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Report Description

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App Number: pENV00001RP204

1RP - 501

PRIDE ENERGY COMPANY

8/12/2016

USPS Priority Mail® 9405 5118 9956 2498 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

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RE: 2014 Annual Groundwater Monitoring Report State 36 #2 Site (NMOCD Case # 1R-501) T19S-R37E-Section 36, Unit Letter O, 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 four monitoring wells (MW-1, MW-2, MW-3, and MW-4) were 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 each 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 each monitoring well were transferred into 500 milliliter (ml) plastic containers for laboratory analysis of chloride using EPA Method E300.1 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 map showing the most recent groundwater elevation and the chloride/TDS concentrations in the four on site monitoring wells (MW-1, MW-2, MW-3, and MW-4) is shown in Figure 1. Figure 2 is a graph depicting groundwater elevation versus time for each monitoring well. Figures 3 and 4 depict chloride and TDS concentrations, respectively. A well sampling data form, laboratory analytical reports, and chains of custody documentation for each 2014 sampling event are attached.

Conclusions regarding groundwater conditions are summarized as follows:

- The local water table is at a depth of approximately 42 feet bgs and slopes towards the northeast at a magnitude of approximately 0.004 ft/ft, which is anomalous to the prevailing southeast trending regional gradient.
- The base of the aquifer within the shallow Quaternary colluvium deposits is about 50 ft bgs, where red clay of the Triassic Dockum Group was encountered during well installations, therefore the saturated thickness is estimated at only 6 feet. A non-level erosional unconformity represented by the top of the Triassic red clay and a localized groundwater divide (Nicholson and Clebsch, Ground-Water Report 6, *Geology and Ground-Water Conditions in Southeast New Mexico*, 1961) helps to explain the thin saturated thickness and anomalous local gradient observed at the site (Figure 5).
- The potential well yield for possible beneficial use of groundwater at the site is very low due to the limited thickness of the aquifer (less than 10 feet), observations of low yields during monitoring well development activities, and water table elevation declines of approximately 0.1 feet per year. In the unlikely event a water well is completed in the area, the expected yield would be less than 150 gallons per day which is considered inadequate for any beneficial domestic, irrigation, or municipal use.
- Chloride and TDS concentrations from groundwater samples collected at monitoring wells MW-1, MW-2, MW-3, and MW-4 exceed WQCC standards. The highest chloride and TDS levels during the most recent sampling event in December 2014 have been observed in monitoring well MW-3 with concentrations of 1,370 mg/L and 3,930 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 has been discontinued.

Pride Energy Company plans to continue 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 you may contact me at 432.638.8740 (gil@trident-environmental.com) or Matt Pride at 918.524.9200 (mattp@pride-energy.com).

Sincerely.

Gilbert Van Deventer, REM, PG Trident Environmental

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

Attachments: Figures, well sampling data form, and laboratory analytical reports

TABLE 1Summary of Groundwater Monitoring Results

FIGURE 1 Site Map with Groundwater Monitoring Results

FIGURE 2 Groundwater Elevations versus Time Graph

FIGURE 3 Chloride Concentrations Versus Time Graph

FIGURE 4 TDS Concentrations Versus Time Graph

WELL SAMPLING DATA FORM

Table 1
Summary of Groundwater Monitoring Results
State 26 42 (1D 501)

					#2 (1R-501)						
Monitoring	Sample	Depth to	Top of Casing	Groundwater Elevation	Well Depth	Chloride	TDS	Benzene	Toluene	Ethyl-	Xylend
Well	Date	Groundwater (feet BTOC)	Elevation (feet AMSL)	(feet AMSL)	(feet BTOC)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	benzene (mg/L)	(mg/L)
	02/25/08	43.80	3603.21	3559.41	52.40	489				(112) 13)	
	03/27/08	43.88	3603.21	3559.33	52.40	489 557	1,770	< 0.001	< 0.002	< 0.001	< 0.003
	06/17/08	43.89	3603.21	3559.32	52.40	594	1,370				- 0,000
	09/10/08	43.97	3603.21	3559.24	52.40	440	1,260	< 0.001	< 0.001	<0.001	<0.003
	12/17/08	43.96	3603.21	3559.25	52.40	440	1,290	< 0.001	<0.001	<0.001	< 0.003
	03/19/09	44.02	3603.21	3559.19	52.40	430	1,240	< 0.001	<0.001	< 0.001	< 0.003
	06/18/09	44.02	3603.21	3559.19	52.40	428	1,330	<0.001	<0.001	<0.001	<0.003
	09/17/09	44.08	3603.21	3559.13	52.40	456	1,530	<0.001	<0.001	<0.001	<0.003
	12/10/09	44.13	3603.21	3559.08	52.40	450	1,360	<0.001	<0.001	<0.001	<0.003
	03/31/10	44.14	3603.21	3559.07	52.40	468	1,330				·
	06/16/10	44.20	3603.21	3559.01	52.40	447	1,420	•			
	09/22/10	44.09	3603.21	3559.12	52.40	1,470	3,940				
	12/13/10	44.12	3603.21	3559.09	52.40	491	1,790	1			
	03/17/11	44.14	3603.21	3559.07	52.40	512	1,840				
MW-1	06/30/11	44.24	3603.21	3558.97	52.40	447	1,410				
	09/29/11	44.23	3603.21	3558.98	52.40	453	770				
	12/20/11	44.31	3603.21	3558.90	52.40	527	3,810				
	03/29/12	44.34	3603.21	3558.87	52.40	504	1,380	—		-	
	06/20/12	44.37	3603.21	3558.84	52.40	551	1,420	—			
	09/26/12	44.44	3603.21	3558.77	52.40	532	1,900				
ľ	12/27/12	44.46	3603.21	3558.75	52.40	463	1,740				
	03/18/13	44.59	3603.21	3558.62	52.40	614	1,760				
	06/11/13	44.63	3603.21	3558.58	52.40	574	1,820				
	09/23/13	44.58	3603.21	3558.63	52.40	538	1,860		-		
	12/30/13	44.63	3603.21	3558.58	52.40	636	1,430				
	03/24/14	44.64	3603.21	3558.57	52.40	643	1,660				
ļ	07/03/14	44.73 44.74	3603.21	3558.48	52.40	717	1,820				
	09/27/14 12/12/14	44.74 44.76	3603.21 3603.21	3558.47 3558.45	52.40 52.40	428 468	1,580 1,630				
	05/08/08	43.25	3602.47	3559.22	57.61	1,450	2,730	< 0.001	< 0.002	< 0.001	< 0.00
	06/17/08	43.31	3602.47	3559.16	57.61	1,980	2,730				
	09/10/08	43.37	3602.47	3559.10	57.61	1,580	3,440	<0.001	<0.001	<0.001	<0.00
	12/17/08	43.38	3602.47	3559.09	57.61	1,300	2,900	<0.001	<0.001	< 0.001	< 0.00
	03/19/09	43.41	3602.47	3559.06	57.61	1,080	2,380	< 0.001	<0.001	<0.001	<0.00
	06/18/09	43.42	3602.47	3559.05	57.61	920	2,300	<0.001	<0.001	< 0.001	<0.00
	09/17/09	43.47	3602.47	3559.00	57.61	810	1,980	<0.001	<0.001	<0.001	<0.00
	12/10/09	43.53	3602.47	3558.94	57.61	860	1,870	<0.001	< 0.001	< 0.001	<0.00
	03/31/10	43.55	3602.47	3558.92	57.61	691	1,520				
	06/16/10	43.66	3602.47	3558.81	57.61	723	2,020				
	09/22/10	43.54	3602.47	3558.93	57.61	923	3,080				
	12/13/10	43.55	3602.47	3558.92	57.61	936	2,750				
	03/17/11	43.55	3602.47	3558.92	57.61	765	2,560				
N/I M/ _ / I	06/30/11	43.67	3602.47	3558.80	57.61	788	1,180)	}		
	09/29/11	43.65	3602.47	3558.82	57.61	616	1,380				
	12/20/11 03/29/12	43.73 43.76	3602.47 3602.47	3558.74 3558.71	57.61	579 573	2,100				
	03/29/12	43.70	3602.47	3558.68	57.61 57.61	572 721	1,660 1,800				
1	09/26/12	43.79	3602.47	3558.61	57.61	556	1,800				
	12/27/12	43.88	3602.47	3558.59	57.61	330 466	1,690			·	
	03/18/13	43.91	3602.47	3558.56	57.61	400 604	1,630				
ſ	06/11/13	43.95	3602.47	3558.52	57.61	702	1,880				
	09/23/13	44.01	3602.47	3558.46	57.61	586	1,790				
	12/30/13	44.06	3602.47	3558.41	57.61	564	1,500			_	
	03/24/14	44.07	3602.47	3558.40	57.61	575	1,630				
1	07/03/14	44.15	3602.47	3558.32	57.61	691	1,660				
	4		•		I					-	
	09/27/14	44,17	3602.47	3558.30	57.61	442	1,400				

