

1R - 501

2012 AGWMR

01/30/2013

Delivery Confirmation No.

420 87505 9101 9690 0094 0558 4796 79



January 30, 2013

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

**RE: 2012 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. von Gonten:

As agent for Pride Energy Company (Pride), Trident Environmental submits this *2012 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 2012 sampling event are included in Attachment A.

State 36 #2 Site (NMOCD Case # 1R-501)
2012 Annual Groundwater Monitoring Report

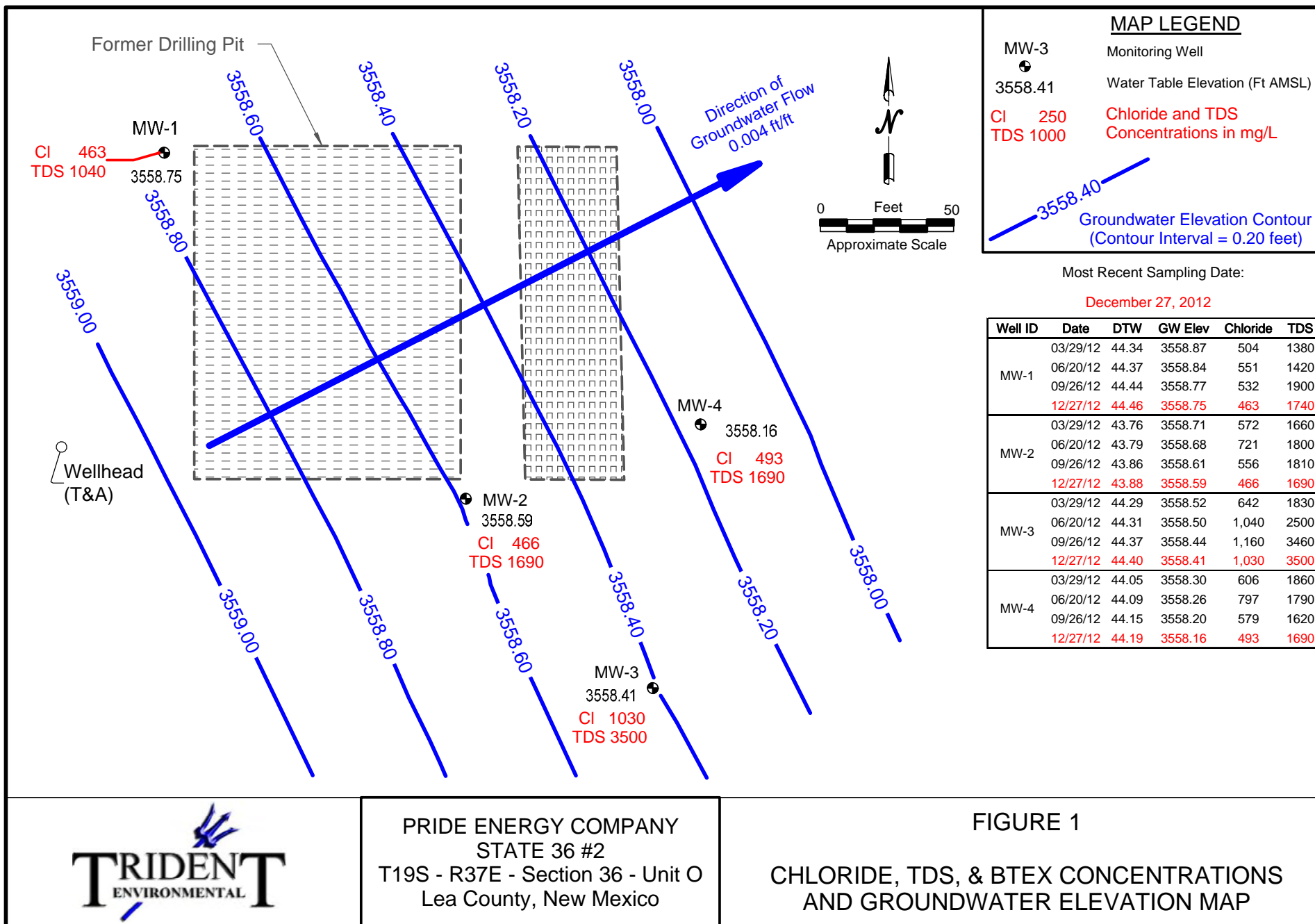
Table 1: Summary of Groundwater Monitoring Results

