



# AE Order Number Banner

## Report Description

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**App Number: pGVG0804259135**

**AP - 78**

**PRIDE ENERGY COMPANY**

8/12/2016

100  
100

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9405 5118 99562498 7768 70



February 27, 2015

Mr. Jim Griswold  
New Mexico Energy, Minerals, & Natural Resources  
Oil Conservation Division, Environmental Bureau  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

HOBSOCK

MAR 04 2015

RECEIVED

**RE: 2014 Annual Groundwater Monitoring Report  
South Four Lakes #15 Site (AP-78)  
T12S-R34E-Section 2, Unit Letter G, Lea County, New Mexico**

Dear Mr. Griswold:

As agent for Pride Energy Company (Pride), Trident Environmental submits this *2014 Annual Groundwater Monitoring Report* for the above-referenced site.

*Groundwater Sampling Procedures*

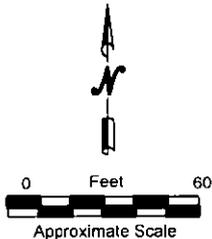
During each quarterly sampling event the on-site monitoring well (MW-1) was gauged for depth to groundwater using an electronic water level indicator immediately prior to purging operations. A minimum of three well volumes of groundwater was purged from the monitoring well using a 3-stage submersible pump which was decontaminated using an Alconox solution and a distilled water rinse between sampling points. Groundwater parameters (pH, temperature, and conductivity) were measured using a Hanna Model 98130 multimeter and recorded on a well sample data form. At the end of purging, water samples for the monitoring well were transferred into 500 milliliter (ml) plastic containers for laboratory analysis of chloride and sulfate using EPA Method E300 and TDS using EPA Method 160.1. For each set of samples, chain of custody forms documenting sample identification numbers, collection times, and delivery times to the laboratory were completed. All water samples were placed in an ice-filled cooler immediately after collection and transported to Permian Basin Environmental Lab (Midland, Texas) for analysis.

*Groundwater Monitoring Results*

Groundwater monitoring activities have been performed at the site on a quarterly basis since January 2008 as summarized in Table 1. A site plan showing the most recent groundwater elevation and the chloride/TDS concentrations in monitoring well MW-1 is shown in Figure 1. Figure 2 is a graph depicting chloride and TDS concentrations and groundwater elevation versus time at monitoring well MW-1.

### Legend

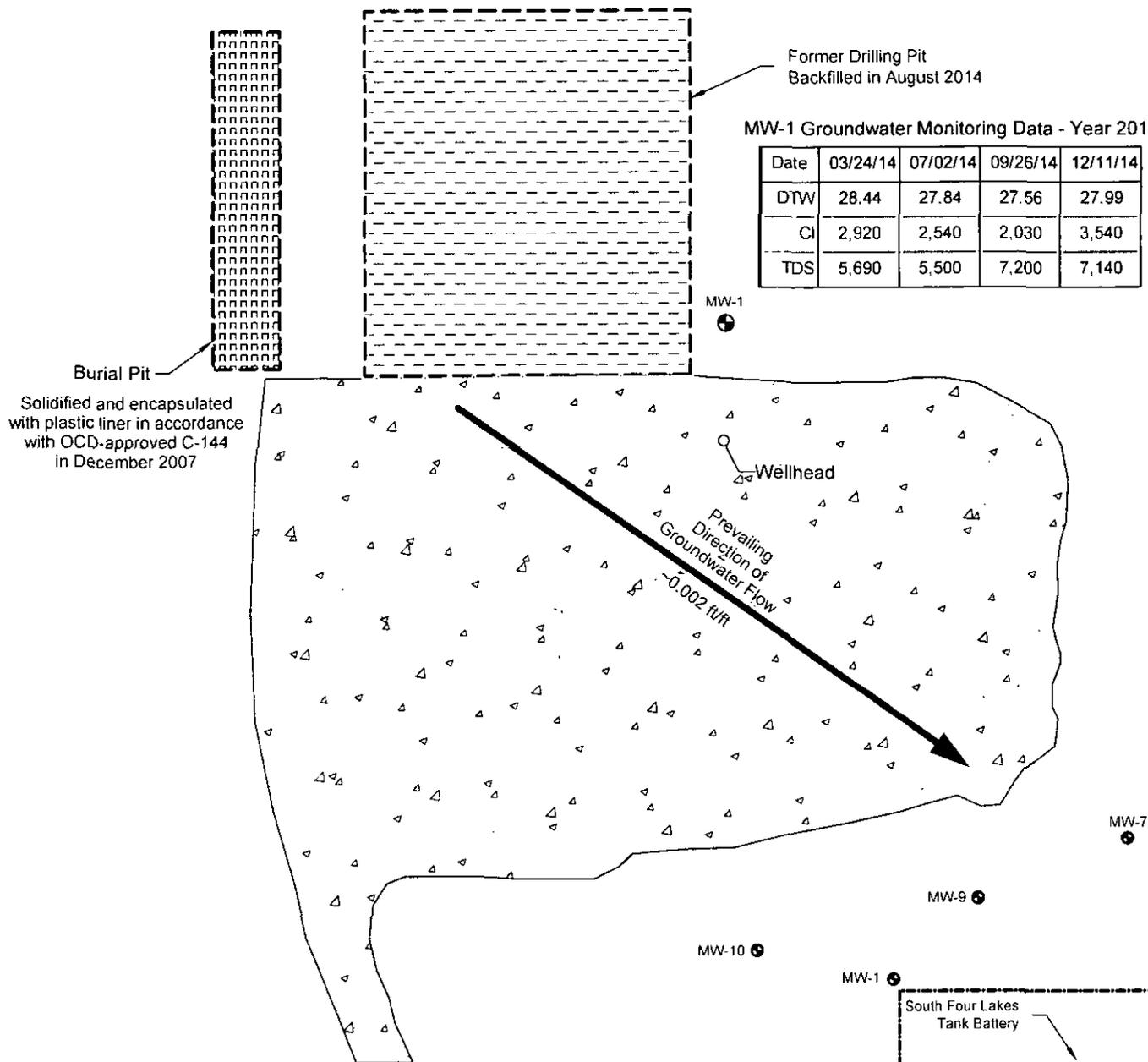
- MW-1      Monitoring Well Location
- DTW      Depth to Groundwater (ft btoc)
- Cl        Chloride/TDS concentration
- TDS      in groundwater (mg/L)