Continued on next page

Table 1
Summary of Groundwater Monitoring Results
State 26 42 (11) 501)

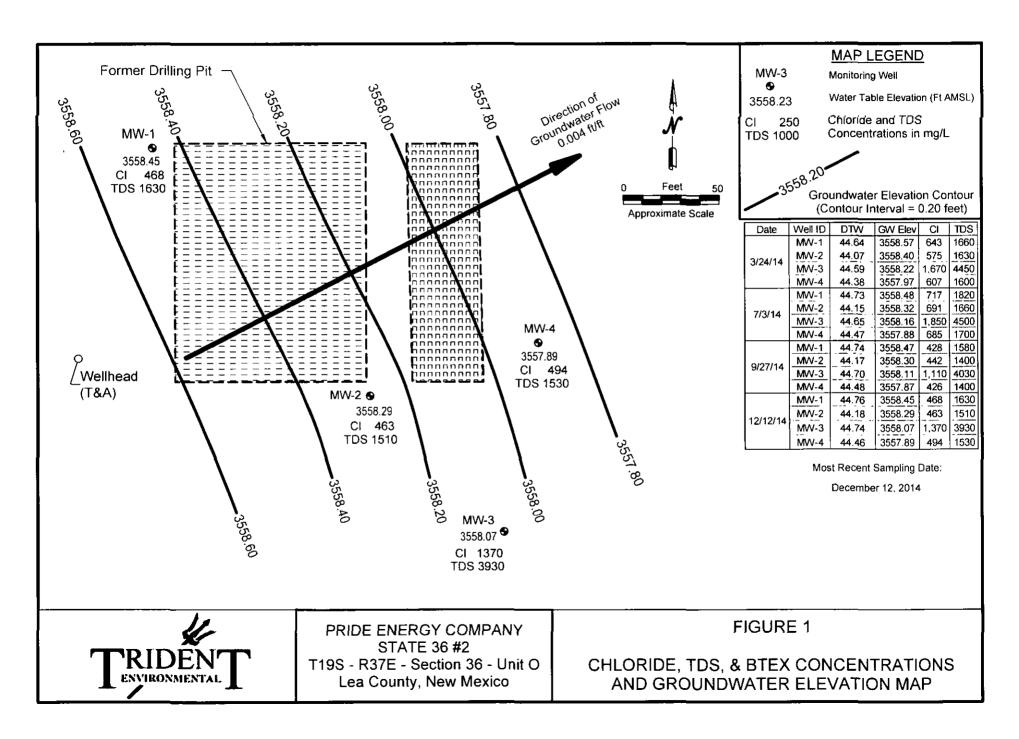
		· · · · · · · · · · · · · · · · · · ·			#2 (1R-501)		_		r ·		
Monitoring	Sample	Depth to	Top of Casing		Well Depth	Chloride	TDS	Benzene	Toluene	Ethyl-	Xylen
Well	Date	Groundwater	Elevation	Elevation	(feet BTOC)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	benzene	(mg/l
		(feet BTOC)	(feet AMSL)	(feet AMSL)						(mg/L)	
ſ	06/17/08	43.83	3602.81	3558.98	53.83	733	1,810				
	09/10/08	43.85	3602.81	3558.96	53.83	580	1,660	< 0.001	< 0.001	<0.001	< 0.00
	12/17/08	43.91	3602.81	3558.90	53.83	570	1,580	<0.001	< 0.001	<0.001	<0.00
	03/19/09 06/18/09	43.91 43.97	3602.81 3602.81	3558.90	53.83	560	1,620	<0.001 <0.001	<0.001 <0.001	<0.001 <0.001	< 0.00
	09/17/09	43.97 44.03	3602.81	3558.84 3558.78	53.83 53.83	520	1,530 1,410	<0.001	<0.001	<0.001	<0.00 <0.00
	12/10/09	44.03	3602.81	3558.74	53.85	500 500	1,410	<0.001	<0.001	<0.001	<0.00
	03/31/10	44.07	3602.81	3558.74	53.83		1,300				
	06/16/10	44.14	3602.81	3558.67	53.83	489	1,440				
ľ	09/22/10	44.07	3602.81	3558.74	53.83	420	1,520				
	12/13/10	44.10	3602,81	3558.71	53.83	290	1,350				
	03/17/11	44.07	3602.81	3558.74	53.83	434	1,420				
	06/30/11	44.19	3602.81	3558.62	53.83	426	1,310				
MW-3	09/29/11	44.18	3602.81	3558.63	53.83	439	890				
	12/20/11	44.28	3602.81	3558.53	53.83	494	1,220				
	03/29/12	44.29	3602.81	3558.52	53.83	642	1,830			[
	06/20/12	44.31	3602.81	3558,50	53.83	1,040	2,500				
	09/26/12	44.37	3602.81	3558.44	53.83	1,160	3,460				
	12/27/12	44.40	3602.81	3558.41	53.83	1,030	3,500				
1	03/18/13	44.43	3602.81	3558.38	53.83	1,380	3,500				
	06/11/13	44.47	3602.81	3558.34	53.83	1,770	4,510				
	09/23/13	44.52	3602.81	3558.29	53.83	995	4,180				
	12/30/13	44.58	3602.81	3558.23	53.83	1,830	3,600				
	03/24/14	44.59	3602.81	3558.22	53.83	1,670	4,450				
	07/03/14	44.65	3602.81	3558.16	53.83	1,850	4,500				
	09/27/14	44.70	3602.81	3558.11	53.83	1,110	4,030				
	12/12/14	44.74	3602.81	3558.07	53.83	1,370	3,930				
	06/17/08	43.54	3602.35	3558.81	50.30	1,070	2,150				
]	09/10/08	43.61	3602.35	3558.74	50.30	820	2,070	< 0.001	<0.001	<0.001	<0.0
	12/17/08	43.63	3602.35	3558.72	50.30	830	1,970	<0.001	<0.001	<0.001	<0.0
	03/19/09	43.67	3602.35	3558.68	50.30	810	1,970	<0.001	< 0.001	< 0.001	<0.0
	06/18/09	43.68	3602.35	3558.67	50.30	740	1,860	< 0.001	<0.001	<0.001	<0.0
	09/17/09	43.78	3602.35	3558.57	50.30	740	1,690	<0.001	<0.001	< 0.001	<0.0
	12/10/09	43.81	3602.35	3558.54	50.30	660	1,570	<0.001	<0.001	<0.001	<0.0
	03/31/10	43.83	3602.35	3558.52	50.30	691	1,560				
	06/16/10	43.88	3602.35	3558.47	50.30	606	1,580			1	
	09/22/10	43.78	3602.35	3558.57	50.30	669	1,940				
	12/13/10	43.81	3602.35	3558.54 3558.52	50.30	646 779	2,020				
	03/17/11 06/30/11	43.83 43.94	3602.35 3602.35	3558.52	50.30 50.30	778	2,530 1,910				
	09/29/11	43.94 43.93	3602.35	3558.41	50.30	758 662	1,910				
	12/20/11	43.93	3602.35	3558.34	50.30	623	1,180				
	03/29/12	44.01	3602.35	3558.30	50.30	606	1,860				
	06/20/12	44.09	3602.35	3558.26	50.30	797	1,790				
	09/26/12	44.15	3602.35	3558.20	50.30	579	1,620				
	12/27/12	44.19	3602.35	3558.16	50.30	493	1,690				
	03/18/13	44.20	3602.35	3558.15	50.30	608	1,590				
	06/11/13	44.24	3602.35	3558.11	50.30	505	1,790				
	09/23/13	44.31	3602.35	3558.04	50.30	532	1,840				
	12/30/13	44.36	3602.35	3557.99	50.30	632	1,440				
0	03/24/14	44.38	3602.35	3557.97	50.30	607	1,600				
	07/03/14	44.47	3602.35	3557.88	50.30	685	1,700				
	09/27/14	44.48	3602.35	3557.87	50.30	426	1,400				
	12/12/14	44.46	3602.35	3557.89	50.30	494	1,530				
				QCC Standards		250	1000	0.01	0.75	0.75	0

