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August 23, 2013

Mr. Ray Montes  
New Mexico Environment Department  
Ground Water Quality Bureau  
Remediation Oversight Section  
1170 N. Solano, Ste. M  
Las Cruces, NM 88001

Mr. Bart Faris  
New Mexico Environment Department  
Ground Water Quality Bureau  
Remediation Oversight Section  
5500 San Antonio Dr. NE  
Albuquerque, New Mexico 87109

Dear Messrs. Montes and Faris:

On behalf of Doña Ana Dairies, Inc., EA Engineering, Science, and Technology, Inc. is submitting this Quarterly Groundwater Monitoring Report for Doña Ana Dairies located in Mesquite, Vado and Anthony, New Mexico. The report discusses the quarterly groundwater sampling event conducted to fulfill requirements of the Stage 1 Abatement Plan for Doña Ana Dairies.

Please let me know if you have any questions regarding the information provided in this report.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Teri McMillan', written in a cursive style.

Teri McMillan  
Project Manager

A handwritten signature in blue ink, appearing to read 'Jay Snyder', written in a cursive style.

Jay Snyder  
Senior Hydrogeologist

Enclosure

Cc: Linda Armstrong, Doña Ana Dairies  
File



QUARTERLY GROUNDWATER  
MONITORING REPORT  
DOÑA ANA DAIRIES  
MESQUITE, NEW MEXICO

Prepared for:

Doña Ana Dairies  
Mesquite, New Mexico

Prepared by:

EA Engineering, Science,  
and Technology, Inc.  
320 Gold Avenue SW, Suite 1210  
Albuquerque, New Mexico 87102

August 2013

EA Project No. 1464103.0004





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Teri McMillan  
Project Manager

8-23-2013

Date

Jay Snyder  
Senior Hydrogeologist

8-23-2013

Date

August 2013

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## 1.0 INTRODUCTION

On behalf of Doña Ana Dairies (Dairies), EA Engineering, Science, and Technology, Inc. (EA) has prepared this Quarterly Monitoring Report for Doña Ana Dairies located south of Las Cruces, New Mexico (Figure 1). The report was completed in accordance with the *Stage 1 and 2 Abatement Plan Proposal and Sampling and Analysis Plan, Doña Ana Dairies, Doña Ana County, New Mexico* dated December 11, 2006 and August 11, 2008, respectively, and the Conceptual Work Plan (CWP) dated February 1, 2008. All were prepared to satisfy requirements stated in the New Mexico Administrative Code (NMAC), Title 20, 6.2 §4106 through §4110. The Stage 1 and 2 Abatement Plan was approved on June 16, 2008 by the New Mexico Environment Department (NMED) Ground Water Quality Bureau (GWQB). The Sampling and Analysis Plan was approved by the NMED GWQB on September 25, 2008.

### 1.1 Objective

The objective of this monitoring program is to satisfy the requirements set forth in NMAC 20.6.2 4106 C, Stage 1 Abatement Plan monitoring program.

The following work was performed to meet the objective of the monitoring program, and included:

- On May 7 and 8, 2013, two representatives from D&H Petroleum and Environmental Services, Inc. (D&H) gauged all discharge plan (DP) and abatement plan (AP) monitoring wells. Several wells were re-measured on May 13 and 14, 2013.
- Starting on May 16, 2013, D&H representatives collected groundwater samples from all 22 AP wells (DAD-01 through DAD-22), each Dairy's DP monitoring wells, and DP specified lagoons. The sampling campaign lasted about two weeks, ending on May 30, 2013. The samples were delivered to TraceAnalysis, Inc. and analyzed for nitrate using EPA Method 300.0 or SM 4500 NO<sub>3</sub> E, chloride by EPA Method 300.0, total dissolved solids (TDS) by Method SM 2540C, and total Kjeldhal nitrogen (TKN) by Method SM 4500 N org C;
- The most recent groundwater gauging and analytical results are compiled into this Quarterly Groundwater Monitoring Report.

### 1.2 Background

In correspondence dated April 7, 2006, NMED required a Stage 1 Abatement Plan for 13 dairies in Doña Ana County, based on analytical results from DP monitoring of on-site compliance monitoring wells that showed concentrations of nitrate, chloride and TDS exceeding ground water standards promulgated in New Mexico Water Quality Control Commission (NMWQCC) Regulations (20 NMAC 6.2 §3103). On October 30, 2006, the Dairies notified NMED that they had reached an agreement to work as a group and submit a joint response to NMED's request (Doña Ana Dairies, 2006).

On December 11, 2006, on behalf of the Doña Ana Dairies, Golder Associates (Golder) submitted a Stage 1 and 2 Abatement Plan Proposal to address impacts to groundwater in the

area of the Dairies (Golder 2006). The first major deliverable in the Abatement Plan Proposal was an Existing Data Report (EDR) to bring together in one document historical data and practices of the constituent dairies.

The EDR, submitted on February 1, 2008, (Golder 2008a) was intended to satisfy the Dairies commitment for compilation and submission of existing data identified in the Doña Ana Dairies response (2006) to the NMED requirement for Stage I Abatement Plans. Section 9 of the EDR outlined data gaps identified during the preparation of the report, as well as the actions recommended. To facilitate the discussion of the path forward after the submittal of the EDR and concurrent with the EDR submission, a conceptual work plan (CWP) was prepared. (Golder 2008b).

On July 15, 2008, the Dairies, Golder and NMED met (Golder 2008c). During that meeting, plume maps presented in the EDR (Golder 2008a), new monitoring data, and knowledge of well locations and groundwater chemistry results at adjacent DP-regulated facilities were used to identify data gaps with respect to ground water flow direction and plume delineation. The agreed upon data gaps yielded well locations (including contingency locations) recorded in the meeting minutes (Golder 2008c) and depicted in the Sampling and Analysis Plan (SAP) dated August 8, 2008 (Golder 2008d). The SAP outlined the details of the field operations to be implemented for completion of data gaps, such that a Site Investigation Report (§4106.C.6) and Stage 2 Abatement Plan (§4106.D) could be prepared.

Groundwater gauging was conducted concurrent to discussions with NMED at the Dairies for four quarters, February 2008, June 2008, September 2008, and December 2008, to determine the current and historical site groundwater gradient.

In May 2009, field work was conducted as outlined in the SAP and ten (10) AP monitoring wells (DAD-01 through DAD-10) were installed. In July 2009, the Site Investigation Report was submitted to the NMED.

On February 9, 2012 the Final Site Investigation Report was submitted to NMED. The report summarized field activities that occurred from October 10 through October 14, 2011 and November 10 through 18, 2011, during which eleven soil borings were advanced at the site and converted into monitoring wells DAD-12 through DAD-14, DAD-16 through DAD-22, and DP well 177-03A.

On August 16, 2012 soil boring/monitoring well DAD-15 was installed and on August 20, 2012 well DAD-15 sampled. An addendum to the Final Site Investigation Report was submitted to NMED on September 7, 2012, which summarized DAD-15 field activities.

A Stage 2 Abatement Plan was submitted to NMED on March 13, 2013.

Quarterly groundwater monitoring is currently being conducted.

## **2.0 GROUNDWATER MONITORING ACTIVITIES**

Groundwater monitoring activities conducted by D&H included gauging and sampling DP and AP monitoring wells. Groundwater samples were analyzed for nitrate, chloride, TDS, and TKN. The resulting data from this groundwater monitoring event are compiled and presented herein.

### **2.1 Well Gauging**

On May 7 and 8, 2013, two representatives from D&H gauged the DP and AP monitoring wells with an electronic water level indicator. Upon review of the water levels, readings at several wells were identified as anomalous and were re-measured on May 13 and 14 2013. Due to a declining water table, several wells were dry. Table 1 provides a summary of the groundwater gauging data collected from the monitoring network. Potentiometric surface maps were constructed based on these data (Figures 2, 3, 4, and 5).

### **2.2 Groundwater Sampling**

From May 16 through 30, 2013, D&H sampled the AP monitoring wells DAD-01 through DAD-22 with disposable bailers. Wells were purged of three well volumes with new disposable bailers prior to sample collection and were sampled from clean to dirty to the extent possible to minimize cross-contamination. All non-dedicated or disposable equipment was decontaminated between wells with an Alconox™ solution to further ensure sample quality.

DP wells were sampled from May 9 through 28, 2013. Prior to sampling, DP wells were purged three well volumes, if practicable by hand-bailing with a new disposable bailer per well or by pumping with a pump and new polyethylene tubing or pumping with a dedicated pump. Field parameters including, at a minimum, specific conductance, pH, and temperature were monitored and recorded for most of the monitoring wells. The sampling field forms are presented in Appendix A. All meters were calibrated and/or checked with standards in accordance with manufacturer's specifications prior to daily use. Purge water was ground discharged.

All groundwater samples were collected immediately after purging. Sampling was either accomplished by carefully pouring groundwater from the bailer into the sample containers or by pumping groundwater through polyethylene tubing into the sample container. Sample containers were provided by TraceAnalysis. Container size, type, sample preservatives, analytical methods, and holding times are specified in Table 2. All samples were preserved in accordance with method requirements, labeled, then immediately cooled to <6°C with ice and delivered under chain-of-custody to TraceAnalysis in El Paso, Texas. All analytical laboratory reports are provided in Appendix B.

### 3.0 GROUNDWATER MONITORING RESULTS

#### 3.1 Hydraulic Gradient and Direction of Groundwater Flow

This quarter, groundwater was present beneath the site at depths from 11.87 feet below top of casing (ft TOC) in AP well DAD-03 to 129.59 ft TOC in Dominguez #2 well 42-12. Groundwater is encountered at shallower depths near the Mesquite Drain and at greater depths near I-10 where the topographic elevation increases.

Potentiometric surface maps were completed using the monitoring well gauging data for the northern, central, and southern portions of the Dairies and are provided as Figures 2, 3, 4, and 5. Hydrographs were completed for the monitoring wells and are provided in Appendix C. In general, water levels have decreased in most wells when compared to the last monitoring event conducted in February 2013 (See hydrographs presented in Appendix C). An average decrease of 0.56 feet was observed in the monitoring wells. The long term decreases in water levels have resulted in many wells becoming dry.

The groundwater flow direction throughout the northern portion, central portion and the southern regional aquifer of the Dairies was toward the east-southeast, whereas the gradient in the southern perched aquifer of the dairy near Anthony, New Mexico, flows west. The hydraulic gradient across the Dairies is approximately 0.001 ft./ft.

#### 3.2 Groundwater Analytical Results

##### 3.2.1 Abatement Plan Well Results

Groundwater analyte concentrations were below the NMWQCC standard for nitrate (10 mg/L) in all but 8 of the 22 AP monitoring wells. The AP wells that had nitrate concentrations above standards are DAD-1, DAD-08, DAD-11, DAD-12, DAD-14, DAD-18, DAD-19 and DAD-20. Both chloride and TDS concentrations exceeded their respective NMWQCC standards in all 22 wells.

Nitrate concentrations generally remained the same in most of the DAD wells, with the exception of wells DAD-08, DAD-09, and DAD-14, which all showed significant decreased concentrations of nitrate compared to the past quarter. Nitrate concentrations decreased in well DAD-08 (near new irrigation pivot) from 90.0 mg/L in March 2013 to 71.5 mg/L this quarter. The nitrate concentration decreased below the NMWQCC standard for the first time in well DAD-09. Well DAD-14 (Gonzalez Dairy) decreased from a concentration of 42.0 mg/L in February 2013 to 34.6 mg/L this quarter, after five quarters of increasing nitrate concentrations.

Concentrations of chloride and TDS in all wells remain relatively constant compared to levels measured in the past. In samples collected from AP monitoring wells in May 2013 chloride concentrations ranged from 317 mg/L in DAD-17 to 2,140 mg/L in DAD-08, and TDS values ranged from 1,400 mg/L in DAD-17 to 6,740 mg/L in DAD-08.

Table 3 summarizes the analytical results for AP monitoring wells and the analytical laboratory

results are found in Appendix B. Nitrate and chloride concentration trends for select DAD wells are presented in Appendix D.

### **3.2.2 Results by Areas at the Dairies**

DP groundwater analytical results are summarized in Table 4. These data were combined with the analytical data collected from the 22 AP monitoring wells and are plotted on Figures 6, 7, 8, 9 and 10. Analytical laboratory reports are included in Appendix B. The following discussions summarize the results by area at the Dairies.

#### Northern Portion

The downgradient extent of the nitrate plume within the northern portion is defined by well DAD-02 with a nitrate concentration of 9.19 mg/L. The upgradient well (northern land application well 86/340-1) had a nitrate concentration of 12.3 mg/L, which is just above the NMWQCC standard for nitrate (10 mg/L). All eastern cross-gradient wells except well DAD-01 (Dominguez #2 wells 42-10, 42-11, and 42-12) have nitrate concentrations below the standard. Well DAD-01 had a concentration at the standard, 10.4 mg/L. The western delineating cross-gradient well Dominguez 624-05 had a nitrate concentration of 6.72 mg/L during the last event; however the well was dry during this quarter's event.

The chloride and TDS concentrations are above standards in all wells sampled within the northern portion. The highest concentrations of chloride and TDS were observed in the Northern Land Application area in well 70-03 at 3,290 mg/L and 9,200 mg/L, respectively.

#### Central Portion

The highest nitrate concentrations were observed in Big Sky Dairy wells 833-07 and 833-08 at concentrations of 88.7 mg/L and 80.2 mg/L, respectively. The extent of the nitrate plume is defined in the Central Portion. Buena Vista well 74-03 and well DAD-03 define the upgradient extent of the nitrate plume, while DAD-17 defines the downgradient extent of the plume. The eastern cross-gradient extent of the plume is defined by DAD-06, DAD-07, and DAD-15 and the western extent is defined by DAD-04, DAD-05 and DAD-16.

Chloride and TDS concentrations are above standards in all wells within the central portion. The highest chloride and TDS concentrations were observed at well DAD-08 at 2,140 mg/L and 6,740 mg/L. Well DAD-08 is located east of Sunset Dairy, adjacent to a new irrigation well.

#### Southern Portion

Nitrate is present within both the regional and perched aquifers in the southern portion of the Dairies; however, all of the wells in the regional aquifer are below the NMWQCC standard of 10 mg/L.

In the shallow perched aquifer the nitrate plume is defined downgradient (southwest). Nitrate concentrations have increase in well DAD-22, which had a nitrate concentration of 9.29 mg/L

this quarter which is below NMWQCC standards. The well with the highest nitrate concentration in the shallow perched aquifer is Del Oro Dairy well 692-01 with a concentration of 82.4 mg/L.

Chloride and TDS concentrations are above NMWQCC standards in all wells sampled within the southern portion. Chloride concentrations in this area ranged from 415 mg/L in Del Oro Dairy well 692-06 to 920 mg/L in DAD-22, while TDS ranged from 1,280 mg/L to 2,760 mg/L in Del Oro Dairy wells 692-05 and 692-08, respectively. Upgradient well Del Oro 692-08 had a chloride concentration of 434 mg/L and a TDS concentration of 2,760 mg/L.



#### 4.0 CONCLUSION AND RECOMMENDATIONS

The groundwater monitoring event included the gauging of all DP and DAD wells and sampling of all 22 DAD wells in addition to the DP wells. Based on the data collected, the following conclusions and recommendations are presented:

- The depth to groundwater at the site ranged from 11.87 to 129.59 feet below the top of casing.
- In general, water levels have decreased when compared to the last monitoring event conducted in February 2013.
- The groundwater flow direction at the Dairies within the regional groundwater aquifer is east-southeast. The hydraulic gradient is 0.001 ft./ft.
- The perched groundwater aquifer at Del Oro Dairy has a groundwater flow direction toward the southwest.
- Nitrate was below the NMWQCC standards in 14 of the 22 groundwater samples collected from all the AP DAD wells.
- Chloride was above NMWQCC standard in all monitoring wells sampled.
- TDS was above the NMWQCC standard in all monitoring wells sampled.
- Chloride and TDS remain above standards in wells upgradient of the northern, central, and southern portions of the plume at the Dairies. Chloride and TDS are regionally elevated above standards and not necessarily attributed to the Dairies.

EA has recommended, in the Stage 2 Abatement Plan, the number of abatement and discharge plan wells be reduced for quarterly sampling.

## **5.0 REFERENCES**

- Doña Ana Dairies. 2006. Letter Regarding Agreement for Joint Stage 1 and Stage 2 Abatement Plan and Storm Water and Wastewater Pond Upgrades. Letter from Mr. Michael Weatherly, Chairman, Doña Ana Dairies, to Mr. William Olson, Chief, Ground Water Quality Bureau. October 30.
- Golder Associates, Inc. (Golder). 2006. Stage 1 and 2 Abatement Plan Proposal, prepared for New Mexico Environment Department, Remediation Oversight Section, on behalf of Doña Ana Dairies. December 11.
- Golder 2008a. Existing Data Report and Conceptual Work Plan, Doña Ana Dairies, Mesquite, New Mexico. February 1.
- Golder 2008b. Conceptual Work Plan. Doña Ana Dairies, Mesquite, New Mexico. February 1.
- Golder 2008c. Notes for the Meeting Regarding New Monitoring Well Installation. Meeting Participants: Doña Ana Dairy representative, DAD technical representatives, and NMED staff. July 28.
- Golder 2008d. Sampling and Analysis Plan. Doña Ana Dairies, Mesquite, New Mexico. August 11.
- New Mexico Environment Department (NMED). 2008. Conditional Approval of Stage 1 Abatement Plan for Doña Ana Dairies. Letter from Mr. Bill Olson, Chief, Ground Water Quality Bureau, to Mr. Weatherly, Doña Ana Dairies. June 16.
- NMED. 2008. Approval of Sampling and Analysis Plan for the Doña Ana Dairies, Stage 1 Abatement Plan, Doña Ana County, New Mexico. September 25.

## **TABLES**

**TABLE 1. SUMMARY OF MONITOR WELL FLUID GAUGING DATA  
DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Measured	Northing <sup>a</sup>	Easting <sup>a</sup>	Casing Elevation <sup>b</sup>	Depth to Water <sup>c</sup>	Ground Water Elevation <sup>b</sup>
<b>NORTHERN AREA</b>						
<b>Northern Land Application Area</b>						
70-03	7-May-2013	424580.78	1510233.88	3871.43	53.87	3817.56
	7-Feb-2013				53.46	3817.97
	24-Oct-2012				54.05	3817.38
	30-Jul-2012				53.70	3817.73
	23-Apr-2012				52.84	3818.59
	30-Jan-2012				51.41	3820.02
	8-Dec-2011				51.49	3819.94
	19-Jul-2011				50.77	3820.66
	20-Apr-2011				49.69	3821.74
	17-Jan-2011				48.70	3822.73
	14-Sep-2010				49.02	3822.41
	24-Jun-2010				48.99	3822.44
	22-Mar-2010				48.90	3822.53
	8-Dec-2009				48.72	3822.71
	28-Aug-2009				49.21	3822.22
	26-May-2009				48.91	3822.52
	11-Dec-2008				48.02	3823.41
28-Sep-2008	48.06	3823.37				
11-Jun-2008	49.20	3822.23				
5-Feb-2008	47.95	3823.48				
14-Nov-2007	48.10	3823.33				
12-Sep-2007	48.70	3822.73				
70/86/340-01	7-May-2013	427320.92	1508461.05	3866.77	46.79	3819.98
	7-Feb-2013				46.49	3820.28
	24-Oct-2012				47.30	3819.47
	30-Jul-2012				46.84	3819.93
	23-Apr-2012				45.91	3820.86
	8-Dec-2011				45.17	3821.60
	19-Jul-2011				44.49	3822.28
	20-Apr-2011				43.15	3823.62
	17-Jan-2011				42.00	3824.77
	14-Sep-2010				41.79	3824.98
	24-Jun-2010				42.67	3824.10
	22-Mar-2010				42.21	3824.56
	8-Dec-2009				42.02	3824.75
	28-Aug-2009				42.39	3824.38
	26-May-2009				42.33	3824.44
	11-Dec-2008				41.15	3825.62
	28-Sep-2008				41.58	3825.19
11-Jun-2008	42.31	3824.46				
5-Feb-2008	41.07	3825.70				
14-Nov-2007	41.38	3825.39				
12-Sep-2007	41.46	3825.31				
86/340-01	7-May-2013	432021.33	1503216.90	3876.14	52.65	3823.49
	7-Feb-2013				52.31	3823.83
	24-Oct-2012				53.16	3822.98
	30-Jul-2012				52.70	3823.44
	23-Apr-2012				52.20	3823.94
	30-Jan-2012				51.10	3825.04
	8-Dec-2011				51.20	3824.94
	19-Jul-2011				50.36	3825.78
	20-Apr-2011				48.91	3827.23
	17-Jan-2011				47.00	3829.14
	14-Sep-2010				47.63	3828.51
	24-Jun-2010				48.22	3827.92
	22-Mar-2010				47.66	3828.48
	8-Dec-2009				47.39	3828.75
	28-Aug-2009				47.75	3828.39
	26-May-2009				47.86	3828.28
	11-Dec-2008				46.68	3829.46
28-Sep-2008	47.44	3828.70				
11-Jun-2008	48.11	3828.03				
5-Feb-2008	46.68	3829.46				
14-Nov-2007	47.11	3829.03				
12-Sep-2007	47.85	3828.29				

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DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Measured	Northing <sup>a</sup>	Easting <sup>a</sup>	Casing Elevation <sup>b</sup>	Depth to Water <sup>c</sup>	Ground Water Elevation <sup>b</sup>
<b>Former Daybreak Dairy (Del Norte Dairy)</b>						
126-04	7-May-2013	423258.23	1510546.24	3850.31	32.01	3818.30
	7-Feb-2013				32.05	3818.26
	24-Oct-2012				32.58	3817.73
	30-Jul-2012				32.23	3818.08
	23-Apr-2012				31.46	3818.85
	26-Jan-2012				30.89	3819.42
	8-Dec-2011				30.84	3819.47
	19-Jul-2011				30.26	3820.05
	20-Apr-2011				29.09	3821.22
	17-Jan-2011				28.20	3822.11
	14-Sep-2010				28.60	3821.71
	24-Jun-2010				28.21	3822.10
	22-Mar-2010				28.33	3821.98
	8-Dec-2009				28.17	3822.14
	28-Aug-2009				28.50	3821.81
	26-May-2009				28.30	3822.01
	11-Dec-2008				27.56	3822.75
	27-Sep-2008				27.96	3822.35
	10-Jun-2008				28.61	3821.70
	6-Feb-2008				27.53	3822.78
14-Nov-2007	27.61	3822.70				
11-Sep-2007	28.19	3822.12				
126-05	7-May-2013	422293.26	1510649.84	3842.62	24.65	3817.97
	7-Feb-2013				24.71	3817.91
	24-Oct-2012				24.96	3817.66
	30-Jul-2012				24.73	3817.89
	23-Apr-2012				24.21	3818.41
	26-Jan-2012				23.52	3819.10
	8-Dec-2011				23.50	3819.12
	19-Jul-2011				22.72	3819.90
	20-Apr-2011				21.74	3820.88
	21-Jan-2011				21.30	3821.32
	14-Sep-2010				20.91	3821.71
	24-Jun-2010				21.13	3821.49
	22-Mar-2010				21.06	3821.56
	8-Dec-2009				20.88	3821.74
	28-Aug-2009				20.83	3821.79
	26-May-2009				20.91	3821.71
	11-Dec-2008				20.29	3822.33
	27-Sep-2008				20.42	3822.20
	10-Jun-2008				21.26	3821.36
	6-Feb-2008				20.34	3822.28
14-Nov-2007	20.32	3822.30				
11-Sep-2007	20.74	3821.88				
126-07	7-May-2013	423613.62	1509986.47	3850.94	32.33	3818.61
	7-Feb-2013				32.58	3818.36
	24-Oct-2012				32.97	3817.97
	30-Jul-2012				32.60	3818.34
	23-Apr-2012				31.84	3819.10
	26-Jan-2012				31.23	3819.71
	8-Dec-2011				31.28	3819.66
	19-Jul-2011				30.30	3820.64
	20-Apr-2011				28.59	3822.35
	27-Jan-2011				28.43	3822.51
	14-Sep-2010				28.45	3822.49
	24-Jun-2010				28.74	3822.20
	22-Mar-2010				28.57	3822.37
	8-Dec-2009				28.37	3822.57
	28-Aug-2009				28.61	3822.33
	26-May-2009				28.47	3822.47
	11-Dec-2008				27.70	3823.24
	27-Sep-2008				27.97	3822.97
	10-Jun-2008				28.78	3822.16
	6-Feb-2008				27.71	3823.23
14-Nov-2007	27.63	3823.31				
11-Sep-2007	28.06	3822.88				

**TABLE 1. SUMMARY OF MONITOR WELL FLUID GAUGING DATA  
DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Measured	Northing <sup>a</sup>	Easting <sup>a</sup>	Casing Elevation <sup>b</sup>	Depth to Water <sup>c</sup>	Ground Water Elevation <sup>b</sup>
126-09	7-May-2013	425154.15	1510994.31	3893.35	75.40	3817.95
	7-Feb-2013				74.61	3818.74
	24-Oct-2012				75.29	3818.06
	30-Jul-2012				74.98	3818.37
	23-Apr-2012				73.98	3819.37
	26-Jan-2012				72.24	3821.11
	8-Dec-2011				73.34	3820.01
	19-Jul-2011				73.19	3820.16
	20-Apr-2011				72.11	3821.24
	21-Jan-2011				71.00	3822.35
	14-Sep-2010				71.52	3821.83
	29-Jun-2010				72.23	3821.12
	22-Mar-2010				71.03	3822.32
	8-Dec-2009				70.94	3822.41
	28-Aug-2009				71.73	3821.62
	26-May-2009				71.12	3822.23
	11-Dec-2008				70.27	3823.08
	27-Sep-2008				70.79	3822.56
10-Jun-2008	71.47	3821.88				
6-Feb-2008	70.08	3823.27				
14-Nov-2007	70.46	3822.89				
11-Sep-2007	71.39	3821.96				
126-12	7-May-2013	421492.11	1510198.45	3838.88	21.05	3817.83
	7-Feb-2013				20.92	3817.96
	24-Oct-2012				20.53	3818.35
	30-Jul-2012				20.48	3818.40
	23-Apr-2012				20.22	3818.66
	30-Jan-2012				19.79	3819.09
	8-Dec-2011				19.55	3819.33
	19-Jul-2011				18.27	3820.61
	20-Apr-2011				17.62	3821.26
	17-Jan-2011				17.00	3821.88
	16-Sep-2010				16.48	3822.40
	24-Jun-2010				17.30	3821.58
	24-Jun-2010				17.30	3821.58
	22-Mar-2010				17.19	3821.69
	8-Dec-2009				16.99	3821.89
	28-Aug-2009				16.49	3822.39
	26-May-2009				16.85	3822.03
	11-Dec-2008				16.37	3822.51
27-Sep-2008	16.29	3822.59				
10-Jun-2008	17.19	3821.69				
6-Feb-2008	16.62	3822.26				
14-Nov-2007	16.33	3822.55				
11-Sep-2007	16.56	3822.32				
126-13	7-May-2013	423431.96	1510657.41	3857.37	39.01	3818.36
	7-Feb-2013				39.07	3818.30
	24-Oct-2012				39.60	3817.77
	30-Jul-2012				39.30	3818.07
	23-Apr-2012				38.52	3818.85
	26-Jan-2012				37.80	3819.57
	8-Dec-2011				37.86	3819.51
	19-Jul-2011				37.29	3820.08
	20-Apr-2011				35.23	3822.14
	13-Jan-2011				35.23	3822.14
	14-Sep-2010				35.66	3821.71
	24-Jun-2010				36.01	3821.36
	22-Mar-2010				35.40	3821.97
	8-Dec-2009				35.24	3822.13
	28-Aug-2009				35.60	3821.77
	26-May-2009				35.37	3822.00
	11-Dec-2008				34.62	3822.75
	27-Sep-2008				34.99	3822.38
10-Jun-2008	35.69	3821.68				
6-Feb-2008	NA	NA				
14-Nov-2007	16.33	3841.04				
11-Sep-2007	NA	NA				

**TABLE 1. SUMMARY OF MONITOR WELL FLUID GAUGING DATA  
DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Measured	Northing <sup>a</sup>	Easting <sup>a</sup>	Casing Elevation <sup>b</sup>	Depth to Water <sup>c</sup>	Ground Water Elevation <sup>b</sup>
<b>Mountain View Dairy</b>						
70-01	7-May-2013	423303.43	1510585.63	3851.84	34.06	3817.78
	7-Feb-2013				33.58	3818.26
	24-Oct-2012				34.08	3817.76
	30-Jul-2012				33.80	3818.04
	23-Apr-2012				33.09	3818.75
	26-Jan-2012				32.29	3819.55
	8-Dec-2011				32.40	3819.44
	9-Jul-2011				31.77	3820.07
	20-Apr-2011				30.69	3821.15
	17-Jan-2011				29.72	3822.12
	14-Sep-2010				30.19	3821.65
	24-Jun-2010				29.30	3822.54
	22-Mar-2010				Unable to open well	
	8-Dec-2009				29.75	3822.09
	28-Aug-2009				30.08	3821.76
	26-May-2009				29.88	3821.96
	11-Dec-2008				29.13	3822.71
	27-Sep-2008				29.79	3822.05
	10-Jun-2008				30.20	3821.64
	5-Feb-2008				29.10	3822.74
13-Nov-2007	29.25	3822.59				
12-Sep-2007	29.77	3822.07				
70-02	7-May-2013	423412.73	1511192.51	3861.25	43.16	3818.09
	7-Feb-2013				43.13	3818.12
	24-Oct-2012				43.66	3817.59
	30-Jul-2012				43.33	3817.92
	23-Apr-2012				42.60	3818.65
	26-Jan-2012				41.81	3819.44
	8-Dec-2011				41.89	3819.36
	19-Jul-2011				41.52	3819.73
	20-Apr-2011				40.46	3820.79
	17-Jan-2011				38.90	3822.35
	14-Sep-2010				39.96	3821.29
	24-Jun-2010				39.01	3822.24
	22-Mar-2010				39.54	3821.71
	8-Dec-2009				39.42	3821.83
	28-Aug-2009				39.81	3821.44
	26-May-2009				39.56	3821.69
	11-Dec-2008				38.84	3822.41
	27-Sep-2008				39.20	3822.05
	10-Jun-2008				39.90	3821.35
	6-Feb-2008				39.77	3821.48
14-Nov-2007	39.01	3822.24				
11-Sep-2007	39.60	3821.65				
70-04	7-May-2013	422798.94	1510922.20	3849.81	31.80	3818.01
	7-Feb-2013				31.85	3817.96
<b>Buena Vista Dairy I</b>						
86-01	7-May-2013	421534.62	1511667.76	3864.96	47.21	3817.75
	7-Feb-2013				47.35	3817.61
	24-Oct-2012				47.61	3817.35
	30-Jul-2012				47.26	3817.70
	23-Apr-2012				46.86	3818.10
	30-Jan-2012				46.34	3818.62
	8-Dec-2011				46.22	3818.74
	19-Jul-2011				45.66	3819.30
	20-Apr-2011				44.28	3820.68
	17-Jan-2011				44.30	3820.66
	16-Sep-2010				44.09	3820.87
	24-Jun-2010				44.39	3820.57
	22-Mar-2010				44.19	3820.77
	8-Dec-2009				43.89	3821.07
	28-Aug-2009				43.96	3821.00
	26-May-2009				44.03	3820.93
	11-Dec-2008				43.53	3821.43
	28-Sep-2008				43.60	3821.36
	10-Jun-2008				44.44	3820.52
	5-Feb-2008				43.69	3821.27
13-Nov-2007	43.78	3821.18				
12-Sep-2007	44.21	3820.75				

**TABLE 1. SUMMARY OF MONITOR WELL FLUID GAUGING DATA  
DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Measured	Northing <sup>a</sup>	Easting <sup>a</sup>	Casing Elevation <sup>b</sup>	Depth to Water <sup>c</sup>	Ground Water Elevation <sup>b</sup>
86-02	7-May-2013	421792.08	1510881.53	3848.08	30.13	3817.95
	7-Feb-2013				30.07	3818.01
	24-Oct-2012				29.71	3818.37
	30-Jul-2012				29.71	3818.37
	23-Apr-2012				29.43	3818.65
	30-Jan-2012				28.94	3819.14
	8-Dec-2011				28.77	3819.31
	19-Jul-2011				27.74	3820.34
	20-Apr-2011				27.18	3820.90
	17-Jan-2011				26.34	3821.74
	16-Sep-2010				26.18	3821.90
	24-Jun-2010				26.79	3821.29
	22-Mar-2010				26.54	3821.54
	8-Dec-2009				26.33	3821.75
	28-Aug-2009				26.11	3821.97
	26-May-2009				26.29	3821.79
	11-Dec-2008				25.77	3822.31
28-Sep-2008	25.78	3822.3				
10-Jun-2008	26.65	3821.43				
5-Feb-2008	26.95	3821.13				
13-Nov-2007	25.88	3822.2				
12-Sep-2007	26.19	3821.89				
<b>Bright Star Dairy</b>						
340-01	7-May-2013	421410.13	1511423.42	3858.48	40.80	3817.68
	7-Feb-2013				40.75	3817.73
	24-Oct-2012				40.82	3817.66
	30-Jul-2012				40.44	3818.04
	23-Apr-2012				40.16	3818.32
	25-Jan-2012				39.70	3818.78
	8-Dec-2011				39.54	3818.94
	19-Jul-2011				38.74	3819.74
	20-Apr-2011				38.14	3820.34
	17-Jan-2011				37.33	3821.15
	14-Sep-2010				37.20	3821.28
	24-Jun-2010				38.05	3820.43
	22-Mar-2010				37.48	3821.00
	8-Dec-2009				37.26	3821.22
	28-Aug-2009				37.10	3821.38
	26-May-2009				37.26	3821.22
	11-Dec-2008				36.79	3821.69
27-Sep-2008	36.77	3821.71				
10-Jun-2008	37.63	3820.85				
6-Feb-2008	37.03	3821.45				
14-Nov-2007	37.00	3821.48				
11-Sep-2007	37.36	3821.12				
340-02	7-May-2013	420641.08	1512051.57	3869.76	52.34	3817.42
	7-Feb-2013				52.29	3817.47
	24-Oct-2012				52.26	3817.50
	30-Jul-2012				51.67	3818.09
	23-Apr-2012				51.61	3818.15
	25-Jan-2012				51.31	3818.45
	8-Dec-2011				51.07	3818.69
	19-Jul-2011				50.24	3819.52
	20-Apr-2011				48.86	3820.90
	17-Jan-2011				49.00	3820.76
	14-Sep-2010				48.80	3820.96
	24-Jun-2010				49.67	3820.09
	22-Mar-2010				49.17	3820.59
	8-Dec-2009				49.03	3820.73
	28-Aug-2009				48.79	3820.97
	26-May-2009				48.94	3820.82
	11-Dec-2008				48.62	3821.14
28-Sep-2008	48.48	3821.28				
10-Jun-2008	49.30	3820.46				
5-Feb-2008	48.90	3820.86				
14-Nov-2007	48.84	3820.92				
12-Sep-2007	49.28	3820.48				



**TABLE 1. SUMMARY OF MONITOR WELL FLUID GAUGING DATA  
DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Measured	Northing <sup>a</sup>	Easting <sup>a</sup>	Casing Elevation <sup>b</sup>	Depth to Water <sup>c</sup>	Ground Water Elevation <sup>b</sup>
<b>Former D&amp;J Dairy (Dominguez 2)</b>						
42-02	7-May-2013	419982.45	1511126.19	3844.69	26.53	3818.16
	7-Feb-2013				26.48	3818.21
	24-Oct-2012				25.91	3818.78
	31-Jul-2012				25.05	3819.64
	23-Apr-2012				25.46	3819.23
	26-Jan-2012				25.71	3818.98
	8-Dec-2011				25.35	3819.34
	19-Jul-2011				23.15	3821.54
	19-Apr-2011				22.80	3821.89
	18-Jan-2011				23.30	3821.39
	15-Sep-2010				22.34	3822.35
	24-Jun-2010				22.84	3821.85
	22-Mar-2010				23.16	3821.53
	8-Dec-2009				22.87	3821.82
	28-Aug-2009				22.43	3822.26
	26-May-2009				22.73	3821.96
	11-Dec-2008				22.91	3821.78
	27-Sep-2008				22.28	3822.41
	10-Jun-2008				23.12	3821.57
	6-Feb-2008				23.43	3821.26
13-Nov-2007	23.00	3821.69				
12-Sep-2007	23.15	3821.54				
42-03	7-May-2013	419710.55	1514064.35	3898.46	81.97	3816.49
	7-Feb-2013				82.01	3816.45
	24-Oct-2012				82.70	3815.76
	31-Jul-2012				82.49	3815.97
	23-Apr-2012				81.57	3816.89
	25-Jan-2012				81.18	3817.28
	8-Dec-2011				81.26	3817.20
	19-Jul-2011				81.33	3817.13
	19-Apr-2011				80.21	3818.25
	18-Jan-2011				79.33	3819.13
	15-Sep-2010				79.91	3818.55
	24-Jun-2010				81.12	3817.34
	22-Mar-2010				79.57	3818.89
	8-Dec-2009				79.12	3819.34
	28-Aug-2009				79.26	3819.20
	26-May-2009				79.42	3819.04
	11-Dec-2008				78.89	3819.57
	27-Sep-2008				78.91	3819.55
	10-Jun-2008				79.91	3818.55
	6-Feb-2008				79.76	3818.70
13-Nov-2007	79.15	3819.31				
12-Sep-2007	79.71	3818.75				
42-06	7-May-2013	420021.61	1511465.15	3850.15	32.71	3817.44
	7-Feb-2013				32.30	3817.85
	24-Oct-2012				31.80	3818.35
	31-Jul-2012				31.15	3819.00
	23-Apr-2012				31.37	3818.78
	25-Jan-2012				31.51	3818.64
	8-Dec-2011				31.19	3818.96
	19-Jul-2011				29.37	3820.78
	19-Apr-2011				29.66	3820.49
	18-Jan-2011				29.18	3820.97
	15-Sep-2010				28.36	3821.79
	24-Jun-2010				28.96	3821.19
	22-Mar-2010				29.04	3821.11
	8-Dec-2009				28.90	3821.25
	28-Aug-2009				28.44	3821.71
	26-May-2009				28.70	3821.45
	11-Dec-2008				28.75	3821.40
	27-Sep-2008				28.27	3821.88
	10-Jun-2008				29.03	3821.12
	6-Feb-2008				29.24	3820.91
13-Nov-2007	28.87	3821.28				
12-Sep-2007	29.03	3821.12				

**TABLE 1. SUMMARY OF MONITOR WELL FLUID GAUGING DATA  
DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Measured	Northing <sup>a</sup>	Easting <sup>a</sup>	Casing Elevation <sup>b</sup>	Depth to Water <sup>c</sup>	Ground Water Elevation <sup>b</sup>	
42-07	7-May-2013	420584.8	1513076.66	3891.52		Dry	
	7-Feb-2013					Dry	
	24-Oct-2012					Dry	
	31-Jul-2012					Dry	
	23-Apr-2012					Dry	
	25-Jan-2012					Dry	
	8-Dec-2011					Dry	
	19-Jul-2011					Dry	
	19-Apr-2011					72.19	3819.33
	18-Jan-2011					71.37	3820.15
	15-Sep-2010					71.64	3819.88
	24-Jun-2010					72.24	3819.28
	22-Mar-2010					71.43	3820.09
	8-Dec-2009					71.26	3820.26
	28-Aug-2009					71.26	3820.26
	26-May-2009					71.31	3820.21
	11-Dec-2008					70.87	3820.65
	27-Sep-2008					70.95	3820.57
10-Jun-2008		71.71	3819.81				
6-Feb-2008		71.00	3820.52				
13-Nov-2007		71.12	3820.40				
12-Sep-2007		71.61	3819.91				
42-08	7-May-2013	419994.93	1511197.91	3846.53	28.69	3817.84	
	7-Feb-2013				28.43	3818.10	
	24-Oct-2012				27.92	3818.61	
	31-Jul-2012				27.11	3819.42	
	23-Apr-2012				27.51	3819.02	
	26-Jan-2012				27.68	3818.85	
	8-Dec-2011				27.33	3819.20	
	19-Jul-2011				25.24	3821.29	
	19-Apr-2011				25.72	3820.81	
	18-Jan-2011				25.28	3821.25	
	15-Sep-2010				24.37	3822.16	
	24-Jun-2010				24.91	3821.62	
	22-Mar-2010				25.15	3821.38	
	8-Dec-2009				24.91	3821.62	
	28-Aug-2009				24.46	3822.07	
	26-May-2009				24.75	3821.78	
	11-Dec-2008				24.88	3821.65	
	27-Sep-2008				24.30	3822.23	
10-Jun-2008	25.13	3821.40					
6-Feb-2008	25.41	3821.12					
13-Nov-2007	25.00	3821.53					
12-Sep-2007	25.13	3821.40					
42-09	7-May-2013	419729.17	1512255.76	3865.25	48.04	3817.21	
	7-Feb-2013				47.79	3817.46	
	24-Oct-2012				47.29	3817.96	
	31-Jul-2012				46.98	3818.27	
	23-Apr-2012				46.93	3818.32	
	25-Jan-2012				46.95	3818.30	
	8-Dec-2011				46.76	3818.49	
	19-Jul-2011				45.54	3819.71	
	19-Apr-2011				45.38	3819.87	
	18-Jan-2011				44.87	3820.38	
	15-Sep-2010				44.21	3821.04	
	24-Jun-2010				44.99	3820.26	
	22-Mar-2010				44.72	3820.53	
	8-Dec-2009				44.70	3820.55	
	28-Aug-2009				44.32	3820.93	
	26-May-2009				44.50	3820.75	
	11-Dec-2008				44.39	3820.86	
	27-Sep-2008				44.12	3821.13	
10-Jun-2008	44.77	3820.48					
6-Feb-2008	44.80	3820.45					
13-Nov-2007	44.47	3820.78					
12-Sep-2007	44.73	3820.52					

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DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Measured	Northing <sup>a</sup>	Easting <sup>a</sup>	Casing Elevation <sup>b</sup>	Depth to Water <sup>c</sup>	Ground Water Elevation <sup>b</sup>
42-10	7-May-2013	421426.39	1514460.4	3929.28	112.81	3816.47
	7-Feb-2013				112.29	3816.99
	24-Oct-2012				112.95	3816.33
	31-Jul-2012				112.87	3816.41
	23-Apr-2012				111.87	3817.41
	25-Jan-2012				110.98	3818.30
	8-Dec-2011				111.16	3818.12
	19-Jul-2011				111.21	3818.07
	19-Apr-2011				110.06	3819.22
	18-Jan-2011				109.19	3820.09
	15-Sep-2010				110.24	3819.04
	27-Jun-2010				110.35	3818.93
	22-Mar-2010				109.47	3819.81
	8-Dec-2009				109.41	3819.87
	28-Aug-2009				109.67	3819.61
	26-May-2009				109.53	3819.75
	42-11				7-May-2013	420693.98
7-Feb-2013		122.91	3816.40			
24-Oct-2012		123.44	3815.87			
31-Jul-2012		123.11	3816.20			
23-Apr-2012		122.09	3817.22			
25-Jan-2012		121.67	3817.64			
8-Dec-2011		121.83	3817.48			
19-Jul-2011		121.73	3817.58			
19-Apr-2011		120.64	3818.67			
18-Jan-2011		120.01	3819.30			
15-Sep-2010		121.02	3818.29			
27-Jun-2010		121.05	3818.26			
22-Mar-2010		120.18	3819.13			
8-Dec-2009		120.21	3819.10			
28-Aug-2009		120.51	3818.80			
26-May-2009		120.35	3818.96			
42-12		7-May-2013	420972.09	1515423.88	3945.83	
	7-Feb-2013	129.18				3816.65
	24-Oct-2012	129.74				3816.09
	31-Jul-2012	129.44				3816.39
	23-Apr-2012	128.71				3817.12
	25-Jan-2012	128.06				3817.77
	8-Dec-2011	128.14				3817.69
	19-Jul-2011	128.01				3817.82
	19-Apr-2011	126.37				3819.46
	18-Jan-2011	126.37				3819.46
	15-Sep-2010	127.38				3818.45
	27-Jun-2010	127.43				3818.40
	22-Mar-2010	126.50				3819.33
	8-Dec-2009	126.60				3819.23
	28-Aug-2009	126.84				3818.99
	26-May-2009	126.68				3819.15
	11-Dec-2008	126.18				3819.65
27-Sep-2008	126.68	3819.15				
11-Jun-2008	126.88	3818.95				
6-Feb-2008	126.16	3819.67				
14-Nov-2007	126.55	3819.28				
12-Sep-2007	127.04	3818.79				

**TABLE 1. SUMMARY OF MONITOR WELL FLUID GAUGING DATA  
DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Measured	Northing <sup>a</sup>	Easting <sup>a</sup>	Casing Elevation <sup>b</sup>	Depth to Water <sup>c</sup>	Ground Water Elevation <sup>b</sup>
42-13	7-May-2013	419734.06	1512534.42	3873.10	56.02	3817.08
	7-Feb-2013				55.86	3817.24
	24-Oct-2012				55.40	3817.70
	31-Jul-2012				55.17	3817.93
	23-Apr-2012				54.96	3818.14
	25-Jan-2012				54.99	3818.11
	8-Dec-2011				54.83	3818.27
	19-Jul-2011				53.77	3819.33
	19-Apr-2011				53.50	3819.60
	18-Jan-2011				52.95	3820.15
	15-Sep-2010				52.44	3820.66
	24-Jun-2010				53.21	3819.89
	22-Mar-2010				52.84	3820.26
	8-Dec-2009				52.79	3820.31
	28-Aug-2009				52.45	3820.65
	26-May-2009				52.64	3820.46
	11-Dec-2008				52.49	3820.61
	27-Sep-2008				52.23	3820.87
10-Jun-2008	52.91	3820.19				
6-Feb-2008	52.84	3820.26				
13-Nov-2007	52.56	3820.54				
12-Sep-2007	52.83	3820.27				
<b>Dominguez Dairy</b>						
624-01	7-May-2013	418826.21	1512131.46	3843.72	26.21	3817.51
	7-Feb-2013				26.39	3817.33
	24-Oct-2012				25.89	3817.83
	30-Jul-2012				26.12	3817.60
	24-Apr-2012				26.02	3817.70
	25-Jan-2012				25.51	3818.21
	7-Dec-2011				25.19	3818.53
	19-Jul-2011				23.22	3820.50
	19-Apr-2011				23.75	3819.97
	18-Jan-2011				23.53	3820.19
	15-Sep-2010				21.40	3822.32
	24-Jun-2010				22.48	3821.24
	22-Mar-2010				22.83	3820.89
	8-Dec-2009				23.33	3820.39
	28-Aug-2009				22.72	3821.00
	27-May-2009				22.92	3820.80
	11-Dec-2008				23.11	3820.61
	27-Sep-2008				22.62	3821.10
10-Jun-2008	22.72	3821.00				
5-Feb-2008	23.64	3820.08				
13-Nov-2007	22.87	3820.85				
12-Sep-2007	22.94	3820.78				
624-02	7-May-2013	417335.25	1512201.42	3835.45	19.01	3816.44
	7-Feb-2013				19.10	3816.35
	24-Oct-2012				18.85	3816.60
	30-Jul-2012				18.59	3816.86
	23-Apr-2012				17.97	3817.48
	24-Jan-2012				17.16	3818.29
	7-Dec-2011				17.30	3818.15
	19-Jul-2011				15.23	3820.22
	19-Apr-2011				15.94	3819.51
	17-Jan-2011				15.66	3819.79
	20-Sep-2010				14.04	3821.41
	24-Jun-2010				13.93	3821.52
	22-Mar-2010				15.24	3820.21
	8-Dec-2009				15.61	3819.84
	28-Aug-2009				14.85	3820.60
	27-May-2009				15.14	3820.31
	11-Dec-2008				15.47	3819.98
	27-Sep-2008				14.97	3820.48
10-Jun-2008	14.87	3820.58				
5-Feb-2008	16.50	3818.95				
13-Nov-2007	15.40	3820.05				
12-Sep-2007	14.94	3820.51				

**TABLE 1. SUMMARY OF MONITOR WELL FLUID GAUGING DATA  
DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Measured	Northing <sup>a</sup>	Easting <sup>a</sup>	Casing Elevation <sup>b</sup>	Depth to Water <sup>c</sup>	Ground Water Elevation <sup>b</sup>
624-04	7-May-2013	418542.24	1508104.07	3835.69	Dry	
	7-Feb-2013				Dry	
	24-Oct-2012				Dry	
	30-Jul-2012				Dry	
	23-Apr-2012				Dry	
	25-Jan-2012				Dry	
	8-Dec-2011				Dry	
	19-Jul-2011				15.39	3820.30
	19-Apr-2011				13.66	3822.03
	18-Jan-2011				13.99	3821.70
	15-Sep-2010				11.43	3824.26
	24-Jun-2010				13.49	3822.20
	22-Mar-2010				14.83	3820.86
	8-Dec-2009				13.48	3822.21
	28-Aug-2009				12.49	3823.20
	26-May-2009				12.89	3822.80
	11-Dec-2008				12.99	3822.70
	27-Sep-2008				12.31	3823.38
	10-Jun-2008				14.45	3821.24
5-Feb-2008	14.13	3821.56				
13-Nov-2007	13.60	3822.09				
12-Sep-2007	14.83	3820.86				
624-05	7-May-2013	419777.52	1509829.65	3835.27	Dry	
	7-Feb-2013				16.72	3818.55
	24-Oct-2012				16.35	3818.92
	30-Jul-2012				15.89	3819.38
	23-Apr-2012				15.90	3819.37
	25-Jan-2012				15.81	3819.46
	7-Dec-2011				15.25	3820.02
	3-Aug-2011				13.38	3821.89
	19-Apr-2011				13.86	3821.41
	18-Jan-2011				13.11	3822.16
	15-Sep-2010				12.01	3823.26
	24-Jun-2010				12.71	3822.56
	22-Mar-2010				13.21	3822.06
	8-Dec-2009				12.54	3822.73
	28-Aug-2009				12.03	3823.24
	26-May-2009				12.58	3822.69
	11-Dec-2008				12.82	3822.45
	27-Sep-2008				11.97	3823.30
	10-Jun-2008				13.19	3822.08
5-Feb-2008	13.44	3821.83				
13-Nov-2007	13.01	3822.26				
12-Sep-2007	13.31	3821.96				
624-06	7-May-2013	418502.42	1513981.08	3868.18	Dry	
	7-Feb-2013				51.84	3816.34
	24-Oct-2012				51.99	3816.19
	30-Jul-2012				51.30	3816.88
	23-Apr-2012				51.83	3816.35
	25-Jan-2012				51.80	3816.38
	13-Dec-2011				50.89	3817.29
	19-Jul-2011				50.43	3817.75
	19-Apr-2011				49.79	3818.39
	18-Jan-2011				49.31	3818.87
	21-Sep-2010				48.73	3819.45
	24-Jun-2010				50.33	3817.85
	22-Mar-2010				49.62	3818.56
	8-Dec-2009				48.96	3819.22
	28-Aug-2009				48.87	3819.31
	26-May-2009				49.14	3819.04
	11-Dec-2008				48.89	3819.29
	27-Sep-2008				48.71	3819.47
	10-Jun-2008				49.67	3818.51
5-Feb-2008	49.11	3819.07				
13-Nov-2007	48.94	3819.24				
12-Sep-2007	49.17	3819.01				

**TABLE 1. SUMMARY OF MONITOR WELL FLUID GAUGING DATA  
DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Measured	Northing <sup>a</sup>	Easting <sup>a</sup>	Casing Elevation <sup>b</sup>	Depth to Water <sup>c</sup>	Ground Water Elevation <sup>b</sup>
624-07	7-May-2013	418012.23	1514707.77	3872.25	Dry	
	7-Feb-2013				Dry	
	24-Oct-2012				55.58	3816.67
	30-Jul-2012				55.47	3816.78
	23-Apr-2012				Dry	
	25-Jan-2012				55.50	3816.75
	13-Dec-2011				55.46	3816.79
	19-Jul-2011				54.55	3817.70
	19-Apr-2011				54.64	3817.61
	18-Jan-2011				53.91	3818.34
	15-Sep-2010				52.30	3819.95
	24-Jun-2010				55.27	3816.98
	22-Mar-2010				54.21	3818.04
	8-Dec-2009				53.32	3818.93
	28-Aug-2009				53.22	3819.03
	26-May-2009				53.76	3818.49
	11-Dec-2008				53.59	3818.66
	27-Sep-2008				53.35	3818.90
	10-Jun-2008				54.34	3817.91
	5-Feb-2008				53.81	3818.44
13-Nov-2007	53.26	3818.99				
12-Sep-2007	53.03	3819.22				
624-08	7-May-2013	421461.78	1507712.04	3838.70	Dry	
	7-Feb-2013				Dry	
	24-Oct-2012				Dry	
	30-Jul-2012				Dry	
	23-Apr-2012				Dry	
	25-Jan-2012				Dry	
	8-Dec-2011				Dry	
	3-Aug-2011				Dry	
	18-Apr-2011				17.72	3820.98
	18-Jan-2011				16.03	3822.67
	14-Sep-2010				14.83	3823.87
	24-Jun-2010				16.44	3822.26
	22-Mar-2010				16.42	3822.28
	8-Dec-2009				16.02	3822.68
	28-Aug-2009				15.20	3823.50
	26-May-2009				15.54	3823.16
	11-Dec-2008				14.96	3823.74
	27-Sep-2008				14.84	3823.86
	10-Jun-2008				16.12	3822.58
	5-Feb-2008				15.37	3823.33
13-Nov-2007	14.71	3823.99				
12-Sep-2007	15.33	3823.37				
<b>Gonzalez Dairy</b>						
177-01	7-May-2013	417300.94	1512942.63	3834.27	17.81	3816.46
	7-Feb-2013				17.77	3816.50
	25-Oct-2012				15.91	3818.36
	30-Jul-2012				14.88	3819.39
	23-Apr-2012				16.32	3817.95
	26-Jan-2012				16.71	3817.56
	7-Dec-2011				16.36	3817.91
	19-Jul-2011				14.64	3819.63
	19-Apr-2011				14.84	3819.43
	17-Jan-2011				14.43	3819.84
	15-Sep-2010				13.30	3820.97
	23-Jun-2010				14.11	3820.16
	22-Mar-2010				14.75	3819.52
	8-Dec-2009				14.68	3819.59
	28-Aug-2009				14.16	3820.11
	26-May-2009				14.35	3819.92
	10-Dec-2008				14.64	3819.63
	27-Sep-2008				14.21	3820.06
	10-Jun-2008				14.50	3819.77
	6-Feb-2008				15.06	3819.21
13-Nov-2007	14.53	3819.74				
13-Sep-2007	14.03	3820.24				

**TABLE 1. SUMMARY OF MONITOR WELL FLUID GAUGING DATA  
DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Measured	Northing <sup>a</sup>	Easting <sup>a</sup>	Casing Elevation <sup>b</sup>	Depth to Water <sup>c</sup>	Ground Water Elevation <sup>b</sup>
177-02	7-May-2013	416738.21	1513246.51	3834.66	18.69	3815.97
	7-Feb-2013				18.50	3816.16
	25-Oct-2012				17.35	3817.31
	30-Jul-2012				17.80	3816.86
	24-Jan-2012				17.61	3817.05
	7-Dec-2011				16.92	3817.74
	19-Jul-2011				15.41	3819.25
	19-Apr-2011				15.47	3819.19
	17-Jan-2011				14.94	3819.72
	15-Sep-2010				14.23	3820.43
	23-Jun-2010				14.86	3819.80
	22-Mar-2010				15.59	3819.07
	8-Dec-2009				15.29	3819.37
	28-Aug-2009				14.90	3819.76
	26-May-2009				15.09	3819.57
	10-Dec-2008				15.37	3819.29
	27-Sep-2008				14.95	3819.71
	177-03A				10-Jun-2008	416206.71
6-Feb-2008		15.74	3818.92			
13-Nov-2007		15.39	3819.27			
13-Sep-2007		14.72	3819.94			
7-May-2013		20.53	3815.22			
7-Feb-2013		20.01	3815.74			
177-04	25-Oct-2012	416796.99	1513733.28	3840.33	19.18	3816.57
	30-Jul-2012				18.24	3817.51
	24-Apr-2012				18.57	3817.18
	24-Jan-2012				18.63	3817.12
	13-Dec-2011				18.51	3817.24
	7-May-2013				24.67	3815.66
	7-Feb-2013				24.29	3816.04
	25-Oct-2012				23.49	3816.84
	30-Jul-2012				22.68	3817.65
	24-Apr-2012				23.36	3816.97
	24-Jan-2012				22.47	3817.86
177-05	7-Dec-2011	417302.42	1514116.55	3852.16	22.97	3817.36
	19-Jul-2011				21.66	3818.67
	19-Apr-2011				21.41	3818.92
	17-Jan-2011				21.22	3819.11
	15-Sep-2010				20.36	3819.97
	23-Jun-2010				21.05	3819.28
	22-Mar-2010				21.71	3818.62
	8-Dec-2009				21.14	3819.19
	28-Aug-2009				20.86	3819.47
	27-May-2009				21.13	3819.20
	10-Dec-2008				21.37	3818.96
	27-Sep-2008				20.86	3819.47
	10-Jun-2008				21.63	3818.70
	6-Feb-2008				21.59	3818.74
	13-Nov-2007				21.30	3819.03
	13-Sep-2007				20.84	3819.49
	7-May-2013				36.74	3815.42
	7-Feb-2013				36.21	3815.95
25-Oct-2012	35.72	3816.44				
30-Jul-2012	36.39	3815.77				
24-Apr-2012	36.04	3816.12				
24-Jan-2012	35.02	3817.14				
7-Dec-2011	35.19	3816.97				
19-Jul-2011	34.07	3818.09				
19-Apr-2011	32.91	3819.25				
17-Jan-2011	33.72	3818.44				
15-Sep-2010	32.68	3819.48				
23-Jun-2010	33.59	3818.57				
22-Mar-2010	34.10	3818.06				
8-Dec-2009	33.22	3818.94				
28-Aug-2009	32.95	3819.21				
26-May-2009	33.26	3818.90				
10-Dec-2008	33.60	3818.56				
27-Sep-2008	32.95	3819.21				
10-Jun-2008	33.96	3818.20				
6-Feb-2008	33.58	3818.58				
13-Nov-2007	33.27	3818.89				
13-Sep-2007	33.12	3819.04				

**TABLE 1. SUMMARY OF MONITOR WELL FLUID GAUGING DATA  
DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Measured	Northing <sup>a</sup>	Easting <sup>a</sup>	Casing Elevation <sup>b</sup>	Depth to Water <sup>c</sup>	Ground Water Elevation <sup>b</sup>
177-06	7-May-2013	417301.84	1514765.63	3866.02	51.50	3814.52
	7-Feb-2013				50.43	3815.59
	25-Oct-2012				50.81	3815.21
	30-Jul-2012				51.09	3814.93
	24-Apr-2012				Dry	
	24-Jan-2012				49.40	3816.62
	7-Dec-2011				49.85	3816.17
	19-Jul-2011				49.31	3816.71
	19-Apr-2011				48.92	3817.10
	17-Jan-2011				48.18	3817.84
	15-Sep-2010				47.64	3818.38
	23-Jun-2010				48.79	3817.23
	22-Mar-2010				49.12	3816.90
	8-Dec-2009				47.60	3818.42
	28-Aug-2009				47.53	3818.49
	26-May-2009				48.03	3817.99
	10-Dec-2008				48.72	3817.30
	27-Sep-2008				47.52	3818.50
	10-Jun-2008				49.31	3816.71
	6-Feb-2008				48.00	3818.02
13-Nov-2007	48.88	3817.14				
13-Sep-2007	48.84	3817.18				
177-07R	7-May-2013	415240.93	1515476.47	3858.91	45.22	3813.69
	7-Feb-2013				44.44	3814.47
	25-Oct-2012				43.98	3814.93
	30-Jul-2012				43.60	3815.31
	24-Apr-2012				43.56	3815.35
	24-Jan-2012				43.08	3815.83
	7-Dec-2011				43.46	3815.45
	19-Jul-2011				42.91	3816.00
	19-Apr-2011				41.96	3816.95
	177-07				Apr-11	415258.95
17-Jan-2011		Dry				
15-Sep-2010		Dry				
23-Jun-2010		Dry				
22-Mar-2010		Dry				
8-Dec-2009		Dry				
10-Dec-2008		Dry				
27-Sep-2008		Dry				
10-Jun-2008		Dry				
6-Feb-2008		Dry				
13-Nov-2007		Dry				
13-Sep-2007		Dry				
<b>CENTRAL AREA</b>						
<b>Buena Vista Dairy II</b>						
74-01	7-May-2013	405434.93	1519310.15	3841.01	35.02	3805.99
	7-Feb-2013				33.64	3807.37
	25-Oct-2012				34.94	3806.07
	31-Jul-2012				34.53	3806.48
	24-Apr-2012				34.27	3806.74
	24-Jan-2012				33.36	3807.65
	8-Dec-2011				33.63	3807.38
	19-Jul-2011				33.31	3807.70
	20-Apr-2011				31.97	3809.04
	21-Jan-2011				32.23	3808.78
	16-Sep-2010				31.97	3809.04
	23-Jun-2010				32.08	3808.93
	22-Mar-2010				32.07	3808.94
	8-Dec-2009				31.45	3809.56
	28-Aug-2009				32.20	3808.81
	26-May-2009				32.20	3808.81
	10-Dec-2008				31.31	3809.70
	27-Sep-2008				31.64	3809.37
	10-Jun-2008				32.00	3809.01
	5-Feb-2008				31.66	3809.35
14-Nov-2007	31.21	3809.80				
12-Sep-2007	31.63	3809.38				



**TABLE 1. SUMMARY OF MONITOR WELL FLUID GAUGING DATA  
DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Measured	Northing <sup>a</sup>	Easting <sup>a</sup>	Casing Elevation <sup>b</sup>	Depth to Water <sup>c</sup>	Ground Water Elevation <sup>b</sup>
<b>Buena Vista Dairy II Continued</b>						
74-02	7-May-2013	404574.08	1519035.52	3820.58	16.22	3804.36
	7-Feb-2013				15.84	3804.74
	25-Oct-2012				16.02	3804.56
	31-Jul-2012				15.09	3805.49
	24-Apr-2012				14.30	3806.28
	24-Jan-2012				13.96	3806.62
	8-Dec-2011				15.49	3805.09
	19-Jul-2011				14.19	3806.39
	20-Apr-2011				12.45	3808.13
	17-Jan-2011				12.53	3808.05
	16-Sep-2010				12.45	3808.13
	23-Jun-2010				12.87	3807.71
	22-Mar-2010				12.72	3807.86
	8-Dec-2009				11.88	3808.70
	28-Aug-2009				12.53	3808.05
	26-May-2009				12.70	3807.88
	10-Dec-2008				11.65	3808.93
	27-Sep-2008				12.03	3808.55
10-Jun-2008	12.39	3808.19				
5-Feb-2008	11.94	3808.64				
14-Nov-2007	11.52	3809.06				
12-Sep-2007	12.33	3808.25				
74-03	7-May-2013	407163.61	1516711.72	3823.36	14.85	3808.51
	7-Feb-2013				13.93	3809.43
	25-Oct-2012				14.22	3809.14
	31-Jul-2012				14.17	3809.19
	24-Apr-2012				13.99	3809.37
	24-Jan-2012				13.60	3809.76
	8-Dec-2011				13.70	3809.66
	19-Jul-2011				13.17	3810.19
	20-Apr-2011				12.11	3811.25
	17-Jan-2011				12.63	3810.73
	16-Sep-2010				12.41	3810.95
	23-Jun-2010				12.72	3810.64
	22-Mar-2010				12.94	3810.42
	8-Dec-2009				12.88	3810.48
	28-Aug-2009				12.63	3810.73
	26-May-2009				12.94	3810.42
	10-Dec-2008				13.00	3810.36
	27-Sep-2008				12.94	3810.42
10-Jun-2008	12.66	3810.7				
5-Feb-2008	12.94	3810.42				
14-Nov-2007	12.77	3810.59				
12-Sep-2007	12.53	3810.83				
74-04	7-May-2013	405488.65	1519864.48	3853.17	47.45	3805.72
	7-Feb-2013				46.31	3806.86
	25-Oct-2012				46.96	3806.21
	31-Jul-2012				47.16	3806.01
	24-Apr-2012				47.05	3806.12
	24-Jan-2012				45.78	3807.39
	8-Dec-2011				45.98	3807.19
	19-Jul-2011				45.61	3807.56
	20-Apr-2011				44.19	3808.98
	17-Jan-2011				44.02	3809.15
	16-Sep-2010				44.19	3808.98
	23-Jun-2010				44.26	3808.91
	22-Mar-2010				44.25	3808.92
	8-Dec-2009				43.86	3809.31
	28-Aug-2009				44.49	3808.68
	26-May-2009				44.56	3808.61
	10-Dec-2008				43.70	3809.47
	27-Sep-2008				43.99	3809.18
10-Jun-2008	44.40	3808.77				
5-Feb-2008	43.41	3809.76				

**TABLE 1. SUMMARY OF MONITOR WELL FLUID GAUGING DATA  
DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Measured	Northing <sup>a</sup>	Easting <sup>a</sup>	Casing Elevation <sup>b</sup>	Depth to Water <sup>c</sup>	Ground Water Elevation <sup>b</sup>
74-05	7-May-2013	404747.71	1519885.3	3845.35	40.98	3804.37
	7-Feb-2013				39.4	3805.95
	25-Oct-2012				40.33	3805.02
	31-Jul-2012				40.19	3805.16
	24-Apr-2012				40.05	3805.30
	24-Jan-2012				38.78	3806.57
	8-Dec-2011				39.18	3806.17
	19-Jul-2011				38.84	3806.51
	20-Apr-2011				37.99	3807.36
	17-Jan-2011				36.96	3808.39
	16-Sep-2010				37.00	3808.35
	23-Jun-2010				37.44	3807.91
	22-Mar-2010				37.23	3808.12
	8-Dec-2009				36.74	3808.61
	28-Aug-2009				37.32	3808.03
	26-May-2009				37.47	3807.88
	10-Dec-2008				36.53	3808.82
27-Sep-2008	36.88	3808.47				
10-Jun-2008	37.39	3807.96				
5-Feb-2008	36.77	3808.58				
<b>River Valley Dairy</b>						
167-01	7-May-2013	402518.37	1518459.71	3818.94	18.43	3800.51
	7-Feb-2013				17.02	3801.92
	25-Oct-2012				17.23	3801.71
	31-Jul-2012				16.91	3802.03
	24-Apr-2012				16.01	3802.93
	24-Jan-2012				14.60	3804.34
	8-Dec-2011				15.06	3803.88
	19-Jul-2011				16.81	3802.13
	25-Apr-2011				14.51	3804.43
	17-Jan-2011				12.33	3806.61
	15-Sep-2010				12.19	3806.75
	25-Jun-2010				13.31	3805.63
	22-Mar-2010				13.46	3805.48
	8-Dec-2009				12.11	3806.83
	28-Aug-2009				11.99	3806.95
	26-May-2009				12.43	3806.51
	10-Dec-2008				12.13	3806.81
27-Sep-2008	12.09	3806.85				
10-Jun-2008	12.95	3805.99				
5-Feb-2008	12.62	3806.32				
14-Nov-2007	12.68	3806.26				
167-01A	7-May-2013	402518.18	1518936.72	3818.88	18.22	3800.66
	7-Feb-2013				17.45	3801.43
	25-Oct-2012				17.38	3801.50
	31-Jul-2012				17.08	3801.80
	24-Apr-2012				16.29	3802.59
	24-Jan-2012				14.59	3804.29
	13-Dec-2011				15.13	3803.75
	19-Jul-2011				16.04	3802.84
	25-Apr-2011				14.13	3804.75
	17-Jan-2011				12.38	3806.50
	15-Sep-2010				12.21	3806.67
	22-Jun-2010				13.74	3805.14
	22-Mar-2010				13.22	3805.66
	8-Dec-2009				12.17	3806.71
	28-Aug-2009				12.23	3806.65
	26-May-2009				12.62	3806.26
	10-Dec-2008				12.03	3806.85
27-Sep-2008	12.18	3806.70				
10-Jun-2008	13.16	3805.72				

**TABLE 1. SUMMARY OF MONITOR WELL FLUID GAUGING DATA  
DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Measured	Northing <sup>a</sup>	Easting <sup>a</sup>	Casing Elevation <sup>b</sup>	Depth to Water <sup>c</sup>	Ground Water Elevation <sup>b</sup>
167-02	7-May-2013	402498.3	1519354.81	3819.64	Dry	
	7-Feb-2013				Dry	
	25-Oct-2012				Dry	
	31-Jul-2012				Dry	
	24-Apr-2012				Dry	
	24-Jan-2012				15.84	3803.80
	8-Dec-2011				15.92	3803.72
	19-Jul-2011				Dry	
	25-Apr-2011				13.48	3806.16
	17-Jan-2011				13.49	3806.15
	15-Sep-2010				13.68	3805.96
	22-Jun-2010				15.23	3804.41
	22-Mar-2010				14.69	3804.95
	8-Dec-2009				13.32	3806.32
	28-Aug-2009				13.65	3805.99
	26-May-2009				13.86	3805.78
	10-Dec-2008				13.43	3806.21
	27-Sep-2008				13.71	3805.93
	10-Jun-2008				14.70	3804.94
	5-Feb-2008				13.54	3806.10
14-Nov-2007	13.65	3805.99				
11-Sep-2007	13.98	3805.66				
167-03	7-May-2013	402981.73	1519415.73	3825.66	22.99	3802.67
	7-Feb-2013				22.06	3803.60
	25-Oct-2012				23.49	3802.17
	31-Jul-2012				22.63	3803.03
	24-Apr-2012				21.97	3803.69
	24-Jan-2012				20.94	3804.72
	8-Dec-2011				21.73	3803.93
	19-Jul-2011				23.22	3802.44
	25-Apr-2011				18.78	3806.88
	17-Jan-2011				18.86	3806.80
	15-Sep-2010				18.81	3806.85
	22-Jun-2010				19.90	3805.76
	22-Mar-2010				19.71	3805.95
	8-Dec-2009				18.62	3807.04
	28-Aug-2009				18.90	3806.76
	27-May-2009				19.26	3806.40
	10-Dec-2008				18.41	3807.25
	27-Sep-2008				18.72	3806.94
	10-Jun-2008				19.82	3805.84
	5-Feb-2008				18.64	3807.02
14-Nov-2007	18.55	3807.11				
11-Sep-2007	19.02	3806.64				
167-04	7-May-2013	402032.19	1519884.6	3827.60	25.59	3802.01
	7-Feb-2013				24.84	3802.76
	25-Oct-2012				25.60	3802.00
	31-Jul-2012				25.19	3802.41
	24-Apr-2012				25.05	3802.55
	24-Jan-2012				23.36	3804.24
	8-Dec-2011				24.01	3803.59
	19-Jul-2011				24.36	3803.24
	25-Apr-2011				21.23	3806.37
	17-Jan-2011				21.18	3806.42
	15-Sep-2010				Well Damaged	
	22-Jun-2010				Well Damaged	
	22-Mar-2010				Well Damaged	
	8-Dec-2009				Well Damaged	
	28-Aug-2009				21.57	3806.03
	26-May-2009				21.60	3806.00
	10-Dec-2008				21.01	3806.59
	27-Sep-2008				21.01	3806.59
	10-Jun-2008				22.20	3805.40
	5-Feb-2008				21.51	3806.09
14-Nov-2007	21.44	3806.16				
11-Sep-2007	21.68	3805.92				

**TABLE 1. SUMMARY OF MONITOR WELL FLUID GAUGING DATA  
DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Measured	Northing <sup>a</sup>	Easting <sup>a</sup>	Casing Elevation <sup>b</sup>	Depth to Water <sup>c</sup>	Ground Water Elevation <sup>b</sup>
167-05	7-May-2013	397947.44	1520446.03	3815.44	15.42	3800.02
	7-Feb-2013				14.96	3800.48
	25-Oct-2012				15.74	3799.70
	31-Jul-2012				15.60	3799.84
	24-Apr-2012				14.99	3800.45
	30-Jan-2012				13.86	3801.58
	13-Dec-2011				14.10	3801.34
	19-Jul-2011				13.69	3801.75
	19-Apr-2011				12.97	3802.47
	17-Jan-2011				11.90	3803.54
	15-Sep-2010				11.52	3803.92
	25-Jun-2010				12.43	3803.01
	22-Mar-2010				12.22	3803.22
	8-Dec-2009				11.96	3803.48
	28-Aug-2009				11.63	3803.81
	26-May-2009				11.45	3803.99
	10-Dec-2008				11.54	3803.90
	27-Sep-2008				11.20	3804.24
10-Jun-2008	12.65	3802.79				
5-Feb-2008	12.36	3803.08				
14-Nov-2007	12.77	3802.67				
11-Sep-2007	12.91	3802.53				
167-06	7-May-2013	404479.35	1519603.88	3834.84	30.83	3804.01
	7-Feb-2013				30.00	3804.84
	25-Oct-2012				30.12	3804.72
	31-Jul-2012				30.29	3804.55
	24-Apr-2012				29.84	3805.00
	24-Jan-2012				28.48	3806.36
	8-Dec-2011				29.10	3805.74
	19-Jul-2011				28.75	3806.09
	25-Apr-2011				26.71	3808.13
	17-Jan-2011				26.73	3808.11
	15-Sep-2010				26.70	3808.14
	22-Jun-2010				27.17	3807.67
	22-Mar-2010				27.02	3807.82
	8-Dec-2009				26.40	3808.44
	28-Aug-2009				26.96	3807.88
	26-May-2009				27.15	3807.69
	10-Dec-2008				26.18	3808.66
	27-Sep-2008				26.54	3808.30
10-Jun-2008	27.10	3807.74				
5-Feb-2008	26.46	3808.38				
14-Nov-2007	26.60	3808.24				
11-Sep-2007	26.74	3808.10				
167-07	7-May-2013	402562.23	1518480.34	3819.08	16.14	3802.94
	7-Feb-2013				15.84	3803.24
	25-Oct-2012				16.30	3802.78
	31-Jul-2012				16.09	3802.99
	24-Apr-2012				15.84	3803.24
	24-Jan-2012				14.54	3804.54
	8-Dec-2011				15.45	3803.63
	25-Jul-2011				15.39	3803.69
	25-Apr-2011				14.95	3804.13
	17-Jan-2011				12.39	3806.69
	15-Sep-2010				11.98	3807.10
	22-Jun-2010				12.94	3806.14
	22-Mar-2010				13.03	3806.05
	8-Dec-2009				12.18	3806.90
	28-Aug-2009				12.06	3807.02
	26-May-2009				12.56	3806.52
	10-Dec-2008				12.24	3806.84
	27-Sep-2008				12.20	3806.88
10-Jun-2008	13.00	3806.08				

**TABLE 1. SUMMARY OF MONITOR WELL FLUID GAUGING DATA  
DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Measured	Northing <sup>a</sup>	Easting <sup>a</sup>	Casing Elevation <sup>b</sup>	Depth to Water <sup>c</sup>	Ground Water Elevation <sup>b</sup>
167-08	7-May-2013	399352.96	1519889.65	3817.96	16.99	3800.97
	7-Feb-2013				16.73	3801.23
	25-Oct-2012				17.72	3800.24
	31-Jul-2012				17.60	3800.36
	24-Apr-2012				16.71	3801.25
	24-Jan-2012				15.25	3802.71
	8-Dec-2011				15.52	3802.44
	19-Jul-2011				15.59	3802.37
	19-Apr-2011				13.95	3804.01
	17-Jan-2011				13.42	3804.54
	15-Sep-2010				12.92	3805.04
	25-Jun-2010				14.69	3803.27
	22-Mar-2010				13.73	3804.23
	8-Dec-2009				13.46	3804.50
	28-Aug-2009				13.23	3804.73
	26-May-2009				12.87	3805.09
	10-Dec-2008				13.42	3804.54
27-Sep-2008	NM	NM				
10-Jun-2008	14.02	3803.94				
167-09	7-May-2013	398473.95	1519259.34	3817.00	16.09	3800.91
	7-Feb-2013				15.36	3801.64
	25-Oct-2012				15.31	3801.69
	31-Jul-2012				15.04	3801.96
	24-Apr-2012				15.12	3801.88
	24-Jan-2012				14.60	3802.40
	8-Dec-2011				14.42	3802.58
	19-Jul-2011				13.17	3803.83
	19-Apr-2011				12.78	3804.22
	17-Jan-2011				12.70	3804.30
	15-Sep-2010				11.95	3805.05
	25-Jun-2010				13.01	3803.99
	22-Mar-2010				12.88	3804.12
	8-Dec-2009				12.82	3804.18
	28-Aug-2009				12.43	3804.57
	26-May-2009				12.44	3804.56
	10-Dec-2008				12.78	3804.22
27-Sep-2008	12.07	3804.93				
10-Jun-2008	12.94	3804.06				
<b>Big Sky Dairy</b>						
833-01	8-May-2013	399617.23	1521136.33	3839.55	Dry	
	7-Feb-2013				Dry	
	25-Oct-2012				Dry	
	1-Aug-2012				Dry	
	24-Apr-2012				Dry	
	24-Jan-2012				Dry	
	8-Dec-2011				Dry	
	18-Jul-2011				Dry	
	19-Apr-2011				35.44	3804.11
	17-Jan-2011				35.20	3804.35
	14-Sep-2010				34.76	3804.79
	22-Jun-2010				36.08	3803.47
	22-Mar-2010				35.49	3804.06
	8-Dec-2009				35.25	3804.30
	28-Aug-2009				35.25	3804.30
	26-May-2009				34.69	3804.86
	10-Dec-2008				34.99	3804.56
28-Sep-2008	34.58	3804.97				
10-Jun-2008	36.13	3803.42				
5-Feb-2008	35.51	3804.04				
14-Nov-2007	35.70	3803.85				
12-Sep-2007	35.79	3803.76				