Former Drilling Pit  
Backfilled in August 2014

MW-1 Groundwater Monitoring Data - Year 2014

Date	03/24/14	07/02/14	09/26/14	12/11/14
DTW	28.44	27.84	27.56	27.99
Cl	2,920	2,540	2,030	3,540
TDS	5,690	5,500	7,200	7,140



Pride Energy Company  
South Four Lakes #15 (AP-78)  
T12S - R34E - Section 2 - Unit G  
Lea County, New Mexico

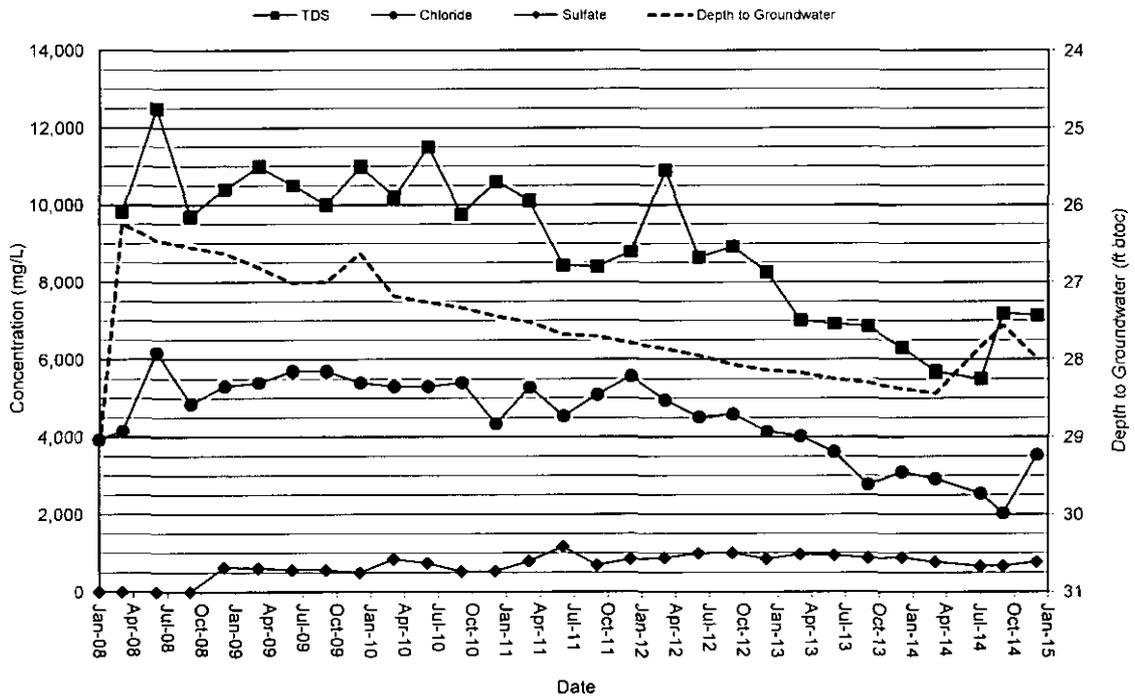
FIGURE 1  
2014  
Groundwater Monitoring Results