* TDS in MW-1 on 09/22/10 is not consistent with previous sampling events nor with chloride value. Likely due to lab error (not filtered? Total Dissolved Soilds (TDS), chloride, and BTEX concentrations listed in milligrams per liter (mg/L

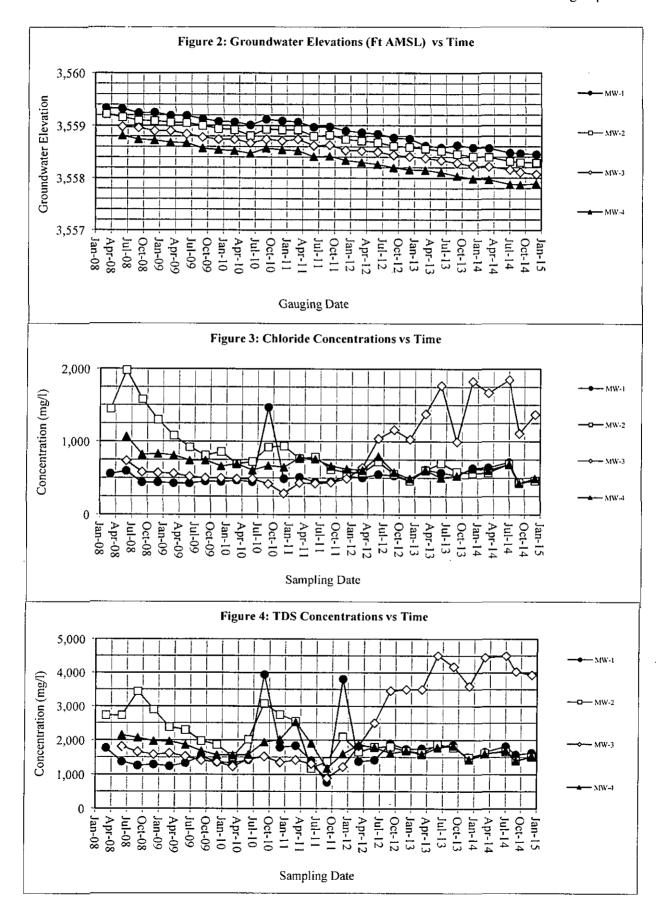
Values in boldface type indicate concentrations exceed New Mexico Water Quality Commission (WQCC) standards