**TABLE 1. SUMMARY OF MONITOR WELL FLUID GAUGING DATA  
DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Measured	Northing <sup>a</sup>	Easting <sup>a</sup>	Casing Elevation <sup>b</sup>	Depth to Water <sup>c</sup>	Ground Water Elevation <sup>b</sup>
833-02	8-May-2013	401200.32	1520639.92	3836.04	35.13	3800.91
	7-Feb-2013				33.42	3802.62
	25-Oct-2012				34.61	3801.43
	1-Aug-2012				34.90	3801.14
	24-Apr-2012				33.49	3802.55
	24-Jan-2012				34.01	3802.03
	8-Dec-2011				33.08	3802.96
	18-Jul-2011				32.92	3803.12
	19-Apr-2011				31.92	3804.12
	17-Jan-2011				30.43	3805.61
	14-Sep-2010				30.34	3805.70
	22-Jun-2010				31.37	3804.67
	22-Mar-2010				30.87	3805.17
	8-Dec-2009				30.40	3805.64
	28-Aug-2009				30.58	3805.46
	26-May-2009				30.24	3805.80
	10-Dec-2008				30.13	3805.91
	28-Sep-2008				29.80	3806.24
	10-Jun-2008				31.21	3804.83
	5-Feb-2008				30.63	3805.41
14-Nov-2007	30.60	3805.44				
12-Sep-2007	30.63	3805.41				
833-03	8-May-2013	401392.09	1521955.23	3867.06	Dry	
	7-Feb-2013				Dry	
	25-Oct-2012				Dry	
	1-Aug-2012				Dry	
	24-Apr-2012				Dry	
	24-Jan-2012				Dry	
	8-Dec-2011				Dry	
	18-Jul-2011				Dry	
	19-Apr-2011				61.92	3805.14
	17-Jan-2011				61.02	3806.04
	14-Sep-2010				60.91	3806.15
	22-Jun-2010				61.90	3805.16
	22-Mar-2010				61.41	3805.65
	8-Dec-2009				61.16	3805.90
	28-Aug-2009				61.50	3805.56
	26-May-2009				61.26	3805.80
	10-Dec-2008				60.76	3806.30
	28-Sep-2008				61.59	3805.47
	10-Jun-2008				61.83	3805.23
	5-Feb-2008				61.11	3805.95
14-Nov-2007	61.08	3805.98				
12-Sep-2007	61.11	3805.95				
833-04	8-May-2013	402898.52	1520659.33	3845.79	43.63	3802.16
	7-Feb-2013				41.70	3804.09
	25-Oct-2012				41.83	3803.96
	1-Aug-2012				42.70	3803.09
	24-Apr-2012				42.32	3803.47
	24-Jan-2012				40.87	3804.92
	8-Dec-2011				41.55	3804.24
	18-Jul-2011				41.05	3804.74
	19-Apr-2011				39.24	3806.55
	17-Jan-2011				38.80	3806.99
	14-Sep-2010				38.84	3806.95
	22-Jun-2010				39.19	3806.60
	22-Mar-2010				39.13	3806.66
	8-Dec-2009				38.85	3806.94
	28-Aug-2009				39.24	3806.55
	26-May-2009				39.31	3806.48
	10-Dec-2008				38.41	3807.38
	28-Sep-2008				38.42	3807.37
	10-Jun-2008				39.46	3806.33
	5-Feb-2008				38.61	3807.18
14-Nov-2007	38.54	3807.25				
12-Sep-2007	38.96	3806.83				

**TABLE 1. SUMMARY OF MONITOR WELL FLUID GAUGING DATA  
DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Measured	Northing <sup>a</sup>	Easting <sup>a</sup>	Casing Elevation <sup>b</sup>	Depth to Water <sup>c</sup>	Ground Water Elevation <sup>b</sup>
833-05	8-May-2013	399712.39	1522374.73	3865.51	65.19	3800.32
	7-Feb-2013				64.21	3801.30
	25-Oct-2012				64.60	3800.91
	1-Aug-2012				65.01	3800.50
	24-Apr-2012				64.40	3801.11
	24-Jan-2012				63.60	3801.91
	8-Dec-2011				63.63	3801.88
	18-Jul-2011				63.23	3802.28
	19-Apr-2011				62.33	3803.18
	24-Jan-2011				61.90	3803.61
	14-Sep-2010				61.05	3804.46
	22-Jun-2010				61.97	3803.54
	22-Mar-2010				61.52	3803.99
	8-Dec-2009				61.39	3804.12
	28-Aug-2009				61.52	3803.99
	26-May-2009				61.14	3804.37
	10-Dec-2008				61.07	3804.44
28-Sep-2008	60.99	3804.52				
10-Jun-2008	62.28	3803.23				
5-Feb-2008	61.52	3803.99				
833-06	8-May-2013	402219.48	1522652.04	3878.20	74.67	3803.53
	7-Feb-2013				73.80	3804.40
	25-Oct-2012				73.93	3804.27
	1-Aug-2012				74.06	3804.14
	24-Apr-2012				73.97	3804.23
	24-Jan-2012				73.50	3804.70
	8-Dec-2011				73.41	3804.79
	18-Jul-2011				72.93	3805.27
	25-Apr-2011				72.16	3806.04
	17-Jan-2011				71.43	3806.77
	14-Sep-2010				72.05	3806.15
	22-Jun-2010				72.08	3806.12
	22-Mar-2010				72.00	3806.20
	8-Dec-2009				71.92	3806.28
	28-Aug-2009				72.22	3805.98
	26-May-2009				72.02	3806.18
	10-Dec-2008				70.95	3807.25
28-Sep-2008	70.87	3807.33				
10-Jun-2008	71.78	3806.42				
5-Feb-2008	71.47	3806.73				
833-07	8-May-2013	399298.8	1522082.75	3860.70	60.76	3799.94
	7-Feb-2013				59.82	3800.88
	25-Oct-2012				60.22	3800.48
	1-Aug-2012				60.63	3800.07
	24-Apr-2012				60.25	3800.45
	24-Jan-2012				59.71	3800.99
	8-Dec-2011				59.26	3801.44
	18-Jul-2011				58.99	3801.71
	19-Apr-2011				57.95	3802.75
	17-Jan-2011				56.87	3803.83
	14-Sep-2010				56.61	3804.09
	22-Jun-2010				57.55	3803.15
	22-Mar-2010				57.05	3803.65
	8-Dec-2009				56.94	3803.76
	28-Aug-2009				57.02	3803.68
	26-May-2009				56.64	3804.06
	10-Dec-2008				56.58	3804.12
28-Sep-2008	58.53	3802.17				
10-Jun-2008	57.88	3802.82				
5-Feb-2008	57.11	3803.59				

**TABLE 1. SUMMARY OF MONITOR WELL FLUID GAUGING DATA  
DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Measured	Northing <sup>a</sup>	Easting <sup>a</sup>	Casing Elevation <sup>b</sup>	Depth to Water <sup>c</sup>	Ground Water Elevation <sup>b</sup>
833-08	8-May-2013	400535.64	1521938.23	3861.76	60.60	3801.16
	7-Feb-2013				59.43	3802.33
	25-Oct-2012				59.75	3802.01
	1-Aug-2012				60.24	3801.52
	24-Apr-2012				59.81	3801.95
	24-Jan-2012				58.86	3802.90
	8-Dec-2011				58.96	3802.80
	18-Jul-2011				58.36	3803.40
	25-Apr-2011				56.54	3805.22
	17-Jan-2011				56.55	3805.21
	14-Sep-2010				56.34	3805.42
	22-Jun-2010				57.32	3804.44
	22-Mar-2010				56.83	3804.93
	8-Dec-2009				56.63	3805.13
	28-Aug-2009				56.83	3804.93
	26-May-2009				56.41	3805.35
	10-Dec-2008				56.34	3805.42
28-Sep-2008	56.07	3805.69				
10-Jun-2008	57.46	3804.30				
5-Feb-2008	56.78	3804.98				
833-09	8-May-2013	398280.67	1520918.52	3826.27	27.31	3798.96
	7-Feb-2013				26.26	3800.01
	25-Oct-2012				26.30	3799.97
	1-Aug-2012				27.21	3799.06
	24-Apr-2012				26.44	3799.83
	24-Jan-2012				25.42	3800.85
	8-Dec-2011				25.08	3801.19
	18-Jul-2011				25.41	3800.86
	25-Apr-2011				22.86	3803.41
	17-Jan-2011				22.87	3803.40
	15-Sep-2010				22.56	3803.71
	22-Jun-2010				23.99	3802.28
	22-Mar-2010				23.20	3803.07
	8-Dec-2009				22.87	3803.40
	28-Aug-2009				22.67	3803.60
	26-May-2009				22.40	3803.87
	10-Dec-2008				22.65	3803.62
28-Sep-2008	22.18	3804.09				
10-Jun-2008	23.71	3802.56				
5-Feb-2008	23.23	3803.04				
833-10	8-May-2013	396715.89	1520283.6	3820.76	22.26	3798.50
	7-Feb-2013				21.12	3799.64
	25-Oct-2012				20.93	3799.83
	1-Aug-2012				21.01	3799.75
	24-Apr-2012				21.11	3799.65
	24-Jan-2012				20.14	3800.62
	8-Dec-2011				19.95	3800.81
	18-Jul-2011				19.23	3801.53
	19-Apr-2011				18.67	3802.09
	17-Jan-2011				17.80	3802.96
	15-Sep-2010				17.29	3803.47
	22-Jun-2010				18.80	3801.96
	22-Mar-2010				18.38	3802.38
	8-Dec-2009				17.72	3803.04
	28-Aug-2009				17.22	3803.54
	26-May-2009				17.40	3803.36
	10-Dec-2008				17.71	3803.05
28-Sep-2008	16.98	3803.78				
10-Jun-2008	18.17	3802.59				
5-Feb-2008	18.11	3802.65				



**TABLE 1. SUMMARY OF MONITOR WELL FLUID GAUGING DATA  
DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Measured	Northing <sup>a</sup>	Easting <sup>a</sup>	Casing Elevation <sup>b</sup>	Depth to Water <sup>c</sup>	Ground Water Elevation <sup>b</sup>
<b>Sunset/Desert Land Dairy</b>						
257-01	7-May-2013	395856.31	1520572.16	3820.33	21.15	3799.18
	7-Feb-2013				20.38	3799.95
	26-Oct-2012				21.04	3799.29
	1-Aug-2012				20.82	3799.51
	24-Apr-2012				21.01	3799.32
	24-Jan-2012				20.09	3800.24
	8-Dec-2011				20.18	3800.15
	18-Jul-2011				19.75	3800.58
	19-Apr-2011				18.52	3801.81
	18-Jan-2011				17.83	3802.50
	15-Sep-2010				17.15	3803.18
	22-Jun-2010				18.15	3802.18
	22-Mar-2010				18.40	3801.93
	8-Dec-2009				17.66	3802.67
	28-Aug-2009				16.99	3803.34
	26-May-2009				17.41	3802.92
	10-Dec-2008				17.87	3802.46
	27-Sep-2008				16.75	3803.58
	10-Jun-2008				17.88	3802.45
	5-Feb-2008				17.59	3802.74
14-Nov-2007	18.53	3801.80				
12-Sep-2007	18.10	3802.23				
257-02	7-May-2013	394728.34	1521030.29	3813.67	15.04	3798.63
	7-Feb-2013				14.79	3798.88
	26-Oct-2012				15.06	3798.61
	1-Aug-2012				14.91	3798.76
	24-Apr-2012				15.27	3798.40
	24-Jan-2012				13.90	3799.77
	8-Dec-2011				14.38	3799.29
	19-Jul-2011				13.50	3800.17
	19-Apr-2011				12.59	3801.08
	18-Jan-2011				11.84	3801.83
	15-Sep-2010				10.86	3802.81
	22-Jun-2010				11.08	3802.59
	22-Mar-2010				12.22	3801.45
	8-Dec-2009				11.52	3802.15
	28-Aug-2009				10.86	3802.81
	26-May-2009				11.38	3802.29
	10-Dec-2008				11.67	3802.00
	27-Sep-2008				9.75	3803.92
	10-Jun-2008				11.82	3801.85
	5-Feb-2008				11.67	3802.00
14-Nov-2007	12.22	3801.45				
12-Sep-2007	11.55	3802.12				
257-03	7-May-2013	397935.69	1518746.14	3814.74	12.98	3801.76
	7-Feb-2013				12.31	3802.43
	26-Oct-2012				11.61	3803.13
	1-Aug-2012				10.06	3804.68
	24-Apr-2012				11.56	3803.18
	24-Jan-2012				10.89	3803.85
	1-Nov-2011				11.29	3803.45
	18-Jul-2011				8.77	3805.97
	19-Apr-2011				9.31	3805.43
	17-Jan-2011				10.04	3804.70
	21-Sep-2010				9.26	3805.48
	22-Jun-2010				9.11	3805.63
	22-Mar-2010				10.45	3804.29
	8-Dec-2009				9.78	3804.96
	28-Aug-2009				9.43	3805.31
	26-May-2009				9.55	3805.19
	10-Dec-2008				10.26	3804.48
	27-Sep-2008				9.73	3805.01
	10-Jun-2008				9.70	3805.04
	5-Feb-2008				11.04	3803.70
14-Nov-2007	9.03	3805.71				
12-Sep-2007	9.61	3805.13				

**TABLE 1. SUMMARY OF MONITOR WELL FLUID GAUGING DATA  
DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Measured	Northing <sup>a</sup>	Easting <sup>a</sup>	Casing Elevation <sup>b</sup>	Depth to Water <sup>c</sup>	Ground Water Elevation <sup>b</sup>
257/260-01	7-May-2013	397678.36	1519948.22	3814.04	13.83	3800.21
	7-Feb-2013				13.11	3800.93
	26-Oct-2012				13.36	3800.68
	1-Aug-2012				13.05	3800.99
	24-Apr-2012				12.98	3801.06
	30-Jan-2012				12.26	3801.78
	1-Nov-2011				12.79	3801.25
	18-Jul-2011				10.65	3803.39
	26-Apr-2011				11.66	3802.38
	17-Jan-2011				10.44	3803.60
	15-Sep-2010				9.94	3804.10
	22-Jun-2010				10.90	3803.14
	22-Mar-2010				10.71	3803.33
	8-Dec-2009				10.42	3803.62
	28-Aug-2009				10.11	3803.93
	26-May-2009				10.00	3804.04
	10-Dec-2008				10.48	3803.56
	27-Sep-2008				9.80	3804.24
	10-Jun-2008				11.00	3803.04
	5-Feb-2008				10.99	3803.05
14-Nov-2007	11.21	3802.83				
12-Sep-2007	NM	NM				
<b>Additional Wells</b>						
Bruce1	18-Jul-2011	388741.02	1523777.06	3808.92	Destroyed	
	19-Apr-2011				11.17	3797.75
	17-Jan-2011				11.13	3797.79
	15-Sep-2010				10.38	3798.54
	23-Jun-2010				10.99	3797.93
	21-Mar-2010				11.50	3797.42
	8-Dec-2009				11.05	3797.87
	27-Aug-2009				10.41	3798.51
	27-May-2009				10.77	3798.15
	10-Dec-2008				11.28	3797.64
	27-Sep-2008				10.93	3797.99
	10-Jun-2008				11.28	3797.64
	5-Feb-2008				11.47	3797.45
Bruce2	5-Feb-2008	NM	NM	NM	Destroyed	
	10-Jun-2008				8.33	--
<b>SOUTHERN AREA</b>						
<b>Del Oro Dairy</b>						
692-01	7-May-2013	373615.88	1531529.38	3844.13	60.58	3783.55
	7-Feb-2013				59.93	3784.20
	26-Oct-2012				60.10	3784.03
	1-Aug-2012				58.79	3785.34
	24-Apr-2012				58.43	3785.70
	25-Jan-2012				78.58	Pumping
	9-Dec-2011				58.19	3785.94
	18-Jul-2011				57.79	3786.34
	19-Apr-2011				57.39	3786.74
	18-Jan-2011				57.17	3786.96
	15-Sep-2010				57.57	3786.56
	30-Jun-2010				61.15	Pumping
	22-Mar-2010				58.01	3786.12
	9-Dec-2009				58.25	3785.88
	29-Aug-2009				58.19	3785.94
	26-May-2009				57.80	3786.33
	11-Dec-2008				Pumping	NM
	28-Sep-2008				Pumping	NM
	11-Jun-2008				57.75	3786.38
	6-Feb-2008				57.42	3786.71
14-Nov-2007	57.38	3786.75				
13-Sep-2007	57.46	3786.67				

**TABLE 1. SUMMARY OF MONITOR WELL FLUID GAUGING DATA  
DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Measured	Northing <sup>a</sup>	Easting <sup>a</sup>	Casing Elevation <sup>b</sup>	Depth to Water <sup>c</sup>	Ground Water Elevation <sup>b</sup>
692-02	7-May-2013	372984.72	1531192.1	3840.84	57.39	3783.45
	7-Feb-2013				56.86	3783.98
	25-Oct-2012				56.48	3784.36
	1-Aug-2012				56.03	3784.81
	24-Apr-2012				55.71	3785.13
	25-Jan-2012				54.70	3786.14
	13-Dec-2011				54.94	3785.90
	18-Jul-2011				55.10	3785.74
	19-Apr-2011				54.68	3786.16
	18-Jan-2011				54.32	3786.52
	15-Sep-2010				54.39	3786.45
	30-Jun-2010				54.50	3786.34
	22-Mar-2010				54.90	3785.94
	9-Dec-2009				55.11	3785.73
	28-Aug-2009				55.03	3785.81
	26-May-2009				55.38	3785.46
	11-Dec-2008				54.93	3785.91
	28-Sep-2008				54.69	3786.15
	11-Jun-2008				54.93	3785.91
	6-Feb-2008				54.74	3786.10
14-Nov-2007	54.42	3786.42				
13-Sep-2007	54.61	3786.23				
692-04	7-May-2013	372982.53	1531555.21	3842.66	58.68	3783.98
	7-Feb-2013				58.05	3784.61
	25-Oct-2012				57.62	3785.04
	1-Aug-2012				57.34	3785.32
	24-Apr-2012				57.13	3785.53
	25-Jan-2012				56.34	3786.32
	9-Dec-2011				56.91	3785.75
	18-Jul-2011				56.92	3785.74
	19-Apr-2011				56.47	3786.19
	18-Jan-2011				56.15	3786.51
	15-Sep-2010				55.90	3786.76
	30-Jun-2010				56.81	3785.85
	22-Mar-2010				56.81	3785.85
	8-Dec-2009				56.86	3785.80
	28-Aug-2009				56.82	3785.84
	26-May-2009				57.09	3785.57
	11-Dec-2008				56.71	3785.95
	28-Sep-2008				56.41	3786.25
	11-Jun-2008				56.54	3786.12
	6-Feb-2008				56.40	3786.26
14-Nov-2007	55.95	3786.71				
13-Sep-2007	56.19	3786.47				
692-05	7-May-2013	374807.26	1532403	3854.26	79.43	3774.83
	7-Feb-2013				78.86	3775.40
	26-Oct-2012				79.11	3775.15
	1-Aug-2012				78.80	3775.46
	24-Apr-2012				77.96	3776.30
	24-Jan-2012				76.80	3777.46
	9-Dec-2011				77.39	3776.87
	18-Jul-2011				77.59	3776.67
	19-Apr-2011				76.46	3777.80
	18-Jan-2011				75.55	3778.71
	15-Sep-2010				76.14	3778.12
	30-Jun-2010				76.20	3778.06
	22-Mar-2010				75.01	3779.25
	9-Dec-2009				75.52	3778.74
	28-Aug-2009				76.15	3778.11
	26-May-2009				75.65	3778.61
	11-Dec-2008				74.95	3779.31
	28-Sep-2008				75.36	3778.90
	11-Jun-2008				75.72	3778.54
	6-Feb-2008				74.84	3779.42
14-Nov-2007	75.90	3778.36				
13-Sep-2007	75.84	3778.42				

**TABLE 1. SUMMARY OF MONITOR WELL FLUID GAUGING DATA  
DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Measured	Northing <sup>a</sup>	Easting <sup>a</sup>	Casing Elevation <sup>b</sup>	Depth to Water <sup>c</sup>	Ground Water Elevation <sup>b</sup>
692-06	7-May-2013	375054.77	1532411.83	3856.48	81.22	3775.26
	7-Feb-2013				80.88	3775.60
	26-Oct-2012				81.03	3775.45
	1-Aug-2012				80.69	3775.79
	24-Apr-2012				79.84	3776.64
	30-Jan-2012				78.99	3777.49
	9-Dec-2011				79.32	3777.16
	18-Jul-2011				79.43	3777.05
	19-Apr-2011				78.32	3778.16
	18-Jan-2011				77.44	3779.04
	15-Sep-2010				78.02	3778.46
	30-Jun-2010				78.12	3778.36
	22-Mar-2010				76.91	3779.57
	9-Dec-2009				77.44	3779.04
	28-Aug-2009				78.04	3778.44
	26-May-2009				77.53	3778.95
	11-Dec-2008				76.79	3779.69
	28-Sep-2008				77.25	3779.23
	11-Jun-2008				77.60	3778.88
	6-Feb-2008				76.76	3779.72
14-Nov-2007	77.80	3778.68				
13-Sep-2007	77.75	3778.73				
692-07	7-May-2013	374944.88	1532019.81	3848.20	73.21	3774.99
	7-Feb-2013				72.55	3775.65
	26-Oct-2012				72.78	3775.42
	1-Aug-2012				72.60	3775.60
	24-Apr-2012				71.84	3776.36
	24-Jan-2012				70.30	3777.90
	13-Dec-2011				70.54	3777.66
	18-Jul-2011				71.32	3776.88
	19-Apr-2011				70.22	3777.98
	18-Jan-2011				69.01	3779.19
	15-Sep-2010				69.72	3778.48
	30-Jun-2010				69.87	3778.33
	22-Mar-2010				68.59	3779.61
	9-Dec-2009				68.97	3779.23
	28-Aug-2009				69.71	3778.49
	26-May-2009				69.35	3778.85
	11-Dec-2008				68.38	3779.82
	28-Sep-2008				68.99	3779.21
	11-Jun-2008				69.35	3778.85
	6-Feb-2008				68.44	3779.76
14-Nov-2007	69.46	3778.74				
13-Sep-2007	69.46	3778.74				
692-08	14-May-2013	375535.69	1531378.09	3843.09	67.09	3776.00
	7-Feb-2013				66.64	3776.45
	26-Oct-2012				67.17	3775.92
	1-Aug-2012				66.47	3776.62
	24-Apr-2012				65.84	3777.25
	30-Jan-2012				64.58	3778.51
	9-Dec-2011				64.65	3778.44
	18-Jul-2011				65.79	3777.30
	19-Apr-2011				64.32	3778.77
	18-Jan-2011				62.49	3780.60
	1-Oct-2010				63.83	3779.26
	30-Jun-2010				63.71	3779.38
	22-Mar-2010				62.45	3780.64
	9-Dec-2009				62.57	3780.52
	28-Aug-2009				63.42	3779.67
	26-May-2009				64.03	3779.06
	11-Dec-2008				61.83	3781.26
	28-Sep-2008				63.42	3779.67
	11-Jun-2008				63.40	3779.69
	6-Feb-2008				62.02	3781.07
14-Nov-2007	63.25	3779.84				
13-Sep-2007	64.02	3779.07				

**TABLE 1. SUMMARY OF MONITOR WELL FLUID GAUGING DATA  
DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Measured	Northing <sup>a</sup>	Easting <sup>a</sup>	Casing Elevation <sup>b</sup>	Depth to Water <sup>c</sup>	Ground Water Elevation <sup>b</sup>
692-09	7-May-2013	373575.83	1532395.09	3856.32	82.64	3773.68
	7-Feb-2013				82.02	3774.30
	26-Oct-2012				82.18	3774.14
	1-Aug-2012				82.11	3774.21
	24-Apr-2012				81.17	3775.15
	25-Jan-2012				79.80	3776.52
	8-Dec-2011				80.44	3775.88
	18-Jul-2011				80.78	3775.54
	19-Apr-2011				79.65	3776.67
	17-Jan-2011				78.52	3777.80
	15-Sep-2010				79.33	3776.99
	30-Jun-2010				79.52	3776.80
	22-Mar-2010				78.13	3778.19
	9-Dec-2009				78.79	3777.53
	28-Aug-2009				79.48	3776.84
	26-May-2009				78.89	3777.43
	11-Dec-2008				78.11	3778.21
	28-Sep-2008				78.55	3777.77
11-Jun-2008	79.03	3777.29				
6-Feb-2008	78.16	3778.16				
14-Nov-2007	79.15	3777.17				
13-Sep-2007	79.93	3776.39				
<b>Anthony Waste Water Treatment Plant</b>						
MW-1	8-May-2013	372097.86	1532364.36	3843.03	59.72	3783.31
	7-Feb-2013				59.23	3783.80
	26-Oct-2012				58.85	3784.18
	2-Aug-2012				58.79	3784.24
	25-Apr-2012				58.28	3784.75
	9-Dec-2011				58.01	3785.02
	18-Jul-2011				58.44	3784.59
	20-Apr-2011				58.35	3784.68
	18-Jan-2011				58.20	3784.83
	15-Sep-2010				58.28	3784.75
	24-Jun-2010				58.50	3784.53
	22-Mar-2010				58.43	3784.60
	9-Dec-2009				58.15	3784.88
	28-Aug-2009				58.07	3784.96
	27-May-2009				58.41	3784.62
MW-2	8-May-2013	NM	NM	3843.25	61.21	3782.04
	7-Feb-2013				60.85	3782.40
	26-Oct-2012				60.42	3782.83
	2-Aug-2012				60.30	3782.95
	25-Apr-2012				59.94	3783.31
	30-Jan-2012				59.30	3783.95
	9-Dec-2011				59.33	3783.92
	18-Jul-2011				59.41	3783.84
	20-Apr-2011				59.42	3783.83
	18-Jan-2011				59.31	3783.94
	15-Sep-2010				59.08	3784.17
	24-Jun-2010				59.37	3783.88
	22-Mar-2010				59.44	3783.81
	9-Dec-2009				59.19	3784.06
	28-Aug-2009				58.98	3784.27
27-May-2009	59.45	3783.80				
MW-3	8-May-2013	NM	NM	3841.24	58.80	3782.44
	7-Feb-2013				58.36	3782.88
	26-Oct-2012				57.98	3783.26
	2-Aug-2012				57.81	3783.43
	25-Apr-2012				57.32	3783.92
	30-Jan-2012				56.80	3784.44
	8-Dec-2011				56.87	3784.37
	18-Jul-2011				56.98	3784.26
	19-Apr-2011				56.93	3784.31
	18-Jan-2011				56.73	3784.51
	15-Sep-2010				Could not access	
	24-Jun-2010				56.91	3784.33
	22-Mar-2010				56.93	3784.31
	9-Dec-2009				56.69	3784.55
	28-Aug-2009				56.54	3784.70
	27-May-2009				56.96	3784.28

**TABLE 1. SUMMARY OF MONITOR WELL FLUID GAUGING DATA  
DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Measured	Northing <sup>a</sup>	Easting <sup>a</sup>	Casing Elevation <sup>b</sup>	Depth to Water <sup>c</sup>	Ground Water Elevation <sup>b</sup>
<b>ABATEMENT PLAN MONITOR WELLS</b>						
DAD-01	7-May-2013	422970.59	1512825.76	3886.16	68.48	3817.68
	8-Feb-2013				68.59	3817.57
	29-Oct-2012				68.12	3818.04
	30-Jul-2012				68.97	3817.19
	23-Apr-2012				68.19	3817.97
	25-Jan-2012				67.15	3819.01
	8-Dec-2011				67.41	3818.75
	19-Jul-2011				67.41	3818.75
	25-Apr-2011				65.86	3820.30
	18-Jan-2011				65.37	3820.79
	16-Sep-2010				65.86	3820.30
	24-Jun-2010				66.58	3819.58
	21-Mar-2010				65.46	3820.70
	9-Dec-2009				65.32	3820.84
	29-Aug-2009				65.68	3820.48
26-May-2009	65.43	3820.73				
DAD-02	8-May-2013	413002.98	1517319.93	3875.82	64.56	3811.26
	8-Feb-2013				64.04	3811.78
	29-Oct-2012				64.11	3811.71
	31-Jul-2012				64.03	3811.79
	24-Apr-2012				63.45	3812.37
	25-Jan-2012				62.91	3812.91
	8-Dec-2011				63.07	3812.75
	19-Jul-2011				62.63	3813.19
	18-Apr-2011				62.11	3813.71
	17-Jan-2011				61.37	3814.45
	16-Sep-2010				61.79	3814.03
	25-Jun-2010				62.95	3812.87
	21-Mar-2010				61.43	3814.39
	9-Dec-2009				61.46	3814.36
	29-Aug-2009				61.65	3814.17
26-May-2009	61.59	3814.23				
DAD-03	8-May-2013	407721.31	1516497.85	3820.58	11.87	3808.71
	8-Feb-2013				11.07	3809.51
	29-Oct-2012				10.93	3809.65
	31-Jul-2012				10.90	3809.68
	24-Apr-2012				10.97	3809.61
	25-Jan-2012				10.60	3809.98
	8-Dec-2011				10.70	3809.88
	19-Jul-2011				10.29	3810.29
	18-Apr-2011				10.12	3810.46
	24-Jan-2011				9.36	3811.22
	16-Sep-2010				9.40	3811.18
	24-Jun-2010				9.97	3810.61
	21-Mar-2010				9.90	3810.68
	9-Dec-2009				9.79	3810.79
	29-Aug-2009				9.72	3810.86
26-May-2009	9.89	3810.69				
DAD-04	8-May-2013	404576.66	1517413.28	3821.47	15.02	3806.45
	8-Feb-2013				14.48	3806.99
	29-Oct-2012				15.10	3806.37
	31-Jul-2012				14.37	3807.10
	24-Apr-2012				14.27	3807.20
	25-Jan-2012				13.40	3808.07
	8-Dec-2011				13.84	3807.63
	19-Jul-2011				13.63	3807.84
	18-Apr-2011				13.21	3808.26
	17-Jan-2011				12.71	3808.76
	16-Sep-2010				12.14	3809.33
	23-Jun-2010				12.59	3808.88
	21-Mar-2010				12.88	3808.59
	9-Dec-2009				12.10	3809.37
	29-Aug-2009				12.13	3809.34
26-May-2009	12.31	3809.16				

**TABLE 1. SUMMARY OF MONITOR WELL FLUID GAUGING DATA  
DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Measured	Northing <sup>a</sup>	Easting <sup>a</sup>	Casing Elevation <sup>b</sup>	Depth to Water <sup>c</sup>	Ground Water Elevation <sup>b</sup>
DAD-05	8-May-2013	396712.87	1519102.06	3816.01	15.78	3800.23
	8-Feb-2013				15.08	3800.93
	29-Oct-2012				14.85	3801.16
	2-Aug-2012				14.17	3801.84
	24-Apr-2012				14.14	3801.87
	25-Jan-2012				14.11	3801.90
	8-Dec-2011				14.05	3801.96
	18-Jul-2011				12.31	3803.70
	18-Apr-2011				12.58	3803.43
	17-Jan-2011				12.50	3803.51
	16-Sep-2010				11.87	3804.14
	23-Jun-2010				12.95	3803.06
	21-Mar-2010				12.92	3803.09
	9-Dec-2009				12.13	3803.88
	29-Aug-2009				11.85	3804.16
26-May-2009	12.07	3803.94				
DAD-06	8-May-2013	404273.19	1522081.00	3887.71	82.79	3804.92
	8-Feb-2013				82.38	3805.33
	29-Oct-2012				82.47	3805.24
	1-Aug-2012				82.20	3805.51
	24-Apr-2012				82.13	3805.58
	25-Jan-2012				81.32	3806.39
	8-Dec-2011				81.55	3806.16
	18-Jul-2011				80.94	3806.77
	20-Apr-2011				80.16	3807.55
	17-Jan-2011				79.43	3808.28
	16-Sep-2010				79.68	3808.03
	25-Jun-2010				80.33	3807.38
	21-Mar-2010				79.85	3807.86
	9-Dec-2009				79.95	3807.76
	29-Aug-2009				80.46	3807.25
26-May-2009	80.32	3807.39				
DAD-07	8-May-2013	399270.18	1524320.88	3891.38	90.89	3800.49
	8-Feb-2013				90.13	3801.25
	29-Oct-2012				90.34	3801.04
	2-Aug-2012				90.38	3801.00
	24-Apr-2012				90.25	3801.13
	25-Jan-2012				89.75	3801.63
	8-Dec-2011				89.35	3802.03
	18-Jul-2011				88.98	3802.40
	20-Apr-2011				88.34	3803.04
	17-Jan-2011				87.94	3803.44
	16-Sep-2010				88.29	3803.09
	25-Jun-2010				88.49	3802.89
	21-Mar-2010				88.00	3803.38
	9-Dec-2009				88.19	3803.19
	29-Aug-2009				88.45	3802.93
26-May-2009	88.14	3803.24				
DAD-08	8-May-2013	395287.38	1522575.07	3849.15	52.43	3796.72
	8-Feb-2013				50.37	3798.78
	29-Oct-2012				49.86	3799.29
	1-Aug-2012				50.34	3798.81
	24-Apr-2012				50.34	3798.81
	25-Jan-2012				49.62	3799.53
	13-Dec-2011				50.12	3799.03
	18-Jul-2011				49.97	3799.18
	20-Apr-2011				48.87	3800.28
	18-Jan-2011				47.80	3801.35
	17-Sep-2010				47.05	3802.10
	25-Jun-2010				48.06	3801.09
	21-Mar-2010				47.76	3801.39
	9-Dec-2009				47.42	3801.73
	29-Aug-2009				47.18	3801.97
26-May-2009	47.38	3801.77				

**TABLE 1. SUMMARY OF MONITOR WELL FLUID GAUGING DATA  
DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Measured	Northing <sup>a</sup>	Easting <sup>a</sup>	Casing Elevation <sup>b</sup>	Depth to Water <sup>c</sup>	Ground Water Elevation <sup>b</sup>
DAD-09	7-May-2013	373259.30	1530905.70	3838.03	54.94	3783.09
	8-Feb-2013				54.67	3783.36
	29-Oct-2012				54.13	3783.90
	2-Aug-2012				53.86	3784.17
	24-Apr-2012				53.40	3784.63
	25-Jan-2012				52.67	3785.36
	13-Dec-2011				52.62	3785.41
	18-Jul-2011				52.28	3785.75
	18-Apr-2011				51.89	3786.14
	17-Jan-2011				51.09	3786.94
	17-Sep-2010				51.55	3786.48
	29-Jun-2010				52.20	3785.83
	21-Mar-2010				51.84	3786.19
	9-Dec-2009				52.12	3785.91
29-Aug-2009	52.23	3785.80				
26-May-2009	52.49	3785.54				
DAD-10	7-May-2013	372980.55	1532375.33	3854.93	81.77	3773.16
	8-Feb-2013				80.87	3774.06
	29-Oct-2012				81.02	3773.91
	2-Aug-2012				81.47	3773.46
	24-Apr-2012				80.36	3774.57
	25-Jan-2012				78.76	3776.17
	13-Dec-2011				79.07	3775.86
	18-Jul-2011				80.29	3774.64
	20-Apr-2011				79.13	3775.80
	17-Jan-2011				77.82	3777.11
	17-Sep-2010				78.66	3776.27
	29-Jun-2010				78.59	3776.34
	21-Mar-2010				77.19	3777.74
	9-Dec-2009				77.92	3777.01
29-Aug-2009	78.72	3776.21				
26-May-2009	77.90	3777.03				
DAD-11 (177-03)	8-May-2013	416211.35	1513814.71	3835.90	20.70	3815.20
	8-Feb-2013				19.25	3816.65
	29-Oct-2012				19.07	3816.83
	30-Jul-2012				18.57	3817.33
	24-Apr-2012				19.12	3816.78
	25-Jan-2012				18.40	3817.50
	13-Dec-2011				18.75	3817.15
	19-Jul-2011				17.54	3818.36
	19-Apr-2011				17.31	3818.59
	17-Jan-2011				16.99	3818.91
	15-Sep-2010				16.24	3819.66
	23-Jun-2010				16.53	3819.37
	22-Mar-2010				17.29	3818.61
	8-Dec-2009				16.82	3819.08
	28-Aug-2009				16.63	3819.27
	26-May-2009				16.92	3818.98
	10-Dec-2008				17.05	3818.85
	27-Sep-2008				16.65	3819.25
10-Jun-2008	17.53	3818.37				
6-Feb-2008	17.33	3818.57				
13-Nov-2007	17.19	3818.71				
13-Sep-2007	16.61	3819.29				
DAD-12	7-May-2013	419731.54	1512274.77	3866.72	49.66	3817.06
	8-Feb-2013				49.36	3817.36
	29-Oct-2012				48.96	3817.76
	31-Jul-2012				48.59	3818.13
	23-Apr-2011				48.44	3818.28
	25-Jan-2012				48.01	3818.71
6-Dec-2011	48.15	3818.57				
DAD-13	8-May-2013	417879.08	1515673.13	3898.44	84.96	3813.48
	8-Feb-2013				84.81	3813.63
	29-Oct-2012				85.39	3813.05
	30-Jul-2012				85.51	3812.93
	23-Apr-2012				83.56	3814.88
	25-Jan-2012				82.72	3815.72
8-Dec-2011	82.88	3815.56				



**TABLE 1. SUMMARY OF MONITOR WELL FLUID GAUGING DATA  
DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Measured	Northing <sup>a</sup>	Easting <sup>a</sup>	Casing Elevation <sup>b</sup>	Depth to Water <sup>c</sup>	Ground Water Elevation <sup>b</sup>
DAD-14	8-May-2013	414923.33	1514695.26	3841.90	28.15	3813.75
	8-Feb-2013				27.31	3814.59
	25-Oct-2012				26.62	3815.28
	30-Jul-2012				25.85	3816.05
	24-Apr-2012				26.07	3815.83
	25-Jan-2012				26.10	3815.80
	8-Dec-2011				26.30	3815.60
DAD-15	8-May-2013	402001.22	1523552.04	3897.61	94.35	3803.26
	8-Feb-2013				94.01	3803.60
	29-Oct-2012				93.78	3803.83
DAD-16	8-May-2013	400628.77	1519350.74	3819.28	18.49	3800.79
	8-Feb-2013				17.20	3802.08
	29-Oct-2012				17.23	3802.05
	31-Jul-2012				18.58	3800.70
	24-Apr-2012				17.64	3801.64
	25-Jan-2012				16.50	3802.78
	8-Dec-2011				16.58	3802.70
DAD-17	13-May-2013	393991.97	1520267.94	3817.75	19.37	3798.38
	8-Feb-2013				18.55	3799.20
	29-Oct-2012				19.18	3798.57
	2-Aug-2012				19.07	3798.68
	24-Apr-2012				21.01	3796.74
	25-Jan-2012				17.74	3800.01
	9-Dec-2011				19.21	3798.54
DAD-18	13-May-2013	395714.14	1520588.96	3821.59	22.97	3798.62
	8-Feb-2013				22.04	3799.55
	29-Oct-2012				22.40	3799.19
	1-Aug-2012				22.43	3799.16
	24-Apr-2012				22.20	3799.39
	25-Jan-2012				21.33	3800.26
	6-Dec-2011				21.43	3800.16
DAD-19	14-May-2013	400164.47	1522027.92	3864.50	63.75	3800.75
	8-Feb-2013				62.95	3801.55
	29-Oct-2012				62.30	3802.20
	1-Aug-2012				63.70	3800.80
	24-Apr-2012				63.31	3801.19
	25-Jan-2012				62.25	3802.25
	6-Dec-2011				62.29	3802.21
DAD-20	8-May-2013	371751.45	1531188.19	3833.27	52.88	3780.39
	8-Feb-2013				52.29	3780.98
	7-Nov-2012				52.18	3781.09
	29-Oct-2012				Obstruction in Well	
	2-Aug-2012				Obstruction in Well	
	25-Apr-2012				Obstruction in Well	
	25-Jan-2012				50.65	3782.62
	6-Dec-2011				50.66	3782.61
	DAD-21				7-May-2013	374013.39
8-Feb-2013		55.10	3784.52			
29-Oct-2012		54.60	3785.02			
2-Aug-2012		54.31	3785.31			
24-Apr-2012		53.61	3786.01			
30-Jan-2012		53.44	3786.18			
6-Dec-2011		53.24	3786.38			
DAD-22	14-May-2013	373029.62	1530352.69	3827.14	44.09	3783.05
	8-Feb-2013				44.08	3783.06
	29-Oct-2012				44.51	3782.63
	2-Aug-2012				44.23	3782.91
	25-Apr-2012				43.86	3783.28
	25-Jan-2012				43.22	3783.92
	13-Dec-2011				43.27	3783.87

NOTES:

<sup>a</sup> Horizontal control to NM State Plane Coordinates Central NAD83 Grid Coordinates (in feet)

<sup>b</sup> Vertical Control to NAVD88 Datum in feet above mean sea level

<sup>c</sup> Measured in feet below the top of casing at survey point on north side of well

<sup>d</sup> Measured in feet

Wells were gauged on a different date by Magee and Associates Inc.

Wells were gauged on a different date by EnviroCompliance Inc.

Measured data were suspect and corrected to reflect appropriate trends in accordance with surrounding wells

**TABLE 2. SUMMARY OF SAMPLE ANALYTICAL METHODS AND COLLECTION REQUIREMENTS  
DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO**

Target Analytes	Analytical Method	Sample Container	Preservative	Holding Time
<b>Groundwater Samples</b>				
Nitrate/Nitrite	EPA 300.0/ SM 4500 NO3 E	250 mL HDPE Bottle	H <sub>2</sub> SO <sub>4</sub> to pH2, Cool to <6°C	28 Days
Total Kjeldhal Nitrogen	SM 4500 NORG C	250 mL HDPE Bottle	H <sub>2</sub> SO <sub>4</sub> to pH2, Cool to <6°C	28 Days
Chloride	EPA 300.0	250 mL HDPE Bottle	Cool to <6°C	28 Days
Total Dissolved Solids	SM 2540 C MOD	250 mL HDPE Bottle	Cool to <6°C	28 Days
NOTES: °C = Degree Celsius ASTM = American Society for Testing and Materials EPA = U.S. Environmental Protection Agency HDPE = High-density polyethylene				

**TABLE 3. ABATEMENT PLAN MONITORING WELLS GROUNDWATER ANALYTICAL RESULTS  
DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Sampled	Nitrate (mg/l)	TKN (mg/l)	Chloride (mg/l)	TDS (mg/l)	Sulfate (mg/l)
<b>Abatement Plan Monitoring Wells</b>						
DAD-01	16-May-13	10.4	<1.66	408	1,930	NA
	28-Feb-13	10.0	<1.72	469	1,740	NA
	3-Dec-12	10.7	<1.72	348	1,800	NA
	21-Aug-12	9.98	<1.72	373	1,640	NA
	9-May-12	6.88	2.80	401	1,660	NA
	31-Jan-12	9.90	2.52	439	1,520	NA
	27-Oct-11	9.56	3.50	436	1,840	256
	20-Jul-11	12.0	2.38	426	1,650	NA
	20-Apr-11	10.3	<2.17	460	1,710	NA
	24-Jan-11	19.8	3.50	408	1,820	NA
	16-Sep-10	7.56	<10.0	439	1,800	NA
	29-Jun-10	8.55	<1.0	491	2,120	NA
	21-Mar-10	6.3	<5.0	500	1,780	NA
	9-Dec-09	7.5	1.5	550	2,010	NA
	NMED Split	9-Dec-09	7.3	2.8	468	356
29-Aug-09		7.3	<5.0	540	1,970	NA
12-May-09		5.6	<1.0	540	1,800	NA
DAD-02	16-May-13	9.19	<1.66	393	1,750	NA
	1-Mar-13	8.52	<1.72	357	1,520	NA
	3-Dec-12	8.51	<1.72	345	1,800	NA
	21-Aug-12	4.39	2.10	301	1,570	NA
	9-May-12	7.71	<1.72	373	1,830	NA
	31-Jan-12	7.66	<2.17	335	1,720	NA
	27-Oct-11	8.30	2.52	380	1,360	475
	20-Jul-11	7.66	<2.17	374	1,750	NA
	21-Apr-11	7.97	<2.17	434	1,760	NA
	24-Jan-11	6.38	2.80	443	2,240	NA
	16-Sep-10	3.44	<10.0	385	1,790	NA
	29-Jun-10	8.11	<0.5	364	1,870	NA
	21-Mar-10	8.1	<1.0	420	1,970	NA
	9-Dec-09	9.0	<1.0	440	1,920	NA
	NMED Split	9-Dec-09	9	0.39	388	1,970
29-Aug-09		9.9	<2.0	490	1,890	NA
14-May-09		7.4	<5.0	350	1,700	NA
DAD-03	16-May-13	1.07	<1.66	1,400	4,420	NA
	1-Mar-13	0.721	<1.72	1,220	3,720	NA
	3-Dec-12	1.1	<1.72	1,150	4,760	NA
	21-Aug-12	<0.0290	2.80	1,090	3,920	NA
	9-May-12	<0.114	2.66	1,200	4,160	NA
	31-Jan-12	<0.500	4.34	1,340	4,350	NA
	26-Oct-11	<0.500	3.22	1,790	5,420	1100
	20-Jul-11	<1.00	3.22	1,630	4,720	NA
	21-Apr-11	<0.500	<2.17	1,870	5,600	NA
	24-Jan-11	<0.00955	4.20	1,590	4,660	NA
	16-Sep-10	0.217	<10.0	1,370	4,320	NA
	29-Jun-10	<0.5	6.18	1,570	5,150	NA
	21-Mar-10	<10	<1.0	2,200	5,620	NA
	9-Dec-09	<10	<5.0	2,100	5,590	NA
	NMED Split	9-Dec-09	<0.1	0.88	1,570	5,300
29-Aug-09		<0.10	<5.0	1,400	4,420	NA
12-May-09		<10	<5.0	1,200	5,000	NA
DAD-04	16-May-13	<0.0420	<1.66	613	2,320	NA
	1-Mar-13	2.12	<1.72	510	2,090	NA
	5-Dec-12	2.740	<1.72	545	2,430	NA
	21-Aug-12	<0.0290	<1.72	496	2,620	NA
	9-May-12	0.305	<1.72	502	1,970	NA
	31-Jan-12	2.05	<2.17	493	2,320	NA
	26-Oct-11	<0.500	2.80	590	2,950	380
	20-Jul-11	<0.500	<2.17	670	2,540	NA
	20-Apr-11	<0.500	<2.17	584	2,570	NA
	24-Jan-11	<0.00955	2.66	608	2,400	NA
	16-Sep-10	<0.100	<10.0	683	2,560	NA
	29-Jun-10	<0.5	1.4	570	2,330	NA
	21-Mar-10	<2.0	<2.0	620	2,460	NA
	9-Dec-09	<2.0	1.7	810	2,720	NA
	NMED Split	9-Dec-09	<0.1	1.2	659	2,630
29-Aug-09		<2.0	<5.0	690	2,690	NA
13-May-09		<2.0	<5.0	690	2,700	NA

**TABLE 3. ABATEMENT PLAN MONITORING WELLS GROUNDWATER ANALYTICAL RESULTS  
DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Sampled	Nitrate (mg/l)	TKN (mg/l)	Chloride (mg/l)	TDS (mg/l)	Sulfate (mg/l)
DAD-05	29-May-13	2.44	<1.66	582	2,580	NA
	5-Mar-13	<0.246	<1.72	519	2,100	NA
	5-Dec-12	3.350	<1.72	690	2,930	NA
	22-Aug-12	<0.0290	<1.72	544	2,260	NA
	9-May-12	0.908	2.10	566	2,380	NA
	1-Feb-12	<0.500	<2.17	558	2,020	NA
	26-Oct-11	<0.500	2.66	647	900	377
	20-Jul-11	<0.500	5.04	599	2,460	NA
	20-Apr-11	<0.500	<2.17	430	1,810	NA
	20-Jan-11	0.128	2.10	477	1,870	NA
	16-Sep-10	<2.50	<10.0	536	2,220	NA
	29-Jun-10	<0.5	1.1	627	2,550	NA
	21-Mar-10	<2.0	<1.0	630	2,340	NA
	9-Dec-09	<2.0	1.3	710	2,420	NA
	9-Dec-09	<0.1	0.95	563	2,290	362
NMED Split	29-Aug-09	<2.0	<2.0	630	2,310	NA
	13-May-09	<2.0	<5.0	640	2,700	NA
	13-May-09	<10	1.6	618	2,260	NA
Duplicate	13-May-09	<10	1.6	618	2,260	NA
	13-May-09	<10	1.6	618	2,260	NA
DAD-06	30-May-13	6.07	<1.66	508	1,690	NA
	4-Mar-13	7.66	<1.72	496	1,510	NA
	5-Dec-12	8.25	<1.72	439	1,610	NA
	21-Aug-12	9.11	2.10	347	1,530	NA
	9-May-12	11.0	<1.72	375	1,570	NA
	31-Jan-12	13.6	<2.17	382	1,510	NA
	27-Oct-11	9.20	<2.17	322	1,060	228
	20-Jul-11	18.0	3.64	358	1,370	NA
	21-Apr-11	18.0	<2.17	349	1,330	NA
	24-Jan-11	12.2	2.10	360	1,270	NA
	16-Sep-10	9.20	<10.0	359	1,370	NA
	29-Jun-10	11.6	<2.0	365	1,460	NA
	21-Mar-10	10	<2.0	390	1,390	NA
	9-Dec-09	10	<1.0	380	1,380	NA
	NMED Split	9-Dec-09	8.6	0.36	354	1,440
29-Aug-09		8.2	<5.0	390	1,260	NA
14-May-09		11	<5.0	350	1,300	NA
14-May-09		8.17	0.4	338	1,250	NA
DAD-07	24-May-13	8.42	<1.66	720	2,570	NA
	5-Mar-13	8.15	<1.72	724	2,740	NA
	5-Dec-12	8.03	<1.72	718	2,610	NA
	22-Aug-12	6.88	<1.72	671	2,540	NA
	9-May-12	3.81	<1.72	588	2,150	NA
	31-Jan-12	5.40	<2.17	610	1,640	NA
	26-Oct-11	5.22	2.24	591	750	426
	20-Jul-11	4.67	2.80	554	1,880	NA
	20-Apr-11	4.14	<2.17	525	1,780	NA
	19-Jan-11	0.410	<2.05	518	1,740	NA
	16-Sep-10	<2.50	<10.0	637	1,990	NA
	29-Jun-10	5.17	<0.5	569	2,060	NA
	21-Mar-10	5.1	<1.0	640	1,970	NA
	9-Dec-09	5.4	<1.0	620	1,900	NA
	NMED Split	9-Dec-09	5.2	<0.1	536	1,870
29-Aug-09		4.4	<5.0	610	1,780	NA
14-May-09		4.6	<1.0	530	1,800	NA
14-May-09		4.6	<1.0	530	1,800	NA
DAD-08	24-May-13	71.5	<1.66	2,140	6,740	NA
	4-Mar-13	90.0	<1.72	2,280	7,060	NA
	5-Dec-12	40.2	<1.72	2,270	5,980	NA
	22-Aug-12	32.2	<1.72	2,430	7,220	NA
	9-May-12	2.39	<1.72	1,150	3,260	NA
	31-Jan-12	2.69	<2.17	1,250	2,990	NA
	26-Oct-11	2.80	<2.17	1,260	2,500	471
	20-Jul-11	3.36	3.78	1,320	3,060	NA
	20-Apr-11	4.33	<2.17	1,300	3,280	NA
	19-Jan-11	<0.239	2.10	1,240	2,600	NA
	17-Sep-10	<2.50	<10.0	1,370	3,230	NA
	29-Jun-10	2.53	<1.0	1,290	5,950	NA
	21-Mar-10	<4.0	<1.0	1,300	3,270	NA
	9-Dec-09	<4.0	<1.0	1,400	3,290	NA
	NMED Split	9-Dec-09	3.1	0.26	1,400	3,070
29-Aug-09		<4.0	<2.0	1,500	3,180	NA
14-May-09		3.0	<5.0	1,300	3,600	NA
14-May-09		3.0	<5.0	1,300	3,600	NA

**TABLE 3. ABATEMENT PLAN MONITORING WELLS GROUNDWATER ANALYTICAL RESULTS  
DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Sampled	Nitrate (mg/l)	TKN (mg/l)	Chloride (mg/l)	TDS (mg/l)	Sulfate (mg/l)
DAD-09	30-May-13	9.69	<1.66	435	1,740	NA
	6-Mar-13	17.1	<1.72	494	1,840	NA
	4-Dec-12	33.1	<1.72	588	2,200	NA
	20-Aug-12	48.4	<1.72	656	2,540	NA
	10-May-12	50.9	<1.72	561	2,270	NA
	31-Jan-12	59.8	<2.17	622	2,220	NA
	26-Oct-11	77.7	<2.17	728	1,600	433
	20-Jul-11	70.2	<2.17	727	2,500	NA
	20-Apr-11	47.5	<2.17	483	1,910	NA
	19-Jan-11	42.8	2.38	745	2,600	NA
	17-Sep-10	22.6	<10.0	204	47	NA
	29-Jun-10	59.2	<5.0	667	2,240	NA
	21-Mar-10	29	<5.0	290	1,190	NA
	9-Dec-09	26	<5.0	300	1,190	NA
NMED Split	9-Dec-09	22	1.6	228	1,170	152
	29-Aug-09	46	<5.0	640	2,320	NA
	13-May-09	44	<5.0	740	2,400	NA
DAD-10 Vertical Delineation	23-May-13	5.42	<1.66	453	1,450	NA
	6-Mar-13	4.83	<1.72	468	1,620	NA
	4-Dec-12	4.33	<1.72	434	1,510	NA
	20-Aug-12	2.86	<1.72	389	2,520	NA
	10-May-12	1.52	<1.72	361	1,400	NA
	31-Jan-12	<0.500	<2.17	433	800	NA
	26-Oct-11	3.33	2.80	384	1,150	206
	20-Jul-11	2.29	<2.17	383	1,290	NA
	20-Apr-11	1.30	<2.17	411	1,340	NA
	19-Jan-11	12.7	2.10	429	1,140	NA
	17-Sep-10	2.73	<10.0	404	1,320	NA
	29-Jun-10	1.28	<1.0	390	1,360	NA
	21-Mar-10	<2.0	<1.0	420	1,380	NA
	9-Dec-09	1.4	<1.0	460	1,360	NA
NMED Split	9-Dec-09	1.5	<0.1	378	1,340	196
	29-Aug-09	1.2	<1.0	420	1,340	NA
	14-May-09	<2.0	<1.0	410	1,300	NA
DAD-11 Vertical Delineation (formerly 177-03)	29-May-13	15.7	<1.66	1,110	3,600	NA
	1-Mar-13	14.6	<1.72	1,190	3,600	NA
	3-Dec-12	13.4	<1.72	1,210	3,870	NA
	21-Aug-12	8.71	<1.72	818	3,020	NA
	14-May-12	0.791	<1.72	359	1,550	NA
	1-Feb-12	2.38	<2.17	456	1,700	NA
	27-Oct-11	<0.500	<2.17	434	1,290	215
	2-Aug-11	<0.500	<2.17	427	1,490	NA
	5-May-11	<0.500	<2.17	398	1,360	NA
	25-Jan-11	4.60	<2.05	386	1,500	NA
	21-Sep-10	3.21	<10.0	369	1,520	NA
	29-Jun-10	1.6	<1.0	430	1,610	NA
	28-Apr-10	1.5	<1.0	450	1,600	NA
	20-Jan-10	1.4	<1.0	460	1,600	NA
21-Oct-09	1.0	<1.0	430	1,600	NA	
7-Jul-09	0.80	<1.0	470	1,500	NA	
6-May-09	0.97	3.5	450	1,600	NA	
22-Jan-09	1.00	<1.0	370	1,600	NA	
DAD-12 Vertical Delineation	29-May-13	18.2	<1.66	686	3,130	NA
	28-Feb-13	22.8	<1.72	688	2,820	NA
	3-Dec-12	16.4	<1.72	689	3,070	NA
	21-Aug-12	17.8	2.10	620	2,990	NA
	14-May-12	23.1	<1.72	561	2,870	NA
	1-Feb-12	20.8	<2.17	614	2,670	NA
7-Dec-11	18.8	<2.17	597	2,620	616	
DAD-13	29-May-13	5.00	<1.66	550	2,020	NA
	28-Feb-13	5.63	<1.72	582	1,970	NA
	3-Dec-12	5.04	<1.72	504	1,810	NA
	21-Aug-12	3.51	<1.72	420	1,900	NA
	10-May-12	8.66	<1.72	514	2,010	NA
	1-Feb-12	7.59	<2.17	537	1,960	NA
27-Oct-11	7.51	2.52	536	3,700	321	
DAD-14	29-May-13	34.6	<1.66	1,030	3,520	NA
	1-Mar-13	42.0	16.8	1,130	3,730	NA
	3-Dec-12	40.3	<1.72	1,150	4,010	NA
	21-Aug-12	33.2	<1.72	919	3,340	NA
	14-May-12	28.8	<1.72	881	3,280	NA
	1-Feb-12	20.3	<2.17	861	2,880	NA
27-Oct-11	17.2	2.80	835	1,780	447	

**TABLE 3. ABATEMENT PLAN MONITORING WELLS GROUNDWATER ANALYTICAL RESULTS  
DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Sampled	Nitrate (mg/l)	TKN (mg/l)	Chloride (mg/l)	TDS (mg/l)	Sulfate (mg/l)
DAD-15	29-May-13	5.29	<1.66	504	1,970	NA
	4-Mar-13	5.10	<1.72	515	1,800	NA
	4-Dec-12	4.710	<1.72	484	1,810	256
	20-Aug-12	2.370	35.00	351	1,330	256
DAD-16	29-May-13	1.68	<1.66	501	2,200	NA
	5-Mar-13	2.55	<1.72	674	2,670	NA
	5-Dec-12	2.420	<1.72	529	2,280	NA
	22-Aug-12	<0.0290	<1.72	472	2,000	NA
	14-May-12	0.147	<1.72	378	2,080	NA
	1-Feb-12	<0.500	<2.17	438	1,960	NA
	27-Oct-11	<0.500	3.36	410	1,520	408
DAD-17	24-May-13	0.827	<1.66	317	1,400	NA
	5-Mar-13	2.06	<1.72	351	1,550	NA
	5-Dec-12	2.28	<1.72	230	1,260	NA
	22-Aug-12	<0.0290	<1.72	189	930	NA
	10-May-12	<0.114	<1.72	353	1,580	NA
	1-Feb-12	<0.500	3.36	113	714	NA
	26-Oct-11	<0.500	3.50	175	724	186
DAD-18 Vertical Delineation	29-May-13	11.9	<1.66	734	3,020	NA
	5-Mar-13	11.2	<1.72	712	2,700	NA
	5-Dec-12	10.10	<1.72	643	2,690	NA
	22-Aug-12	9.03	4.62	642	2,790	NA
	10-May-12	9.11	<1.72	558	2,700	NA
	1-Feb-12	9.62	<2.17	629	2,470	NA
	7-Dec-11	9.21	<2.17	639	2,670	495
DAD-19 Vertical Delineation	30-May-13	71.3	<1.66	951	3,560	NA
	4-Mar-13	69.1	<1.72	986	3,430	NA
	5-Dec-12	54.2	<1.72	851	3,230	NA
	21-Aug-12	59.2	<1.72	843	3,470	NA
	10-May-12	54.8	<1.72	835	3,460	NA
	1-Feb-12	59.8	<2.17	913	2,950	NA
	7-Dec-11	47.4	<2.17	789	3,070	544
DAD-20	23-May-13	25.2	<1.66	707	2,320	NA
	6-Mar-13	29.5	<1.72	710	2,280	NA
	4-Dec-12	17.0	<1.72	704	2,350	NA
	10-May-12	Obstruction in Well				
	31-Jan-12	21.2	<2.17	568	1,000	NA
	7-Dec-11	16.1	<2.17	611	2,020	383
DAD-21	24-May-13	6.73	<1.66	509	1,960	NA
	6-Mar-13	5.76	<1.72	516	1,910	NA
	4-Dec-12	3.47	<1.72	445	1,720	NA
	20-Aug-12	3.45	<1.72	409	1,660	NA
	10-May-12	1.16	<1.72	364	2,840	NA
	31-Jan-12	6.79	2.94	475	1,620	NA
	7-Dec-11	2.14	<2.17	396	1,600	219
DAD-22	24-May-13	9.29	<1.66	920	2,580	NA
	6-Mar-13	8.25	<1.72	909	2,610	NA
	4-Dec-12	12.0	<1.72	886	2,740	NA
	20-Aug-12	15.3	2.10	878	2,280	NA
	10-May-12	18.3	<1.72	818	1,580	NA
	1-Feb-12	23.6	<2.17	908	3,000	NA
	26-Oct-11	29.5	2.52	781	3,860	494
<b>NMWQCC Standard</b>		<b>10</b>	<b>NA</b>	<b>250</b>	<b>1,000</b>	<b>600</b>
NOTES: Shading indicates exceedence of NMWQCC standard NA = Not analyzed ND = Non detect NMWQCC = New Mexico Water Quality Control Commission TDS = Total dissolved solids TKN = Total Kjeldahl Nitrogen DAD-03 (6-29-10) Roots in sample may have resulted in a measured TKN result.						

**TABLE 4. DISCHARGE PLAN MONITORING WELL GROUNDWATER ANALYTICAL RESULTS  
DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Sampled	Nitrate as N (mg/l)	TKN (mg/l)	Chloride (mg/l)	TDS (mg/l)
<b>Northern Area</b>					
<b>Northern Land Application Area</b>					
70-03	9-May-13	58.4	<1.66	3,290	9,200
	13-Feb-13	59.1	<1.72	3,400	8,440
	7-Nov-12	49.5	<1.72	2,850	7,950
	7-Aug-12	45.3	2.94	2,440	6,700
	25-Apr-12	53.1	5.60	2,540	6,550
	2-Feb-12	67.6	<2.17	2,840	7,480
	7-Nov-11	61.6	<2.17	3,270	7,910
	3-Aug-11	63.1	2.80	3,140	8,040
	21-Apr-11	58.9	<2.17	3,130	8,040
	27-Jan-11	71.2	3.36	3,140	7,580
	22-Sep-10	62.8	<10.0	2,940	7,840
	30-Jun-10	57	<1.0	2,200	5,720
	26-Mar-10	29.6	ND	2,160	5,180
	15-Dec-09	27.1	ND	2,199	5,462
	2-Sep-09	25.4	ND	2,149	5,570
4-Jun-09	18.6	ND	1,999	5,518	
4-Mar-09	35.5	ND	2,074	5,418	
70/86/340-01	9-May-13	15.1	<1.66	1,930	6,650
	13-Feb-13	16.6	<1.72	2,170	6,660
	5-Nov-12	12.7	<1.72	2,120	4,940
	6-Aug-12	17.1	<1.72	1,870	6,400
	25-Apr-12	11.8	<1.72	1,620	4,280
	2-Feb-12	20.0	8.12	1,750	5,440
	7-Nov-11	25.5	4.76	1,970	5,920
	25-Jul-11	31.0	2.24	1,800	5,500
	21-Apr-11	35.0	<2.17	1,780	5,420
	27-Jan-11	53.5	<2.17	1,370	4,420
	22-Sep-10	39.8	<10.0	1,130	4,000
	30-Jun-10	52	<1.0	1,300	4,090
	26-Mar-10	53	ND	1,200	3,616
	15-Dec-09	64	ND	1,080	3,408
	2-Sep-09	50	ND	1,100	3,610
4-Jun-09	28	ND	1,410	4,340	
4-Mar-09	39.3	ND	1,150	3,820	
86/340-01	9-May-13	12.3	<1.66	603	3,020
	13-Feb-13	12.2	<1.72	571	2,780
	5-Nov-12	12.1	<1.72	638	2,860
	6-Aug-12	11.6	<1.72	708	3,410
	25-Apr-12	12.1	<1.72	641	2,480
	2-Feb-12	12.3	<2.17	655	2,960
	7-Nov-11	11.6	3.08	593	2,910
	25-Jul-11	10.2	<2.17	582	2,500
	21-Apr-11	10.4	<2.17	512	2,660
	27-Jan-11	7.99	<2.17	419	2,040
	22-Sep-10	11.8	<10.0	331	2,060
	30-Jun-10	13	<1.0	410	2,190
	26-Mar-10	9.2	0.7	690	2,656
	29-Jan-10	8.6	ND	530	2,258
	2-Sep-09	8.8	ND	510	2,232
4-Jun-09	5.2	1.12	640	2,582	
4-Mar-09	11.9	ND	675	2,674	

**TABLE 4. DISCHARGE PLAN MONITORING WELL GROUNDWATER ANALYTICAL RESULTS  
DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Sampled	Nitrate as N (mg/l)	TKN (mg/l)	Chloride (mg/l)	TDS (mg/l)
<b>Former Daybreak Dairy (Del Norte Dairy)</b>					
126-04	10-May-13	15.1	<1.66	499	2,310
	12-Feb-13	18.5	<1.72	614	2,640
	7-Nov-12	16.0	3.50	572	2,500
	7-Aug-12	15.9	2.10	568	2,370
	30-Apr-12	15.7	<1.72	539	2,310
	26-Jan-12	17.4	<2.17	560	1,700
	7-Nov-11	18.2	3.92	581	2,470
	3-Aug-11	18.2	6.44	559	2,460
	22-Apr-11	18.0	5.74	594	2,500
	26-Jan-11	11.1	<2.17	570	2,380
	21-Sep-10	20.5	<10.0	542	2,460
	30-Jun-10	21	<5.0	490	2,160
	25-Mar-10	14.9	0.56	530	1,964
	15-Dec-09	11.5	ND	550	1,974
	2-Sep-09	9	ND	530	2,028
4-Jun-09	5.81	ND	550	2,084	
5-Mar-09	14.1	ND	525	2,122	
126-05	10-May-13	39.0	<1.66	635	3,060
	12-Feb-13	34.2	<1.72	618	3,180
	7-Nov-12	29.2	<1.72	548	2,890
	7-Aug-12	30.8	2.10	548	2,860
	30-Apr-12	28.6	2.38	530	2,840
	26-Jan-12	30.1	<2.17	546	2,520
	4-Nov-11	31.2	<2.17	543	3,510
	4-Aug-11	29.5	4.20	525	2,540
	22-Apr-11	28.0	2.80	615	2,800
	26-Jan-11	25.2	3.64	553	2,870
	21-Sep-10	22.3	<10.0	504	2,240
	30-Jun-10	24	<5.0	540	2,750
	25-Mar-10	13.5	ND	640	2,736
	15-Dec-09	16.6	ND	630	2,554
	2-Sep-09	12.8	1.4	580	2,566
4-Jun-09	10.1	ND	600	2,640	
5-Mar-09	19.9	1.03	610	2,828	
126-07	10-May-13	20.2	<1.66	573	2,620
	12-Feb-13	21.2	<1.72	648	2,740
	7-Nov-12	19.8	<1.72	629	2,870
	7-Aug-12	19.5	2.10	650	2,610
	30-Apr-12	18.8	<1.72	605	2,710
	26-Jan-12	18.8	2.24	666	2,790
	4-Nov-11	19.8	<2.17	668	2,270
	4-Aug-11	19.1	2.24	666	1,410
	22-Apr-11	21.2	<2.17	704	3,110
	27-Jan-11	22.4	<2.17	662	2,670
	21-Sep-10	24.9	<10.0	700	2,800
	30-Jun-10	26	<5.0	760	2,780
	25-Mar-10	12.1	ND	610	2,238
	15-Dec-09	13.8	ND	720	2,412
	2-Sep-09	10.9	ND	820	2,716
4-Jun-09	19.0	ND	810	2,468	
5-Mar-09	16.8	ND	605	2,230	



**TABLE 4. DISCHARGE PLAN MONITORING WELL GROUNDWATER ANALYTICAL RESULTS  
DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Sampled	Nitrate as N (mg/l)	TKN (mg/l)	Chloride (mg/l)	TDS (mg/l)
126-09	10-May-13	2.25	<1.66	898	3,300
	12-Feb-13	2.50	<1.72	991	3,090
	7-Nov-12	2.53	<1.72	984	2,980
	7-Aug-12	2.69	2.10	962	3,050
	30-Apr-12	2.28	5.04	978	2,900
	26-Jan-12	3.93	7.00	1,100	3,180
	7-Nov-11	3.30	5.6	1,130	3,470
	4-Aug-11	3.19	<2.17	1,100	3,180
	22-Apr-11	3.31	<2.17	1,120	2,730
	22-Sep-10	2.50	<10.0	1110	3,320
	30-Jun-10	Not Sampled			
	25-Mar-10				
	15-Dec-09				
	2-Sep-09				
4-Jun-09					
5-Mar-09					
126-12	10-May-13	16.2	2.10	398	2,380
	12-Feb-13	18.8	<1.72	421	2,480
	7-Nov-12	19.2	<1.72	407	2,490
	7-Aug-12	17.5	<1.72	410	2,460
	30-Apr-12	12.9	1.96	401	2,270
	14-Feb-12	12.5	4.20	418	2,340
	4-Nov-11	13.3	<2.17	430	2,600
	4-Aug-11	13.6	<2.17	449	2,580
	22-Apr-11	13.2	<2.17	461	2,530
	27-Jan-11	12.2	<2.17	453	2,280
	22-Sep-10	12.6	<10.0	446	2,430
	30-Jun-10	15	<2.0	500	2,610
	25-Mar-10	8.9	ND	550	2,260
	15-Dec-09	8.7	ND	540	2,296
	2-Sep-09	12.8	0.56	530	2,336
	4-Jun-09	4.08	0.84	530	2,322
5-Mar-09	11	ND	475	2,320	
126-13	10-May-13	34.1	<1.66	385	3,160
	12-Feb-13	33.7	<1.72	735	2,840
	7-Nov-12	23.8	2.10	751	3,090
	7-Aug-12	26.1	2.10	779	2,860
	30-Apr-12	43.8	<1.72	784	3,120
	26-Jan-12	27.5	<2.17	735	2,800
	7-Nov-11	21.9	<2.17	735	3,060
	4-Aug-11	21.4	<2.17	735	2,840
	22-Apr-11	21.7	<2.17	754	2,640
	26-Jan-11	22.8	<2.17	768	3,130
	22-Sep-10	23.1	<10.0	750	2,850
	30-Jun-10	26	<5.0	810	3,000
	25-Mar-10	10.3	ND	940	2,740
	15-Dec-09	14.3	ND	910	2,832
	2-Sep-09	12.8	ND	840	2,746
	4-Jun-09	16.3	ND	970	2,768
5-Mar-09	19.4	ND	845	2,800	

**TABLE 4. DISCHARGE PLAN MONITORING WELL GROUNDWATER ANALYTICAL RESULTS  
DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Sampled	Nitrate as N (mg/l)	TKN (mg/l)	Chloride (mg/l)	TDS (mg/l)
<b>Mountain View Dairy</b>					
70-01	9-May-13	22.4	<1.66	616	2,740
	13-Feb-13	24.7	<1.72	655	2,680
	7-Nov-12	21.2	<1.72	636	2,700
	7-Aug-12	21.4	2.10	637	2,700
	25-Apr-12	21.7	<1.72	659	2,490
	2-Feb-12	21.5	2.94	633	2,530
	7-Nov-11	21.1	5.18	622	1,860
	3-Aug-11	20.7	2.8	641	2,630
	22-Apr-11	22.7	22.4	646	2,760
	27-Jan-11	22.5	2.94	650	2,500
	22-Sep-10	19.3	12.3	617	2,610
	30-Jun-10	27	<1.0	600	2,400
	25-Mar-10	14.5	ND	670	2,096
	15-Dec-09	17.1	ND	640	2,218
	1-Sep-09	8.4	ND	630	2,244
2-Jun-09	9.35	ND	640	2,112	
4-Mar-09	20.8	ND	610	2,254	
70-02	9-May-13	37.4	<1.66	790	3,260
	13-Feb-13	38.1	<1.72	841	3,160
	7-Nov-12	36.2	<1.72	820	3,300
	7-Aug-12	36.3	3.78	826	3,260
	25-Apr-12	37.9	<1.72	749	2,260
	2-Feb-12	37.5	<2.17	829	3,160
	7-Nov-11	37.7	<2.17	828	2,790
	4-Aug-11	36.8	5.04	798	3,160
	22-Apr-11	38.1	8.40	836	3,220
	27-Jan-11	44.2	6.02	863	3,390
	22-Sep-10	32.2	<10.0	829	3,070
	30-Jun-10	46	< 1.0	860	3,170
	25-Mar-10	19.6	ND	930	3,076
	15-Dec-09	18.3	ND	960	3,012
	9-Jan-09	21.4	ND	970	3,148
2-Jun-09	17.8	ND	920	3,084	
4-Mar-09	35.8	ND	940	3,104	
70-04	9-May-13	23.0	<1.66	630	3,510
	11-Jan-13	19.5	<1.72	613	6,200
<b>Buena Vista Dairy I</b>					
86-01	26-Jan-11	95.4	16.0	2,300	6,240
	20-Sep-10	86.9	<10.0	2,330	6,500
	29-Jun-10	67	<1.0	1,800	5,010
	25-Mar-10	27.0	0.28	1,770	4,814
	15-Dec-09	29.8	ND	1,750	4,670
	1-Sep-09	26.1	ND	1,510	4,474
	2-Jun-09	46.5	4.76	1,590	4,464
	4-Mar-09	42	ND	1,659	4,850
86-02	26-Jan-11	23.4	2.24	641	3,110
	20-Sep-10	24.1	<10.0	613	2,980
	29-Jun-10	21	1.1	660	3,020
	25-Mar-10	16.2	0.7	740	2,740
	15-Dec-09	10.7	0.28	730	2,818
	1-Sep-09	7.2	ND	710	2,824
	2-Jun-09	2.95	ND	700	2,802
	4-Mar-09	16.4	ND	625	2,666

**TABLE 4. DISCHARGE PLAN MONITORING WELL GROUNDWATER ANALYTICAL RESULTS  
DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Sampled	Nitrate as N (mg/l)	TKN (mg/l)	Chloride (mg/l)	TDS (mg/l)
<b>Bright Star Dairy</b>					
340-01	9-May-13	31.1	<1.66	577	3,700
	13-Feb-13	27.0	<1.72	711	3,340
	5-Nov-12	23.8	<1.72	855	3,180
	6-Aug-12	22.7	<1.72	694	3,380
	25-Apr-12	26.3	61.0	681	2,540
	2-Feb-12	27.4	<2.17	661	2,780
	4-Nov-11	26.6	4.34	691	2,910
	25-Jul-11	28.3	4.20	747	2,830
	27-Jan-11	31.1	3.50	578	2,840
	21-Sep-10	24.8	<10.0	513	3,070
	29-Jun-10	29	<0.10	610	2,810
	24-Mar-10	18.8	ND	580	2,508
	15-Dec-09	13.1	ND	650	2,608
	1-Sep-09	12.20	ND	530	2,522
2-Jun-09	8.67	ND	590	2,434	
4-Mar-09	28.3	ND	530	2,516	
340-02	9-May-13	74.6	<1.66	744	3,180
	13-Feb-13	81.6	<1.72	805	3,550
	5-Nov-12	73.8	4.90	923	3,220
	6-Aug-12	74.0	<1.72	749	3,380
	25-Apr-12	69.8	6.16	727	2,890
	4-Nov-11	75.0	5.74	755	3,620
	22-Jul-11	84.8	7.98	777	2,970
	27-Jan-11	94.1	2.24	760	3,500
	21-Sep-10	92.2	<10.0	778	3,260
	29-Jun-10	87	<0.10	850	3,180
	24-Mar-10	95	ND	930	3,070
	15-Dec-09	82	ND	910	3,072
	1-Sep-09	94	ND	890	3,072
	2-Jun-09	43.2	ND	880	2,954
4-Mar-09	41.5	ND	885	3,098	
<b>Former D&amp;J Dairy (Dominguez 2)</b>					
42-02	14-May-13	12.0	<1.66	432	2,220
	15-Feb-13	17.6	<1.72	457	2,360
	09-Nov-12	8.99	<1.72	412	2,180
	08-Aug-12	7.73	<1.72	400	1,830
	01-May-12	22.5	<1.72	431	2,210
	16-Feb-12	24.5	<2.17	465	2,770
	09-Nov-11	21.2	3.08	449	2,170
	02-Aug-11	20.5	2.38	424	2,360
	25-Apr-11	29.1	<2.17	365	2,140
	28-Jan-11	22.7	6.72	408	2,150
	1-Oct-10	21.0	<10.0	355	2,010
	27-Jun-10	27	<5.0	360	2,220
	6-Mar-10	31.3	<0.3	380	2,145
	16-Jan-10	25.7	0.3	350	2,090
	15-Sep-09	24.6	0.9	350	2,075
	3-Jun-09	30.6	0.6	320	2,045
14-Mar-09	29.6	0.7	370	2,115	

**TABLE 4. DISCHARGE PLAN MONITORING WELL GROUNDWATER ANALYTICAL RESULTS  
DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Sampled	Nitrate as N (mg/l)	TKN (mg/l)	Chloride (mg/l)	TDS (mg/l)
42-03	14-May-13	59.6	<1.66	1,150	3,800
	15-Feb-13	60.3	<1.72	1,140	3,800
	9-Nov-12	56.2	<1.72	1,120	3,800
	8-Aug-12	71.1	<1.72	1,370	3,520
	1-May-12	51.5	<1.72	1,030	3,620
	16-Feb-12	51.3	<2.17	1,130	3,760
	9-Nov-11	58.9	2.80	1,000	3,660
	1-Aug-11	59.2	<2.17	1,030	3,720
	25-Apr-11	58.8	<2.17	1,080	3,620
	28-Jan-11	69.5	3.78	1,160	3,690
	1-Oct-10	63.0	<10.0	1,090	3,640
	27-Jun-10	49	<5.0	1,100	3,780
	6-Mar-10	39.6	<0.3	1,180	3,935
	16-Jan-10	43.3	<0.3	1,200	3,800
	15-Sep-09	52.3	0.3	1,130	3,765
3-Jun-09	48.2	0.3	1,240	3,860	
14-Mar-09	32.2	<0.2	1,240	3,800	
42-06	14-May-13	86.5	<1.66	413	2,390
	15-Feb-13	82.9	<1.72	457	2,430
	9-Nov-12	75.9	<1.72	478	2,570
	8-Aug-12	81.5	1.82	484	2,475
	1-May-12	87.0	1.96	720	2,920
	16-Feb-12	92.4	<2.17	630	3,100
	9-Nov-11	101	<2.17	617	3,000
	2-Aug-11	88.6	3.22	525	2,980
	25-Apr-11	72.2	<2.17	454	2,500
	28-Jan-11	69.8	4.20	421	2,780
	1-Oct-10	113	<10.0	497	2,660
	27-Jun-10	46	<5.0	400	2,550
	6-Mar-10	43.1	<0.3	480	2,510
	16-Jan-10	44.2	0.3	1,150	2,600
	14-Sep-09	54.8	0.4	450	2,600
3-Jun-09	0.02	<0.2	1,240	3,780	
14-Mar-09	49.7	0.2	480	2,540	
42-07	14-May-13	Dry			
	15-Feb-13	Dry			
	9-Nov-12	Dry			
	8-Aug-12	Dry			
	1-May-12	Dry			
	16-Feb-12	Dry			
	9-Nov-11	57.9	<2.17	1,090	3,450
	2-Aug-11	Dry			
	25-Apr-11	68.5	<2.17	1,230	4,080
	28-Jan-11	88.3	4.48	1,130	4,180
	1-Oct-10	92.0	<40.0	1,390	4,260
	27-Jun-10	63	<5.0	1,400	4,330
	6-Mar-10	63.1	<0.3	1,490	4,345
	16-Jan-10	59.6	<0.3	1,480	4,275
	15-Sep-09	66.6	<0.3	1,290	4,195
3-Jun-09	57.4	<0.2	1,550	4,225	
14-Mar-09	43.7	<0.2	1,500	4,110	