**Table 1**  
**Summary of Groundwater Monitoring Results (MW-1)**  
**South Four Lakes #15 Site (AP-78)**

Sample Date	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet AMSL)	Chloride (mg/L)	Sulfate (mg/L)	TDS (mg/L)	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylene (mg/L)
1/23/2008	29.10	4122.05	3,930	---	---	---	---	---	---
3/13/2008	26.25	4124.90	4,150	---	9,820	<0.001	<0.001	<0.001	<0.003
6/20/2008	26.46	4124.69	6,180	---	12,500	---	---	---	---
9/9/2008	26.55	4124.60	4,850	---	9,700	<0.001	<0.001	<0.001	<0.003
12/8/2008	26.63	4124.52	5,300	632	10,400	<0.001	<0.001	<0.001	<0.003
3/18/2009	26.81	4124.34	5,400	611	11,000	<0.001	<0.001	<0.001	<0.003
6/17/2009	27.01	4124.14	5,700	568	10,500	<0.001	<0.001	<0.001	<0.003
9/21/2009	27.00	4124.15	5,700	568	10,000	<0.001	<0.001	<0.001	<0.003
12/9/2009	26.63	4124.52	5,400	499	11,000	<0.001	<0.001	<0.001	<0.003
3/24/2010	27.18	4123.97	5,300	844	10,200	---	---	---	---
6/15/2010	27.26	4123.89	5,300	742	11,500	---	---	---	---
9/13/2010	27.33	4123.82	5,400	528	9,750	---	---	---	---
12/13/2010	27.44	4123.71	4,340	536	10,600	---	---	---	---
3/17/2011	27.52	4123.63	5,280	790	10,100	---	---	---	---
6/29/2011	27.68	4123.47	4,540	1,170	8,430	---	---	---	---
9/27/2011	27.70	4123.45	5,090	688	8,400	---	---	---	---
12/13/2011	27.79	4123.36	5,570	844	8,780	---	---	---	---
3/29/2012	27.86	4123.29	4,950	878	10,900	---	---	---	---
6/19/2012	27.95	4123.20	4,520	996	8,640	---	---	---	---
9/26/2012	28.07	4123.08	4,590	1,010	8,920	---	---	---	---
12/27/2012	28.14	4123.01	4,140	851	8,260	---	---	---	---
3/18/2013	28.17	4122.98	4,020	968	7,010	---	---	---	---
6/12/2013	28.25	4122.90	3,620	947	6,920	---	---	---	---
9/23/2013	28.30	4122.85	2,770	870	6,850	---	---	---	---
12/30/2013	28.38	4122.77	3,100	888	6,300	---	---	---	---
3/24/2014	28.44	4122.71	2,920	769	5,690	---	---	---	---
7/2/2014	27.84	4123.31	2,540	664	5,500	---	---	---	---
9/26/2014	27.56	4123.59	2,030	664	7,200	---	---	---	---
12/11/2014	27.99	4123.16	3,540	770	7,140	---	---	---	---
		WQCC Standards	250	600	1,000	0.01	0.75	0.75	0.62

Total Dissolved Solids (TDS), chloride, sulfate, and BTEX concentrations listed in milligrams per liter (mg/L). Values in boldface type indicate concentrations exceed New Mexico Water Quality Commission (WQCC) standards. BTOC - Below Top of Casing; Elevations and state plane coordinates surveyed by Basin Surveys, Hobbs, NM. --- Indicates parameter was not analyzed.

**FIGURE 2**  
**Chloride/TDS Concentrations and Groundwater Elevation Versus Time Graph (MW-1)**



Groundwater Depth, Elevations, Hydraulic Gradient and Flow Direction

Depth to groundwater at the site is approximately 26 feet (ft) below ground surface. The water table elevation has been steadily declining about 0.4 ft/year as displayed in Figure 2, which graphs the change in groundwater elevation since 2008 at monitoring well MW-1. Based on data from nearby sites, the prevailing groundwater gradient direction trends towards the southeast with a relatively flat hydraulic gradient of approximately 0.002 ft/ft (Figure 1). Groundwater depths and gradient patterns are consistent with the prevailing water table conditions in the area.