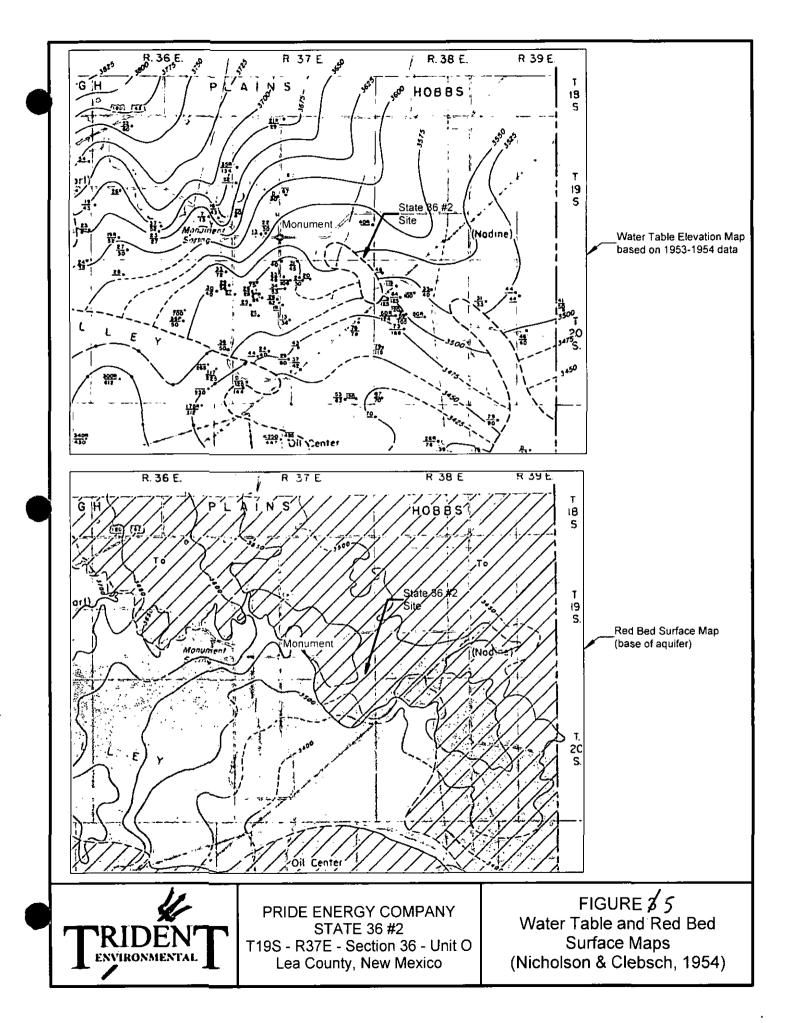
AMSL - Above Mean Sea Level; BTOC - Below Top of Casing ---- Indicates not sampled, analyzed, or measured for this parameter





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WELL SAMPLING DATA FORM

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CLIENT: Pride Energy Company

SITE NAME: State 36 #2 (OCD Case # 1R501)

SITE LOCATION: T19S R37E Sec 36 Unit O, Lea County, NM

Π

SAMPLER: Gil Van Deventer

PURGING METHOD:

Hand Bailed Pump, Type Whaler Model WP-9012 Mega Purger (12-volt submersible pump) Disposable Bailer Direct from Discharge Hose Other:

SAMPLING METHOD: 'OSAL METHOD OF PURGE WATER:

□ On-site Drum □ Drums

SWD Disposal Facility

Quarter	Date	Time	Monitoring Well No.	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	pН	Purge Method	PHYSICAL APPEARANCE AND REMARKS
		15:30	MW-1	44.64	52.37	7.73	0.16	1.2	10	8.1	19.6	2.24	6.76	Pump	Clear
First	3/24/14	18:15	MW-2	44.07	57.61	13.54	0.16	2.2	15	6.9	19.3	2.27	6.91	Pump	Clear Cloudy, but cleared during purge
ίΞ		16:00	MW-3	44.59	53.83	9.24	0.16	1.5	10	6.8	19.8	4.87	6.67	Pump	Clear
		17:15	MW-4	44.38	50.30	5.92	·0.16	0.9	10	10.6	19.2	2.33	6.87	Pump	Clear
σ		17:30	MW-1	44.73	52.37	7.64	0.16	1.2	10	8.2	21.6	1.98	7.13	Pump	Clear
Second	7/3/14	19:00	MW-2	44.15	57.61	13.46	0.16	2.2	15	7.0	20.8	1.97	7.08	Pump	Clear Cloudy, but cleared during purge
) Sec	170/14	18:00	MW-3	44.65	53.83	9.18	0.16	1.5	10	6.8	21.8	4.17	6.90	Pump	Clear
Ľ		18:30	MW-4	44.47	50.30	5.83	0.16	0.9	10	10.7	21.2	2.03	7.19	Pump	Clear
		10:00		44.74	52.37	7.63	0.16	1.2	12	9.8	21.6	2.28	7.14	Pump	Clear
Third	9/27/14	10:30	MW-2	44.17	57.61	13.44	0.16	2.2	16	7.4	21.1	2.26	7.11	Pump	Clear
- 1	3/2//14	11:30	MW-3	44.70	53.83	9.13	0.16	1.5	12	8.2	20.7	4.33	7.03	Pump	Clear
		11:00	MW-4	44.48	50.30	5.82	0.16	0.9	12	12.9	20.2	2.30	7.29	Pump	Clear
		15:30	MW-1	44.76	52.37	7.61	0.16	1.2	10	8.2	18.7	2.11	7.14	Pump	Clear
Fourth	12/12/14	15:45	MW-2	44.18	57.61	13.43	0.16	2.1	15	7.0	19.0	2.12	7.20	Pump	Clear Cloudy, but cleared during purge
<u>م</u>	12/12/14	16:20	MW-3	44.74	53.83	9.09	0.16	1.5	10	6.9	18.5	4.18	7.17	Pump	Clear Cloudy, but cleared during purge
		16:45	MW-4	44.46	50.30	5.84	0.16	0.9	10	10.7	19.2	2.13	7.16	Pump	Clear Cloudy, but cleared during purge

COMMENTS:	Equipment decontamination consists of gloves, Alconox, and Distilled Water Rinse.	Note: Gate may be locked for access.
Hanna Model	98130 instrument used to obtain pH, conductivity, and temperature measurements.	One of the locks combo is 5010

Delivered samples to analyical laboratory for chloride (300.1) and TDS (160.1) analysis.



LABORATORY ANALYTICAL REPORTS

AND

CHAINS OF CUSTODY

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: State 36 #2 Location: T19S-R37E, Sec 36, Unit Letter O~ Lea County, NM

Lab Order Number: 4C26014



NELAP/TCEQ # T104704156-13-3

Report Date: 04/09/14

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1	4C26014-01	Water	03/24/14 15:30	03-26-2014 11:55
MW-2	4C26014-02	Water	03/24/14 18:15	03-26-2014 11:55
MW-3	4C26014-03	Water	03/24/14 16:00	03-26-2014 11:55
MW-4	4C26014-04	Water	03/24/14 17:15	03-26-2014 11:55

.