**TABLE 4. DISCHARGE PLAN MONITORING WELL GROUNDWATER ANALYTICAL RESULTS  
DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Sampled	Nitrate as N (mg/l)	TKN (mg/l)	Chloride (mg/l)	TDS (mg/l)
42-08	14-May-13	29.9	<1.66	259	1,880
	15-Feb-13	31.8	<1.72	284	1,860
	9-Nov-12	30.4	<1.72	283	1,930
	8-Aug-12	36.4	<1.72	307	1,938
	1-May-12	36.0	<1.72	246	1,700
	16-Feb-12	37.0	<2.17	254	1,850
	9-Nov-11	40.0	<2.17	269	1,770
	2-Aug-11	41.3	2.38	253	2,030
	25-Apr-11	51.4	2.66	201	1,970
	28-Jan-11	46.2	5.46	219	2,020
	1-Oct-10	49.0	<10.0	288	2,160
	27-Jun-10	75	<5.0	300	2,220
	6-Mar-10	76.8	<0.3	365	2,290
	16-Jan-10	82.8	<0.3	350	2,315
	15-Sep-09	87.1	0.7	410	2,340
3-Jun-09	65.8	0.8	380	2,175	
14-Mar-09	43.2	0.4	400	2,220	
42-09	14-May-13	51.6	<1.66	717	3,200
	15-Feb-13	47.0	<1.72	653	2,870
	9-Nov-12	48.4	<1.72	641	3,030
	8-Aug-12	49.5	<1.72	597	2,475
	1-May-12	50.3	<1.72	542	2,820
	16-Feb-12	50.7	<2.17	627	2,920
	9-Nov-11	47.8	<2.17	591	1,810
	1-Aug-11	55.0	<2.17	579	2,750
	25-Apr-11	65.8	<2.17	664	2,820
	28-Jan-11	44.9	<2.17	537	2,940
	28-Sep-10	38.0	<10.0	591	2,760
	27-Jun-10	68	<5.0	610	3,010
	6-Mar-10	NS	NS	NS	NS
	16-Jan-10	52.8	<0.3	690	2,970
	15-Sep-09	68.8	0.7	650	3,000
3-Jun-09	66.5	0.7	690	3,000	
14-Mar-09	59.5	0.4	700	3,050	
42-10	14-May-13	0.976	<1.66	395	1,400
	15-Feb-13	<0.246	<1.72	415	1,380
	9-Nov-12	<0.0290	<1.72	397	1,350
	8-Aug-12	0.186	<1.72	403	1,328
	1-May-12	0.236	<1.72	363	1,260
	16-Feb-12	<0.500	<2.17	419	1,440
	8-Nov-11	<0.500	<2.17	425	1,510
	2-Aug-11	<0.500	<2.17	469	1,540
	25-Apr-11	<0.500	<2.17	453	1,500
	28-Jan-11	2.15	<2.17	345	1,280
	1-Oct-10	0.220	<10.0	360	1,450
	27-Jun-10	<0.50	<1.0	420	1,490
	6-Mar-10	0.23	<0.3	440	1,500
	16-Jan-10	<0.03	<0.3	430	1,435
	15-Sep-09	0.16	<0.3	400	1,425
3-Jun-09	0.21	<0.2	450	1,535	
14-Mar-09	0.02	<0.2	480	1,480	

**TABLE 4. DISCHARGE PLAN MONITORING WELL GROUNDWATER ANALYTICAL RESULTS  
DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Sampled	Nitrate as N (mg/l)	TKN (mg/l)	Chloride (mg/l)	TDS (mg/l)
42-11	14-May-13	1.78	<1.66	303	1,220
	15-Feb-13	1.64	<1.72	327	1,210
	9-Nov-12	<0.0290	<1.72	315	1,230
	8-Aug-12	1.21	<1.72	308	1,182
	1-May-12	1.24	<1.72	274	1,160
	16-Feb-12	<0.500	<2.17	337	1,240
	8-Nov-11	1.97	<2.17	334	1,480
	2-Aug-11	3.07	<2.17	308	1,160
	25-Apr-11	3.45	<2.17	304	795
	28-Jan-11	0.470	2.38	285	1,300
	1-Oct-10	0.620	<10.0	300	1,250
	27-Jun-10	3.9	<1.0	290	1,080
	6-Mar-10	0.51	<0.3	370	1,300
	16-Jan-10	0.03	<0.3	370	1,325
	15-Sep-09	0.41	<0.3	320	1,245
3-Jun-09	3.00	0.7	300	1,080	
14-Mar-09	0.90	<0.2	310	1,225	
42-12	14-May-13	1.73	<1.66	319	1,170
	15-Feb-13	1.72	<1.72	332	1,170
	9-Nov-12	<0.0290	<1.72	315	1,170
	8-Aug-12	1.15	2.66	333	1,134
	1-May-12	0.750	<1.72	282	1,180
	16-Feb-12	<0.500	<2.17	341	1,200
	8-Nov-11	<0.500	<2.17	331	730
	2-Aug-11	<0.100	<2.17	331	1,340
	25-Apr-11	<0.500	<2.17	339	1,280
	28-Jan-11	0.580	<2.17	276	970
	1-Oct-10	4.50	<10.0	312	1,280
	27-Jun-10	0.72	<1.0	320	1,270
	6-Mar-10	0.13	<0.3	350	1,230
	16-Jan-10	0.42	<0.3	340	1,250
	15-Sep-09	0.65	<0.3	310	1,215
3-Jun-09	0.82	<0.2	330	1,280	
14-Mar-09	0.70	<0.2	340	1,240	
42-13	14-May-13	49.7	<1.66	809	3,320
	15-Feb-13	54.3	<1.72	855	3,430
	9-Nov-12	52.2	<1.72	835	3,250
	8-Aug-12	62.3	<1.72	871	3,110
	1-May-12	81.5	<1.72	902	3,550
	16-Feb-12	99.1	<2.17	1,020	3,880
	9-Nov-11	61.5	<2.17	901	3,160
	2-Aug-11	106	<2.17	1,900	3,280
	25-Apr-11	55.9	<2.17	1,000	3,600
	28-Jan-11	52.6	<2.17	868	3,720
	29-Sep-10	44.5	<10.0	833	3,360
	27-Jun-10	48	<5.0	1,000	3,810
	6-Mar-10	NS	NS	NS	NS
	16-Jan-10	46.3	<0.3	1,130	3,810
	15-Sep-09	54.8	0.5	1,100	3,940
3-Jun-09	51.6	<0.2	1,110	3,775	
14-Mar-09	51.0	0.6	1,040	3,735	

**TABLE 4. DISCHARGE PLAN MONITORING WELL GROUNDWATER ANALYTICAL RESULTS  
DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Sampled	Nitrate as N (mg/l)	TKN (mg/l)	Chloride (mg/l)	TDS (mg/l)
<b>Dominguez</b>					
624-01	13-May-13	20.8	<1.66	894	2,720
	14-Feb-13	15.6	<1.72	827	2,980
	12-Nov-12	12.2	<1.72	652	2,590
	9-Aug-12	17.4	2.80	1,080	3,550
	30-Apr-12	8.69	36.4	1,400	4,180
	7-Feb-12	10.0	9.52	1,420	3,180
	4-Nov-11	10.8	5.60	1,430	3,460
	3-Aug-11	10.7	<2.17	1,580	3,970
	27-Apr-11	<0.500	30.8	1,330	4,040
	25-Jan-11	14.0	<2.17	1,280	3,760
	21-Sep-10	8.20	<10.0	1,260	3,780
	27-Jun-10	11	<2.0	1,600	4,520
	6-Mar-10	17.2	<0.3	910	2,610
	16-Jan-10	5.5	0.4	840	2,540
	15-Sep-09	6.5	0.6	760	2,455
3-Jun-09	16.1	0.7	810	2,790	
14-Mar-09	21.9	0.3	1,190	3,305	
624-02	13-May-13	9.98	<1.66	950	3,360
	14-Feb-13	9.30	2.10	1,110	3,580
	12-Nov-12	12.7	<1.72	1,170	3,830
	9-Aug-12	9.69	<1.72	1,300	4,010
	30-Apr-12	16.4	4.06	1,160	3,650
	7-Feb-12	14.8	<2.17	1,200	3,720
	4-Nov-11	10.7	3.5	1,300	4,060
	3-Aug-11	12.2	<2.17	1,290	3,600
	27-Apr-11	11.6	7.70	1,340	4,170
	25-Jan-11	19.1	<2.17	1,290	3,700
	20-Sep-10	19.6	<10.0	1,300	4,130
	27-Jun-10	14	<2.0	1,400	4,230
	6-Mar-10	23.7	<0.3	1,400	3,880
	16-Jan-10	22.6	0.4	1,300	3,630
	15-Sep-09	19.9	0.8	1,260	3,625
3-Jun-09	29.4	0.4	1,340	3,905	
14-Mar-09	26.5	0.4	1,240	3,655	
624-04	13-May-13			Dry	
	14-Feb-13			Dry	
	12-Nov-12			Dry	
	9-Aug-12			Dry	
	30-Apr-12			Dry	
	7-Feb-12			Dry	
	4-Nov-11			Dry	
	3-Aug-11	1.84	<2.17	478	2,760
	27-Apr-11	2.60	5.74	566	2,830
	26-Jan-11	3.23	2.52	747	3,480
	21-Sep-10	6.0	<10.0	758	3,750
	27-Jun-10	3.7	1.4	810	3,950
	6-Mar-10	4.3	0.4	890	4,050
	16-Jan-10	4.2	0.7	800	3,845
	15-Sep-09	9.3	0.8	840	3,750
3-Jun-09	16.0	0.6	520	2,900	
14-Mar-09	18.1	0.6	520	2,820	

**TABLE 4. DISCHARGE PLAN MONITORING WELL GROUNDWATER ANALYTICAL RESULTS  
DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Sampled	Nitrate as N (mg/l)	TKN (mg/l)	Chloride (mg/l)	TDS (mg/l)
624-05	13-May-13	Dry			
	14-Feb-13	6.72	<1.72	508	2,040
	12-Nov-12	4.82	<1.72	440	2,200
	9-Aug-12	4.11	1.82	472	2,050
	30-Apr-12	3.70	2.10	346	1,710
	7-Feb-12	3.38	<2.17	411	2,040
	4-Nov-11	2.58	4.20	385	1,980
	3-Aug-11	3.34	<2.17	1,080	1,940
	27-Apr-11	3.34	4.76	424	1,840
	26-Jan-11	3.62	<2.17	392	1,740
	21-Sep-10	11.9	<10.0	449	2,300
	27-Jun-10	27	< 5.0	480	2,450
	6-Mar-10	30.5	0.4	520	2,595
	16-Jan-10	21.4	0.9	520	2,605
	15-Sep-09	34.8	1.0	530	2,620
3-Jun-09	33.8	1.3	500	2,650	
14-Mar-09	23.9	1.2	490	2,565	
624-06	13-May-13	Dry			
	14-Feb-13	31.5	<1.72	1,150	3,600
	12-Nov-12	28.3	<1.72	1,060	3,840
	9-Aug-12	30.8	7.56	1,080	3,420
	30-Apr-12	31.1	8.40	1,010	3,300
	7-Feb-12	30.9	6.30	1,080	3,020
	4-Nov-11	29.5	8.68	1,040	2,860
	3-Aug-11	29.8	<2.17	1,080	3,240
	27-Apr-11	29.0	3.50	1,050	3,180
	26-Jan-11	29.1	2.94	1,080	2,760
	21-Sep-10	26.7	<10.0	1,060	3,270
	27-Jun-10	30	<5.0	1,100	3,570
	6-Mar-10	28.3	<0.3	1,250	3,550
	16-Jan-10	52.2	0.6	2,100	3,545
	15-Sep-09	27.8	0.7	1,150	3,425
3-Jun-09	38.3	0.8	70	4,300	
14-Mar-09	36.5	0.3	1,300	3,800	
624-07	13-May-13	Dry			
	14-Feb-13	Dry			
	12-Nov-12	Dry			
	9-Aug-12	Dry			
	30-Apr-12	Dry			
	7-Feb-12	Not Sampled - insufficient water to sample			
	4-Nov-11	Not Sampled - insufficient water to sample			
	3-Aug-11	8.01	<2.17	473	1,600
	27-Apr-11	19.4	3.50	539	2,290
	26-Jan-11	14.7	5.60	516	1,900
	21-Sep-10	20.5	<10.0	531	2,200
	27-Jun-10	61	<5.0	880	3,550
	6-Mar-10	43.4	<0.3	1,080	3,825
	16-Jan-10	49.5	0.5	840	3,275
	15-Sep-09	50.1	0.4	960	3,280
3-Jun-09	75.2	0.8	1,525	4,980	
14-Mar-09	54.3	0.3	1,160	3,580	



**TABLE 4. DISCHARGE PLAN MONITORING WELL GROUNDWATER ANALYTICAL RESULTS  
DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Sampled	Nitrate as N (mg/l)	TKN (mg/l)	Chloride (mg/l)	TDS (mg/l)
624-08	13-May-13			Dry	
	14-Feb-13			Dry	
	9-Aug-12			Dry	
	30-Apr-12			Dry	
	7-Feb-12			Dry	
	4-Nov-11			Dry	
	3-Aug-11			Dry	
	27-Apr-11	2.45	3.50	200	1,400
	26-Jan-11	1.7	8.12	222	2,940
	21-Sep-10	<2.50	<10.0	197	1,200
	27-Jun-10	2.0	<1.0	220	1,310
	6-Mar-10	0.65	<0.3	280	1,330
	16-Jan-10	0.89	<0.3	240	1,215
	15-Sep-09	2.3	0.3	200	1,205
3-Jun-09	1.7	0.7	210	1,280	
14-Mar-09	1.8	<0.2	205	1,165	
<b>Gonzalez</b>					
177-01	15-May-13	31.6	<1.66	1,300	3,940
	19-Feb-13	28.4	<1.72	1,310	3,930
	13-Nov-12	27.7	<1.72	1,190	3,780
	13-Aug-12	27.3	2.52	1,160	3,790
	26-Apr-12	28.5	<1.72	1,460	3,500
	6-Feb-12	28.1	<2.17	1,180	3,650
	3-Nov-11	27.4	2.66	1,170	3,790
	2-Aug-11	26.0	2.24	1,200	4,000
	4-May-11	26.6	<2.17	1,160	4,020
	25-Jan-11	23.3	4.06	1,160	3,540
	20-Sep-10	17.6	12.7	1,120	3,480
	29-Jun-10	34	<1.0	1,200	3,660
	28-Apr-10	31	<5.0	1,200	3,680
	20-Jan-10	32	<5.0	1,200	3,640
	21-Oct-09	35	<5.0	1,100	3,700
7-Jul-09	35	<5.0	1,400	3,700	
6-May-09	34	<5.0	1,300	3,700	
22-Jan-09	33	<5.0	1,300	3,700	
177-02	15-May-13	27.6	<1.66	910	3,000
	19-Feb-13	29.3	<1.72	902	3,100
	13-Nov-12	35.8	<1.72	870	3,320
	13-Aug-12	47.4	7.70	899	3,650
	26-Apr-12	36.0	<1.72	881	2,960
	6-Feb-12	37.0	<2.17	958	3,320
	3-Nov-11	32.7	<2.17	971	3,450
	3-Aug-11	34.4	2.80	997	3,340
	4-May-11	38.1	2.52	1,050	3,580
	25-Jan-11	31.6	3.36	1,050	3,640
	20-Sep-10	78.0	<10.0	964	3,630
	29-Jun-10	58	<1.0	1,000	3,830
	28-Apr-10	60	<5.0	1,100	3,860
	20-Jan-10	59	<5.0	1,200	4,020
	21-Oct-09	50	<5.0	1,200	4,000
7-Jul-09	56	<5.0	1,300	4,000	
6-May-09	52	<5.0	1,200	4,000	
22-Jan-09	72	<5.0	1,300	4,000	

**TABLE 4. DISCHARGE PLAN MONITORING WELL GROUNDWATER ANALYTICAL RESULTS  
DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Sampled	Nitrate as N (mg/l)	TKN (mg/l)	Chloride (mg/l)	TDS (mg/l)
177-03A	15-May-13	16.0	<1.66	1,150	3,530
	18-Feb-13	15.5	<1.72	1,290	3,900
	13-Nov-12	12.2	<1.72	1,150	3,900
	13-Aug-12	7.86	<1.72	835	2,810
	26-Apr-12	1.16	<1.72	378	1,430
	6-Feb-12	2.00	<2.17	452	1,580
	4-Nov-11	<0.500	3.50	436	1,850
177-04	15-May-13	19.4	<1.66	1,110	3,600
	18-Feb-13	20.5	<1.72	1,120	3,450
	13-Nov-12	22.3	<1.72	1,070	3,630
	13-Aug-12	19.7	<1.72	1,000	3,720
	26-Apr-12	21.7	<1.72	1,050	3,480
	2-Feb-12	22.5	<2.17	1,100	3,650
	3-Nov-11	27.5	<2.17	1,100	3,500
	2-Aug-11	21.6	<2.17	1,080	3,670
	4-May-11	21.2	3.64	1,100	3,740
	25-Jan-11	17.5	2.38	1,150	3,760
	20-Sep-10	4.83	<10.0	1,180	4,030
	29-Jun-10	26	<1.0	1,200	4,010
	28-Apr-10	26	<5.0	1,300	4,090
	20-Jan-10	27	<5.0	1,400	4,090
	21-Oct-09	29	<5.0	1,400	4,100
	7-Jul-09	32	<5.0	1,400	3,990
	6-May-09	32	<5.0	1,300	3,800
22-Jan-09	26	<5.0	1,200	1,700	
177-05	15-May-13	29.8	<1.66	1,510	4,160
	18-Feb-13	32.6	<1.72	1,430	3,900
	13-Nov-12	37.1	<1.72	1,240	4,050
	13-Aug-12	37.6	2.66	1,390	4,360
	26-Apr-12	47.1	<1.72	1,090	3,440
	2-Feb-12	42.2	<2.17	1,170	3,590
	3-Nov-11	30.6	<2.17	1,190	3,060
	2-Aug-11	36.3	<2.17	1,120	3,420
	4-May-11	40.6	5.60	1,090	3,500
	25-Jan-11	39.2	2.10	1,060	3,240
	20-Sep-10	7.39	<10.0	1,050	3,500
	29-Jun-10	39	<1.0	1,100	3,470
	28-Apr-10	40	<5.0	1,200	3,460
	20-Jan-10	43	<5.0	1,100	3,330
	21-Oct-09	50	<5.0	1,100	3,300
7-Jul-09	38	<5.0	1,200	3,270	
6-May-09	40	<5.0	1,100	3,100	
22-Jan-09	40	<5.0	1,100	3,000	

**TABLE 4. DISCHARGE PLAN MONITORING WELL GROUNDWATER ANALYTICAL RESULTS  
DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Sampled	Nitrate as N (mg/l)	TKN (mg/l)	Chloride (mg/l)	TDS (mg/l)
177-06	15-May-13	Insufficient Water to Sample			
	18-Feb-13	17.4	<1.72	963	3,000
	13-Nov-12	16.1	<1.72	918	3,020
	26-Apr-12	Dry			
	2-Feb-12	16.1	4.76	934	2,940
	7-Dec-11	15.1	<2.17	892	2,760
	2-Aug-11	16.1	<2.17	910	3,020
	4-May-11	17.2	4.90	955	2,930
	25-Jan-11	19.2	<2.05	923	2,740
	20-Sep-10	<2.50	<10.0	890	2,880
	29-Jun-10	23	<1.0	940	2,960
	28-Apr-10	21	<5.0	980	2,960
	20-Jan-10	26	<5.0	1,000	2,910
	21-Oct-09	25	<5.0	980	2,900
	7-Jul-09	25	<5.0	1,000	2,850
6-May-09	25	<5.0	1,000	2,800	
22-Jan-09	23	<5.0	960	2,800	
177-07	15-Mar-03	44.4	1.5	1,205	4,007
177-07R	15-May-13	29.2	<1.66	1,000	3,420
	19-Feb-13	31.0	<1.72	976	3,360
	13-Nov-12	31.0	<1.72	1,040	3,570
	13-Aug-12	26.5	<1.72	1,040	3,670
	26-Apr-12	22.8	<1.72	1,010	2,690
	6-Feb-12	28.5	5.60	1,060	2,730
	4-Nov-11	29.3	2.66	1,050	2,830
	3-Aug-11	25.2	2.80	1,050	3,250
	7-Apr-11	21.4	2.52	1,070	8,660
<b>Central Area</b>					
<b>Buena Vista Dairy II</b>					
74-01	16-May-13	72.3	<1.66	816	3,090
	19-Feb-13	59.1	<1.72	840	3,140
	14-Nov-12	94.2	8.40	963	3,510
	10-Aug-12	78.6	3.50	922	2,150
	3-May-12	65.3	<1.72	778	3,265
	8-Feb-12	Not Sampled			
	3-Nov-11	64.6	<2.17	811	2,830
	1-Aug-11	73.2	<2.17	770	3,040
	26-Apr-11	67.8	<2.17	730	3,300
	25-Jan-11	41.7	13.0	738	2,960
	17-Sep-10	36.7	<10.0	695	2,760
	29-Jun-10	74	<1.0	850	3,350
	24-Mar-10	70	ND	840	3,070
	14-Dec-09	84	0.14	750	2,480
	1-Sep-09	92	ND	730	2,914
2-Jun-09	33.2	ND	650	2,632	
3-Mar-09	43.8	ND	735	2,666	

**TABLE 4. DISCHARGE PLAN MONITORING WELL GROUNDWATER ANALYTICAL RESULTS  
DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Sampled	Nitrate as N (mg/l)	TKN (mg/l)	Chloride (mg/l)	TDS (mg/l)
74-02	16-May-13	15.5	<1.66	549	2,120
	19-Feb-13	13.9	<1.72	525	1,900
	14-Nov-12	12.7	2.10	484	2,150
	10-Aug-12	14.0	2.10	532	2,060
	3-May-12	16.4	<1.72	495	1,980
	8-Feb-12	15.2	5.46	519	2,150
	3-Nov-11	26.3	<2.17	558	2,510
	29-Jul-11	52.8	2.24	630	2,710
	26-Apr-11	93.2	<2.17	831	3,610
	25-Jan-11	65.7	2.80	824	3,670
	17-Sep-10	30.6	<10.0	665	2,400
	29-Jun-10	45	<1.0	730	2,780
	24-Mar-10	20.6	ND	810	2,612
	14-Dec-09	14.6	0.14	770	2,452
	1-Sep-09	17.3	0.7	760	2,474
2-Jun-09	17.6	0.84	820	4,866	
3-Mar-09	45.1	ND	1,265	4,556	
74-03	16-May-13	7.88	<1.66	1,160	3,920
	19-Feb-13	2.81	<1.72	1,250	4,480
	14-Nov-12	1.06	<1.72	1,300	4,440
	10-Aug-12	2.25	<1.72	1,450	4,900
	3-May-12	9.92	<1.72	1,330	3,920
	8-Feb-12	11.0	<2.17	1,420	4,170
	3-Nov-11	27.6	<2.17	1,420	4,730
	1-Aug-11	15.0	<2.17	1,450	4,870
	26-Apr-11	4.17	<2.17	1,480	4,690
	25-Jan-11	2.02	<2.17	1,460	4,960
	20-Sep-10	21.3	<10.0	1,490	4,840
	29-Jun-10	1.5	<1.0	1,400	4,630
	24-Mar-10	6.1	ND	1,530	4,400
	14-Dec-09	14.1	ND	1,550	4,560
	1-Sep-09	18.9	ND	1,630	4,734
2-Jun-09	2.9	ND	1,590	1,782	
3-Mar-09	2.65	ND	1,510	4,664	
74-04	16-May-13	17.6	<1.66	502	1,890
	20-Feb-13	18.5	<1.72	499	1,960
	14-Nov-12	19.3	<1.72	499	2,140
	10-Aug-12	18.8	<1.72	477	1,920
	3-May-12	33.6	<1.72	436	1,800
	8-Feb-12	31.6	<2.17	473	2,020
	3-Nov-11	13.4	<2.17	439	1,080
	29-Jul-11	15.3	<2.17	438	1,580
	26-Apr-11	12.8	<2.17	451	1,820
	25-Jan-11	6.50	<2.17	434	1,810
	20-Sep-10	10.6	<10.0	441	1,640
	29-Jun-10	15	<1.0	500	1,840
	24-Mar-10	11.4	0.28	570	1,792
	14-Dec-09	11.5	ND	560	1,738
	1-Sep-09	19.3	ND	550	1,792
2-Jun-09	7.2	ND	570	2,024	
3-Mar-09	20.3	ND	530	1,884	

**TABLE 4. DISCHARGE PLAN MONITORING WELL GROUNDWATER ANALYTICAL RESULTS  
DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Sampled	Nitrate as N (mg/l)	TKN (mg/l)	Chloride (mg/l)	TDS (mg/l)
74-05	16-May-13	17.5	<1.66	469	1,860
	20-Feb-13	17.8	<1.72	470	1,870
	14-Nov-12	17.0	<1.72	219	1,900
	10-Aug-12	18.0	<1.72	463	1,800
	3-May-12	18.0	<1.72	421	1,900
	8-Feb-12	17.4	<2.17	442	1,960
	3-Nov-11	17.9	<2.17	442	960
	29-Jul-11	23.3	<2.17	449	2,000
	26-Apr-11	21.5	<2.17	446	1,900
	25-Jan-11	16.5	<2.17	446	1,940
	17-Sep-10	17.6	<10.0	439	1,880
	29-Jun-10	32	<1.0	520	2,070
	24-Mar-10	23.2	ND	620	1,960
	14-Dec-09	15.9	ND	600	1,924
	1-Sep-09	25.2	ND	540	1,964
2-Jun-09	10.8	ND	560	2,068	
3-Mar-09	33.2	ND	535	2,038	
<b>River Valley Dairy</b>					
167-01	17-May-13	Not Sampled			
	20-Feb-13	Not Sampled			
	15-Nov-12	Not Sampled			
	14-Aug-12	Not Sampled			
	2-May-12	Not Sampled			
	30-Jan-12	Not Sampled			
	2-Nov-11	Not Sampled			
	25-Jul-11	Not Sampled			
	28-Apr-11	<0.500	3.92	720	2,960
	20-Jan-11	Not Sampled			
	27-Sep-10	1.55	9.94	731	2,540
	28-Jun-10	Not Sampled			
	5-Mar-10				
	15-Jan-10				
14-Sep-09					
2-Jun-09					
15-Mar-09	Not Sampled				
167-01A	17-May-13	4.83	<1.66	794	3,420
	20-Feb-13	1.10	<1.72	845	3,360
	15-Nov-12	4.02	<1.72	778	3,440
	14-Aug-12	1.78	4.20	888	3,260
	2-May-12	2.55	1.82	781	3,180
	30-Jan-12	2.54	3.50	755	2,940
	2-Nov-11	11.2	4.62	1,080	3,620
	25-Jul-11	2.13	3.92	943	3,330
	28-Apr-11	4.03	<2.17	1,030	3,710
	20-Jan-11	1.26	2.1	968	5,100
	22-Sep-10	1.40	3.36	1,010	3,470
	28-Jun-10	6.07	1.1	1,050	3,710
	5-Mar-10	9.3	0.8	1,040	3,605
	15-Jan-10	5.3	0.5	1,090	3,590
	14-Sep-09	13.4	0.6	1,040	3,530
2-Jun-09	13.7	0.7	980	3,505	
15-Mar-09	22.2	0.2	740	3,130	

**TABLE 4. DISCHARGE PLAN MONITORING WELL GROUNDWATER ANALYTICAL RESULTS  
DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Sampled	Nitrate as N (mg/l)	TKN (mg/l)	Chloride (mg/l)	TDS (mg/l)
167-02	17-May-13	Not Sampled			
	20-Feb-13	Not Sampled			
	15-Nov-12	Not Sampled			
	14-Aug-12	Not Sampled			
	30-Jan-12	Not Sampled			
	2-Nov-11	<0.500	3.64	432	650
	25-Jul-11	Dry			
	28-Apr-11	<0.500	2.94	500	1,910
	20-Jan-11	0.716	< 2.05	546	1,840
	22-Sep-10	<0.846	<10.0	610	2,100
	28-Jun-10	Not Sampled			
	5-Mar-10				
	15-Jan-10				
	14-Sep-09				
2-Jun-09					
28-Apr-08	7.0	0.3	780	2,580	
167-03	20-May-13	16.7	<1.66	543	2,140
	21-Feb-13	13.0	<1.72	500	1,950
	15-Nov-12	15.0	<1.72	503	2,150
	14-Aug-12	16.6	<1.72	500	2,350
	2-May-12	17.5	<1.72	499	2,220
	27-Jan-12	21.0	<2.17	572	2,250
	2-Nov-11	22.0	<2.17	564	2,150
	25-Jul-11	18.5	6.16	543	2,250
	28-Apr-11	17.1	<2.17	508	2,210
	20-Jan-11	13.2	2.24	467	1,880
	22-Sep-10	9.19	<10.0	472	2,120
	28-Jun-10	20.4	<5.0	567	2,310
	5-Mar-10	18.4	<0.3	610	2,265
	15-Jan-10	13.7	0.6	620	2,015
	14-Sep-09	23.1	0.4	590	2,240
	2-Jun-09	25.0	0.5	680	2,515
15-Mar-09	30.9	0.2	760	2,615	
167-04	17-May-13	4.40	<1.66	796	4,170
	20-Feb-13	21.9	<1.72	1,320	4,660
	15-Nov-12	7.77	<1.72	1,150	4,380
	14-Aug-12	23.2	2.10	1,110	4,540
	2-May-12	18.6	13.6	1,050	4,020
	27-Jan-12	15.6	3.50	1,500	4,840
	2-Nov-11	Not Sampled - insufficient water to sample			
	26-Jul-11	19.3	4.62	1,270	4,560
	28-Apr-11	7.95	73.1	1,610	4,960
	20-Jan-11	Not Sampled			
	28-Jun-10				
	5-Mar-10				
	15-Jan-10				
	14-Sep-09	6.7	0.4	1,630	5,240
	2-Jun-09	8.5	0.4	1,525	5,045
15-Mar-09	16.4	0.2	1,570	5,210	

**TABLE 4. DISCHARGE PLAN MONITORING WELL GROUNDWATER ANALYTICAL RESULTS  
DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Sampled	Nitrate as N (mg/l)	TKN (mg/l)	Chloride (mg/l)	TDS (mg/l)
167-05	17-May-13	23.3	<1.66	1,120	3,140
	21-Feb-13	3.73	<1.72	842	3,360
	19-Nov-12	2.31	<1.72	805	3,480
	14-Aug-12	1.48	<1.72	1,630	3,220
	2-May-12	3.50	2.24	777	3,180
	30-Jan-12	4.40	<2.17	808	3,140
	2-Nov-11	3.89	3.64	782	2,560
	26-Jul-11	4.41	3.22	792	3,070
	28-Apr-11	12.9	2.80	976	3,630
	20-Jan-11	3.53	2.52	748	2,980
	23-Sep-10	2.70	<10.0	758	2,820
	28-Jun-10	4.07	<1.0	789	2,930
	5-Mar-10	2.9	<0.3	960	2,945
	15-Jan-10	1.8	<0.3	380	715
	14-Sep-09	1.9	0.4	890	2,970
2-Jun-09	1.8	0.9	850	3,005	
15-Mar-09	4.6	0.2	910	3,230	
167-06	20-May-13	23.9	<1.66	704	2,620
	20-Feb-13	22.8	<1.72	725	2,660
	19-Nov-12	23.7	<1.72	718	2,980
	14-Aug-12	25.1	<1.72	677	2,910
	2-May-12	27.2	<1.72	688	2,480
	30-Jan-12	29.1	<2.17	754	2,880
	2-Nov-11	35.7	<2.17	716	3,390
	25-Jul-11	35.0	5.32	702	2,640
	28-Apr-11	35.4	<2.17	676	2,790
	20-Jan-11	29.6	2.38	634	2,560
	22-Sep-10	19.8	<10.0	655	2,630
	28-Jun-10	34.8	2.35	687	2,700
	5-Mar-10	30.9	<0.3	730	2,730
	15-Jan-10	26.2	0.4	750	2,755
	14-Sep-09	40.4	<0.3	700	2,680
2-Jun-09	31.5	0.4	790	2,715	
15-Mar-09	36.2	0.7	730	2,715	
167-07	17-May-13	<0.0420	<1.66	319	1,840
	20-Feb-13	<0.246	<1.72	446	3,640
	15-Nov-12	<0.0595	<1.72	498	3,280
	14-Aug-12	<0.114	4.06	1,160	6,090
	2-May-12	0.0285	<1.72	367	1,890
	30-Jan-12	<0.500	<2.17	411	1,850
	2-Nov-11	<0.500	<2.17	366	2,460
	25-Jul-11	<1.00	3.50	446	4,400
	28-Apr-11	<0.500	<2.17	292	1,750
	20-Jan-11	0.448	2.10	239	1,280
	22-Sep-10	0.0400	2.10	268	1,590
	28-Jun-10	<0.5	<2.0	287	1,600
	5-Mar-10	0.16	<0.3	370	1,650
	15-Jan-10	<0.03	<0.3	250	2,065
	14-Sep-09	0.19	<0.3	390	1,700
2-Jun-09	0.11	0.4	740	2,575	
15-Mar-09	0.11	0.2	1,090	3,165	

**TABLE 4. DISCHARGE PLAN MONITORING WELL GROUNDWATER ANALYTICAL RESULTS  
DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Sampled	Nitrate as N (mg/l)	TKN (mg/l)	Chloride (mg/l)	TDS (mg/l)
167-08	21-May-13	1.13	<1.66	723	2,820
	25-Feb-13	0.895	<1.72	827	2,640
	15-Nov-12	Well Damaged - Not Sampled			
	14-Aug-12	0.192	<1.72	788	2,860
	2-May-12	0.399	<1.72	744	2,580
	30-Jan-12	<0.500	<2.17	805	2,440
	2-Nov-11	1.93	<2.17	759	2,520
	26-Jul-11	3.77	4.20	779	3,030
	28-Apr-11	3.74	<2.17	793	2,740
	20-Jan-11	<0.239	2.10	764	2,640
	23-Sep-10	0.250	<10.0	756	2,720
	28-Jun-10	5.51	<0.5	804	2,990
	5-Mar-10	5.5	<0.3	830	2,750
	15-Jan-10	0.84	<0.3	720	2,530
	14-Sep-09	2.9	0.3	640	2,380
2-Jun-09	2.1	0.6	750	2,785	
15-Mar-09	3.2	0.2	740	2,710	
167-09	17-May-13	10.7	<1.66	726	3,050
	21-Feb-13	4.51	<1.72	959	3,580
	19-Nov-12	12.8	<1.72	979	3,560
	14-Aug-12	8.47	2.10	916	3,760
	2-May-12	14.5	<1.72	1,070	4,000
	30-Jan-12	13.2	2.80	1,010	3,590
	3-Nov-11	7.53	8.40	988	3,590
	26-Jul-11	<1.00	3.78	736	2,300
	28-Apr-11	<0.500	2.38	467	2,140
	20-Jan-11	0.0147	<2.05	429	2,160
	24-Sep-10	0.0300	<10.0	432	1,500
	28-Jun-10	<0.5	<1.0	491	2,160
	5-Mar-10	0.05	<0.3	580	2,150
	15-Jan-10	<0.03	<0.3	500	2,250
	14-Sep-09	<0.03	<0.3	530	2,055
2-Jun-09	0.04	0.7	540	2,205	
15-Mar-09	0.07	0.2	630	2,400	
<b>Big Sky Dairy</b>					
833-01	21-May-13	Dry			
	26-Feb-13	Dry			
	19-Nov-12	Dry			
	15-Aug-12	Dry			
	7-May-12	Dry			
	15-Feb-12	Dry			
	1-Nov-11	Dry			
	21-Jul-11	Dry			
	29-Apr-11	Not Sampled - insufficient water to sample			
	24-Jan-11	33.6	4.20	997	3,100
	23-Sep-10	29.1	<10.0	881	3,300
	28-Jun-10	1.7	1.8	180	790
	23-Mar-10	28.3	0.7	1,025	2,640
	14-Dec-09	21.8	ND	975	2,800
	31-Aug-09	15.3	ND	999	2,894
1-Jun-09	8.6	ND	1,030	2,382	
2-Mar-09	37.1	ND	1,070	3,750	



**TABLE 4. DISCHARGE PLAN MONITORING WELL GROUNDWATER ANALYTICAL RESULTS  
DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Sampled	Nitrate as N (mg/l)	TKN (mg/l)	Chloride (mg/l)	TDS (mg/l)
833-02	21-May-13	69.2	<1.66	858	3,140
	25-Feb-13	97.0	<1.72	1,110	3,820
	19-Nov-12	84.3	2.10	1,030	4,020
	15-Aug-12	37.5	2.94	535	2,440
	7-May-12	43.3	65.1	635	2,420
	15-Feb-12	87.2	4.34	889	3,660
	1-Nov-11	82.3	2.38	885	4,010
	21-Jul-11	91.6	3.08	880	3,510
	29-Apr-11	81.6	6.02	840	3,500
	24-Jan-11	69.3	2.66	789	3,090
	23-Sep-10	52.9	<10.0	833	3,650
	28-Jun-10	29	<5.0	560	2,200
	23-Mar-10	15.9	ND	660	2,066
	14-Dec-09	11.5	0.28	650	2,018
	31-Aug-09	12.4	ND	660	2,170
1-Jun-09	<0.5	ND	650	3,358	
2-Mar-09	3.54	13.44	585	1,978	
833-03	21-May-13	Dry			
	25-Feb-13	Dry			
	19-Nov-12	Dry			
	15-Aug-12	Dry			
	3-May-12	Dry			
	15-Feb-12	Dry			
	1-Nov-11	Dry			
	21-Jul-11	Dry			
	4-May-11	24.8	4.20	1,660	4,120
	24-Jan-11	30.4	2.66	1,650	4,090
	23-Sep-10	18.1	<10.0	1,410	3,880
	28-Jun-10	5.0	5.5	650	1,870
	23-Mar-10	14.0	ND	1,750	4,044
	14-Dec-09	11.8	0.28	1,839	4,280
	31-Aug-09	8.9	ND	1,760	4,216
1-Jun-09	90.4	ND	1,620	3,060	
2-Mar-09	21.2	ND	1,580	3,970	
833-04	21-May-13	41.9	<1.66	875	3,180
	25-Feb-13	2.45	<1.72	1050	3,600
	19-Nov-12	50.0	<1.72	1010	3,770
	15-Aug-12	32.7	2.66	783	2,680
	3-May-12	24.1	<1.72	623	2,920
	15-Feb-12	49.9	<2.17	942	3,320
	1-Nov-11	43.4	<2.17	867	3,040
	21-Jul-11	45.3	2.52	883	3,410
	29-Apr-11	46.2	<2.17	902	3,280
	24-Jan-11	40.9	<2.05	755	3,040
	24-Sep-10	<50.0	<10.0	915	3,480
	28-Jun-10	18	<2.0	500	1,830
	23-Mar-10	11.3	ND	560	1,648
	14-Dec-09	11.2	0.42	570	1,750
	31-Aug-09	16.1	ND	630	1,986
1-Jun-09	3.03	ND	580	1,968	
2-Mar-09	14.6	ND	600	1,884	

**TABLE 4. DISCHARGE PLAN MONITORING WELL GROUNDWATER ANALYTICAL RESULTS  
DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Sampled	Nitrate as N (mg/l)	TKN (mg/l)	Chloride (mg/l)	TDS (mg/l)
833-05	21-May-13	14.7	<1.66	1,070	2,920
	26-Feb-13	16.8	<1.72	1,270	3,140
	20-Nov-12	15.0	2.10	1,070	3,100
	15-Aug-12	13.9	<1.72	1,100	3,250
	3-May-12	12.8	<1.72	1,030	2,790
	15-Feb-12	14.9	<2.17	1,230	3,100
	1-Nov-11	12.2	2.24	1,150	2,580
	21-Jul-11	12.0	2.66	1,210	3,180
	29-Apr-11	17.6	<2.17	1,330	3,300
	24-Jan-11	23.2	2.66	1,340	3,430
	24-Sep-10	28.9	<10.0	1,330	3,800
	28-Jun-10	12	<2.0	1,200	3,090
	23-Mar-10	12.2	ND	1,240	2,942
	14-Dec-10	6.7	0.56	1,280	3,096
	31-Aug-09	9.0	ND	1,220	3,152
1-Jun-09	3.43	ND	1,230	3,026	
2-Mar-09	11	ND	1,255	3,134	
833-06	20-May-13	25.9	<1.66	816	2,640
	25-Feb-13	21.6	<1.72	924	2,750
	19-Nov-12	24.2	<1.72	920	2,840
	15-Aug-12	23.4	<1.72	845	2,670
	3-May-12	20.7	<1.72	702	2,560
	14-Feb-12	26.4	<2.17	727	2,480
	2-Nov-11	28.8	3.08	688	1,900
	21-Jul-11	70.1	7.70	682	2,650
	4-May-11	36.4	7.70	717	2,440
	20-Jan-11	61.0	2.80	738	2,360
	23-Sep-10	64.3	<10.0	761	2,680
	28-Jun-10	23	<5.0	630	2,310
	23-Mar-10	24.8	2.38	700	2,184
	14-Dec-09	22.7	1.68	820	2,344
	31-Aug-09	25.1	1.96	790	2,708
1-Jun-09	106	ND	680	2,280	
2-Mar-09	66.4	ND	610	2,160	
833-07	21-May-13	88.7	<1.66	1,400	4,730
	26-Feb-13	95.5	<1.72	1,470	4,500
	20-Nov-12	95.1	<1.72	1,130	4,290
	15-Aug-12	99.8	2.52	1,540	5,110
	7-May-12	95.6	7.56	1,460	4,880
	15-Feb-12	90.3	<2.17	1,340	4,660
	1-Nov-11	94.2	<2.17	1,090	3,840
	21-Jul-11	105	<2.17	115	4,090
	29-Apr-11	100	<2.17	1,220	4,380
	24-Jan-11	100	2.10	1,140	4,350
	24-Sep-10	129	<10.0	933	3,800
	28-Jun-10	69	<5.0	1,300	4,160
	23-Mar-10	106	ND	1,320	3,884
	14-Dec-09	101	0.42	1,260	3,988
	31-Aug-09	74	8.68	1,180	3,978
1-Jun-09	12.4	8.68	1,180	3,964	
2-Mar-09	33.2	ND	1,380	3,866	

**TABLE 4. DISCHARGE PLAN MONITORING WELL GROUNDWATER ANALYTICAL RESULTS  
DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Sampled	Nitrate as N (mg/l)	TKN (mg/l)	Chloride (mg/l)	TDS (mg/l)
833-08	21-May-13	80.2	<1.66	953	3,320
	26-Feb-13	83.1	<1.72	877	2,940
	20-Nov-12	60.8	<1.72	1,070	3,580
	15-Aug-12	57.8	2.52	987	3,480
	3-May-12	61.4	<1.72	927	3,040
	15-Feb-12	77.6	<2.17	1,020	3,200
	1-Nov-11	69.8	4.20	966	3,080
	21-Jul-11	68.8	<2.17	963	3,240
	29-Apr-11	75.9	<2.17	950	3,330
	24-Jan-11	93.4	2.10	930	3,190
	23-Sep-10	91.8	<10.0	985	3,600
	28-Jun-10	35	<5.0	630	2,290
	23-Mar-10	33	ND	700	2,108
	14-Dec-09	31	ND	950	2,710
	31-Aug-09	63	ND	1,020	3,576
1-Jun-09	41.4	ND	1,000	3,492	
2-Mar-09	121	ND	700	2,038	
833-09	22-May-13	78.1	<1.66	786	3,630
	28-Feb-13	101	<1.72	876	4,060
	20-Nov-12	89.6	<1.72	731	3,760
	15-Aug-12	99.3	<1.72	875	3,780
	7-May-12	80.4	<1.72	745	3,830
	15-Feb-12	94.8	<2.17	725	3,580
	1-Nov-11	93.0	<2.17	779	3,880
	21-Jul-11	135	<2.17	1,070	4,550
	4-May-11	147	<2.17	1,420	5,540
	25-Jan-11	134	2.80	1,420	4,850
	24-Sep-10	58.2	<10.0	1,050	4,110
	28-Jun-10	50	<5.0	1,200	4,380
	23-Mar-10	16.3	0.56	1,100	3,624
	14-Dec-09	2.7	0.28	960	3,184
	31-Aug-09	6.6	ND	870	3,178
1-Jun-09	18.10	1.12	880	3,164	
2-Mar-09	7.07	ND	825	3,202	
833-10	22-May-13	3.96	<1.66	648	2,580
	28-Feb-13	4.19	<1.72	689	2,640
	20-Nov-12	4.25	<1.72	608	2,540
	15-Aug-12	4.93	2.52	585	2,530
	7-May-12	3.95	<1.72	581	2,350
	15-Feb-12	3.18	<2.17	582	2,440
	1-Nov-11	3.69	<2.17	573	2,590
	21-Jul-11	4.63	3.78	597	2,480
	4-May-11	5.19	<2.17	714	2,670
	25-Jan-11	8.46	2.10	649	2,730
	24-Sep-10	<10.0	<10.0	654	2,250
	28-Jun-10	3.6	<1.0	750	2,790
	23-Mar-10	6.8	ND	1,220	3,868
	14-Dec-09	3.7	0.14	790	2,576
	31-Aug-09	4.7	ND	750	2,548
1-Jun-09	7.1	ND	650	2,458	
2-Mar-09	2.43	ND	855	2,954	

**TABLE 4. DISCHARGE PLAN MONITORING WELL GROUNDWATER ANALYTICAL RESULTS  
DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Sampled	Nitrate as N (mg/l)	TKN (mg/l)	Chloride (mg/l)	TDS (mg/l)
<b>Sunset/Desert Land Dairy</b>					
257-01	22-May-13	33.6	<1.66	660	3,100
	21-Feb-13	28.3	<1.72	665	3,200
	21-Nov-12	24.7	2.80	625	3,130
	16-Aug-12	23.2	<1.72	617	3,060
	26-Apr-12	23.7	22.7	680	2,920
	9-Feb-12	19.4	<2.17	603	2,940
	1-Nov-11	28.4	<2.17	619	2,730
	22-Jul-11	44.8	<2.17	673	3,270
	26-Apr-11	103	3.78	870	4,440
	19-Jan-11	59.3	3.08	743	3,420
	24-Sep-10	58.0	<10.0	685	3,120
	28-Jun-10	100	<1.0	820	3,800
	24-Mar-10	187	ND	1,100	4,342
	14-Dec-09	71	0.14	910	3,860
	31-Aug-09	49	ND	880	3,706
2-Jun-09	64	ND	910	3,822	
3-Mar-09	89	ND	1,135	4,652	
257-02	22-May-13	3.39	<1.66	469	1,880
	21-Feb-13	10.3	<1.72	470	1,980
	21-Nov-12	10.0	2.80	468	2,060
	16-Aug-12	14.8	<1.72	484	2,170
	26-Apr-12	23.2	8.40	505	1,840
	9-Feb-12	11.1	<2.17	443	1,840
	1-Nov-11	19.3	2.24	442	3,150
	22-Jul-11	28.7	<2.17	501	2,160
	26-Apr-11	24.9	2.80	433	2,000
	19-Jan-11	13.3	2.52	455	1,500
	24-Sep-10	21.0	<10.0	445	1,590
	29-Jun-10	24	<1.0	560	2,180
	24-Mar-10	22.3	ND	570	1,840
	14-Dec-09	19.3	0.14	480	1,916
	31-Aug-09	14.2	ND	410	1,518
2-Jun-09	1.86	ND	500	1,690	
3-Mar-09	30.4	ND	495	1,632	
257-03	22-May-13	7.23	<1.66	658	2,640
	21-Feb-13	2.65	<1.72	520	2,060
	21-Nov-12	3.11	2.80	490	2,250
	16-Aug-12	17.6	2.10	509	2,420
	26-Apr-12	6.60	4.20	601	2,330
	14-Feb-12	11.2	<2.17	636	2,620
	1-Nov-11	7.37	2.80	537	2,210
	22-Jul-11	12.9	2.80	576	2,100
	26-Apr-11	12.5	5.88	525	2,400
	19-Jan-11	2.67	2.24	377	1,600
	24-Sep-10	8.00	<10.0	400	1,670
	29-Jun-10	17	1.1	660	2,570
	24-Mar-10	10.1	1.12	640	2,342
	14-Dec-09	5.9	0.56	760	2,638
	31-Aug-09	10.7	0.84	610	2,260
2-Jun-09	5.99	ND	570	2,284	
3-Mar-09	334*	ND	690	2,538	

**TABLE 4. DISCHARGE PLAN MONITORING WELL GROUNDWATER ANALYTICAL RESULTS  
DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Sampled	Nitrate as N (mg/l)	TKN (mg/l)	Chloride (mg/l)	TDS (mg/l)
257/260-01	22-May-13	2.39	<1.66	673	2,820
	21-Feb-13	9.35	<1.72	816	2,980
	21-Nov-12	13.0	3.50	722	3,020
	16-Aug-12	3.67	6.30	667	2,620
	26-Apr-12	6.83	2.80	575	2,660
	14-Feb-12	9.68	<2.17	565	2,180
	1-Nov-11	16.7	2.94	658	2,850
	22-Jul-11	4.66	3.64	440	1,860
	26-Apr-11	<0.500	4.34	624	2,580
	19-Jan-11	1.21	4.20	480	1,860
	24-Sep-10	11.0	<10.0	576	2,480
	30-Jun-10	5.4	<5.0	530	1,980
	23-Mar-10	5.0	ND	340	982
	14-Dec-09	45	26.32	220	520
	31-Aug-09	0.3	8.7	570	1,704
2-Jun-09	1.65	7.0	660	1,936	
3-Mar-09	3.98	1.12	555	1,908	
<b>McAnally Enterprises</b>					
MW-4	13-Mar-09	3.5	<0.5	2,110	5,686
<b>Southern Area</b>					
<b>Del Oro Dairy</b>					
692-01	28-May-13	82.4	<1.66	612	2,660
	27-Feb-13	87.9	<1.72	654	2,690
	30-Nov-12	117	<1.72	821	3,490
	20-Aug-12	Pump was not operational			
	8-May-12	163	<1.72	1,060	4,820
	17-Feb-12	166	7.28	1,090	4,000
	8-Nov-11	168	6.44	1,180	4,690
	29-Jul-11	176	<2.17	1,210	4,840
	22-Apr-11	140	3.22	998	3,880
	19-Jan-11	213	2.10	1,070	4,320
	1-Oct-10	222	<10.0	1,060	4,640
	30-Jun-10	230	<5.0	1,100	4,080
	30-Mar-10	117.5	3	1,080	3,991
	8-Dec-09	107	1	1,060	4,897
	12-Aug-09	127	3	1,120	4,955
4-May-09	120	3	1,160	4,295	
692-02	23-May-13	47.8	<1.66	742	2,720
	27-Feb-13	3.37	<1.72	396	1,520
	30-Nov-12	<0.0290	<1.72	358	1,450
	20-Aug-12	1.72	<1.72	371	1,460
	8-May-12	1.75	<1.72	339	1,350
	17-Feb-12	2.55	<2.17	410	1,490
	31-Oct-11	4.69	<2.17	451	1,720
	29-Jul-11	24.1	<2.17	504	2,280
	27-Apr-11	92.3	<10.0	921	3,080
	26-Jan-11	47.2	3.64	706	2,490
	1-Oct-10	Not Sampled			
	30-Jun-10	140	<5.0	1,100	3,520
	30-Mar-10	107.5	1	1,320	3,861
	8-Dec-09	96	1	1,200	4,073
	12-Aug-09	66	3	1,140	4,317
4-May-09	52	1	1,100	3,337	

**TABLE 4. DISCHARGE PLAN MONITORING WELL GROUNDWATER ANALYTICAL RESULTS  
DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO**

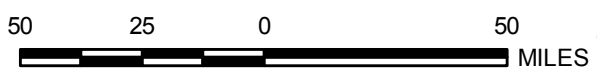
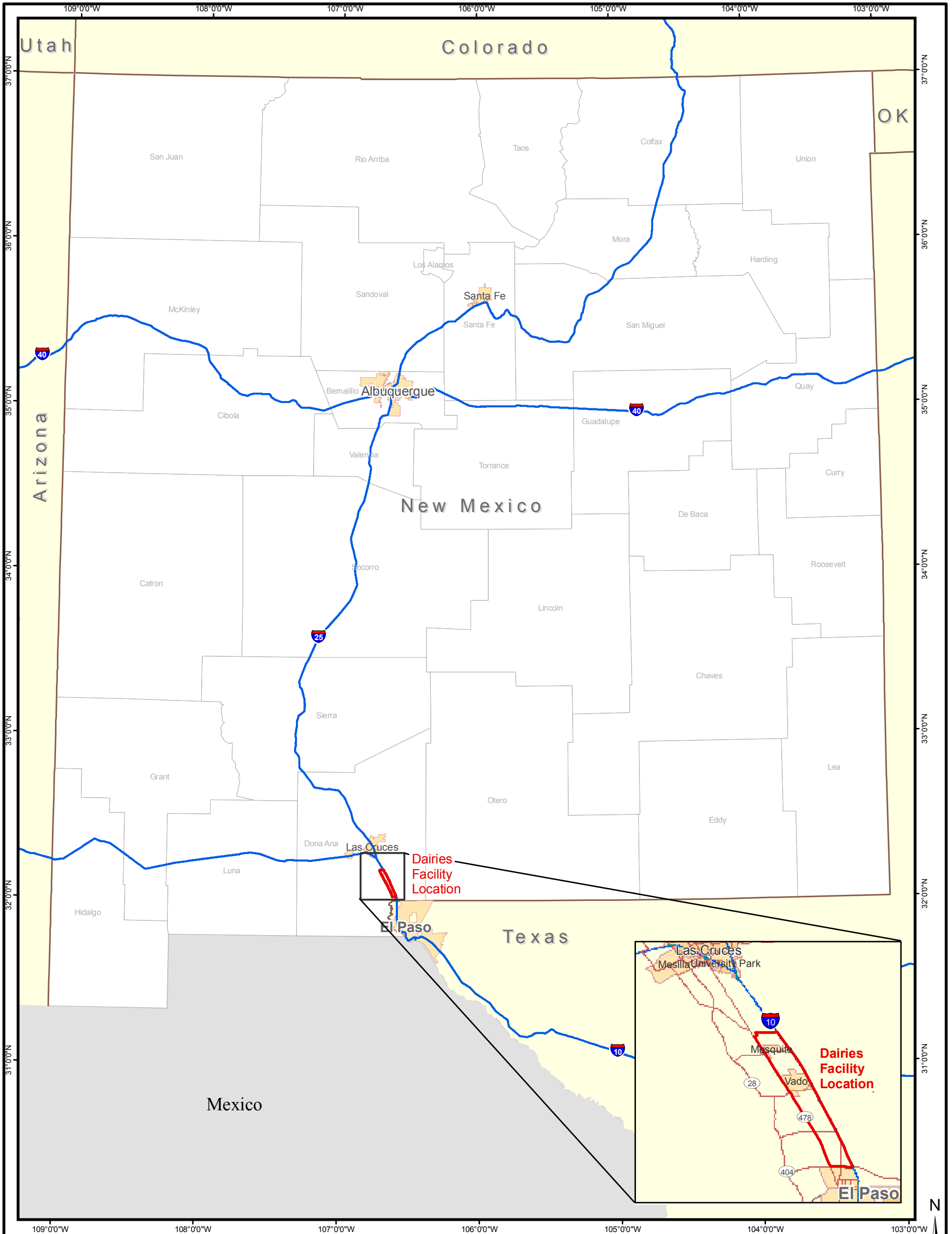
Monitoring Well	Date Sampled	Nitrate as N (mg/l)	TKN (mg/l)	Chloride (mg/l)	TDS (mg/l)
692-03	30-Mar-10	Plugged and Abandoned			
	4-May-09				
692-04	23-May-13	71.3	<1.66	676	2,740
	27-Feb-13	25.2	<1.72	625	2,390
	30-Nov-12	24.3	<1.72	573	2,540
	20-Aug-12	42.1	<1.72	689	2,850
	8-May-12	39.6	<1.72	652	2,490
	17-Feb-12	30.2	<2.17	557	2,060
	31-Oct-11	22.9	<2.17	477	1,600
	29-Jul-11	25.2	<2.17	503	1,960
	22-Apr-11	98.5	<2.17	893	3,240
	19-Jan-11	148	3.22	1040	3,740
	28-Sep-10	67.0	<10.0	802	3,060
	30-Jun-10	50	<5.0	590	2,050
	30-Mar-10	28	1	600	2,012
	8-Dec-09	31	1	590	2,069
	12-Aug-09	26	1	680	2,158
4-May-09	26	1	580	2,081	
692-05	28-May-13	1.90	<1.66	417	1,280
	27-Feb-13	2.16	<1.72	410	1,340
	29-Nov-12	2.28	<1.72	397	1,370
	16-Aug-12	2.73	17.6	455	1,520
	7-May-12	1.92	3.08	420	1,570
	17-Feb-12	2.52	<2.17	423	1,310
	8-Nov-11	2.30	2.94	383	1,230
	1-Aug-11	<1.00	3.50	420	1,710
	26-Apr-11	<2.50	<10.0	401	1,710
	19-Jan-11	4.12	2.10	443	1,280
	1-Oct-10	3.10	<10.0	420	1,430
	30-Jun-10	2.1	<1.0	500	1,490
	30-Mar-10	1.5	1	480	1,501
	8-Dec-09	1.4	1	540	1,538
	12-Aug-09	0.8	1	500	1,602
4-May-09	1.0	1	500	1,477	
692-06	23-May-13	2.71	<1.66	415	1,370
	27-Feb-13	2.81	<1.72	412	1,390
	4-Dec-12	2.19	<1.72	395	1,380
	16-Aug-12	3.24	3.36	418	1,400
	8-May-12	2.62	<1.72	397	1,620
	17-Feb-12	9.39	<2.17	459	1,200
	8-Nov-11	6.46	<2.17	425	1,450
	1-Aug-11	6.07	2.80	409	1,500
	26-Apr-11	4.50	<10.0	422	1,590
	19-Jan-11	4.95	2.10	431	1,360
	1-Oct-10	11.0	<10.0	373	1,490
	30-Jun-10	7.4	<1.0	440	1,470
	30-Mar-10	3.9	1	460	1,532
	8-Dec-09	2.3	1	540	1,609
	12-Aug-09	2.8	1	440	1,555
4-May-09	2.9	1	500	1,552	

**TABLE 4. DISCHARGE PLAN MONITORING WELL GROUNDWATER ANALYTICAL RESULTS  
DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO**

Monitoring Well	Date Sampled	Nitrate as N (mg/l)	TKN (mg/l)	Chloride (mg/l)	TDS (mg/l)
692-07	28-May-13	3.68	<1.66	524	1,530
	27-Feb-13	3.82	<1.72	563	1,630
	30-Nov-12	4.05	<1.72	535	1,660
	16-Aug-12	5.36	3.50	549	1,780
	8-May-12	3.55	<1.72	530	1,780
	17-Feb-12	4.76	<2.17	518	1,600
	12-Nov-11	5.22	<2.17	555	780
	1-Aug-11	<1.00	2.66	567	2,000
	26-Apr-11	39.3	<10.0	694	2,520
	19-Jan-11	17.2	2.38	589	1,100
	1-Oct-10	27.0	< 10.0	617	2,300
	30-Jun-10	Not Sampled			
	30-Mar-10	42	1	820	2,967
	8-Dec-09	28	1	860	3,131
	12-Aug-09	36	1	780	3,041
4-May-09	50	1	960	3,480	
692-08	28-May-13	3.49	<1.66	434	2,760
	27-Feb-13	6.27	<1.72	424	1,380
	30-Nov-12	11.70	<1.72	393	1,500
	20-Aug-12	2.98	<1.72	410	1,340
	8-May-12	1.84	<1.72	364	1,560
	17-Feb-12	3.94	<2.17	452	1,390
	8-Nov-11	2.60	2.80	436	1,340
	1-Aug-11	<1.00	<2.17	386	2,240
	26-Apr-11	3.49	<10.0	435	1,440
	19-Jan-11	3.26	<2.05	431	1,120
	1-Oct-10	5.70	<10.0	386	1,390
	30-Jun-10	3.5	<1.0	460	1,430
	30-Mar-10	3.0	1	520	1,518
	8-Dec-09	2.5	1	500	1,459
	12-Aug-09	1.8	1	520	1,476
4-May-09	2.0	1	480	1,476	
692-09	28-May-13	8.92	<1.66	457	1,410
	27-Feb-13	9.50	<1.72	465	1,440
	29-Nov-12	7.91	13.3	425	1,410
	20-Aug-12	7.71	<1.72	400	1,480
	7-May-12	7.80	<1.72	391	1,470
	17-Feb-12	6.89	<2.17	457	1,450
	8-Nov-11	10.6	<2.17	455	1,400
	1-Aug-11	12.6	<2.17	407	1,300
	26-Apr-11	10.8	<10.0	420	1,140
	18-Jan-11	12.0	<2.05	460	1,160
	1-Oct-10	15.0	<10.0	387	1,480
	30-Jun-10	22	<5.0	480	1,500
	30-Mar-10	11	1	520	1,606
	8-Dec-09	10	1	460	1,536
	12-Aug-09	6	1	460	1,675
4-May-09	6	1	480	1,545	
<b>NMWQCC Standard</b>		<b>10</b>	<b>NA</b>	<b>250</b>	<b>1,000</b>
NOTES:					
Data suspect					
ND = Non-detect					
NMWQCC = New Mexico Water Quality Control Commission					
TDS = Total dissolved solids					
TKN = Total Kjeldahl nitrogen					
Highlight is at or above NMWQCC Standard					

## **FIGURES**






SCALE 1:2,500,000  
WHEN PRODUCED AT 11X17IN

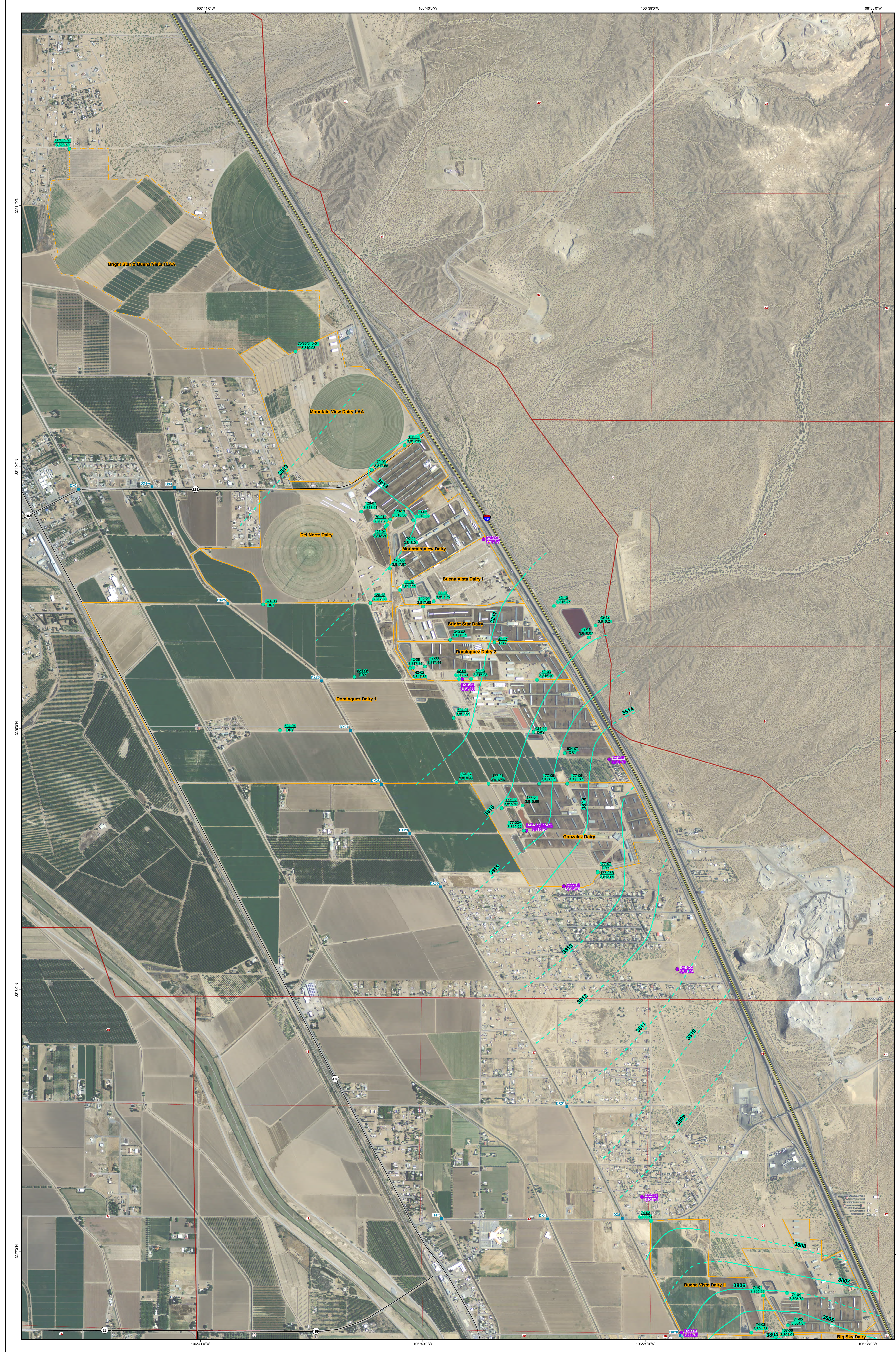
**LEGEND:**

 Facility Boundary

PROJECT		DOÑA ANA DAIRIES MESQUITE, NEW MEXICO	
TITLE		SITE LOCATION MAP	
	PROJECT No.	11x17_siteloc.mxd	
	DESIGN		SCALE AS SHOWN
	GIS		REV 0
	CHECK		
REVIEW		<p><b>FIGURE 1</b></p>	

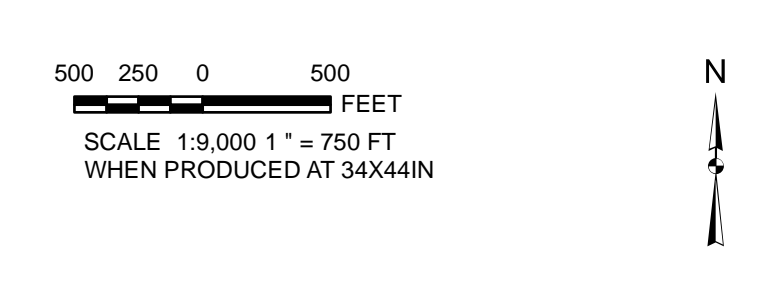
**REFERENCES**  
Base Data: ESRI, 2008.