Groundwater Quality Conditions

The constituents of concern in groundwater are chloride and TDS as they remain above the New Mexico's Water Quality Control Commission (WQCC) standards, of 250 mg/L and 1,000 mg/L, respectively. Benzene, toluene, ethylbenzene, and xylenes (BTEX) are not a constituent of concern as concentrations remained below laboratory detection limits and WQCC standards for two years; therefore, analysis for these constituents was discontinued.

Pride Energy Company plans to continue quarterly ground water monitoring activities and submit an annual groundwater monitoring report next year.

We look forward to working with you on this project. If you have any questions or comments please contact me at 432.638.8740 (gil@trident-environmental.com) or Matt Pride at 918.524.9200 (mattp@pride-energy.com).

Respectfully,



Gilbert Van Deventer, REM, PG  
Trident Environmental

cc: Matt Pride (Pride Energy Co., Tulsa, OK)  
Geoffry Leking (NMOCD -District 1, Hobbs, NM)

Attachments: *Well sampling data form and laboratory analytical reports*

WELL SAMPLING DATA FORM

AND

LABORATORY ANALYTICAL REPORTS

**WELL SAMPLING DATA FORM (MW-1)**



CLIENT: Pride Energy Company  
 SITE NAME: South Four Lakes #15 (AP-78)  
 SITE LOCATION: T12S-R34E-Sec 2 Unit Letter G ~ Lea County, NM  
 SAMPLER: Gil Van Deventer

PURGING METHOD:     Hand Bailed     Pump, Type: Whaler Model WP-9012 Mega Purger (12-volt submersible pump)  
 SAMPLING METHOD:     Disposable Bailer     Direct from Discharge Hose     Other: \_\_\_\_\_  
 DISPOSAL METHOD OF PURGE WATER:     On-site Drum     Drums     SWD Disposal Facility

Quarter	Date	Time	Depth to Water (ft btoc)	Total Depth (ft)	Water Column Height (ft)	Well Factor 2"=.16 4"=.65	Calc. Well Vol. (gal)	Volume Purged (gal)	No. of Well Volumes Purged	Temp. °C	Cond. mS/cm	TDS	PHYSICAL APPEARANCE AND REMARKS
First	03/24/14	13:15	28.44	49.80	21.36	0.16	3.4	20	5.9	19.3	9.61		Cloudy but cleared quickly during purge
Second	07/02/14	12:00	27.84	49.80	21.96	0.16	3.5	15	4.3	19.4	8.98		Clear
Third	09/26/14	9:45	27.56	49.80	22.24	0.16	3.6	15	4.2	20.3	7.62		Clear
Fourth	12/11/14	12:15	27.99	49.80	21.81	0.16	3.5	15	4.3	19.4	10.63		Cloudy but cleared quickly during purge

COMMENTS:    Equipment decontamination consists of gloves, Alconox, and Distilled Water Rinse.  
Hanna Model 98130 instrument used to obtain pH, conductivity, and temperature measurements.  
Delivered samples to Permian Basin Environmental Laboratory (Midland TX) for chloride, sulfate, and TDS analysis.

**PERMIAN BASIN  
ENVIRONMENTAL LAB, LP  
10014 SCR 1213  
Midland, TX 79706**



## Analytical Report

**Prepared for:**

Gilbert Vandeventer  
Trident Environmental  
P.O. Box 12177  
Odessa, TX 79768

Project: Pride Energy Company  
Project Number: South Four Lakes #15 (AP-78)  
Location: T12S-R34E-Sec 2 Unit, Letter G ~ Lea County, NM  
Lab Order Number: 3C20002



NELAP/TCEQ # T104704156-12-1

Report Date: 03/29/13

Trident Environmental  
P.O. Box 12177  
Odessa TX, 79768

Project: Pride Energy Company  
Project Number: South Four Lakes #15 (AP-78)  
Project Manager: Gilbert Vandeventer

Fax: (432) 413-9968

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1	3C20002-01	Water	03/18/13 13:00	03-20-2013 12:30

**General Chemistry Parameters by EPA / Standard Methods  
Permian Basin Environmental Lab**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-1 (3C20002-01) Water</b>									
Chloride	4020	100	mg/L	200	EC32601	03/26/13	03/26/13	EPA 300.0	
Total Dissolved Solids	7010	10.0	"	1	EC32703	03/25/13	03/25/13	EPA 160.1	
Sulfate	968	200	"	200	EC32601	03/26/13	03/26/13	EPA 300.0	