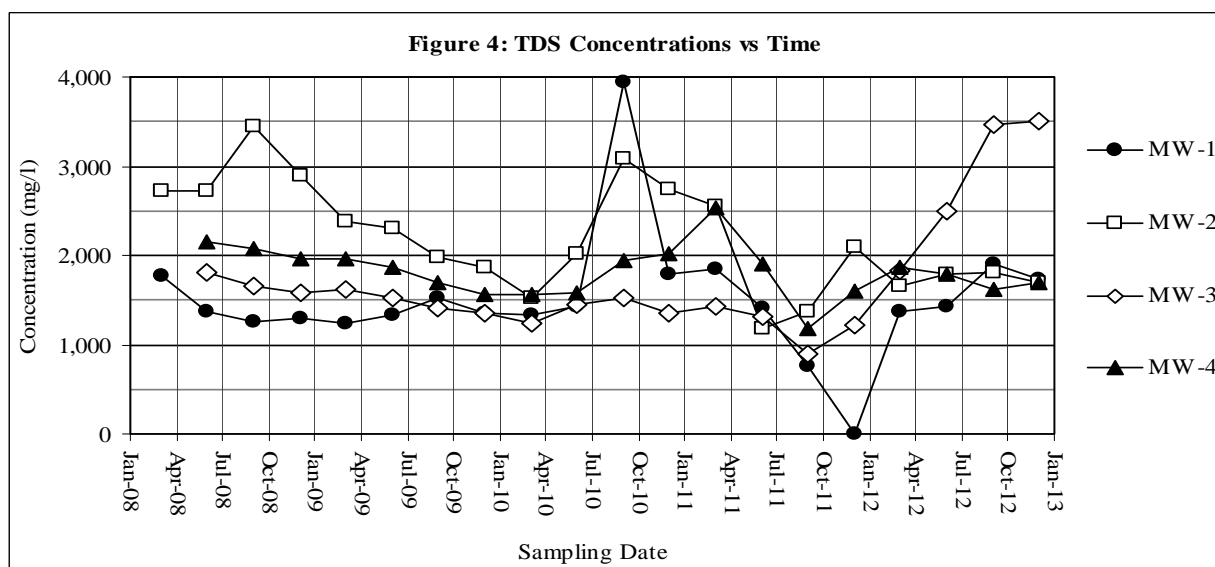
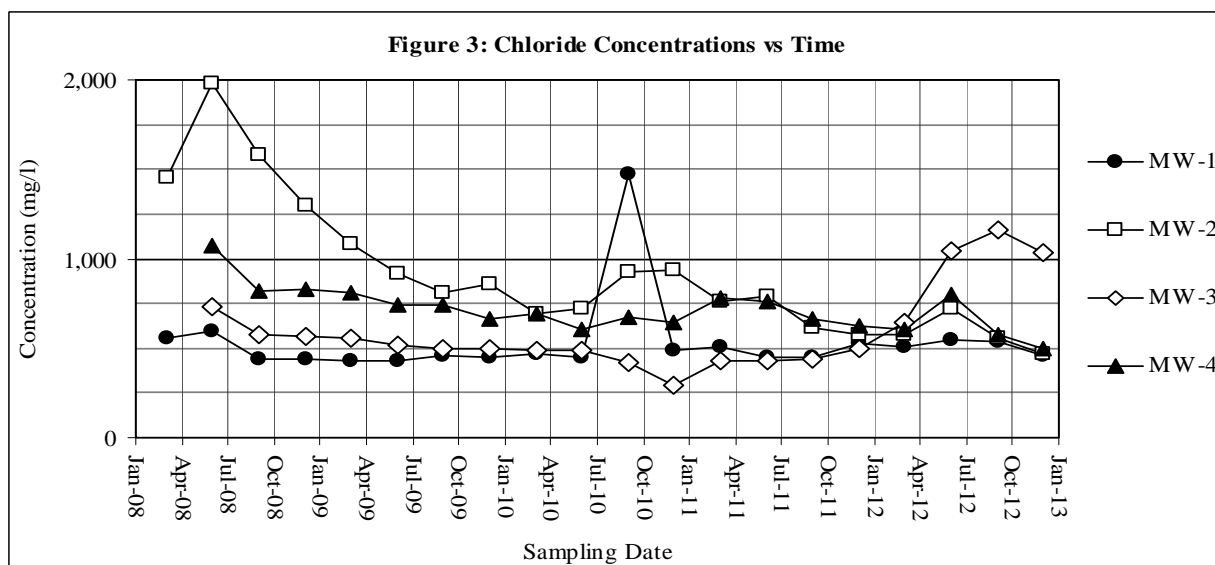
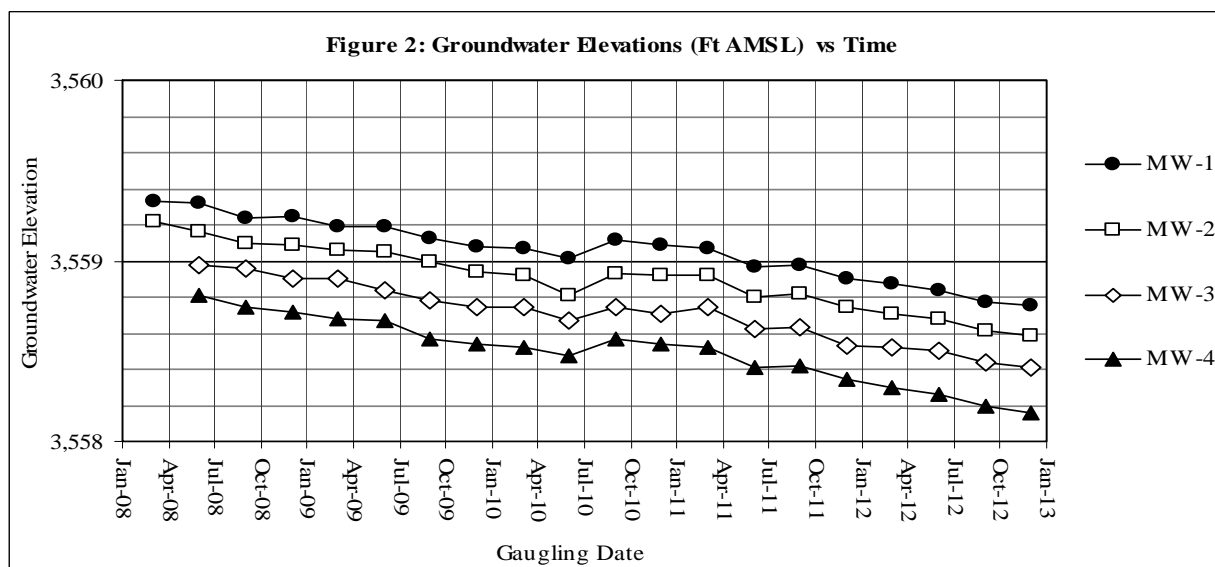
Monitoring Well	Sample Date	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet AMSL)	Chloride (mg/L)	TDS (mg/L)	BTEX (mg/L)
MW-1	02/25/08	43.80	3559.41	489	---	---
	03/27/08	43.88	3559.33	557	1,770	< 0.003
	06/17/08	43.89	3559.32	594	1,370	---
	09/10/08	43.97	3559.24	440	1,260	<0.003
	12/17/08	43.96	3559.25	440	1,290	<0.003
	03/19/09	44.02	3559.19	430	1,240	<0.003
	06/18/09	44.02	3559.19	428	1,330	<0.003
	09/17/09	44.08	3559.13	456	1,530	<0.003
	12/10/09	44.13	3559.08	450	1,360	<0.003
	03/31/10	44.14	3559.07	468	1,330	---
	06/16/10	44.20	3559.01	447	1,420	---
	09/22/10	44.09	3559.12	1,470	3,940	---
	12/13/10	44.12	3559.09	491	1,790	---
	03/17/11	44.14	3559.07	512	1,840	---
	06/30/11	44.24	3558.97	447	1,410	---
	09/29/11	44.23	3558.98	453	770	---
	12/20/11	44.31	3558.90	527	3,810*	---