MW-1

4C26014-01 (Water)

Analyte	Result	Reporting Lîmit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
General Chemistry Parameters by		n Basin Er	nvironme	ntal Lab, I	L. P.				
Chloride Total Dissolved Solids	643 1660	25.0 20.0	mg/L mg/L	50 1	P4C2703 P4D0203	03/27/14 03/28/14	03/28/14 04/02/14	EPA 300.0 EPA 160.1	



Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

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Pride Energy Company P.O. BOX 701950 Tulsa OK, 74170-1950		Proje Project Numb roject Manag	er: State 3		pany			Fax: (918) 5	24-9292
				ater)					
<u></u>	······								<u> </u>
Analyte	Result	Reporting Lunit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Permi	an Basin Ei	nvironme	ental Lab, l	L.P.				
General Chemistry <u>Parameters by</u>	EPA / Standard Methods								
Chloride	575	25.0	mg/L	50	P4C2703	03/27/14	03/28/14	EPA 300.0	
Fotal Dissolved Solids	1630	20.0	mg/L	1	P4D0203	03/28/14	04/02/14	EPA 160.1	

Project: Pride Energy Company Project Number: State 36 #2 Project Manager: Matt Pride

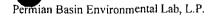
Fax: (918) 524-9292

Manager: Matt

MW-3

4C26014-03 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Pern	ian Basin Ei	nvironme	ntal Lab, I	L. P.				
General Chemistry Parameters by	EPA / Standard Method	ls						· · · · · · · · · · · · · · · · · · ·	
Chloride	1670	25.0	mg/L	50	P4C2703	03/27/14	03/28/14	EPA 300.0	
Total Dissolved Solids	4450	20.0	mg/L	1	P4D0203	03/28/14	04/02/14	EPA 160.1	



Project: Pride Energy Company Project Number: State 36 #2 Project Manager: Matt Pride

MW-4

4C26014-04 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Perm	ian Basin Ei	nvironme	ental Lab, l	L.P.				
General Chemistry Parameters by	EPA / Standard Method	ls							
Chloride	607	25.0	mg/L	50	P4C2703	03/27/14	03/28/14	EPA 300.0	
Total Dissolved Solids	1600	20.0	mg/L	1	P4D0203	03/28/14	04/02/14	EPA 160.1	

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Permian Basin Environmental Lab, L.P.

		Reporting		Spike	Source		%REC		RPD			
Analyte	Result	Límit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes		
Batch P4C2703 - *** DEFAULT PREP ***												
Blank (P4C2703-BLK1)				Prepared &	Analyzed	03/27/14						
Chloride	ND	0.500	mg/L									
LCS (P4C2703-BS1)	Prepared & Analyzed: 03/27/14											
Chloride	10,5	0.500	mg/L	10.0		105	80-120					
LCS Dup (P4C2703-BSD1)				Prepared &	2 Analyzed							
Chloride	10.5	0.500	mg/L	10.0		105	80-120	0.00952	20			
Duplicate (P4C2703-DUP1)	Sou	rce: 4C26012-	01	Prepared: (03/27/14 A	nalyzed: 0	3/28/14					
Chloride	2920	100	mg/L		2920			0.164	20			
Matrix Spike (P4C2703-MS1)	Sou	rce: 4C26012-	01	Prepared: (03/27/14 A	nalyzed: 01	3/28/14					
Chloride	5360	100	mg/L	2500	2920	97,8	80-120					
Batch P4D0203 - *** DEFAULT PREP ***												
Blank (P4D0203-BLK1)	Prepared: 03/28/14 Analyzed: 04/02/14											
Total Dissolved Solids	ND	20.0	mg/L									
Duplicate (P4D0203-DUP1)	Sou	rce: 4C26014-	04	Prepared: 03/28/14 Analyzed: 04/02/14								
Dissolved Solids	1580	20.0	mg/L		1600			1,01	20			

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

Duplicate Dup

Bunn Bart

Report Approved By:

4/9/2014 Date:

Brent Barron, Laboratory Director/Technical Director

This material is intended only for the use of the individual (s) or entity to whom it is addressed, and may contain information that is privileged and confidential.

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

Permian Basin Environmental Lab, L.P.