**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Permian Basin Environmental Lab**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch EC32601 - \*\*\* DEFAULT PREP \*\*\***

**Blank (EC32601-BLK1)**

Prepared & Analyzed: 03/26/13

Sulfate	ND	1.00	mg/L							
Chloride	ND	0.500	"							

**LCS (EC32601-BS1)**

Prepared & Analyzed: 03/26/13

Sulfate	11.7		mg/L	10.0		117	80-120			
Chloride	10.9		"	10.0		109	80-120			

**LCS Dup (EC32601-BS1)**

Prepared & Analyzed: 03/26/13

Sulfate	11.8		mg/L	10.0		118	80-120	0.434	20	
Chloride	11.0		"	10.0		110	80-120	0.621	20	

**Duplicate (EC32601-DUP1)**

Source: 3C20001-01

Prepared & Analyzed: 03/26/13

Sulfate	230	25.0	mg/L		232			0.802	20	
Chloride	801	12.5	"		800			0.137	20	

**Matrix Spike (EC32601-MS1)**

Source: 3C20001-01

Prepared & Analyzed: 03/26/13

Sulfate	547	25.0	mg/L	300	232	105	80-120			
Chloride	1100	12.5	"	300	800	102	80-120			

**Batch EC32703 - \*\*\* DEFAULT PREP \*\*\***

**Blank (EC32703-BLK1)**

Prepared & Analyzed: 03/25/13

Total Dissolved Solids	ND	10.0	mg/L							
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**Duplicate (EC32703-DUP1)**

Source: 3C20001-01

Prepared & Analyzed: 03/25/13

Total Dissolved Solids	1580	10.0	mg/L		1590			1.01	20	
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Trident Environmental  
P.O. Box 12177  
Odessa TX, 79768

Project: Pride Energy Company  
Project Number: South Four Lakes #15 (AP-78)  
Project Manager: Gilbert Vandeventer

Fax: (432) 413-9968

### Notes and Definitions

DET Analyte DETECTED  
ND Analyte NOT DETECTED at or above the reporting limit  
NR Not Reported  
dry Sample results reported on a dry weight basis  
RPD Relative Percent Difference  
LCS Laboratory Control Spike  
MS Matrix Spike  
Dup Duplicate

Report Approved By:



Date:

3/29/2013

Brent Barron, Laboratory Director/Technical Director

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If you have received this material in error, please notify us immediately at 432-661-4184.



**PERMIAN BASIN  
ENVIRONMENTAL LAB, LP  
10014 SCR 1213  
Midland, TX 79706**



## Analytical Report

**Prepared for:**

Matt Pride  
Pride Energy Company  
P.O. BOX 701950  
Tulsa, OK 74170-1950

Project: Pride Energy Company  
Project Number: South Four Lakes #15 (AP78)  
Location: T12S-R34E-Sec 2 Unit Letter G ~ Lea County, NM  
Lab Order Number: 3F14004



NELAP/TCEQ # T104704156-12-1

Report Date: 06/24/13

Pride Energy Company  
P.O. BOX 701950  
Tulsa OK. 74170-1950

Project: Pride Energy Company  
Project Number: South Four Lakes #15 (AP78)  
Project Manager: Matt Pride

Fax: (918) 524-9292

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1	3F14004-01	Water	06/12/13 11:30	06-14-2013 14:18

Pride Energy Company  
P.O. BOX 701950  
Tulsa OK, 74170-1950

Project: Pride Energy Company  
Project Number: South Four Lakes #15 (AP78)  
Project Manager: Matt Pride

Fax: (918) 524-9292

**MW-1**  
**3F14004-01 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	3620	100	mg/L	200	P3F1901	06/17/13	06/19/13	EPA 300.0	
Total Dissolved Solids	6920	10.0	mg/L	1	P3F2107	06/18/13	06/21/13	EPA 160.1	
Sulfate	947	200	mg/L	200	P3F1901	06/17/13	06/19/13	EPA 300.0	

Pride Energy Company  
P.O. BOX 701950  
Tulsa OK, 74170-1950

Project: Pride Energy Company  
Project Number: South Four Lakes #15 (AP78)  
Project Manager: Matt Pride

Fax: (918) 524-9292

**General Chemistry Parameters by EPA / Standard Methods - Quality Control  
Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P3F1901 - \*\*\* DEFAULT PREP \*\*\***