	03/29/12	44.34	3558.87	504	1,380	---
	06/20/12	44.37	3558.84	551	1,420	---
	09/26/12	44.44	3558.77	532	1,900	---
	12/27/12	44.46	3558.75	463	1,740	---
MW-2	05/08/08	43.25	3559.22	1,450	2,730	< 0.003
	06/17/08	43.31	3559.16	1,980	2,730	---
	09/10/08	43.37	3559.10	1,580	3,440	<0.003
	12/17/08	43.38	3559.09	1,300	2,900	<0.003
	03/19/09	43.41	3559.06	1,080	2,380	<0.003
	06/18/09	43.42	3559.05	920	2,300	<0.003
	09/17/09	43.47	3559.00	810	1,980	<0.003
	12/10/09	43.53	3558.94	860	1,870	<0.003
	03/31/10	43.55	3558.92	691	1,520	---
	06/16/10	43.66	3558.81	723	2,020	---
	09/22/10	43.54	3558.93	923	3,080	---
	12/13/10	43.55	3558.92	936	2,750	---
	03/17/11	43.55	3558.92	765	2,560	---
	06/30/11	43.67	3558.80	788	1,180	---
	09/29/11	43.65	3558.82	616	1,380	---
	12/20/11	43.73	3558.74	579	2,100	---
	03/29/12	43.76	3558.71	572	1,660	---
	06/20/12	43.79	3558.68	721	1,800	---
	09/26/12	43.86	3558.61	556	1,810	---
	12/27/12	43.88	3558.59	466	1,690	---