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Permian Basin Environmental Lab, LP Page_1_0(1 10041 S. County Road 1213 COC No.: IB-S01-032414 Midiand, Texts 7706 Phone: 432-661-4184 Phone: 432-661-4184 CHAIN-OF-CUSTODY AND ANALYSIS REQUEST Company Name: BiLL TO Company / Attention: Mait Pride Trident Environmental Pride Energy Company / Attention: Mait Pride Cicreb or Specify Method No.) Cill Van Deventer / Trident Environmental PD Box 12177, Colessa TX 79768 Post# Post 2177, Colessa TX 79768 Pride Energy Company Pride Energy Company Protext (413) 403-9965 Pride Energy Company Priget # Pride Energy Company Pride Energy Company Total X 100 - Sampler Software Pride Energy Company Pride Energy Company Total X 200 - Guide City, 200 Pride Energy Company Pride Energy Company Total X 200 - Guide City, 200 Pride Energy Company Pride Energy Company Total X 200 - Guide City, 200 Pride Energy Company Pride Energy Company Total X 200 - Guide City, 200 Pride Energy Company Pride Energy Company Total X 200 - Guide City, 200 Pride Energy Company Pride
Company: PO# ANALYSIS REQUEST Trident Environmental Pride Energy Company / Attention: Matt Pride AMALYSIS REQUEST Gil Van Deventer / Trident Environmental PO Box 710950, Tulsa, OK 74170-1950 Address: (Street, City, Zip) Ponot Manage: Pride Energy Company / Attention: Fas#: Fas#: (Cinde or Specify Method No.) Address: (Street, City, Zip) Phone#: Fas#: Fas#: (Gil Van Deventer / Trident Environmental PO Box 710950, Tulsa, OK 74170-1950 Address: (Street, City, Zip) Phone#: Fas#: Fas#: (Gil Van Deventer / Trident Environmental PO Box 710950, Tulsa, OK 74170-1950 Address: (Street, City, Zip) Phone#: Fas#: Fas#: (Gil Van Deventer / Trident Environmental PO (File) Project A (413) 403-9968 Pride Energy Company Forget Name: Fas#: Forget Name: Fas#: Forget Name:
Those Line y Company Andress: Andress: Circle or Specify Method No.) Gil Van Deventer / Trident Environmental PO Box 710950, Tulsa, OK 74170-1950 Image: Circle or Specify Method No.) Gil Van Deventer / Trident Environmental PO Box 710950, Tulsa, OK 74170-1950 Image: Circle or Specify Method No.) Address: (Street, City, Zip) Phone#: Fas#; PO Box 12177, Odessa TX 79768 Project Manne: Fas#; (432) 638-8740 (413) 403-9968 Project Manne: Fas#; Project Manne: Project Manne: Sampler Signature: Sampler Signature: T19S-R37E, Sec 36, Unit Letter O ~ Lea County, NM Matrix PRESERVATIVE Sampler Signature: Class # Field Coope Gil Van U Gil
Gil Van Deventer / Trident Environmental PO Box 710950, Tulsa, OK 74170-1950 Address: (Street, City, Zip) Phone#: Fax#: PO Box 12177, Odessa TX 79768 (918) 524-9200 (918) 524-9292 Phone #: Fax#: (413) 403-9968 Project #: Project Name: State 36 #2 Project Location: Sampler Signature: Sampler Signature: T19S-R37E, Sec 36, Unit Letter O ~ Lea County, NM MATRIX PRESERVATIVE SAMPLING LAB # Field CODE Gil Value Gil Value Gil Value UAB USE 001, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,
PO Box 12177, Odessa TX 79768 (918) 524-9200 (918) 524-9292 Phone #: Fax#: (432) 638-8740 (413) 403-9968 Project Name: Project Name: State 36 #2 Project Name: T19S-R37E, Sec 36, Unit Letter O ~ Lea County, NM LAB # HELD CODE (42) b 38 (410) 400 - 968 (100) 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 -
Project #: Project Name: State 36 #2 Pride Energy Company Project Location: Sampler Signature: T19S-R37E, Sec 36, Unit Letter O ~ Lea County, NM Lab # MATRIX PRESERVATIVE SAMPLING UNV<1
Project #: Project Name: State 36 #2 Pride Energy Company Project Location: Sampler Signature: T19S-R37E, Sec 36, Unit Letter O ~ Lea County, NM LaB # MATRIX PRESERVATIVE SAMPLing VI AL 2 6 01 4 MATRIX PRESERVATIVE SAMPLing Multiple Matrix Preservative Sampler Signature: LAB # FIELD CODE 0(3) an or (2) on or (2) or (2) on or
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小砂1 G 1 X 3/24/14 1530 X X X ヘウス MW-2 G 1 X X 3/24/14 1530 X
・ ① 1 MW-1 G 1 X 3/24/14 1530 X X X ・ ② 2 MW-2 G 1 X X 3/24/14 1530 X
小砂1 G 1 X 3/24/14 1530 X X X ヘウス MW-2 G 1 X X 3/24/14 1530 X
小砂1 G 1 X 3/24/14 1530 X X X ヘウス MW-2 G 1 X X 3/24/14 1530 X
<u> -02 MW-2 G 1 X X 3/24/14 1815 X X X -03 MW-3 G 1 X X X X X X X X X X X X X X X X X X</u>
Relinquished by: Date: Time: Received by: Date: Time: Phone Results Yes X No
Fax Results Yes X No Additional Fax Number:
Relinquished by: Date: Time: Received By: (Laboratory Staff) Date: Time: REMARKS: Samples not field filtered
Kaled E. The 3-26-14 1155 Email Results to:
Delivered By: (Circle One) Sample Condition 4.5 CHECKED BY: gil@trident-environmental.com
Sampler - UPS - Bus - Other: No

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: State 36 #2 Location: T19S-R37E, Sec 36, Unit Letter O~ Lea County, NM

Lab Order Number: 4G07004



NELAP/TCEQ # T104704156-13-3

Report Date: 07/21/14

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1	4G07004-01	Water	07/03/14 17:30	07-04-2014 13:30
MW-2	4G07004-02	Water	07/03/14 19:00	07-04-2014 13:30
MW-3	4G07004-03	Water	07/03/14 18:00	07-04-2014 13:30
MW-4	4G07004-04	Water	07/03/14 18:30	07-04-2014 13:30

MW-1

4G07004-01 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Permi	ian Basin Ei	ivironme	ental Lab, I	L.P.				
General Chemistry Parameters by	EPA / Standard Methods	s							
Chloride	717	12.5	mg/L	25	P4G1703	07/14/14	07/17/14	EPA 300.0	
Total Dissolved Solids	1820	20.0	mg/L	1	P4G1509	07/08/14	07/15/14	EPA 160.1	

Permian Basin Environmental Lab, L.P.

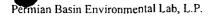
Fax: (432) 413-9968

MW-2

4G07004-02 (Water)

Reporting													
nalyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes				

General Chemistry Parameters by EPA / Stan	dard Methods							
Chloride	691	12.5	mg/L	25	P4G1703	07/14/14	07/17/14	EPA 300.0
Total Dissolved Solids	1660	20.0	mg/L	l	P4G1509	07/08/14	07/15/14	EPA 160.1



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Fax: (432) 413-9968

MW-3

4G07004-03 (Water)

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Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Permi	an Basin Ei	avironme	ental Lab, I	P .				
General Chemistry Parameters by	y EPA / Standard Methods								
Chloride	1850	25.0	mg/L	50	P4G1703	07/14/14	07/17/14	EPA 300.0	
Total Dissolved Solids	4500	20.0	mg/L	1	P4G1509	07/08/14	07/15/14	EPA 160.1	

Permian Basin Environmental Lab, L.P.

Trident Environmental P.O. Box 12177 Odessa TX, 79768		Proje Project Numb Project Manag	er: State 3					Fax: (432) 4	13-9968
		-	/IW-4 4-04 (Wa	iter)					
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Perm	ian Basin Ei	wironme	ntal Lab, I	P .				
General Chemistry Parameters by	EPA / Standard Methods	i						· · · · · · · · · · · · · · · · · · ·	
Chloride	685	12.5	mg/L	25	P4G1703	07/14/14	07/17/14	EPA 300.0	

mg/L

l

P4G1509

07/08/14

07/15/14

EPA 160.1

20.0

1700

Permian Basin Environmental Lab, L.P.

Total Dissolved Solids

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Permian Basin Environmental Lab, L.P.

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limít	Notes
Batch P4G1509 - *** DEFAULT PREP ***										
Blank (P4G1509-BLK1)				Prepared &	Analyzed:	07/15/14				
Total Dissolved Solids	ND	20.0	mg/L							
Duplicate (P4G1509-DUP1)	Sour	ce: 4G03014-	01	Prepared &	Analyzed:	07/15/14				
Fotal Dissolved Solids	815	20.0	mg/L		815			0.00	20	
Duplicate (P4G1509-DUP2)	Sour	ce: 4G07004-	04	Prepared &	: Analyzed:	07/15/14				
Total Dissolved Solids	1660	20.0	mg/L		1700			2.38	20	
Batch P4G1703 - *** DEFAULT PREP ***		_								
Blank (P4G1703-BLK1)				Prepared: ()7/14/14 A	nalyzed: 07	/17/14			
Chloride	ND	0.500	mg/L							
LCS (P4G1703-BS1)				Prepared: ()7/14/14 A	nalyzed: 07	//17/14			
Chloride	9.85	0 500	mg/L	10.0		98,5	80-120			
LCS Dup (P4G1703-BSD1)				Prepared: ()7/14/14 A	nalyzed: 07	7/17/14			
Chloride	9.36	0.500	mg/L	10.0		93.6	80-120	5.06	20	

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:

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Brent Barron, Laboratory Director/Technical Director

This material is intended only for the use of the individual (s) or entity to whom it is addressed, and may contain information that is privileged and confidential.