**Blank (P3F1901-BLK1)**

Prepared: 06/17/13 Analyzed: 06/19/13

Sulfate	ND	1.00	mg/L							
Chloride	ND	0.500	"							

**LCS (P3F1901-BS1)**

Prepared: 06/17/13 Analyzed: 06/19/13

Sulfate	10.3		mg/L	10.0	103	103	80-120			
Chloride	9.84		"	10.0	98.4	98.4	80-120			

**LCS Dup (P3F1901-BSD1)**

Prepared: 06/17/13 Analyzed: 06/19/13

Sulfate	10.3		mg/L	10.0	103	103	80-120	0.0968	20	
Chloride	9.75		"	10.0	97.5	97.5	80-120	0.970	20	

**Duplicate (P3F1901-DUP1)**

Source: 3F14001-01

Prepared: 06/17/13 Analyzed: 06/19/13

Sulfate	105	5.00	mg/L		105			0.366	20	
Chloride	250	2.50	"		255			2.10	20	

**Matrix Spike (P3F1901-MS1)**

Source: 3F14001-01

Prepared: 06/17/13 Analyzed: 06/19/13

Sulfate	154	5.00	mg/L	42.5	105	113	80-120			
Chloride	300	2.50	"	42.5	255	106	80-120			

**Matrix Spike (P3F1901-MS2)**

Source: 3F14001-11

Prepared: 06/17/13 Analyzed: 06/19/13

Sulfate	264	25.0	mg/L	250	60.2	81.3	80-120			
Chloride	539	12.5	"	250	323	86.3	80-120			

**Batch P3F2107 - \*\*\* DEFAULT PREP \*\*\***

**Blank (P3F2107-BLK1)**

Prepared: 06/18/13 Analyzed: 06/21/13

Total Dissolved Solids	ND	10.0	mg/L							
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Pride Energy Company  
P.O. BOX 701950  
Tulsa OK, 74170-1950

Project: Pride Energy Company  
Project Number: South Four Lakes #15 (AP78)  
Project Manager: Matt Pride

Fax: (918) 524-9292

**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P3F2107 - *** DEFAULT PREP ***</b>										
<b>Duplicate (P3F2107-DUP1)</b>										
		<b>Source: 3F14001-01</b>			<b>Prepared: 06/18/13 Analyzed: 06/21/13</b>					
Total Dissolved Solids	770	10.0	mg/L		815			5.68	20	

Pride Energy Company  
P.O. BOX 701950  
Tulsa OK, 74170-1950

Project: Pride Energy Company  
Project Number: South Four Lakes #15 (AP78)  
Project Manager: Matt Pride

Fax: (918) 524-9292

### Notes and Definitions

DET Analyte DETECTED  
ND Analyte NOT DETECTED at or above the reporting limit  
NR Not Reported  
dry Sample results reported on a dry weight basis  
RPD Relative Percent Difference  
LCS Laboratory Control Spike  
MS Matrix Spike  
Dup Duplicate

Report Approved By:



Date:

6/24/2013

Brent Barron, Laboratory Director/Technical Director

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If you have received this material in error, please notify us immediately at 432-686-7235.



**PERMIAN BASIN  
ENVIRONMENTAL LAB, LP  
10014 SCR 1213  
Midland, TX 79706**



## Analytical Report

**Prepared for:**

Matt Pride  
Pride Energy Company  
P.O. BOX 701950  
Tulsa, OK 74170-1950

Project: Pride Energy Company  
Project Number: South Four Lakes #15 (AP78)  
Location: T12S-R34E-Sec 2 Unit Letter G ~ Lea County, NM  
Lab Order Number: 3124005



NELAP/TCEQ # T104704156-13-3

Report Date: 10/02/13

Pride Energy Company  
P.O. BOX 701950  
Tulsa OK, 74170-1950

Project: Pride Energy Company  
Project Number: South Four Lakes #15 (AP78)  
Project Manager: Matt Pride

Fax: (918) 524-9292

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1	3124005-01	Water	09/23/13 11:00	09-24-2013 13:25

Pride Energy Company  
P.O. BOX 701950  
Tulsa OK, 74170-1950

Project: Pride Energy Company  
Project Number: South Four Lakes #15 (AP78)  
Project Manager: Matt Pride

Fax: (918) 524-9292

**MW-1**  
**3124005-01 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	2770	100	mg/L	200	P312603	09/26/13	09/26/13	EPA 300.0	
Total Dissolved Solids	6850	20.0	mg/L	1	P3J0104	09/25/13	10/01/13	EPA 160.1	
Sulfate	870	200	mg/L	200	P312603	09/26/13	09/26/13	EPA 300.0	