State 36 #2 Site (NMOCD Case # 1R-501)
2012 Annual Groundwater Monitoring Report

Table 1: Summary of Groundwater Monitoring Results (continued)

Monitoring Well	Sample Date	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet AMSL)	Chloride (mg/L)	TDS (mg/L)	BTEX (mg/L)
MW-3	06/17/08	43.83	3558.98	733	1,810	---
	09/10/08	43.85	3558.96	580	1,660	<0.003
	12/17/08	43.91	3558.90	570	1,580	<0.003
	03/19/09	43.91	3558.90	560	1,620	<0.003
	06/18/09	43.97	3558.84	520	1,530	<0.003
	09/17/09	44.03	3558.78	500	1,410	<0.003
	12/10/09	44.07	3558.74	500	1,360	<0.003
	03/31/10	44.07	3558.74	489	1,230	---
	06/16/10	44.14	3558.67	489	1,440	---
	09/22/10	44.07	3558.74	420	1,520	---
	12/13/10	44.10	3558.71	290	1,350	---
	03/17/11	44.07	3558.74	434	1,420	---
	06/30/11	44.19	3558.62	426	1,310	---
	09/29/11	44.18	3558.63	439	890	---
	12/20/11	44.28	3558.53	494	1,220	---
	03/29/12	44.29	3558.52	642	1,830	---
	06/20/12	44.31	3558.50	1,040	2,500	---
	09/26/12	44.37	3558.44	1,160	3,460	---
	12/27/12	44.40	3558.41	1,030	3,500	---
MW-4	06/17/08	43.54	3558.81	1,070	2,150	---
	09/10/08	43.61	3558.74	820	2,070	<0.003
	12/17/08	43.63	3558.72	830	1,970	<0.003
	03/19/09	43.67	3558.68	810	1,970	<0.003
	06/18/09	43.68	3558.67	740	1,860	<0.003
	09/17/09	43.78	3558.57	740	1,690	<0.003
	12/10/09	43.81	3558.54	660	1,570	<0.003
	03/31/10	43.83	3558.52	691	1,560	---
	06/16/10	43.88	3558.47	606	1,580	---
	09/22/10	43.78	3558.57	669	1,940	---
	12/13/10	43.81	3558.54	646	2,020	---
	03/17/11	43.83	3558.52	778	2,530	---
	06/30/11	43.94	3558.41	758	1,910	---
	09/29/11	43.93	3558.42	662	1,180	---
	12/20/11	44.01	3558.34	623	1,600	---
	03/29/12	44.05	3558.30	606	1,860	---
	06/20/12	44.09	3558.26	797	1,790	---
	09/26/12	44.15	3558.20	579	1,620	---
	12/27/12	44.19	3558.16	493	1,690	---





Conclusions regarding groundwater conditions are summarized as follows:

- The local water table is at a depth of approximately 41 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 is at approximately 50 ft bgs, where red clay was encountered during well installations, therefore the saturated thickness is estimated at only 9 feet.
- 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 2012 have been observed in monitoring well MW-3 with concentrations of 1,030 mg/L and 3,500 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 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 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
P. O. Box 12177
Odessa TX 79768

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

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

ATTACHMENT A

WELL SAMPLING DATA FORM

and

LABORATORY ANALYTICAL REPORTS

WELL SAMPLING DATA FORM



CLIENT: Pride Energy Company

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

ITE LOCATION: T19S R37E Sec36 Unit O, 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: _____

SPOSAL 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. °F	Cond. mS/cm	pH	Purge Method	PHYSICAL APPEARANCE AND REMARKS
First	03/29/12	17:00	MW-1	44.34	52.37	8.03	0.16	1.3	10	7.8	67.5	2.45	7.24	Pump	Clear
		19:00	MW-2	43.76	57.61	13.85	0.16	2.2	15	6.8	67.2	2.67	7.00		Clear
		17:40	MW-3	44.29	53.83	9.54	0.16	1.5	10	6.6	68.0	2.83	6.99		Clear
		18:20	MW-4	44.05	50.30	6.25	0.16	1.0	10	10.0	68.3	2.78	7.03		Clear
Second	06/20/12	16:40	MW-1	44.37	52.37	8.00	0.16	1.3	10	7.8	73.1	2.26	6.29	Pump	Clear
		18:20	MW-2	43.79	57.61	13.82	0.16	2.2	15	6.8	69.5	2.42	7.07		Clear
		17:10	MW-3	44.31	53.83	9.52	0.16	1.5	10	6.6	71.7	3.06	6.88		Clear
		17:40	MW-4	44.09	50.30	6.21	0.16	1.0	10	10.1	70.4	2.53	7.06		Clear
Third	09/26/12	18:00	MW-1	44.44	52.37	7.93	0.16	1.3	10	7.9	70.3	2.25	6.20	Pump	Clear
		19:30	MW-2	43.86	57.61	13.75	0.16	2.2	15	6.8	66.7	2.48	7.03		Clear
		18:30	MW-3	44.37	53.83	9.46	0.16	1.5	10	6.6	68.3	3.62	6.86		Clear
		19:00	MW-4	44.15	50.30	6.15	0.16	1.0	10	10.2	68.5	2.54	7.07		Clear
Fourth	12/19/12	19:30	MW-1	44.46	52.37	7.91	0.16	1.3	10	7.9	62.3	2.20	6.81	Pump	Clear
		19:00	MW-2	43.88	57.61	13.73	0.16	2.2	15	6.8	62.0	2.28	7.12		Clear
		18:00	MW-3	44.40	53.83	9.43	0.16	1.5	10	6.6	61.2	3.06	6.97		Clear
		18:30	MW-4	44.19	50.30	6.11	0.16	1.0	8	8.2	61.3	1.54	7.19		Clear

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 analytical laboratory for chloride (300.1) and TDS (160.1) analysis.