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

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

7/21/2014

Date:

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LAB #	FIELD CODE	(G)rab or (C)omp	# CONTAINERS					1.1-1	HUL (BTEX only)							8021B/602	m	TPH 418.1/TX1005 / TX1005 Extended (C35)		TCI P Metals Ag As Ba Cd Cr Pb Se Hg	Se Se	TCLP Semi Volatiles	TCLP Pesticides		GC/MS Vol. 8260B/624	GC/MS Semi. Vol. 8270C/625	Moisture Content	Cations (Ca, Mg, Na, K)	Total Dissolved Solids (160.1	Chloride / Cl ⁻ (SM4500 B or 300.1)		Turn Around Time ~ 2
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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: State 36 #2 Location: T19S-R37E, Sec 36, Unit Letter O~ Lea County, NM

Lab Order Number: 4J02017



NELAP/TCEQ # T104704156-13-3

Report Date: 10/10/14

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1	4J02017-01	Water	09/27/14 10:00	10-02-2014 12:50
MW-2	4J02017-02	Water	09/27/14 10:30	10-02-2014 12:50
MW-3	4J02017-03	Water	09/27/14 11:30	10-02-2014 12:50
MW-4	4J02017-04	Water	09/27/14 11:00	10-02-2014 12:50

MW-1

4J02017-01 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes			
Permian Basin Environmental Lab, L.P.												
General Chemistry Parameters by E	PA / Standard Methods	S										
Chloride	428	12.5	mg/L	25	P4J1002	10/10/14	10/10/14	EPA 300.0				
Total Dissolved Solids	1580	20.0	mg/L	1	P4J0702	10/03/14	10/03/14	EPA 160.1				



Permian Basin Environmental Lab, L.P.

Fax: (432) 413-9968

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MW-2

4J02017-02 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes			
Permian Basin Environmental Lab, L.P.												
General Chemistry Parameters by	EPA / Standard Method	15		· · · · · · · · · · · · · · · · · · ·				· · · · · · · · · · · · · · · · · · ·				
Chloride	442	12.5	mg/L	25	P4J1002	10/10/14	10/10/14	EPA 300.0				
Total Dissolved Solids	1400	20.0	mg/L	ι	P4J0702	10/03/14	10/03/14	EPA 160.1				

Permian Basin Environmental Lab, L.P.

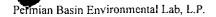
Fax: (432) 413-9968

MW-3

4J02017-03 (Water)

		Reporting										
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes			
Permian Basin Environmental Lab, L.P.												
General Chemistry Paramet	ers by EPA / Standard Methods											

<u></u>								
Chloride	1110	25.0	mg/L	50	P4J1002	10/10/14	10/10/14	EPA 300.0
Total Dissolved Solids	4030	20.0	mg/L	1	P4J0702	10/03/14	10/03/14	EPA 160.1



Fax: (432) 413-9968

MW-4

4J02017-04 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Permia	n Basin Ei	nvironme	ntal Lab, I	P .				
General Chemistry Parameters by	EPA / Standard Methods								
Chloride	426	12.5	mg/L	25	P4J1002	10/10/14	10/10/14	EPA 300.0	
Total Dissolved Solids	1400	20.0	mg/L	1	P4J0702	10/03/14	10/03/14	EPA 160.1	

Permian Basin Environmental Lab, L.P.

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Permian Basin Environmental Lab, L.P.

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Límit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch P4.J0702 - *** DEFAULT PREP ***										
Blank (P4J0702-BLK1)				Prepared &	Analyzed:	10/03/14				
Total Dissolved Solids	ND	20.0	mg/L							
Duplicate (P4J0702-DUP1)	Sour	ce: 4H28001-	01	Prepared &	Analyzed:	10/03/14				
Fotal Dissolved Solids	400	20.0	mg/L		372			7.25	20	
Duplicate (P4J0702-DUP2)	Sour	ce: 4H28002-	01	Prepared &	Analyzed:	10/03/14				
Total Dissolved Solids	164	20.0	mg/L		160			2 47	20	
Batch P4J1002 - *** DEFAULT PREP ***										
Blank (P4J1002-BLK1)				Prepared &	Analyzed:	10/10/14				
Chloride	ND	0.500	mg/L							
LCS (P4J1002-BS1)				Prepared &	Analyzed:	10/10/14				
Chloride	9.93	0 500	mg/l_	10.0		99.3	80-120			
LCS Dup (P4J1002-BSD1)				Prepared &	Analyzed:	10/10/14				
Chloride	9.89	0.500	mg/L	10.0		98.9	80-120	0.383	20	
Duplicate (P4J1802-DUP1)	Sour	ce: 4J02015-0	1	Prepared &	Analyzed:	10/10/14				
•	2040	50.0	mg/L		2030			0.373	20	
Matrix Spike (P4J1002-MSI)	Sour	ce: 4J02015-()1	Prepared &	: Analyzed:	10/10/14				
Chloride	3110	50,0	mg/L	1000	2030	108	80-120			

Permian Basin Environmental Lab, L.P.

Notes and Definitions

DET	Analyse 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

Burron

Report Approved By:

10/10/2014

Date:

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, L.P.