Pride Energy Company  
P.O. BOX 701950  
Tulsa OK, 74170-1950

Project: Pride Energy Company  
Project Number: South Four Lakes #15 (AP78)  
Project Manager: Matt Pride

Fax: (918) 524-9292

**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P3I2603 - \*\*\* DEFAULT PREP \*\*\***

**Blank (P3I2603-BLK1)**

Prepared & Analyzed: 09/26/13

Sulfate	ND	1.00	mg/L							
Chloride	ND	0.500	"							

**LCS (P3I2603-BS1)**

Prepared & Analyzed: 09/26/13

Sulfate	11.3		mg/L	10.0	113		80-120			
Chloride	10.5		"	10.0	105		80-120			

**LCS Dup (P3I2603-BSD1)**

Prepared & Analyzed: 09/26/13

Sulfate	11.8		mg/L	10.0	118		80-120	4.43	20	
Chloride	10.6		"	10.0	106		80-120	0.837	20	

**Duplicate (P3I2603-DUP1)**

Source: 3124004-01

Prepared & Analyzed: 09/26/13

Sulfate	216	25.0	mg/L		217			0.415	20	
Chloride	697	12.5	"		696			0.147	20	

**Batch P3J0104 - \*\*\* DEFAULT PREP \*\*\***

**Blank (P3J0104-BLK1)**

Prepared: 09/25/13 Analyzed: 10/01/13

Total Dissolved Solids	10.0	10.0	mg/L							
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Pride Energy Company  
P.O. BOX 701950  
Tulsa OK, 74170-1950

Project: Pride Energy Company  
Project Number: South Four Lakes #15 (AP78)  
Project Manager: Matt Pride

Fax: (918) 524-9292

### Notes and Definitions

DET Analyte DETECTED  
ND Analyte NOT DETECTED at or above the reporting limit  
NR Not Reported  
dry Sample results reported on a dry weight basis  
RPD Relative Percent Difference  
LCS Laboratory Control Spike  
MS Matrix Spike  
Dup Duplicate

Report Approved By:



Date:

10/2/2013

Brent Barron, Laboratory Director/Technical Director

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**PERMIAN BASIN  
ENVIRONMENTAL LAB, LP  
10014 SCR 1213  
Midland, TX 79706**



## Analytical Report

**Prepared for:**

Matt Pride  
Pride Energy Company  
P.O. BOX 701950  
Tulsa, OK 74170-1950

Project: Pride Energy Company  
Project Number: South Four Lakes #15 (AP78)  
Location: T12S-R34E-Sec 2 Unit Letter G ~ Lea County, NM

Lab Order Number: 3L31003



NELAP/TCEQ # T104704156-13-3

Report Date: 01/07/14

Pride Energy Company  
P.O. BOX 701950  
Tulsa OK. 74170-1950

Project: Pride Energy Company  
Project Number: South Four Lakes #15 (AP78)  
Project Manager: Matt Pride

Fax: (918) 524-9292

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1	3L31003-01	Water	12/30/13 13:00	12-31-2013 13:30

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**MW-1**  
**3L31003-01 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>3100</b>	100	mg/L	200	P4A0604	01/06/14	01/06/14	EPA 300.0	
<b>Total Dissolved Solids</b>	<b>6300</b>	20.0	mg/L	1	P4A0701	01/03/14	01/07/14	EPA 160.1	
<b>Sulfate</b>	<b>888</b>	200	mg/L	200	P4A0604	01/06/14	01/06/14	EPA 300.0	

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**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P4A0604 - \*\*\* DEFAULT PREP \*\*\***

**Blank (P4A0604-BLK1)**

Prepared & Analyzed: 01/06/14

Sulfate	ND	1.00	mg/L							
Chloride	ND	0.500	"							

**LCS (P4A0604-BS1)**

Prepared & Analyzed: 01/06/14

Sulfate	9.89		mg/L	10.0		98.9	80-120			
Chloride	10.4		"	10.0		104	80-120			

**LCS Dup (P4A0604-BSD1)**

Prepared & Analyzed: 01/06/14

Sulfate	9.89		mg/L	10.0		98.9	80-120	0.0101	20	
Chloride	9.86		"	10.0		98.6	80-120	5.47	20	