Analytical Report 439818

for

Trident Environmental

Project Manager: Gil Van Deventer

Pride Energy Company

State 36 # 2

11-APR-12

Collected By: Client



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12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):

Texas (T104704215-10-6-TX), Arizona (AZ0765), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)
Rhode Island (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Xenco Tucson (EPA Lab code: AZ000989): Arizona (AZ0758)



11-APR-12

Project Manager: **Gil Van Deventer**

Trident Environmental

P.O. Box 12177

Odessa, TX 79768

Reference: XENCO Report No: **439818**

Pride Energy Company

Project Address: T19S-R37E, Sec 36, Unit Letter O ~ Lea County, NM

Gil Van Deventer:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 439818. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 439818 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Brent Barron

Odessa Laboratory Director

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Sample Cross Reference 439818



Trident Environmental, Odessa, TX

Pride Energy Company

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW-1	W	03-29-12 17:00		439818-001
MW-2	W	03-29-12 19:00		439818-002
MW-3	W	03-29-12 17:40		439818-003
MW-4	W	03-29-12 18:20		439818-004



CASE NARRATIVE

Client Name: Trident Environmental

Project Name: Pride Energy Company



Project ID: State 36 # 2

Work Order Number: 439818

Report Date: 11-APR-12

Date Received: 03/30/2012

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non nonformances and comments:

Batch: LBA-885227 Inorganic Anions by EPA 300

E300

Batch 885227, Chloride recovered below QC limits in the Matrix Spike.

Samples affected are: 439818-001, -004, -003, -002.

The Laboratory Control Sample for Chloride is within laboratory Control Limits



Certificate of Analysis Summary 439818

Trident Environmental, Odessa, TX

Project Name: Pride Energy Company



Project Id: State 36 # 2

Contact: Gil Van Deventer

Project Location: T19S-R37E, Sec 36, Unit Letter O ~ Lea C

Date Received in Lab: Fri Mar-30-12 10:20 am

Report Date: 11-APR-12

Project Manager: Brent Barron II

Analysis Requested	Lab Id: Field Id: Depth: Matrix: Sampled:	439818-001 MW-1 WATER Mar-29-12 17:00	439818-002 MW-2 WATER Mar-29-12 19:00	439818-003 MW-3 WATER Mar-29-12 17:40	439818-004 MW-4 WATER Mar-29-12 18:20		
Anions Cl by EPA 300/300.1 SUB: TX104704215	Extracted: Analyzed: Units/RL:	Apr-05-12 14:46 Apr-05-12 14:46 mg/L RL	Apr-05-12 15:02 Apr-05-12 15:02 mg/L RL	Apr-05-12 15:51 Apr-05-12 15:51 mg/L RL	Apr-05-12 16:07 Apr-05-12 16:07 mg/L RL		
Chloride		504 5.00	572 5.00	642 5.00	606 5.00		
TDS by SM2540C SUB: TX104704215	Extracted: Analyzed: Units/RL:	Apr-04-12 17:00 mg/L RL	Apr-04-12 17:00 mg/L RL	Apr-04-12 17:00 mg/L RL	Apr-04-12 17:00 mg/L RL		
Total dissolved solids		1380 5.00	1660 5.00	1830 5.00	1860 5.00		

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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Brent Barron
Odessa Laboratory Director

Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

* Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **SQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

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(813) 620-2000	(813) 620-2033
(432) 563-1800	(432) 563-1713
(770) 449-8800	(770) 449-5477
(602) 437-0330	

Project Name: Pride Energy Company

Work Order #: 439818

Analyst: TTE

Date Prepared: 04/05/2012

Project ID: State 36 # 2

Date Analyzed: 04/05/2012

Lab Batch ID: 885227

Sample: 620198-1-BKS

Batch #: 1

Matrix: Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Anions Cl by EPA 300/300.1	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<0.500	50.0	50.3	101	50.0	49.7	99	1	90-110	20	

Analyst: LBA

Date Prepared: 04/04/2012

Date Analyzed: 04/04/2012

Lab Batch ID: 885128

Sample: 885128-1-BKS

Batch #: 1

Matrix: Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TDS by SM2540C	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Total dissolved solids	<5.00	2000	2060	103	2000	2040	102	1	80-120	30	

Relative Percent Difference RPD = $200 * |(C-F)/(C+F)|$

Blank Spike Recovery [D] = $100 * (C)/[B]$

Blank Spike Duplicate Recovery [G] = $100 * (F)/[E]$

All results are based on MDL and Validated for QC Purposes



Form 3 - MS Recoveries



Project Name: Pride Energy Company

Work Order #: 439818

Lab Batch #: 885227

Date Analyzed: 04/05/2012

QC- Sample ID: 439871-001 S

Reporting Units: mg/L

Project ID: State 36 # 2

Analyst: TTE

Date Prepared: 04/05/2012

Batch #: 1

Matrix: Water

MATRIX / MATRIX SPIKE RECOVERY STUDY						
Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	239	50.0	242	6	80-120	X

Lab Batch #: 885227

Date Analyzed: 04/05/2012

QC- Sample ID: 439974-001 S

Reporting Units: mg/L

Date Prepared: 04/05/2012

Analyst: TTE

Batch #: 1

Matrix: Water

MATRIX / MATRIX SPIKE RECOVERY STUDY						
Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	15.9	50.0	63.4	95	80-120	