- LEGEND**
- Drain Crossing Location
  - Discharge Plan Well With Water Elevations (Feet MSL)
  - Abatement Plan Well With Water Elevations (Feet MSL)
  - Potentiometric Contour
  - - - Potentiometric Contour - Assumed
  - Interstate Highway
  - State Highway
  - Other Road
  - Land Owned by Dairies
  - Land Application on Non-Dairy Property
  - Public Land Survey System
- Note:  
 \* = Suspect Data (Point not used in contouring)

**REFERENCES**  
 Roads: Doña Ana County, 2011  
 Aerial Photography: NARP, 2011  
 PLSS: BLM, 2000  
 Projection: State Plane NAD 83 New Mexico Central (feet)



PROJECT: DOÑA ANA DAIRIES  
 MESQUITE, NEW MEXICO

MAP: POTENTIOMETRIC SURFACE MAP,  
 MAY 2013, NORTHERN PORTION

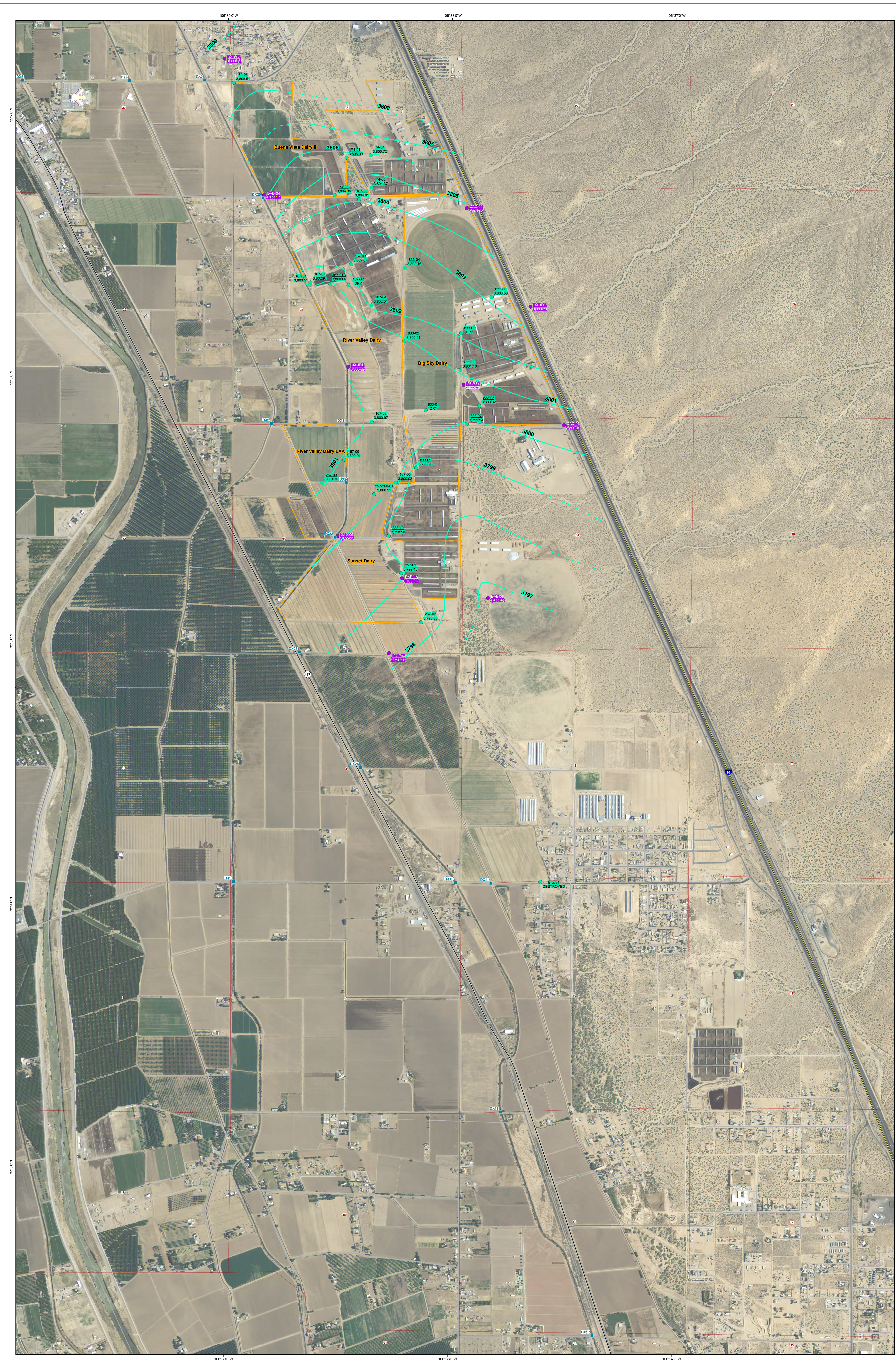
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DATE	05/13/13	BY	EA
SCALE	1:9,000	CHECKED	EA
PROJECT	DOÑA ANA DAIRIES	APPROVED	EA
DATE	05/13/13	BY	EA

**EA** ENGINEERING ADVISORS

FIGURE 2

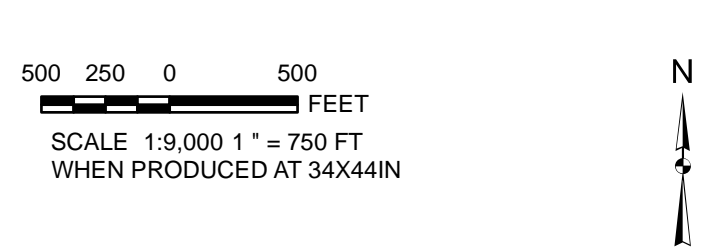
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- LEGEND**
- Drain Crossing Location
  - Discharge Plan Well With Water Elevations (Feet MSL)
  - Abatement Plan Well With Water Elevations (Feet MSL)
  - Potentiometric Contour
  - - - Potentiometric Contour - Assumed
  - Interstate Highway
  - State Highway
  - Other Road
  - Land Owned by Dairies
  - Land Application on Non-Dairy Property
  - Public Land Survey System

**REFERENCES**  
 Roads: Doña Ana County, 2001  
 Aerial Photography: NARP, 2011  
 PLSS: BLM, 2000  
 Projection: State Plane NAD 83 New Mexico Central (feet)



**PROJECT**  
 DOÑA ANA DAIRIES  
 MESQUITE, NEW MEXICO

**DATE**  
 POTENTIOMETRIC SURFACE MAP,  
 MAY 2013, CENTRAL PORTION

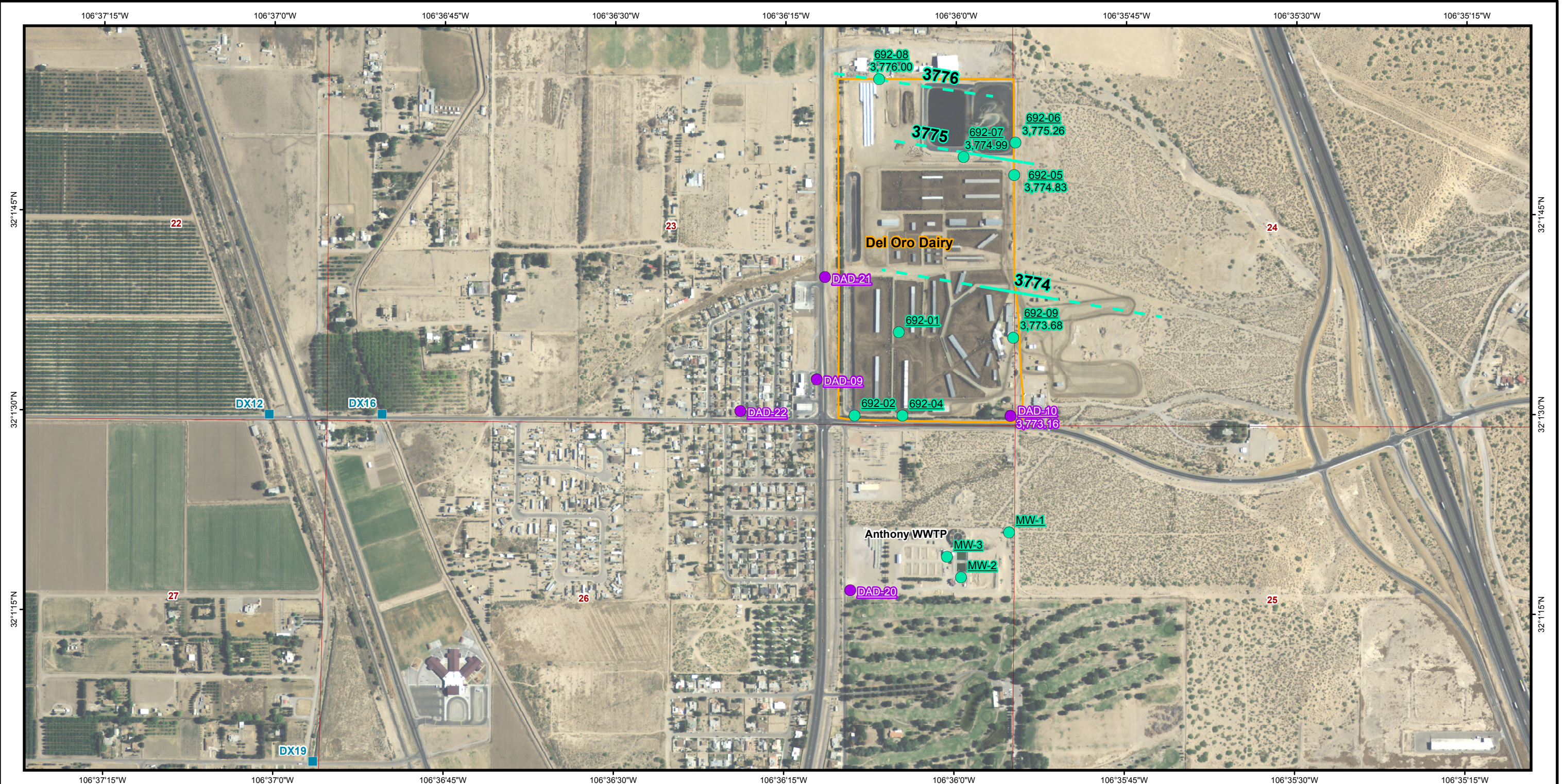
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DRAWN BY	WJL	CHECKED BY	WJL
DATE	05/20/13	DATE	05/20/13
SCALE	1" = 750'	SCALE	1" = 750'

**FIGURE 3**

2013 05/20/13 10:00 AM P:\Projects\13000000\13000000.dwg User: WJL Plot: 13000000.dwg



2013-07-31 P:\gis\Projects\donna ana\Dallas\_GIS\MapDocs\201305\Fig 4 SouthRegionAq\_Pot\_201305.mxd EA-Dallas mullen



- LEGEND:**
- Drain Crossing Location
  - Discharge Plan Well With Water Elevations (Feet MSL)
  - Abatement Plan Well With Water Elevations (Feet MSL)
  - Potentiometric Contour
  - - - Potentiometric Contour - Assumed
  - Land Owned by Dairies
  - Public Land Survey System

400 200 0 400  
 FEET  
 SCALE 1:9,000 1" = 750 FT  
 WHEN PRODUCED AT 11X17IN

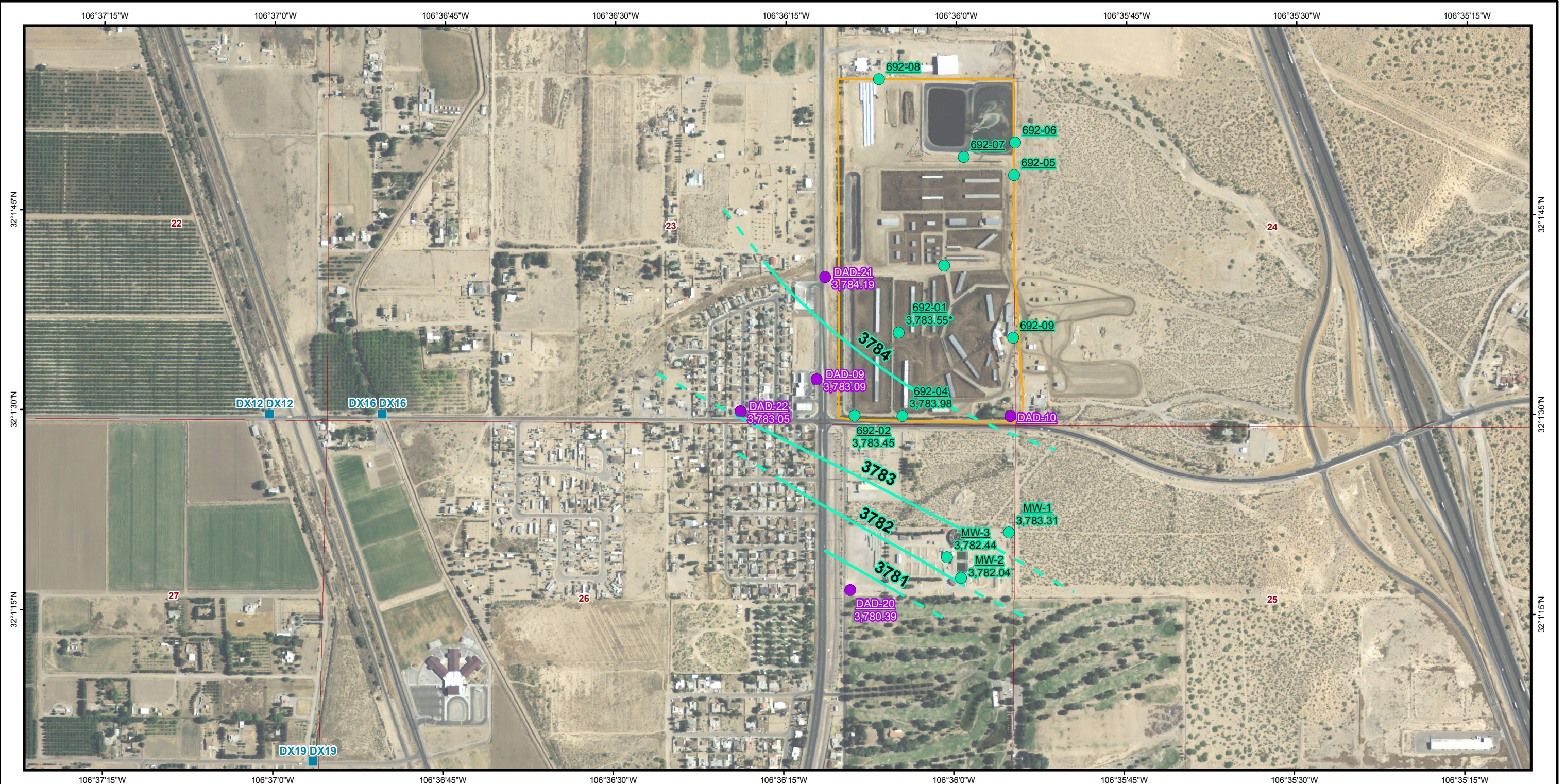


**REFERENCES**  
 Aerial Photography: NAIP, 2011  
 PLSS: BLM, 2000  
 Projection: State Plane NAD 83 New Mexico Central (feet)

<b>DOÑA ANA DAIRIES MESQUITE, NEW MEXICO</b>			
<b>POTENTIOMETRIC SURFACE MAP, MAY 2013, SOUTHERN PORTION REGIONAL AQUIFER</b>			
	PROJECT No. 1464103		Fig 4 SouthRegionAq_Pot.mxd
	DESIGN	NA	SCALE AS SHOWN
	GIS	RMM	REV 0
	CHECK		
	REVIEW		
			<b>FIGURE 4</b>



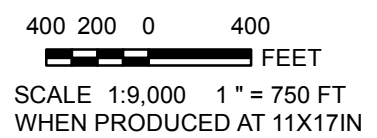
2013-08-16 P:\gis\projects\doña ana\dallas\_gis\mxd\201305\Fig 5 SouthPerchAq\_Pot\_201305.mxd EA-Dallas aspiiler



**LEGEND:**

- Drain Crossing Location
- Discharge Plan Well With Water Elevations (Feet MSL)
- Abatement Plan Well With Water Elevations (Feet MSL)
- Potentiometric Contour
- - - Potentiometric Contour - Assumed
- Land Owned by Dairies
- Public Land Survey System

**Note:**  
\* = Not used in contouring.



**REFERENCES**  
 Aerial Photography: NAIP, 2011  
 PLSS: BLM, 2000  
 Projection: State Plane NAD 83 New Mexico Central (feet)

<b>DOÑA ANA DAIRIES MESQUITE, NEW MEXICO</b>			
<b>POTENTIOMETRIC SURFACE MAP, MAY 2013, SOUTHERN PORTION PERCHED AQUIFER</b>			
	PROJECT No. 1464103		Fig 5 SouthPerchAq_Pot.mxd
	DESIGN	NA	SCALE AS SHOWN
	GIS	RMM	REV 0
	CHECK		
REVIEW			FIGURE 5







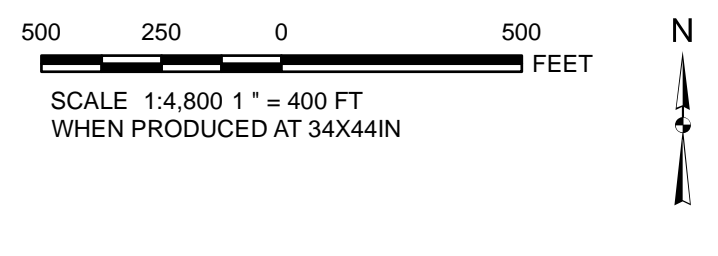


**LEGEND:**

- Interstate Highway
- State Highway
- Other Road
- Land Owned by Dairies
- Land Application on Non-Dairy Property
- Public Land Survey System

**Notes:**  
 Units are in milligrams per liter.  
 Cl = Chloride  
 NO<sub>3</sub> = Nitrate as N  
 TDS = Total Dissolved Solids

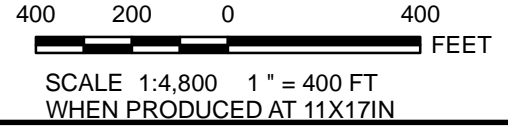
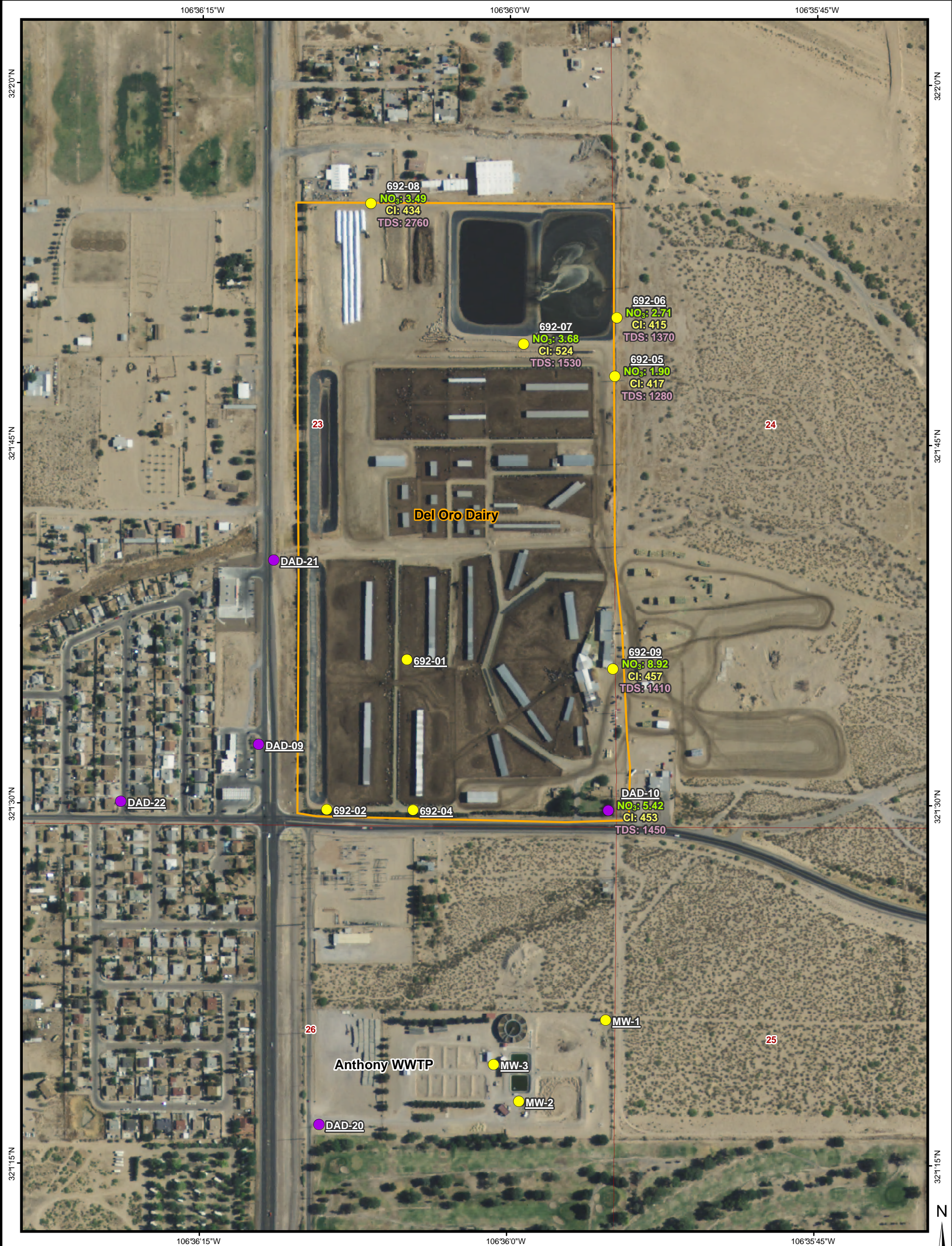
**REFERENCES**  
 Roads: Doña Ana County, 2001  
 Aerial Photography: NARP, 2011  
 F.S.S. 824, 2000  
 Projection: State Plane NAD 83 New Mexico Central (feet)



PROJECT	DOÑA ANA DAIRIES MESQUITE, NEW MEXICO		
DATE	MAY 2013		
TITLE	GROUND WATER ANALYTICAL RESULTS CENTRAL PORTION		
FIGURE	FIGURE 7		

2013-05-01 10:00 AM C:\Users\jgarcia\Documents\20130501\_1000\20130501\_1000.dwg





**LEGEND:**

- Land Owned by Dairies
- Public Land Survey System

**Notes:**  
Units are in milligrams per liter.

Cl = Chloride  
NO<sub>3</sub> = Nitrate as N  
TDS = Total Dissolved Solids

**REFERENCES**

Aerial Photography: NAIP, 2011  
PLSS: BLM, 2000  
Projection: State Plane NAD 83 New Mexico Central (feet)

<b>PROJECT</b>			
<b>DOÑA ANA DAIRIES MESQUITE, NEW MEXICO</b>			
<b>TITLE GROUNDWATER ANALYTICAL RESULTS MAY 2013, SOUTHERN PORTION, REGIONAL AQUIFER</b>			
	PROJECT No.		Fig8SouthRegionAq_Analytical.mxd
	DESIGN	NA	SCALE AS SHOWN
	GIS	RMM	REV 0
	CHECK		
	REVIEW		
			FIGURE 8





**LEGEND:**

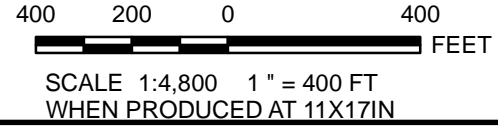
- Land Owned by Dairies
- Public Land Survey System

**Notes:**  
Units are in milligrams per liter.

Cl = Chloride  
NO<sub>3</sub> = Nitrate as N  
TDS = Total Dissolved Solids

**REFERENCES**

Aerial Photography: NAIP, 2011  
PLSS: BLM, 2000  
Projection: State Plane NAD 83 New Mexico Central (feet)



<b>PROJECT</b>			
<b>DOÑA ANA DAIRIES MESQUITE, NEW MEXICO</b>			
<b>TITLE</b>			
<b>GROUNDWATER ANALYTICAL RESULTS MAY 2013, SOUTHERN PORTION, PERCHED AQUIFER</b>			
	PROJECT No.	deloro_analytical_perched200908.mxd	
	DESIGN		SCALE AS SHOWN
	GIS		REV 0
	CHECK		
	REVIEW		
			<b>FIGURE 9</b>



**APPENDIX A  
SAMPLING FIELD FORMS**

MONITOR WELL FLUID GAUGING FIELD FORM  
DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO

Monitoring Well	Northing <sup>a</sup>	Easting <sup>a</sup>	Date	Time	Depth to Water (ft) <sup>b</sup>	Notes or Total Depth (ft) <sup>b</sup>
<b>NORTHERN AREA</b>						
<b>Northern Land Application Area (DP-340)</b>						
70-03	424580.78	1510233.88	5-7-13	8:59	53.87	65.10
70/86/340-01	427320.92	1508461.05	5-7-13	9:13	46.79	67.46
86/340-01	432021.33	1503216.90	5-7-13	8:15	52.65	71.13
<b>Del Norte Dairy (DP-126)</b>						
126-04	423258.23	1510546.24	5-7-13	9:54	32.01	37.99
126-05	422293.26	1510649.84	5-7-13	9:03	24.65	34.96
126-07	423613.62	1509986.47	5-7-13	10:09	32.33	38.30
126-09	425154.15	1510994.31	5-7-13	9:33	75.40	81.90
126-12	421492.11	1510198.45	5-7-13	9:50	21.05	30.03
126-13	423431.96	1510657.41	5-7-13	9:46	39.01	59.25
<b>Mountain View Dairy (DP-70)</b>						
70-01	423303.43	1510585.63	5-7-13	10:13	34.06	45.45
70-02	423412.73	1511192.51	5-7-13	10:19	43.16	49.53
<b>Buena Vista Dairy I (DP-86)</b>						
86-01	421534.62	1511667.76	5-7-13	10:33	47.21	54.23
86-02	421792.08	1510881.53	5-7-13	10:39	30.13	48.26
<b>Bright Star Dairy (DP-340)</b>						
340-01	421410.13	1511423.42	5-7-13	10:43	40.80	47.16
340-02	420641.08	1512051.57	5-7-13	10:49	52.34	56.63
<b>Gonzalez Dairy (DP-177)</b>						
177-01	417300.94	1512942.63	5-7-13	14:09	17.81	25.27
177-02	416738.21	1513246.51	5-7-13	14:12	18.69	25.31
177-03A	416206.71	1513777.17	5-7-13	14:52	20.53	35.93
177-04	416796.99	1513733.28	5-7-13	14:43	24.67	46.23
177-05	417302.42	1514116.55	5-7-13	14:32	36.74	49.02
177-06	417301.84	1514765.63	5-7-13	14:26	51.50	51.69
177-07R	415258.95	1515471.64	5-7-13	14:20	<del>44</del> 45.22	54.12
<b>Dominguez 2 Dairy (DP-42)</b>						
42-02	419982.45	1511126.19	5-7-13	11:25	26.53	NO TD HAS PUMP
42-03	419710.55	1514064.35	5-7-13	11:03	81.97	NO TD HAS PUMP
42-06	420021.61	1511465.15	5-7-13	11:30	32.71	NO TD HAS PUMP
42-07	420584.80	1513076.66	5-7-13	11:19	Dry	NO TD HAS PUMP
42-08	419994.93	1511197.91	5-7-13	11:28	28.69	NO TD HAS PUMP
42-09	419729.17	1512255.76	5-7-13	11:11	48.04	NO TD HAS PUMP
42-10	421426.39	1514460.40	5-7-13	13:20	112.81	NO TD HAS PUMP
42-11	420693.98	1515270.32	5-7-13	13:15	123.24	NO TD HAS PUMP
42-12	420972.09	1515423.88	5-7-13	13:31	129.59	NO TD HAS PUMP
42-13	419734.06	1512534.42	5-7-13	11:08	56.02	NO TD HAS PUMP

\* 70-04      5-7-13      10:31 -      31.80 - 47.93

MONITOR WELL FLUID GAUGING FIELD FORM  
 DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO

Monitoring Well	Northing <sup>a</sup>	Easting <sup>a</sup>	Date	Time	Depth to Water (ft) <sup>b</sup>	Notes or Total Depth (ft) <sup>c</sup>
<b>Dominguez I Dairy (DP-624)</b>						
624-01	418826.21	1512131.46	5/7/13	13:48	26.21	45.63
624-02	417335.25	1512201.42		13:50	19.01	31.44
624-04	418542.24	1508104.07		13:53	Dry	16.33
624-05	419777.52	1509829.65		13:59	Dry	17.24
624-06	418502.42	1513981.08		13:40	Dry	52.19
624-07	418012.23	1514707.77		13:43	Dry	55.56
624-08	421461.78	1507712.04		13:56	Dry	19.40
CENTRAL AREA						
<b>Buena Vista Dairy II (DP-74)</b>						
74-01	405434.93	1519310.15	5/7/13	11:25	35.02	45.25
74-02	404574.08	1519035.52	5/7/13	11:20	16.22	20.34
74-03	407163.61	1516711.72	5/7/13	11:10	14.85	20.12
74-04	405488.65	1519864.48	5/7/13	11:30	47.45	58.54
74-05	404747.71	1519885.30	5/7/13	11:38	40.98	57.15
<b>River Valley Dairy (DP-167)</b>						
167-01	402518.37	1518459.71	5/7/13	14:01	18:43	108.08
167-01A	402518.18	1518936.72	5/7/13	14:10	18:22	25.06
167-02	402498.30	1519354.81	5/7/13	13:53	Dry	23.49
167-03	402981.73	1519415.73	5/7/13	13:52	22.99	41.92
167-04	402032.19	1519884.60	5/7/13	13:48	25.59	29.69
167-05	397947.44	1520446.03	5/7/13	14:39	15.42	21.93
167-06	404479.35	1519603.88	5/7/13	13:28	30.83	37.77
167-07	402562.23	1518480.34	5/7/13	14:05	16.14	29.27
167-08	399352.96	1519889.65	5/7/13	14:17	16.99	33.64
167-09	398473.95	1519259.34	5/7/13	14:22	16.09	20.01
<b>Big Sky Dairy (DP-833)</b>						
833-01	399617.23	1521136.33	5/8/13	9:00	Dry	36.50
833-02	401200.32	1520639.92		8:41	35.13	57.46
833-03	401392.09	1521955.23		10:00	Dry	57.41
833-04	402898.52	1520659.33		8:24	43.63	54.05
833-05	399712.39	1522374.73		9:17	65.19	73.85
833-06	402219.48	1522652.04		10:04	74.67	85.11
833-07	399298.80	1522082.75		9:24	60.76	73.47
833-08	400535.64	1521938.23		9:10	60.60	72.89
833-09	398280.67	1520918.52		9:38	27.31	39.39
833-10	396715.89	1520283.60		9:50	22.26	37.12
<b>Sunset/Desert Land Dairy (DP-257)</b>						
257-01	395856.31	1520572.16	5/7/13	14:51	21.15	26.07
257-02	394728.34	1521030.29	5/7/13	15:00	15.04	20.82
257-03	397935.69	1518746.14	5/7/13	14:30	12.98	19.90
257/260-01	397678.36	1519948.22	5/7/13	14:44	13.93	20.32
SOUTHERN AREA						

check twice, no water

MONITOR WELL FLUID GAUGING FIELD FORM  
DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO

Monitoring Well	Northing	Easting	Date	Time	Depth to Water (ft)	Notes or Total Depth (ft)
<b>Del Oro Dairies (DP-692)</b>						
692-01	373615.88	1531529.38	5/7/13	10:14	60.58	has pump no TD
692-02	372984.72	1531192.10	5/7/13	9:56	57.39	66.22
692-04	372982.53	1531555.21	5/7/13	10:03	58.68	60.68
692-05	374807.26	1532403.00	5/7/13	9:05	79.43	has pump no TD
692-06	375054.77	1532411.83	5/7/13	9:12	81.22	90.13
692-07	374944.88	1532019.81	5/7/13	9:20	73.21	has pump no TD
692-08	375535.69	1531378.09	5/7/13	9:31	<del>67.88</del>	" " " 5/14/13
692-09	373575.83	1532395.09	5/7/13	9:40	82.64	" " "
<b>Anthony Waste Water Treatment Plant (DAD)</b>						
MW-1	372097.86	1532364.36	5-8-13	9:01	59.72	61.49
MW-2	NM	NM	5-8-13	9:08	61.21	63.58
MW-3	NM	NM	5-6-13	9:13	58.80	59.26
<b>ABA ELEMENT PLAN MONITOR WELLS</b>						
DAD-01	422970.59	1512825.76	5-7-13	10:45	68.48	76.31
DAD-02	413002.98	1517319.93	5-8-13	10:59	64.56	67.74
DAD-03	407721.31	1516497.85	5-8-13	11:13	11.87	14.21
DAD-04	404576.66	1517413.28	5-8-13	11:29	15.02	18.69
DAD-05	396712.87	1519102.06	5-8-13	9:54	15.78	23.60
DAD-06	404273.19	1522081.00	5-8-13	9:18	82.79	83.50
DAD-07	399270.18	1524320.88	5-8-13	9:29	90.89	100.77
DAD-08	395287.38	1522575.07	5-8-13	10:21	52.43	54.96
DAD-09	373259.30	1530905.70	5-8-13	10:37	54.94	62.75
DAD-10	372980.55	1532375.33	5-8-13	10:20	81.77	94.63
DAD-11	416211.35	1513814.71	5-8-13	10:20	20.70	35.47
DAD-12	419731.54	1512274.77	5-7-13	11:17	49.66	82.14
DAD-13	417879.08	1515673.13	5-8-13	9:40	84.96	92.77
DAD-14	414923.33	1514695.26	5-8-13	10:44	28.15	42.53
DAD-15	Installed 4/25/11	1525813	5-8-13	11:49	94.35	109.47
DAD-16	400628.77	1519350.74	5-8-13	10:57	18.49	32.62
DAD-17	393991.97	1520267.94	5-8-13	10:42	<del>28.45</del>	38.43 5/13/13
DAD-18	395714.14	1520588.96	5-8-13	10:30	<del>24.13</del>	56.93 5/13/13
DAD-19	400164.47	1522027.92	5-8-13	9:24	<del>65.93</del>	99.12 5/14/13
DAD-20	371751.45	1531188.19	5-8-13	11:23	52.88	69.02
DAD-21	374013.39	1530983.98	5-8-13	10:31	55.43	70.36
DAD-22	373029.62	1530352.69	5-8-13	10:47	<del>43.74</del>	50.03 5/14/13

67.09'  
TM

TM  
19.37'  
22.97' TM  
63.75' TM  
44.09'  
TM

NOTES:

- <sup>a</sup> Horizontal Control to NM State Plane Coordinates Central NAD83 Grid Coordinates (in feet)
- <sup>b</sup> Measured in feet below the top of casing at survey point on north side of well

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 833-06 Date Gauged 5-20-13  
 Site Big Sky Time Gauged 12:39  
 Depth to PSH \_\_\_\_\_ feet Well Diameter 4 inches  
 Depth to Water 74.66 feet Height of Fluid Column 10.44 feet  
 Total Depth 85.10 feet Volume in Well 6.89 gallons  
 (3 Well Volumes = 20.6 gallons)

13:42 GROUNDWATER SAMPLING DATA

Time/date Purged ~~02:20~~ 5-20-13 Purged Method low flow pump

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	+DS DO (mg/L)
14:03	14	14	29.2	4155	8.18	300	3127
14:07	1	15	25.7	4200	8.37	269	3178
14:13	1	16	26.3	4257	7.91	259	3185
14:15	1	17	24.7	4350	7.95	247	3267
14:17	1	18	23.9	4364	7.86	234	3286
14:19	1	19	23.6	4351	7.76	236	3293
14:21	1	20	23.4	4389	7.85	231	3316
14:25	1	21	23.9	4398	7.72	229	3331

Actual Purge Volume 21 gals Field Measurements stabilized within ± 10%

Time/Date Sampled 14:29 5-20-13 Purged/Sampled By Angel N. Rivera

Sample Method low flow pump

Requested Analyses \_\_\_\_\_

Comments/Observations \_\_\_\_\_

Well Casing Volumes

2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 5" diameter = 1.02 gal/ft 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 833-02 Date Gauged 5-21-13  
 Site Big Sky Time Gauged 8:48  
 Depth to PSH 0 feet Well Diameter 4 inches  
 Depth to Water 35.10 feet Height of Fluid Column 22.36 feet  
 Total Depth 57.46 feet Volume in Well 14.75 gallons  
 (3 Well Volumes = 44.2 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 8:50 5-21-13 Purged Method Bailer

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS DO (mg/L)
9:42	37	37	19.5	3738	8.49	150	2833
9:48	1	38	19.4	3905	8.44	151	2971
9:51	1	39	19.3	4124	8.38	154	3155
9:54	1	40	19.2	4238	8.27	160	3249
9:59	1	41	19.2	4456	8.21	164	3441
10:03	1	42	19.3	4676	8.17	169	3621
10:07	1	43	19.5	4759	8.12	172	3691
10:11	1	44	19.7	4920	7.97	183	3817

Actual Purge Volume 44 gals Field Measurements stabilized within ± 10%

Time/Date Sampled 10:15 5-21-13 Purged/Sampled By Angel N. Rivera

Sample Method Bailer

Requested Analyses \_\_\_\_\_

Comments/Observations \_\_\_\_\_

Well Casing Volumes  
 2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 5" diameter = 1.02 gal/ft 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 833-03 Date Gauged 5-21-13  
 Site Big Sky Time Gauged 8:41  
 Depth to PSH 0 feet Well Diameter 4 inches  
 Depth to Water Dry feet Height of Fluid Column 0 feet  
 Total Depth 57.40 feet Volume in Well 0 gallons  
 (3 Well Volumes = 0 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 0 Purged Method 0

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	DO (mg/L)

Actual Purge Volume 0 gals Field Measurements stabilized within ± 10%

Time/Date Sampled 0 Purged/Sampled By Angel N. Rivera

Sample Method 0

Requested Analyses \_\_\_\_\_

Comments/Observations Dry well, no sample or purged. only gauged.

Well Casing Volumes

2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 5" diameter = 1.02 gal/ft 6" diameter = 1.50 gal/ft



ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 833-04 Date Gauged 5-21-13  
 Site Big Sky Time Gauged 7:26  
 Depth to PSH 0 feet Well Diameter 4 inches  
 Depth to Water 43.60 feet Height of Fluid Column 10.45 feet  
 Total Depth 54.05 feet Volume in Well 6.89 gallons  
 (3 Well Volumes = 20.6 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 7:31 5-21-13 Purged Method Bailer

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS DO (mg/L)
7:56	14	14	20.0	4039	9.01	190	3091
8:01	1	15	20.1	3900	8.53	176	2991
8:05	1	16	19.4	4124	8.28	174	3188
8:10	1	17	19.8	4696	8.14	180	3669
8:14	1	18	20.0	4155	8.12	178	3212
8:21	1	19	19.9	4213	8.16	176	3240
8:28	1	20	19.5	4666	8.06	162	3622
8:32	1	21	19.3	4591	7.95	166	3582

Actual Purge Volume 21 gals Field Measurements stabilized within ± 10%

Time/Date Sampled 8:33 5-21-13 Purged/Sampled By Angel N. Rivera

Sample Method Bailer

Requested Analyses \_\_\_\_\_

Comments/Observations \_\_\_\_\_

Well Casing Volumes

2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 5" diameter = 1.02 gal/ft 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 833-05 Date Gauged 5-21-13  
 Site Big Sky Time Gauged 11:03  
 Depth to PSH      feet Well Diameter 4 inches  
 Depth to Water 65.16 feet Height of Fluid Column 8.68 feet  
 Total Depth 73.84 feet Volume in Well 5.72 gallons  
 (3 Well Volumes = 17.1 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 11:07 5-21-13 Purged Method Bailer

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS DO (mg/L)
11:17	10	10	23.6	4870	8.27	203	3766
11:19	1	11	22.8	4900	8.15	189	3779
11:21	1	12	22.6	4877	8.00	178	3756
11:23	1	13	23.6	4870	8.02	161	3743
11:25	1	14	22.2	4940	7.89	162	3815
11:27	1	15	22.8	4863	7.76	167	3752
11:29	1	16	22.6	4874	7.90	161	3741
11:32	1	17	22.4	4886	7.72	152	3768

Actual Purge Volume 17 gals Field Measurements stabilized within ± 10%

Time/Date Sampled 11:33 5-21-13 Purged/Sampled By Angel W. Rivera

Sample Method Bailer

Requested Analyses \_\_\_\_\_

Comments/Observations \_\_\_\_\_

Well Casing Volumes

2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 5" diameter = 1.02 gal/ft 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 833-07 Date Gauged 5-21-13  
 Site Big Sky Time Gauged 12:30  
 Depth to PSH \_\_\_\_\_ feet Well Diameter 4 inches  
 Depth to Water 60.78 feet Height of Fluid Column 12.73 feet  
 Total Depth 73.51 feet Volume in Well 8.40 gallons  
 (3 Well Volumes = 25.2 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 12:36 5-21-13 Purged Method Bailer

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS DO (mg/L)
12:58	18	18	23.1	7018	7.83	306	5571
13:03	1	19	22.4	7066	7.93	278	5630
13:08	1	20	22.2	7112	7.90	245	5669
13:13	1	21	22.5	7082	7.76	246	5652
13:18	1	22	22.4	7167	7.72	241	5691
13:22	1	23	22.1	7076	7.74	234	5642
13:27	1	24	22.2	7169	7.68	230	5713
13:34	1	25	23.0	7141	7.63	236	5701

Actual Purge Volume 25 gals Field Measurements stabilized within ± 10%

Time/Date Sampled 13:39 5-21-13 Purged/Sampled By Angel H. ...

Sample Method Bailer

Requested Analyses \_\_\_\_\_

Comments/Observations \_\_\_\_\_

Well Casing Volumes

2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 5" diameter = 1.02 gal/ft 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 833-08 Date Gauged 5-21-13  
 Site Big Sky Time Gauged 10:20

Depth to PSH 0 feet Well Diameter 4 inches  
 Depth to Water 60.58 feet Height of Fluid Column 12.28 feet  
 Total Depth 72.86 feet Volume in Well 8.10 gallons  
 (3 Well Volumes = 24.3 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 10:21 5-21-13 Purged Method Bailer ~~Booster low flow pump~~

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	+25 DO (mg/L)
10:42	17	17	22.8	4726	8.64	156	3626
10:44	1	18	23.0	4917	7.95	173	3797
10:46	1	19	22.6	4756	7.90	175	3659
10:48	1	20	22.8	5000	7.73	179	3871
10:51	1	21	22.5	5262	7.68	184	4092
10:53	1	22	22.9	5012	7.70	187	3880
10:55	1	23	23.1	5298	7.62	185	4113
10:57	1	24	22.9	5245	7.58	173	4078

Actual Purge Volume 24 gals Field Measurements stabilized within ± 10%

Time/Date Sampled 10:59 5-21-13 Purged/Sampled By Angel N. Rivera

Sample Method ~~Booster low flow pump~~ Bailer

Requested Analyses \_\_\_\_\_

Comments/Observations \_\_\_\_\_

Well Casing Volumes

2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 5" diameter = 1.02 gal/ft 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 833-09 Date Gauged 5-22-13  
 Site Big Sky Time Gauged 7:49  
 Depth to PSH \_\_\_\_\_ feet Well Diameter 4 inches  
 Depth to Water 27.28 feet Height of Fluid Column 12.11 feet  
 Total Depth 39.39 feet Volume in Well 7.99 gallons  
 (3 Well Volumes = 23.97 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 8:12 5-22-13 Purged Method low flow pump

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS (mg/L)
8:27	17	17	20.9	6226	7.28	284	4949
8:28	1	18	20.8	5823	7.62	264	4597
8:30	1	19	20.7	5781	7.57	256	4559
8:31	1	20	20.9	5707	7.78	252	4487
8:33	1	21	20.6	5628	7.86	244	4451
8:34	1	22	20.8	5590	7.92	238	4407
8:37	1	23	20.7	5541	8.06	235	4388
8:39	1	24	20.8	5511	7.73	236	4322

Actual Purge Volume 24 gals Field Measurements stabilized within ± 10%

Time/Date Sampled 8:41 5-22-13 Purged/Sampled By Angel N. Rivera

Sample Method Low flow Pump

Requested Analyses \_\_\_\_\_

Comments/Observations \_\_\_\_\_

Well Casing Volumes

2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 5" diameter = 1.02 gal/ft 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 833-10 Date Gauged 5-22-13  
 Site Big Sky Time Gauged 8:49  
 Depth to PSH 0 feet Well Diameter 4 inches  
 Depth to Water 22.27 feet Height of Fluid Column 14.86 feet  
 Total Depth 37.13 feet Volume in Well 9.80 gallons  
 (3 Well Volumes = 29.4 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 9:10 5-22-13 Purged Method low flow pump

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS DO (mg/L)
9:31	22	22	18.9	4188	8.67	84	3203
9:32	1	23	18.6	4115	8.23	122	3144
9:33	1	24	18.5	4108	8.09	143	3140
9:34	1	25	18.4	4100	8.00	154	3135
9:36	1	26	18.3	4117	7.90	160	3150
9:37	1	27	18.2	4106	7.86	163	3142
9:38	1	28	18.5	4118	7.78	161	3145
9:39	1	29	18.	4097	7.71	174	3132

Actual Purge Volume 29 gals Field Measurements stabilized within ± 10%

Time/Date Sampled 9:40 5-22-13 Purged/Sampled By Angel N. Rm

Sample Method Low flow pump

Requested Analyses \_\_\_\_\_

Comments/Observations \_\_\_\_\_

Well Casing Volumes

2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 5" diameter = 1.02 gal/ft 6" diameter = 1.50 gal/ft



ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 340-01 Date Gauged 5-9-13  
 Site Bright Star Time Gauged 13:31  
 Depth to PSH \_\_\_\_\_ feet Well Diameter 4 inches  
 Depth to Water 40.80 feet Height of Fluid Column 6.36 feet  
 Total Depth 47.16 feet Volume in Well 4.19 gallons  
 (3 Well Volumes = 12.5 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 13:33 5-9-13 Purged Method Bailer

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS (mg/L)
13:49	6	6	24.9	4638	8.23	277	3548
13:51	1	7	23.1	4710	7.97	276	3602
13:52	1	8	22.4	4656	7.87	303	3538
13:54	1	9	22.0	4642	7.82	296	3534
13:56	1	10	21.7	4538	7.61	284	3456
13:57	1	11	21.8	4490	7.56	282	3440
13:59	1	12	22.2	4556	7.74	316	3474
14:01	1	13	21.5	4507	7.84	324	3460

Actual Purge Volume 13 gals Field Measurements stabilized within ± 10%

Time/Date Sampled 14:02 5-9-13 Purged/Sampled By Anzel N. Rivera

Sample Method Bailer

Requested Analyses \_\_\_\_\_

Comments/Observations \_\_\_\_\_

Well Casing Volumes

2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 5" diameter = 1.02 gal/ft 6" diameter = 1.50 gal/ft



ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 340.02 Date Gauged 5-9-13  
 Site Bright Star Time Gauged 14:07  
 Depth to PSH \_\_\_\_\_ feet Well Diameter 4 inches  
 Depth to Water 52.34 feet Height of Fluid Column 4.29 feet  
 Total Depth 56.63 feet Volume in Well 2.83 gallons  
 (3 Well Volumes = 8.49 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 14:10 5-9-13 Purged Method Bailer

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS (mg/L)
14:10	1	1	23.6	4858	8.00	314	3744
14:13	1	2	22.1	4872	7.89	311	3750
14:17	1	3	22.2	4832	7.92	319	3733
14:20	1	4	22.4	4821	7.85	316	3727

Actual Purge Volume 4 gals Field Measurements stabilized within ± 10%   
 Time/Date Sampled 14:24 5-9-13 Purged/Sampled By Angel N. Rivera  
 Sample Method Bailer  
 Requested Analyses \_\_\_\_\_

Comments/Observations After 4 gals of purging, water flow went down, took sample @ 4 gals, could not purge anymore.

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 70/86/340-01 Date Gauged 5-9-13  
 Site Bright Star Time Gauged 8:21  
 Depth to PSH \_\_\_\_\_ feet Well Diameter 4 inches  
 Depth to Water 46.77 feet Height of Fluid Column 20.69 feet  
 Total Depth 67.46 feet Volume in Well 13.65 gallons  
 (3 Well Volumes = 40.9 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 8:24 5-9-13 Purged Method Bailey

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS (mg/L)
<del>8:24</del> 9:10	34	34	18.0	7839	7.64	146	6391
9:12	1	35	19.7	7952	7.91	166	6490
9:13	1	36	20.7	8122	7.76	170	6637
9:15	1	37	19.8	8289	7.67	174	6754
9:17	1	38	19.7	8682	7.70	179	7176
9:19	1	39	19.9	9054	7.56	180	7485
9:22	1	40	19.7	9205	7.57	181	7618
9:24	1	41	19.8	9329	7.57	186	7661

Actual Purge Volume 41 gals Field Measurements stabilized within ± 10%

Time/Date Sampled 9:26 5-9-13 Purged/Sampled By Angel N. Rivera

Sample Method Bailey

Requested Analyses \_\_\_\_\_

Comments/Observations \_\_\_\_\_

Well Casing Volumes

2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 5" diameter = 1.02 gal/ft 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 86/340-1 Date Gauged 5/9/13  
 Site Bright star Time Gauged 7:10 Am  
 Depth to PSH — feet Well Diameter 4 inches  
 Depth to Water 52.65 feet Height of Fluid Column 18.5 feet  
 Total Depth 52.65 feet Volume in Well 12.21 gallons  
 (3 Well Volumes = 36.63 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 7:15 5-9-13 Purged Method Bailer

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS DO (mg/L)
7:42	30	30	19.6	4423	7.52	138	3460
7:44	31	31	19.3	4370	8.08	141	3396
7:46	32	32	19.2	4362	8.04	145	3386
7:47	33	33	19.1	4392	8.00	146	3366
7:48	34	34	19.6	4341	7.96	152	3360
7:51	35	35	19.0	4382	8.01	165	3401
7:53	36	36	19.1	4390	7.93	160	3391
7:55	37	37	19.3	4373	7.91	164	3396

Actual Purge Volume 37 gals Field Measurements stabilized within ± 10%

Time/Date Sampled 7:58 5-9-13 Purged/Sampled By Angel M. Rivera

Sample Method Bailer

Requested Analyses \_\_\_\_\_

Comments/Observations \_\_\_\_\_

Well Casing Volumes

2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 5" diameter = 1.02 gal/ft 6" diameter = 1.50 gal/ft

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 Tel (806) 794-1296  
 Fax (806) 794-1298

155 McCutcheon, Ste. H El Paso, TX 79932  
 Tel (915) 585-3443  
 Fax (915) 585-4944

**TraceAnalysis, Inc.**  
 Phone #: 915-859-8150  
 Cell #: \_\_\_\_\_  
 Fax #: \_\_\_\_\_  
 E-mail: [vayala@dhpump.com](mailto:vayala@dhpump.com)

**Company Name:** D&H Petroleum & Environmental Services  
**Address:** (Street, City, Zip) 1221 Tower Trail Ln., El Paso, Texas 79907  
**Contact Person:** Victor Ayala  
**Invoice to (if different from above):** Buena Vista Dairy #2, P.O. Box 346, Mesquite, NM 88048  
**Project #:** 415798  
**Project Name:** Buena Vista Dairy #2

**Project Location (including state):** Buena Vista Dairy #2, 16910 Stern Drive, Mesquite, NM  
**Sampler Signature:** *Victor Ayala*

LAB #	Field Code	# Containers	Volume/Amount	MATRIX			PRESERVATIVE METHOD				SAMPLING		
				WATER	AIR	SLUDGE	HCl	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	NaOH	ICE	NONE	DATE
74-1		1	250ml	X			X		X			5-16-13	9:05
74-1		1	250ml	X			X		X			5-16-13	9:05
74-2		1	250ml	X			X		X			5-16-13	8:37
74-2		1	250ml	X			X		X			5-16-13	8:37
74-3		1	250ml	X			X		X			5-16-13	8:06
74-3		1	250ml	X			X		X			5-16-13	8:06
74-4		1	250ml	X			X		X			5-16-13	10:57
74-4		1	250ml	X			X		X			5-16-13	10:57
74-5		1	250ml	X			X		X			5-16-13	10:10
74-5		1	250ml	X			X		X			5-16-13	10:10
74 Lagoon		1	250ml	X			X		X			5-16-13	9:27
74 Lagoon		1	250ml	X			X		X			5-16-13	9:27

**ANALYSIS REQUEST**

MTBE 8021B/602	
BTEX 8021B/602	
TPH 418.1 / TX1005	
TX 1005 Extended (C35)	
PAH 8270C	
PAH 8270 (Low Level Analysis)	
Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	
Nitrates EPA 300	X
Total Kjeldahl Nitrogen SM 4500 NORG C	X
Chloride EPA 300.0	X
Total Dissolved Solids SM 2540 C MOD	X

Turn Around Time \_\_\_\_\_

Hold \_\_\_\_\_

Relinquished By: *Victor Ayala* Date: 5-16-13 Time: 14:53  
 Relinquished By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Received By: *San H. [Signature]* Date: 5-16-13 Time: 19:53  
 Received at Laboratory By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Lab Use Only  
 Intact Y / N  
 Headspace Y / N  
 Temp 1/3-C ice.  
 Log-in Review \_\_\_\_\_

Remarks: *TPH, Cl, NO3 = SP*

Dry Weight Basis Required   
 TRRP Report Required

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 7401 Date Gauged 05.10.13  
 Site BUANAVISTA II Time Gauged 5:45  
 Depth to PSH 7 feet Well Diameter 4 inches  
 Depth to Water 35.02 feet Height of Fluid Column 10.23 feet  
 Total Depth 45.25 feet Volume in Well 4.75 gallons  
 (3 Well Volumes = 20.25 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 05.10.13 Purged Method LOW FLOW PUMP

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS DO (mg/L)
8:55	13	13	23.2	4895	7.85	151	3781
8:56	1	14	22.1	4962	7.83	154	3839
8:57	1	15	21.8	4940	7.76	155	3811
8:58	1	16	20.6	4935	7.74	156	3803
8:59	1	17	21.6	4959	7.79	157	3828
9:00	1	18	22.0	4988	7.73	150	3853
9:01	1	19	21.7	4961	7.78	148	3840
9:02	1	20	20.4	4872	7.64	149	3756

Actual Purge Volume 20 gals Field Measurements stabilized within ± 10%

Time/Date Sampled 05.10.13 9:05 Purged/Sampled By ANGEL RIVERA

Sample Method LOW FLOW PUMP

Requested Analyses \_\_\_\_\_

Comments/Observations \_\_\_\_\_

Well Casing Volumes

2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 5" diameter = 1.02 gal/ft 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 74-02 Date Gauged 5-16-13  
 Site Bulna Vista II Time Gauged 8:17  
 Depth to PSH 0 feet Well Diameter 4 inches  
 Depth to Water 16.19 feet Height of Fluid Column 4.14 feet  
 Total Depth 20.33 feet Volume in Well 2.73 gallons  
 (3 Well Volumes = 8.19 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 8:19 5-16-13 Purged Method Bailer

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS DO (mg/L)
8:22	1	1	21.0	3530	8.51	174	2627
8:23	1	2	20.6	3490	8.18	179	2603
8:25	1	3	20.8	3442	7.98	180	2576
8:26	1	4	20.6	3414	8.02	178	2551
8:28	1	5	20.5	3407	7.99	179	2549
8:31	1	6	20.4	3403	7.94	177	2542
8:33	1	7	20.5	3395	7.88	175	2530
8:35	1	8	20.7	3384	7.82	166	2524

Actual Purge Volume 8 gals Field Measurements stabilized within ± 10%

Time/Date Sampled 8:37 5-16-13 Purged/Sampled By Angel N. Rivera

Sample Method Bailer

Requested Analyses \_\_\_\_\_

Comments/Observations \_\_\_\_\_

Well Casing Volumes

2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 5" diameter = 1.02 gal/ft 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 74-03 Date Gauged 5-16-13  
 Site Buena Vista II Time Gauged 7:36  
 Depth to PSH \_\_\_\_\_ feet Well Diameter 4 inches  
 Depth to Water 14.84 feet Height of Fluid Column 5.28 feet  
 Total Depth 20.12 feet Volume in Well 3.48 gallons  
 (3 Well Volumes = 10.4 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 7:41 5-16-13 Purged Method Bailer

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS DO (mg/L)
7:48	3	3	21.3	6408	8.20	210	5097
7:51	1	4	20.8	6172	8.12	209	4870
7:53	1	5	20.4	6135	8.03	207	4844
7:55	1	6	20.8	5969	7.98	204	4769
7:58	1	7	20.7	5999	7.95	201	4731
8:00	1	8	20.6	6003	7.89	199	4744
8:02	1	9	20.8	5943	7.84	196	4690
8:04	1	10	20.7	5936	7.75	199	4681

Actual Purge Volume 10 gals Field Measurements stabilized within ± 10%

Time/Date Sampled 8:06 5-16-13 Purged/Sampled By Angel N. Rivera

Sample Method Bailer

Requested Analyses \_\_\_\_\_

Comments/Observations \_\_\_\_\_

Well Casing Volumes

2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 5" diameter = 1.02 gal/ft 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 74-04 Date Gauged 5-16-13  
 Site Buena Vista II Time Gauged 10:16  
 Depth to PSH 0 feet Well Diameter 4 inches  
 Depth to Water 47.45 feet Height of Fluid Column 11.09 feet  
 Total Depth 58.54 feet Volume in Well 7.31 gallons  
 (3 Well Volumes = 21.9 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 10:21 5-16-13 Purged Method Bailer

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS DO (mg/L)
10:38	15	15	22.5	3108	8.38	157	2301
10:40	1	16	22.1	3118	8.22	164	2277
10:42	1	17	22.0	3124	8.04	168	2295
10:44	1	18	21.5	3140	8.03	182	2319
10:46	1	19	21.6	3128	7.98	187	2299
10:49	1	20	21.5	3114	8.10	189	2322
10:52	1	21	21.4	3127	8.00	196	2288
10:54	1	22	21.5	3141	7.91	191	2304

Actual Purge Volume 22 gals Field Measurements stabilized within ± 10%

Time/Date Sampled 10:57 5-16-13 Purged/Sampled By Angel N Rivera

Sample Method Bailer

Requested Analyses \_\_\_\_\_

Comments/Observations \_\_\_\_\_



ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 7405 Date Gauged 05.10.13  
 Site Buena Vista II Time Gauged 9:31  
 Depth to PSH ∅ feet Well Diameter 4 inches  
 Depth to Water 40.98 feet Height of Fluid Column 16.17 feet  
 Total Depth 57.15 feet Volume in Well 10.67 gallons  
 (3 Well Volumes = 32.01 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 9:40 05.10.13 Purged Method LOW FLOW PUMP

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS DO (mg/L)
10:00	25	25	22.3	3029	8.51	128	2233
10:01	1	26	22.1	3018	8.05	138	2225
10:02	1	27	21.7	3034	7.92	140	2242
10:03	1	28	22.0	3023	7.90	143	2235
10:04	1	29	22.6	3035	7.806	145	2240
10:05	1	30	21.7	3027	7.75	148	2235
10:06	1	31	22.0	3032	7.70	150	2240
10:07	1	32	21.5	3035	7.72	154	2235

Actual Purge Volume 32 gals Field Measurements stabilized within ± 10%

Time/Date Sampled 10:10 05.10.13 Purged/Sampled By ANGEL RIVERA

Sample Method LOW FLOW PUMP

Requested Analyses \_\_\_\_\_

Comments/Observations \_\_\_\_\_

Well Casing Volumes

2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 5" diameter = 1.02 gal/ft 6" diameter = 1.50 ga/ft

6701 Aberdeen, Ste. 9  
 Lubbock, TX 79424  
 Tel (806) 794-1298  
 Fax (806) 794-1298

155 McCutcheon, Ste. H  
 El Paso, TX 79932  
 Tel (915) 585-3443  
 Fax (915) 585-4944

**TraceAnalysis, Inc.**  
 CHAIN-OF-CUSTODY AND ANALYSIS REQUEST  
 Page 1 of 1

Company Name: D&H Petroleum & Environmental Services  
 Address: (Street, City, Zip) 1221 Tower Trail Ln., El Paso, Texas 79907  
 Contact Person: Victor Ayala  
 Project #: 415787

LAB Order ID # \_\_\_\_\_  
 ANALYSIS REQUEST

Project Name: Linda Armstrong 575-233-3620  
 Daybreak Dairy  
 Sampler Signature: *[Signature]*

PH 418.1 / TX1005  
 BTEX 8021B/602  
 MTRB 8021B/602

LAB #	Field Code	# Containers	Volume/Amount	MATRIX				PRESERVATIVE METHOD				Sampling		
				WATER	SOIL	AIR	SLUDGE	HCl	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	NaOH	ICE	NONE	DATE
126-4		1	250ml	X				X		X			5-10-13	9:47
126-4		1	250ml	X				X		X			5-10-13	9:47
126-5		1	250ml	X				X		X			5-10-13	9:01
126-5		1	250ml	X				X		X			5-10-13	9:01
126-7		1	250ml	X				X		X			5-10-13	10:31
126-7		1	250ml	X				X		X			5-10-13	10:31
126-9		1	250ml	X				X		X			5-10-13	12:45
126-9		1	250ml	X				X		X			5-10-13	12:45
126-12		1	250ml	X				X		X			5-10-13	8:04
126-12		1	250ml	X				X		X			5-10-13	8:04
126-13		1	250ml	X				X		X			5-10-13	11:41
126-13		1	250ml	X				X		X			5-10-13	11:41
126 Lagoon		1	250ml	X				X		X			5-10-13	12:09
126 Lagoon		1	250ml	X				X		X			5-10-13	12:09

ANALYSIS REQUEST	Turn Around Time
Hold	
TX 1005 Extended (C35)	
PAH 8270C	
PAH 8270 (Low Level Analysis)	
Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	
Nitrates EPA 300	
Total Kjeldahl Nitrogen SM 4500 NORG C	
Chloride EPA 300.0	
Total Dissolved Solids SM 2540 C MOD	
Phosphorus SM 4500	

Relinquished By: *[Signature]* Date: 5-10-13 Time: 13:45  
 Received By: *[Signature]* Date: 5-10-13 Time: 13:45  
 Lab Use Only: Intact  / N  
 Headspace  / N  
 Temp *2/4 Scale*  
 Log-in Review \_\_\_\_\_

Remarks: *no 3 / TDS / Cl in EPA*  
 Dry Weight Basis Required  
 TRRP Report Required

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 126-04 Date Gauged ~~9:12~~ 5-10-13  
 Site Del Norte Time Gauged 9:12  
 Depth to PSH \_\_\_\_\_ feet Well Diameter 4 inches  
 Depth to Water 32.01 feet Height of Fluid Column 5.98 feet  
 Total Depth 37.99 feet Volume in Well 3.94 gallons  
 (3 Well Volumes = 11.8 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 9:15 5-10-13 Purged Method Bailer

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS DO (mg/L)
9:29	5	5	20.6	3668	8.66	217	2776
9:31	1	6	20.3	3576	8.31	264	2708
9:34	1	7	20.2	3602	8.13	248	2733
9:37	1	8	20.4	3578	7.98	203	2707
9:38	1	9	20.1	3619	7.95	205	2719
9:41	1	10	20.5	3611	8.02	193	2740
9:43	1	11	20.4	3638	7.91	179	2756
9:45	1	12	20.3	3672	7.80	161	2743

Actual Purge Volume 12 gals Field Measurements stabilized within ± 10%   
 Time/Date Sampled 9:47 5-10-13 Purged/Sampled By Angel N. Rivera  
 Sample Method Bailer  
 Requested Analyses \_\_\_\_\_  
 Comments/Observations \_\_\_\_\_

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 126-05 Date Gauged 5-10-13  
 Site Del Norte Time Gauged 8:09  
 Depth to PSH \_\_\_\_\_ feet Well Diameter 2 inches  
 Depth to Water 24.65 feet Height of Fluid Column 1031 feet  
 Total Depth 34.94 feet Volume in Well 1.75 gallons  
 (3 Well Volumes = 5.25 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 8:21 AM 05-10-13 Purged Method Bailer

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS + DO (mg/L)
8:29	1	1	19.2	4809	8.53	291	3760
8:33	1	2	18.7	4684	8.34	335	3434
8:40	1	3	18.6	4402	8.22	301	3500
8:47	1	4	18.5	4569	8.33	269	3547
8:54	1	5	19.1	4531	8.25	273	3527

Actual Purge Volume 5 gals Field Measurements stabilized within ± 10%

Time/Date Sampled 9:01 05-10-13 Purged/Sampled By Angel Rivera

Sample Method Bailer

Requested Analyses \_\_\_\_\_

Comments/Observations water flow went down after 2-3 gals. left bailer inside well for a while.

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 1216-07 Date Gauged 5-10-13  
 Site Del Norte Time Gauged 10:05  
 Depth to PSH \_\_\_\_\_ feet Well Diameter 2 inches  
 Depth to Water 32.34 feet Height of Fluid Column 5.96 feet  
 Total Depth 38.30 feet Volume in Well 1.01 gallons  
 (3 Well Volumes = 3 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 10:09 5-10-13 Purged Method Bailer

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS (mg/L)
10:14	1	1	20.7	3792	8.08	176	2865
10:18	1	2	20.9	3866	7.88	170	2926
10:25	1	3	21.2	3901	7.91	154	2955

Actual Purge Volume 3 gals Field Measurements stabilized within ± 10%   
 Time/Date Sampled 10:31 5-10-13 Purged/Sampled By Angel V. Zuer  
 Sample Method Bailer  
 Requested Analyses \_\_\_\_\_  
 Comments/Observations \_\_\_\_\_

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 126-09 Date Gauged 5-10-13  
 Site Del Norte Time Gauged 12:19  
 Depth to PSH \_\_\_\_\_ feet Well Diameter 2 inches  
 Depth to Water 75.38 feet Height of Fluid Column 6.48 feet  
 Total Depth 81.86 feet Volume in Well 1.10 gallons  
 (3 Well Volumes = 3.3 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 12:22 5-10-13 Purged Method Bailer

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS DO (mg/L)
12:26	1	1	24.3	4433	7.92	163	3380
12:30	1	2	23.3	4494	8.09	183	3396
12:37	1	3	22.9	4418	7.83	196	3351

Actual Purge Volume 3 gals Field Measurements stabilized within ± 10%

Time/Date Sampled 12:45 5-10-13 Purged/Sampled By Angel H Rivera

Sample Method Bailer

Requested Analyses \_\_\_\_\_

Comments/Observations water flow went down. Took a while to get 3 gals.

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 126-12 Date Gauged 5-10-13  
 Site Del Norte Time Gauged 7:18  
 Depth to PSH \_\_\_\_\_ feet Well Diameter 4 inches  
 Depth to Water 21.05 feet Height of Fluid Column 8.98 feet  
 Total Depth 30.03 feet Volume in Well 5.92 gallons  
 (3 Well Volumes = 17.7 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 7:31 5-10-13 Purged Method Bailer

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS DO (mg/L)
7:48	11	11	19.0	3541	9.00	217	2669
7:53	1	12	18.6	3546	8.41	304	2675
7:55	1	13	18.7	3525	8.30	321	2656
7:57	1	14	19.1	3518	8.08	311	2669
7:59	1	15	18.8	3520	8.00	306	2656
8:00	1	16	19.2	3527	7.95	302	2672
8:01	1	17	18.3	3546	8.02	329	2681
8:03	1	18	18.2	3540	7.93	321	2706

Actual Purge Volume 18 gals Field Measurements stabilized within ± 10%

Time/Date Sampled 8:04 5-10-13 Purged/Sampled By Angel N. Rivera

Sample Method Bailer

Requested Analyses \_\_\_\_\_

Comments/Observations \_\_\_\_\_

Well Casing Volumes

2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 5" diameter = 1.02 gal/ft 6" diameter = 1.50 ga/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 126-13 Date Gauged 5-10-13  
 Site Del Norte Time Gauged 11:08  
 Depth to PSH \_\_\_\_\_ feet Well Diameter 2 inches  
 Depth to Water 39.03 feet Height of Fluid Column 20.22 feet  
 Total Depth 59.25 feet Volume in Well 3.43 gallons  
 (3 Well Volumes = 10.3 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 11:11 5-10-13 Purged Method Bailer

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS DO (mg/L)
11:20	3	3	22.6	4682	8.13	286	3598
11:22	1	4	21.3	4745	7.92	294	3650
11:24	1	5	20.6	4765	7.81	283	3668
11:26	1	6	20.4	4739	7.76	282	3651
11:29	1	7	20.7	4751	7.71	292	3671
11:32	1	8	20.3	4790	7.86	303	3683
11:34	1	9	20.6	4755	7.82	244	3674
11:37	1	10	20.8	4740	7.71	270	3685

Actual Purge Volume 1 gals Field Measurements stabilized within ± 10%   
 Time/Date Sampled 11:41 5-10-13 Purged/Sampled By Angel P. Rivera  
 Sample Method Bailer  
 Requested Analyses \_\_\_\_\_  
 Comments/Observations \_\_\_\_\_



ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 1092-04 Date Gauged 5-23-13  
 Site Det ord Time Gauged 11:19  
 Depth to PSH 18 feet Well Diameter 4 inches  
 Depth to Water 58.68 feet Height of Fluid Column 2 feet  
 Total Depth 60.68 feet Volume in Well 1.32 gallons  
 (3 Well Volumes = 3.96 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 11:22 5-23-13 Purged Method Boiler

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS <del>DO</del> (mg/L)
11:27	.5	.5	23.4	4199	8.18	254	3186
11:30	.5	1	23.7	4156	7.41	250	3143
11:33	.5	1.5	22.9	4115	7.48	246	3093
11:41	.5	2	23.1	4081	7.94	225	3075
11:44	.5	2.5	23.4	4052	7.69	227	3058
11:48	.5	3	23.3	4020	7.54	229	3046
11:53	.5	3.5	23.6	4012	7.55	245	3035
11:57	.5	4	23.7	4041	7.44	279	3051

Actual Purge Volume 4 gals Field Measurements stabilized within ± 10%

Time/Date Sampled 12:09 5-23-13 Purged/Sampled By Angel N. Puma

Sample Method Boiler

Requested Analyses \_\_\_\_\_

Comments/Observations \_\_\_\_\_

Well Casing Volumes

2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 5" diameter = 1.02 gal/ft 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 692-02 Date Gauged 5-23-13  
 Site Del Oro Time Gauged 10:11  
 Depth to PSH 0 feet Well Diameter 4 inches  
 Depth to Water 57.38 feet Height of Fluid Column 8.84 feet  
 Total Depth 66.22 feet Volume in Well 5.83 gallons  
 (3 Well Volumes = 17.5 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 10:16 5-23-13 Purged Method Railer

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	FDS DO (mg/L)
10:37	11	11	25.5	3549	8.18	244	2661
10:39	1	12	23.1	3476	7.98	257	2588
10:42	1	13	22.6	3601	7.88	285	2690
10:48	1	14	22.5	3712	7.76	341	2758
10:54	1	15	22.1	4152	7.65	317	3132
10:58	1	16	21.9	3906	7.57	336	2920
11:03	1	17	21.8	4127	7.53	331	3110
11:07	1	18	22.0	4068	7.66	315	3080

Actual Purge Volume 18 gals Field Measurements stabilized within ± 10%

Time/Date Sampled 11:11 5-23-13 Purged/Sampled By Angel H. Rivera

Sample Method Railer

Requested Analyses \_\_\_\_\_

Comments/Observations \_\_\_\_\_

Well Casing Volumes

2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 5" diameter = 1.02 gal/ft 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID W12-06 Date Gauged 5-23-13  
 Site DeLoro Time Gauged 7:58

Depth to PSH \_\_\_\_\_ feet Well Diameter 4 inches  
 Depth to Water 81.22 feet Height of Fluid Column 8.89 feet  
 Total Depth 90.11 feet Volume in Well 5.86 gallons  
 (3 Well Volumes = 17.6 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 8:11 5-23-13 Purged Method Bailer

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS DO (mg/L)
8:27	11	11	22.6	2270	8.54	186	1650
8:32	1	12	22.0	2280	8.26	210	1641
8:37	1	13	21.9	2269	8.07	224	1635
8:42	1	14	21.7	2254	8.05	214	1653
8:49	1	15	21.6	2243	7.99	258	1630
8:55	1	16	21.8	2255	8.69	247	1642
8:59	1	17	21.9	2250	7.83	233	1631
9:06	1	18	21.6	2230	7.72	246	1618

Actual Purge Volume 18 gals Field Measurements stabilized within ± 10%

Time/Date Sampled 9:13 5-23-13 Purged/Sampled By Angel N Rivera

Sample Method Bailer

Requested Analyses \_\_\_\_\_

Comments/Observations \_\_\_\_\_

Well Casing Volumes

2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 5" diameter = 1.02 gal/ft 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 692-09 Date Gauged 5-28-13

Site Del Oro Time Gauged 12:39

Depth to PSH 0 feet Well Diameter 4 inches

Depth to Water \_\_\_\_\_ feet Height of Fluid Column 0 feet

Total Depth Pump feet Volume in Well 0 gallons

(3 Well Volumes = 25 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 12:41 5-28-13 Purged Method well pump

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS DO (mg/L)
12:55	5	5	24.0	2292	8.11	299	1658
13:03	5	10	23.9	2273	7.84	280	1645
13:17	5	15	23.7	2307	7.77	277	1661
13:28	5	20	23.6	2315	7.63	298	1655
13:33	5	25	25.4	2333	7.83	284	1678

Actual Purge Volume 25 gals Field Measurements stabilized within ± 10%

Time/Date Sampled 13:36 5-28-13 Purged/Sampled By Angel M. Rivera

Sample Method well pump

Requested Analyses \_\_\_\_\_

Comments/Observations \_\_\_\_\_

Well Casing Volumes  
2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 5" diameter = 1.02 gal/ft 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 692-01 Date Gauged 5-28-13  
 Site Delloro Time Gauged 13:42

Depth to PSH 0 feet Well Diameter 4 inches  
 Depth to Water 60.53 feet Height of Fluid Column 0 feet  
 Total Depth Pump feet Volume in Well 0 gallons  
 (3 Well Volumes = 25 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 13:48 5-28-13 Purged Method well pump

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS DO (mg/L)
13:54	5	5	24.7	3246	7.94	225	2730
13:56	5	10	23.1	3895	7.85	294	2928
14:00	5	15	22.7	3924	7.83	306	2954
14:04	5	20	23.4	4012	7.68	233	3009
14:08	5	25	22.7	3973	7.60	225	2981

Actual Purge Volume 25 gals Field Measurements stabilized within ± 10%   
 Time/Date Sampled 14:12 5-28-13 Purged/Sampled By Angel Rivera  
 Sample Method well pump  
 Requested Analyses \_\_\_\_\_  
 Comments/Observations \_\_\_\_\_

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 1692-05 Date Gauged 5-28-13  
 Site Del Oro Time Gauged 11:43

Depth to PSH Ø feet Well Diameter 4 inches  
 Depth to Water 79.41 feet Height of Fluid Column Ø feet  
 Total Depth Pump feet Volume in Well Ø gallons  
 (3 Well Volumes = 5 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 11:45 5-28-13 Purged Method well pump

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS (mg/L)
11:48	1	1	24.8	2126	8.46	304	1537
11:53	1	2	23.7	2218	8.33	320	1593
11:57	1	3	23.3	2205	8.16	315	1599
12:04	1	4	22.7	2183	8.06	303	1606
12:08	1	5	23.1	2241	7.82	290	1620

Actual Purge Volume 5 gals Field Measurements stabilized within ± 10%

Time/Date Sampled 12:17 5-28-13 Purged/Sampled By Angel N Rina

Sample Method well pump

Requested Analyses \_\_\_\_\_

Comments/Observations \_\_\_\_\_

Well Casing Volumes

2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 5" diameter = 1.02 gal/ft 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 692-07 Date Gauged 5-28-13  
 Site Del Oro Time Gauged 10:44  
 Depth to PSH Ø feet Well Diameter 4 inches  
 Depth to Water 73.21 feet Height of Fluid Column Ø feet  
 Total Depth Pump feet Volume in Well Ø gallons  
 (3 Well Volumes = Ø 25 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 10:52 5-28-13 Purged Method well pump

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS (mg/L)
10:59	5	5	23.5	2534	8.47	277	1861
11:10	5	10	24.4	2546	8.15	264	1855
11:16	5	15	26.4	2543	7.90	243	1858
11:23	5	20	26.8	2576	7.99	257	1842
11:29	5	25	26.0	2556	7.74	313	1863

Actual Purge Volume 25 gals Field Measurements stabilized within ± 10%

Time/Date Sampled 11:39 5-28-13 Purged/Sampled By Angel H Rivera

Sample Method well pump

Requested Analyses \_\_\_\_\_

Comments/Observations water flows is low.

Well Casing Volumes

2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 5" diameter = 1.02 gal/ft 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 692-08 Date Gauged 5-28-13  
 Site Del Oro Time Gauged 9:18  
 Depth to PSH 0 feet Well Diameter 4 inches  
 Depth to Water 67.88 feet Height of Fluid Column 0 feet  
 Total Depth Pump feet Volume in Well 0 gallons  
 (3 Well Volumes = 25 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 9:32 5-28-13 Purged Method well pump

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS <del>DO</del> (mg/L)
9:39	5	5	23.4	2216	8.08	156	1613
9:47	5	10	23.2	2202	8.00	133	1595
9:58	5	15	23.3	2194	7.82	102	1583
10:14	5	20	22.9	2206	7.77	91	1594
10:26	5	25	22.7	2188	7.62	74	1576

Actual Purge Volume 25 gals Field Measurements stabilized within ± 10%   
 Time/Date Sampled 10:34 5-28-13 Purged/Sampled By Angel nPina  
 Sample Method well pump  
 Requested Analyses \_\_\_\_\_  
 Comments/Observations \_\_\_\_\_





MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 624-01 Date Gauged 5-13-13  
 Site Dominguez 1 Time Gauged 8:59  
 Depth to PSH \_\_\_\_\_ feet Well Diameter 4 inches  
 Depth to Water 26.20 feet Height of Fluid Column 19.43 feet  
 Total Depth 45.63 feet Volume in Well 12.82 gallons  
 (3 Well Volumes = 38.47 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 9:13 5-13-13 Purged Method Bailer

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS DO (mg/L)
9:57	31	31	20.5	5124	9.20	167	3992
10:05	1	32	19.9	4501	8.69	182	3450
10:07	1	33	20.1	4483	8.57	183	3413
10:09	1	34	20.0	4601	8.41	181	3441
10:13	1	35	20.3	4683	8.30	180	3597
10:17	1	36	19.9	4717	8.16	178	3635
10:19	1	37	19.7	4703	8.09	175	3621
10:25	1	38	20.4	4731	8.19	170	3633

Actual Purge Volume 38 gals Field Measurements stabilized within ± 10%

Time/Date Sampled 10:28 5-13-13 Purged/Sampled By Angel N Rivera

Sample Method Bailer

Requested Analyses \_\_\_\_\_

Comments/Observations \_\_\_\_\_

Well Casing Volumes  
 2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 5" diameter = 1.02 gal/ft 6" diameter = 1.50 gal/ft

MONITOR WELL DEVELOPMENT FIELD FORM

FLUID LEVEL DATA

Well ID 624-02 Date Gauged 5-13-13  
 Site Dominquez 2 Time Gauged 10:55  
 Depth to PSH \_\_\_\_\_ feet Well Diameter 4 inches  
 Depth to Water 19.03 feet Height of Fluid Column 12.38 feet  
 Total Depth 31.41 feet Volume in Well 8.17 gallons  
 (10 Well Volumes = 24.5 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 10:56 5-13-13 Purged Method Boiler

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS DO (mg/L)
11:28	18	18	20.0	5137	8.45	160	3983
11:30	/	19	19.1	5238	8.08	227	4070
11:33	/	20	19.4	5146	7.93	215	4015
11:36	/	21	19.3	5134	7.80	214	4010
11:39	/	22	19.6	5128	7.73	210	4004
11:42	/	23	19.2	5143	7.72	208	4015
11:45	/	24	19.4	5162	7.69	208	4019
11:48	/	25	19.8	5139	7.61	202	4006

Actual Purge Volume 25 gals Field Measurements stabilized within ± 10%   
 Time/Date Sampled 11:52 5-13-13 Purged/Sampled By Angel N Rivera  
 Sample Method Boiler  
 Requested Analyses \_\_\_\_\_  
 Comments/Observations \_\_\_\_\_

Well Casing Volumes  
 2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 5" diameter = 1.02 gal/ft 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 624-04 Date Gauged 5-13-13  
 Site Dominguez 1 Time Gauged 13:39

Depth to PSH ∅ feet Well Diameter 4 inches  
 Depth to Water Dry feet Height of Fluid Column ∅ feet  
 Total Depth 1636 feet Volume in Well ∅ gallons  
 (3 Well Volumes = ∅ gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged ∅ Purged Method ∅

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	DO (mg/L)

Actual Purge Volume ∅ gals Field Measurements stabilized within ± 10% ∅

Time/Date Sampled ∅ Purged/Sampled By Angel V. Rivera

Sample Method ∅

Requested Analyses \_\_\_\_\_

Comments/Observations Dry well, gauged only, cannot purge or sample.

Well Casing Volumes

2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 5" diameter = 1.02 gal/ft 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 624-05 Date Gauged 5-13-13  
 Site Dominquez 1 Time Gauged 13:46  
 Depth to PSH 0 feet Well Diameter 4 inches  
 Depth to Water Dry feet Height of Fluid Column 0 feet  
 Total Depth 17.22 feet Volume in Well 0 gallons  
 (3 Well Volumes = 0 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 0 Purged Method 0

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	DO (mg/L)

Actual Purge Volume 0 gals Field Measurements stabilized within ± 10% 0  
 Time/Date Sampled 0 Purged/Sampled By Angel N. Rivera  
 Sample Method 0  
 Requested Analyses \_\_\_\_\_  
 Comments/Observations Check twice using water level meter  
no water, Dry well. No sample or purge gals.

Well Casing Volumes  
 2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 5" diameter = 1.02 gal/ft 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 624-06 Date Gauged 5-13-13

Site Dominguez 1 Time Gauged 13:09

Depth to PSH 0 feet Well Diameter 4 inches

Depth to Water Dry feet Height of Fluid Column \_\_\_\_\_ feet

Total Depth 52.18 feet Volume in Well \_\_\_\_\_ gallons

(3 Well Volumes = \_\_\_\_\_ gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 0 Purged Method 0

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	DO (mg/L)

Actual Purge Volume 0 gals Field Measurements stabilized within ± 10% 0

Time/Date Sampled 0 Purged/Sampled By Angel N. Rivera

Sample Method 0

Requested Analyses \_\_\_\_\_

Comments/Observations well is dry cannot purge or sample.  
Only engaged again.

Well Casing Volumes  
2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 5" diameter = 1.02 gal/ft 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 624-07 Date Gauged 5-13-13  
 Site Dominquez 1 Time Gauged 13:13  
 Depth to PSH 0 feet Well Diameter 4 inches  
 Depth to Water Dry feet Height of Fluid Column 0 feet  
 Total Depth 55.55 feet Volume in Well 0 gallons  
 (3 Well Volumes = 0 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 0 Purged Method 0

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	DO (mg/L)

Actual Purge Volume 0 gals Field Measurements stabilized within ± 10% 0  
 Time/Date Sampled 0 Purged/Sampled By Angel N. Rivera  
 Sample Method 0  
 Requested Analyses \_\_\_\_\_  
 Comments/Observations well is dry, cannot purge or sample  
only gauged.

Well Casing Volumes  
 2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 5" diameter = 1.02 gal/ft 6" diameter = 1.50 ga/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 624-08 Date Gauged 5-13-13  
 Site Dominquez 1 Time Gauged 13:55  
 Depth to PSH 0 feet Well Diameter 4 inches  
 Depth to Water Dry feet Height of Fluid Column 6 feet  
 Total Depth 19.38 feet Volume in Well 0 gallons  
 (3 Well Volumes = 0 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 0 Purged Method 0

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	DO (mg/L)

Actual Purge Volume 0 gals Field Measurements stabilized within ± 10% 0

Time/Date Sampled 0 Purged/Sampled By Angel N. Rivas

Sample Method None

Requested Analyses \_\_\_\_\_

Comments/Observations Dry well cannot purge or sample.  
only gauged 2-3 times.

Well Casing Volumes  
 2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 5" diameter = 1.02 gal/ft 6" diameter = 1.50 gal/ft



# TraceAnalysis, Inc.

6707 Aberdeen, Ste. 9 Lubbock, TX 79424 Tel (806) 794-1296 Fax (806) 794-1298  
 155 McCutcheon, Ste. H El Paso, TX 79932 Tel (915) 585-3443 Fax (915) 585-4944

Phone #: 915-859-8150

Cell #:

Company Name: D&H Petroleum & Environmental Services

Address: (Street, City, Zip)

1221 Tower Trail Ln., El Paso, Texas 79907

Contact Person: Victor Ayala

Invoice to (if different from above):

Dominguez Dairy #2, P.O. Box 21, Mesquite, NM 88048

Isaac Dominguez 575-649-7040

Project Name: Dominguez Dairy #2

Project #: 415785

Sampler Signature: *Isaac Dominguez*

Project Location (including state): Dominguez Dairy #2, 13600 Stern Drive, Mesquite, NM

LAB #	Field Code	# Containers	Volume/Amount	MATRIX				PRESERVATIVE METHOD				SAMPLING			
				WATER	AIR	SOIL	SLUDGE	HCl	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	NaOH	ICE	NONE	DATE	TIME
42-2		1	250ml	X				X	X	X	X			5-14-13	10:53
42-2		1	250ml	X				X	X	X	X			5-14-13	10:53
42-3		1	250ml	X				X	X	X	X			5-14-13	8:44
42-3		1	250ml	X				X	X	X	X			5-14-13	8:44
42-6		1	250ml	X				X	X	X	X			5-14-13	12:18
42-6		1	250ml	X				X	X	X	X			5-14-13	12:18
42-7		1		X				X	X	X	X				
42-7		1		X				X	X	X	X				
42-8		1	250ml	X				X	X	X	X			5-14-13	11:32
42-8		1	250ml	X				X	X	X	X			5-14-13	11:32
42-9		1	250ml	X				X	X	X	X			5-14-13	9:12
42-9		1	250ml	X				X	X	X	X			5-14-13	9:12
42-10		1	250ml	X				X	X	X	X			5-14-13	14:44
42-10		1	250ml	X				X	X	X	X			5-14-13	14:44
42-11		1	250ml	X				X	X	X	X			5-14-13	13:48
42-11		1	250ml	X				X	X	X	X			5-14-13	13:48
42-11		1	250ml	X				X	X	X	X			5-14-13	13:48

Relinquished By: *Calvin Rivas* Date: 5-14-13 Time: 15:43  
 Received at Laboratory By: *Danny de la Hoya T.A.* Date: 5-14-13 Time: 15:43  
 Relinquished By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_  
 Received at Laboratory By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Lab Use Only  
 Intact  Y  N  
 Headspace  Y  N  
 Temp *12-1*  *3/4*   
 Log-in Review \_\_\_\_\_

Remarks: *TRNG Lubbock ICE Carry in*  
 Dry Weight Basis Required   
 TRRP Report Required

ANALYSIS REQUEST

Method	Result
TPH 418.1 / TX1005	
BTEX 8021B/602	
MTBE 8021B/602	
TX 1005 Extended (C35)	
PAH 8270C	
PAH 8270 (Low Level Analysis)	
Total Metals Ag As BA Cd Cr Pb Se Hg 6010B/200.7	
Nitrates EPA 300	X
Total Kjeldahl Nitrogen SM 4500 NORG C	X
Chloride EPA 300.0	X
Total Dissolved Solids SM 2540 C MOD	X

LAB Order ID # \_\_\_\_\_

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

155 McCutcheon, Ste. H El Paso, TX 79932  
 Tel (915) 585-3443 Fax (915) 585-4944

6701 Aberdeen, Ste. 9  
 Lubbock, TX 79424  
 Tel (806) 794-1296  
 Fax (806) 794-1298

**TraceAnalysis, Inc.**  
 155 McCutcheon, Ste. H El Paso, TX 79932  
 Tel (915) 585-3443  
 Fax (915) 585-4944

**Company Name:** D&H Petroleum & Environmental Services  
**Address:** (Street, City, Zip) 1221 Tower Trail Ln., El Paso, Texas 79907  
**Contact Person:** Victor Ayala  
**Phone #:** 915-859-8150  
**Cell #:** \_\_\_\_\_  
**Fax #:** \_\_\_\_\_  
**E-mail:** vayala@dhpump.com

**Invoice to (if different from above):** Isaac Dominguez 575-649-7040  
**Dominguez Dairy #2, P.O. Box 21, Mesquite, NM 88048**  
**Project #:** 415785  
**Project Name:** Dominguez Dairy #2

**Project Location (including state):** Dominguez Dairy #2, 13600 Stern Drive, Mesquite, NM  
**Sampler Signature:** *Chad NR*

LAB # (LAB USE ONLY)	Field Code	# Containers	Volume/Amount	MATRIX			PRESERVATIVE METHOD					Sampling		
				WATER	AIR	SLUDGE	HCl	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	NaOH	ICE	NONE	DATE	TIME
42-12		1	250ml	X			X						5-14-13	14:11
42-12		1	250ml	X				X					5-14-13	14:11
42-13		1	250ml	X			X						5-14-13	10:18
42-13		1	250ml	X			X						5-14-13	10:18
42 Lagoon		1	250ml	X			X						5-14-13	09:55
42 Lagoon		1	250ml	X			X						5-14-13	09:55

ANALYSIS REQUEST	Turn Around Time
MTBE 8021B/602	
BTEX 8021B/602	
TPH 418.1 / TX1005	
TX 1005 Extended (C35)	
PAH 8270C	
PAH 8270 (Low Level Analysis)	
Total Metals Ag As BA Cd Cr Pb Se Hg 6010B/200.7	
Nitrates EPA 300	
Total Kjeldhal Nitrogen SM 4500 NORG C	
Chloride EPA 300.0	
Total Dissolved Solids SM 2540 C MOD	

**Relinquished By:** *Chad NR* Date: 5-14-13 Time: 15:43  
**Received at Laboratory By:** *Dominguez F.A.* Date: 5-14-13 Time: 15:43  
**Relinquished By:** \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_  
**Received at Laboratory By:** \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

**Lab Use Only**  
 Intact Y / N  
 Headspace Y / N  
 Temp \_\_\_\_\_  
 Log-in Review \_\_\_\_\_

**Remarks:** TRNG Lubbock  
 ICE  
 Dairy for  
 Dry Weight Basis Required  
 TRRP Report Required

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 42-02 Date Gauged 5-14-13  
 Site Dominique 2 Time Gauged 20:31  
 Depth to PSH 6 feet Well Diameter 4 inches  
 Depth to Water 26.84 feet Height of Fluid Column Ø feet  
 Total Depth Pump feet Volume in Well Ø gallons  
 (3 Well Volumes = 30 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 10:35 5-14-13 Purged Method Pump Purge - well Pump

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS (mg/L)
10:39	5	5	23.5	3451	8.50	178	2556
10:41	5	10	21.9	3386	8.21	195	2519
10:43	5	15	22.1	3465	8.02	197	2520
10:45	5	20	21.0	3399	7.89	207	2526
10:48	5	25	20.9	3387	7.84	203	2521
10:52	5	30	21.1	3404	7.88	208	2533

Actual Purge Volume 30 gals Field Measurements stabilized within ± 10%

Time/Date Sampled 10:53 5-14-13 Purged/Sampled By Amel A. Rivera

Sample Method Pump Purge - well Pump

Requested Analyses \_\_\_\_\_

Comments/Observations \_\_\_\_\_

Well Casing Volumes

2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 5" diameter = 1.02 gal/ft 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 42-03 Date Gauged 5-14-13  
 Site Dominquez 2 Time Gauged 7:08

Depth to PSH 0 feet Well Diameter 4 inches  
 Depth to Water 81.95 feet Height of Fluid Column 0 feet  
 Total Depth Pump feet Volume in Well 0 gallons  
 (3 Well Volumes = 30 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 7:43 5-14-13 Purged Method Pump Purge - Well Pump

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS <del>50</del> (mg/L)
8:23	5	5	25.8	5921	7.91	230	4646
8:26	5	10	25.9	5912	7.75	222	4639
8:29	5	15	26.0	5896	7.67	215	4620
8:32	5	20	25.8	5916	7.68	199	4638
8:36	5	25	26.1	5904	7.60	180	4628
8:40	5	30	25.9	5918	7.50	165	4642

Actual Purge Volume 30 gals Field Measurements stabilized within ± 10%   
 Time/Date Sampled 8:44 5-14-13 Purged/Sampled By Angel N. Rivera  
 Sample Method Pump Purge  
 Requested Analyses \_\_\_\_\_  
 Comments/Observations \_\_\_\_\_

Well Casing Volumes  
 2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 5" diameter = 1.02 gal/ft 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 42-06 Date Gauged 5-14-13  
 Site Dominquez 2 Time Gauged 11:46  
 Depth to PSH 0 feet Well Diameter 4 inches  
 Depth to Water 32.73 feet Height of Fluid Column 0 feet  
 Total Depth Pump feet Volume in Well 0 gallons  
 (3 Well Volumes = 30 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 11:53 5-14-13 Purged Method well pump

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS (mg/L)
12:00	5	5	23.5	3820	8.66	178	2770
12:02	5	10	22.7	3721	8.29	189	2787
12:04	5	15	22.5	3677	8.14	182	2744
12:10	5	20	22.4	3661	7.89	168	2731
12:13	5	25	22.6	3628	7.94	175	2717
12:16	5	30	22.7	3652	7.83	202	2722

Actual Purge Volume 30 gals Field Measurements stabilized within ± 10%

Time/Date Sampled 12:18 5-14-13 Purged/Sampled By Andy R Pa

Sample Method well pump.

