP Report Required

Check If Special Reporting Limits Are Needed

Submission of samples constitutes agreement to Terms and Conditions

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*\*Sample ids corrected as per Joel. 5/13/13 Ch*