Matrix Spike Percent Recovery [D] = $100 \times (C-A)/B$
Relative Percent Difference [E] = $200 \times (C-A)/(C+B)$
All Results are based on MDL and Validated for QC Purposes

BRL - Below Reporting Limit

Project Name: Pride Energy Company

Work Order #: 439818

Lab Batch #: 885128

Project ID: State 36 # 2

Date Analyzed: 04/04/2012 17:00

Date Prepared: 04/04/2012

Analyst: LBA

QC- Sample ID: 439757-001 D

Batch #: 1

Matrix: Water

Reporting Units: mg/L

SAMPLE / SAMPLE DUPLICATE RECOVERY

TDS by SM2540C	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Total dissolved solids	456	464	2	30	

Lab Batch #: 885128

Date Analyzed: 04/04/2012 17:00

Date Prepared: 04/04/2012

Analyst: LBA

QC- Sample ID: 439899-001 D

Batch #: 1

Matrix: Water

Reporting Units: mg/L

SAMPLE / SAMPLE DUPLICATE RECOVERY

TDS by SM2540C	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Total dissolved solids	734	726	1	30	

Spike Relative Difference RPD $200 * |(B-A)/(B+A)|$
 All Results are based on MDL and validated for QC purposes.
 BRL - Below Reporting Limit

Xenco Laboratories 12600 West I-20 East - Odessa TX 79768 (432) 563-1800 Tel Fax (432) 563-1713		CHAIN-OF-CUSTODY AND ANALYSIS REQUEST LAB Order ID # <u>439818</u>	
Company Name: Trident Environmental Project Manager: Gil Van Deventer / Trident Environmental Address: (Street, City, Zip) PO Box 12177, Odessa TX 79768 Phone #: (918) 524-9200 Fax #: (918) 524-9292		ANALYSIS REQUEST (Circle or Specify Method No.)	
BILL TO Company: Pride Energy Company / Matt Pride Address: (Street, City, Zip) PO Box 710950, Tulsa, OK 74170-1950 Phone #: (918) 524-9200 Fax #: (918) 524-9292		GC/MS Vol. 8260B/624 GC/MS Semi. Vol. 8270C/625 RCI TCLP Volatiles TCLP Semi Volatiles TCLP Pesticides Moisture Content Cations (Ca, Mg, Na, K) Anions (Cl, SO ₄ , CO ₃ , HCO ₃) Total Dissolved Solids (160.1 or SM2540C) Chloride / CF (SM4500 B or 300.1)	
Project #: State 36 #2 Project Location: T19S-R37E, Sec 36, Unit Letter O ~ Lea County, NM		Turn Around Time ~ 24 Hours	
Project Name: Pride Energy Company Sampler Signature:		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 MTBE 8021B/602	
FIELD CODE		# CONTAINERS	
(LAB USE ONLY)		MATRIX WATER AIR SLUDGE	
DATE		PRESERVATIVE METHOD HCL (BTEX only) HNO ₃ NaOH H ₂ SO ₄ ICE NONE	
TIME		SAMPLING 1700 1900 1740 1820	
Date: 3/29/12		Date: 3/29/12	
Received by: <i>[Signature]</i>		Received by:	
Date: 3/29/12 10:20		Date: 3/29/12 10:20	
Requisitioned by:		Requisitioned by:	
Date: 3/29/12 10:20		Date: 3/29/12 10:20	
Delivered By: (Circle One)		Checked By: <i>[Signature]</i>	
Sampler - UPS - Bus - Other:		Sample Condition Cool <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Email Results to: gil@trident-environmental.com mattp@pride-energy.com		REMARKS:	

**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-R7E, Sec 36, Unit Letter O~ Lea County, NM

Lab Order Number: 2F21004

Report Date: 06/28/12

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

Project: Pride Energy Company
Project Number: State 36 #2
Project Manager: Gilbert Vandeventer

Fax: (432) 413-9968

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1	2F21004-01	Water	06/20/12 16:40	06-21-2012 09:50
MW-2	2F21004-02	Water	06/20/12 18:20	06-21-2012 09:50
MW-3	2F21004-03	Water	06/20/12 17:10	06-21-2012 09:50
MW-4	2F21004-04	Water	06/20/12 17:40	06-21-2012 09:50

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

Project: Pride Energy Company
Project Number: State 36 #2
Project Manager: Gilbert Vandeventer

Fax: (432) 413-9968

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (2F21004-01) Water									
Chloride	551	10.0	mg/L	20	EF22503	06/22/12	06/25/12	EPA 300.0	
Total Dissolved Solids	1420	10.0	"	1	EF22601	06/22/12	06/25/12	EPA 160.1	
MW-2 (2F21004-02) Water									
Chloride	721	12.5	mg/L	25	EF22503	06/22/12	06/25/12	EPA 300.0	
Total Dissolved Solids	1800	10.0	"	1	EF22601	06/22/12	06/25/12	EPA 160.1	
MW-3 (2F21004-03) Water									
Chloride	1040	12.5	mg/L	25	EF22503	06/22/12	06/25/12	EPA 300.0	
Total Dissolved Solids	2500	10.0	"	1	EF22601	06/22/12	06/25/12	EPA 160.1	
MW-4 (2F21004-04) Water									
Chloride	797	12.5	mg/L	25	EF22503	06/22/12	06/25/12	EPA 300.0	
Total Dissolved Solids	1790	10.0	"	1	EF22601	06/22/12	06/25/12	EPA 160.1	