Requested Analyses \_\_\_\_\_

Comments/Observations \_\_\_\_\_

Well Casing Volumes

2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 5" diameter = 1.02 gal/ft 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 42-07 Date Gauged 5-14-13

Site Dominguez 2 Time Gauged 12:26

Depth to PSH 0 feet Well Diameter 4 inches

Depth to Water Dry feet Height of Fluid Column 0 feet

Total Depth Pump feet Volume in Well 0 gallons

(3 Well Volumes = 0 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 0 Purged Method 0

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	DO (mg/L)

Actual Purge Volume 0 gals Field Measurements stabilized within ± 10%

Time/Date Sampled 0 Purged/Sampled By Angel N. Rivera

Sample Method 0

Requested Analyses \_\_\_\_\_

Comments/Observations Dry well, cannot purged or sample.  
only gaug.

Well Casing Volumes  
2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 5" diameter = 1.02 gal/ft 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 42-08 Date Gauged 5-14-13

Site Pominoz 2 Time Gauged 11:01

Depth to PSH 0 feet Well Diameter 4 inches

Depth to Water 28.71 feet Height of Fluid Column 0 feet

Total Depth Pump feet Volume in Well 0 gallons

(3 Well Volumes = 30 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 11:06 5-14-13 Purged Method well Pump

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS DO (mg/L)
11:10	5	5	22.4	2804	8.58	197	2074
11:13	5	10	22.1	2882	8.36	200	2136
11:17	5	15	22.6	2956	8.30	206	2161
11:19	5	20	22.9	2948	8.22	207	2172
11:21	5	25	23.2	2934	8.12	199	2163
11:26	5	30	22.3	2831	8.07	204	2096

Actual Purge Volume 30 gals Field Measurements stabilized within ± 10%

Time/Date Sampled 11:32 5-14-13 Purged/Sampled By Angel N. Rivera

Sample Method Pump purge - well Pump

Requested Analyses \_\_\_\_\_

Comments/Observations \_\_\_\_\_

Well Casing Volumes  
2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 5" diameter = 1.02 gal/ft 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 42-09 Date Gauged 5-14-13  
 Site Dominquez 2 Time Gauged 8:47  
 Depth to PSH 0 feet Well Diameter 4 inches  
 Depth to Water 48.01 feet Height of Fluid Column 0 feet  
 Total Depth Pump feet Volume in Well 0 gallons  
 (3 Well Volumes = 30 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 8:55 5-14-13 Purged Method well pump

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS DO (mg/L)
8:57	5	5	23.8	5339	8.29	129	4123
8:59	5	10	25.2	4940	8.13	166	3795
9:02	5	15	26.3	4832	7.98	158	3693
9:04	5	20	25.0	4845	8.04	170	3719
9:08	5	25	25.4	4817	7.88	176	3697
9:10	5	30	25.7	4733	7.77	174	3624

Actual Purge Volume 30 gals Field Measurements stabilized within ± 10%

Time/Date Sampled 9:12 5-14-13 Purged/Sampled By Angel A. R...

Sample Method Pump Purge - well pump

Requested Analyses \_\_\_\_\_

Comments/Observations \_\_\_\_\_

Well Casing Volumes

2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 5" diameter = 1.02 gal/ft 6" diameter = 1.50 gal/ft



ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 42-10 Date Gauged 5-14-13  
 Site Dominquez 2 Time Gauged 14:26

Depth to PSH ∅ feet Well Diameter 4 inches  
 Depth to Water 112.78 feet Height of Fluid Column ∅ feet  
 Total Depth Pump feet Volume in Well ∅ gallons  
 (3 Well Volumes = 36 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 14:27 5-14-13 Purged Method well pump

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS DO (mg/L)
14:30	5	5	29.0	2345	7.97	104	1706
14:32	5	10	28.1	2362	7.74	90	1700
14:35	5	15	28.0	2341	7.66	93	1687
14:37	5	20	28.3	2330	7.60	94	1678
14:40	5	25	28.4	2334	7.67	102	1672
14:42	5	30	28.2	2342	7.70	115	1679

Actual Purge Volume 30 gals Field Measurements stabilized within ± 10%

Time/Date Sampled 14:44 5-14-13 Purged/Sampled By Angel M. Rivera

Sample Method well pump

Requested Analyses \_\_\_\_\_

Comments/Observations \_\_\_\_\_

Well Casing Volumes  
 2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 5" diameter = 1.02 gal/ft 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 42-11 Date Gauged 5-14-13  
 Site Dominquez 2 Time Gauged 13:21  
 Depth to PSH 0 feet Well Diameter 4 inches  
 Depth to Water 123.27 feet Height of Fluid Column 0 feet  
 Total Depth Pump feet Volume in Well 0 gallons  
 (3 Well Volumes = 30 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 13:27 5-14-13 Purged Method Well Pump

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS DO (mg/L)
13:36	5	5	29.2	2055	8.54	74	1470
13:38	5	10	28.5	1795	8.40	90	1261
13:40	5	15	28.7	1916	8.24	118	1354
13:42	5	20	28.9	2018	8.13	139	1444
13:44	5	25	29.1	1987	8.02	137	1409
13:46	5	30	29.2	2036	7.91	94	1455

Actual Purge Volume 30 gals Field Measurements stabilized within ± 10%   
 Time/Date Sampled 13:48 5-14-13 Purged/Sampled By Angel N. Rivera  
 Sample Method Well pump  
 Requested Analyses \_\_\_\_\_  
 Comments/Observations \_\_\_\_\_

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 42-12 Date Gauged 5-14-13  
 Site Dominquez 2 Time Gauged 13:53  
 Depth to PSH 0 feet Well Diameter 4 inches  
 Depth to Water 129.56 feet Height of Fluid Column 0 feet  
 Total Depth Pump feet Volume in Well 0 gallons  
 (3 Well Volumes = 30 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 13:55 5-14-13 Purged Method Well Pump

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS (mg/L)
13:58	5	5	28.9	1964	8.17	101	1400
14:00	5	10	29.1	2001	7.86	88	1431
14:02	5	15	29.3	1975	7.79	91	1408
14:05	5	20	29.2	1962	7.74	100	1400
14:07	5	25	29.3	1981	7.85	128	1412
14:10	5	30	29.0	1994	7.72	129	1423

Actual Purge Volume 30 gals Field Measurements stabilized within ± 10%

Time/Date Sampled 14:11 5-14-13 Purged/Sampled By Angel N. Rivera

Sample Method well pump

Requested Analyses \_\_\_\_\_

Comments/Observations \_\_\_\_\_

Well Casing Volumes

2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 5" diameter = 1.02 gal/ft 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 42-13 Date Gauged 5-14-13  
 Site Dominguez 2 Time Gauged 9:28  
 Depth to PSH 0 feet Well Diameter 4 inches  
 Depth to Water 56.05 feet Height of Fluid Column 0 feet  
 Total Depth Pump feet Volume in Well 0 gallons  
 (3 Well Volumes = 30 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 9:37 5-14-13 Purged Method Pump Purge - well Pump

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS (mg/L)
9:50	5	5	26.0	5239	8.37	81	4023
9:55	5	10	24.6	5200	8.25	97	4013
9:58	5	15	24.2	5210	8.00	83	4024
10:01	5	20	25.0	5177	7.86	76	3997
10:09	5	25	24.8	5191	7.75	65	4006
10:13	5	30	25.1	5161	7.83	72	3990

Actual Purge Volume 30 gals Field Measurements stabilized within ± 10%

Time/Date Sampled 10:18 5-14-13 Purged/Sampled By Ange N. Rivera

Sample Method Well Pump

Requested Analyses \_\_\_\_\_

Comments/Observations \_\_\_\_\_

Well Casing Volumes

2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 5" diameter = 1.02 gal/ft 6" diameter = 1.50 gal/ft

# TraceAnalysis, Inc.

155 McCutcheon, Ste. H El Paso, TX 79932  
 Tel (915) 585-3443  
 Fax (915) 585-4944

**Company Name:** D&H Petroleum & Environmental Services  
**Address:** (Street, City, Zip) 1221 Tower Trail Ln, El Paso TX 79907  
**Contact Person:** Victor Ayala  
**Phone #:** 915-859-8150  
**Cell #:**  
**Fax #:**  
**E-mail:** vajjala@dhpump.com

**Project #:** 415 783  
**Project Name:** Linda Armstrong 575-233-3620  
**Project Location (including state):** Dona Ana Dairies, PO Box 10, Mesquite, NM 88048  
**Sampler Signature:** *Carol H. R...*

LAB # (LAB USE ONLY)	Field Code	# Containers	Volume/Amount	MATRIX				PRESERVATIVE METHOD				SAMPLING		
				WATER	SOIL	AIR	SLUDGE	HCl	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	NaOH	ICF	NONE	DATE
DAD-01		1	250ml	X				X		X			5-16-13	13:23
DAD-01		1	250ml	X				X		X			5-16-13	13:23
DAD-02		1	250ml	X				X		X			5-16-13	13:59
DAD-02		1	250ml	X				X		X			5-16-13	13:59
DAD-03		1	250ml	X				X		X			5-16-13	11:47
DAD-03		1	250ml	X				X		X			5-16-13	11:47
DAD-04		1	250ml	X				X		X			5-16-13	11:30
DAD-04		1	250ml	X				X		X			5-16-13	11:30
DAD-05		1		X				X		X				
DAD-05		1		X				X		X				
DAD-06		1		X				X		X				
DAD-06		1		X				X		X				
DAD-07		1		X				X		X				
DAD-07		1		X				X		X				
DAD-08		1		X				X		X				
DAD-08		1		X				X		X				

**ANALYSIS REQUEST**

MTBE 8021B/602	
BTEX 8021B/602	
TPH 418.1 / TX1005	
TX 1005 Extended (C35)	
PAH 8270C	
PAH 8270 (Low Level Analysis)	
Total Metals Ag As BA Cd Cr Pb Se Hg 6010B/200.7	X
Nitrates EPA 300	X
TKN SM 4500 NORGC	X
Chloride EPA 300	X
Total Dissolved Solids SM 2540 C MOD	X

Turn Around Time	
Hold	

**Remarks:** TDS, OI, NO<sub>3</sub> in EOP

**Lab Use Only**  
 Intact  Y /  N  
 Headspace  Y /  N  
 Temp  13C /  60C  
 Log-in Review

Relinquished By: *Carol H. R...* Date: 5-16-13 Time: 14:53  
 Received at Laboratory By: *Carol H. R...* Date: 5-16-13 Time: 14:53

Relinquished By: *Carol H. R...* Date: 5-16-13 Time: 14:53  
 Received at Laboratory By: *Carol H. R...* Date: 5-16-13 Time: 14:53

# TraceAnalysis, Inc.

email: lab@traceanalysis.com

6701 Aberdeen Avenue, Suite 9  
Lubbock, Texas 79424  
Tel (806) 794-1296  
Fax (806) 794-1298  
1 (800) 378-1296

5002 Basin Street, Suite A1  
Midland, Texas 79703  
Tel (432) 689-6301  
Fax (432) 689-6313

200 East Sunset Rd., Suite E  
El Paso, Texas 79922  
Tel (915) 585-3443  
Fax (915) 585-4944  
1 (888) 588-3443

8808 Camp Bowie Blvd. West, Suite 180  
Ft. Worth, Texas 76116  
Tel (817) 201-5260  
Fax (817) 560-4336

Company Name: *Dad Petroleum & Environmental Services*  
 Address: *(Street, City, Zip)*  
 Contact Person: *Victor Avila*  
 Invoice to: *Dad Petroleum & Environmental Services*  
 (If different from above)  
 Project #: *415783*  
 Project Location (including state): *Various Davis County NM*  
 Project Name: *Davis County NM*  
 Sampler Signature: *[Signature]*

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX				PRESERVATIVE METHOD				SAMPLING		Turn Around Time if different from standard	
				WATER	SOIL	AIR	SLUDGE	HCl	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	NaOH	ICE	NONE		DATE
	DAD-10	1	25ml X					X						5-21-17 13:28	
	DAD-10	1	25ml X					X						5-21-17 13:28	
	DAD-20	1	25ml X					X						5-21-17 14:16	
	DAD-20	1	25ml X					X						5-22-17 14:16	

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

<input type="checkbox"/>	MTBE	8021B / 602 / 8260B / 624
<input type="checkbox"/>	BTEX	8021B / 602 / 8260B / 624
<input type="checkbox"/>	TPH 418.1 / TX1005 / TX1005 EXT(C35)	
<input type="checkbox"/>	TPH 8015 GRO / DRO / TVHC	
<input type="checkbox"/>	PAH 8270C / 625	
<input type="checkbox"/>	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	
<input type="checkbox"/>	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	
<input type="checkbox"/>	TCLP Volatiles	
<input type="checkbox"/>	TCLP Semi Volatiles	
<input type="checkbox"/>	TCLP Pesticides	
<input type="checkbox"/>	RCI	
<input type="checkbox"/>	GC/MS Vol. 8260B / 624	
<input type="checkbox"/>	GC/MS Semi. Vol. 8270C / 625	
<input type="checkbox"/>	PCB's 8082 / 608	
<input type="checkbox"/>	Pesticides 8081A / 608	
<input type="checkbox"/>	BOD, TSS, pH	
<input type="checkbox"/>	Moisture Content	

Relinquished by: *TraceAnalysis, Inc.* Company: *TraceAnalysis, Inc.* Date: *5/22/17* Time: *14:16* Temp °C: *14.16*

Relinquished by: *TraceAnalysis, Inc.* Company: *TraceAnalysis, Inc.* Date: *5/22/17* Time: *14:16* Temp °C: *14.16*

Relinquished by: *TraceAnalysis, Inc.* Company: *TraceAnalysis, Inc.* Date: *5/22/17* Time: *14:16* Temp °C: *14.16*

REMARKS: *TraceAnalysis, Inc.*

LAB USE ONLY

Intact  Y  N

Headspace  Y  N  NA

Log-in-Review

Dry Weight Basis Required

TRRP Report Required

Check If Special Reporting Limits Are Needed







# TraceAnalysis, Inc.

email: lab@traceanalysis.com

5002 Basin Street, Suite A1  
Midland, Texas 79703  
Tel (432) 689-6301  
Fax (432) 689-6313

200 East Sunset Rd., Suite E  
El Paso, Texas 79922  
Tel (915) 585-3443  
Fax (915) 585-4944  
1 (888) 588-3443

8808 Camp Bowie Blvd, West, Suite 180  
Ft. Worth, Texas 76116  
Tel (817) 201-5260  
Fax (817) 560-4336

Company Name: Dad's Dry Cleaning Services Phone #: 915-859-8150

Address: 1321 Turner Ave El Paso, TX 79907 Fax #: \_\_\_\_\_

Contact Person: Victor Aguila E-mail: vaguila@dhhp.com

Invoice to: Dad's Dry Cleaning Services, PO Box 10, Midland, TX 79701

(If different from above) Invoice No: 88048

Project #: 415 783 Project Name: Dad's Dry Cleaning Services

Project Location (including state): Midland, Texas

Sampler Signature: [Signature]

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX			PRESERVATIVE METHOD				SAMPLING		DATE	TIME	Temp °C	REMARKS:
				WATER	SOIL	AIR	SLUDGE	HCl	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	NaOH	ICE				
	DAD-06	1	200g	X				X				5-3-03	8:47			
	DAD-06	1	200g	X				X				5-3-03	8:47			
	DAD-09	1	200g	X				X				5-3-03	14:41			
	DAD-09	1	200g	X				X				5-3-03	14:41			
	DAD-19	1	200g	X				X				5-3-03	10:06			
	DAD-19	1	200g	X				X				5-3-03	10:06			

MTBE 8021B / 602 / 8260B / 624	BTEX 8021B / 602 / 8260B / 624	TPH 418.1 / TX1005 / TX1005 EX(C35)	TPH 8015 GRO / DRO / TVHC	PAH 8270C / 625	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	PCB's 8082 / 608	Pesticides 8081A / 608	BOD, TSS, pH	Moisture Content	Turn Around Time if different from standard

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

Relinquished by: Victor Aguila Company: Dad's Dry Cleaning Services Date: 5-3-03 Time: 15:35 Temp °C: \_\_\_\_\_

Relinquished by: \_\_\_\_\_ Company: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Temp °C: \_\_\_\_\_

Relinquished by: \_\_\_\_\_ Company: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Temp °C: \_\_\_\_\_

LAB USE ONLY

Intact Y / N

Headspace Y / N / NA

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

REMARKS:

Dry Weight Basis Required

TRRP Report Required

Check if Special Reporting Limits Are Needed

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID DAD-01 Date Gauged 5-16-13  
 Site DAD's Time Gauged 12:58  
 Depth to PSH 0 feet Well Diameter 2 inches  
 Depth to Water 68.48 feet Height of Fluid Column 7.82 feet  
 Total Depth 76.30 feet Volume in Well 1.32 gallons  
 (3 Well Volumes = 3.98 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 13:03 5-16-13 Purged Method Bailer

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS DO (mg/L)
13:10	1	1	28.5	2395	8.75	215	1740
13:13	1	2	25.5	2675	8.34	187	1962
13:15	1	3	25.1	2412	8.19	179	1750
13:18	1	4	25.7	2664	8.06	183	1936

Actual Purge Volume 4 gals Field Measurements stabilized within ± 10%

Time/Date Sampled 13:23 5-16-13 Purged/Sampled By Amel h River

Sample Method Bailer

Requested Analyses \_\_\_\_\_

Comments/Observations \_\_\_\_\_

Well Casing Volumes

2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 5" diameter = 1.02 gal/ft 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID DAD-02 Date Gauged 5-16-13  
 Site DADs Time Gauged 13:41  
 Depth to PSH \_\_\_\_\_ feet Well Diameter 2 inches  
 Depth to Water 64.55 feet Height of Fluid Column 3.19 feet  
 Total Depth 67.74 feet Volume in Well 0.54 gallons  
 (3 Well Volumes = 1.62 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 13:42 5-16-13 Purged Method Bailer

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS DO (mg/L)
13:47	.5	.5	25.1	2275	8.22	153	1647
13:50	.5	1	24.3	2430	7.99	160	1768
13:52	.5	1.5	24.0	2566	7.92	166	1885
13:55	.5	2	23.9	2369	7.87	168	1707

Actual Purge Volume 2 gals Field Measurements stabilized within ± 10%

Time/Date Sampled 13:59 5-16-13 Purged/Sampled By Angel N. Rivers

Sample Method Bailer

Requested Analyses \_\_\_\_\_

Comments/Observations \_\_\_\_\_

Well Casing Volumes

2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 5" diameter = 1.02 gal/ft 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID DAD-03 Date Gauged 5-16-13  
 Site DAD's Time Gauged 11:36  
 Depth to PSH \_\_\_\_\_ feet Well Diameter 2 inches  
 Depth to Water 11.86 feet Height of Fluid Column 2.36 feet  
 Total Depth 14.22 feet Volume in Well 0.40 gallons  
 (3 Well Volumes = 1.2 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 11:38 5-14-13 Purged Method Bailer

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	DO (mg/L)
11:40	.5	.5	21.9	6418	8.09	94	5076
11:42	.5	1	22.5	6510	7.61	22	5155
11:44	.5	1.5	20.4	6399	7.56	3	5080

Actual Purge Volume 1.5 gals Field Measurements stabilized within ± 10%   
 Time/Date Sampled 11:47 5-16-13 Purged/Sampled By And AR  
 Sample Method Bailer  
 Requested Analyses \_\_\_\_\_  
 Comments/Observations \_\_\_\_\_

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID DAD-04 Date Gauged 5-16-13  
 Site DAD's Time Gauged 11:13

Depth to PSH 0 feet Well Diameter 2 inches  
 Depth to Water 15.02 feet Height of Fluid Column 3.06 feet  
 Total Depth 18.08 feet Volume in Well 0.52 gallons  
 (3 Well Volumes = 1.56 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 11:15 5-16-13 Purged Method Bailer

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS DO (mg/L)
11:20	.5	.5	21.1	3764	8.62	191	2828
11:22	.5	1	19.0	3833	8.45	90	2876
11:24	.5	1.5	18.1	3791	8.08	-11	2846
11:27	.5	2	17.8	3850	7.97	-21	2886

Actual Purge Volume 2 gals Field Measurements stabilized within ± 10%   
 Time/Date Sampled 11:30 5-16-13 Purged/Sampled By Angel N. Rium  
 Sample Method Bailer  
 Requested Analyses \_\_\_\_\_  
 Comments/Observations \_\_\_\_\_

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID DAD-20 Date Gauged 5-23-13  
 Site DAD's Time Gauged 13:33  
 Depth to PSH 0 feet Well Diameter 2 inches  
 Depth to Water 52.88 feet Height of Fluid Column 16.14 feet  
 Total Depth 69.02 feet Volume in Well 2.74 gallons  
 (3 Well Volumes = 8.23 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 13:39 5-23-13 Purged Method Bailer

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS DO (mg/L)
13:44	1	1	25.7	3874	8.03	304	2903
13:47	1	2	24.4	3762	8.10	277	2819
13:50	1	3	24.1	3620	8.00	284	2699
13:53	1	4	24.3	3503	7.91	259	2617
13:57	1	5	23.7	3486	7.95	263	2604
14:06	1	6	23.8	3643	7.87	277	2726
14:04	1	7	23.9	3728	7.82	250	2792
14:08	1	8	23.6	3716	7.76	232	2781

Actual Purge Volume 8 gals Field Measurements stabilized within ± 10%

Time/Date Sampled 14:16 5-23-13 Purged/Sampled By Angel N. Rivera

Sample Method Bailer

Requested Analyses \_\_\_\_\_

Comments/Observations \_\_\_\_\_

Well Casing Volumes

2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 5" diameter = 1.02 gal/ft 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID DAD-10 Date Gauged 5-23-13  
 Site DAD's Time Gauged 12:42  
 Depth to PSH \_\_\_\_\_ feet Well Diameter 2 inches  
 Depth to Water 81.73 feet Height of Fluid Column 12.9 feet  
 Total Depth 94.63 feet Volume in Well 2.19 gallons  
 (3 Well Volumes = 6.5 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged ~~12:45~~ 12:45 5-22-13 Purged Method Bailer

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TPS DO (mg/L)
12:51	1	1	26.3	2286	8.50	308	1643
12:56	1	2	24.0	2232	8.30	275	1614
12:59	1	3	23.4	2246	8.17	256	1625
13:03	1	4	23.2	2304	8.01	296	1654
13:08	1	5	23.0	2296	7.90	297	1667
13:13	1	6	23.3	2351	7.84	292	1697
13:19	1	7	23.7	2331	7.71	280	1709

Actual Purge Volume 7 gals Field Measurements stabilized within ± 10%

Time/Date Sampled 13:28 5-23-13 Purged/Sampled By Angela N. Rivera

Sample Method Bailer

Requested Analyses \_\_\_\_\_

Comments/Observations \_\_\_\_\_

Well Casing Volumes

2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 5" diameter = 1.02 gal/ft 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID DAD-07 Date Gauged 5-24-13  
 Site DAD's Time Gauged 10:27  
 Depth to PSH 0 feet Well Diameter 2 inches  
 Depth to Water 90.88 feet Height of Fluid Column 988 feet  
 Total Depth 100.76 feet Volume in Well 1.67 gallons  
 (3 Well Volumes = 5.03 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 10:32 5-24-13 Purged Method Bailer

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS DO (mg/L)
10:37	1	1	25.6	3785	8.39	135	2835
10:42	1	2	25.3	3863	7.96	180	2891
10:47	1	3	25.1	3840	7.82	177	2861
10:56	1	4	25.5	3825	7.73	187	2850
11:01	1	5	25.9	3808	7.62	165	2864

Actual Purge Volume 5 gals Field Measurements stabilized within ± 10%

Time/Date Sampled 11:08 5-24-13 Purged/Sampled By Angell N. Rivera

Sample Method Bailer

Requested Analyses \_\_\_\_\_

Comments/Observations \_\_\_\_\_

Well Casing Volumes  
 2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 5" diameter = 1.02 gal/ft 6" diameter = 1.50 gal/ft



ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID DAD-08 Date Gauged 5-24-13  
 Site DAD'S Time Gauged 11:17  
 Depth to PSH 10 feet Well Diameter 2 inches  
 Depth to Water 52.44 feet Height of Fluid Column 2.54 feet  
 Total Depth 54.98 feet Volume in Well 0.43 gallons  
 (3 Well Volumes = 1.29 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 11:21 5-24-13 Purged Method Bailer

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS DO (mg/L)
11:32	.5	.5	24.7	9360	8.36	162	7685
11:44	.5	1	24.0	9759	7.98	184	8024
11:49	.5	1.5	23.2	9957	7.79	181	8223

Actual Purge Volume 1.5 gals Field Measurements stabilized within ± 10%   
 Time/Date Sampled 12:10 5-24-13 Purged/Sampled By Angel N. Pina  
 Sample Method Bailer  
 Requested Analyses \_\_\_\_\_  
 Comments/Observations Very low water flow.

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID DAD-17 Date Gauged 5-24-13  
 Site DADS Time Gauged 12:21  
 Depth to PSH 4 feet Well Diameter 2 inches  
 Depth to Water 19.37 feet Height of Fluid Column 19.04 feet  
 Total Depth 38.41 feet Volume in Well 3.23 gallons  
 (3 Well Volumes = 9.7 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 12:23 5-24-13 Purged Method Bailer

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS DO (mg/L)
12:45	3	3	22.3	2509	8.63	159	1840
12:49	1	4	21.8	2150	8.30	247	1543
12:53	1	5	21.3	2133	8.05	308	1534
12:57	1	6	21.8	2121	7.92	281	1521
13:02	1	7	21.5	2114	7.81	290	1526
13:09	1	8	22.2	2107	7.87	301	1511
13:14	1	9	21.3	2123	7.79	318	1531
13:18	1	10	21.7	2109	7.68	315	1522

Actual Purge Volume 10 gals Field Measurements stabilized within ± 10%

Time/Date Sampled 13:25 5-24-13 Purged/Sampled By Angel N. Rivera

Sample Method Bailer

Requested Analyses \_\_\_\_\_

Comments/Observations \_\_\_\_\_

Well Casing Volumes

2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 5" diameter = 1.02 gal/ft 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID DAD-21 Date Gauged 5-24-13  
 Site DAD's Time Gauged 7:13  
 Depth to PSH 0 feet Well Diameter 2 inches  
 Depth to Water 55.41 feet Height of Fluid Column 14.97 feet  
 Total Depth 70.38 feet Volume in Well 2.54 gallons  
 (3 Well Volumes = 7.6 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 7:19 5-24-13 Purged Method Bailer

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS DO (mg/L)
7:21	1	1	21.3	3360	8.93	177	2517
7:26	1	2	21.4	3043	8.42	200	2259
7:33	1	3	20.6	3160	8.11	202	226.6
7:38	1	4	20.7	3054	7.71	204	2253
7:46	1	5	20.5	3066	7.86	180	2270
7:51	1	6	20.2	3042	7.73	174	2261
7:58	1	7	20.4	3074	7.67	172	2272
8:05	1	8	21.2	3032	7.81	170	2259

Actual Purge Volume 8 gals Field Measurements stabilized within ± 10%

Time/Date Sampled 8:10 5-24-13 Purged/Sampled By Angel N Rivera

Sample Method Bailer

Requested Analyses \_\_\_\_\_

Comments/Observations \_\_\_\_\_

Well Casing Volumes

2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 5" diameter = 1.02 gal/ft 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID DAD-22 Date Gauged 5-24-13  
 Site DAD's Time Gauged 8:52  
 Depth to PSH 0 feet Well Diameter 2 inches  
 Depth to Water 43.71 feet Height of Fluid Column 6.32 feet  
 Total Depth 50.03 feet Volume in Well 1.07 gallons  
 (3 Well Volumes = 3.22 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 8:58 5-24-13 Purged Method Bailer

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS DO (mg/L)
9:10	.5	.5	23.3	4124	8.15	152	3122
9:21	.5	1	23.0	4108	8.04	138	3115
9:32	.5	1.5	23.2	4120	7.98	127	3103
9:40	.5	2	23.4	4106	7.88	123	3114
9:45	.5	2.5	23.1	4112	7.86	121	3106
9:57	.5	3	23.2	4092	7.75	111	3091

Actual Purge Volume 3 gals Field Measurements stabilized within ± 10%   
 Time/Date Sampled 10:11 5-24-13 Purged/Sampled By Angel N. Rivera  
 Sample Method Bailer  
 Requested Analyses \_\_\_\_\_  
 Comments/Observations very low water flow

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID DAD-14 Date Gauged 5-29-13  
 Site DAD's Time Gauged 9:50  
 Depth to PSH \_\_\_\_\_ feet Well Diameter 2 inches  
 Depth to Water 28.16 feet Height of Fluid Column 14.37 feet  
 Total Depth 42.53 feet Volume in Well 2.44 gallons  
 (3 Well Volumes = 7.3 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 9:52 5-29-13 Purged Method Bailer

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS DO (mg/L)
10:01	1	1	20.7	5423	8.26	299	4255
10:07	1	2	19.8	5483	8.18	331	4293
10:12	1	3	20.0	5464	8.10	346	4282
10:16	1	4	19.6	5477	8.04	334	4292
10:19	1	5	19.5	5468	7.99	328	4287
10:21	1	6	19.6	5455	7.95	318	4266
10:23	1	7	19.7	5442	7.90	326	4277

Actual Purge Volume 7 gals Field Measurements stabilized within ± 10%

Time/Date Sampled 10:24 5-29-13 Purged/Sampled By Angela R. Rivera

Sample Method Bailer

Requested Analyses \_\_\_\_\_

Comments/Observations \_\_\_\_\_

Well Casing Volumes  
 2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 5" diameter = 1.02 gal/ft 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID D4D-13 Date Gauged 5-29-13  
 Site D4D's Time Gauged 8:31  
 Depth to PSH 0 feet Well Diameter 2 inches  
 Depth to Water 84.90 feet Height of Fluid Column 7.87 feet  
 Total Depth 92.71 feet Volume in Well 1.33 gallons  
 (3 Well Volumes = 4.01 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 8:33 5-29-13 Purged Method Bailer

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS DO (mg/L)
8:41	1	1	24.4	3280	8.41	238	2430
8:44	1	2	25.2	3200	7.87	234	2371
8:48	1	3	25.0	3135	7.82	245	2315
8:53	1	4	24.6	3174	7.75	276	2357

Actual Purge Volume 4 gals Field Measurements stabilized within ± 10%

Time/Date Sampled 8:56 5-29-13 Purged/Sampled By Angel N. Rivera

Sample Method Bailer

Requested Analyses \_\_\_\_\_

Comments/Observations \_\_\_\_\_

Well Casing Volumes

2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 5" diameter = 1.02 gal/ft 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID DAD-12 Date Gauged 5-29-13  
 Site DAD'S Time Gauged 7:25  
 Depth to PSH 9 feet Well Diameter 2 inches  
 Depth to Water 49.65 feet Height of Fluid Column 32.49 feet  
 Total Depth 82.14 feet Volume in Well 5.5 gallons  
 (3 Well Volumes = 16.5 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 7:31 5-29-13 Purged Method Bailer

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS DO (mg/L)
7:54	10	10	23.2	4395	7.40	233	3364
7:59	1	11	22.2	4416	7.50	255	3343
8:04	1	12	22.1	4385	7.73	269	3336
8:08	1	13	21.9	4415	7.76	270	3349
8:13	1	14	21.6	4375	7.69	281	3362
8:17	1	15	20.9	4490	7.67	297	3431
8:20	1	16	21.7	4516	7.81	299	3469
8:23	1	17	22.0	4527	7.69	302	3457

Actual Purge Volume 17 gals Field Measurements stabilized within ± 10%

Time/Date Sampled 8:24 5-29-13 Purged/Sampled By Angel n Rivera

Sample Method Bailer

Requested Analyses \_\_\_\_\_

Comments/Observations \_\_\_\_\_

Well Casing Volumes

2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 5" diameter = 1.02 gal/ft 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID DAD-11 Date Gauged 5-29-13  
 Site DAD'S Time Gauged 9:04

Depth to PSH 0 feet Well Diameter 2 inches  
 Depth to Water 20.70 feet Height of Fluid Column 14.75 feet  
 Total Depth 35.45 feet Volume in Well 2.50 gallons  
 (3 Well Volumes = 7.5 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 9:06 5-29-13 Purged Method Bailer

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS DO (mg/L)
9:16	1	1	23.6	4743	8.01	213	3649
9:19	1	2	24.0	4763	7.79	268	3677
9:23	1	3	23.9	4776	7.73	299	3690
9:27	1	4	24.1	4785	7.66	312	3682
9:34	1	5	24.2	4835	7.59	326	3729
9:37	1	6	23.5	5004	7.64	331	3854
9:40	1	7	23.8	4922	7.61	336	3797
9:44	1	8	23.7	5486	7.48	330	4262

Actual Purge Volume 8 gals Field Measurements stabilized within ± 10%

Time/Date Sampled 9:45 5-29-13 Purged/Sampled By Angel A. Rivera

Sample Method Bailer

Requested Analyses \_\_\_\_\_

Comments/Observations \_\_\_\_\_

Well Casing Volumes

2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 5" diameter = 1.02 gal/ft 6" diameter = 1.50 ga/ft



ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID DAD-05 Date Gauged 5.29.13  
 Site DAD's Time Gauged 12:57  
 Depth to PSH 4 feet Well Diameter 2 inches  
 Depth to Water 15.77 feet Height of Fluid Column 7.81 feet  
 Total Depth 23.58 feet Volume in Well 1.32 gallons  
 (3 Well Volumes = 3.9 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 12:59 5.29.13 Purged Method Bailer

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS DO (mg/L)
13:06	1	1	18.7	3629	8.36	276	2712
13:12	1	2	18.4	3610	8.03	313	2729
13:20	1	3	17.6	3690	7.89	299	2754
13:23	1	4	16.9	3677	7.73	301	2741

Actual Purge Volume 4 gals Field Measurements stabilized within ± 10%

Time/Date Sampled 13:24 5.29.13 Purged/Sampled By Angel N. Rivera

Sample Method Bailer

Requested Analyses \_\_\_\_\_

Comments/Observations \_\_\_\_\_

Well Casing Volumes  
 2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 5" diameter = 1.02 gal/ft 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID DAD-18 Date Gauged 5-29-13  
 Site DAD Time Gauged 13:31  
 Depth to PSH 8 feet Well Diameter 2 inches  
 Depth to Water 22.97 feet Height of Fluid Column 33.96 feet  
 Total Depth 56.93 feet Volume in Well 5.77 gallons  
 (3 Well Volumes = 17.3 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 13:33 5-29-13 Purged Method Bailer

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS DO (mg/L)
13:43	10	10	22.4	4054	8.05	297	3100
13:45	1	11	20.8	4276	7.91	319	3289
13:47	1	12	19.0	4347	7.88	339	3322
13:49	1	13	19.1	4355	7.77	313	3343
13:52	1	14	19.3	4368	7.74	306	3350
13:55	1	15	18.9	4377	7.73	294	3363
13:58	1	16	18.6	4397	7.70	308	3385
14:00	1	17	18.5	4408	7.62	307	3397

Actual Purge Volume 17 gals Field Measurements stabilized within ± 10%   
 Time/Date Sampled 14:09 5-29-13 Purged/Sampled By Angel N Rivera  
 Sample Method Bailer  
 Requested Analyses \_\_\_\_\_  
 Comments/Observations \_\_\_\_\_

Well Casing Volumes  
 2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 5" diameter = 1.02 gal/ft 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID DAD-15 Date Gauged 5-29-13  
 Site DAD's Time Gauged 10:52  
 Depth to PSH \_\_\_\_\_ feet Well Diameter 2 inches  
 Depth to Water 94.33 feet Height of Fluid Column 15.23 feet  
 Total Depth 109.46 feet Volume in Well 2.5 gallons  
 (3 Well Volumes = 7.7 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 10:55 5-29-13 Purged Method Bailer

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SPC (µs/cm)	pH	ORP (mV)	TDS DO (mg/L)
11:08	1	1	25.5	2812	8.60	223	2081
11:12	1	2	25.2	2798	8.15	194	2066
11:16	1	3	25.0	2803	7.99	222	2074
11:20	1	4	25.2	2841	7.95	85	2096
11:23	1	5	25.8	2812	7.90	176	2080
11:27	1	6	25.9	2808	7.83	235	2076
11:32	1	7	26.0	2860	7.97	256	2063
11:36	1	8	26.6	2816	7.63	240	2095

Actual Purge Volume 8 gals Field Measurements stabilized within ± 10%

Time/Date Sampled 11:40 5-29-13 Purged/Sampled By Angel N. Rivera

Sample Method Bailer

Requested Analyses \_\_\_\_\_

Comments/Observations \_\_\_\_\_

Well Casing Volumes

2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 5" diameter = 1.02 gal/ft 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID DAD-16 Date Gauged 5-29-13  
 Site DAD'S Time Gauged 12:19  
 Depth to PSH 0 feet Well Diameter 2 inches  
 Depth to Water 18.49 feet Height of Fluid Column 14.11 feet  
 Total Depth 32.60 feet Volume in Well 2.39 gallons  
 (3 Well Volumes = 7.19 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 12:20 5-29-13 Purged Method Bailer

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS DO (mg/L)
12:25	1	1	23.0	3047	8.90	183	2275
12:30	1	2	20.4	3126	8.38	235	2306
12:34	1	3	20.1	3122	8.19	269	2327
12:38	1	4	19.4	3150	8.08	299	2324
12:41	1	5	18.6	3141	7.99	316	2333
12:44	1	6	19.2	3154	7.95	325	2345
12:47	1	7	18.7	3204	7.83	314	2360

Actual Purge Volume 7 gals Field Measurements stabilized within ± 10%

Time/Date Sampled 12:48 5-29-13 Purged/Sampled By Angel N. Rivera

Sample Method Bailer

Requested Analyses \_\_\_\_\_

Comments/Observations \_\_\_\_\_

Well Casing Volumes

2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 5" diameter = 1.02 gal/ft 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID DAD-00 Date Gauged 5-30-13  
 Site DADS Time Gauged 7:31  
 Depth to PSH 0 feet Well Diameter 2 inches  
 Depth to Water 82.76 feet Height of Fluid Column 0.74 feet  
 Total Depth 83.50 feet Volume in Well 0.12 gallons  
 (3 Well Volumes = 0.37 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 7:34 5-30-13 Purged Method Bailer

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS DO (mg/L)
7:59	.1	0.1	24.1	2658	8.20	232	1964
8:05	.1	0.2	24.0	2671	8.09	235	1951
8:30	.1	0.3	23.3	2652	8.13	298	1962
8:35	.1	0.4	23.7	2668	7.98	313	1943

Actual Purge Volume 0.4 gals Field Measurements stabilized within ± 10%   
 Time/Date Sampled 8:47 5-30-13 Purged/Sampled By Angel N. Rivera  
 Sample Method Bailer  
 Requested Analyses \_\_\_\_\_  
 Comments/Observations very low water flow.

Well Casing Volumes  
 2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 5" diameter = 1.02 gal/ft 6" diameter = 1.50 ga/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID DAD-09 Date Gauged 5-30-13  
 Site DAD's Time Gauged 14:12

Depth to PSH \_\_\_\_\_ feet Well Diameter 2 inches  
 Depth to Water 54.90 feet Height of Fluid Column 7.82 feet  
 Total Depth 62.72 feet Volume in Well 1.32 gallons  
 (3 Well Volumes = 3.98 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 14:16 5-30-13 Purged Method Bailer

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS DO (mg/L)
14:19	1	1	27.5	2835	7.86	313	2068
14:23	1	2	25.3	2801	7.95	251	2040
14:29	1	3	24.5	2627	7.77	252	1928
14:33	1	4	23.4	2671	7.63	266	1954

Actual Purge Volume 4 gals Field Measurements stabilized within ± 10%   
 Time/Date Sampled 14:41 5-30-13 Purged/Sampled By Angela N. Rivera  
 Sample Method Bailer  
 Requested Analyses \_\_\_\_\_  
 Comments/Observations \_\_\_\_\_

Well Casing Volumes  
 2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 5" diameter = 1.02 gal/ft 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID DAD-19 Date Gauged 5-30-13  
 Site DAD's Time Gauged 9:07  
 Depth to PSH 0 feet Well Diameter 2 inches  
 Depth to Water 65.90 feet Height of Fluid Column 33.21 feet  
 Total Depth 99.11 feet Volume in Well 5.64 gallons  
 (3 Well Volumes = 16.9 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 9:10 5-30-13 Purged Method Bailer

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS BO (mg/L)
9:37	10	10	23.4	5179	8.09	215	3968
9:41	1	11	23.5	5132	7.83	251	3980
9:45	1	12	23.0	5154	7.75	244	3992
9:49	1	13	23.1	5143	7.66	241	4003
9:53	1	14	22.4	5202	7.68	247	4016
9:57	1	15	23.0	5173	7.62	246	4027
10:01	1	16	22.5	5231	7.70	243	4052
10:05	1	17	22.9	5207	7.61	240	4064

Actual Purge Volume 17 gals Field Measurements stabilized within ± 10% \_\_\_\_\_

Time/Date Sampled 10:06 5-30-13 Purged/Sampled By Angel U. Pina

Sample Method Bailer

Requested Analyses \_\_\_\_\_

Comments/Observations \_\_\_\_\_

Well Casing Volumes

2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 5" diameter = 1.02 gal/ft 6" diameter = 1.50 gal/ft

6701 Aberdeen, Ste. 9  
Lubbock, TX 79424  
Tel (806) 794-1296  
Fax (806) 794-1298

# TraceAnalysis, Inc.

155 McCutcheon, Ste. H El  
Paso, TX 79932  
Tel (915) 585-3443  
Fax (915) 585-4944

Page 1 of 1  
**CHAIN-OF-CUSTODY AND ANALYSIS REQUEST**  
LAB Order ID # \_\_\_\_\_

**Company Name:** D&H Petroleum & Environmental Services  
**Address:** (Street, City, Zip) 1221 Tower Trail Ln, El Paso TX 79907  
**Contact Person:** Victor Ayala  
**Phone #:** 915-859-8150  
**Cell #:** \_\_\_\_\_  
**Fax #:** \_\_\_\_\_  
**E-mail:** vajala@dhpump.com

**Project #:** 415786  
**Project Name:** Gonzalez Dairy Inc.  
**Project Location (including state):** Gonzalez Dairy, 14310 Stern Dr., Mesquite, NM  
**Sampler Signature:** *[Signature]*

LAB # (LAB USE ONLY)	Field Code	# Containers	Volume/Amount	MATRIX			PRESERVATIVE METHOD					Sampling		
				WATER	AIR	SLUDGE	HCl	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	NaOH	ICE	NONE	DATE	TIME
177-01		1	250ml	X			X	X	X	X	X		5-15-13	12:56
177-01		1	250ml	X			X	X	X	X	X		5-15-13	12:56
177-02		1	250ml	X			X	X	X	X	X		5-15-13	13:59
177-02		1	250ml	X			X	X	X	X	X		5-15-13	13:59
177-03 A		1	250ml	X			X	X	X	X	X		5-15-13	8:45
177-03 A		1	250ml	X			X	X	X	X	X		5-15-13	8:45
177-04		1	250ml	X			X	X	X	X	X		5-15-13	10:08
177-04		1	250ml	X			X	X	X	X	X		5-15-13	10:08
177-05		1	250ml	X			X	X	X	X	X		5-15-13	7:55
177-05		1	250ml	X			X	X	X	X	X		5-15-13	7:55
477-06		1		X			X	X	X	X	X			
477-06		1		X			X	X	X	X	X			
177-07 R		1	250ml	X			X	X	X	X	X		5-15-13	14:42
177-07 R		1	250ml	X			X	X	X	X	X		5-15-13	14:42

**Relinquished By:** *[Signature]* Date: 5-15-13 Time: 15:19  
**Relinquished By:** *[Signature]* Date: 5-15-13 Time: 15:59  
**Received By:** *[Signature]* Date: 5-15-13 Time: 15:59  
**Received at Laboratory By:** *[Signature]* Date: 5-15-13 Time: 15:59

**ANALYSIS REQUEST**

TPH 418.1 / TX1005	
BTEX 8021B/602	
MTBE 8021B/602	
TX 1005 Extended (C35)	
PAH 8270C	
PAH 8270 (Low Level Analysis)	
Total Metals Ag As BA Cd Cr Pb Se Hg 6010B/200.7	X
Nitrates EPA 300	X
TKN SM 4500 NORG C	X
Chloride EPA 300	X
Total Dissolved Solids SM 2540 C MOD	X
Turn Around Time	
Hold	

**Lab Use Only**  
Intact  Y  N  
Headspace  Y  N  
Temp 11.3  2.00  
Log-in Review \_\_\_\_\_

**Remarks:** TDS, Cl, Ucg w/EP  
*[Signature]*  
Dry Weight Basis Required  
TRRP Report Required



ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 17701 Date Gauged 05-15-13  
 Site RONZALDO Time Gauged 11:45  
 Depth to PSH 8 feet Well Diameter 4 inches  
 Depth to Water 17.81 feet Height of Fluid Column 7.46 feet  
 Total Depth 25.27 feet Volume in Well 4.9 gallons  
 (3 Well Volumes = 14.7 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 11:56 05-15-13 Purged Method Bailed

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS DO (mg/L)
12:15	8	8	22.0	6055	8.38	260	4779
12:19	1	9	19.5	4847	8.17	255	4789
12:24	1	10	19.2	6120	8.06	253	4867
12:28	1	11	19.0	6070	7.93	248	4838
12:33	1	12	18.8	6058	7.88	246	4791
12:39	1	13	18.9	6045	7.86	239	4783
12:43	1	14	19.0	6184	7.83	234	4910
12:47	1	15	18.9	6100	7.78	232	4821

Actual Purge Volume 15 gals Field Measurements stabilized within ± 10%

Time/Date Sampled 12:56 05-15-13 Purged/Sampled By ANGEL RIVERA

Sample Method \_\_\_\_\_

Requested Analyses \_\_\_\_\_

Comments/Observations \_\_\_\_\_

Well Casing Volumes

2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 5" diameter = 1.02 gal/ft 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 177-02 Date Gauged 5-15-13  
 Site Gonzalez Time Gauged 13:04  
 Depth to PSH 0 feet Well Diameter 4 inches  
 Depth to Water 18.70 feet Height of Fluid Column 6.6 feet  
 Total Depth 25.30 feet Volume in Well 4.35 gallons  
 (3 Well Volumes = 13.0 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 13:09 5-15-13 Purged Method Bailer

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS DO (mg/L)
13:33	6	6	20.2	4834	8.34	189	3696
13:37	1	7	19.6	5048	8.20	208	3917
13:41	1	8	19.4	5051	8.13	214	3921
13:45	1	9	19.3	5087	8.08	213	3914
13:47	1	10	19.5	4982	7.98	224	3843
13:49	1	11	19.8	5013	7.96	243	3860
13:52	1	12	19.8	4990	7.85	245	3850
13:56	1	13	20.0	5002	7.82	251	3887

Actual Purge Volume 13 gals Field Measurements stabilized within ± 10%

Time/Date Sampled 13:59 5-15-13 Purged/Sampled By Angel A Rivera

Sample Method Bailer

Requested Analyses \_\_\_\_\_

Comments/Observations \_\_\_\_\_

Well Casing Volumes

2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 5" diameter = 1.02 gal/ft 6" diameter = 1.50 gal/ft



ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 177-03A Date Gauged 5-15-13  
 Site Gonzalez Time Gauged 8:10  
 Depth to PSH 2 feet Well Diameter 2 inches  
 Depth to Water 20.53 feet Height of Fluid Column 15.4 feet  
 Total Depth 35.93 feet Volume in Well 2.61 gallons  
 (3 Well Volumes = ~~7.8~~ 7.8 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 8:10 05.15.13 Purged Method Bailer

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS DO (mg/L)
8:17	1	1	23.3	2932	8.40	137	2168
8:19	1	2	22.9	2976	8.08	122	2193
8:22	1	3	23.5	5239	7.92	32	4112
8:25	1	4	23.6	5488	7.74	20	4278
8:32	1	5	23.8	5519	7.80	23	4331
8:35	1	6	23.4	5556	7.71	32	4342
8:39	1	7	24.2	5594	7.65	42	4407
8:43	1	8	23.1	5665	7.68	23	4444

Actual Purge Volume 8 gals Field Measurements stabilized within ± 10%   
 Time/Date Sampled 8:45 5-15-13 Purged/Sampled By Angel N. Rivera  
 Sample Method Bailer  
 Requested Analyses \_\_\_\_\_  
 Comments/Observations \_\_\_\_\_

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID ~~1774~~ 1774 041 Date Gauged 05.13.13  
 Site GONZALEZ Time Gauged 9:30

Depth to PSH 2 feet Well Diameter 4 inches  
 Depth to Water 24.47 feet Height of Fluid Column 21.56 feet  
 Total Depth 44.23 feet Volume in Well 14.22 gallons  
 (3 Well Volumes = 42.66 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 9:35 05.13.13 Purged Method LOW FLOW PUMP

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS (mg/L)
9:56	36	36	20.9	5666	7.97	119	4489
9:57	1	37	20.7	5680	7.85	123	4450
9:58	1	38	20.8	5671	7.72	124	4446
9:59	1	39	20.9	5669	7.65	123	4440
10:00	1	40	21.0	5651	7.59	124	4426
10:01	1	41	20.9	5659	7.56	122	4433
10:02	1	42	21.0	5654	7.57	121	4428
10:03	1	43	21.3	5660	7.69	123	441.23

Actual Purge Volume 43 gals Field Measurements stabilized within ± 10%

Time/Date Sampled 10:08 05.13.13 Purged/Sampled By ANGEL RIVERA

Sample Method LOW FLOW PUMP

Requested Analyses \_\_\_\_\_

Comments/Observations \_\_\_\_\_

Well Casing Volumes

2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 5" diameter = 1.02 gal/ft 6" diameter = 1.50 gal/ft



ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 177-05 Date Gauged 5-15-13  
 Site Gonzalez Time Gauged 7:19  
 Depth to PSH \_\_\_\_\_ feet Well Diameter 4 inches  
 Depth to Water 36.72 feet Height of Fluid Column 12.28 feet  
 Total Depth 49.00 feet Volume in Well 8.10 gallons  
 (3 Well Volumes = 24.3 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 7:40 5-15-13 Purged Method Low flow pump

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS DO (mg/L)
7:45	17	17	20.9	6409	8.19	232	5275
7:46	1	18	20.8	6421	8.11	231	5114
7:47	1	19	20.7	6525	7.93	229	5195
7:48	1	20	20.9	6496	7.81	227	5165
7:49	1	21	20.8	6526	7.88	224	5200
7:50	1	22	20.7	6530	7.82	222	5198
7:51	1	23	20.8	6545	7.75	220	5217
7:52	1	24	20.7	6591	7.69	217	5242

Actual Purge Volume 24 gals Field Measurements stabilized within ± 10%

Time/Date Sampled 7:55 5-15-13 Purged/Sampled By Angel N. Rivera

Sample Method Low flow pump.

Requested Analyses \_\_\_\_\_

Comments/Observations \_\_\_\_\_

Well Casing Volumes

2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 5" diameter = 1.02 gal/ft 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 177-06 Date Gauged 5-15-13  
 Site Gonzalez Dairy Time Gauged 6:58  
 Depth to PSH 0 feet Well Diameter 4 inches  
 Depth to Water 51.53 feet Height of Fluid Column 0.15 feet  
 Total Depth 51.68 feet Volume in Well 0.099 gallons  
 (3 Well Volumes = 0.297 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 7:03 5-15-13 Purged Method Bailer

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS DO (mg/L)
	0.1	0.1					
	0.1	0.2					
	0.1	0.3					

Actual Purge Volume 0 gals Field Measurements stabilized within ± 10%

Time/Date Sampled 0 5-15-13 Purged/Sampled By Angel A. Rivera

Sample Method Bailer NONE

Requested Analyses \_\_\_\_\_

Comments/Observations very low water flow, left bailer inside well to see if water goes up. @ 10:39 went back to well and no water on bailer. No sample or purging.

Well Casing Volumes  
 2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 5" diameter = 1.02 gal/ft 6" diameter = 1.50 gal/ft



ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 177-07R Date Gauged 5-15-13  
 Site Gonzalez Time Gauged 1407  
 Depth to PSH \_\_\_\_\_ feet Well Diameter 4 inches  
 Depth to Water 45.21 feet Height of Fluid Column 8.91 feet  
 Total Depth 54.12 feet Volume in Well 5.88 gallons  
 (3 Well Volumes = 17.64 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 1410 5-15-13 Purged Method LOW FLOW PUMP

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TPS DO (mg/L)
14:31	11	11	22.9	5169	7.95	176	3996
14:32	1	12	21.1	5112	8.13	183	3981
14:33	1	13	20.6	5102	7.94	186	3972
14:34	1	14	19.0	5101	7.92	188	3999
14:35	1	15	20.4	5137	7.95	189	3983
14:36	1	16	21.5	5125	7.89	190	3975
14:37	1	17	20.1	5151	7.90	195	4010
14:38	1	18	19.1	5127	7.92	198	3977

Actual Purge Volume 18 gals Field Measurements stabilized within ± 10%

Time/Date Sampled 14:42 5-15-13 Purged/Sampled By Angel N Rivera

Sample Method LOW FLOW PUMP

Requested Analyses \_\_\_\_\_

Comments/Observations \_\_\_\_\_

Well Casing Volumes

2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 5" diameter = 1.02 gal/ft 6" diameter = 1.50 gal/ft





ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 70-01 Date Gauged 5-9-13  
 Site Mountain View Time Gauged 10:58  
 Depth to PSH \_\_\_\_\_ feet Well Diameter 4 inches  
 Depth to Water 34.03 feet Height of Fluid Column 11.37 feet  
 Total Depth 45.40 feet Volume in Well 7.50 gallons  
 (3 Well Volumes = 22.5 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 11:07 5-9-13 Purged Method Bailer

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS DO (mg/L)
11:30	16	16	22.9	41219	7.72	229	<del>3110</del>
11:31	1	17	22.8	4130	8.09	<del>224</del> 224	3112
11:33	1	18	22.1	4105	7.87	210	3118
11:34	1	19	21.9	4125	7.85	217	3121
11:36	1	20	21.8	4138	7.76	222	3119
11:38	1	21	21.8	4142	7.73	226	3132
11:39	1	22	21.6	4146	7.72	223	3137
11:41	1	23	21.7	4167	7.74	231	3145

Actual Purge Volume 23 gals Field Measurements stabilized within ± 10%   
 Time/Date Sampled 11:41 5-9-13 Purged/Sampled By Amel N. Rivera  
 Sample Method Bailer  
 Requested Analyses \_\_\_\_\_  
 Comments/Observations \_\_\_\_\_

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 70-02 Date Gauged 5-9-13  
 Site Mountain View Time Gauged 12:31

Depth to PSH \_\_\_\_\_ feet Well Diameter 4 inches  
 Depth to Water 43.14 feet Height of Fluid Column 6.39 feet  
 Total Depth 49.53 feet Volume in Well 4.2 gallons  
 (3 Well Volumes = 12.6 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 12:32 5-9-13 Purged Method Boiler

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS (mg/L)
12:47	6	6	23.7	5076	8.87	178	3851
12:49	1	7	22.9	5064	8.47	202	3875
12:51	1	8	22.8	5055	8.32	234	3904
12:53	1	9	22.6	5077	8.25	252	3922
12:55	1	10	22.7	5088	8.12	258	3930
12:57	1	11	22.4	5094	8.07	266	3938
13:06	1	12	22.6	5101	8.20	270	3928
13:01	1	13	22.0	5131	8.02	280	3987

Actual Purge Volume 13 gals Field Measurements stabilized within ± 10%

Time/Date Sampled 13:03 5-9-13 Purged/Sampled By Angel Rivera

Sample Method Boiler

Requested Analyses \_\_\_\_\_

Comments/Observations \_\_\_\_\_

Well Casing Volumes

2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 5" diameter = 1.02 gal/ft 6" diameter = 1.50 gal/ft



ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 70-03 Date Gauged 5-9-13  
 Site Mountain View Time Gauged 10:07  
 Depth to PSH \_\_\_\_\_ feet Well Diameter 4 inches  
 Depth to Water 53.87 feet Height of Fluid Column 11.21 feet  
 Total Depth 65.08 feet Volume in Well 7.39 gallons  
 (3 Well Volumes = 22.17 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 10:10 5-9-13 Purged Method Bailer

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS DO (mg/L)
10:29	15	15	21.7	11.25	7.75	164	9494
10:33	1	16	21.4	11.61	7.82	169	9842
10:35	1	17	20.9	11.81	7.78	170	10.03
10:37	1	18	21.2	12.13	7.76	175	10.29
10:39	1	19	21.1	12.17	7.77	177	10.31
10:41	1	20	21.3	12.24	7.79	178	10.45
10:43	1	21	21.0	12.34	7.72	179	10.51
10:45	1	22	21.7	12.40	7.61	184	10.63

Actual Purge Volume 22 gals Field Measurements stabilized within ± 10%

Time/Date Sampled 10:48 5-9-13 Purged/Sampled By Paul N Rivera

Sample Method Bailer

Requested Analyses \_\_\_\_\_

Comments/Observations \_\_\_\_\_

Well Casing Volumes

2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 5" diameter = 1.02 gal/ft 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 70-04 Date Gauged 5-9-13  
 Site Mountain View Time Gauged 13:08  
 Depth to PSH \_\_\_\_\_ feet Well Diameter 2 inches  
 Depth to Water 31.80 feet Height of Fluid Column 16.13 feet  
 Total Depth 47.93 feet Volume in Well 2.74 gallons  
 (3 Well Volumes = 8.22 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 13:09 5-9-13 Purged Method Bailer

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS DO (mg/L)
13:13	1	1	23.5	4172	8.61	231	3159
13:15	1	2	23.7	4176	8.05	241	3161
13:16	1	3	23.2	4154	8.14	303	3151
13:18	1	4	23.6	4134	7.90	293	3124
13:19	1	5	23.1	4141	7.81	283	3135
13:20	1	6	22.7	4136	7.84	317	3131
13:22	1	7	22.9	4144	7.71	305	3113
13:24	1	8	23.2	4129	7.66	293	3124

Actual Purge Volume 8 gals Field Measurements stabilized within ± 10%   
 Time/Date Sampled 13:25 5-9-13 Purged/Sampled By Angel V. Rivera  
 Sample Method Bailer  
 Requested Analyses \_\_\_\_\_  
 Comments/Observations \_\_\_\_\_



ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 167-09 Date Gauged 5-17-13  
 Site River Valley Time Gauged 10:08  
 Depth to PSH Ø feet Well Diameter 2 inches  
 Depth to Water 10.08 feet Height of Fluid Column 3.94 feet  
 Total Depth 20.02 feet Volume in Well 0.66 gallons  
 (3 Well Volumes = 2.0 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 10:11 5-17-13 Purged Method Bailer

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TPS DO (mg/L)
10:13	.5	.5	18.4	4150	8.89	54	3164
10:15	.5	1	17.5	4245	8.28	72	3241
10:19	.5	1.5	17.4	4324	8.14	77	3308
10:22	.5	2	17.1	4397	8.02	82	3365

Actual Purge Volume 2 gals Field Measurements stabilized within ± 10%   
 Time/Date Sampled 10:26 5-17-13 Purged/Sampled By Angel N. Rivera  
 Sample Method Bailer  
 Requested Analyses \_\_\_\_\_  
 Comments/Observations \_\_\_\_\_

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 167-05 Date Gauged 5-17-13  
 Site River valley Time Gauged 10:43  
 Depth to PSH 0 feet Well Diameter 2 inches  
 Depth to Water 15.42 feet Height of Fluid Column 6.51 feet  
 Total Depth 21.93 feet Volume in Well 1.10 gallons  
 (3 Well Volumes = 3.3 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 10:47 5-17-13 Purged Method Bailer

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS DO (mg/L)
10:51	.5	.5	19.4	5103	8.47	89	3920
10:53	.5	1	19.5	5060	8.15	92	3925
10:55	.5	1.5	19.0	5080	8.06	94	3892
10:58	.5	2	19.2	4947	7.86	94	3818
11:00	.5	2.5	19.5	4985	7.92	92	3803
11:03	.5	3	19.7	4905	8.04	95	3696

Actual Purge Volume 3 gals Field Measurements stabilized within ± 10%

Time/Date Sampled 11:06 5-17-13 Purged/Sampled By Angel P. Rivera

Sample Method Bailer

Requested Analyses \_\_\_\_\_

Comments/Observations \_\_\_\_\_

Well Casing Volumes  
 2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 5" diameter = 1.02 gal/ft 6" diameter = 1.50 gal/ft



ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 167-04 Date Gauged 5-17-13  
 Site River Valley Time Gauged 11:33  
 Depth to PSH \_\_\_\_\_ feet Well Diameter 2 inches  
 Depth to Water 25.36 feet Height of Fluid Column 4.32 feet  
 Total Depth 29.68 feet Volume in Well 6.73 gallons  
 (3 Well Volumes = 2.2 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 11:36 5-17-13 Purged Method Bailer

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TPS DO (mg/L)
11:38	.5	.5	23.8	5762	8.45	199	4568
11:40	.5	1	22.1	5721	8.24	193	4474
11:48	.5	1.5	23.6	5734	8.11	195	4505
11:54	.5	2	21.6	5753	8.04	191	4462

Actual Purge Volume 2 gals Field Measurements stabilized within ± 10%   
 Time/Date Sampled 11:59 5-17-13 Purged/Sampled By Angel N. Rivera  
 Sample Method Bailer  
 Requested Analyses \_\_\_\_\_  
 Comments/Observations low water flow after 1<sup>st</sup> bailer

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 167-014 Date Gauged 5-17-13  
 Site River Valley Time Gauged 8:19  
 Depth to PSH 0 feet Well Diameter 2 inches  
 Depth to Water 18.22 feet Height of Fluid Column 6.84 feet  
 Total Depth 25.06 feet Volume in Well 1.16 gallons  
 (3 Well Volumes = 3.4 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 8:26 5-17-13 Purged Method Bailer

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS DO (mg/L)
8:30	.5	.5	20.8	5031	8.41	3	3906
8:32	.5	1	19.2	5076	8.03	30	3946
8:34	.5	1.5	19.1	5058	7.97	40	3919
8:36	.5	2	19.2	4932	7.93	47	3837
8:39	.5	2.5	18.9	4919	7.89	43	3791
8:41	.5	3	18.6	4936	7.77	48	3802

Actual Purge Volume 3 gals Field Measurements stabilized within ± 10%   
 Time/Date Sampled 8:49 5-17-13 Purged/Sampled By Angel M. Rivera  
 Sample Method Bailer  
 Requested Analyses \_\_\_\_\_  
 Comments/Observations \_\_\_\_\_



ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 167-07 Date Gauged 5-17-13  
 Site River Valley Time Gauged 7:18  
 Depth to PSH 9 feet Well Diameter 2 inches  
 Depth to Water 16.16 feet Height of Fluid Column 13.11 feet  
 Total Depth 29.27 feet Volume in Well 2.22 gallons  
 (3 Well Volumes = 6.68 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 7:22 5-17-13 Purged Method Bailer

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS DO (mg/L)
7:40	1	1	19.3	3118	9.18	54	2341
7:42	1	2	19.1	2743	8.65	-26	2043
7:44	1	3	18.9	2853	8.42	-44	2132
7:46	1	4	19.0	2904	8.16	-45	2091
7:48	1	5	19.0	2621	8.13	-38	1943
7:51	1	6	19.1	2704	8.10	-43	2012
7:54	1	7	18.9	2642	8.07	-33	1962

Actual Purge Volume 7 gals Field Measurements stabilized within ± 10%

Time/Date Sampled 8:00 5-17-13 Purged/Sampled By Angel N. Rivera

Sample Method Bailer

Requested Analyses \_\_\_\_\_

Comments/Observations \_\_\_\_\_

Well Casing Volumes

2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 5" diameter = 1.02 gal/ft 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 167-03 Date Gauged 5-20-13  
 Site River Valley Time Gauged 8:51

Depth to PSH \_\_\_\_\_ feet Well Diameter 4 inches  
 Depth to Water 22.80 feet Height of Fluid Column 19.12 feet  
 Total Depth 41.92 feet Volume in Well 12.6 gallons  
 (3 Well Volumes = 37.8 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 9:11 5-20-13 Purged Method Low flow pump

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS DO (mg/L)
9:37	31	31	22.7	3547	9.23	159	2664
9:39	1	32	22.4	3555	8.52	179	2632
9:41	1	33	22.5	3548	8.20	180	2663
9:43	1	34	22.3	3553	8.02	178	2665
9:45	1	35	22.2	3522	7.99	176	2651
9:48	1	36	22.5	3563	7.90	175	2683
9:50	1	37	22.4	3547	7.91	187	2667
9:53	1	38	22.1	35	7.86	189	2650

Actual Purge Volume 38 gals Field Measurements stabilized within ± 10%

Time/Date Sampled 9:56 5-20-13 Purged/Sampled By Angel N. Rivera

Sample Method low flow pump

Requested Analyses \_\_\_\_\_

Comments/Observations \_\_\_\_\_

Well Casing Volumes

2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 5" diameter = 1.02 gal/ft 6" diameter = 1.50 gal/ft



ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 167-06 Date Gauged 5-20-13  
 Site River Valley Time Gauged 10:48

Depth to PSH \_\_\_\_\_ feet Well Diameter 2 inches  
 Depth to Water 30.82 feet Height of Fluid Column 6.97 feet  
 Total Depth 37.79 feet Volume in Well 1.18 gallons  
 (3 Well Volumes = 3.55 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 10:52 5-20-13 Purged Method Bailer

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS DO (mg/L)
<u>10:59</u>	<u>1</u>	<u>1</u>	<u>24.0</u>	<u>4176</u>	<u>8.48</u>	<u>272</u>	<u>3153</u>
<u>11:04</u>	<u>1</u>	<u>2</u>	<u>22.5</u>	<u>4273</u>	<u>8.25</u>	<u>292</u>	<u>3256</u>
<u>11:08</u>	<u>1</u>	<u>3</u>	<u>22.6</u>	<u>4216</u>	<u>8.10</u>	<u>258</u>	<u>3204</u>
<u>11:12</u>	<u>1</u>	<u>4</u>	<u>22.6</u>	<u>4244</u>	<u>8.00</u>	<u>250</u>	<u>3230</u>

Actual Purge Volume 4 gals Field Measurements stabilized within ± 10%   
 Time/Date Sampled 11:18 5-20-13 Purged/Sampled By Angel N. Rivera  
 Sample Method Bailer  
 Requested Analyses \_\_\_\_\_  
 Comments/Observations \_\_\_\_\_

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 167-02 Date Gauged 5-20-13  
 Site River Valley Time Gauged 10:21  
 Depth to PSH 0 feet Well Diameter 4 inches  
 Depth to Water Dry feet Height of Fluid Column 0 feet  
 Total Depth 23.51 feet Volume in Well 0 gallons  
 (3 Well Volumes = 0 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 0 Purged Method 0

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	DO (mg/L)

Actual Purge Volume 0 gals Field Measurements stabilized within ± 10% 0  
 Time/Date Sampled 0 Purged/Sampled By Angel N. Rivera  
 Sample Method None, Dry well, cannot purge or sample, only gauged.  
 Requested Analyses \_\_\_\_\_  
 Comments/Observations \_\_\_\_\_



ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 167-08 Date Gauged 5-21-13  
 Site River Valley Time Gauged 13:47  
 Depth to PSH 0 feet Well Diameter 2 inches  
 Depth to Water 16.93 feet Height of Fluid Column 16.68 feet  
 Total Depth 33.61 feet Volume in Well 2.83 gallons  
 (3 Well Volumes = 8.5 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 13:53 5-21-13 Purged Method Bailer

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS DO (mg/L)
14:03	2	2	19.7	4447	8.34	186	3410
14:08	1	3	19.3	4409	8.05	190	3399
14:14	1	4	19.1	4402	7.93	192	3369
14:19	1	5	18.9	4395	7.87	189	3376
14:23	1	6	18.8	4382	7.91	186	3353
14:28	1	7	19.0	4367	7.82	181	3367
14:34	1	8	19.2	4380	7.93	185	3371
14:39	1	9	19.4	4420	7.81	180	3352

Actual Purge Volume 9 gals Field Measurements stabilized within ± 10%

Time/Date Sampled 14:43 5-21-13 Purged/Sampled By Angel N. Rivera

Sample Method Bailer

Requested Analyses \_\_\_\_\_

Comments/Observations \_\_\_\_\_

Well Casing Volumes

2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 5" diameter = 1.02 gal/ft 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 257/26001 Date Gauged 5-22-13  
 Site Sunset Time Gauged 13:42

Depth to PSH \_\_\_\_\_ feet Well Diameter 4 inches  
 Depth to Water 13.81 feet Height of Fluid Column 6.51 feet  
 Total Depth 20.32 feet Volume in Well 4.29 gallons  
 (3 Well Volumes = 12.88 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 13:51 5-22-13 Purged Method Bailer

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS DO (mg/L)
<del>14:14</del> 14:14	6	6	18.8	4296	8.00	152	3315
14:18	1	7	17.1	4381	7.95	136	3299
14:25	1	8	16.6	4250	7.90	137	3239
14:29	1	9	16.9	4211	7.83	141	3256
14:33	1	10	17.1	4203	7.74	82	3251
14:37	1	11	16.7	4224	7.94	67	3238
14:43	1	12	16.6	4213	7.77	41	3222
14:48	1	13	16.4	4198	7.60	68	3211

Actual Purge Volume 13 gals Field Measurements stabilized within ± 10%

Time/Date Sampled 14:52 5-22-13 Purged/Sampled By Angel M Rivera

Sample Method Bailer

Requested Analyses \_\_\_\_\_

Comments/Observations \_\_\_\_\_

Well Casing Volumes

2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 5" diameter = 1.02 gal/ft 6" diameter = 1.50 gal/ft



ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 257-01 Date Gauged 5-22-13  
 Site Sunset Time Gauged 10:47  
 Depth to PSH \_\_\_\_\_ feet Well Diameter 2 inches  
 Depth to Water 21.15 feet Height of Fluid Column 4.91 feet  
 Total Depth 26.06 feet Volume in Well 0.83 gallons  
 (3 Well Volumes = 2.5 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 10:53 5-22-13 Purged Method Bailer

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS DO (mg/L)
10:56	.5	.5	21.2	4692	8.20	147	3616
10:59	.5	1	21.1	4751	8.02	156	3627
11:03	.5	1.5	21.7	4704	7.96	165	3604
11:06	.5	2	20.8	4684	7.90	173	3593
11:09	.5	2.5	20.4	4719	7.86	177	3585
11:13	.5	3	20.3	4682	7.88	183	3598
11:17	.5	3.5	21.0	4633	7.73	194	3562

Actual Purge Volume 3.5 gals Field Measurements stabilized within ± 10%

Time/Date Sampled 11:22 5-22-13 Purged/Sampled By Angel N. Pizarro

Sample Method Bailer

Requested Analyses \_\_\_\_\_

Comments/Observations \_\_\_\_\_

Well Casing Volumes

2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 5" diameter = 1.02 gal/ft 6" diameter = 1.50 gal/ft

ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 257-02 Date Gauged 5-22-13  
 Site Sunset Time Gauged 10:07  
 Depth to PSH 0 feet Well Diameter 2 inches  
 Depth to Water 15.02 feet Height of Fluid Column 5.79 feet  
 Total Depth 20.81 feet Volume in Well 0.98 gallons  
 (3 Well Volumes = 2.9 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 10:11 5-22-13 Purged Method Bailer

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS DO (mg/L)
10:18	.5	.5	19.2	2974	8.69	186	2184
10:22	.5	1	19.0	2966	8.25	189	2176
10:23	.5	1.5	18.5	2951	8.13	191	2182
10:25	.5	2	18.0	2932	8.05	204	2171
10:27	.5	2.5	18.4	2920	7.96	203	2161
10:30	.5	3	18.9	2913	7.84	192	2150

Actual Purge Volume 3 gals Field Measurements stabilized within ± 10%

Time/Date Sampled 10:36 5-22-13 Purged/Sampled By Ansel N Rivera

Sample Method Bailer

Requested Analyses \_\_\_\_\_

Comments/Observations \_\_\_\_\_

Well Casing Volumes

2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 5" diameter = 1.02 gal/ft 6" diameter = 1.50 gal/ft



ATTACHMENT E  
MONITOR WELL SAMPLING FIELD FORM

FLUID LEVEL DATA

Well ID 257-03 Date Gauged 5-22-13

Site Sunset Time Gauged 12:51

Depth to PSH \_\_\_\_\_ feet Well Diameter 2 inches

Depth to Water 12.96 feet Height of Fluid Column 6.96 feet

Total Depth 19.92 feet Volume in Well 1.18 gallons

(3 Well Volumes = 3.5 gallons)

GROUNDWATER SAMPLING DATA

Time/date Purged 12:54 5-22-13 Purged Method Bailer

Time	Purge Vol (gal)	Cumul Purge Vol (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	TDS DO (mg/L)
13:03	1	1	19.2	4300	9.15	213	3242
13:08	1	2	18.4	4192	8.53	224	3130
13:14	1	3	18.2	4046	8.30	256	3050
13:19	1	4	18.6	3966	7.97	275	3026

Actual Purge Volume 4 gals Field Measurements stabilized within ± 10%

Time/Date Sampled 13:28 5-22-13 Purged/Sampled By Angel N. Rivera

Sample Method Bailer

Requested Analyses \_\_\_\_\_

Comments/Observations \_\_\_\_\_

Well Casing Volumes

2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 5" diameter = 1.02 gal/ft 6" diameter = 1.50 gal/ft

**APPENDIX B**  
**ANALYTICAL LABORATORY REPORTS**  
**(Electronic Format – CD)**





6701 Aberdeen Avenue, Suite 9      Lubbock, Texas 79424      800-378-1296      806-794-1296      FAX 806-794-1298  
 200 East Sunset Road, Suite E      El Paso, Texas 79922      915-585-3443      FAX 915-585-4944  
 5002 Basin Street, Suite A1      Midland, Texas 79703      432-689-6301      FAX 432-689-6313  
 (BioAquatic) 2501 Mayes Rd., Suite 100      Carrollton, Texas 75006      972-242-7750  
 E-Mail: lab@traceanalysis.com      WEB: www.traceanalysis.com

## Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

# Analytical and Quality Control Report

Linda Armstrong  
 Mountain View Dairy  
 13090 Stern Drive  
 P.O. Box 345  
 Mesquite, NM, 88048

Report Date: May 28, 2013

Work Order: 13050943



DP: 70  
 Project Location: 13090 Stern Dr., Mesquite, NM  
 Project Name: Mountain View Dairy

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
328774	70-01	water	2013-05-09	11:41	2013-05-09
328775	70-02	water	2013-05-09	13:03	2013-05-09
328776	70-03	water	2013-05-09	10:48	2013-05-09
328777	70-04	water	2013-05-09	13:25	2013-05-09
328778	70 Lagoon	water	2013-05-09	11:45	2013-05-09

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 25 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

**Notes:**

*For inorganic analyses, the term MQL should actually read PQL.*

*Michael Abel*

---

Dr. Blair Leftwich, Director  
Dr. Michael Abel, Project Manager



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## Case Narrative

Samples for project Mountain View Dairy were received by TraceAnalysis, Inc. on 2013-05-09 and assigned to work order 13050943. Samples for work order 13050943 were received intact at a temperature of 3.0 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
Chloride (IC)	E 300.0	86231	2013-05-10 at 17:44	101773	2013-05-10 at 17:44
Chloride (IC)	E 300.0	86236	2013-05-11 at 02:27	101780	2013-05-11 at 02:27
Chloride (IC)	E 300.0	86238	2013-05-11 at 06:41	101782	2013-05-11 at 06:41
NO3 (IC)	E 300.0	86231	2013-05-10 at 17:44	101773	2013-05-10 at 17:44
NO3 (IC)	E 300.0	86238	2013-05-11 at 06:41	101782	2013-05-11 at 06:41
SO4 (IC)	E 300.0	86231	2013-05-10 at 17:44	101773	2013-05-10 at 17:44
Sulfide	SM 4500-S2 D	85860	2013-05-13 at 10:55	101310	2013-05-13 at 11:20
TDS	SM 2540C	86047	2013-05-13 at 08:00	101537	2013-05-13 at 08:00
TKN	E 351.3	85837	2013-05-13 at 08:19	101426	2013-05-13 at 02:30

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 13050943 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

# Analytical Report

## Sample: 328774 - 70-01

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101780 Date Analyzed: 2013-05-11 Analyzed By: JR  
 Prep Batch: 86236 Sample Preparation: 2013-05-11 Prepared By: JR

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Chloride		1	<b>616</b>	<b>616</b>	<1.96	mg/L	50	1.96	2.5	0.0392

## Sample: 328774 - 70-01

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101773 Date Analyzed: 2013-05-10 Analyzed By: JR  
 Prep Batch: 86231 Sample Preparation: 2013-05-10 Prepared By: JR

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Nitrate-N		1	<b>22.4</b>	<b>22.4</b>	<0.0420	mg/L	5	0.0420	0.5	0.0084

## Sample: 328774 - 70-01

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 101537 Date Analyzed: 2013-05-13 Analyzed By: DL  
 Prep Batch: 86047 Sample Preparation: 2013-05-13 Prepared By: DL

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Dissolved Solids		1	<b>2740</b>	<b>2740</b>	<5.00	mg/L	1	5.00	5	5

## Sample: 328774 - 70-01

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: E 351.3 Prep Method: N/A  
 QC Batch: 101426 Date Analyzed: 2013-05-13 Analyzed By: AK  
 Prep Batch: 85837 Sample Preparation: 2013-05-13 Prepared By: AK



Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.66	<10.0	<1.66	mg/L	1	1.66	10	1.66

**Sample: 328775 - 70-02**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101780 Date Analyzed: 2013-05-11 Analyzed By: JR  
 Prep Batch: 86236 Sample Preparation: 2013-05-11 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Chloride		1	<b>790</b>	<b>790</b>	<1.96	mg/L	50	1.96	2.5	0.0392

**Sample: 328775 - 70-02**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101773 Date Analyzed: 2013-05-10 Analyzed By: JR  
 Prep Batch: 86231 Sample Preparation: 2013-05-10 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Nitrate-N		1	<b>37.4</b>	<b>37.4</b>	<0.0420	mg/L	5	0.0420	0.5	0.0084

**Sample: 328775 - 70-02**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 101537 Date Analyzed: 2013-05-13 Analyzed By: DL  
 Prep Batch: 86047 Sample Preparation: 2013-05-13 Prepared By: DL

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Total Dissolved Solids		1	<b>3260</b>	<b>3260</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 328775 - 70-02**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: E 351.3 Prep Method: N/A  
 QC Batch: 101426 Date Analyzed: 2013-05-13 Analyzed By: AK  
 Prep Batch: 85837 Sample Preparation: 2013-05-13 Prepared By: AK

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.66	<10.0	<1.66	mg/L	1	1.66	10	1.66

**Sample: 328776 - 70-03**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101782 Date Analyzed: 2013-05-11 Analyzed By: JR  
 Prep Batch: 86238 Sample Preparation: 2013-05-11 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Chloride		1	<b>3290</b>	<b>3290</b>	<3.92	mg/L	100	3.92	2.5	0.0392

**Sample: 328776 - 70-03**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101782 Date Analyzed: 2013-05-11 Analyzed By: JR  
 Prep Batch: 86238 Sample Preparation: 2013-05-11 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Nitrate-N		1	<b>58.4</b>	<b>58.4</b>	<0.0840	mg/L	10	0.0840	0.5	0.0084

**Sample: 328776 - 70-03**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 101537 Date Analyzed: 2013-05-13 Analyzed By: DL  
 Prep Batch: 86047 Sample Preparation: 2013-05-13 Prepared By: DL

*continued . . .*



*sample 328776 continued ...*

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	9200	9200	<5.00	mg/L	1	5.00	5	5

**Sample: 328776 - 70-03**

Laboratory: Lubbock  
 Analysis: TKN  
 QC Batch: 101426  
 Prep Batch: 85837

Analytical Method: E 351.3  
 Date Analyzed: 2013-05-13  
 Sample Preparation: 2013-05-13

Prep Method: N/A  
 Analyzed By: AK  
 Prepared By: AK

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.66	<10.0	<1.66	mg/L	1	1.66	10	1.66

**Sample: 328777 - 70-04**

Laboratory: El Paso  
 Analysis: Chloride (IC)  
 QC Batch: 101773  
 Prep Batch: 86231

Analytical Method: E 300.0  
 Date Analyzed: 2013-05-10  
 Sample Preparation: 2013-05-10

Prep Method: N/A  
 Analyzed By: JR  
 Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Chloride		1	630	630	<1.96	mg/L	50	1.96	2.5	0.0392

**Sample: 328777 - 70-04**

Laboratory: El Paso  
 Analysis: NO3 (IC)  
 QC Batch: 101773  
 Prep Batch: 86231

Analytical Method: E 300.0  
 Date Analyzed: 2013-05-10  
 Sample Preparation: 2013-05-10

Prep Method: N/A  
 Analyzed By: JR  
 Prepared By: JR

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Nitrate-N		1	<b>23.0</b>	<b>23.0</b>	<0.0420	mg/L	5	0.0420	0.5	0.0084

**Sample: 328777 - 70-04**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 101537 Date Analyzed: 2013-05-13 Analyzed By: DL  
 Prep Batch: 86047 Sample Preparation: 2013-05-13 Prepared By: DL

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	<b>3510</b>	<b>3510</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 328777 - 70-04**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: E 351.3 Prep Method: N/A  
 QC Batch: 101426 Date Analyzed: 2013-05-13 Analyzed By: AK  
 Prep Batch: 85837 Sample Preparation: 2013-05-13 Prepared By: AK

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.66	<10.0	<1.66	mg/L	1	1.66	10	1.66

**Sample: 328778 - 70 Lagoon**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101782 Date Analyzed: 2013-05-11 Analyzed By: JR  
 Prep Batch: 86238 Sample Preparation: 2013-05-11 Prepared By: JR

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Chloride		1	<b>1660</b>	<b>1660</b>	<1.96	mg/L	50	1.96	2.5	0.0392

**Sample: 328778 - 70 Lagoon**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101773 Date Analyzed: 2013-05-10 Analyzed By: JR  
 Prep Batch: 86231 Sample Preparation: 2013-05-10 Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Nitrate-N	u	1	<0.0420	<2.50	<0.0420	mg/L	5	0.0420	0.5	0.0084

**Sample: 328778 - 70 Lagoon**

Laboratory: El Paso  
 Analysis: SO4 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101773 Date Analyzed: 2013-05-10 Analyzed By: JR  
 Prep Batch: 86231 Sample Preparation: 2013-05-10 Prepared By: JR

Comment: Use for reporting Sulfur.