Company Name: Trident Environmental Project Manager:	1001 Midla	ermian Basin Environmental Lab, LP 0014 S. County Road 1213 lidland, Texas 79706 hone: 432-661-4184 BILL TO Company: PO# Pride Energy Company / Attention: Matt Pride Address: (Street, City, Zip)								СН	4IN	LAB	Ord	er li IAI	D#.	DY B IS I			o.: NA	1 4 4	SIS	01-	091 E Q I	JES	T					
Gil Van Deventer / Trident Environn Address: (Street, City, Zip) PO Box 12177, Odessa TX 79768 Phone #: (432) 638-8740 Project #: State 36 #2 Project Location: T19S-R37E, Sec 36, Unit Letter O ~	Fax#: (413	(918) 403 Project Prid	Box) 52 -996 t Nam e En	710 Phor 4-9; 8 :e: ie: ie: sam	950, 1e#: 200	mpa	any			70- Fa	195 ax#:					05 Extended (C35)			Ţ	~						33)	1 or SM2540C)	300.1)		LIS .
LAB # (LAB USE ONLY (LAB USE (ONLY) (LAB USE (ONLY) (LAB USE (ONLY) (ONLY)	(G)rab or (C)omp	# CONTAINERS	_		AIR		3TEX only)					DATE	LING	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. TCI P Metals 쇼스 쇼s Ba Cd Cr Pb Sa Hn	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC/MS Vol. 8260B/624	Maisture Contact		Anions (CL SOA CO3 HCO3)	Total Dissolved Solids (160.1 or SM2540C)	Chloride / Cl (SM4500 B or		Turn Around Time ~ 24 Hours
$ \begin{array}{c c} -\partial l & \text{MW-1} \\ \underline{-\partial 2} & \text{MW-2} \\ \underline{-\partial 3} & \text{MW-3} \\ \underline{-\partial 4} & \text{MW-4} \\ \end{array} $	G G G	1 1 1 1	X X X X							X X X X		9/27/14 9/27/14 9/27/14 9/27/14	1000 1030 1130 1100															X		
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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: State 36 #2 Location: T19S-R37E, Sec 36, Unit Letter O~ Lea County, NM

Lab Order Number: 4L15010

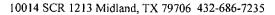


NELAP/TCEQ # T104704156-13-3

Report Date: 12/24/14

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1	4L15010-01	Water	12/12/14 15:30	12-15-2014 15:40
MW-2	4L15010-02	Water	12/12/14 15:45	12-15-2014 15:40
MW-3	4L15010-03	Water	12/12/14 16:20	12-15-2014 15:40
MW-4	4L15010-04	Water	12/12/14 16:45	12-15-2014 15:40



MW-1

4L15010-01 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Perm	lian Basin Ei	wironme	ntal Lab, I	P .				
General Chemistry Parameters by EPA / S	tandard Method	s			<u></u>				
Chloride	468	25.0	mg/L	50	P4L1807	12/16/14	12/18/14	EPA 300.0	
Total Dissolved Solids	1630	20.0	mg/L		P4L1902			EPA 160.1	

Fax: (432) 413-9968

MW-2

4L15010-02 (Water)

Analyte	Result	Reporting Linuit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
L	Perm	ian Basin E	nvironme	ntal Lab, L	P.				<u></u> ,,
Cananal Chamister Banam	eters by EPA / Standard Method	_							

Concrat Chemistry Faranteeers by 12747 Stand	and methods								
Chloride	463	25.0	mg/L	50	P4L1807	12/16/14	12/18/14	EPA 300.0	
Total Dissolved Solids	1510	20.0	mg/L	I	P4L1902	12/19/14	12/19/14	EPA 160.1	



Project: Pride Energy Company Project Number: State 36 #2 Project N andeventer

Fax: (432) 413-9968

Manager:	Gilbert	V
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MW-3

4L15010-03 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		ian Basin Ei	nvironme	ental Lab, I					
General Chemistry Parameters by	EPA / Standard Method	15						. <u> </u>	
Chloride	1370	25.0	mg/L	50	P4L1807	12/16/14	12/18/14	EPA 300.0	
Total Dissolved Solids	3930	20.0	mg/L	1	P4L1902	12/19/14	12/19/14	EPA 160.1	

Total Dissolved Solids

Project: Pride Energy Company Project Number: State 36 #2 Project Manager: Gilbert Vandeventer Fax: (432) 413-9968

MW-4

4L15010-04 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Anatyzed	Method	Notes
	Permiar	1 Basin Er	ovironme	ntal Lab, I	P.				
General Chemistry Paramete	ers by EPA / Standard Methods						-		
Chloride	494	25.0	mg/L	50	P4L1807	12/16/14	12/18/14	EPA 300.0	

mg/L

ł

P4L1902

12/19/14

12/19/14

EPA 160 1

20.0

1530

Permian Basin Environmental Lab, L.P.

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Permian Basin Environmental Lab, L.P.

		Reporting		Spike	Source		%REC		RPD										
Analyte	Result	Limit	Units	Level	Result	%REC	Límits	RPD	Limit	Notes									
Batch P4L1807 - *** DEFAULT PREP ***		····																	
Blank (P4L1807-BLK1)	Prepared: 12/16/14 Analyzed: 12/18/14																		
Chloride	ND	0.500	mg/L																
LCS (P4L1807-BS!)				Prepared: I	2/16/14 A	Analyzed: 12													
Chloride	20.5	0,500	mg/L	20.0		102	80-120												
LCS Dup (P4L1807-BSD1)				Prepared: 1	2/16/14 A	Analyzed: 12	2/18/14												
Chloride	20.4	0.500	mg/L	20.0		102	80-120	0.597	20										
Duplicate (P4L1807-DUP1)	Sou	rce: 4L15007-	01	Prepared: 1	2/16/14 A	Analyzed: 12	2/18/14												
Chloride	2650	100	mg/L		2640			0.514	20										
Matrix Spike (P4L1807-MSI)	Sou	rce: <u>4L15007</u> -	01	Prepared: 1	2/16/14 A	Analyzed: 12	2/18/14												
Chloride	4380	100	mg/L	2000	2640	87.2	80-120												
Batch P4L1902 - *** DEFAULT PREP ***																			
Blank (P4L1902-BLK1)				Prepared &	z Analyzed	1: 12/19/14													
Total Dissolved Solids	ND	20.0	mg/L																
Duplicate (P4L1902-DUP1)	Sou	rce: 4L15010-	04	Prepared &	Analyzed	i: 12/19/14													
Total Dissolved Solids	1500	20,0	mg/L		1530			1.98	20										

Notes and Definitions

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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:

Barron

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, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

12/24/2014

Date:

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LAB # FIELD CODE	(G)rab or (C)omp	# CONTAINERS	~		щ	TEX only)	4					802.1B/602	BTEX 8021 B	8270C	etals Ag As	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	I CLP Volatiles I CLP Semi Volatiles	TCLP Pesticides		GC/MS Vol. 8260B/624	GC/MS Semi: Vol. 8	e Content	Cations (Ca, Mg, Na, K) Anions (CL SO4, CO3, HCO3)	Dissolved Sol	Chloride / Cl (SM4500 B or 300.1)		Turn Around Time ~ 24 Hours
ONLY	(G)rab o	# CON	WATER	AIR	SLUDGE	HCL (BTEX HNO.	NaHSO4	H₂SO₄	NONE	DATE	TIME	MTBE 8	BTEX 8	PAH 89	Total Me	TCLP M	ICLP &	TCLP P	RCI	GC/MS	GC/MS	Moisture	Cations Anions (Total Di	Chloride	.	Tum Ar
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