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

Project: Pride Energy Company
Project Number: State 36 #2
Project Manager: Gilbert Vandeventer

Fax: (432) 413-9968

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
Batch EF22503 - General Preparation (WetChem)										
Blank (EF22503-BLK1)				Prepared: 06/22/12 Analyzed: 06/25/12						
Chloride	ND	0.500	mg/L							
LCS (EF22503-BS1)				Prepared: 06/22/12 Analyzed: 06/25/12						
Chloride	8.82		mg/L	10.0		88.2	80-120			
LCS Dup (EF22503-BSD1)				Prepared: 06/22/12 Analyzed: 06/25/12						
Chloride	9.04		mg/L	10.0		90.4	80-120	2.46	20	
Duplicate (EF22503-DUP1)				Source: 2F21003-01		Prepared: 06/22/12 Analyzed: 06/25/12				
Chloride	1260	25.0	mg/L		1280			1.57	20	
Matrix Spike (EF22503-MS1)				Source: 2F21003-01		Prepared: 06/22/12 Analyzed: 06/25/12				
Chloride	1610	25.0	mg/L	250	1280	132	80-120			M1
Batch EF22601 - General Preparation (WetChem)										
Blank (EF22601-BLK1)				Prepared: 06/22/12 Analyzed: 06/25/12						
Total Dissolved Solids	ND	10.0	mg/L							
Duplicate (EF22601-DUP1)				Source: 2F21001-01		Prepared: 06/22/12 Analyzed: 06/25/12				
Total Dissolved Solids	510	10.0	mg/L		570			11.1	20	
Duplicate (EF22601-DUP2)				Source: 2F21001-11		Prepared: 06/22/12 Analyzed: 06/25/12				
Total Dissolved Solids	850	10.0	mg/L		710			17.9	20	

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

Project: Pride Energy Company
Project Number: State 36 #2
Project Manager: Gilbert Vandeventer

Fax: (432) 413-9968

Notes and Definitions

M1 The MS and/or MSD were above the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
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:

6/28/2012

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.

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # 2F21004

[illegible]

**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: State 36 #2

Project Number: State 36 #2

Location: T19S-R37E, Sec 36, Unit Letter O Lea Co. NM

Lab Order Number: 2127006



NELAP/TCEQ # T104704156-12-1

Report Date: 10/04/12

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

Project: State 36 #2
Project Number: State 36 #2
Project Manager: Gilbert Vandeventer

Fax: (432) 413-9968

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1	2I27006-01	Water	09/26/12 18:00	09-27-2012 13:00
MW-2	2I27006-02	Water	09/26/12 19:30	09-27-2012 13:00
MW-3	2I27006-03	Water	09/26/12 18:30	09-27-2012 13:00
MW-4	2I27006-04	Water	09/26/12 19:00	09-27-2012 13:00

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

Project: State 36 #2
Project Number: State 36 #2
Project Manager: Gilbert Vandeventer

Fax: (432) 413-9968

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (2127006-01) Water									
Chloride	532	10.0	mg/L	20	EJ20202	10/02/12	10/02/12	EPA 300.0	
Total Dissolved Solids	1900	10.0	"	1	EJ20305	10/02/12	10/03/12	EPA 160.1	
MW-2 (2127006-02) Water									
Chloride	556	10.0	mg/L	20	EJ20202	10/02/12	10/02/12	EPA 300.0	
Total Dissolved Solids	1810	10.0	"	1	EJ20305	10/02/12	10/03/12	EPA 160.1	
MW-3 (2127006-03) Water									
Chloride	1160	12.5	mg/L	25	EJ20202	10/02/12	10/02/12	EPA 300.0	
Total Dissolved Solids	3460	10.0	"	1	EJ20305	10/02/12	10/03/12	EPA 160.1	
MW-4 (2127006-04) Water									
Chloride	579	10.0	mg/L	20	EJ20202	10/02/12	10/02/12	EPA 300.0	
Total Dissolved Solids	1620	10.0	"	1	EJ20305	10/02/12	10/03/12	EPA 160.1	

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

Project: State 36 #2
Project Number: State 36 #2
Project Manager: Gilbert Vandeventer

Fax: (432) 413-9968

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 EJ20202 - * DEFAULT PREP *****

Blank (EJ20202-BLK1)

Prepared & Analyzed: 10/02/12

Sulfate	ND	1.00	mg/L
Chloride	ND	0.500	"

LCS (EJ20202-BS1)

Prepared & Analyzed: 10/02/12

Sulfate	9.80		mg/L	10.0		98.0	80-120
Chloride	9.45		"	10.0		94.5	80-120

LCS Dup (EJ20202-BSD1)