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Sulfate		1	<b>20.5</b>	<b>20.5</b>	<0.176	mg/L	5	0.176	2.5	0.0351

**Sample: 328778 - 70 Lagoon**

Laboratory: Lubbock  
 Analysis: Sulfide Analytical Method: SM 4500-S2 D Prep Method: N/A  
 QC Batch: 101310 Date Analyzed: 2013-05-13 Analyzed By: AK  
 Prep Batch: 85860 Sample Preparation: 2013-05-13 Prepared By: AK

Comment: Use for reporting Sulfur.

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Sulfide			<b>7.98</b>	<b>7.98</b>	<0.0185	mg/L	1	0.0185	0.1	0.0185

**Sample: 328778 - 70 Lagoon**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 101537 Date Analyzed: 2013-05-13 Analyzed By: DL  
 Prep Batch: 86047 Sample Preparation: 2013-05-13 Prepared By: DL



Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	<b>10200</b>	<b>10200</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 328778 - 70 Lagoon**

Laboratory: Lubbock

Analysis: TKN

QC Batch: 101426

Prep Batch: 85837

Analytical Method: E 351.3

Date Analyzed: 2013-05-13

Sample Preparation: 2013-05-13

Prep Method: N/A

Analyzed By: AK

Prepared By: AK

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N		2	<b>837</b>	<b>837</b>	<8.30	mg/L	5	8.30	10	1.66

## Method Blanks

### Method Blank (1)

QC Batch: 101310  
Prep Batch: 85860Date Analyzed: 2013-05-13  
QC Preparation: 2013-05-13Analyzed By: AK  
Prepared By: AK

Parameter	F	C	Result	Units	Reporting Limits
Sulfide			<0.0185	mg/L	0.0185

### Method Blank (1)

QC Batch: 101426  
Prep Batch: 85837Date Analyzed: 2013-05-13  
QC Preparation: 2013-05-13Analyzed By: AK  
Prepared By: AK

Parameter	F	C	Result	Units	Reporting Limits
Total Kjeldahl Nitrogen - N		2	<1.66	mg/L	1.66

### Method Blank (1)

QC Batch: 101537  
Prep Batch: 86047Date Analyzed: 2013-05-13  
QC Preparation: 2013-05-13Analyzed By: DL  
Prepared By: DL

Parameter	F	C	Result	Units	Reporting Limits
Total Dissolved Solids		1	<5.00	mg/L	5

### Method Blank (1)

QC Batch: 101773  
Prep Batch: 86231Date Analyzed: 2013-05-10  
QC Preparation: 2013-05-10Analyzed By: JR  
Prepared By: JR

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Parameter	F	C	Result	Units	Reporting Limits
Chloride		1	1.31	mg/L	0.0392

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**Method Blank (1)**QC Batch: 101773  
Prep Batch: 86231Date Analyzed: 2013-05-10  
QC Preparation: 2013-05-10Analyzed By: JR  
Prepared By: JR

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Parameter	F	C	Result	Units	Reporting Limits
Nitrate-N		1	<0.00840	mg/L	0.0084

---

**Method Blank (1)**QC Batch: 101773  
Prep Batch: 86231Date Analyzed: 2013-05-10  
QC Preparation: 2013-05-10Analyzed By: JR  
Prepared By: JR

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Parameter	F	C	Result	Units	Reporting Limits
Sulfate		1	<0.0351	mg/L	0.0351

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**Method Blank (1)**QC Batch: 101780  
Prep Batch: 86236Date Analyzed: 2013-05-11  
QC Preparation: 2013-05-11Analyzed By: JR  
Prepared By: JR

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Parameter	F	C	Result	Units	Reporting Limits
Chloride		1	1.30	mg/L	0.0392

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**Method Blank (1)**QC Batch: 101782  
Prep Batch: 86238Date Analyzed: 2013-05-11  
QC Preparation: 2013-05-11Analyzed By: JR  
Prepared By: JR



Parameter	F	C	Result	Units	Reporting Limits
Chloride		1	<0.0392	mg/L	0.0392

**Method Blank (1)**

QC Batch: 101782  
Prep Batch: 86238

Date Analyzed: 2013-05-11  
QC Preparation: 2013-05-11

Analyzed By: JR  
Prepared By: JR

Parameter	F	C	Result	Units	Reporting Limits
Nitrate-N		1	<0.00840	mg/L	0.0084

**Duplicate (1)** Duplicated Sample: 328771

QC Batch: 101537  
Prep Batch: 86047

Date Analyzed: 2013-05-13  
QC Preparation: 2013-05-13

Analyzed By: DL  
Prepared By: DL

Param	F	C	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids		1	6580	6650	mg/L	1	1	10

# Laboratory Control Spikes

## Laboratory Control Spike (LCS-1)

QC Batch: 101537  
Prep Batch: 86047Date Analyzed: 2013-05-13  
QC Preparation: 2013-05-13Analyzed By: DL  
Prepared By: DL

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Dissolved Solids		1	998	mg/L	1	1000	<5.00	100	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Dissolved Solids		1	997	mg/L	1	1000	<5.00	100	90 - 110	0	10

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

## Matrix Spike (MS-1) Spiked Sample: 328778

QC Batch: 101310  
Prep Batch: 85860Date Analyzed: 2013-05-13  
QC Preparation: 2013-05-13Analyzed By: AK  
Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Sulfide			12.5	mg/L	10	4.00	7.98	113	10 - 158

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Sulfide			12.6	mg/L	10	4.00	7.98	116	10 - 158	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

## Matrix Spike (MS-1) Spiked Sample: 328777

QC Batch: 101426  
Prep Batch: 85837Date Analyzed: 2013-05-13  
QC Preparation: 2013-05-13Analyzed By: AK  
Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Kjeldahl Nitrogen - N		2	41.3	mg/L	1	50.0	<1.66	83	45.3 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Total Kjeldahl Nitrogen - N		2	43.4	mg/L	1	50.0	<1.66	87	45.3 - 115	5	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 328777

QC Batch: 101773  
Prep Batch: 86231

Date Analyzed: 2013-05-10  
QC Preparation: 2013-05-10

Analyzed By: JR  
Prepared By: JR

Param	F	C	MS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
			Result	Units					
Chloride		1	2000	mg/L	55.6	1390	630	98	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Chloride		1	2000	mg/L	55.6	1390	630	98	90 - 110	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 328777

QC Batch: 101773  
Prep Batch: 86231

Date Analyzed: 2013-05-10  
QC Preparation: 2013-05-10

Analyzed By: JR  
Prepared By: JR

Param	F	C	MS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
			Result	Units					
Nitrate-N		1	286	mg/L	55.6	278	23	95	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Nitrate-N		1	285	mg/L	55.6	278	23	94	90 - 110	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 328777

QC Batch: 101773  
Prep Batch: 86231

Date Analyzed: 2013-05-10  
QC Preparation: 2013-05-10

Analyzed By: JR  
Prepared By: JR





**Matrix Spike (MS-1)** Spiked Sample: 328983

QC Batch: 101782  
Prep Batch: 86238

Date Analyzed: 2013-05-11  
QC Preparation: 2013-05-11

Analyzed By: JR  
Prepared By: JR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Nitrate-N		1	270	mg/L	55.6	278	14.3	92	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Nitrate-N		1	268	mg/L	55.6	278	14.3	91	90 - 110	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

## Calibration Standards

### Standard (ICV-1)

QC Batch: 101310

Date Analyzed: 2013-05-13

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Sulfide			mg/L	0.400	0.368	92	85 - 115	2013-05-13

### Standard (CCV-1)

QC Batch: 101310

Date Analyzed: 2013-05-13

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Sulfide			mg/L	0.400	0.387	97	85 - 115	2013-05-13

### Standard (ICV-1)

QC Batch: 101426

Date Analyzed: 2013-05-13

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	4.48	90	85 - 115	2013-05-13

### Standard (CCV-1)

QC Batch: 101426

Date Analyzed: 2013-05-13

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	4.76	95	85 - 115	2013-05-13



**Standard (CCV-1)**

QC Batch: 101773

Date Analyzed: 2013-05-10

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	23.8	95	90 - 110	2013-05-10

**Standard (CCV-1)**

QC Batch: 101773

Date Analyzed: 2013-05-10

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.77	95	90 - 110	2013-05-10

**Standard (CCV-1)**

QC Batch: 101773

Date Analyzed: 2013-05-10

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Sulfate		1	mg/L	25.0	23.0	92	90 - 110	2013-05-10

**Standard (CCV-2)**

QC Batch: 101773

Date Analyzed: 2013-05-10

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	23.3	93	90 - 110	2013-05-10

**Standard (CCV-2)**

QC Batch: 101773

Date Analyzed: 2013-05-10

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.68	94	90 - 110	2013-05-10

**Standard (CCV-2)**

QC Batch: 101773

Date Analyzed: 2013-05-10

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Sulfate		1	mg/L	25.0	22.6	90	90 - 110	2013-05-10

**Standard (CCV-1)**

QC Batch: 101780

Date Analyzed: 2013-05-11

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	23.0	92	90 - 110	2013-05-11

**Standard (CCV-2)**

QC Batch: 101780

Date Analyzed: 2013-05-11

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	22.7	91	90 - 110	2013-05-11

**Standard (CCV-1)**

QC Batch: 101782

Date Analyzed: 2013-05-11

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	22.7	91	90 - 110	2013-05-11

**Standard (CCV-1)**

QC Batch: 101782

Date Analyzed: 2013-05-11

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.57	91	90 - 110	2013-05-11

**Standard (CCV-2)**

QC Batch: 101782

Date Analyzed: 2013-05-11

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	22.6	90	90 - 110	2013-05-11

**Standard (CCV-2)**

QC Batch: 101782

Date Analyzed: 2013-05-11

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.54	91	90 - 110	2013-05-11



---

## Limits of Detection (LOD)

Test	Method	Matrix	Instrument	Analyte	Spike Amount	Pass
Chloride (IC)	E 300.0	water	Dionex IC	Chloride	0.0962	Pass
NO3 (IC)	E 300.0	water	Dionex IC	Nitrate-N	0.0192	Pass
SO4 (IC)	E 300.0	water	Dionex IC	Sulfate	0.0962	Pass
Sulfide	SM 4500-S2 D	water	Spectrophotometer	Sulfide	0.0500	Pass
TKN	E 351.3	water	N/A	Total Kjeldahl Nitrogen - N	5.00	Pass

---

# Appendix

## Report Definitions

Name	Definition
MDL	Method Detection Limit
MQL	Minimum Quantitation Limit
SDL	Sample Detection Limit

## Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704221-12-3	El Paso
2	NELAP	T104704219-13-9	Lubbock

## Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less than ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
MI1	Split peak or shoulder peak
MI2	Instrument software did not integrate
MI3	Instrument software misidentified the peak
MI4	Instrument software integrated improperly
MI5	Baseline correction
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

## Attachments

The scanned attachments will follow this page.  
Please note, each attachment may consist of more than one page.

# Trace Analysis, Inc.

6701 Aberdeen Avenue, Suite 9  
Lubbock, Texas 79424  
Tel (806) 794-1296  
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200 East Sunset Rd., Suite E  
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BioAquatic Testing  
2501 Mayes Rd., Ste 100  
Carrollton, Texas 75006  
Tel (972) 242-7750

email: lab@traceanalysis.com

Company Name: D&H Petroleum & Environmental Services (Street, City, Zip) 2221 Tower Trail Ln El Paso Tx 79907		Phone #: 915 859-8150											
Contact Person: Victor Ayala		E-mail: vayala@dhpump.com											
Invoice to: Mountain View Dairy, P.O. Box 345 (If different from above)		Project #: 415 793											
Project #: 415 793		Project Location (including state): Mountain View Dairy 13000 Stern Drive Mesquite NM											
Sampler Signature: <i>CHR</i>		Project Name: Mountain View Dairy											
LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX			PRESERVATIVE METHOD				DATE	SAMPLING TIME	
				WATER	SOIL	AIR	SLUDGE	HCl	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>			NaOH
328774-7001		1	250 ml	X				X				5-9-13 11:21	
L-2 7001		1	250 ml	X				X				5-9-13 11:41	
75-1 7002		1	250 ml	X				X				5-9-13 13:03	
L-2 7002		1	250 ml	X				X				5-9-13 13:03	
76-1 7003		1	250 ml	X				X				5-9-13 10:48	
L-2 7003		1	250 ml	X				X				5-9-13 13:25	
77-1 7004		1	250 ml	X				X				5-9-13 13:25	
L-2 7004		1	250 ml	X				X				5-9-13 11:45	
78-1 70 Lagoon		1	250 ml	X				X				5-9-13 11:45	
L-2 70 Lagoon		1	250 ml	X				X				5-9-13 11:45	
L-3 70 Lagoon		1	125	X				X				5-9-13 11:45	
Relinquished by:		Company:	Date:	Time:	Received by:	Company:	Date:	Time:	INST 12-1	INST	Time:	INST	Time:
Relinquished by:		Company:	Date:	Time:	Received by:	Company:	Date:	Time:	OBS 3	OBS	Time:	OBS	Time:
Relinquished by:		Company:	Date:	Time:	Received by:	Company:	Date:	Time:	COR 3	COR	Time:	COR	Time:

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

MTBE 8021 / 602 / 8260 / 624	
BTEX 8021 / 602 / 8260 / 624	
TPH 418.1 / TX1005 / TX1005 Ext(C35)	
TPH 8015 GRO / DRO / TVHC	
PAH 8270 / 625	
Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7	
TCLP Metals Ag As Ba Cd Cr Pb Se Hg	
TCLP Semi Volatiles	
TCLP Pesticides	
RCI	
GC/MS Vol. 8260 / 624	
GC/MS Semi. Vol. 8270 / 625	
PCB's 8082 / 608	
Pesticides 8081 / 608	
BOD, TSS, pH	
Moisture Content	
Cl, F1, S04, NO3, NO2, Alkalinity	
Na, Ca, Mg, K, TDS, EC	
Nitrates EPA 300	X
TKN 5m 4500 NORG C	X
Mercurial EPA 300 D	X
Total Dissolved Solid 2540 C MPO	X
Hold Sulfur	X

LAB USE ONLY

Initials: *DLN*

Headspace:  Y  N  NA

Log-in-Review: *5-9-13*

REMARKS:  
All analytes by EPA  
TKN at Lubbock  
ICE

Dry Weight Basis Required

TRRP Report Required

Check If Special Reporting Limits Are Needed





6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800-378-1296 806-794-1296 FAX 806-794-1298  
 200 East Sunset Road, Suite E El Paso, Texas 79922 915-585-3443 FAX 915-585-4944  
 5002 Basin Street, Suite A1 Midland, Texas 79703 432-689-6301 FAX 432-689-6313  
 (BioAquatic) 2501 Mayes Rd., Suite 100 Carrollton, Texas 75006 972-242-7750  
 E-Mail: lab@traceanalysis.com WEB: www.traceanalysis.com

## Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

# Analytical and Quality Control Report

Linda Armstrong  
 Del Norte Dairy, LLC  
 12560 Stern Drive  
 P. O. Box 10  
 Mesquite, NM, 88048

Report Date: May 28, 2013

Work Order: 13051026



DP: 126  
 Project Location: Del Norte Dairy, 12560 Stern Dr., Mesquite, NM  
 Project Name: Daybreak Dairy

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
328983	126-4	water	2013-05-10	09:47	2013-05-10
328984	126-5	water	2013-05-10	09:01	2013-05-10
328985	126-7	water	2013-05-10	10:31	2013-05-10
328986	126-9	water	2013-05-10	12:45	2013-05-10
328987	126-12	water	2013-05-10	08:04	2013-05-10
328988	126-13	water	2013-05-10	11:41	2013-05-10
328989	126 Lagoon	water	2013-05-10	12:09	2013-05-10

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 25 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

**Notes:**

*For inorganic analyses, the term MQL should actually read PQL.*

*Michael Abel*

---

Dr. Blair Leftwich, Director  
Dr. Michael Abel, Project Manager

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## Case Narrative

Samples for project Daybreak Dairy were received by TraceAnalysis, Inc. on 2013-05-10 and assigned to work order 13051026. Samples for work order 13051026 were received intact at a temperature of 4.0 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
Chloride (IC)	E 300.0	86234	2013-05-10 at 21:58	101774	2013-05-10 at 21:58
Chloride (IC)	E 300.0	86238	2013-05-11 at 06:41	101782	2013-05-11 at 06:41
Chloride (IC)	E 300.0	86241	2013-05-11 at 11:10	101787	2013-05-11 at 11:10
NO3 (IC)	E 300.0	86234	2013-05-10 at 21:58	101774	2013-05-10 at 21:58
NO3 (IC)	E 300.0	86241	2013-05-11 at 11:10	101787	2013-05-11 at 11:10
TDS	SM 2540C	86047	2013-05-13 at 08:00	101537	2013-05-13 at 08:00
TDS	SM 2540C	86048	2013-05-13 at 08:00	101538	2013-05-13 at 08:00
TKN	E 351.3	85838	2013-05-13 at 08:20	101424	2013-05-13 at 15:40

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 13051026 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

# Analytical Report

**Sample: 328983 - 126-4**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101782 Date Analyzed: 2013-05-11 Analyzed By: JR  
 Prep Batch: 86238 Sample Preparation: 2013-05-11 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Chloride		1	<b>499</b>	<b>499</b>	<1.96	mg/L	50	1.96	2.5	0.0392

**Sample: 328983 - 126-4**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101774 Date Analyzed: 2013-05-10 Analyzed By: JR  
 Prep Batch: 86234 Sample Preparation: 2013-05-10 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Nitrate-N		1	<b>15.1</b>	<b>15.1</b>	<0.0420	mg/L	5	0.0420	0.5	0.0084

**Sample: 328983 - 126-4**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 101537 Date Analyzed: 2013-05-13 Analyzed By: DL  
 Prep Batch: 86047 Sample Preparation: 2013-05-13 Prepared By: DL

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Dissolved Solids		1	<b>2310</b>	<b>2310</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 328983 - 126-4**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: E 351.3 Prep Method: N/A  
 QC Batch: 101424 Date Analyzed: 2013-05-13 Analyzed By: AK  
 Prep Batch: 85838 Sample Preparation: 2013-05-13 Prepared By: AK



Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.66	<10.0	<1.66	mg/L	1	1.66	10	1.66

**Sample: 328984 - 126-5**

Laboratory: El Paso

Analysis: Chloride (IC)

Analytical Method: E 300.0

Prep Method: N/A

QC Batch: 101782

Date Analyzed: 2013-05-11

Analyzed By: JR

Prep Batch: 86238

Sample Preparation: 2013-05-11

Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Chloride		1	<b>635</b>	<b>635</b>	<1.96	mg/L	50	1.96	2.5	0.0392

**Sample: 328984 - 126-5**

Laboratory: El Paso

Analysis: NO3 (IC)

Analytical Method: E 300.0

Prep Method: N/A

QC Batch: 101774

Date Analyzed: 2013-05-10

Analyzed By: JR

Prep Batch: 86234

Sample Preparation: 2013-05-10

Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Nitrate-N		1	<b>39.0</b>	<b>39.0</b>	<0.0420	mg/L	5	0.0420	0.5	0.0084

**Sample: 328984 - 126-5**

Laboratory: El Paso

Analysis: TDS

Analytical Method: SM 2540C

Prep Method: N/A

QC Batch: 101538

Date Analyzed: 2013-05-13

Analyzed By: DL

Prep Batch: 86048

Sample Preparation: 2013-05-13

Prepared By: DL

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Dissolved Solids		1	<b>3060</b>	<b>3060</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 328984 - 126-5**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: E 351.3 Prep Method: N/A  
 QC Batch: 101424 Date Analyzed: 2013-05-13 Analyzed By: AK  
 Prep Batch: 85838 Sample Preparation: 2013-05-13 Prepared By: AK

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	MQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.66	<10.0	<1.66	mg/L	1	1.66	10	1.66

**Sample: 328985 - 126-7**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101787 Date Analyzed: 2013-05-11 Analyzed By: JR  
 Prep Batch: 86241 Sample Preparation: 2013-05-11 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	MQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Chloride		1	<b>573</b>	<b>573</b>	<1.96	mg/L	50	1.96	2.5	0.0392

**Sample: 328985 - 126-7**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101774 Date Analyzed: 2013-05-10 Analyzed By: JR  
 Prep Batch: 86234 Sample Preparation: 2013-05-10 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	MQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Nitrate-N		1	<b>20.2</b>	<b>20.2</b>	<0.0420	mg/L	5	0.0420	0.5	0.0084

**Sample: 328985 - 126-7**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 101538 Date Analyzed: 2013-05-13 Analyzed By: DL  
 Prep Batch: 86048 Sample Preparation: 2013-05-13 Prepared By: DL

*continued . . .*

*sample 328985 continued ...*

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	<b>2620</b>	<b>2620</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 328985 - 126-7**

Laboratory: Lubbock

Analysis: TKN

QC Batch: 101424

Prep Batch: 85838

Analytical Method: E 351.3

Date Analyzed: 2013-05-13

Sample Preparation: 2013-05-13

Prep Method: N/A

Analyzed By: AK

Prepared By: AK

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.66	<10.0	<1.66	mg/L	1	1.66	10	1.66

**Sample: 328986 - 126-9**

Laboratory: El Paso

Analysis: Chloride (IC)

QC Batch: 101774

Prep Batch: 86234

Analytical Method: E 300.0

Date Analyzed: 2013-05-10

Sample Preparation: 2013-05-10

Prep Method: N/A

Analyzed By: JR

Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Chloride		1	<b>898</b>	<b>898</b>	<1.96	mg/L	50	1.96	2.5	0.0392

**Sample: 328986 - 126-9**

Laboratory: El Paso

Analysis: NO3 (IC)

QC Batch: 101774

Prep Batch: 86234

Analytical Method: E 300.0

Date Analyzed: 2013-05-10

Sample Preparation: 2013-05-10

Prep Method: N/A

Analyzed By: JR

Prepared By: JR



Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Nitrate-N	J	1	<b>2.25</b>	<2.50	<0.0420	mg/L	5	0.0420	0.5	0.0084

**Sample: 328986 - 126-9**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 101538 Date Analyzed: 2013-05-13 Analyzed By: DL  
 Prep Batch: 86048 Sample Preparation: 2013-05-13 Prepared By: DL

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	<b>3300</b>	<b>3300</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 328986 - 126-9**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: E 351.3 Prep Method: N/A  
 QC Batch: 101424 Date Analyzed: 2013-05-13 Analyzed By: AK  
 Prep Batch: 85838 Sample Preparation: 2013-05-13 Prepared By: AK

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N	U	2	<1.66	<10.0	<1.66	mg/L	1	1.66	10	1.66

**Sample: 328987 - 126-12**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101774 Date Analyzed: 2013-05-10 Analyzed By: JR  
 Prep Batch: 86234 Sample Preparation: 2013-05-10 Prepared By: JR

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Chloride		1	<b>398</b>	<b>398</b>	<1.96	mg/L	50	1.96	2.5	0.0392

**Sample: 328987 - 126-12**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101774 Date Analyzed: 2013-05-10 Analyzed By: JR  
 Prep Batch: 86234 Sample Preparation: 2013-05-10 Prepared By: JR

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Nitrate-N		1	<b>16.2</b>	<b>16.2</b>	<0.0420	mg/L	5	0.0420	0.5	0.0084

**Sample: 328987 - 126-12**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 101538 Date Analyzed: 2013-05-13 Analyzed By: DL  
 Prep Batch: 86048 Sample Preparation: 2013-05-13 Prepared By: DL

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Dissolved Solids		1	<b>2380</b>	<b>2380</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 328987 - 126-12**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: E 351.3 Prep Method: N/A  
 QC Batch: 101424 Date Analyzed: 2013-05-13 Analyzed By: AK  
 Prep Batch: 85838 Sample Preparation: 2013-05-13 Prepared By: AK

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N	J	2	<b>2.10</b>	<10.0	<1.66	mg/L	1	1.66	10	1.66

**Sample: 328988 - 126-13**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101787 Date Analyzed: 2013-05-11 Analyzed By: JR  
 Prep Batch: 86241 Sample Preparation: 2013-05-11 Prepared By: JR

*continued ...*

sample 328988 continued ...

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Chloride		1	<b>385</b>	<b>385</b>	<1.96	mg/L	50	1.96	2.5	0.0392

**Sample: 328988 - 126-13**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101774 Date Analyzed: 2013-05-10 Analyzed By: JR  
 Prep Batch: 86234 Sample Preparation: 2013-05-10 Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Nitrate-N		1	<b>34.1</b>	<b>34.1</b>	<0.0420	mg/L	5	0.0420	0.5	0.0084

**Sample: 328988 - 126-13**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 101538 Date Analyzed: 2013-05-13 Analyzed By: DL  
 Prep Batch: 86048 Sample Preparation: 2013-05-13 Prepared By: DL

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	<b>3160</b>	<b>3160</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 328988 - 126-13**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: E 351.3 Prep Method: N/A  
 QC Batch: 101424 Date Analyzed: 2013-05-13 Analyzed By: AK  
 Prep Batch: 85838 Sample Preparation: 2013-05-13 Prepared By: AK

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.66	<10.0	<1.66	mg/L	1	1.66	10	1.66



**Sample: 328989 - 126 Lagoon**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101787 Date Analyzed: 2013-05-11 Analyzed By: JR  
 Prep Batch: 86241 Sample Preparation: 2013-05-11 Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Chloride		1	<b>1200</b>	<b>1200</b>	<1.96	mg/L	50	1.96	2.5	0.0392

**Sample: 328989 - 126 Lagoon**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101787 Date Analyzed: 2013-05-11 Analyzed By: JR  
 Prep Batch: 86241 Sample Preparation: 2013-05-11 Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Nitrate-N	J	1	<b>3.91</b>	<5.00	<0.0840	mg/L	10	0.0840	0.5	0.0084

**Sample: 328989 - 126 Lagoon**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 101538 Date Analyzed: 2013-05-13 Analyzed By: DL  
 Prep Batch: 86048 Sample Preparation: 2013-05-13 Prepared By: DL

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	<b>12200</b>	<b>12200</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 328989 - 126 Lagoon**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: E 351.3 Prep Method: N/A  
 QC Batch: 101424 Date Analyzed: 2013-05-13 Analyzed By: AK  
 Prep Batch: 85838 Sample Preparation: 2013-05-13 Prepared By: AK

*continued ...*

*sample 328989 continued ...*

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
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Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N		2	<b>921</b>	<b>921</b>	<3.32	mg/L	2	3.32	10	1.66

## Method Blanks

### Method Blank (1)

QC Batch: 101424  
Prep Batch: 85838Date Analyzed: 2013-05-13  
QC Preparation: 2013-05-13Analyzed By: AK  
Prepared By: AK

Parameter	F	C	Result	Units	Reporting Limits
Total Kjeldahl Nitrogen - N		2	<1.66	mg/L	1.66

### Method Blank (1)

QC Batch: 101537  
Prep Batch: 86047Date Analyzed: 2013-05-13  
QC Preparation: 2013-05-13Analyzed By: DL  
Prepared By: DL

Parameter	F	C	Result	Units	Reporting Limits
Total Dissolved Solids		1	<5.00	mg/L	5

### Method Blank (1)

QC Batch: 101538  
Prep Batch: 86048Date Analyzed: 2013-05-13  
QC Preparation: 2013-05-13Analyzed By: DL  
Prepared By: DL

Parameter	F	C	Result	Units	Reporting Limits
Total Dissolved Solids		1	<5.00	mg/L	5

### Method Blank (1)

QC Batch: 101774  
Prep Batch: 86234Date Analyzed: 2013-05-10  
QC Preparation: 2013-05-10Analyzed By: JR  
Prepared By: JR



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Parameter	F	C	Result	Units	Reporting Limits
Chloride		1	<0.0392	mg/L	0.0392

---

**Method Blank (1)**QC Batch: 101774  
Prep Batch: 86234Date Analyzed: 2013-05-10  
QC Preparation: 2013-05-10Analyzed By: JR  
Prepared By: JR

---

Parameter	F	C	Result	Units	Reporting Limits
Nitrate-N		1	0.158	mg/L	0.0084

---

**Method Blank (1)**QC Batch: 101782  
Prep Batch: 86238Date Analyzed: 2013-05-11  
QC Preparation: 2013-05-11Analyzed By: JR  
Prepared By: JR

---

Parameter	F	C	Result	Units	Reporting Limits
Chloride		1	<0.0392	mg/L	0.0392

---

**Method Blank (1)**QC Batch: 101787  
Prep Batch: 86241Date Analyzed: 2013-05-11  
QC Preparation: 2013-05-11Analyzed By: JR  
Prepared By: JR

---

Parameter	F	C	Result	Units	Reporting Limits
Chloride		1	1.30	mg/L	0.0392

---

**Method Blank (1)**QC Batch: 101787  
Prep Batch: 86241Date Analyzed: 2013-05-11  
QC Preparation: 2013-05-11Analyzed By: JR  
Prepared By: JR

Parameter	F	C	Result	Units	Reporting Limits
Nitrate-N		1	0.162	mg/L	0.0084

**Duplicate (1)** Duplicated Sample: 328771

QC Batch: 101537 Date Analyzed: 2013-05-13 Analyzed By: DL  
 Prep Batch: 86047 QC Preparation: 2013-05-13 Prepared By: DL

Param	F	C	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids		1	6580	6650	mg/L	1	1	10

**Duplicate (1)** Duplicated Sample: 328984

QC Batch: 101538 Date Analyzed: 2013-05-13 Analyzed By: DL  
 Prep Batch: 86048 QC Preparation: 2013-05-13 Prepared By: DL

Param	F	C	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids		1	3060	3060	mg/L	1	0	10

# Laboratory Control Spikes

## Laboratory Control Spike (LCS-1)

QC Batch: 101537  
Prep Batch: 86047Date Analyzed: 2013-05-13  
QC Preparation: 2013-05-13Analyzed By: DL  
Prepared By: DL

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Dissolved Solids		1	998	mg/L	1	1000	<5.00	100	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Dissolved Solids		1	997	mg/L	1	1000	<5.00	100	90 - 110	0	10

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

## Laboratory Control Spike (LCS-1)

QC Batch: 101538  
Prep Batch: 86048Date Analyzed: 2013-05-13  
QC Preparation: 2013-05-13Analyzed By: DL  
Prepared By: DL

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Dissolved Solids		1	996	mg/L	1	1000	<5.00	100	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Dissolved Solids		1	992	mg/L	1	1000	<5.00	99	90 - 110	0	10

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

## Matrix Spike (MS-1) Spiked Sample: 328988

QC Batch: 101424  
Prep Batch: 85838Date Analyzed: 2013-05-13  
QC Preparation: 2013-05-13Analyzed By: AK  
Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Kjeldahl Nitrogen - N		2	41.3	mg/L	1	50.0	<1.66	83	45.3 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.



Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Total Kjeldahl Nitrogen - N		2	42.7	mg/L	1	50.0	<1.66	85	45.3 - 115	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 328987

QC Batch: 101774  
Prep Batch: 86234

Date Analyzed: 2013-05-10  
QC Preparation: 2013-05-10

Analyzed By: JR  
Prepared By: JR

Param	F	C	MS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
			Result	Units					
Chloride		1	1740	mg/L	55.6	1390	398	96	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Chloride		1	1730	mg/L	55.6	1390	398	96	90 - 110	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 328987

QC Batch: 101774  
Prep Batch: 86234

Date Analyzed: 2013-05-10  
QC Preparation: 2013-05-10

Analyzed By: JR  
Prepared By: JR

Param	F	C	MS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
			Result	Units					
Nitrate-N		1	278	mg/L	55.6	278	16.2	94	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Nitrate-N		1	276	mg/L	55.6	278	16.2	93	90 - 110	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 328983

QC Batch: 101782  
Prep Batch: 86238

Date Analyzed: 2013-05-11  
QC Preparation: 2013-05-11

Analyzed By: JR  
Prepared By: JR

Param	F	C	MS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
			Result	Units					
Chloride		1	1830	mg/L	55.6	1390	499	96	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Chloride		1	2000	mg/L	55.6	1390	499	108	90 - 110	9	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 328985

QC Batch: 101787  
Prep Batch: 86241

Date Analyzed: 2013-05-11  
QC Preparation: 2013-05-11

Analyzed By: JR  
Prepared By: JR

Param	F	C	MS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
			Result	Units					
Chloride		1	1940	mg/L	55.6	1390	573	98	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Chloride		1	1940	mg/L	55.6	1390	573	98	90 - 110	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 328985

QC Batch: 101787  
Prep Batch: 86241

Date Analyzed: 2013-05-11  
QC Preparation: 2013-05-11

Analyzed By: JR  
Prepared By: JR

Param	F	C	MS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
			Result	Units					
Nitrate-N		1	276	mg/L	55.6	278	19.7	92	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Nitrate-N		1	275	mg/L	55.6	278	19.7	92	90 - 110	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

## Calibration Standards

### Standard (ICV-1)

QC Batch: 101424

Date Analyzed: 2013-05-13

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	4.34	87	85 - 115	2013-05-13

### Standard (CCV-1)

QC Batch: 101424

Date Analyzed: 2013-05-13

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	4.76	95	85 - 115	2013-05-13

### Standard (CCV-1)

QC Batch: 101774

Date Analyzed: 2013-05-10

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	23.3	93	90 - 110	2013-05-10

### Standard (CCV-1)

QC Batch: 101774

Date Analyzed: 2013-05-10

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.68	94	90 - 110	2013-05-10



**Standard (CCV-2)**

QC Batch: 101774

Date Analyzed: 2013-05-10

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	23.0	92	90 - 110	2013-05-10

**Standard (CCV-2)**

QC Batch: 101774

Date Analyzed: 2013-05-10

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.62	92	90 - 110	2013-05-10

**Standard (CCV-1)**

QC Batch: 101782

Date Analyzed: 2013-05-11

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	22.7	91	90 - 110	2013-05-11

**Standard (CCV-2)**

QC Batch: 101782

Date Analyzed: 2013-05-11

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	22.6	90	90 - 110	2013-05-11

**Standard (CCV-1)**

QC Batch: 101787

Date Analyzed: 2013-05-11

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	22.6	90	90 - 110	2013-05-11

**Standard (CCV-1)**

QC Batch: 101787

Date Analyzed: 2013-05-11

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.54	91	90 - 110	2013-05-11

**Standard (CCV-2)**

QC Batch: 101787

Date Analyzed: 2013-05-11

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	22.5	90	90 - 110	2013-05-11

**Standard (CCV-2)**

QC Batch: 101787

Date Analyzed: 2013-05-11

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.53	91	90 - 110	2013-05-11

---

## Limits of Detection (LOD)

Test	Method	Matrix	Instrument	Analyte	Spike	
					Amount	Pass
Chloride (IC)	E 300.0	water	Dionex IC	Chloride	0.0962	Pass
NO3 (IC)	E 300.0	water	Dionex IC	Nitrate-N	0.0192	Pass
TKN	E 351.3	water	N/A	Total Kjeldahl Nitrogen - N	5.00	Pass



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# Appendix

## Report Definitions

Name	Definition
MDL	Method Detection Limit
MQL	Minimum Quantitation Limit
SDL	Sample Detection Limit

## Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704221-12-3	El Paso
2	NELAP	T104704219-13-9	Lubbock

## Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less than ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
MI1	Split peak or shoulder peak
MI2	Instrument software did not integrate
MI3	Instrument software misidentified the peak
MI4	Instrument software integrated improperly
MI5	Baseline correction
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

## Attachments

The scanned attachments will follow this page.  
Please note, each attachment may consist of more than one page.

Company Name: D&H Petroleum & Environmental Services  
 Address: (Street, City, Zip) 1221 Tower Trail Ln., El Paso, Texas 79907  
 Contact Person: Victor Ayala  
 Phone #: 915-859-8150  
 Cell #:   
 Fax #:   
 E-mail: vayala@dhpump.com

Project Name: Linda Armstrong 575-233-3620  
 Project #: 415787  
 Daybreak Dairy  
 Project Location (including state): Del Norte Dairy, 12560 Stern Drive, Mesquite, NM  
 Sampler Signature: [Signature]

LAB #	Field Code	# Containers	Volume/Amount	MATRIX				PRESERVATIVE METHOD				Sampling			
				WATER	SOIL	AIR	SLUDGE	HCl	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	NaOH	ICE	NONE	DATE	TIME
88-83-1	126-4	1	250ml	X				X				X		5-10-13	9:47
↓-2	126-4	1	250ml	X				X				X		5-10-13	9:47
84-1	126-5	1	250ml	X				X				X		5-10-13	9:01
↓-2	126-5	1	250ml	X				X				X		5-10-13	9:01
85-1	126-7	1	250ml	X				X				X		5-10-13	10:31
↓-2	126-7	1	250ml	X				X				X		5-10-13	10:31
86-1	126-9	1	250ml	X				X				X		5-10-13	12:45
↓-2	126-9	1	250ml	X				X				X		5-10-13	12:45
87-1	126-12	1	250ml	X				X				X		5-10-13	8:04
↓-2	126-12	1	250ml	X				X				X		5-10-13	8:04
88-1	126-13	1	250ml	X				X				X		5-10-13	11:41
↓-2	126-13	1	250ml	X				X				X		5-10-13	11:41
89-1	126 Lagoon	1	250ml	X				X				X		5-10-13	12:09
↓-2	126 Lagoon	1	250ml	X				X				X		5-10-13	12:09

ANALYSIS REQUEST	MTBE 8021B/602	BTEX 8021B/602	TPH 418.1 / TX1005	TX 1005 Extended (C35)	PAH 8270C	PAH 8270 (Low Level Analysis)	Total Metals Ag As BA Cd Cr Pb Se Hg 6010B/200.7	Nitrates EPA 300	Total Kjeldahl Nitrogen SM 4500 NORG C	Chloride EPA 300.0	Total Dissolved Solids SM 2540 C MOD	Phosphorus SM 4500	Turn Around Time	Hold
							X	X	X	X	X	X		
							X	X	X	X	X	X		
							X	X	X	X	X	X		
							X	X	X	X	X	X		
							X	X	X	X	X	X		
							X	X	X	X	X	X		
							X	X	X	X	X	X		
							X	X	X	X	X	X		
							X	X	X	X	X	X		

Relinquished By: [Signature] Date: 5-10-13 Time: 13:45 Received By: [Signature] Date: 5-10-13 Time: 13:45

Relinquished By: [Signature] Date: 5-10-13 Time: 1630 Received at Laboratory By: [Signature] Date: 5/11/13 Time: 10:00

Remarks: no 3 / TDS / C / MOD

Lab Use Only: Intact Y / N Headspace Y / N Temp 21.4 C Log-in Review PH



6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800-378-1296 806-794-1296 FAX 806-794-1298  
 200 East Sunset Road, Suite E El Paso, Texas 79922 915-585-3443 FAX 915-585-4944  
 5002 Basin Street, Suite A1 Midland, Texas 79703 432-689-6301 FAX 432-689-6313  
 (BioAquatic) 2501 Mayes Rd., Suite 100 Carrollton, Texas 75006 972-242-7750  
 E-Mail: lab@traceanalysis.com WEB: www.traceanalysis.com

## Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

# Analytical and Quality Control Report

Tim Hyde  
 Bright Star Dairy  
 13520 Stern Dr.  
 P.O. Box 167  
 Mesquite, NM, 88048

Report Date: May 28, 2013

Work Order: 13050942



DP: 340  
 Project Location: 13520 Stern Dr, Mesquite, NM  
 Project Name: Bright Star Dairy

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
328769	340-1	water	2013-05-09	14:02	2013-05-09
328770	340-2	water	2013-05-09	14:24	2013-05-09
328771	70/86/340	water	2013-05-09	09:26	2013-05-09
328772	86/340	water	2013-05-09	07:58	2013-05-09
328773	340 Lagoon	water	2013-05-09	14:46	2013-05-09

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 21 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

**Notes:**

*For inorganic analyses, the term MQL should actually read PQL.*



*Michael Abel*

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Dr. Blair Leftwich, Director  
Dr. Michael Abel, Project Manager

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## Case Narrative

Samples for project Bright Star Dairy were received by TraceAnalysis, Inc. on 2013-05-09 and assigned to work order 13050942. Samples for work order 13050942 were received intact at a temperature of 3.0 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
Chloride (IC)	E 300.0	86227	2013-05-10 at 03:07	101766	2013-05-10 at 03:07
Chloride (IC)	E 300.0	86236	2013-05-11 at 02:27	101780	2013-05-11 at 02:27
NO3 (IC)	E 300.0	86227	2013-05-10 at 03:07	101766	2013-05-10 at 03:07
NO3 (IC)	E 300.0	86231	2013-05-10 at 17:44	101773	2013-05-10 at 17:44
TDS	SM 2540C	86047	2013-05-13 at 08:00	101537	2013-05-13 at 08:00
TDS	SM 2540C	86049	2013-05-14 at 08:00	101539	2013-05-14 at 08:00
TKN	E 351.3	85837	2013-05-13 at 08:19	101426	2013-05-13 at 02:30

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 13050942 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.



# Analytical Report

**Sample: 328769 - 340-1**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101766 Date Analyzed: 2013-05-10 Analyzed By: JR  
 Prep Batch: 86227 Sample Preparation: 2013-05-10 Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Chloride		1	<b>577</b>	<b>577</b>	<1.96	mg/L	50	1.96	2.5	0.0392

**Sample: 328769 - 340-1**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101766 Date Analyzed: 2013-05-10 Analyzed By: JR  
 Prep Batch: 86227 Sample Preparation: 2013-05-10 Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Nitrate-N		1	<b>31.1</b>	<b>31.1</b>	<0.0420	mg/L	5	0.0420	0.5	0.0084

**Sample: 328769 - 340-1**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 101539 Date Analyzed: 2013-05-14 Analyzed By: DL  
 Prep Batch: 86049 Sample Preparation: 2013-05-14 Prepared By: DL

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	<b>3700</b>	<b>3700</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 328769 - 340-1**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: E 351.3 Prep Method: N/A  
 QC Batch: 101426 Date Analyzed: 2013-05-13 Analyzed By: AK  
 Prep Batch: 85837 Sample Preparation: 2013-05-13 Prepared By: AK

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.66	<10.0	<1.66	mg/L	1	1.66	10	1.66

**Sample: 328770 - 340-2**

Laboratory: El Paso  
 Analysis: Chloride (IC)                      Analytical Method: E 300.0                      Prep Method: N/A  
 QC Batch: 101766                              Date Analyzed: 2013-05-10                      Analyzed By: JR  
 Prep Batch: 86227                              Sample Preparation: 2013-05-10                      Prepared By: JR

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Chloride		1	<b>744</b>	<b>744</b>	<1.96	mg/L	50	1.96	2.5	0.0392

**Sample: 328770 - 340-2**

Laboratory: El Paso  
 Analysis: NO3 (IC)                              Analytical Method: E 300.0                              Prep Method: N/A  
 QC Batch: 101766                              Date Analyzed: 2013-05-10                              Analyzed By: JR  
 Prep Batch: 86227                              Sample Preparation: 2013-05-10                              Prepared By: JR

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Nitrate-N		1	<b>74.6</b>	<b>74.6</b>	<0.0840	mg/L	10	0.0840	0.5	0.0084

**Sample: 328770 - 340-2**

Laboratory: El Paso  
 Analysis: TDS                                      Analytical Method: SM 2540C                              Prep Method: N/A  
 QC Batch: 101539                              Date Analyzed: 2013-05-14                              Analyzed By: DL  
 Prep Batch: 86049                              Sample Preparation: 2013-05-14                              Prepared By: DL

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Dissolved Solids		1	<b>3180</b>	<b>3180</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 328770 - 340-2**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: E 351.3 Prep Method: N/A  
 QC Batch: 101426 Date Analyzed: 2013-05-13 Analyzed By: AK  
 Prep Batch: 85837 Sample Preparation: 2013-05-13 Prepared By: AK

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.66	<10.0	<1.66	mg/L	1	1.66	10	1.66

**Sample: 328771 - 70/86/340**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101766 Date Analyzed: 2013-05-10 Analyzed By: JR  
 Prep Batch: 86227 Sample Preparation: 2013-05-10 Prepared By: JR

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Chloride		1	<b>1930</b>	<b>1930</b>	<1.96	mg/L	50	1.96	2.5	0.0392

**Sample: 328771 - 70/86/340**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101766 Date Analyzed: 2013-05-10 Analyzed By: JR  
 Prep Batch: 86227 Sample Preparation: 2013-05-10 Prepared By: JR

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Nitrate-N		1	<b>15.1</b>	<b>15.1</b>	<0.0420	mg/L	5	0.0420	0.5	0.0084

**Sample: 328771 - 70/86/340**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 101537 Date Analyzed: 2013-05-13 Analyzed By: DL  
 Prep Batch: 86047 Sample Preparation: 2013-05-13 Prepared By: DL

*continued . . .*



*sample 328771 continued ...*

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	<b>6650</b>	<b>6650</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 328771 - 70/86/340**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: E 351.3 Prep Method: N/A  
 QC Batch: 101426 Date Analyzed: 2013-05-13 Analyzed By: AK  
 Prep Batch: 85837 Sample Preparation: 2013-05-13 Prepared By: AK

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.66	<10.0	<1.66	mg/L	1	1.66	10	1.66

**Sample: 328772 - 86/340**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101780 Date Analyzed: 2013-05-11 Analyzed By: JR  
 Prep Batch: 86236 Sample Preparation: 2013-05-11 Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Chloride		1	<b>603</b>	<b>603</b>	<1.96	mg/L	50	1.96	2.5	0.0392

**Sample: 328772 - 86/340**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101773 Date Analyzed: 2013-05-10 Analyzed By: JR  
 Prep Batch: 86231 Sample Preparation: 2013-05-10 Prepared By: JR

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Nitrate-N		1	<b>12.3</b>	<b>12.3</b>	<0.0420	mg/L	5	0.0420	0.5	0.0084

**Sample: 328772 - 86/340**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 101537 Date Analyzed: 2013-05-13 Analyzed By: DL  
 Prep Batch: 86047 Sample Preparation: 2013-05-13 Prepared By: DL

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	<b>3020</b>	<b>3020</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 328772 - 86/340**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: E 351.3 Prep Method: N/A  
 QC Batch: 101426 Date Analyzed: 2013-05-13 Analyzed By: AK  
 Prep Batch: 85837 Sample Preparation: 2013-05-13 Prepared By: AK

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.66	<10.0	<1.66	mg/L	1	1.66	10	1.66

**Sample: 328773 - 340 Lagoon**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101780 Date Analyzed: 2013-05-11 Analyzed By: JR  
 Prep Batch: 86236 Sample Preparation: 2013-05-11 Prepared By: JR

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Chloride		1	<b>1450</b>	<b>1450</b>	<1.96	mg/L	50	1.96	2.5	0.0392

**Sample: 328773 - 340 Lagoon**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101773 Date Analyzed: 2013-05-10 Analyzed By: JR  
 Prep Batch: 86231 Sample Preparation: 2013-05-10 Prepared By: JR

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Nitrate-N		1	<b>3.40</b>	<b>3.40</b>	<0.0420	mg/L	5	0.0420	0.5	0.0084

**Sample: 328773 - 340 Lagoon**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 101537 Date Analyzed: 2013-05-13 Analyzed By: DL  
 Prep Batch: 86047 Sample Preparation: 2013-05-13 Prepared By: DL

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Dissolved Solids		1	<b>6790</b>	<b>6790</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 328773 - 340 Lagoon**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: E 351.3 Prep Method: N/A  
 QC Batch: 101426 Date Analyzed: 2013-05-13 Analyzed By: AK  
 Prep Batch: 85837 Sample Preparation: 2013-05-13 Prepared By: AK

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N		2	<b>351</b>	<b>351</b>	<3.32	mg/L	2	3.32	10	1.66



## Method Blanks

### Method Blank (1)

QC Batch: 101426  
Prep Batch: 85837Date Analyzed: 2013-05-13  
QC Preparation: 2013-05-13Analyzed By: AK  
Prepared By: AK

Parameter	F	C	Result	Units	Reporting Limits
Total Kjeldahl Nitrogen - N		2	<1.66	mg/L	1.66

### Method Blank (1)

QC Batch: 101537  
Prep Batch: 86047Date Analyzed: 2013-05-13  
QC Preparation: 2013-05-13Analyzed By: DL  
Prepared By: DL

Parameter	F	C	Result	Units	Reporting Limits
Total Dissolved Solids		1	<5.00	mg/L	5

### Method Blank (1)

QC Batch: 101539  
Prep Batch: 86049Date Analyzed: 2013-05-14  
QC Preparation: 2013-05-14Analyzed By: DL  
Prepared By: DL

Parameter	F	C	Result	Units	Reporting Limits
Total Dissolved Solids		1	<5.00	mg/L	5

### Method Blank (1)

QC Batch: 101766  
Prep Batch: 86227Date Analyzed: 2013-05-10  
QC Preparation: 2013-05-10Analyzed By: JR  
Prepared By: JR

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Parameter	F	C	Result	Units	Reporting Limits
Chloride		1	<0.0392	mg/L	0.0392

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**Method Blank (1)**

QC Batch: 101766                      Date Analyzed: 2013-05-10                      Analyzed By: JR  
Prep Batch: 86227                      QC Preparation: 2013-05-10                      Prepared By: JR

---

Parameter	F	C	Result	Units	Reporting Limits
Nitrate-N		1	<0.00840	mg/L	0.0084

---

**Method Blank (1)**

QC Batch: 101773                      Date Analyzed: 2013-05-10                      Analyzed By: JR  
Prep Batch: 86231                      QC Preparation: 2013-05-10                      Prepared By: JR

---

Parameter	F	C	Result	Units	Reporting Limits
Nitrate-N		1	<0.00840	mg/L	0.0084

---

**Method Blank (1)**

QC Batch: 101780                      Date Analyzed: 2013-05-11                      Analyzed By: JR  
Prep Batch: 86236                      QC Preparation: 2013-05-11                      Prepared By: JR

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Parameter	F	C	Result	Units	Reporting Limits
Chloride		1	1.30	mg/L	0.0392

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**Duplicate (1)**    Duplicated Sample: 328771

QC Batch: 101537                      Date Analyzed: 2013-05-13                      Analyzed By: DL  
Prep Batch: 86047                      QC Preparation: 2013-05-13                      Prepared By: DL

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Param	F	C	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids		1	6580	6650	mg/L	1	1	10

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**Duplicate (1)** Duplicated Sample: 328770

QC Batch: 101539  
Prep Batch: 86049

Date Analyzed: 2013-05-14  
QC Preparation: 2013-05-14

Analyzed By: DL  
Prepared By: DL

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Param	F	C	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids		1	3220	3180	mg/L	1	1	10

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# Laboratory Control Spikes

## Laboratory Control Spike (LCS-1)

QC Batch: 101537  
Prep Batch: 86047Date Analyzed: 2013-05-13  
QC Preparation: 2013-05-13Analyzed By: DL  
Prepared By: DL

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Dissolved Solids		1	998	mg/L	1	1000	<5.00	100	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Dissolved Solids		1	997	mg/L	1	1000	<5.00	100	90 - 110	0	10

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

## Laboratory Control Spike (LCS-1)

QC Batch: 101539  
Prep Batch: 86049Date Analyzed: 2013-05-14  
QC Preparation: 2013-05-14Analyzed By: DL  
Prepared By: DL

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Dissolved Solids		1	996	mg/L	1	1000	<5.00	100	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Dissolved Solids		1	999	mg/L	1	1000	<5.00	100	90 - 110	0	10

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

## Matrix Spike (MS-1) Spiked Sample: 328777

QC Batch: 101426  
Prep Batch: 85837Date Analyzed: 2013-05-13  
QC Preparation: 2013-05-13Analyzed By: AK  
Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Kjeldahl Nitrogen - N		2	41.3	mg/L	1	50.0	<1.66	83	45.3 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Total Kjeldahl Nitrogen - N		2	43.4	mg/L	1	50.0	<1.66	87	45.3 - 115	5	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 328769

QC Batch: 101766 Date Analyzed: 2013-05-10 Analyzed By: JR  
Prep Batch: 86227 QC Preparation: 2013-05-10 Prepared By: JR

Param	F	C	MS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
			Result	Units					
Chloride		1	2110	mg/L	62.5	1560	577	98	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Chloride		1	2120	mg/L	62.5	1560	577	99	90 - 110	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 328769

QC Batch: 101766 Date Analyzed: 2013-05-10 Analyzed By: JR  
Prep Batch: 86227 QC Preparation: 2013-05-10 Prepared By: JR

Param	F	C	MS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
			Result	Units					
Nitrate-N		1	326	mg/L	62.5	312	31.1	94	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Nitrate-N		1	327	mg/L	62.5	312	31.1	95	90 - 110	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 328777

QC Batch: 101773 Date Analyzed: 2013-05-10 Analyzed By: JR  
Prep Batch: 86231 QC Preparation: 2013-05-10 Prepared By: JR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Nitrate-N		1	286	mg/L	55.6	278	23	95	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Nitrate-N		1	285	mg/L	55.6	278	23	94	90 - 110	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 328774

QC Batch: 101780  
Prep Batch: 86236

Date Analyzed: 2013-05-11  
QC Preparation: 2013-05-11

Analyzed By: JR  
Prepared By: JR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1	1990	mg/L	55.6	1390	616	99	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride		1	1980	mg/L	55.6	1390	616	98	90 - 110	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.



## Calibration Standards

### Standard (ICV-1)

QC Batch: 101426

Date Analyzed: 2013-05-13

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	4.48	90	85 - 115	2013-05-13

### Standard (CCV-1)

QC Batch: 101426

Date Analyzed: 2013-05-13

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	4.76	95	85 - 115	2013-05-13

### Standard (CCV-1)

QC Batch: 101766

Date Analyzed: 2013-05-10

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	22.9	92	90 - 110	2013-05-10

### Standard (CCV-1)

QC Batch: 101766

Date Analyzed: 2013-05-10

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.64	93	90 - 110	2013-05-10

**Standard (CCV-2)**

QC Batch: 101766

Date Analyzed: 2013-05-10

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	22.6	90	90 - 110	2013-05-10

**Standard (CCV-2)**

QC Batch: 101766

Date Analyzed: 2013-05-10

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.57	91	90 - 110	2013-05-10

**Standard (CCV-1)**

QC Batch: 101773

Date Analyzed: 2013-05-10

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.77	95	90 - 110	2013-05-10

**Standard (CCV-2)**

QC Batch: 101773

Date Analyzed: 2013-05-10

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.68	94	90 - 110	2013-05-10

**Standard (CCV-1)**

QC Batch: 101780

Date Analyzed: 2013-05-11

Analyzed By: JR

Report Date: May 28, 2013

Work Order: 13050942  
Bright Star Dairy

Page Number: 19 of 21  
13520 Stern Dr, Mesquite, NM

---

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	23.0	92	90 - 110	2013-05-11

---

**Standard (CCV-2)**

QC Batch: 101780

Date Analyzed: 2013-05-11

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	22.7	91	90 - 110	2013-05-11

---



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## Limits of Detection (LOD)

Test	Method	Matrix	Instrument	Analyte	Spike Amount	Pass
Chloride (IC)	E 300.0	water	Dionex IC	Chloride	0.0962	Pass
NO3 (IC)	E 300.0	water	Dionex IC	Nitrate-N	0.0192	Pass
TKN	E 351.3	water	N/A	Total Kjeldahl Nitrogen - N	5.00	Pass

---

# Appendix

## Report Definitions

Name	Definition
MDL	Method Detection Limit
MQL	Minimum Quantitation Limit
SDL	Sample Detection Limit

## Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704221-12-3	El Paso
2	NELAP	T104704219-13-9	Lubbock

## Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less than ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
MI1	Split peak or shoulder peak
MI2	Instrument software did not integrate
MI3	Instrument software misidentified the peak
MI4	Instrument software integrated improperly
MI5	Baseline correction
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

## Attachments

The scanned attachments will follow this page.  
Please note, each attachment may consist of more than one page.

# TraceAnalysis, Inc.

**CHAIN-OF-CUSTODY AND ANALYSIS REQUEST**

LAB Order ID # 13050942

Company Name: TraceAnalysis, Inc. Phone #: 915-859-8150  
 D&H Petroleum & Environmental Services Cell #:   
 Address: (Street, City, Zip) 1221 Tower Trail Ln., El Paso, Texas 79907 Fax #:   
 Contact Person: Victor Ayala E-mail: vayala@dhpump.com

Invoice to (if different from above):  
Bright Star Dairy, P.O. Box 167, Mesquite, NM 88048 Tim Hyde 575-233-2029  
 Project #: 415-792 Project Name: Bright Star Dairy

Project Location (including state):  
Bright Star Dairy, 13520 Stern Drive, Mesquite, NM Sampler Signature: [Signature]

LAB #	Field Code	# Containers	Volume/Amount	MATRIX				PRESERVATIVE METHOD				Sampling		
				WATER	SOIL	AIR	SLUDGE	HCl	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	NaOH	ICE	NONE	DATE
228769	340-1	1	250ml	X				X		X			5-9-13	14:02
L-2	340-1	1	250ml	X				X		X			5-9-13	14:02
70-1	340-2	1	250ml	X				X		X			5-9-13	14:24
L-2	340-2	1	250ml	X				X		X			5-9-13	14:24
71-1	70/86/340	1	250ml	X				X		X			5-9-13	9:26
L-2	70/86/340	1	250ml	X				X		X			5-9-13	9:26
72-1	86/340	1	250ml	X				X		X			5-9-13	7:58
L-2	86/340	1	250ml	X				X		X			5-9-13	7:58
73-1	340 Lagoon	1	250ml	X				X		X			5-9-13	14:46
L-2	340 Lagoon	1	250ml	X				X		X			5-9-13	14:46

ANALYSIS REQUEST

MTBE 8021B/602	
BTEX 8021B/602	
TPH 418.1 / TX1005	
TX 1005 Extended (C35)	
PAH 8270C	
PAH 8270 (Low Level Analysis)	
Total Metals Ag As BA Cd Cr Pb Se Hg 6010B/200.7	X
Nitrates EPA 300	X
Total Kjeldahl Nitrogen SM 4500 NORG C	X
Chloride EPA 300.0	X
Total Dissolved Solids SM 2540 C MOD	X
Hold	

Turn Around Time

Lab Use Only  
 Intact Y / I / N  
 Headspace Y / I / N  
 Temp 127 2724  
 Log-in Review 5-9-13

Relinquished By: [Signature] Date: 5-9-13 Time: 15:45  
 Received By: [Signature] Date: 5-9-13 Time: 15:45

Relinquished By: [Signature] Date: 5-9-13 Time: 16:30  
 Received at Laboratory By: [Signature] Date: 5-9-13 Time: 10:00

Remarks: All samples @ EP. TKN Lubbock  
100  
 Dry Weight Basis Required  
 TRRP Report Required





6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800-378-1296 806-794-1296 FAX 806-794-1298  
 200 East Sunset Road, Suite E El Paso, Texas 79922 915-585-3443 FAX 915-585-4944  
 5002 Basin Street, Suite A1 Midland, Texas 79703 432-689-6301 FAX 432-689-6313  
 (BioAquatic) 2501 Mayes Rd., Suite 100 Carrollton, Texas 75006 972-242-7750  
 E-Mail: lab@traceanalysis.com WEB: www.traceanalysis.com

## Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

# Analytical and Quality Control Report

Edward DeRuyter  
 Sunset Dairy  
 17900 Stern Drive  
 P.O. Box 10  
 Mesquite, NM, 88048

Report Date: June 4, 2013

Work Order: 13052233



DP: 257  
 Project Location: 17900 S. Stern Dr., Mesquite, NM  
 Project Name: Sunset Dairy

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
330022	257-01	water	2013-05-22	11:22	2013-05-22
330023	257-02	water	2013-05-22	10:36	2013-05-22
330024	257-03	water	2013-05-22	13:28	2013-05-22
330025	257/260-01	water	2013-05-22	14:52	2013-05-22
330026	257 Lagoon	water	2013-05-22	11:48	2013-05-22

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 21 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

### Notes:

*For inorganic analyses, the term MQL should actually read PQL.*

*Michael Abel*

---

Dr. Blair Leftwich, Director  
Dr. Michael Abel, Project Manager

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## Case Narrative

Samples for project Sunset Dairy were received by TraceAnalysis, Inc. on 2013-05-22 and assigned to work order 13052233. Samples for work order 13052233 were received intact at a temperature of 2.0 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
Chloride (IC)	E 300.0	86376	2013-05-23 at 19:18	101953	2013-05-23 at 19:18
Chloride (IC)	E 300.0	86378	2013-05-23 at 23:39	101955	2013-05-18 at 23:39
NO3 (IC)	E 300.0	86376	2013-05-23 at 19:18	101953	2013-05-23 at 19:18
NO3 (IC)	E 300.0	86378	2013-05-23 at 23:39	101955	2013-05-18 at 23:39
TDS	SM 2540C	86329	2013-05-28 at 14:00	101888	2013-05-28 at 14:00
TDS	SM 2540C	86331	2013-05-28 at 14:00	101889	2013-05-28 at 14:00
TKN	SM 4500-NH3 B,C	86173	2013-05-24 at 09:04	101827	2013-05-24 at 01:30

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 13052233 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

# Analytical Report

**Sample: 330022 - 257-01**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101953 Date Analyzed: 2013-05-23 Analyzed By: JR  
 Prep Batch: 86376 Sample Preparation: 2013-05-23 Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Chloride		1	<b>660</b>	<b>660</b>	<1.96	mg/L	50	1.96	2.5	0.0392

**Sample: 330022 - 257-01**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101953 Date Analyzed: 2013-05-23 Analyzed By: JR  
 Prep Batch: 86376 Sample Preparation: 2013-05-23 Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Nitrate-N		1	<b>33.6</b>	<b>33.6</b>	<0.0420	mg/L	5	0.0420	0.5	0.0084

**Sample: 330022 - 257-01**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 101888 Date Analyzed: 2013-05-28 Analyzed By: DL  
 Prep Batch: 86329 Sample Preparation: 2013-05-28 Prepared By: DL

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	<b>3100</b>	<b>3100</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 330022 - 257-01**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: SM 4500-NH3 B,C Prep Method: N/A  
 QC Batch: 101827 Date Analyzed: 2013-05-24 Analyzed By: AK  
 Prep Batch: 86173 Sample Preparation: 2013-05-24 Prepared By: AK

Report Date: June 4, 2013

Work Order: 13052233  
Sunset Dairy

Page Number: 6 of 21  
17900 S. Stern Dr., Mesquite, NM

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.66	<10.0	<1.66	mg/L	1	1.66	10	1.66

**Sample: 330023 - 257-02**

Laboratory: El Paso  
 Analysis: Chloride (IC)      Analytical Method: E 300.0      Prep Method: N/A  
 QC Batch: 101953      Date Analyzed: 2013-05-23      Analyzed By: JR  
 Prep Batch: 86376      Sample Preparation: 2013-05-23      Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Chloride		1	<b>469</b>	<b>469</b>	<1.96	mg/L	50	1.96	2.5	0.0392

**Sample: 330023 - 257-02**

Laboratory: El Paso  
 Analysis: NO3 (IC)      Analytical Method: E 300.0      Prep Method: N/A  
 QC Batch: 101953      Date Analyzed: 2013-05-23      Analyzed By: JR  
 Prep Batch: 86376      Sample Preparation: 2013-05-23      Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Nitrate-N		1	<b>3.39</b>	<b>3.39</b>	<0.0420	mg/L	5	0.0420	0.5	0.0084

**Sample: 330023 - 257-02**

Laboratory: El Paso  
 Analysis: TDS      Analytical Method: SM 2540C      Prep Method: N/A  
 QC Batch: 101889      Date Analyzed: 2013-05-28      Analyzed By: DL  
 Prep Batch: 86331      Sample Preparation: 2013-05-28      Prepared By: DL

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Dissolved Solids		1	<b>1880</b>	<b>1880</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 330023 - 257-02**



Laboratory: Lubbock  
 Analysis: TKN Analytical Method: SM 4500-NH3 B,C Prep Method: N/A  
 QC Batch: 101827 Date Analyzed: 2013-05-24 Analyzed By: AK  
 Prep Batch: 86173 Sample Preparation: 2013-05-24 Prepared By: AK

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	MQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.66	<10.0	<1.66	mg/L	1	1.66	10	1.66

**Sample: 330024 - 257-03**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101953 Date Analyzed: 2013-05-23 Analyzed By: JR  
 Prep Batch: 86376 Sample Preparation: 2013-05-23 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	MQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Chloride		1	<b>658</b>	<b>658</b>	<1.96	mg/L	50	1.96	2.5	0.0392

**Sample: 330024 - 257-03**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101953 Date Analyzed: 2013-05-23 Analyzed By: JR  
 Prep Batch: 86376 Sample Preparation: 2013-05-23 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	MQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Nitrate-N		1	<b>7.23</b>	<b>7.23</b>	<0.0420	mg/L	5	0.0420	0.5	0.0084

**Sample: 330024 - 257-03**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 101889 Date Analyzed: 2013-05-28 Analyzed By: DL  
 Prep Batch: 86331 Sample Preparation: 2013-05-28 Prepared By: DL

*continued . . .*

*sample 330024 continued ...*

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	<b>2640</b>	<b>2640</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 330024 - 257-03**

Laboratory: Lubbock

Analysis: TKN

QC Batch: 101827

Prep Batch: 86173

Analytical Method: SM 4500-NH3 B,C

Date Analyzed: 2013-05-24

Sample Preparation: 2013-05-24

Prep Method: N/A

Analyzed By: AK

Prepared By: AK

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.66	<10.0	<1.66	mg/L	1	1.66	10	1.66

**Sample: 330025 - 257/260-01**

Laboratory: El Paso

Analysis: Chloride (IC)

QC Batch: 101955

Prep Batch: 86378

Analytical Method: E 300.0

Date Analyzed: 2013-05-18

Sample Preparation: 2013-05-23

Prep Method: N/A

Analyzed By: JR

Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Chloride		1	<b>673</b>	<b>673</b>	<1.96	mg/L	50	1.96	2.5	0.0392

**Sample: 330025 - 257/260-01**

Laboratory: El Paso

Analysis: NO3 (IC)

QC Batch: 101955

Prep Batch: 86378

Analytical Method: E 300.0

Date Analyzed: 2013-05-18

Sample Preparation: 2013-05-23

Prep Method: N/A

Analyzed By: JR

Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Nitrate-N	J	1	<b>2.39</b>	<2.50	<0.0420	mg/L	5	0.0420	0.5	0.0084

**Sample: 330025 - 257/260-01**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 101889 Date Analyzed: 2013-05-28 Analyzed By: DL  
 Prep Batch: 86331 Sample Preparation: 2013-05-28 Prepared By: DL

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	<b>2820</b>	<b>2820</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 330025 - 257/260-01**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: SM 4500-NH3 B,C Prep Method: N/A  
 QC Batch: 101827 Date Analyzed: 2013-05-24 Analyzed By: AK  
 Prep Batch: 86173 Sample Preparation: 2013-05-24 Prepared By: AK

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N	U	2	<1.66	<10.0	<1.66	mg/L	1	1.66	10	1.66

**Sample: 330026 - 257 Lagoon**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101955 Date Analyzed: 2013-05-18 Analyzed By: JR  
 Prep Batch: 86378 Sample Preparation: 2013-05-23 Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Chloride		1	<b>1240</b>	<b>1240</b>	<1.96	mg/L	50	1.96	2.5	0.0392

**Sample: 330026 - 257 Lagoon**



Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101955 Date Analyzed: 2013-05-18 Analyzed By: JR  
 Prep Batch: 86378 Sample Preparation: 2013-05-23 Prepared By: JR

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Nitrate-N		1	<b>3.66</b>	<b>3.66</b>	<0.0420	mg/L	5	0.0420	0.5	0.0084

**Sample: 330026 - 257 Lagoon**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 101889 Date Analyzed: 2013-05-28 Analyzed By: DL  
 Prep Batch: 86331 Sample Preparation: 2013-05-28 Prepared By: DL

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Dissolved Solids		1	<b>5680</b>	<b>5680</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 330026 - 257 Lagoon**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: SM 4500-NH3 B,C Prep Method: N/A  
 QC Batch: 101827 Date Analyzed: 2013-05-24 Analyzed By: AK  
 Prep Batch: 86173 Sample Preparation: 2013-05-24 Prepared By: AK

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N		2	<b>287</b>	<b>287</b>	<8.30	mg/L	5	8.30	10	1.66

## Method Blanks

### Method Blank (1)

QC Batch: 101827  
Prep Batch: 86173Date Analyzed: 2013-05-24  
QC Preparation: 2013-05-24Analyzed By: AK  
Prepared By: AK

Parameter	F	C	Result	Units	Reporting Limits
Total Kjeldahl Nitrogen - N		2	<1.66	mg/L	1.66

### Method Blank (1)

QC Batch: 101888  
Prep Batch: 86329Date Analyzed: 2013-05-28  
QC Preparation: 2013-05-28Analyzed By: DL  
Prepared By: DL

Parameter	F	C	Result	Units	Reporting Limits
Total Dissolved Solids		1	<5.00	mg/L	5

### Method Blank (1)

QC Batch: 101889  
Prep Batch: 86331Date Analyzed: 2013-05-28  
QC Preparation: 2013-05-28Analyzed By: DL  
Prepared By: DL

Parameter	F	C	Result	Units	Reporting Limits
Total Dissolved Solids		1	<5.00	mg/L	5

### Method Blank (1)

QC Batch: 101953  
Prep Batch: 86376Date Analyzed: 2013-05-23  
QC Preparation: 2013-05-23Analyzed By: JR  
Prepared By: JR

Parameter	F	C	Result	Units	Reporting Limits
Chloride		1	<0.0392	mg/L	0.0392

**Method Blank (1)**QC Batch: 101953  
Prep Batch: 86376Date Analyzed: 2013-05-23  
QC Preparation: 2013-05-23Analyzed By: JR  
Prepared By: JR

Parameter	F	C	Result	Units	Reporting Limits
Nitrate-N		1	<0.00840	mg/L	0.0084

**Method Blank (1)**QC Batch: 101955  
Prep Batch: 86378Date Analyzed: 2013-05-18  
QC Preparation: 2013-05-23Analyzed By: JR  
Prepared By: JR

Parameter	F	C	Result	Units	Reporting Limits
Chloride		1	<0.0392	mg/L	0.0392

**Method Blank (1)**QC Batch: 101955  
Prep Batch: 86378Date Analyzed: 2013-05-18  
QC Preparation: 2013-05-23Analyzed By: JR  
Prepared By: JR

Parameter	F	C	Result	Units	Reporting Limits
Nitrate-N		1	0.159	mg/L	0.0084

**Duplicate (1)** Duplicated Sample: 329909QC Batch: 101888  
Prep Batch: 86329Date Analyzed: 2013-05-28  
QC Preparation: 2013-05-28Analyzed By: DL  
Prepared By: DL



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Param	F	C	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids		1	4820	4730	mg/L	1	2	10

---

**Duplicate (1)** Duplicated Sample: 330027

QC Batch: 101889  
Prep Batch: 86331

Date Analyzed: 2013-05-28  
QC Preparation: 2013-05-28

Analyzed By: DL  
Prepared By: DL

---

Param	F	C	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids		1	3600	3630	mg/L	1	1	10

---

# Laboratory Control Spikes

## Laboratory Control Spike (LCS-1)

QC Batch: 101888  
Prep Batch: 86329Date Analyzed: 2013-05-28  
QC Preparation: 2013-05-28Analyzed By: DL  
Prepared By: DL

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Dissolved Solids		1	992	mg/L	1	1000	<5.00	99	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Dissolved Solids		1	993	mg/L	1	1000	<5.00	99	90 - 110	0	10

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

## Laboratory Control Spike (LCS-1)

QC Batch: 101889  
Prep Batch: 86331Date Analyzed: 2013-05-28  
QC Preparation: 2013-05-28Analyzed By: DL  
Prepared By: DL

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Dissolved Solids		1	988	mg/L	1	1000	<5.00	99	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Dissolved Solids		1	993	mg/L	1	1000	<5.00	99	90 - 110	0	10

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

## Matrix Spike (MS-1) Spiked Sample: 330028

QC Batch: 101827  
Prep Batch: 86173Date Analyzed: 2013-05-24  
QC Preparation: 2013-05-24Analyzed By: AK  
Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Kjeldahl Nitrogen - N		2	42.0	mg/L	1	50.0	<1.66	84	10 - 151

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Total Kjeldahl Nitrogen - N		2	41.3	mg/L	1	50.0	<1.66	83	10 - 151	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 330023

QC Batch: 101953  
Prep Batch: 86376

Date Analyzed: 2013-05-23  
QC Preparation: 2013-05-23

Analyzed By: JR  
Prepared By: JR

Param	F	C	MS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
			Result	Units					
Chloride		1	1950	mg/L	55.6	1390	469	106	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Chloride		1	1960	mg/L	55.6	1390	469	107	90 - 110	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 330023

QC Batch: 101953  
Prep Batch: 86376

Date Analyzed: 2013-05-23  
QC Preparation: 2013-05-23

Analyzed By: JR  
Prepared By: JR

Param	F	C	MS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
			Result	Units					
Nitrate-N		1	287	mg/L	55.6	278	3.39	102	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Nitrate-N		1	289	mg/L	55.6	278	3.39	103	90 - 110	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 330025

QC Batch: 101955  
Prep Batch: 86378

Date Analyzed: 2013-05-18  
QC Preparation: 2013-05-23

Analyzed By: JR  
Prepared By: JR



Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1	2160	mg/L	55.6	1390	673	107	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride		1	2150	mg/L	55.6	1390	673	106	90 - 110	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 330025

QC Batch: 101955  
Prep Batch: 86378

Date Analyzed: 2013-05-18  
QC Preparation: 2013-05-23

Analyzed By: JR  
Prepared By: JR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Nitrate-N		1	278	mg/L	55.6	278	2.39	99	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Nitrate-N		1	276	mg/L	55.6	278	2.39	99	90 - 110	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

## Calibration Standards

### Standard (ICV-1)

QC Batch: 101827

Date Analyzed: 2013-05-24

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	4.34	87	85 - 115	2013-05-24

### Standard (CCV-1)

QC Batch: 101827

Date Analyzed: 2013-05-24

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	4.76	95	85 - 115	2013-05-24

### Standard (CCV-1)

QC Batch: 101953

Date Analyzed: 2013-05-23

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	24.1	96	90 - 110	2013-05-23

### Standard (CCV-1)

QC Batch: 101953

Date Analyzed: 2013-05-23

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.79	96	90 - 110	2013-05-23

**Standard (CCV-2)**

QC Batch: 101953

Date Analyzed: 2013-05-23

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	24.0	96	90 - 110	2013-05-23

**Standard (CCV-2)**

QC Batch: 101953

Date Analyzed: 2013-05-23

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.80	96	90 - 110	2013-05-23

**Standard (CCV-1)**

QC Batch: 101955

Date Analyzed: 2013-05-18

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	24.0	96	90 - 110	2013-05-18

**Standard (CCV-1)**

QC Batch: 101955

Date Analyzed: 2013-05-18

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.80	96	90 - 110	2013-05-18

**Standard (CCV-2)**

QC Batch: 101955

Date Analyzed: 2013-05-18

Analyzed By: JR

Report Date: June 4, 2013

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Sunset Dairy

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Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	24.0	96	90 - 110	2013-05-18

---

**Standard (CCV-2)**

QC Batch: 101955

Date Analyzed: 2013-05-18

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.80	96	90 - 110	2013-05-18

---



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## Limits of Detection (LOD)

Test	Method	Matrix	Instrument	Analyte	Spike	
					Amount	Pass
Chloride (IC)	E 300.0	water	Dionex IC	Chloride	0.0962	Pass
NO3 (IC)	E 300.0	water	Dionex IC	Nitrate-N	0.0192	Pass
TKN	SM 4500-NH3 B,C	water	N/A	Total Kjeldahl Nitrogen - N	5.00	Pass

---

# Appendix

## Report Definitions

Name	Definition
MDL	Method Detection Limit
MQL	Minimum Quantitation Limit
SDL	Sample Detection Limit

## Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704221-12-3	El Paso
2	NELAP	T104704219-13-9	Lubbock

## Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less than ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
MI1	Split peak or shoulder peak
MI2	Instrument software did not integrate
MI3	Instrument software misidentified the peak
MI4	Instrument software integrated improperly
MI5	Baseline correction
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

## Attachments

The scanned attachments will follow this page.  
Please note, each attachment may consist of more than one page.