**Duplicate (P4A0604-DUP1)**

Source: 3L31002-01

Prepared & Analyzed: 01/06/14

Sulfate	207	25.0	mg/L		209			1.14	20	
Chloride	753	12.5	"		753			0.0797	20	

**Matrix Spike (P4A0604-MS1)**

Source: 3L31002-01

Prepared & Analyzed: 01/06/14

Sulfate	378	25.0	mg/L	150	209	112	80-120			
Chloride	899	12.5	"	150	753	97.0	80-120			

**Batch P4A0701 - \*\*\* DEFAULT PREP \*\*\***

**Blank (P4A0701-BLK1)**

Prepared: 01/03/14 Analyzed: 01/07/14

Total Dissolved Solids	ND	20.0	mg/L							
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**Duplicate (P4A0701-DUP1)**

Source: 31.31002-01

Prepared: 01/03/14 Analyzed: 01/07/14

Total Dissolved Solids	1340	20.0	mg/L		1290			3.80	20	
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### Notes and Definitions

DET Analyte DETECTED  
ND Analyte NOT DETECTED at or above the reporting limit  
NR Not Reported  
dry Sample results reported on a dry weight basis  
RPD Relative Percent Difference  
LCS Laboratory Control Spike  
MS Matrix Spike  
Dup Duplicate

Report Approved By:



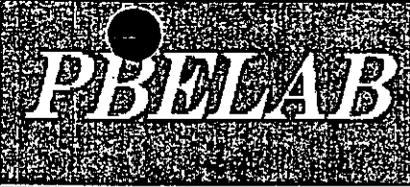
Date:

1/7/2014

Brent Barron, Laboratory Director/Technical Director

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If you have received this material in error, please notify us immediately at 432-686-7235.



Permian Basin Environmental Lab, LP  
 10014 S. County Road 1213  
 Midland, Texas 79706  
 Phone: 432-661-4184

COC No.: AP78-123013

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # 3L31003

Company Name: Trident Environmental  
 Project Manager: Gil Van Deventer / Trident Environmental  
 Address: PO Box 12177, Odessa TX 79768  
 Phone #: (432) 638-8740

BILL TO Company: Pride Energy Company / Attention: Matt Pride  
 Address: PO Box 710950, Tulsa, OK 74170-1950  
 Phone#: (918) 524-9200  
 Fax#: (918) 524-9292

Project #: South Four Lakes #15 (AP-78)  
 Project Name: Pride Energy Company  
 Project Location: T12S-R34E-Sec 2 Unit Letter G ~ Lea County, NM  
 Sampler Signature:

ANALYSIS REQUEST (Circle or Specify Method No.)	
MTBE 8021B/602	
BTEX 8021 B	
TPH 418.1/TX1005 / TX1005 Extended (C35)	
PAH 8270C	
Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	
TCLP Metals Ag As Ba Cd Cr Pb Se Hg	
TCLP Volatiles	
TCLP Semi Volatiles	
TCLP Pesticides	
RCI	
GC/MS Vol. 8260B/624	
GC/MS Semi. Vol. 8270C/625	
Moisture Content	
Cations (Ca, Mg, Na, K)	
Anions (Cl, SO4, CO3, HCO3)	
Total Dissolved Solids (160.1 or SM2540C)	
Chloride / Cl (SM4500 B or 300.1)	
Sulfate / SO4 (375.4)	
Turn Around Time ~ 24 Hours	

LAB # (LAB USE ONLY)	FIELD CODE	(G)rab or (C)omp	# CONTAINERS	MATRIX				PRESERVATIVE METHOD					SAMPLING		
				WATER	SOIL	AIR	SLUDGE	HCL (BTEX only)	HNO3	NaHSO4	H2SO4	ICE	NONE	DATE	TIME
-01	MW-1	G	1	X									X	12/30/13	1300

Relinquished by: *[Signature]* Date: 12/31/13 Time: 1:30p  
 Received by: *[Signature]* Date: 12/31/13 Time: 13:30

Phone Results: Yes  No  X  
 Fax Results: Yes  No  X Additional Fax Number:

Relinquished by: *[Signature]* Date: 12/31/13 Time: 1:30p  
 Received by: (Laboratory Staff) *[Signature]* Date: 12/31/13 Time: 13:30

REMARKS: Samples not field filtered

Delivered By: (Circle One)  UPS  Bus  Other

Sample Condition: 3.5 NC  
 CHECKED BY: *[Signature]*  
 (Initials) *[Signature]*

Yes  No  Cool  Intact

Email Results to:  
 gil@trident-environmental.com  
 mattp@pride-energy.com