Prepared & Analyzed: 10/02/12

Sulfate	9.79		mg/L	10.0		97.9	80-120	0.163	20
Chloride	9.32		"	10.0		93.2	80-120	1.37	20

Duplicate (EJ20202-DUP1)

Source: 2127004-01

Prepared & Analyzed: 10/02/12

Sulfate	987	200	mg/L		1010			2.80	20
Chloride	4390	100	"		4590			4.44	20

Matrix Spike (EJ20202-MS1)

Source: 2127004-01

Prepared & Analyzed: 10/02/12

Sulfate	3030	200	mg/L	1750	1010	115	80-120
Chloride	6530	100	"	1750	4590	111	80-120

Batch EJ20305 - * DEFAULT PREP *****

Blank (EJ20305-BLK1)

Prepared: 10/02/12 Analyzed: 10/03/12

Total Dissolved Solids	ND	10.0	mg/L
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Duplicate (EJ20305-DUP1)

Source: 2128001-01

Prepared: 10/02/12 Analyzed: 10/03/12

Total Dissolved Solids	79400	10.0	mg/L		78900			0.632	20
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Trident Environmental
P.O. Box 12177
Odessa TX, 79768

Project: State 36 #2
Project Number: State 36 #2
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:

10/4/2012

Brent Barron, Laboratory Director/Technical Director

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[illegible]

**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: 3A02003



NELAP/TCEQ # T104704156-12-1

Report Date: 01/10/13

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

Project: Pride Energy Company
Project Number: State 36 #2
Project Manager: Gilbert Vandeventer

Fax: (432) 413-9968

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1	3A02003-01	Water	12/27/12 17:30	12-28-2012 15:15
MW-2	3A02003-02	Water	12/27/12 19:00	12-28-2012 15:15
MW-3	3A02003-03	Water	12/27/12 18:00	12-28-2012 15:15
MW-4	3A02003-04	Water	12/27/12 18:30	12-28-2012 15:15

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (3A02003-01) Water									
Chloride	463	12.5	mg/L	25	EA30302	01/03/13	01/03/13	EPA 300.0	
Total Dissolved Solids	1740	50.0	"	1	EA30804	01/02/13	01/08/13	EPA 160.1	
MW-2 (3A02003-02) Water									
Chloride	466	12.5	mg/L	25	EA30302	01/03/13	01/03/13	EPA 300.0	
Total Dissolved Solids	1690	50.0	"	1	EA30804	01/02/13	01/08/13	EPA 160.1	
MW-3 (3A02003-03) Water									
Chloride	1030	25.0	mg/L	50	EA30302	01/03/13	01/03/13	EPA 300.0	
Total Dissolved Solids	3500	50.0	"	1	EA30804	01/02/13	01/08/13	EPA 160.1	
MW-4 (3A02003-04) Water									
Chloride	493	12.5	mg/L	25	EA30302	01/03/13	01/03/13	EPA 300.0	
Total Dissolved Solids	1690	50.0	"	1	EA30804	01/02/13	01/08/13	EPA 160.1	

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

Project: Pride Energy Company
Project Number: State 36 #2
Project Manager: Gilbert Vandeventer

Fax: (432) 413-9968

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 EA30302 - * DEFAULT PREP *****

Blank (EA30302-BLK1)

Prepared & Analyzed: 01/03/13

Chloride	ND	0.500	mg/L
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LCS (EA30302-BS1)

Prepared & Analyzed: 01/03/13

Chloride	9.99		mg/L	10.0	99.9	80-120
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LCS Dup (EA30302-BSD1)

Prepared & Analyzed: 01/03/13

Chloride	9.99		mg/L	10.0	99.9	80-120	0.0100	20
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Duplicate (EA30302-DUP1)

Source: 3A02002-01

Prepared & Analyzed: 01/03/13

Chloride	4140	100	mg/L		4140		0.00	20
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Matrix Spike (EA30302-MS1)

Source: 3A02002-01

Prepared & Analyzed: 01/03/13

Chloride	5960	100	mg/L	1750	4140	104	80-120
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Matrix Spike (EA30302-MS2)

Source: 2L28001-04

Prepared & Analyzed: 01/03/13

Chloride	45600	500	mg/L	1250	35800	781	80-120		QM-05
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Batch EA30804 - * DEFAULT PREP *****

Blank (EA30804-BLK1)

Prepared & Analyzed: 01/08/13

Total Dissolved Solids	40.0	10.0	mg/L
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Duplicate (EA30804-DUP1)

Source: 3A02003-04

Prepared & Analyzed: 01/08/13

Total Dissolved Solids	1690	10.0	mg/L		1690		0.00	20
------------------------	------	------	------	--	------	--	------	----

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

Project: Pride Energy Company
Project Number: State 36 #2
Project Manager: Gilbert Vandeventer

Fax: (432) 413-9968

Notes and Definitions

QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.

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: 1/10/2013

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, LRP
10014 S. County Road 1213
Midland, Texas 79706
Phone: 432-661-4184

Page 1 of 1
COC No.: 1R-501-1212

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # 5A02 003

[illegible]