Company Name: D&H Petroleum & Environmental Services  
Address: (Street, City, Zip) 1221 Tower Trail Ln, El Paso TX 79907  
Contact Person: Victor Ayala  
Phone #: 915-859-8150  
Cell #:   
Fax #:   
E-mail: vajala@dhpump.com

Project Name: Ed DeRuyter 575-233-2029  
Project #: 415794  
Project Location (including state): Sunset Dairy, 1790

Sampler Signature: Chad H R  
Project Name: Sunset Dairy  
Project Location (including state): Sunset Dairy, 1790

Invoice to (if different from above): Sunset Dairy, PO Box 10, Mesquite, NM 88048

LAB #	Field Code	# Containers	Volume/Amount	MATRIX			PRESERVATIVE METHOD				SAMPLING			
				WATER	SOIL	AIR	SLUDGE	HCl	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	NaOH	ICE	NONE	DATE
330022-1	257-01	1	250ml	X				X					5-22-13	11:22
↓ -2	257-01	1	250ml	X				X					5-22-13	11:22
330023-1	257-02	1	250ml	X				X					5-22-13	10:36
↓ -2	257-02	1	250ml	X				X					5-22-13	10:36
330024-1	257-03	1	250ml	X				X					5-22-13	13:28
↓ -2	257-03	1	250ml	X				X					5-22-13	13:28
330025-1	257/260-01	1	250ml	X				X					5-22-13	14:52
↓ -2	257/260-01	1	250ml	X				X					5-22-13	14:52
330026-1	257 Lagoon	1	250ml	X				X					5-22-13	11:48
↓ -2	257 Lagoon	1	250ml	X				X					5-22-13	11:48

ANALYSIS REQUEST  
 PAH 8270C  
 TX 1005 Extended (C35)  
 TPH 418.1 / TX1005  
 BTEX 8021B/602  
 MTBE 8021B/602  
 PAH 8270 (Low Level Analysis)  
 Total Metals Ag As BA Cd Cr Pb Se Hg 6010B/200.7  
 Nitrates EPA 300  
 TKN SM 4500 NORG C  
 Chloride EPA 300  
 Total Dissolved Solids SM 2540 C MOD

Relinquished By: Chad H R Date: 5-22-13 Time: 15:18  
 Relinquished By: Samuel Date: 5-22-13 Time: 16:30  
 Received By: Samuel Date: 5-22-13 Time: 15:18  
 Received at Laboratory By: Samuel Date: 5-22-13 Time: 9:30

Lab Use Only  
 Intact Y / N  
 Headspace Y / N  
 Temp 0/2/2  
 Log-in Review Y

Remarks: TPS, C4, UO3, W5H  
 Dry Weight Basis Required 2  
 TRRP Report Required 5



6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800-378-1296 806-794-1296 FAX 806-794-1298  
200 East Sunset Road, Suite E El Paso, Texas 79922 915-585-3443 FAX 915-585-4944  
5002 Basin Street, Suite A1 Midland, Texas 79703 432-689-6301 FAX 432-689-6313  
(BioAquatic) 2501 Mayes Rd., Suite 100 Carrollton, Texas 75006 972-242-7750  
E-Mail: lab@traceanalysis.com WEB: www.traceanalysis.com

## Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

# Analytical and Quality Control Report

George Segura  
Big Sky Dairy  
17800 Stern Drive  
P.O. Box 10  
Mesquite, NM, 88048

Report Date: June 4, 2013

Work Order: 13052234



DP: 833  
Project Location: 17800 Stern Drive, Mesquite, NM 88048  
Project Name: Big Sky Dairy

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
330027	833-09	water	2013-05-22	08:41	2013-05-22
330028	833-10	water	2013-05-22	09:40	2013-05-22

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 16 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

### Notes:

*For inorganic analyses, the term MQL should actually read PQL.*

Dr. Blair Leftwich, Director  
Dr. Michael Abel, Project Manager



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## Case Narrative

Samples for project Big Sky Dairy were received by TraceAnalysis, Inc. on 2013-05-22 and assigned to work order 13052234. Samples for work order 13052234 were received intact at a temperature of 2.0 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
Chloride (IC)	E 300.0	86378	2013-05-23 at 23:39	101955	2013-05-18 at 23:39
Chloride (IC)	E 300.0	86379	2013-05-24 at 04:00	101956	2013-05-24 at 04:00
NO3 (IC)	E 300.0	86378	2013-05-23 at 23:39	101955	2013-05-18 at 23:39
NO3 (IC)	E 300.0	86379	2013-05-24 at 04:00	101956	2013-05-24 at 04:00
TDS	SM 2540C	86331	2013-05-28 at 14:00	101889	2013-05-28 at 14:00
TKN	SM 4500-NH3 B,C	86173	2013-05-24 at 09:04	101827	2013-05-24 at 01:30

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 13052234 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

# Analytical Report

**Sample: 330027 - 833-09**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101955 Date Analyzed: 2013-05-18 Analyzed By: JR  
 Prep Batch: 86378 Sample Preparation: 2013-05-23 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Chloride		1	<b>786</b>	<b>786</b>	<1.96	mg/L	50	1.96	2.5	0.0392

**Sample: 330027 - 833-09**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101955 Date Analyzed: 2013-05-18 Analyzed By: JR  
 Prep Batch: 86378 Sample Preparation: 2013-05-23 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Nitrate-N		1	<b>78.1</b>	<b>78.1</b>	<0.0840	mg/L	10	0.0840	0.5	0.0084

**Sample: 330027 - 833-09**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 101889 Date Analyzed: 2013-05-28 Analyzed By: DL  
 Prep Batch: 86331 Sample Preparation: 2013-05-28 Prepared By: DL

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Dissolved Solids		1	<b>3630</b>	<b>3630</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 330027 - 833-09**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: SM 4500-NH3 B,C Prep Method: N/A  
 QC Batch: 101827 Date Analyzed: 2013-05-24 Analyzed By: AK  
 Prep Batch: 86173 Sample Preparation: 2013-05-24 Prepared By: AK

Report Date: June 4, 2013

Work Order: 13052234  
Big Sky Dairy

Page Number: 5 of 16  
17800 Stern Drive, Mesquite, NM 88048

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.66	<10.0	<1.66	mg/L	1	1.66	10	1.66

**Sample: 330028 - 833-10**

Laboratory: El Paso  
 Analysis: Chloride (IC)                      Analytical Method: E 300.0                      Prep Method: N/A  
 QC Batch: 101956                              Date Analyzed: 2013-05-24                      Analyzed By: JR  
 Prep Batch: 86379                              Sample Preparation: 2013-05-24                      Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Chloride		1	<b>648</b>	<b>648</b>	<1.96	mg/L	50	1.96	2.5	0.0392

**Sample: 330028 - 833-10**

Laboratory: El Paso  
 Analysis: NO3 (IC)                              Analytical Method: E 300.0                      Prep Method: N/A  
 QC Batch: 101956                              Date Analyzed: 2013-05-24                      Analyzed By: JR  
 Prep Batch: 86379                              Sample Preparation: 2013-05-24                      Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Nitrate-N		1	<b>3.96</b>	<b>3.96</b>	<0.0420	mg/L	5	0.0420	0.5	0.0084

**Sample: 330028 - 833-10**

Laboratory: El Paso  
 Analysis: TDS                                      Analytical Method: SM 2540C                      Prep Method: N/A  
 QC Batch: 101889                              Date Analyzed: 2013-05-28                      Analyzed By: DL  
 Prep Batch: 86331                              Sample Preparation: 2013-05-28                      Prepared By: DL

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Total Dissolved Solids		1	<b>2580</b>	<b>2580</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 330028 - 833-10**



Report Date: June 4, 2013

Work Order: 13052234  
Big Sky Dairy

Page Number: 6 of 16  
17800 Stern Drive, Mesquite, NM 88048

Laboratory: Lubbock

Analysis: TKN

QC Batch: 101827

Prep Batch: 86173

Analytical Method: SM 4500-NH3 B,C

Date Analyzed: 2013-05-24

Sample Preparation: 2013-05-24

Prep Method: N/A

Analyzed By: AK

Prepared By: AK

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.66	<10.0	<1.66	mg/L	1	1.66	10	1.66

## Method Blanks

### Method Blank (1)

QC Batch: 101827  
Prep Batch: 86173Date Analyzed: 2013-05-24  
QC Preparation: 2013-05-24Analyzed By: AK  
Prepared By: AK

Parameter	F	C	Result	Units	Reporting Limits
Total Kjeldahl Nitrogen - N		2	<1.66	mg/L	1.66

### Method Blank (1)

QC Batch: 101889  
Prep Batch: 86331Date Analyzed: 2013-05-28  
QC Preparation: 2013-05-28Analyzed By: DL  
Prepared By: DL

Parameter	F	C	Result	Units	Reporting Limits
Total Dissolved Solids		1	<5.00	mg/L	5

### Method Blank (1)

QC Batch: 101955  
Prep Batch: 86378Date Analyzed: 2013-05-18  
QC Preparation: 2013-05-23Analyzed By: JR  
Prepared By: JR

Parameter	F	C	Result	Units	Reporting Limits
Chloride		1	<0.0392	mg/L	0.0392

### Method Blank (1)

QC Batch: 101955  
Prep Batch: 86378Date Analyzed: 2013-05-18  
QC Preparation: 2013-05-23Analyzed By: JR  
Prepared By: JR

Parameter	F	C	Result	Units	Reporting Limits
Nitrate-N		1	0.159	mg/L	0.0084

**Method Blank (1)**

QC Batch: 101956                      Date Analyzed: 2013-05-24                      Analyzed By: JR  
 Prep Batch: 86379                      QC Preparation: 2013-05-24                      Prepared By: JR

Parameter	F	C	Result	Units	Reporting Limits
Chloride		1	1.41	mg/L	0.0392

**Method Blank (1)**

QC Batch: 101956                      Date Analyzed: 2013-05-24                      Analyzed By: JR  
 Prep Batch: 86379                      QC Preparation: 2013-05-24                      Prepared By: JR

Parameter	F	C	Result	Units	Reporting Limits
Nitrate-N		1	<0.00840	mg/L	0.0084

**Duplicate (1)**    Duplicated Sample: 330027

QC Batch: 101889                      Date Analyzed: 2013-05-28                      Analyzed By: DL  
 Prep Batch: 86331                      QC Preparation: 2013-05-28                      Prepared By: DL

Param	F	C	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids		1	3600	3630	mg/L	1	1	10

# Laboratory Control Spikes

## Laboratory Control Spike (LCS-1)

QC Batch: 101889  
Prep Batch: 86331Date Analyzed: 2013-05-28  
QC Preparation: 2013-05-28Analyzed By: DL  
Prepared By: DL

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Dissolved Solids		1	988	mg/L	1	1000	<5.00	99	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Dissolved Solids		1	993	mg/L	1	1000	<5.00	99	90 - 110	0	10

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

## Matrix Spike (MS-1) Spiked Sample: 330028

QC Batch: 101827  
Prep Batch: 86173Date Analyzed: 2013-05-24  
QC Preparation: 2013-05-24Analyzed By: AK  
Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Kjeldahl Nitrogen - N		2	42.0	mg/L	1	50.0	<1.66	84	10 - 151

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Kjeldahl Nitrogen - N		2	41.3	mg/L	1	50.0	<1.66	83	10 - 151	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

## Matrix Spike (MS-1) Spiked Sample: 330025

QC Batch: 101955  
Prep Batch: 86378Date Analyzed: 2013-05-18  
QC Preparation: 2013-05-23Analyzed By: JR  
Prepared By: JR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1	2160	mg/L	55.6	1390	673	107	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.



Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Chloride		1	2150	mg/L	55.6	1390	673	106	90 - 110	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 330025

QC Batch: 101955  
Prep Batch: 86378

Date Analyzed: 2013-05-18  
QC Preparation: 2013-05-23

Analyzed By: JR  
Prepared By: JR

Param	F	C	MS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
			Result	Units					
Nitrate-N		1	278	mg/L	55.6	278	2.39	99	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Nitrate-N		1	276	mg/L	55.6	278	2.39	99	90 - 110	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 330028

QC Batch: 101956  
Prep Batch: 86379

Date Analyzed: 2013-05-24  
QC Preparation: 2013-05-24

Analyzed By: JR  
Prepared By: JR

Param	F	C	MS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
			Result	Units					
Chloride		1	2140	mg/L	55.6	1390	648	107	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Chloride		1	2140	mg/L	55.6	1390	648	107	90 - 110	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 330028

QC Batch: 101956  
Prep Batch: 86379

Date Analyzed: 2013-05-24  
QC Preparation: 2013-05-24

Analyzed By: JR  
Prepared By: JR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Nitrate-N		1	282	mg/L	55.6	278	3.96	100	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Nitrate-N		1	282	mg/L	55.6	278	3.96	100	90 - 110	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

## Calibration Standards

### Standard (ICV-1)

QC Batch: 101827

Date Analyzed: 2013-05-24

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	4.34	87	85 - 115	2013-05-24

### Standard (CCV-1)

QC Batch: 101827

Date Analyzed: 2013-05-24

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	4.76	95	85 - 115	2013-05-24

### Standard (CCV-1)

QC Batch: 101955

Date Analyzed: 2013-05-18

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	24.0	96	90 - 110	2013-05-18

### Standard (CCV-1)

QC Batch: 101955

Date Analyzed: 2013-05-18

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.80	96	90 - 110	2013-05-18

**Standard (CCV-2)**

QC Batch: 101955

Date Analyzed: 2013-05-18

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	24.0	96	90 - 110	2013-05-18

**Standard (CCV-2)**

QC Batch: 101955

Date Analyzed: 2013-05-18

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.80	96	90 - 110	2013-05-18

**Standard (CCV-1)**

QC Batch: 101956

Date Analyzed: 2013-05-24

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	24.0	96	90 - 110	2013-05-24

**Standard (CCV-1)**

QC Batch: 101956

Date Analyzed: 2013-05-24

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.80	96	90 - 110	2013-05-24

**Standard (CCV-2)**

QC Batch: 101956

Date Analyzed: 2013-05-24

Analyzed By: JR



Report Date: June 4, 2013

Work Order: 13052234  
Big Sky Dairy

Page Number: 14 of 16  
17800 Stern Drive, Mesquite, NM 88048

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Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	24.0	96	90 - 110	2013-05-24

---

**Standard (CCV-2)**

QC Batch: 101956

Date Analyzed: 2013-05-24

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.80	96	90 - 110	2013-05-24

---

---

## Limits of Detection (LOD)

Test	Method	Matrix	Instrument	Analyte	Spike Amount	Pass
Chloride (IC)	E 300.0	water	Dionex IC	Chloride	0.0962	Pass
NO3 (IC)	E 300.0	water	Dionex IC	Nitrate-N	0.0192	Pass
TKN	SM 4500-NH3 B,C	water	N/A	Total Kjeldahl Nitrogen - N	5.00	Pass

---

# Appendix

## Report Definitions

Name	Definition
MDL	Method Detection Limit
MQL	Minimum Quantitation Limit
SDL	Sample Detection Limit

## Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704221-12-3	El Paso
2	NELAP	T104704219-13-9	Lubbock

## Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less than ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
MI1	Split peak or shoulder peak
MI2	Instrument software did not integrate
MI3	Instrument software misidentified the peak
MI4	Instrument software integrated improperly
MI5	Baseline correction
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

## Attachments

The scanned attachments will follow this page.  
Please note, each attachment may consist of more than one page.

# Trace Analysis, Inc.

6701 Aberdeen Avenue, Suite 9  
Lubbock, Texas 79424  
Tel (806) 794-1296  
Fax (806) 794-1298  
1 (800) 378-1296

200 East Sunset Rd., Suite E  
El Paso, Texas 79922  
Tel (915) 585-3443  
Fax (915) 585-4944  
1 (888) 588-3443

BioAquatic Testing  
2501 Mayes Rd., Ste 100  
Carrollton, Texas 75006  
Tel (972) 242-7750

email: lab@traceanalysis.com

<b>Company Name:</b> Diff Environmental & Petroleum Services 1221 Tower Trail Ln, El Paso, TX 79907 Contact Person: Vickie Ayala Invoice to: Big Sky Dairy, P.O. Box 10, (if different from above) Mesquite, NM 88048 Project #: 415-796 Project Location (including state): Big Sky Dairy, 17800 Stein Dr. Mesquite, NM		<b>Phone #:</b> 915-859-8150 <b>Fax #:</b> <b>E-mail:</b> vickie@dhump.com											
<b>Company Name:</b> Big Sky Dairy Sampler Signature: <i>[Signature]</i>		<b>Project Name:</b> Big Sky Dairy											
LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX			PRESERVATIVE METHOD				SAMPLING		
				WATER	SOIL	AIR	SLUDGE	HCl	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	NaOH	ICE	NONE
830022	833-09	1	250mL X					X				5-22-13	8:41
4-2	833-09	1	250mL X					X				5-22-13	8:41
830028	833-10	1	250mL X					X				5-22-13	9:40
4-2	833-10	1	250mL X					X				5-22-13	9:40

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

MTBE 8021 / 602 / 8260 / 624	
BTEX 8021 / 602 / 8260 / 624	
TPH 418.1 / TX1005 / TX1005 EXT(C35)	
TPH 8015 GRO / DRO / TVHC	
PAH 8270 / 625	
Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7	
TCLP Metals Ag As Ba Cd Cr Pb Se Hg	
TCLP Volatiles	
TCLP Semi Volatiles	
TCLP Pesticides	
RCl	
GC/MS Vol. 8260 / 624	
GC/MS Semi. Vol. 8270 / 625	
PCB's 8082 / 608	
Pesticides 8081 / 608	
BOD, TSS, pH	
Moisture Content	
Cl, F1, S04, NO3, NO2, Alkalinity	
Na, Ca, Mg, K, TDS, EC	
Nitrates EPA 300	X
TKN sm 4500 N06h C	X
Chloride EPA 300.0	X
TDS sm 2540 C m0d	X
Turn Around Time if different from standard	

<b>Relinquished by:</b> <i>[Signature]</i> Company: D'H Date: 5-22-13 15:18 Time: 15:18	<b>Received by:</b> <i>[Signature]</i> Company: <i>[Signature]</i> Date: 5-22-13 Time: 15:18	<b>INST 102</b> OBS 0 COR 2
<b>Relinquished by:</b> <i>[Signature]</i> Company: <i>[Signature]</i> Date: 5-22-13 1630 Time: 1630	<b>Received by:</b> <i>[Signature]</i> Company: <i>[Signature]</i> Date: 5-24-13 9:30 Time: 9:30	<b>INST 11</b> OBS 4.1 COR 4.4

**LAB USE**  
ice ONLY

Inact  Y / N / NA  
 Headspace Y / N / NA  
 Log-in-Review  A

**REMARKS:** TDS C1, W3 w 50

Dry Weight Basis Required   
 TRRP Report Required   
 Check if Special Reporting Limits Are Needed





6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800-378-1296 806-794-1296 FAX 806-794-1298  
 200 East Sunset Road, Suite E El Paso, Texas 79922 915-585-3443 FAX 915-585-4944  
 5002 Basin Street, Suite A1 Midland, Texas 79703 432-689-6301 FAX 432-689-6313  
 (BioAquatic) 2501 Mayes Rd., Suite 100 Carrollton, Texas 75006 972-242-7750  
 E-Mail: lab@traceanalysis.com WEB: www.traceanalysis.com

## Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

# Analytical and Quality Control Report

Fernie Franco  
 Buena Vista Dairy #2  
 16910 Stern Drive  
 P.O. Box 346  
 Mesquite, NM, 88048

Report Date: June 7, 2013

Work Order: 13051636



DP: 74  
 Project Location: 16910 Stern Drive, Mesquite, NM  
 Project Name: Buena Vista Dairy #2

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
329426	74-1	water	2013-05-16	09:05	2013-05-16
329427	74-2	water	2013-05-16	08:37	2013-05-16
329428	74-3	water	2013-05-16	08:06	2013-05-16
329429	74-4	water	2013-05-16	10:57	2013-05-16
329430	74-5	water	2013-05-16	10:10	2013-05-16
329431	74 Lagoon	water	2013-05-16	09:27	2013-05-16

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 22 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

**Notes:**

*For inorganic analyses, the term MQL should actually read PQL.*

*Michael Abel*

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Dr. Blair Leftwich, Director  
Dr. Michael Abel, Project Manager

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## Case Narrative

Samples for project Buena Vista Dairy #2 were received by TraceAnalysis, Inc. on 2013-05-16 and assigned to work order 13051636. Samples for work order 13051636 were received intact at a temperature of 3.0 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
Chloride (IC)	E 300.0	86411	2013-05-17 at 20:06	101993	2013-05-17 at 20:06
Chloride (IC)	E 300.0	86416	2013-06-03 at 22:21	101998	2013-06-03 at 22:21
NO3 (IC)	E 300.0	86411	2013-05-17 at 20:06	101993	2013-05-17 at 20:06
NO3 (IC)	E 300.0	86416	2013-06-03 at 22:21	101998	2013-06-03 at 22:21
TDS	SM 2540C	86252	2013-05-22 at 08:00	101798	2013-05-22 at 08:00
TKN	SM 4500-NH3 B,C	86030	2013-05-20 at 08:26	101555	2013-05-20 at 12:30

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 13051636 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.



# Analytical Report

**Sample: 329426 - 74-1**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101998 Date Analyzed: 2013-06-03 Analyzed By: JR  
 Prep Batch: 86416 Sample Preparation: 2013-06-03 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Chloride		1	<b>816</b>	<b>816</b>	<1.96	mg/L	50	1.96	2.5	0.0392

**Sample: 329426 - 74-1**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101998 Date Analyzed: 2013-06-03 Analyzed By: JR  
 Prep Batch: 86416 Sample Preparation: 2013-06-03 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Nitrate-N	1	H 1	<b>72.3</b>	<b>72.3</b>	<0.0420	mg/L	5	0.0420	0.5	0.0084

**Sample: 329426 - 74-1**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 101798 Date Analyzed: 2013-05-22 Analyzed By: DL  
 Prep Batch: 86252 Sample Preparation: 2013-05-22 Prepared By: DL

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Dissolved Solids		1	<b>3090</b>	<b>3090</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 329426 - 74-1**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: SM 4500-NH3 B,C Prep Method: N/A  
 QC Batch: 101555 Date Analyzed: 2013-05-20 Analyzed By: AK  
 Prep Batch: 86030 Sample Preparation: 2013-05-20 Prepared By: AK

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Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N	U	2	<1.66	<10.0	<1.66	mg/L	1	1.66	10	1.66

**Sample: 329427 - 74-2**

Laboratory: El Paso  
 Analysis: Chloride (IC)      Analytical Method: E 300.0      Prep Method: N/A  
 QC Batch: 101998      Date Analyzed: 2013-06-03      Analyzed By: JR  
 Prep Batch: 86416      Sample Preparation: 2013-06-03      Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Chloride		1	<b>549</b>	<b>549</b>	<1.96	mg/L	50	1.96	2.5	0.0392

**Sample: 329427 - 74-2**

Laboratory: El Paso  
 Analysis: NO3 (IC)      Analytical Method: E 300.0      Prep Method: N/A  
 QC Batch: 101998      Date Analyzed: 2013-06-03      Analyzed By: JR  
 Prep Batch: 86416      Sample Preparation: 2013-06-03      Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Nitrate-N	2	H 1	<b>15.5</b>	<b>15.5</b>	<0.0420	mg/L	5	0.0420	0.5	0.0084

**Sample: 329427 - 74-2**

Laboratory: El Paso  
 Analysis: TDS      Analytical Method: SM 2540C      Prep Method: N/A  
 QC Batch: 101798      Date Analyzed: 2013-05-22      Analyzed By: DL  
 Prep Batch: 86252      Sample Preparation: 2013-05-22      Prepared By: DL

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Dissolved Solids		1	<b>2120</b>	<b>2120</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 329427 - 74-2**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: SM 4500-NH3 B,C Prep Method: N/A  
 QC Batch: 101555 Date Analyzed: 2013-05-20 Analyzed By: AK  
 Prep Batch: 86030 Sample Preparation: 2013-05-20 Prepared By: AK

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	MQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.66	<10.0	<1.66	mg/L	1	1.66	10	1.66

**Sample: 329428 - 74-3**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101998 Date Analyzed: 2013-06-03 Analyzed By: JR  
 Prep Batch: 86416 Sample Preparation: 2013-06-03 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	MQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Chloride		1	<b>1160</b>	<b>1160</b>	<1.96	mg/L	50	1.96	2.5	0.0392

**Sample: 329428 - 74-3**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101998 Date Analyzed: 2013-06-03 Analyzed By: JR  
 Prep Batch: 86416 Sample Preparation: 2013-06-03 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	MQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Nitrate-N	3	H 1	<b>7.88</b>	<b>7.88</b>	<0.0420	mg/L	5	0.0420	0.5	0.0084

**Sample: 329428 - 74-3**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 101798 Date Analyzed: 2013-05-22 Analyzed By: DL  
 Prep Batch: 86252 Sample Preparation: 2013-05-22 Prepared By: DL

*continued . . .*

*sample 329428 continued ...*

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	<b>3920</b>	<b>3920</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 329428 - 74-3**

Laboratory: Lubbock

Analysis: TKN

QC Batch: 101555

Prep Batch: 86030

Analytical Method: SM 4500-NH3 B,C

Date Analyzed: 2013-05-20

Sample Preparation: 2013-05-20

Prep Method: N/A

Analyzed By: AK

Prepared By: AK

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.66	<10.0	<1.66	mg/L	1	1.66	10	1.66

**Sample: 329429 - 74-4**

Laboratory: El Paso

Analysis: Chloride (IC)

QC Batch: 101993

Prep Batch: 86411

Analytical Method: E 300.0

Date Analyzed: 2013-05-17

Sample Preparation: 2013-05-17

Prep Method: N/A

Analyzed By: JR

Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Chloride		1	<b>502</b>	<b>502</b>	<1.96	mg/L	50	1.96	2.5	0.0392

**Sample: 329429 - 74-4**

Laboratory: El Paso

Analysis: NO3 (IC)

QC Batch: 101993

Prep Batch: 86411

Analytical Method: E 300.0

Date Analyzed: 2013-05-17

Sample Preparation: 2013-05-17

Prep Method: N/A

Analyzed By: JR

Prepared By: JR



Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Nitrate-N		1	<b>17.6</b>	<b>17.6</b>	<0.0420	mg/L	5	0.0420	0.5	0.0084

**Sample: 329429 - 74-4**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 101798 Date Analyzed: 2013-05-22 Analyzed By: DL  
 Prep Batch: 86252 Sample Preparation: 2013-05-22 Prepared By: DL

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	<b>1890</b>	<b>1890</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 329429 - 74-4**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: SM 4500-NH3 B,C Prep Method: N/A  
 QC Batch: 101555 Date Analyzed: 2013-05-20 Analyzed By: AK  
 Prep Batch: 86030 Sample Preparation: 2013-05-20 Prepared By: AK

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N	U	2	<1.66	<10.0	<1.66	mg/L	1	1.66	10	1.66

**Sample: 329430 - 74-5**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101993 Date Analyzed: 2013-05-17 Analyzed By: JR  
 Prep Batch: 86411 Sample Preparation: 2013-05-17 Prepared By: JR

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Chloride		1	<b>469</b>	<b>469</b>	<1.96	mg/L	50	1.96	2.5	0.0392

**Sample: 329430 - 74-5**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101993 Date Analyzed: 2013-05-17 Analyzed By: JR  
 Prep Batch: 86411 Sample Preparation: 2013-05-17 Prepared By: JR

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Nitrate-N		1	<b>17.5</b>	<b>17.5</b>	<0.0420	mg/L	5	0.0420	0.5	0.0084

**Sample: 329430 - 74-5**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 101798 Date Analyzed: 2013-05-22 Analyzed By: DL  
 Prep Batch: 86252 Sample Preparation: 2013-05-22 Prepared By: DL

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Dissolved Solids		1	<b>1860</b>	<b>1860</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 329430 - 74-5**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: SM 4500-NH3 B,C Prep Method: N/A  
 QC Batch: 101555 Date Analyzed: 2013-05-20 Analyzed By: AK  
 Prep Batch: 86030 Sample Preparation: 2013-05-20 Prepared By: AK

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N	U	2	<1.66	<10.0	<1.66	mg/L	1	1.66	10	1.66

**Sample: 329431 - 74 Lagoon**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101993 Date Analyzed: 2013-05-17 Analyzed By: JR  
 Prep Batch: 86411 Sample Preparation: 2013-05-17 Prepared By: JR

*continued ...*

*sample 329431 continued ...*

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Chloride		1	<b>399</b>	<b>399</b>	<1.96	mg/L	50	1.96	2.5	0.0392

**Sample: 329431 - 74 Lagoon**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101993 Date Analyzed: 2013-05-17 Analyzed By: JR  
 Prep Batch: 86411 Sample Preparation: 2013-05-17 Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Nitrate-N	u	1	<0.0420	<2.50	<0.0420	mg/L	5	0.0420	0.5	0.0084

**Sample: 329431 - 74 Lagoon**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 101798 Date Analyzed: 2013-05-22 Analyzed By: DL  
 Prep Batch: 86252 Sample Preparation: 2013-05-22 Prepared By: DL

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	<b>3420</b>	<b>3420</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 329431 - 74 Lagoon**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: SM 4500-NH3 B,C Prep Method: N/A  
 QC Batch: 101555 Date Analyzed: 2013-05-20 Analyzed By: AK  
 Prep Batch: 86030 Sample Preparation: 2013-05-20 Prepared By: AK

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N		2	<b>84.0</b>	<b>84.0</b>	<8.30	mg/L	5	8.30	10	1.66

## Method Blanks

### Method Blank (1)

QC Batch: 101555  
Prep Batch: 86030Date Analyzed: 2013-05-20  
QC Preparation: 2013-05-20Analyzed By: AK  
Prepared By: AK

Parameter	F	C	Result	Units	Reporting Limits
Total Kjeldahl Nitrogen - N		2	<1.66	mg/L	1.66

### Method Blank (1)

QC Batch: 101798  
Prep Batch: 86252Date Analyzed: 2013-05-22  
QC Preparation: 2013-05-22Analyzed By: DL  
Prepared By: DL

Parameter	F	C	Result	Units	Reporting Limits
Total Dissolved Solids		1	<5.00	mg/L	5

### Method Blank (1)

QC Batch: 101993  
Prep Batch: 86411Date Analyzed: 2013-05-17  
QC Preparation: 2013-05-17Analyzed By: JR  
Prepared By: JR

Parameter	F	C	Result	Units	Reporting Limits
Chloride		1	<0.0392	mg/L	0.0392

### Method Blank (1)

QC Batch: 101993  
Prep Batch: 86411Date Analyzed: 2013-05-17  
QC Preparation: 2013-05-17Analyzed By: JR  
Prepared By: JR





# Laboratory Control Spikes

## Laboratory Control Spike (LCS-1)

QC Batch: 101798  
Prep Batch: 86252Date Analyzed: 2013-05-22  
QC Preparation: 2013-05-22Analyzed By: DL  
Prepared By: DL

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Dissolved Solids		1	992	mg/L	1	1000	<5.00	99	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Dissolved Solids		1	993	mg/L	1	1000	<5.00	99	90 - 110	0	10

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

## Matrix Spike (MS-1) Spiked Sample: 329433

QC Batch: 101555  
Prep Batch: 86030Date Analyzed: 2013-05-20  
QC Preparation: 2013-05-20Analyzed By: AK  
Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Kjeldahl Nitrogen - N		2	47.6	mg/L	1	50.0	<1.66	95	10 - 151

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Kjeldahl Nitrogen - N		2	46.2	mg/L	1	50.0	<1.66	92	10 - 151	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

## Matrix Spike (MS-1) Spiked Sample: 329430

QC Batch: 101993  
Prep Batch: 86411Date Analyzed: 2013-05-17  
QC Preparation: 2013-05-17Analyzed By: JR  
Prepared By: JR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1	1830	mg/L	55.6	1390	469	98	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Chloride		1	1830	mg/L	55.6	1390	469	98	90 - 110	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 329430

QC Batch: 101993 Date Analyzed: 2013-05-17 Analyzed By: JR  
Prep Batch: 86411 QC Preparation: 2013-05-17 Prepared By: JR

Param	F	C	MS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
			Result	Units					
Nitrate-N		1	282	mg/L	55.6	278	17.5	95	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Nitrate-N		1	281	mg/L	55.6	278	17.5	95	90 - 110	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 329427

QC Batch: 101998 Date Analyzed: 2013-06-03 Analyzed By: JR  
Prep Batch: 86416 QC Preparation: 2013-06-03 Prepared By: JR

Param	F	C	MS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
			Result	Units					
Chloride		1	1970	mg/L	55.6	1390	549	102	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Chloride		1	1960	mg/L	55.6	1390	549	102	90 - 110	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 329427

QC Batch: 101998 Date Analyzed: 2013-06-03 Analyzed By: JR  
Prep Batch: 86416 QC Preparation: 2013-06-03 Prepared By: JR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Nitrate-N		1	287	mg/L	55.6	278	15.5	98	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Nitrate-N		1	287	mg/L	55.6	278	15.5	98	90 - 110	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.



## Calibration Standards

### Standard (ICV-1)

QC Batch: 101555

Date Analyzed: 2013-05-20

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	4.48	90	85 - 115	2013-05-20

### Standard (CCV-1)

QC Batch: 101555

Date Analyzed: 2013-05-20

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	4.62	92	85 - 115	2013-05-20

### Standard (CCV-1)

QC Batch: 101993

Date Analyzed: 2013-05-17

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	23.5	94	90 - 110	2013-05-17

### Standard (CCV-1)

QC Batch: 101993

Date Analyzed: 2013-05-17

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.73	95	90 - 110	2013-05-17

**Standard (CCV-2)**

QC Batch: 101993

Date Analyzed: 2013-05-17

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	22.8	91	90 - 110	2013-05-17

**Standard (CCV-2)**

QC Batch: 101993

Date Analyzed: 2013-05-17

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.59	92	90 - 110	2013-05-17

**Standard (CCV-1)**

QC Batch: 101998

Date Analyzed: 2013-06-03

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	24.3	97	90 - 110	2013-06-03

**Standard (CCV-1)**

QC Batch: 101998

Date Analyzed: 2013-06-03

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.91	98	90 - 110	2013-06-03

**Standard (CCV-2)**

QC Batch: 101998

Date Analyzed: 2013-06-03

Analyzed By: JR

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Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	24.6	98	90 - 110	2013-06-03

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**Standard (CCV-2)**

QC Batch: 101998

Date Analyzed: 2013-06-03

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.89	98	90 - 110	2013-06-03

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## Limits of Detection (LOD)

Test	Method	Matrix	Instrument	Analyte	Spike	
					Amount	Pass
Chloride (IC)	E 300.0	water	Dionex IC	Chloride	0.0962	Pass
NO3 (IC)	E 300.0	water	Dionex IC	Nitrate-N	0.0192	Pass
TKN	SM 4500-NH3 B,C	water	N/A	Total Kjeldahl Nitrogen - N	5.00	Pass



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# Appendix

## Report Definitions

Name	Definition
MDL	Method Detection Limit
MQL	Minimum Quantitation Limit
SDL	Sample Detection Limit

## Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704221-12-3	El Paso
2	NELAP	T104704219-13-9	Lubbock

## Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less than ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
MI1	Split peak or shoulder peak
MI2	Instrument software did not integrate
MI3	Instrument software misidentified the peak
MI4	Instrument software integrated improperly
MI5	Baseline correction
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

## Result Comments

- 1 Nitrate result ran within hold time was 66.8 mg/L on 5-17-13.

- 2 Nitrate result ran within hold time was 14.1 mg/L on 5-17-13.
- 3 Nitrate result ran within hold time was 7.28 mg/L on 5-17-13.

## Attachments

The scanned attachments will follow this page.  
Please note, each attachment may consist of more than one page.

**TraceAnalysis, Inc.**  
D&H Petroleum & Environmental Services  
Address: (Street, City, Zip)  
1221 Tower Trail Ln., El Paso, Texas 79907  
Contact Person: Victor Ayala  
Phone #: 915-859-8150  
Cell #:   
Fax #:   
E-mail: vayala@dhpump.com

Project Name: Buena Vista Dairy #2  
Project #: 415798  
Project Location (including state): Buena Vista Dairy #2, 16910 Stern Drive, Mesquite, NM  
Sampler Signature: *John N. R.*

Invoice to (if different from above): Buena Vista Dairy #2, P.O. Box 346, Mesquite, NM 88048  
Fermie 575-233-4646

LAB #	Field Code	# Containers	Volume/Amount	MATRIX			PRESERVATIVE METHOD					SAMPLING		
				WATER	AIR	SLUDGE	HCl	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	NaOH	ICE	NONE	DATE	TIME
329426-74-1		1	250ml	X			X				X		5-16-13	9:05
↓ -2 74-1		1	250ml	X			X				X		5-16-13	9:05
329427-74-2		1	250ml	X			X				X		5-16-13	8:37
↓ -2 74-2		1	250ml	X			X				X		5-16-13	8:37
329428-74-3		1	250ml	X			X				X		5-16-13	8:06
↓ -2 74-3		1	250ml	X			X				X		5-16-13	8:06
329429-74-4		1	250ml	X			X				X		5-16-13	10:57
↓ -2 74-4		1	250ml	X			X				X		5-16-13	10:57
329430-74-5		1	250ml	X			X				X		5-16-13	10:10
↓ -2 74-5		1	250ml	X			X				X		5-16-13	10:10
329431-74 Lagoon		1	250ml	X			X				X		5-16-13	9:27
↓ -2 74 Lagoon		1	250ml	X			X				X		5-16-13	9:27

ANALYSIS REQUEST

MTBE 8021B/602  
BTEX 8021B/602  
TPH 418.1 / TX1005  
TX 1005 Extended (C35)  
PAH 8270C  
PAH 8270 (Low Level Analysis)  
Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7  
Nitrates EPA 300  
Total Kjeldahl Nitrogen SM 4500 NORG C  
Chloride EPA 300.0  
Total Dissolved Solids SM 2540 C MOD

Turn Around Time

Hold

Relinquished By: *John N. R.* Date: 5-16-13 Time: 14:53  
Received By: *Sanford* Date: 5-16-13 Time: 14:53

Relinquished By: *Sanford* Date: 5-16-13 Time: 16:30  
Received at Laboratory By: *Sanford* Date: 5-17-13 Time: 9:40

Remarks: *TS, Cl, NO<sub>3</sub> = SP*

Lab Use Only  
Intact Y/N  /   
Headspace Y/N  /   
Temp 1/3°C *11.5*  
Log-in Review *JA*

Dry Weight Basis Required   
TRRP Report Required

5-16-13 7:15:10  
103 7:15:10



6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800-378-1296 806-794-1296 FAX 806-794-1298  
 200 East Sunset Road, Suite E El Paso, Texas 79922 915-585-3443 FAX 915-585-4944  
 5002 Basin Street, Suite A1 Midland, Texas 79703 432-689-6301 FAX 432-689-6313  
 (BioAquatic) 2501 Mayes Rd., Suite 100 Carrollton, Texas 75006 972-242-7750  
 E-Mail: lab@traceanalysis.com WEB: www.traceanalysis.com

## Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

# Analytical and Quality Control Report

Bruce Bonestroo  
 River Valley Dairy, LLC  
 1400 La Chuga Rd., Mesquite  
 P.O. Box 1929  
 Anthony, NM, 88021

Report Date: June 7, 2013

Work Order: 13051730



DP: 167  
 Project Location: 1400 La Chuga Rd., Mesquite, NM  
 Project Name: River Valley Dairy, LLC

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
329567	167-01A	water	2013-05-17	08:49	2013-05-17
329568	167-07	water	2013-05-17	08:00	2013-05-17
329569	167 Lagoon	water	2013-05-17	09:39	2013-05-17
329570	167-04	water	2013-05-17	11:59	2013-05-17
329571	167-05	water	2013-05-17	11:06	2013-05-17
329572	167-09	water	2013-05-17	10:26	2013-05-17

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 21 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

**Notes:**

*For inorganic analyses, the term MQL should actually read PQL.*



*Michael Abel*

---

Dr. Blair Leftwich, Director  
Dr. Michael Abel, Project Manager

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## Case Narrative

Samples for project River Valley Dairy, LLC were received by TraceAnalysis, Inc. on 2013-05-17 and assigned to work order 13051730. Samples for work order 13051730 were received intact at a temperature of 2.0 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
Chloride (IC)	E 300.0	86419	2013-05-19 at 03:10	102001	2013-05-19 at 03:10
Chloride (IC)	E 300.0	86420	2013-05-19 at 07:31	102002	2013-05-19 at 07:31
NO3 (IC)	E 300.0	86419	2013-05-19 at 03:10	102001	2013-05-19 at 03:10
NO3 (IC)	E 300.0	86420	2013-05-19 at 07:31	102002	2013-05-19 at 07:31
TDS	SM 2540C	86253	2013-05-22 at 08:00	101799	2013-05-22 at 08:00
TKN	SM 4500-NH3 B,C	86090	2013-05-21 at 09:35	101597	2013-05-21 at 13:28

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 13051730 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

# Analytical Report

**Sample: 329567 - 167-01A**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 102002 Date Analyzed: 2013-05-19 Analyzed By: JR  
 Prep Batch: 86420 Sample Preparation: 2013-05-19 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Chloride		1	<b>794</b>	<b>794</b>	<1.96	mg/L	50	1.96	2.5	0.0392

**Sample: 329567 - 167-01A**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 102002 Date Analyzed: 2013-05-19 Analyzed By: JR  
 Prep Batch: 86420 Sample Preparation: 2013-05-19 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Nitrate-N		1	<b>4.83</b>	<b>4.83</b>	<0.0420	mg/L	5	0.0420	0.5	0.0084

**Sample: 329567 - 167-01A**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 101799 Date Analyzed: 2013-05-22 Analyzed By: DL  
 Prep Batch: 86253 Sample Preparation: 2013-05-22 Prepared By: DL

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Total Dissolved Solids		1	<b>3420</b>	<b>3420</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 329567 - 167-01A**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: SM 4500-NH3 B,C Prep Method: N/A  
 QC Batch: 101597 Date Analyzed: 2013-05-21 Analyzed By: AK  
 Prep Batch: 86090 Sample Preparation: 2013-05-21 Prepared By: AK



Report Date: June 7, 2013

Work Order: 13051730  
River Valley Dairy, LLC

Page Number: 6 of 21  
1400 La Chuga Rd., Mesquite, NM

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.66	<10.0	<1.66	mg/L	1	1.66	10	1.66

**Sample: 329568 - 167-07**

Laboratory: El Paso  
 Analysis: Chloride (IC)      Analytical Method: E 300.0      Prep Method: N/A  
 QC Batch: 102002      Date Analyzed: 2013-05-19      Analyzed By: JR  
 Prep Batch: 86420      Sample Preparation: 2013-05-19      Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Chloride		1	<b>319</b>	<b>319</b>	<0.392	mg/L	10	0.392	2.5	0.0392

**Sample: 329568 - 167-07**

Laboratory: El Paso  
 Analysis: NO3 (IC)      Analytical Method: E 300.0      Prep Method: N/A  
 QC Batch: 102002      Date Analyzed: 2013-05-19      Analyzed By: JR  
 Prep Batch: 86420      Sample Preparation: 2013-05-19      Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Nitrate-N	u	1	<0.0420	<2.50	<0.0420	mg/L	5	0.0420	0.5	0.0084

**Sample: 329568 - 167-07**

Laboratory: El Paso  
 Analysis: TDS      Analytical Method: SM 2540C      Prep Method: N/A  
 QC Batch: 101799      Date Analyzed: 2013-05-22      Analyzed By: DL  
 Prep Batch: 86253      Sample Preparation: 2013-05-22      Prepared By: DL

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Dissolved Solids		1	<b>1840</b>	<b>1840</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 329568 - 167-07**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: SM 4500-NH3 B,C Prep Method: N/A  
 QC Batch: 101597 Date Analyzed: 2013-05-21 Analyzed By: AK  
 Prep Batch: 86090 Sample Preparation: 2013-05-21 Prepared By: AK

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	MQL	MDL
			Based	Based	Blank			(Unadjusted)	(Unadjusted)	
Total Kjeldahl Nitrogen - N	u	2	<1.66	<10.0	<1.66	mg/L	1	1.66	10	1.66

**Sample: 329569 - 167 Lagoon**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 102001 Date Analyzed: 2013-05-19 Analyzed By: JR  
 Prep Batch: 86419 Sample Preparation: 2013-05-19 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	MQL	MDL
			Based	Based	Blank			(Unadjusted)	(Unadjusted)	
Chloride		1	<b>560</b>	<b>560</b>	<1.96	mg/L	50	1.96	2.5	0.0392

**Sample: 329569 - 167 Lagoon**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 102001 Date Analyzed: 2013-05-19 Analyzed By: JR  
 Prep Batch: 86419 Sample Preparation: 2013-05-19 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	MQL	MDL
			Based	Based	Blank			(Unadjusted)	(Unadjusted)	
Nitrate-N	u	1	<0.0420	<2.50	<0.0420	mg/L	5	0.0420	0.5	0.0084

**Sample: 329569 - 167 Lagoon**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 101799 Date Analyzed: 2013-05-22 Analyzed By: DL  
 Prep Batch: 86253 Sample Preparation: 2013-05-22 Prepared By: DL

*continued . . .*

*sample 329569 continued ...*

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	<b>2340</b>	<b>2340</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 329569 - 167 Lagoon**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: SM 4500-NH3 B,C Prep Method: N/A  
 QC Batch: 101597 Date Analyzed: 2013-05-21 Analyzed By: AK  
 Prep Batch: 86090 Sample Preparation: 2013-05-21 Prepared By: AK

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N		2	<b>77.0</b>	<b>77.0</b>	<8.30	mg/L	5	8.30	10	1.66

**Sample: 329570 - 167-04**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 102001 Date Analyzed: 2013-05-19 Analyzed By: JR  
 Prep Batch: 86419 Sample Preparation: 2013-05-19 Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Chloride		1	<b>796</b>	<b>796</b>	<1.96	mg/L	50	1.96	2.5	0.0392

**Sample: 329570 - 167-04**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 102001 Date Analyzed: 2013-05-19 Analyzed By: JR  
 Prep Batch: 86419 Sample Preparation: 2013-05-19 Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Nitrate-N		1	<b>4.40</b>	<b>4.40</b>	<0.0420	mg/L	5	0.0420	0.5	0.0084

**Sample: 329570 - 167-04**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 101799 Date Analyzed: 2013-05-22 Analyzed By: DL  
 Prep Batch: 86253 Sample Preparation: 2013-05-22 Prepared By: DL

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	<b>4170</b>	<b>4170</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 329570 - 167-04**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: SM 4500-NH3 B,C Prep Method: N/A  
 QC Batch: 101597 Date Analyzed: 2013-05-21 Analyzed By: AK  
 Prep Batch: 86090 Sample Preparation: 2013-05-21 Prepared By: AK

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.66	<10.0	<1.66	mg/L	1	1.66	10	1.66

**Sample: 329571 - 167-05**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 102001 Date Analyzed: 2013-05-19 Analyzed By: JR  
 Prep Batch: 86419 Sample Preparation: 2013-05-19 Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Chloride		1	<b>1120</b>	<b>1120</b>	<1.96	mg/L	50	1.96	2.5	0.0392

**Sample: 329571 - 167-05**



Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 102001 Date Analyzed: 2013-05-19 Analyzed By: JR  
 Prep Batch: 86419 Sample Preparation: 2013-05-19 Prepared By: JR

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Nitrate-N		1	<b>23.3</b>	<b>23.3</b>	<0.0420	mg/L	5	0.0420	0.5	0.0084

**Sample: 329571 - 167-05**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 101799 Date Analyzed: 2013-05-22 Analyzed By: DL  
 Prep Batch: 86253 Sample Preparation: 2013-05-22 Prepared By: DL

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Dissolved Solids		1	<b>3140</b>	<b>3140</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 329571 - 167-05**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: SM 4500-NH3 B,C Prep Method: N/A  
 QC Batch: 101597 Date Analyzed: 2013-05-21 Analyzed By: AK  
 Prep Batch: 86090 Sample Preparation: 2013-05-21 Prepared By: AK

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N	U	2	<1.66	<10.0	<1.66	mg/L	1	1.66	10	1.66

**Sample: 329572 - 167-09**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 102002 Date Analyzed: 2013-05-19 Analyzed By: JR  
 Prep Batch: 86420 Sample Preparation: 2013-05-19 Prepared By: JR

*continued ...*

*sample 329572 continued ...*

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Chloride		1	<b>726</b>	<b>726</b>	<1.96	mg/L	50	1.96	2.5	0.0392

**Sample: 329572 - 167-09**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 102002 Date Analyzed: 2013-05-19 Analyzed By: JR  
 Prep Batch: 86420 Sample Preparation: 2013-05-19 Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Nitrate-N		1	<b>10.7</b>	<b>10.7</b>	<0.0420	mg/L	5	0.0420	0.5	0.0084

**Sample: 329572 - 167-09**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 101799 Date Analyzed: 2013-05-22 Analyzed By: DL  
 Prep Batch: 86253 Sample Preparation: 2013-05-22 Prepared By: DL

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	<b>3050</b>	<b>3050</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 329572 - 167-09**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: SM 4500-NH3 B,C Prep Method: N/A  
 QC Batch: 101597 Date Analyzed: 2013-05-21 Analyzed By: AK  
 Prep Batch: 86090 Sample Preparation: 2013-05-21 Prepared By: AK

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.66	<10.0	<1.66	mg/L	1	1.66	10	1.66

## Method Blanks

### Method Blank (1)

QC Batch: 101597  
Prep Batch: 86090Date Analyzed: 2013-05-21  
QC Preparation: 2013-05-21Analyzed By: AK  
Prepared By: AK

Parameter	F	C	Result	Units	Reporting Limits
Total Kjeldahl Nitrogen - N		2	<1.66	mg/L	1.66

### Method Blank (1)

QC Batch: 101799  
Prep Batch: 86253Date Analyzed: 2013-05-22  
QC Preparation: 2013-05-22Analyzed By: DL  
Prepared By: DL

Parameter	F	C	Result	Units	Reporting Limits
Total Dissolved Solids		1	<5.00	mg/L	5

### Method Blank (1)

QC Batch: 102001  
Prep Batch: 86419Date Analyzed: 2013-05-19  
QC Preparation: 2013-05-19Analyzed By: JR  
Prepared By: JR

Parameter	F	C	Result	Units	Reporting Limits
Chloride		1	<0.0392	mg/L	0.0392

### Method Blank (1)

QC Batch: 102001  
Prep Batch: 86419Date Analyzed: 2013-05-19  
QC Preparation: 2013-05-19Analyzed By: JR  
Prepared By: JR





# Laboratory Control Spikes

## Laboratory Control Spike (LCS-1)

QC Batch: 101799  
Prep Batch: 86253Date Analyzed: 2013-05-22  
QC Preparation: 2013-05-22Analyzed By: DL  
Prepared By: DL

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Dissolved Solids		1	993	mg/L	1	1000	<5.00	99	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Dissolved Solids		1	993	mg/L	1	1000	<5.00	99	90 - 110	0	10

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

## Matrix Spike (MS-1) Spiked Sample: 329572

QC Batch: 101597  
Prep Batch: 86090Date Analyzed: 2013-05-21  
QC Preparation: 2013-05-21Analyzed By: AK  
Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Kjeldahl Nitrogen - N		2	39.9	mg/L	1	50.0	<1.66	80	10 - 151

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Kjeldahl Nitrogen - N		2	39.9	mg/L	1	50.0	<1.66	80	10 - 151	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

## Matrix Spike (MS-1) Spiked Sample: 329568

QC Batch: 102001  
Prep Batch: 86419Date Analyzed: 2013-05-19  
QC Preparation: 2013-05-19Analyzed By: JR  
Prepared By: JR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1	1970	mg/L	55.6	1390	560	101	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Chloride		1	1970	mg/L	55.6	1390	560	101	90 - 110	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 329568

QC Batch: 102001 Date Analyzed: 2013-05-19 Analyzed By: JR  
Prep Batch: 86419 QC Preparation: 2013-05-19 Prepared By: JR

Param	F	C	MS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
			Result	Units					
Nitrate-N		1	266	mg/L	55.6	278	<0.467	96	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Nitrate-N		1	267	mg/L	55.6	278	<0.467	96	90 - 110	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 329568

QC Batch: 102002 Date Analyzed: 2013-05-19 Analyzed By: JR  
Prep Batch: 86420 QC Preparation: 2013-05-19 Prepared By: JR

Param	F	C	MS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
			Result	Units					
Chloride		1	1690	mg/L	55.6	1390	319	99	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Chloride		1	1680	mg/L	55.6	1390	319	98	90 - 110	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 329568

QC Batch: 102002 Date Analyzed: 2013-05-19 Analyzed By: JR  
Prep Batch: 86420 QC Preparation: 2013-05-19 Prepared By: JR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Nitrate-N		1	268	mg/L	55.6	278	<0.467	96	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Nitrate-N		1	268	mg/L	55.6	278	<0.467	96	90 - 110	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

## Calibration Standards

### Standard (ICV-1)

QC Batch: 101597

Date Analyzed: 2013-05-21

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	4.48	90	85 - 115	2013-05-21

### Standard (CCV-1)

QC Batch: 101597

Date Analyzed: 2013-05-21

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	4.76	95	85 - 115	2013-05-21

### Standard (CCV-1)

QC Batch: 102001

Date Analyzed: 2013-05-19

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	23.7	95	90 - 110	2013-05-19

### Standard (CCV-1)

QC Batch: 102001

Date Analyzed: 2013-05-19

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.79	96	90 - 110	2013-05-19



**Standard (CCV-2)**

QC Batch: 102001

Date Analyzed: 2013-05-19

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	23.8	95	90 - 110	2013-05-19

**Standard (CCV-2)**

QC Batch: 102001

Date Analyzed: 2013-05-19

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.81	96	90 - 110	2013-05-19

**Standard (CCV-1)**

QC Batch: 102002

Date Analyzed: 2013-05-19

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	23.8	95	90 - 110	2013-05-19

**Standard (CCV-1)**

QC Batch: 102002

Date Analyzed: 2013-05-19

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.81	96	90 - 110	2013-05-19

**Standard (CCV-2)**

QC Batch: 102002

Date Analyzed: 2013-05-19

Analyzed By: JR

Report Date: June 7, 2013

Work Order: 13051730  
River Valley Dairy, LLC

Page Number: 19 of 21  
1400 La Chuga Rd., Mesquite, NM

---

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	24.0	96	90 - 110	2013-05-19

---

**Standard (CCV-2)**

QC Batch: 102002

Date Analyzed: 2013-05-19

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.86	97	90 - 110	2013-05-19

---

---

## Limits of Detection (LOD)

Test	Method	Matrix	Instrument	Analyte	Spike	
					Amount	Pass
Chloride (IC)	E 300.0	water	Dionex IC	Chloride	0.0962	Pass
NO3 (IC)	E 300.0	water	Dionex IC	Nitrate-N	0.0192	Pass
TKN	SM 4500-NH3 B,C	water	N/A	Total Kjeldahl Nitrogen - N	5.00	Pass

---

# Appendix

## Report Definitions

Name	Definition
MDL	Method Detection Limit
MQL	Minimum Quantitation Limit
SDL	Sample Detection Limit

## Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704221-12-3	El Paso
2	NELAP	T104704219-13-9	Lubbock

## Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less than ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
MI1	Split peak or shoulder peak
MI2	Instrument software did not integrate
MI3	Instrument software misidentified the peak
MI4	Instrument software integrated improperly
MI5	Baseline correction
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

## Attachments

The scanned attachments will follow this page.  
Please note, each attachment may consist of more than one page.



6701 Aberdeen, Ste. 9  
Lubbock, TX 79424  
Tel (806) 794-1286  
Fax (806) 794-1288

# TraceAnalysis, Inc.

Company Name:

D&H Petroleum & Environmental Services

Address: (Street, City, Zip)

1221 Tower Trail Ln, El Paso TX 79907

Contact Person:

Victor Ayala

Invoice to (if different from above):

River Valley Dairy, PO Box 1929, Anthony, NM 88021

Project #:

415788

Project Location (including state):

River Valley Dairy, 1400 La Chuga Rd., Mesquite, NM

Project Name:

River Valley Dairy, LLC

Sampler Signature:

*[Signature]*

155 McCutcheon, Ste. H, El Paso, TX 79932  
Tel (915) 585-3443  
Fax (915) 585-4944

Phone #: 915-859-8150

Cell #:

Fax #:

E-mail: [yaajala@dhpump.com](mailto:yaajala@dhpump.com)

Page 1 of 1  
CHAIN-OF-CUSTODY AND ANALYSIS REQUEST  
LAB Order ID # 13051730

### ANALYSIS REQUEST

MTBE 8021B/602	
BTEX 8021B/602	
TPH 418.1 / TX1005	
TX 1005 Extended (C35)	
PAH 8270C	
PAH 8270 (Low Level Analyte)	
Total Metals Ag As BA Cd Cr Pb Sn Hg 60108/200.7	X
Nitrates EPA 300	X
TKN SM 4500 NORG C	X
Chloride EPA 300	X
Total Dissolved Solids SM 2540 C MOD	X
Turn Around Time	

LAB # (LAB USE ONLY)	Field Code	# Containers	Volume/Amount	MATRIX				PRESERVATIVE METHOD				Sampling			
				WATER	SOIL	AIR	SLUDGE	HCl	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	NaOH	ICE	NONE	DATE	TIME
22957-1	167-01A	1	250ml	X				X						5-17-13	8:49
-2	167-01A	1	250ml	X				X						5-17-13	8:49
68-1	167-07	1	250ml	X				X						5-17-13	9:00
6-2	167-07	1	250ml	X				X						5-17-13	9:00
69-1	167 Lagoon	1	250ml	X				X						5-17-13	9:39
↓-2	167 Lagoon	1	250ml	X				X						5-17-17	9:39
70-1	167-04	1	250ml	X				X						5-17-12	11:59
↓-2	167-04	1	250ml	X				X						5-17-12	11:59
71-1	167-05	1	250ml	X				X						5-17-13	11:06
↓-2	167-05	1	250ml	X				X						5-17-13	11:06
72-1	167-09	1	250ml	X				X						5-17-13	10:26
↓-2	167-09	1	250ml	X				X						5-17-13	10:26

Relinquished By: *[Signature]* Date: 5-17-13 Time: 13:35  
 Received By: *[Signature]* Date: 5-17-13 Time: 13:35  
 Relinquished By: *[Signature]* Date: 5-17-13 Time: 16:30  
 Received at Laboratory By: *[Signature]* Date: 5-17-13 Time: 13:35

Lab Use Only  
 Intact  N  
 Headspace Y  I  N  
 Temp *0.2*  *1.0*  *3.7*  
 Log-In Review *BDH*

Remarks: *NO<sub>3</sub> / TDS / Cl on 500*

Dry Weight Basis Required   
 TRRP Report Required *CANON*

917-73

13051730

6701 Aberdeen, Ste. 9  
Lubbock, TX 79424  
Tel (806) 794-1296  
Fax (806) 794-1298

# TraceAnalysis, Inc.

Company Name: D&H Petroleum & Environmental Services  
Address: (Street, City, Zip)  
1221 Tower Trail Ln, El Paso TX 79907  
Contact Person: Victor Ayala  
Phone #: 915-859-8150  
Cell #: 915-859-8150  
Fax #: vajala@dhpump.com  
E-mail: vajala@dhpump.com

Project #: 415788  
Project Name: Bruce Bonestroo 575-233-2061  
River Valley Dairy, PO Box 1929, Anthony, NM 88021  
River Valley Dairy, LLC  
Sampler Signature: [Signature]

Project Location (including state):  
River Valley Dairy, 1400 La Chuga Rd., Mesquite, NM

LAB # (LAB USE ONLY)	Field Code	# Containers	Volume/Amount	MATRIX			PRESERVATIVE METHOD				SAMPLING		TIME	Turn Around Time	Hold
				WATER	AIR	SLUDGE	HCl	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	NaOH	ICE	NONE			
68-1	167-01A	1	250ml	X			X			X			5-17-13	8:49	
68-2	167-01A	1	250ml	X			X			X			5-17-13	8:49	
68-3	167-07	1	250ml	X			X			X			5-17-13	8:00	
68-4	167-07	1	250ml	X			X			X			5-17-13	8:00	
69-1	167 Lagoon	1	250ml	X			X			X			5-17-13	9:39	
69-2	167 Lagoon	1	250ml	X			X			X			5-17-13	9:39	
70-1	167-04	1	250ml	X			X			X			5-17-13	11:59	
70-2	167-04	1	250ml	X			X			X			5-17-13	11:59	
71-1	167-05	1	250ml	X			X			X			5-17-13	11:06	
71-2	167-05	1	250ml	X			X			X			5-17-13	11:06	
72-1	167-09	1	250ml	X			X			X			5-17-13	10:26	
72-2	167-09	1	250ml	X			X			X			5-17-13	10:26	

### ANALYSIS REQUEST

MTBE 8021B/602	
BTEX 8021B/602	
TPH 418.1 / TX1005	
TX 1005 Extended (C35)	
PAH 8270C	
PAH 8270 (Low Level Analysis)	
Total Metals Ag As BA Cd Cr Pb Se Hg 60108/200.7	
Nitrates EPA 300	X
TKN SM 4500 NORGC	X
Chloride EPA 300	X
Total Dissolved Solids SM 2540 C MOD	X

Lab Use Only	Intact <input checked="" type="checkbox"/> N	Headspace Y / N	Temp <u>06.00</u> C	Log-in Review <u>DDH</u>
Remarks:	<u>NO<sub>2</sub> / TDS / Cl on test</u>			
			Dry Weight Basis Required	TRRP Report Required
			<u>5-17-13</u>	<u>5-17-13</u>

Relinquished By: <u>[Signature]</u>	Date: <u>5-17-13</u>	Time: <u>13:35</u>	Received By: <u>[Signature]</u>	Date: <u>5-17-13</u>	Time: <u>13:35</u>
Relinquished By: <u>[Signature]</u>	Date: <u>5-17-13</u>	Time: <u>16:30</u>	Received at Laboratory By: <u>Kimberly Bordin</u>	Date: <u>5/18/13</u>	Time: <u>10:40</u>



6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800-378-1296 806-794-1296 FAX 806-794-1298  
 200 East Sunset Road, Suite E El Paso, Texas 79922 915-585-3443 FAX 915-585-4944  
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 (BioAquatic) 2501 Mayes Rd., Suite 100 Carrollton, Texas 75006 972-242-7750  
 E-Mail: lab@traceanalysis.com WEB: www.traceanalysis.com

## Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

# Analytical and Quality Control Report

George Segura  
 Big Sky Dairy  
 17800 Stern Drive  
 P.O. Box 10  
 Mesquite, NM, 88048

Report Date: June 7, 2013

Work Order: 13052023



DP: 833  
 Project Location: 17800 Stern Drive, Mesquite, NM 88048  
 Project Name: Big Sky Dairy

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
329853	833-06	water	2013-05-20	14:29	2013-05-20

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 13 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

**Notes:**

*For inorganic analyses, the term MQL should actually read PQL.*

Dr. Blair Leftwich, Director  
 Dr. Michael Abel, Project Manager

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## Case Narrative

Samples for project Big Sky Dairy were received by TraceAnalysis, Inc. on 2013-05-20 and assigned to work order 13052023. Samples for work order 13052023 were received intact at a temperature of 3 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
Chloride (IC)	E 300.0	86418	2013-05-21 at 22:48	102000	2013-05-21 at 22:48
NO3 (IC)	E 300.0	86418	2013-05-21 at 22:48	102000	2013-05-21 at 22:48
TDS	SM 2540C	86253	2013-05-22 at 08:00	101799	2013-05-22 at 08:00
TKN	SM 4500-NH3 B,C	86136	2013-05-23 at 08:55	101825	2013-05-23 at 14:00

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 13052023 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

# Analytical Report

**Sample: 329853 - 833-06**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 102000 Date Analyzed: 2013-05-21 Analyzed By: JR  
 Prep Batch: 86418 Sample Preparation: 2013-05-21 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Chloride		1	<b>816</b>	<b>816</b>	<1.96	mg/L	50	1.96	2.5	0.0392

**Sample: 329853 - 833-06**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 102000 Date Analyzed: 2013-05-21 Analyzed By: JR  
 Prep Batch: 86418 Sample Preparation: 2013-05-21 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Nitrate-N		1	<b>25.9</b>	<b>25.9</b>	<0.0420	mg/L	5	0.0420	0.5	0.0084

**Sample: 329853 - 833-06**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 101799 Date Analyzed: 2013-05-22 Analyzed By: DL  
 Prep Batch: 86253 Sample Preparation: 2013-05-22 Prepared By: DL

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Dissolved Solids		1	<b>2640</b>	<b>2640</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 329853 - 833-06**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: SM 4500-NH3 B,C Prep Method: N/A  
 QC Batch: 101825 Date Analyzed: 2013-05-23 Analyzed By: AK  
 Prep Batch: 86136 Sample Preparation: 2013-05-23 Prepared By: AK

---

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.66	<10.0	<1.66	mg/L	1	1.66	10	1.66

---

## Method Blanks

### Method Blank (1)

QC Batch: 101799  
Prep Batch: 86253Date Analyzed: 2013-05-22  
QC Preparation: 2013-05-22Analyzed By: DL  
Prepared By: DL

Parameter	F	C	Result	Units	Reporting Limits
Total Dissolved Solids		1	<5.00	mg/L	5

### Method Blank (1)

QC Batch: 101825  
Prep Batch: 86136Date Analyzed: 2013-05-23  
QC Preparation: 2013-05-23Analyzed By: AK  
Prepared By: AK

Parameter	F	C	Result	Units	Reporting Limits
Total Kjeldahl Nitrogen - N		2	<1.66	mg/L	1.66

### Method Blank (1)

QC Batch: 102000  
Prep Batch: 86418Date Analyzed: 2013-05-21  
QC Preparation: 2013-05-21Analyzed By: JR  
Prepared By: JR

Parameter	F	C	Result	Units	Reporting Limits
Chloride		1	<0.0392	mg/L	0.0392

### Method Blank (1)

QC Batch: 102000  
Prep Batch: 86418Date Analyzed: 2013-05-21  
QC Preparation: 2013-05-21Analyzed By: JR  
Prepared By: JR



Report Date: June 7, 2013

Work Order: 13052023  
Big Sky Dairy

Page Number: 7 of 13  
17800 Stern Drive, Mesquite, NM 88048

---

Parameter	F	C	Result	Units	Reporting Limits
Nitrate-N		1	<0.00840	mg/L	0.0084

---

**Duplicate (1)** Duplicated Sample: 329854

QC Batch: 101799  
Prep Batch: 86253

Date Analyzed: 2013-05-22  
QC Preparation: 2013-05-22

Analyzed By: DL  
Prepared By: DL

---

Param	F	C	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids		1	2110	2140	mg/L	1	1	10

---

# Laboratory Control Spikes

## Laboratory Control Spike (LCS-1)

QC Batch: 101799  
Prep Batch: 86253Date Analyzed: 2013-05-22  
QC Preparation: 2013-05-22Analyzed By: DL  
Prepared By: DL

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Dissolved Solids		1	993	mg/L	1	1000	<5.00	99	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Dissolved Solids		1	993	mg/L	1	1000	<5.00	99	90 - 110	0	10

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

## Matrix Spike (MS-1) Spiked Sample: 329912

QC Batch: 101825  
Prep Batch: 86136Date Analyzed: 2013-05-23  
QC Preparation: 2013-05-23Analyzed By: AK  
Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Kjeldahl Nitrogen - N		2	37.8	mg/L	1	50.0	<1.66	76	10 - 151

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Kjeldahl Nitrogen - N		2	40.6	mg/L	1	50.0	<1.66	81	10 - 151	7	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

## Matrix Spike (MS-1) Spiked Sample: 329854

QC Batch: 102000  
Prep Batch: 86418Date Analyzed: 2013-05-21  
QC Preparation: 2013-05-21Analyzed By: JR  
Prepared By: JR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1	1970	mg/L	55.6	1390	543	103	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Chloride		1	1920	mg/L	55.6	1390	543	99	90 - 110	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 329854

QC Batch: 102000  
Prep Batch: 86418

Date Analyzed: 2013-05-21  
QC Preparation: 2013-05-21

Analyzed By: JR  
Prepared By: JR

Param	F	C	MS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
			Result	Units					
Nitrate-N		1	291	mg/L	55.6	278	16.7	99	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Nitrate-N		1	282	mg/L	55.6	278	16.7	95	90 - 110	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

## Calibration Standards

### Standard (ICV-1)

QC Batch: 101825

Date Analyzed: 2013-05-23

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	4.34	87	85 - 115	2013-05-23

### Standard (CCV-1)

QC Batch: 101825

Date Analyzed: 2013-05-23

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	4.76	95	85 - 115	2013-05-23

### Standard (CCV-1)

QC Batch: 102000

Date Analyzed: 2013-05-21

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	24.0	96	90 - 110	2013-05-21

### Standard (CCV-1)

QC Batch: 102000

Date Analyzed: 2013-05-21

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.88	98	90 - 110	2013-05-21



**Standard (CCV-2)**

QC Batch: 102000

Date Analyzed: 2013-05-21

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	24.4	98	90 - 110	2013-05-21

**Standard (CCV-2)**

QC Batch: 102000

Date Analyzed: 2013-05-21

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.94	99	90 - 110	2013-05-21

---

## Limits of Detection (LOD)

Test	Method	Matrix	Instrument	Analyte	Spike	
					Amount	Pass
Chloride (IC)	E 300.0	water	Dionex IC	Chloride	0.0962	Pass
NO3 (IC)	E 300.0	water	Dionex IC	Nitrate-N	0.0192	Pass
TKN	SM 4500-NH3 B,C	water	N/A	Total Kjeldahl Nitrogen - N	5.00	Pass

---

# Appendix

## Report Definitions

Name	Definition
MDL	Method Detection Limit
MQL	Minimum Quantitation Limit
SDL	Sample Detection Limit

## Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704221-12-3	El Paso
2	NELAP	T104704219-13-9	Lubbock

## Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less than ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
MI1	Split peak or shoulder peak
MI2	Instrument software did not integrate
MI3	Instrument software misidentified the peak
MI4	Instrument software integrated improperly
MI5	Baseline correction
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

## Attachments

The scanned attachments will follow this page.  
Please note, each attachment may consist of more than one page.







6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800-378-1296 806-794-1296 FAX 806-794-1298  
200 East Sunset Road, Suite E El Paso, Texas 79922 915-585-3443 FAX 915-585-4944  
5002 Basin Street, Suite A1 Midland, Texas 79703 432-689-6301 FAX 432-689-6313  
(BioAquatic) 2501 Mayes Rd., Suite 100 Carrollton, Texas 75006 972-242-7750  
E-Mail: lab@traceanalysis.com WEB: www.traceanalysis.com

## Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

# Analytical and Quality Control Report

Bruce Bonestroo  
River Valley Dairy, LLC  
1400 La Chuga Rd., Mesquite  
P.O. Box 1929  
Anthony, NM, 88021

Report Date: June 7, 2013

Work Order: 13052024



DP: 167  
Project Location: 1400 La Chuga Rd., Mesquite, NM  
Project Name: River Valley Dairy, LLC

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
329854	167-03	water	2013-05-20	09:56	2013-05-20
329855	167-06	water	2013-05-20	11:18	2013-05-20

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 14 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

### Notes:

*For inorganic analyses, the term MQL should actually read PQL.*

Dr. Blair Leftwich, Director  
Dr. Michael Abel, Project Manager

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## Case Narrative

Samples for project River Valley Dairy, LLC were received by TraceAnalysis, Inc. on 2013-05-20 and assigned to work order 13052024. Samples for work order 13052024 were received intact at a temperature of 3.0 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
Chloride (IC)	E 300.0	86418	2013-05-21 at 22:48	102000	2013-05-21 at 22:48
NO3 (IC)	E 300.0	86418	2013-05-21 at 22:48	102000	2013-05-21 at 22:48
TDS	SM 2540C	86253	2013-05-22 at 08:00	101799	2013-05-22 at 08:00
TKN	SM 4500-NH3 B,C	86136	2013-05-23 at 08:55	101825	2013-05-23 at 14:00

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 13052024 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

# Analytical Report

**Sample: 329854 - 167-03**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 102000 Date Analyzed: 2013-05-21 Analyzed By: JR  
 Prep Batch: 86418 Sample Preparation: 2013-05-21 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Chloride		1	<b>543</b>	<b>543</b>	<1.96	mg/L	50	1.96	2.5	0.0392

**Sample: 329854 - 167-03**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 102000 Date Analyzed: 2013-05-21 Analyzed By: JR  
 Prep Batch: 86418 Sample Preparation: 2013-05-21 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Nitrate-N		1	<b>16.7</b>	<b>16.7</b>	<0.0420	mg/L	5	0.0420	0.5	0.0084

**Sample: 329854 - 167-03**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 101799 Date Analyzed: 2013-05-22 Analyzed By: DL  
 Prep Batch: 86253 Sample Preparation: 2013-05-22 Prepared By: DL

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Dissolved Solids		1	<b>2140</b>	<b>2140</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 329854 - 167-03**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: SM 4500-NH3 B,C Prep Method: N/A  
 QC Batch: 101825 Date Analyzed: 2013-05-23 Analyzed By: AK  
 Prep Batch: 86136 Sample Preparation: 2013-05-23 Prepared By: AK



Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.66	<10.0	<1.66	mg/L	1	1.66	10	1.66

**Sample: 329855 - 167-06**

Laboratory: El Paso  
 Analysis: Chloride (IC)                      Analytical Method: E 300.0                      Prep Method: N/A  
 QC Batch: 102000                      Date Analyzed: 2013-05-21                      Analyzed By: JR  
 Prep Batch: 86418                      Sample Preparation: 2013-05-21                      Prepared By: JR

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Chloride		1	<b>704</b>	<b>704</b>	<1.96	mg/L	50	1.96	2.5	0.0392

**Sample: 329855 - 167-06**

Laboratory: El Paso  
 Analysis: NO3 (IC)                      Analytical Method: E 300.0                      Prep Method: N/A  
 QC Batch: 102000                      Date Analyzed: 2013-05-21                      Analyzed By: JR  
 Prep Batch: 86418                      Sample Preparation: 2013-05-21                      Prepared By: JR

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Nitrate-N		1	<b>23.9</b>	<b>23.9</b>	<0.0420	mg/L	5	0.0420	0.5	0.0084

**Sample: 329855 - 167-06**

Laboratory: El Paso  
 Analysis: TDS                      Analytical Method: SM 2540C                      Prep Method: N/A  
 QC Batch: 101799                      Date Analyzed: 2013-05-22                      Analyzed By: DL  
 Prep Batch: 86253                      Sample Preparation: 2013-05-22                      Prepared By: DL

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Dissolved Solids		1	<b>2620</b>	<b>2620</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 329855 - 167-06**

Report Date: June 7, 2013

Work Order: 13052024  
River Valley Dairy, LLC

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Laboratory: Lubbock  
Analysis: TKN                      Analytical Method: SM 4500-NH3 B,C                      Prep Method: N/A  
QC Batch: 101825                  Date Analyzed: 2013-05-23                      Analyzed By: AK  
Prep Batch: 86136                  Sample Preparation: 2013-05-23                      Prepared By: AK

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.66	<10.0	<1.66	mg/L	1	1.66	10	1.66

---

## Method Blanks

### Method Blank (1)

QC Batch: 101799  
Prep Batch: 86253Date Analyzed: 2013-05-22  
QC Preparation: 2013-05-22Analyzed By: DL  
Prepared By: DL

Parameter	F	C	Result	Units	Reporting Limits
Total Dissolved Solids		1	<5.00	mg/L	5

### Method Blank (1)

QC Batch: 101825  
Prep Batch: 86136Date Analyzed: 2013-05-23  
QC Preparation: 2013-05-23Analyzed By: AK  
Prepared By: AK

Parameter	F	C	Result	Units	Reporting Limits
Total Kjeldahl Nitrogen - N		2	<1.66	mg/L	1.66

### Method Blank (1)

QC Batch: 102000  
Prep Batch: 86418Date Analyzed: 2013-05-21  
QC Preparation: 2013-05-21Analyzed By: JR  
Prepared By: JR

Parameter	F	C	Result	Units	Reporting Limits
Chloride		1	<0.0392	mg/L	0.0392

### Method Blank (1)

QC Batch: 102000  
Prep Batch: 86418Date Analyzed: 2013-05-21  
QC Preparation: 2013-05-21Analyzed By: JR  
Prepared By: JR

Report Date: June 7, 2013

Work Order: 13052024  
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Parameter	F	C	Result	Units	Reporting Limits
Nitrate-N		1	<0.00840	mg/L	0.0084

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**Duplicate (1)** Duplicated Sample: 329854

QC Batch: 101799  
Prep Batch: 86253

Date Analyzed: 2013-05-22  
QC Preparation: 2013-05-22

Analyzed By: DL  
Prepared By: DL

---

Param	F	C	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids		1	2110	2140	mg/L	1	1	10

---



# Laboratory Control Spikes

## Laboratory Control Spike (LCS-1)

QC Batch: 101799  
Prep Batch: 86253Date Analyzed: 2013-05-22  
QC Preparation: 2013-05-22Analyzed By: DL  
Prepared By: DL

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Dissolved Solids		1	993	mg/L	1	1000	<5.00	99	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Dissolved Solids		1	993	mg/L	1	1000	<5.00	99	90 - 110	0	10

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

## Matrix Spike (MS-1) Spiked Sample: 329912

QC Batch: 101825  
Prep Batch: 86136Date Analyzed: 2013-05-23  
QC Preparation: 2013-05-23Analyzed By: AK  
Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Kjeldahl Nitrogen - N		2	37.8	mg/L	1	50.0	<1.66	76	10 - 151

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Kjeldahl Nitrogen - N		2	40.6	mg/L	1	50.0	<1.66	81	10 - 151	7	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

## Matrix Spike (MS-1) Spiked Sample: 329854

QC Batch: 102000  
Prep Batch: 86418Date Analyzed: 2013-05-21  
QC Preparation: 2013-05-21Analyzed By: JR  
Prepared By: JR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1	1970	mg/L	55.6	1390	543	103	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD		Dil.	Spike	Matrix	Rec.		RPD	
			Result	Units		Amount	Result	Rec.	Limit	RPD	Limit
Chloride		1	1920	mg/L	55.6	1390	543	99	90 - 110	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 329854

QC Batch: 102000  
Prep Batch: 86418

Date Analyzed: 2013-05-21  
QC Preparation: 2013-05-21

Analyzed By: JR  
Prepared By: JR

Param	F	C	MS		Dil.	Spike	Matrix	Rec.		RPD	
			Result	Units		Amount	Result	Rec.	Limit	RPD	Limit
Nitrate-N		1	291	mg/L	55.6	278	16.7	99	90 - 110		

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD		Dil.	Spike	Matrix	Rec.		RPD	
			Result	Units		Amount	Result	Rec.	Limit	RPD	Limit
Nitrate-N		1	282	mg/L	55.6	278	16.7	95	90 - 110	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

## Calibration Standards

### Standard (ICV-1)

QC Batch: 101825

Date Analyzed: 2013-05-23

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	4.34	87	85 - 115	2013-05-23

### Standard (CCV-1)

QC Batch: 101825

Date Analyzed: 2013-05-23

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	4.76	95	85 - 115	2013-05-23

### Standard (CCV-1)

QC Batch: 102000

Date Analyzed: 2013-05-21

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	24.0	96	90 - 110	2013-05-21

### Standard (CCV-1)

QC Batch: 102000

Date Analyzed: 2013-05-21

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.88	98	90 - 110	2013-05-21

**Standard (CCV-2)**

QC Batch: 102000

Date Analyzed: 2013-05-21

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	24.4	98	90 - 110	2013-05-21

**Standard (CCV-2)**

QC Batch: 102000

Date Analyzed: 2013-05-21

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.94	99	90 - 110	2013-05-21



---

## Limits of Detection (LOD)

Test	Method	Matrix	Instrument	Analyte	Spike Amount	Pass
Chloride (IC)	E 300.0	water	Dionex IC	Chloride	0.0962	Pass
NO3 (IC)	E 300.0	water	Dionex IC	Nitrate-N	0.0192	Pass
TKN	SM 4500-NH3 B,C	water	N/A	Total Kjeldahl Nitrogen - N	5.00	Pass

---

# Appendix

## Report Definitions

Name	Definition
MDL	Method Detection Limit
MQL	Minimum Quantitation Limit
SDL	Sample Detection Limit

## Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704221-12-3	El Paso
2	NELAP	T104704219-13-9	Lubbock

## Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less than ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
MI1	Split peak or shoulder peak
MI2	Instrument software did not integrate
MI3	Instrument software misidentified the peak
MI4	Instrument software integrated improperly
MI5	Baseline correction
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

## Attachments

The scanned attachments will follow this page.  
Please note, each attachment may consist of more than one page.

**TraceAnalysis, Inc.**  
 Company Name: Phone #: 915-859-8150  
 D&H Petroleum & Environmental Services Cell #:   
 Address: (Street, City, Zip) Fax #:   
 1221 Tower Trail Ln, El Paso TX 79907 E-mail: vajala@dhpump.com  
 Contact Person:   
 Victor Ayala  
 Invoice to (if different from above):   
 River Valley Dairy, PO Box 1929, Anthony, NM 88021 Bruce Bonestroo 575-233-2061  
 Project #: 415788 Project Name: River Valley Dairy, LLC  
 Sampler Signature: *[Signature]*

LAB # (LAB USE ONLY)	Field Code	# Containers	Volume/Amount	MATRIX			PRESERVATIVE METHOD					Sampling			
				WATER	SOIL	AIR	SLUDGE	HCl	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	NaOH	ICE	NONE	DATE	TIME
3298544	167-03	1	250ml	X				X			X			5-20-13	9:56
11-2	167-03	1	250ml	X				X			X			5-20-13	9:56
15-1	167-06	1	250ml	X				X			X			5-20-13	11:18
11-2	167-06	1	250ml	X				X			X			5-20-13	11:18
		1		X				X			X				
		1		X				X			X				

Project Location (including state): River Valley Dairy, 1400 La Chuga Rd., Mesquite, NM

Relinquished By: <i>[Signature]</i>	Date: 5-20-13	Time: 15:20	Received By: T.A.	Date: 5-20-13	Time: 15:20
Relinquished By: <i>[Signature]</i>	Date: 5-20-13	Time: 16:30	Received at Laboratory By: <i>[Signature]</i>	Date: 5-20-13	Time: 9:00

Remarks: ICE TKN & Lubbock  
 Capm IN  
 Dry Weight Basis Required  
 TRRP Report Required

Lab Use Only  
 Intact Y/N  
 Headspace Y/N  
 Temp R-1 2/3  
 Log-in Review *[Signature]*

IR 3.11 2.4 5-20-13

Hold

Turn Around Time

ANALYSIS REQUEST

PAH 8270 (Low Level Analysis)

PAH 8270C

TX 1005 Extended (C35)

TPH 418.1 / TX1005

MTBE 8021B/602

BTEX 8021B/602

Total Metals Ag As BA Cd Cr Pb Se Hg 6010B/200.7

Nitrates EPA 300

TKN SM 4500 NORG C

Chloride EPA 300

Total Dissolved Solids SM 2540 C MOD



6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800-378-1296 806-794-1296 FAX 806-794-1298  
200 East Sunset Road, Suite E El Paso, Texas 79922 915-585-3443 FAX 915-585-4944  
5002 Basin Street, Suite A1 Midland, Texas 79703 432-689-6301 FAX 432-689-6313  
(BioAquatic) 2501 Mayes Rd., Suite 100 Carrollton, Texas 75006 972-242-7750  
E-Mail: lab@traceanalysis.com WEB: www.traceanalysis.com

## Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

# Analytical and Quality Control Report

George Segura  
Big Sky Dairy  
17800 Stern Drive  
P.O. Box 10  
Mesquite, NM, 88048

Report Date: June 7, 2013

Work Order: 13052121



DP: 833  
Project Location: 17800 Stern Drive, Mesquite, NM 88048  
Project Name: Big Sky Dairy

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
329906	833-2	water	2013-05-21	10:15	2013-05-21
329907	833-4	water	2013-05-21	08:33	2013-05-21
329908	833-5	water	2013-05-21	11:33	2013-05-21
329909	833-7	water	2013-05-21	13:39	2013-05-21
329910	833-8	water	2013-05-21	10:59	2013-05-21
329911	833-Lagoon	water	2013-05-21	11:58	2013-05-21

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 21 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

### Notes:

*For inorganic analyses, the term MQL should actually read PQL.*



*Michael Abel*

---

Dr. Blair Leftwich, Director  
Dr. Michael Abel, Project Manager

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## Case Narrative

Samples for project Big Sky Dairy were received by TraceAnalysis, Inc. on 2013-05-21 and assigned to work order 13052121. Samples for work order 13052121 were received intact at a temperature of 2.0 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
Chloride (IC)	E 300.0	86426	2013-05-22 at 21:58	102011	2013-05-22 at 21:58
Chloride (IC)	E 300.0	86427	2013-05-23 at 02:04	102012	2013-05-23 at 02:04
NO3 (IC)	E 300.0	86426	2013-05-22 at 21:58	102011	2013-05-22 at 21:58
NO3 (IC)	E 300.0	86427	2013-05-23 at 02:04	102012	2013-05-23 at 02:04
TDS	SM 2540C	86329	2013-05-28 at 14:00	101888	2013-05-28 at 14:00
TKN	SM 4500-NH3 B,C	86136	2013-05-23 at 08:55	101825	2013-05-23 at 14:00

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 13052121 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

# Analytical Report

**Sample: 329906 - 833-2**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 102011 Date Analyzed: 2013-05-22 Analyzed By: JR  
 Prep Batch: 86426 Sample Preparation: 2013-05-22 Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Chloride		1	<b>858</b>	<b>858</b>	<1.96	mg/L	50	1.96	2.5	0.0392

**Sample: 329906 - 833-2**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 102011 Date Analyzed: 2013-05-22 Analyzed By: JR  
 Prep Batch: 86426 Sample Preparation: 2013-05-22 Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Nitrate-N		1	<b>69.2</b>	<b>69.2</b>	<0.0840	mg/L	10	0.0840	0.5	0.0084

**Sample: 329906 - 833-2**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 101888 Date Analyzed: 2013-05-28 Analyzed By: DL  
 Prep Batch: 86329 Sample Preparation: 2013-05-28 Prepared By: DL

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	<b>3140</b>	<b>3140</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 329906 - 833-2**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: SM 4500-NH3 B,C Prep Method: N/A  
 QC Batch: 101825 Date Analyzed: 2013-05-23 Analyzed By: AK  
 Prep Batch: 86136 Sample Preparation: 2013-05-23 Prepared By: AK



Report Date: June 7, 2013

Work Order: 13052121  
Big Sky Dairy

Page Number: 6 of 21  
17800 Stern Drive, Mesquite, NM 88048

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.66	<10.0	<1.66	mg/L	1	1.66	10	1.66

**Sample: 329907 - 833-4**

Laboratory: El Paso  
 Analysis: Chloride (IC)                      Analytical Method: E 300.0                      Prep Method: N/A  
 QC Batch: 102011                              Date Analyzed: 2013-05-22                      Analyzed By: JR  
 Prep Batch: 86426                              Sample Preparation: 2013-05-22                      Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Chloride		1	<b>875</b>	<b>875</b>	<1.96	mg/L	50	1.96	2.5	0.0392

**Sample: 329907 - 833-4**

Laboratory: El Paso  
 Analysis: NO3 (IC)                              Analytical Method: E 300.0                              Prep Method: N/A  
 QC Batch: 102011                              Date Analyzed: 2013-05-22                              Analyzed By: JR  
 Prep Batch: 86426                              Sample Preparation: 2013-05-22                              Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Nitrate-N		1	<b>41.9</b>	<b>41.9</b>	<0.0420	mg/L	5	0.0420	0.5	0.0084

**Sample: 329907 - 833-4**

Laboratory: El Paso  
 Analysis: TDS                                      Analytical Method: SM 2540C                              Prep Method: N/A  
 QC Batch: 101888                              Date Analyzed: 2013-05-28                              Analyzed By: DL  
 Prep Batch: 86329                              Sample Preparation: 2013-05-28                              Prepared By: DL

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Dissolved Solids		1	<b>3180</b>	<b>3180</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 329907 - 833-4**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: SM 4500-NH3 B,C Prep Method: N/A  
 QC Batch: 101825 Date Analyzed: 2013-05-23 Analyzed By: AK  
 Prep Batch: 86136 Sample Preparation: 2013-05-23 Prepared By: AK

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	MQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.66	<10.0	<1.66	mg/L	1	1.66	10	1.66

**Sample: 329908 - 833-5**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 102011 Date Analyzed: 2013-05-22 Analyzed By: JR  
 Prep Batch: 86426 Sample Preparation: 2013-05-22 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	MQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Chloride		1	<b>1070</b>	<b>1070</b>	<1.96	mg/L	50	1.96	2.5	0.0392

**Sample: 329908 - 833-5**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 102011 Date Analyzed: 2013-05-22 Analyzed By: JR  
 Prep Batch: 86426 Sample Preparation: 2013-05-22 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	MQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Nitrate-N		1	<b>14.7</b>	<b>14.7</b>	<0.0420	mg/L	5	0.0420	0.5	0.0084

**Sample: 329908 - 833-5**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 101888 Date Analyzed: 2013-05-28 Analyzed By: DL  
 Prep Batch: 86329 Sample Preparation: 2013-05-28 Prepared By: DL

*continued . . .*

*sample 329908 continued ...*

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	<b>2920</b>	<b>2920</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 329908 - 833-5**

Laboratory: Lubbock

Analysis: TKN

QC Batch: 101825

Prep Batch: 86136

Analytical Method: SM 4500-NH3 B,C

Date Analyzed: 2013-05-23

Sample Preparation: 2013-05-23

Prep Method: N/A

Analyzed By: AK

Prepared By: AK

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.66	<10.0	<1.66	mg/L	1	1.66	10	1.66

**Sample: 329909 - 833-7**

Laboratory: El Paso

Analysis: Chloride (IC)

QC Batch: 102012

Prep Batch: 86427

Analytical Method: E 300.0

Date Analyzed: 2013-05-23

Sample Preparation: 2013-05-23

Prep Method: N/A

Analyzed By: JR

Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Chloride		1	<b>1400</b>	<b>1400</b>	<1.96	mg/L	50	1.96	2.5	0.0392

**Sample: 329909 - 833-7**

Laboratory: El Paso

Analysis: NO3 (IC)

QC Batch: 102012

Prep Batch: 86427

Analytical Method: E 300.0

Date Analyzed: 2013-05-23

Sample Preparation: 2013-05-23

Prep Method: N/A

Analyzed By: JR

Prepared By: JR

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Nitrate-N		1	<b>88.7</b>	<b>88.7</b>	<0.0840	mg/L	10	0.0840	0.5	0.0084

**Sample: 329909 - 833-7**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 101888 Date Analyzed: 2013-05-28 Analyzed By: DL  
 Prep Batch: 86329 Sample Preparation: 2013-05-28 Prepared By: DL

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	<b>4730</b>	<b>4730</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 329909 - 833-7**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: SM 4500-NH3 B,C Prep Method: N/A  
 QC Batch: 101825 Date Analyzed: 2013-05-23 Analyzed By: AK  
 Prep Batch: 86136 Sample Preparation: 2013-05-23 Prepared By: AK

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N	U	2	<1.66	<10.0	<1.66	mg/L	1	1.66	10	1.66

**Sample: 329910 - 833-8**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 102012 Date Analyzed: 2013-05-23 Analyzed By: JR  
 Prep Batch: 86427 Sample Preparation: 2013-05-23 Prepared By: JR

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Chloride		1	<b>953</b>	<b>953</b>	<1.96	mg/L	50	1.96	2.5	0.0392

**Sample: 329910 - 833-8**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 102012 Date Analyzed: 2013-05-23 Analyzed By: JR  
 Prep Batch: 86427 Sample Preparation: 2013-05-23 Prepared By: JR

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Nitrate-N		1	<b>80.2</b>	<b>80.2</b>	<0.0840	mg/L	10	0.0840	0.5	0.0084

**Sample: 329910 - 833-8**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 101888 Date Analyzed: 2013-05-28 Analyzed By: DL  
 Prep Batch: 86329 Sample Preparation: 2013-05-28 Prepared By: DL

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Dissolved Solids		1	<b>3320</b>	<b>3320</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 329910 - 833-8**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: SM 4500-NH3 B,C Prep Method: N/A  
 QC Batch: 101825 Date Analyzed: 2013-05-23 Analyzed By: AK  
 Prep Batch: 86136 Sample Preparation: 2013-05-23 Prepared By: AK

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N	U	2	<1.66	<10.0	<1.66	mg/L	1	1.66	10	1.66

**Sample: 329911 - 833-Lagoon**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 102012 Date Analyzed: 2013-05-23 Analyzed By: JR  
 Prep Batch: 86427 Sample Preparation: 2013-05-23 Prepared By: JR

*continued ...*



*sample 329911 continued ...*

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Chloride		1	<b>897</b>	<b>897</b>	<1.96	mg/L	50	1.96	2.5	0.0392

**Sample: 329911 - 833-Lagoon**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 102012 Date Analyzed: 2013-05-23 Analyzed By: JR  
 Prep Batch: 86427 Sample Preparation: 2013-05-23 Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Nitrate-N		1	<b>3.49</b>	<b>3.49</b>	<0.0420	mg/L	5	0.0420	0.5	0.0084

**Sample: 329911 - 833-Lagoon**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 101888 Date Analyzed: 2013-05-28 Analyzed By: DL  
 Prep Batch: 86329 Sample Preparation: 2013-05-28 Prepared By: DL

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	<b>6240</b>	<b>6240</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 329911 - 833-Lagoon**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: SM 4500-NH3 B,C Prep Method: N/A  
 QC Batch: 101825 Date Analyzed: 2013-05-23 Analyzed By: AK  
 Prep Batch: 86136 Sample Preparation: 2013-05-23 Prepared By: AK

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N		2	<b>508</b>	<b>508</b>	<8.30	mg/L	5	8.30	10	1.66

## Method Blanks

### Method Blank (1)

QC Batch: 101825  
Prep Batch: 86136Date Analyzed: 2013-05-23  
QC Preparation: 2013-05-23Analyzed By: AK  
Prepared By: AK

Parameter	F	C	Result	Units	Reporting Limits
Total Kjeldahl Nitrogen - N		2	<1.66	mg/L	1.66

### Method Blank (1)

QC Batch: 101888  
Prep Batch: 86329Date Analyzed: 2013-05-28  
QC Preparation: 2013-05-28Analyzed By: DL  
Prepared By: DL

Parameter	F	C	Result	Units	Reporting Limits
Total Dissolved Solids		1	<5.00	mg/L	5

### Method Blank (1)

QC Batch: 102011  
Prep Batch: 86426Date Analyzed: 2013-05-22  
QC Preparation: 2013-05-22Analyzed By: JR  
Prepared By: JR

Parameter	F	C	Result	Units	Reporting Limits
Chloride		1	<0.0392	mg/L	0.0392

### Method Blank (1)

QC Batch: 102011  
Prep Batch: 86426Date Analyzed: 2013-05-22  
QC Preparation: 2013-05-22Analyzed By: JR  
Prepared By: JR



# Laboratory Control Spikes

## Laboratory Control Spike (LCS-1)

QC Batch: 101888  
Prep Batch: 86329Date Analyzed: 2013-05-28  
QC Preparation: 2013-05-28Analyzed By: DL  
Prepared By: DL

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Dissolved Solids		1	992	mg/L	1	1000	<5.00	99	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Dissolved Solids		1	993	mg/L	1	1000	<5.00	99	90 - 110	0	10

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

## Matrix Spike (MS-1) Spiked Sample: 329912

QC Batch: 101825  
Prep Batch: 86136Date Analyzed: 2013-05-23  
QC Preparation: 2013-05-23Analyzed By: AK  
Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Kjeldahl Nitrogen - N		2	37.8	mg/L	1	50.0	<1.66	76	10 - 151

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Kjeldahl Nitrogen - N		2	40.6	mg/L	1	50.0	<1.66	81	10 - 151	7	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

## Matrix Spike (MS-1) Spiked Sample: 329906

QC Batch: 102011  
Prep Batch: 86426Date Analyzed: 2013-05-22  
QC Preparation: 2013-05-22Analyzed By: JR  
Prepared By: JR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1	2310	mg/L	55.6	1390	858	104	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Chloride		1	2260	mg/L	55.6	1390	858	101	90 - 110	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 329906

QC Batch: 102011  
Prep Batch: 86426

Date Analyzed: 2013-05-22  
QC Preparation: 2013-05-22

Analyzed By: JR  
Prepared By: JR

Param	F	C	MS		Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit
			Result	Units					
Nitrate-N		1	337	mg/L	55.6	278	69.2	96	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Nitrate-N		1	327	mg/L	55.6	278	69.2	93	90 - 110	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 329910

QC Batch: 102012  
Prep Batch: 86427

Date Analyzed: 2013-05-23  
QC Preparation: 2013-05-23

Analyzed By: JR  
Prepared By: JR

Param	F	C	MS		Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit
			Result	Units					
Chloride		1	2330	mg/L	55.6	1390	953	99	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Chloride		1	2340	mg/L	55.6	1390	953	100	90 - 110	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 329910

QC Batch: 102012  
Prep Batch: 86427

Date Analyzed: 2013-05-23  
QC Preparation: 2013-05-23

Analyzed By: JR  
Prepared By: JR



Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Nitrate-N		1	334	mg/L	55.6	278	80.2	91	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Nitrate-N		1	336	mg/L	55.6	278	80.2	92	90 - 110	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

## Calibration Standards

### Standard (ICV-1)

QC Batch: 101825

Date Analyzed: 2013-05-23

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	4.34	87	85 - 115	2013-05-23

### Standard (CCV-1)

QC Batch: 101825

Date Analyzed: 2013-05-23

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	4.76	95	85 - 115	2013-05-23

### Standard (CCV-1)

QC Batch: 102011

Date Analyzed: 2013-05-22

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	23.6	94	90 - 110	2013-05-22

### Standard (CCV-1)

QC Batch: 102011

Date Analyzed: 2013-05-22

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.77	95	90 - 110	2013-05-22

**Standard (CCV-2)**

QC Batch: 102011

Date Analyzed: 2013-05-22

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	23.6	94	90 - 110	2013-05-22

**Standard (CCV-2)**

QC Batch: 102011

Date Analyzed: 2013-05-22

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.77	95	90 - 110	2013-05-22

**Standard (CCV-1)**

QC Batch: 102012

Date Analyzed: 2013-05-23

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	23.6	94	90 - 110	2013-05-23

**Standard (CCV-1)**

QC Batch: 102012

Date Analyzed: 2013-05-23

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.77	95	90 - 110	2013-05-23

**Standard (CCV-2)**

QC Batch: 102012

Date Analyzed: 2013-05-23

Analyzed By: JR

Report Date: June 7, 2013

Work Order: 13052121  
Big Sky Dairy

Page Number: 19 of 21  
17800 Stern Drive, Mesquite, NM 88048

---

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	23.7	95	90 - 110	2013-05-23

---

**Standard (CCV-2)**

QC Batch: 102012

Date Analyzed: 2013-05-23

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.78	96	90 - 110	2013-05-23

---

---

## Limits of Detection (LOD)

Test	Method	Matrix	Instrument	Analyte	Spike Amount	Pass
Chloride (IC)	E 300.0	water	Dionex IC	Chloride	0.0962	Pass
NO3 (IC)	E 300.0	water	Dionex IC	Nitrate-N	0.0192	Pass
TKN	SM 4500-NH3 B,C	water	N/A	Total Kjeldahl Nitrogen - N	5.00	Pass



---

# Appendix

## Report Definitions

Name	Definition
MDL	Method Detection Limit
MQL	Minimum Quantitation Limit
SDL	Sample Detection Limit

## Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704221-12-3	El Paso
2	NELAP	T104704219-13-9	Lubbock

## Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less than ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
MI1	Split peak or shoulder peak
MI2	Instrument software did not integrate
MI3	Instrument software misidentified the peak
MI4	Instrument software integrated improperly
MI5	Baseline correction
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

## Attachments

The scanned attachments will follow this page.  
Please note, each attachment may consist of more than one page.

Company Name: D&H Petroleum & Environmental Services  
Address: (Street, City, Zip) 1221 Tower Trail Ln., El Paso, Texas 79907  
Contact Person: Victor Ayala  
Invoice to (if different from above): Big Sky Dairy, P.O. Box 10, Mesquite, NIM 88048  
Project #: 415796  
Project Name: Big Sky Dairy  
Sampler Signature: *Chad H. Pava*

Project Location (including state): Big Sky Dairy, 17800 Stern Drive, Mesquite, NIM  
Project Name: Big Sky Dairy  
Sampler Signature: *Chad H. Pava*

LAB # (LAB USE ONLY)	Field Code	# Containers	Volume/Amount	MATRIX			PRESERVATIVE METHOD				Sampling		DATE	TIME
				WATER	AIR	SLUDGE	HCl	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	NaOH	ICE	NONE		
833-1		1		X			X				X			
833-1		1		X			X				X			
329906-1		1	250ml	X			X				X		5-21-13	10:15
1-2		1	250ml	X			X				X		5-21-13	10:15
833-3		1		X			X				X			
833-3		1		X			X				X			
329907-1		1	250ml	X			X				X		5-21-13	8:33
1-2		1	250ml	X			X				X		5-21-13	8:33
329908-1		1	250ml	X			X				X		5-21-13	11:33
1-2		1	250ml	X			X				X		5-21-13	11:33
833-6		1		X			X				X			
833-6		1		X			X				X			
329909-1		1	250ml	X			X				X		5-21-13	13:39
1-2		1	250ml	X			X				X		5-21-13	13:39
329910-1		1	250ml	X			X				X		5-21-13	10:59
1-2		1	250ml	X			X				X		5-21-13	10:59

LAB #	Field Code	# Containers	Volume/Amount	MATRIX			PRESERVATIVE METHOD				Sampling		DATE	TIME
				WATER	AIR	SLUDGE	HCl	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	NaOH	ICE	NONE		
833-1		1		X			X				X			
833-1		1		X			X				X			
329906-1		1	250ml	X			X				X		5-21-13	10:15
1-2		1	250ml	X			X				X		5-21-13	10:15
833-3		1		X			X				X			
833-3		1		X			X				X			
329907-1		1	250ml	X			X				X		5-21-13	8:33
1-2		1	250ml	X			X				X		5-21-13	8:33
329908-1		1	250ml	X			X				X		5-21-13	11:33
1-2		1	250ml	X			X				X		5-21-13	11:33
833-6		1		X			X				X			
833-6		1		X			X				X			
329909-1		1	250ml	X			X				X		5-21-13	13:39
1-2		1	250ml	X			X				X		5-21-13	13:39
329910-1		1	250ml	X			X				X		5-21-13	10:59
1-2		1	250ml	X			X				X		5-21-13	10:59

Relinquished By: *Chad H. Pava* Date: 5-21-13 Time: 15:16  
 Received By: *Danah H. T.A. S413* Date: 5-21-13 Time: 15:16  
 Relinquished By: *D. H. H.* Date: 5-21-13 Time: 16:30  
 Received at Laboratory By: *Brandi Richardson* Date: 5/22/13 Time: 9:00

Lab Use Only: Intact  / N Headspace  / NA Temp 18.2 / 0.2 C Log-in Review Y.  
 Remarks: ICE  
CARRY IN  
TKN @ Labbook  
 Dry Weight Basis Required   
 TRRP Report Required  5-21-13  
US40130543



# TraceAnalysis, Inc.

Company Name: D&H Petroleum & Environmental Services  
Address: (Street, City, Zip)  
1221 Tower Trail Ln., El Paso, Texas 79907  
Contact Person: Victor Ayala  
Invoice to (if different from above):  
Big Sky Dairy, P.O. Box 10, Mesquite, NM 88048  
Project #: 415796

Phone #: 915-859-8150  
Cell #:   
Fax #:   
E-mail: vayala@dhpump.com

Project Name: Big Sky Dairy  
Sampler Signature: *Victor Ayala*

LAB #	Field Code	# Containers	Volume/Amount	MATRIX			PRESERVATIVE METHOD					DATE	SAMPLING TIME	
				WATER	SOIL	AIR	SLUDGE	HCl	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	NaOH			ICE
833-9		1		X					X	X	X			
833-9		1		X					X	X	X			
833-10		1		X					X	X	X			
833-10		1		X					X	X	X			
833 Lagoon		1	250ml	X					X	X	X	5-21-13	11:58	
833 Lagoon		1	250ml	X					X	X	X	5-21-13	11:58	

MTBE 8021B/602	BTEX 8021B/602	TPH 418.1 / TX1005	TX 1005 Extended (C35)	PAH 8270C	PAH 8270 (Low Level Analysis)	Total Metals Ag As BA Cd Cr Pb Se Hg 6010B/200.7	Nitrates EPA 300	Total Kjeldhal Nitrogen SM 4500 NORG C	Chloride EPA 300.0	Total Dissolved Solids SM 2540 C MOD
							X	X	X	X
							X	X	X	X
							X	X	X	X
							X	X	X	X

LAB USE ONLY	Relinquished By:	Date:	Time:	Received By:	Date:	Time:	Relinquished By:	Date:	Time:
	<i>Victor Ayala</i>	5-21-13	15:16	<i>David H. FA.</i>	5-21-13	15:16			
	<i>David H. FA.</i>	5-21-13	16:30	<i>Prandi Johnson</i>	5-21-13	9:00			

Relinquished By: *Victor Ayala* Date: 5-21-13 Time: 15:16  
 Received at Laboratory By: *David H. FA.* Date: 5-21-13 Time: 15:16  
 Relinquished By: *David H. FA.* Date: 5-21-13 Time: 16:30  
 Received at Laboratory By: *Prandi Johnson* Date: 5-21-13 Time: 9:00

Remarks: ICE  
 Carry in  
 TKNE Labwork  
 Dry Weight Basis Required  
 TRRP Report Required  
 5-21-13



6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800-378-1296 806-794-1296 FAX 806-794-1298  
200 East Sunset Road, Suite E El Paso, Texas 79922 915-585-3443 FAX 915-585-4944  
5002 Basin Street, Suite A1 Midland, Texas 79703 432-689-6301 FAX 432-689-6313  
(BioAquatic) 2501 Mayes Rd., Suite 100 Carrollton, Texas 75006 972-242-7750  
E-Mail: lab@traceanalysis.com WEB: www.traceanalysis.com

## Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

# Analytical and Quality Control Report

Bruce Bonestroo  
River Valley Dairy, LLC  
1400 La Chuga Rd., Mesquite  
P.O. Box 1929  
Anthony, NM, 88021

Report Date: June 7, 2013

Work Order: 13052122



DP: 167  
Project Location: 1400 La Chuga Rd., Mesquite, NM  
Project Name: River Valley Dairy, LLC

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
329912	167-08	water	2013-05-21	14:43	2013-05-21

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 13 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

### Notes:

*For inorganic analyses, the term MQL should actually read PQL.*

Dr. Blair Leftwich, Director  
Dr. Michael Abel, Project Manager

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## Case Narrative

Samples for project River Valley Dairy, LLC were received by TraceAnalysis, Inc. on 2013-05-21 and assigned to work order 13052122. Samples for work order 13052122 were received intact at a temperature of 2.0 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
Chloride (IC)	E 300.0	86417	2013-05-23 at 06:24	101999	2013-05-21 at 18:42
NO3 (IC)	E 300.0	86417	2013-05-23 at 06:24	101999	2013-05-21 at 18:42
TDS	SM 2540C	86329	2013-05-28 at 14:00	101888	2013-05-28 at 14:00
TKN	SM 4500-NH3 B,C	86136	2013-05-23 at 08:55	101825	2013-05-23 at 14:00

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 13052122 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

# Analytical Report

**Sample: 329912 - 167-08**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101999 Date Analyzed: 2013-05-21 Analyzed By: JR  
 Prep Batch: 86417 Sample Preparation: 2013-05-23 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Chloride		1	<b>723</b>	<b>723</b>	<1.96	mg/L	50	1.96	2.5	0.0392

**Sample: 329912 - 167-08**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101999 Date Analyzed: 2013-05-21 Analyzed By: JR  
 Prep Batch: 86417 Sample Preparation: 2013-05-23 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Nitrate-N	J	1	<b>1.13</b>	<2.50	<0.0420	mg/L	5	0.0420	0.5	0.0084

**Sample: 329912 - 167-08**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 101888 Date Analyzed: 2013-05-28 Analyzed By: DL  
 Prep Batch: 86329 Sample Preparation: 2013-05-28 Prepared By: DL

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Dissolved Solids		1	<b>2820</b>	<b>2820</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 329912 - 167-08**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: SM 4500-NH3 B,C Prep Method: N/A  
 QC Batch: 101825 Date Analyzed: 2013-05-23 Analyzed By: AK  
 Prep Batch: 86136 Sample Preparation: 2013-05-23 Prepared By: AK

---

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.66	<10.0	<1.66	mg/L	1	1.66	10	1.66

---

## Method Blanks

### Method Blank (1)

QC Batch: 101825  
Prep Batch: 86136Date Analyzed: 2013-05-23  
QC Preparation: 2013-05-23Analyzed By: AK  
Prepared By: AK

Parameter	F	C	Result	Units	Reporting Limits
Total Kjeldahl Nitrogen - N		2	<1.66	mg/L	1.66

### Method Blank (1)

QC Batch: 101888  
Prep Batch: 86329Date Analyzed: 2013-05-28  
QC Preparation: 2013-05-28Analyzed By: DL  
Prepared By: DL

Parameter	F	C	Result	Units	Reporting Limits
Total Dissolved Solids		1	<5.00	mg/L	5

### Method Blank (1)

QC Batch: 101999  
Prep Batch: 86417Date Analyzed: 2013-05-21  
QC Preparation: 2013-05-23Analyzed By: JR  
Prepared By: JR

Parameter	F	C	Result	Units	Reporting Limits
Chloride		1	1.40	mg/L	0.0392

### Method Blank (1)

QC Batch: 101999  
Prep Batch: 86417Date Analyzed: 2013-05-21  
QC Preparation: 2013-05-23Analyzed By: JR  
Prepared By: JR

Report Date: June 7, 2013

Work Order: 13052122  
River Valley Dairy, LLC

Page Number: 7 of 13  
1400 La Chuga Rd., Mesquite, NM

---

Parameter	F	C	Result	Units	Reporting Limits
Nitrate-N		1	0.134	mg/L	0.0084

---

**Duplicate (1)** Duplicated Sample: 329909

QC Batch: 101888

Date Analyzed: 2013-05-28

Analyzed By: DL

Prep Batch: 86329

QC Preparation: 2013-05-28

Prepared By: DL

Param	F	C	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids		1	4820	4730	mg/L	1	2	10

---





Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Chloride		1	2090	mg/L	55.6	1390	723	98	90 - 110	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 329912

QC Batch: 101999  
Prep Batch: 86417

Date Analyzed: 2013-05-21  
QC Preparation: 2013-05-23

Analyzed By: JR  
Prepared By: JR

Param	F	C	MS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
			Result	Units					
Nitrate-N		1	254	mg/L	55.6	278	1.13	91	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Nitrate-N		1	253	mg/L	55.6	278	1.13	91	90 - 110	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

## Calibration Standards

### Standard (ICV-1)

QC Batch: 101825

Date Analyzed: 2013-05-23

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	4.34	87	85 - 115	2013-05-23

### Standard (CCV-1)

QC Batch: 101825

Date Analyzed: 2013-05-23

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	4.76	95	85 - 115	2013-05-23

### Standard (CCV-1)

QC Batch: 101999

Date Analyzed: 2013-05-21

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	23.7	95	90 - 110	2013-05-21

### Standard (CCV-1)

QC Batch: 101999

Date Analyzed: 2013-05-21

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.78	96	90 - 110	2013-05-21

**Standard (CCV-2)**

QC Batch: 101999

Date Analyzed: 2013-05-21

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	23.8	95	90 - 110	2013-05-21

**Standard (CCV-2)**

QC Batch: 101999

Date Analyzed: 2013-05-21

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.82	96	90 - 110	2013-05-21

---

## Limits of Detection (LOD)

Test	Method	Matrix	Instrument	Analyte	Spike Amount	Pass
Chloride (IC)	E 300.0	water	Dionex IC	Chloride	0.0962	Pass
NO3 (IC)	E 300.0	water	Dionex IC	Nitrate-N	0.0192	Pass
TKN	SM 4500-NH3 B,C	water	N/A	Total Kjeldahl Nitrogen - N	5.00	Pass



---

# Appendix

## Report Definitions

Name	Definition
MDL	Method Detection Limit
MQL	Minimum Quantitation Limit
SDL	Sample Detection Limit

## Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704221-12-3	El Paso
2	NELAP	T104704219-13-9	Lubbock

## Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less than ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
MI1	Split peak or shoulder peak
MI2	Instrument software did not integrate
MI3	Instrument software misidentified the peak
MI4	Instrument software integrated improperly
MI5	Baseline correction
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

## Attachments

The scanned attachments will follow this page.  
Please note, each attachment may consist of more than one page.

# Trace Analysis, Inc.

6701 Aberdeen Avenue, Suite 8  
Lubbock, Texas 79424  
Tel: (806) 794-1286  
Fax: (806) 794-1286  
1 (800) 378-1298

5002 Basin Street, Suite A1  
Midland, Texas 79703  
Tel: (432) 689-8301  
Fax: (432) 689-6313

BioAqua: Testing  
2501 Mayes Rd., Ste 100  
Carrollton, Texas 75006  
Tel: (972) 242-7750

email: lab@traceanalysis.com

Company Name: Dix Petroleum & Environmental Services  
Address: (Street, City, Zip)  
1721 Base Trail, El Paso, TX 79907  
Contact Person: Victor Ayala  
E-mail: vayala@dixcorp.com  
Invoice to: River Valley Dairy, P.O. Box 1924  
Adrian, NM 87002  
Project #: 415-788  
Project Location (including state): River Valley Dairy, 1400 La Chaga Rd, Mesquite, NM  
Sample Signature: [Signature]

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

MTBE 8021 / 802 / 8260 / 824	
BTEX 8021 / 602 / 8260 / 824	
TPH 418.1 / TX1005 / TX1005 Ex(C35)	
TPH 8015 GRO / DRO / TVHC	
PAH 8270 / 825	
Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7	
TCLP Metals Ag As Ba Cd Cr Pb Se Hg	
TCLP Volatiles	
TCLP Semi Volatiles	
TCLP Pesticides	
RCI	
GC/MS Vol. 8260 / 824	
GC/MS Sem. Vol. 8270 / 825	
PCBs 8082 / 808	
Pesticides 8081 / 808	
BOD, TSS, PH	
Moisture Content	
Cl, F1, SO4, NO3, NO2, Alkalinity	
Na, Ca, Mg, K, TDS, EC	
Nitrates EPA 300	X
TKO Sm 4580 NORA C	X
Chloride EPA 300	X
TDS Sm 2540 C mod	X
Turn Around Time if different from standard	

LAB #	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX			PRESERVATIVE METHOD				SAMPLING			
				WATER	SOIL	AIR	SLUDGE	HCl	HNO3	H2SO4	NaOH	ICE	NONE	DATE
3882-167-08	AK 5-21-08	1	25ml X					X					5-21-08	14:43
3882-167-08		1	25ml X										5-21-08	14:47

**LAB USE ONLY**

Relinquished by: Victor Ayala Company: Dix Date: 5-21-08 Time: 15:16  
 INST: 182 OBS: 9 COR: 9

Received by: [Signature] Company: I.A. Smith Date: 5-21-08 Time: 15:16  
 INST: 182 OBS: 9 COR: 9

Relinquished by: [Signature] Company: I.A. Smith Date: 5-21-08 Time: 16:30  
 INST: 182 OBS: 9 COR: 9

REMARKS: ICE  
TKN @ Lubbock

Dry Weight Basis Required   
 TRRP Report Required   
 Check if Special Reporting Limits Are Needed

Carrier # Carry In





6701 Aberdeen Avenue, Suite 9      Lubbock, Texas 79424      800-378-1296      806-794-1296      FAX 806-794-1298  
 200 East Sunset Road, Suite E      El Paso, Texas 79922      915-585-3443      FAX 915-585-4944  
 5002 Basin Street, Suite A1      Midland, Texas 79703      432-689-6301      FAX 432-689-6313  
 (BioAquatic) 2501 Mayes Rd., Suite 100      Carrollton, Texas 75006      972-242-7750  
 E-Mail: lab@traceanalysis.com      WEB: www.traceanalysis.com

## Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

# Analytical and Quality Control Report

Linda Armstrong  
 Dona Ana Dairies

Report Date: June 7, 2013

P.O. Box 10  
 Mesquite, NM, 88048

Work Order: 13051637



Project Location: Various Dairies, Dona Ana County, NM  
 Project Name: Dona Ana Dairies Consortium  
 Project #: DAD

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
329432	DAD-01	water	2013-05-16	13:23	2013-05-16
329433	DAD-02	water	2013-05-16	13:59	2013-05-16
329434	DAD-3	water	2013-05-16	11:47	2013-05-16
329435	DAD-4	water	2013-05-16	11:30	2013-05-16

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 22 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

**Notes:**

*For inorganic analyses, the term MQL should actually read PQL.*

*Michael Abel*

---

Dr. Blair Leftwich, Director  
Dr. Michael Abel, Project Manager



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## Case Narrative

Samples for project Dona Ana Dairies Consortium were received by TraceAnalysis, Inc. on 2013-05-16 and assigned to work order 13051637. Samples for work order 13051637 were received intact at a temperature of 3.0 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
Chloride (IC)	E 300.0	86413	2013-06-01 at 21:14	101995	2013-06-01 at 21:14
Chloride (IC)	E 300.0	86429	2013-05-23 at 09:59	102014	2013-05-23 at 09:59
NO3 (IC)	E 300.0	86417	2013-05-23 at 06:24	101999	2013-05-21 at 18:42
NO3 (IC)	E 300.0	86429	2013-05-23 at 09:59	102014	2013-05-23 at 09:59
TDS	SM 2540C	86252	2013-05-22 at 08:00	101798	2013-05-22 at 08:00
TDS	SM 2540C	86253	2013-05-22 at 08:00	101799	2013-05-22 at 08:00
TKN	SM 4500-NH3 B,C	86030	2013-05-20 at 08:26	101555	2013-05-20 at 12:30
TKN	SM 4500-NH3 B,C	86090	2013-05-21 at 09:35	101597	2013-05-21 at 13:28

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 13051637 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

# Analytical Report

**Sample: 329432 - DAD-01**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101995 Date Analyzed: 2013-06-01 Analyzed By: JR  
 Prep Batch: 86413 Sample Preparation: 2013-06-01 Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Chloride		1	<b>408</b>	<b>408</b>	<1.96	mg/L	50	1.96	2.5	0.0392

**Sample: 329432 - DAD-01**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101999 Date Analyzed: 2013-05-21 Analyzed By: JR  
 Prep Batch: 86417 Sample Preparation: 2013-05-23 Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Nitrate-N	1	H 1	<b>10.4</b>	<b>10.4</b>	<0.0420	mg/L	5	0.0420	0.5	0.0084

**Sample: 329432 - DAD-01**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 101798 Date Analyzed: 2013-05-22 Analyzed By: DL  
 Prep Batch: 86252 Sample Preparation: 2013-05-22 Prepared By: DL

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	<b>1930</b>	<b>1930</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 329432 - DAD-01**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: SM 4500-NH3 B,C Prep Method: N/A  
 QC Batch: 101555 Date Analyzed: 2013-05-20 Analyzed By: AK  
 Prep Batch: 86030 Sample Preparation: 2013-05-20 Prepared By: AK





Laboratory: Lubbock  
 Analysis: TKN Analytical Method: SM 4500-NH3 B,C Prep Method: N/A  
 QC Batch: 101555 Date Analyzed: 2013-05-20 Analyzed By: AK  
 Prep Batch: 86030 Sample Preparation: 2013-05-20 Prepared By: AK

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	MQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.66	<10.0	<1.66	mg/L	1	1.66	10	1.66

**Sample: 329434 - DAD-3**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101995 Date Analyzed: 2013-06-01 Analyzed By: JR  
 Prep Batch: 86413 Sample Preparation: 2013-06-01 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	MQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Chloride		1	<b>1400</b>	<b>1400</b>	<1.96	mg/L	50	1.96	2.5	0.0392

**Sample: 329434 - DAD-3**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101999 Date Analyzed: 2013-05-21 Analyzed By: JR  
 Prep Batch: 86417 Sample Preparation: 2013-05-23 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	MQL	MDL	
			Based	Based	Blank				(Unadjusted)	(Unadjusted)	
Nitrate-N	3	H,J	1	<b>1.07</b>	<2.50	<0.0420	mg/L	5	0.0420	0.5	0.0084

**Sample: 329434 - DAD-3**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 101798 Date Analyzed: 2013-05-22 Analyzed By: DL  
 Prep Batch: 86252 Sample Preparation: 2013-05-22 Prepared By: DL

*continued . . .*

*sample 329434 continued ...*

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	<b>4420</b>	<b>4420</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 329434 - DAD-3**

Laboratory: Lubbock

Analysis: TKN

QC Batch: 101555

Prep Batch: 86030

Analytical Method: SM 4500-NH3 B,C

Date Analyzed: 2013-05-20

Sample Preparation: 2013-05-20

Prep Method: N/A

Analyzed By: AK

Prepared By: AK

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.66	<10.0	<1.66	mg/L	1	1.66	10	1.66

**Sample: 329435 - DAD-4**

Laboratory: El Paso

Analysis: Chloride (IC)

QC Batch: 102014

Prep Batch: 86429

Analytical Method: E 300.0

Date Analyzed: 2013-05-23

Sample Preparation: 2013-05-23

Prep Method: N/A

Analyzed By: JR

Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Chloride		1	<b>613</b>	<b>613</b>	<1.96	mg/L	50	1.96	2.5	0.0392

**Sample: 329435 - DAD-4**

Laboratory: El Paso

Analysis: NO3 (IC)

QC Batch: 102014

Prep Batch: 86429

Analytical Method: E 300.0

Date Analyzed: 2013-05-23

Sample Preparation: 2013-05-23

Prep Method: N/A

Analyzed By: JR

Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Nitrate-N	4	H,U 1	<0.0420	<2.50	<0.0420	mg/L	5	0.0420	0.5	0.0084

**Sample: 329435 - DAD-4**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 101799 Date Analyzed: 2013-05-22 Analyzed By: DL  
 Prep Batch: 86253 Sample Preparation: 2013-05-22 Prepared By: DL

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	<b>2320</b>	<b>2320</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 329435 - DAD-4**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: SM 4500-NH3 B,C Prep Method: N/A  
 QC Batch: 101597 Date Analyzed: 2013-05-21 Analyzed By: AK  
 Prep Batch: 86090 Sample Preparation: 2013-05-21 Prepared By: AK

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N		U 2	<1.66	<10.0	<1.66	mg/L	1	1.66	10	1.66

## Method Blanks

### Method Blank (1)

QC Batch: 101555  
Prep Batch: 86030Date Analyzed: 2013-05-20  
QC Preparation: 2013-05-20Analyzed By: AK  
Prepared By: AK

Parameter	F	C	Result	Units	Reporting Limits
Total Kjeldahl Nitrogen - N		2	<1.66	mg/L	1.66

### Method Blank (1)

QC Batch: 101597  
Prep Batch: 86090Date Analyzed: 2013-05-21  
QC Preparation: 2013-05-21Analyzed By: AK  
Prepared By: AK

Parameter	F	C	Result	Units	Reporting Limits
Total Kjeldahl Nitrogen - N		2	<1.66	mg/L	1.66

### Method Blank (1)

QC Batch: 101798  
Prep Batch: 86252Date Analyzed: 2013-05-22  
QC Preparation: 2013-05-22Analyzed By: DL  
Prepared By: DL

Parameter	F	C	Result	Units	Reporting Limits
Total Dissolved Solids		1	<5.00	mg/L	5

### Method Blank (1)

QC Batch: 101799  
Prep Batch: 86253Date Analyzed: 2013-05-22  
QC Preparation: 2013-05-22Analyzed By: DL  
Prepared By: DL

Parameter	F	C	Result	Units	Reporting Limits
Total Dissolved Solids		1	<5.00	mg/L	5

**Method Blank (1)**QC Batch: 101995  
Prep Batch: 86413Date Analyzed: 2013-06-01  
QC Preparation: 2013-06-01Analyzed By: JR  
Prepared By: JR

Parameter	F	C	Result	Units	Reporting Limits
Chloride		1	1.40	mg/L	0.0392

**Method Blank (1)**QC Batch: 101999  
Prep Batch: 86417Date Analyzed: 2013-05-21  
QC Preparation: 2013-05-23Analyzed By: JR  
Prepared By: JR

Parameter	F	C	Result	Units	Reporting Limits
Nitrate-N		1	0.134	mg/L	0.0084

**Method Blank (1)**QC Batch: 102014  
Prep Batch: 86429Date Analyzed: 2013-05-23  
QC Preparation: 2013-05-23Analyzed By: JR  
Prepared By: JR

Parameter	F	C	Result	Units	Reporting Limits
Chloride		1	<0.0392	mg/L	0.0392

**Method Blank (1)**QC Batch: 102014  
Prep Batch: 86429Date Analyzed: 2013-05-23  
QC Preparation: 2013-05-23Analyzed By: JR  
Prepared By: JR



Parameter	F	C	Result	Units	Reporting Limits
Nitrate-N		1	<0.00840	mg/L	0.0084

**Duplicate (1)** Duplicated Sample: 329428

QC Batch: 101798 Date Analyzed: 2013-05-22 Analyzed By: DL  
 Prep Batch: 86252 QC Preparation: 2013-05-22 Prepared By: DL

Param	F	C	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids		1	4010	3920	mg/L	1	2	10

**Duplicate (1)** Duplicated Sample: 329854

QC Batch: 101799 Date Analyzed: 2013-05-22 Analyzed By: DL  
 Prep Batch: 86253 QC Preparation: 2013-05-22 Prepared By: DL

Param	F	C	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids		1	2110	2140	mg/L	1	1	10



Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Total Kjeldahl Nitrogen - N		2	46.2	mg/L	1	50.0	<1.66	92	10 - 151	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 329572

QC Batch: 101597  
Prep Batch: 86090

Date Analyzed: 2013-05-21  
QC Preparation: 2013-05-21

Analyzed By: AK  
Prepared By: AK

Param	F	C	MS		Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit
			Result	Units					
Total Kjeldahl Nitrogen - N		2	39.9	mg/L	1	50.0	<1.66	80	10 - 151

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Total Kjeldahl Nitrogen - N		2	39.9	mg/L	1	50.0	<1.66	80	10 - 151	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 329432

QC Batch: 101995  
Prep Batch: 86413

Date Analyzed: 2013-06-01  
QC Preparation: 2013-06-01

Analyzed By: JR  
Prepared By: JR

Param	F	C	MS		Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit
			Result	Units					
Chloride		1	1840	mg/L	55.6	1390	408	103	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Chloride		1	1840	mg/L	55.6	1390	408	103	90 - 110	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 329912

QC Batch: 101999  
Prep Batch: 86417

Date Analyzed: 2013-05-21  
QC Preparation: 2013-05-23

Analyzed By: JR  
Prepared By: JR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Nitrate-N		1	254	mg/L	55.6	278	1.13	91	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Nitrate-N		1	253	mg/L	55.6	278	1.13	91	90 - 110	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 329568

QC Batch: 102014  
 Prep Batch: 86429

Date Analyzed: 2013-05-23  
 QC Preparation: 2013-05-23

Analyzed By: JR  
 Prepared By: JR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	5	1	1620	mg/L	55.6	1390	321	93	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	6	1	1610	mg/L	55.6	1390	321	93	90 - 110	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 329568

QC Batch: 102014  
 Prep Batch: 86429

Date Analyzed: 2013-05-23  
 QC Preparation: 2013-05-23

Analyzed By: JR  
 Prepared By: JR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Nitrate-N	7	1	255	mg/L	55.6	278	<0.467	92	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Nitrate-N	8	1	255	mg/L	55.6	278	<0.467	92	90 - 110	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

## Calibration Standards

### Standard (ICV-1)

QC Batch: 101555

Date Analyzed: 2013-05-20

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	4.48	90	85 - 115	2013-05-20

### Standard (CCV-1)

QC Batch: 101555

Date Analyzed: 2013-05-20

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	4.62	92	85 - 115	2013-05-20

### Standard (ICV-1)

QC Batch: 101597

Date Analyzed: 2013-05-21

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	4.48	90	85 - 115	2013-05-21

### Standard (CCV-1)

QC Batch: 101597

Date Analyzed: 2013-05-21

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	4.76	95	85 - 115	2013-05-21



**Standard (CCV-1)**

QC Batch: 101995

Date Analyzed: 2013-06-01

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	24.2	97	90 - 110	2013-06-01

**Standard (CCV-2)**

QC Batch: 101995

Date Analyzed: 2013-06-01

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	24.5	98	90 - 110	2013-06-01

**Standard (CCV-1)**

QC Batch: 101999

Date Analyzed: 2013-05-21

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.78	96	90 - 110	2013-05-21

**Standard (CCV-2)**

QC Batch: 101999

Date Analyzed: 2013-05-21

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.82	96	90 - 110	2013-05-21

**Standard (CCV-1)**

QC Batch: 102014

Date Analyzed: 2013-05-23

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	23.3	93	90 - 110	2013-05-23

**Standard (CCV-1)**

QC Batch: 102014

Date Analyzed: 2013-05-23

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.82	96	90 - 110	2013-05-23

**Standard (CCV-2)**

QC Batch: 102014

Date Analyzed: 2013-05-23

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	23.9	96	90 - 110	2013-05-23

**Standard (CCV-2)**

QC Batch: 102014

Date Analyzed: 2013-05-23

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.82	96	90 - 110	2013-05-23

---

## Limits of Detection (LOD)

Test	Method	Matrix	Instrument	Analyte	Spike Amount	Pass
Chloride (IC)	E 300.0	water	Dionex IC	Chloride	0.0962	Pass
NO3 (IC)	E 300.0	water	Dionex IC	Nitrate-N	0.0192	Pass
TKN	SM 4500-NH3 B,C	water	N/A	Total Kjeldahl Nitrogen - N	5.00	Pass

# Appendix

## Report Definitions

Name	Definition
MDL	Method Detection Limit
MQL	Minimum Quantitation Limit
SDL	Sample Detection Limit

## Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704221-12-3	El Paso
2	NELAP	T104704219-13-9	Lubbock

## Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less than ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
MI1	Split peak or shoulder peak
MI2	Instrument software did not integrate
MI3	Instrument software misidentified the peak
MI4	Instrument software integrated improperly
MI5	Baseline correction
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

## Result Comments

- 1 Nitrate result was 0.879 mg/L 5-18-13.

- 2 Nitrate result was 24.1 mg/L 5-18-13.
- 3 Nitrate result was 1.70 mg/L 5-18-13.
- 4 Nitrate result was <0.00840 mg/L on 5-18-13.
- 5 Chloride result for sample was reported in another batch.
- 6 Chloride result for sample was reported in another batch.
- 7 Nitrate result for sample was reported in another batch.
- 8 Nitrate result for sample was reported in another batch.

## **Attachments**

The scanned attachments will follow this page.  
Please note, each attachment may consist of more than one page.



**Company Name:** D&H Petroleum & Environmental Services  
**Address:** (Street, City, Zip) 1221 Tower Trail Ln, El Paso TX 79907  
**Contact Person:** Victor Ayala  
**Phone #:** 915-859-8150  
**Cell #:**  
**Fax #:**  
**E-mail:** vajala@dhpump.com  
**Project Name:** Linda Armstrong 575-233-3620  
**Project #:** 415 783  
**Sampler Signature:** *Clayd N. B...*  
**Project Location (including state):** Various Dairies, Dona Ana County, NM

LAB #	Field Code	# Containers	Volume/Amount	MATRIX			PRESERVATIVE METHOD				SAMPLING		
				WATER	SOIL	AIR	SLUDGE	HCl	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	NaOH	ICE	NONE
389422-1	DAD-01	1	250ml	X				X				5-16-13	13:23
↓-2	DAD-01	1	250ml	X				X				5-16-13	13:23
33-1	DAD-02	1	250ml	X				X				5-16-13	13:59
↓-2	DAD-02	1	250ml	X				X				5-16-13	13:59
34-1	DAD-03	1	250ml	X				X				5-16-13	11:47
↓-2	DAD-03	1	250ml	X				X				5-16-13	11:47
35-1	DAD-04	1	250ml	X				X				5-16-13	11:30
↓-2	DAD-04	1	250ml	X				X				5-16-13	11:30
	DAD-05	1		X				X					
	DAD-05	1		X				X					
	DAD-06	1		X				X					
	DAD-06	1		X				X					
	DAD-07	1		X				X					
	DAD-07	1		X				X					
	DAD-08	1		X				X					
	DAD-08	1		X				X					

**ANALYSIS REQUEST**

MTBE 8021B/602	
BTEX 8021B/602	
TPH 418.1 / TX1005	
TX 1005 Extended (C35)	
PAH 8270C	
PAH 8270 (Low Level Analysis)	
Total Metals Ag As BA Cd Cr Pb Se Hg 6010B/200.7	
Nitrates EPA 300	X
TKN SM 4500 NORG C	X
Chloride EPA 300	X
Total Dissolved Solids SM 2540 C MOD	X
Turn Around Time	

**Lab Use Only**  
 Intact  / N  
 Headspace Y / N  / N  
 Temp 11.8C  
 Log-in Review

**Relinquished By:** *Clayd N. B...* Date: 5-16-13 14:53  
**Relinquished By:** *Victor Ayala* Date: 5-16-13 16:30

**Received By:** *Victor Ayala* Date: 5-16-13 14:53  
**Received at Laboratory By:** *Victor Ayala* Date: 5-17-13 9:40

**Remarks:** TDS, O<sub>2</sub>, NO<sub>3</sub> in ESP  
 Dry Weight Basis Required  
 TRRP Report Required

5-16-13 LS 48120546



6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800-378-1296 806-794-1296 FAX 806-794-1298  
 200 East Sunset Road, Suite E El Paso, Texas 79922 915-585-3443 FAX 915-585-4944  
 5002 Basin Street, Suite A1 Midland, Texas 79703 432-689-6301 FAX 432-689-6313  
 (BioAquatic) 2501 Mayes Rd., Suite 100 Carrollton, Texas 75006 972-242-7750  
 E-Mail: lab@traceanalysis.com WEB: www.traceanalysis.com

## Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

# Analytical and Quality Control Report

Joe Gonzalez  
 Gonzalez Dairy  
 14310 Stern Drive  
 P.O. Box 199  
 Mesquite, NM, 88048

Report Date: June 7, 2013

Work Order: 13051526



DP: 177  
 Project Location: 14310 Stern Dr., Mesquite, NM  
 Project Name: Gonzalez Dairy Inc.

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
329304	177-01	water	2013-05-15	12:56	2013-05-15
329305	177-02	water	2013-05-15	13:59	2013-05-15
329306	177-03A	water	2013-05-15	08:45	2013-05-15
329307	177-04	water	2013-05-15	10:08	2013-05-15
329308	177-05	water	2013-05-15	07:55	2013-05-15
329309	177-07R	water	2013-05-15	14:42	2013-05-15

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 23 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

**Notes:**

*For inorganic analyses, the term MQL should actually read PQL.*

*Michael Abel*

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Dr. Blair Leftwich, Director  
Dr. Michael Abel, Project Manager

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## Case Narrative

Samples for project Gonzalez Dairy Inc. were received by TraceAnalysis, Inc. on 2013-05-15 and assigned to work order 13051526. Samples for work order 13051526 were received intact at a temperature of 3 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
Chloride (IC)	E 300.0	86414	2013-06-02 at 01:04	101996	2013-06-02 at 01:04
Chloride (IC)	E 300.0	86415	2013-06-03 at 18:16	101997	2013-06-03 at 18:16
NO3 (IC)	E 300.0	86414	2013-06-02 at 01:04	101996	2013-06-02 at 01:04
NO3 (IC)	E 300.0	86415	2013-06-03 at 18:16	101997	2013-06-03 at 18:16
TDS	SM 2540C	86104	2013-05-20 at 08:30	101622	2013-05-20 at 08:30
TDS	SM 2540C	86252	2013-05-22 at 08:00	101798	2013-05-22 at 08:00
TKN	SM 4500-NH3 B,C	85994	2013-05-17 at 08:35	101599	2013-05-17 at 02:25

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 13051526 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.



# Analytical Report

**Sample: 329304 - 177-01**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101996 Date Analyzed: 2013-06-02 Analyzed By: JR  
 Prep Batch: 86414 Sample Preparation: 2013-06-02 Prepared By: JR

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Chloride	Qs	1	<b>1300</b>	<b>1300</b>	<1.96	mg/L	50	1.96	2.5	0.0392

**Sample: 329304 - 177-01**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101996 Date Analyzed: 2013-06-02 Analyzed By: JR  
 Prep Batch: 86414 Sample Preparation: 2013-06-02 Prepared By: JR

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Nitrate-N	1	H 1	<b>31.6</b>	<b>31.6</b>	<0.0420	mg/L	5	0.0420	0.5	0.0084

**Sample: 329304 - 177-01**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 101622 Date Analyzed: 2013-05-20 Analyzed By: DL  
 Prep Batch: 86104 Sample Preparation: 2013-05-20 Prepared By: DL

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Dissolved Solids		1	<b>3940</b>	<b>3940</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 329304 - 177-01**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: SM 4500-NH3 B,C Prep Method: N/A  
 QC Batch: 101599 Date Analyzed: 2013-05-17 Analyzed By: AK  
 Prep Batch: 85994 Sample Preparation: 2013-05-17 Prepared By: AK

Report Date: June 7, 2013

Work Order: 13051526  
Gonzalez Dairy Inc.

Page Number: 6 of 23  
14310 Stern Dr., Mesquite, NM

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.66	<10.0	<1.66	mg/L	1	1.66	10	1.66

**Sample: 329305 - 177-02**

Laboratory: El Paso  
 Analysis: Chloride (IC)      Analytical Method: E 300.0      Prep Method: N/A  
 QC Batch: 101996      Date Analyzed: 2013-06-02      Analyzed By: JR  
 Prep Batch: 86414      Sample Preparation: 2013-06-02      Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Chloride	Qs	1	<b>910</b>	<b>910</b>	<1.96	mg/L	50	1.96	2.5	0.0392

**Sample: 329305 - 177-02**

Laboratory: El Paso  
 Analysis: NO3 (IC)      Analytical Method: E 300.0      Prep Method: N/A  
 QC Batch: 101996      Date Analyzed: 2013-06-02      Analyzed By: JR  
 Prep Batch: 86414      Sample Preparation: 2013-06-02      Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Nitrate-N	2	H 1	<b>27.6</b>	<b>27.6</b>	<0.0420	mg/L	5	0.0420	0.5	0.0084

**Sample: 329305 - 177-02**

Laboratory: El Paso  
 Analysis: TDS      Analytical Method: SM 2540C      Prep Method: N/A  
 QC Batch: 101622      Date Analyzed: 2013-05-20      Analyzed By: DL  
 Prep Batch: 86104      Sample Preparation: 2013-05-20      Prepared By: DL

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Dissolved Solids		1	<b>3000</b>	<b>3000</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 329305 - 177-02**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: SM 4500-NH3 B,C Prep Method: N/A  
 QC Batch: 101599 Date Analyzed: 2013-05-17 Analyzed By: AK  
 Prep Batch: 85994 Sample Preparation: 2013-05-17 Prepared By: AK

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	MQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N	U	2	<1.66	<10.0	<1.66	mg/L	1	1.66	10	1.66

**Sample: 329306 - 177-03A**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101996 Date Analyzed: 2013-06-02 Analyzed By: JR  
 Prep Batch: 86414 Sample Preparation: 2013-06-02 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	MQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Chloride	Qs	1	<b>1150</b>	<b>1150</b>	<1.96	mg/L	50	1.96	2.5	0.0392

**Sample: 329306 - 177-03A**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101996 Date Analyzed: 2013-06-02 Analyzed By: JR  
 Prep Batch: 86414 Sample Preparation: 2013-06-02 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	MQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Nitrate-N	3	H 1	<b>16.0</b>	<b>16.0</b>	<0.0420	mg/L	5	0.0420	0.5	0.0084

**Sample: 329306 - 177-03A**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 101622 Date Analyzed: 2013-05-20 Analyzed By: DL  
 Prep Batch: 86104 Sample Preparation: 2013-05-20 Prepared By: DL

*continued . . .*

*sample 329306 continued ...*

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	<b>3530</b>	<b>3530</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 329306 - 177-03A**

Laboratory: Lubbock

Analysis: TKN

QC Batch: 101599

Prep Batch: 85994

Analytical Method: SM 4500-NH3 B,C

Date Analyzed: 2013-05-17

Sample Preparation: 2013-05-17

Prep Method: N/A

Analyzed By: AK

Prepared By: AK

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.66	<10.0	<1.66	mg/L	1	1.66	10	1.66

**Sample: 329307 - 177-04**

Laboratory: El Paso

Analysis: Chloride (IC)

QC Batch: 101997

Prep Batch: 86415

Analytical Method: E 300.0

Date Analyzed: 2013-06-03

Sample Preparation: 2013-06-03

Prep Method: N/A

Analyzed By: JR

Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Chloride		1	<b>1110</b>	<b>1110</b>	<1.96	mg/L	50	1.96	2.5	0.0392

**Sample: 329307 - 177-04**

Laboratory: El Paso

Analysis: NO3 (IC)

QC Batch: 101997

Prep Batch: 86415

Analytical Method: E 300.0

Date Analyzed: 2013-06-03

Sample Preparation: 2013-06-03

Prep Method: N/A

Analyzed By: JR

Prepared By: JR

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Nitrate-N	4	H 1	<b>19.4</b>	<b>19.4</b>	<0.0420	mg/L	5	0.0420	0.5	0.0084

**Sample: 329307 - 177-04**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 101622 Date Analyzed: 2013-05-20 Analyzed By: DL  
 Prep Batch: 86104 Sample Preparation: 2013-05-20 Prepared By: DL

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	<b>3600</b>	<b>3600</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 329307 - 177-04**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: SM 4500-NH3 B,C Prep Method: N/A  
 QC Batch: 101599 Date Analyzed: 2013-05-17 Analyzed By: AK  
 Prep Batch: 85994 Sample Preparation: 2013-05-17 Prepared By: AK

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N		u 2	<1.66	<10.0	<1.66	mg/L	1	1.66	10	1.66

**Sample: 329308 - 177-05**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101997 Date Analyzed: 2013-06-03 Analyzed By: JR  
 Prep Batch: 86415 Sample Preparation: 2013-06-03 Prepared By: JR

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Chloride		1	<b>1510</b>	<b>1510</b>	<1.96	mg/L	50	1.96	2.5	0.0392

**Sample: 329308 - 177-05**



Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101997 Date Analyzed: 2013-06-03 Analyzed By: JR  
 Prep Batch: 86415 Sample Preparation: 2013-06-03 Prepared By: JR

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Nitrate-N	5	H 1	29.8	29.8	<0.0420	mg/L	5	0.0420	0.5	0.0084

**Sample: 329308 - 177-05**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 101622 Date Analyzed: 2013-05-20 Analyzed By: DL  
 Prep Batch: 86104 Sample Preparation: 2013-05-20 Prepared By: DL

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Dissolved Solids		1	4160	4160	<5.00	mg/L	1	5.00	5	5

**Sample: 329308 - 177-05**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: SM 4500-NH3 B,C Prep Method: N/A  
 QC Batch: 101599 Date Analyzed: 2013-05-17 Analyzed By: AK  
 Prep Batch: 85994 Sample Preparation: 2013-05-17 Prepared By: AK

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N	U	2	<1.66	<10.0	<1.66	mg/L	1	1.66	10	1.66

**Sample: 329309 - 177-07R**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101997 Date Analyzed: 2013-06-03 Analyzed By: JR  
 Prep Batch: 86415 Sample Preparation: 2013-06-03 Prepared By: JR

*continued ...*

sample 329309 continued ...

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Chloride		1	1000	1000	<1.96	mg/L	50	1.96	2.5	0.0392

**Sample: 329309 - 177-07R**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101997 Date Analyzed: 2013-06-03 Analyzed By: JR  
 Prep Batch: 86415 Sample Preparation: 2013-06-03 Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Nitrate-N	6	H 1	29.2	29.2	<0.0420	mg/L	5	0.0420	0.5	0.0084

**Sample: 329309 - 177-07R**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 101798 Date Analyzed: 2013-05-22 Analyzed By: DL  
 Prep Batch: 86252 Sample Preparation: 2013-05-22 Prepared By: DL

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	3420	3420	<5.00	mg/L	1	5.00	5	5

**Sample: 329309 - 177-07R**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: SM 4500-NH3 B,C Prep Method: N/A  
 QC Batch: 101599 Date Analyzed: 2013-05-17 Analyzed By: AK  
 Prep Batch: 85994 Sample Preparation: 2013-05-17 Prepared By: AK

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N	U	2	<1.66	<10.0	<1.66	mg/L	1	1.66	10	1.66

## Method Blanks

### Method Blank (1)

QC Batch: 101599  
Prep Batch: 85994Date Analyzed: 2013-05-17  
QC Preparation: 2013-05-17Analyzed By: AK  
Prepared By: AK

Parameter	F	C	Result	Units	Reporting Limits
Total Kjeldahl Nitrogen - N		2	<1.66	mg/L	1.66

### Method Blank (1)

QC Batch: 101622  
Prep Batch: 86104Date Analyzed: 2013-05-20  
QC Preparation: 2013-05-20Analyzed By: DL  
Prepared By: DL

Parameter	F	C	Result	Units	Reporting Limits
Total Dissolved Solids		1	<5.00	mg/L	5

### Method Blank (1)

QC Batch: 101798  
Prep Batch: 86252Date Analyzed: 2013-05-22  
QC Preparation: 2013-05-22Analyzed By: DL  
Prepared By: DL

Parameter	F	C	Result	Units	Reporting Limits
Total Dissolved Solids		1	<5.00	mg/L	5

### Method Blank (1)

QC Batch: 101996  
Prep Batch: 86414Date Analyzed: 2013-06-02  
QC Preparation: 2013-06-02Analyzed By: JR  
Prepared By: JR

---

Parameter	F	C	Result	Units	Reporting Limits
Chloride		1	<0.0392	mg/L	0.0392

---

**Method Blank (1)**QC Batch: 101996  
Prep Batch: 86414Date Analyzed: 2013-06-02  
QC Preparation: 2013-06-02Analyzed By: JR  
Prepared By: JR

---

Parameter	F	C	Result	Units	Reporting Limits
Nitrate-N		1	<0.00840	mg/L	0.0084

---

**Method Blank (1)**QC Batch: 101997  
Prep Batch: 86415Date Analyzed: 2013-06-03  
QC Preparation: 2013-06-03Analyzed By: JR  
Prepared By: JR

---

Parameter	F	C	Result	Units	Reporting Limits
Chloride		1	<0.0392	mg/L	0.0392

---

**Method Blank (1)**QC Batch: 101997  
Prep Batch: 86415Date Analyzed: 2013-06-03  
QC Preparation: 2013-06-03Analyzed By: JR  
Prepared By: JR

---

Parameter	F	C	Result	Units	Reporting Limits
Nitrate-N		1	<0.00840	mg/L	0.0084

---

**Duplicate (1)** Duplicated Sample: 329308QC Batch: 101622  
Prep Batch: 86104Date Analyzed: 2013-05-20  
QC Preparation: 2013-05-20Analyzed By: DL  
Prepared By: DL

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Param	F	C	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids		1	4130	4160	mg/L	1	1	10

---

**Duplicate (1)** Duplicated Sample: 329428

QC Batch: 101798  
Prep Batch: 86252

Date Analyzed: 2013-05-22  
QC Preparation: 2013-05-22

Analyzed By: DL  
Prepared By: DL

---

Param	F	C	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids		1	4010	3920	mg/L	1	2	10

---



# Laboratory Control Spikes

## Laboratory Control Spike (LCS-1)

QC Batch: 101622  
Prep Batch: 86104Date Analyzed: 2013-05-20  
QC Preparation: 2013-05-20Analyzed By: DL  
Prepared By: DL

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Dissolved Solids		1	955	mg/L	1	1000	<5.00	96	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Dissolved Solids		1	991	mg/L	1	1000	<5.00	99	90 - 110	4	10

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

## Laboratory Control Spike (LCS-1)

QC Batch: 101798  
Prep Batch: 86252Date Analyzed: 2013-05-22  
QC Preparation: 2013-05-22Analyzed By: DL  
Prepared By: DL

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Dissolved Solids		1	992	mg/L	1	1000	<5.00	99	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Dissolved Solids		1	993	mg/L	1	1000	<5.00	99	90 - 110	0	10

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

## Matrix Spike (MS-1) Spiked Sample: 329309

QC Batch: 101599  
Prep Batch: 85994Date Analyzed: 2013-05-17  
QC Preparation: 2013-05-17Analyzed By: AK  
Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Kjeldahl Nitrogen - N		2	32.9	mg/L	1	50.0	<1.66	66	10 - 151

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Total Kjeldahl Nitrogen - N		2	34.3	mg/L	1	50.0	<1.66	69	10 - 151	4	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 329305

QC Batch: 101996  
Prep Batch: 86414

Date Analyzed: 2013-06-02  
QC Preparation: 2013-06-02

Analyzed By: JR  
Prepared By: JR

Param	F	C	MS		Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit
			Result	Units					
Chloride	Qs	1	2450	mg/L	55.6	1390	910	111	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Chloride	Qs	1	2450	mg/L	55.6	1390	910	111	90 - 110	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 329305

QC Batch: 101996  
Prep Batch: 86414

Date Analyzed: 2013-06-02  
QC Preparation: 2013-06-02

Analyzed By: JR  
Prepared By: JR

Param	F	C	MS		Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit
			Result	Units					
Nitrate-N		1	313	mg/L	55.6	278	27.6	103	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Nitrate-N		1	313	mg/L	55.6	278	27.6	103	90 - 110	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 329309

QC Batch: 101997  
Prep Batch: 86415

Date Analyzed: 2013-06-03  
QC Preparation: 2013-06-03

Analyzed By: JR  
Prepared By: JR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1	2520	mg/L	55.6	1390	1000	109	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec. Limit	RPD	RPD Limit	
Chloride		1	2500	mg/L	55.6	1390	1000	108	90 - 110	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 329309

QC Batch: 101997  
Prep Batch: 86415

Date Analyzed: 2013-06-03  
QC Preparation: 2013-06-03

Analyzed By: JR  
Prepared By: JR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Nitrate-N		1	309	mg/L	55.6	278	29.2	101	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec. Limit	RPD	RPD Limit	
Nitrate-N		1	303	mg/L	55.6	278	29.2	98	90 - 110	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

## Calibration Standards

### Standard (ICV-1)

QC Batch: 101599

Date Analyzed: 2013-05-17

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	4.48	90	85 - 115	2013-05-17

### Standard (CCV-1)

QC Batch: 101599

Date Analyzed: 2013-05-17

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	4.90	98	85 - 115	2013-05-17

### Standard (CCV-1)

QC Batch: 101996

Date Analyzed: 2013-06-02

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	24.5	98	90 - 110	2013-06-02

### Standard (CCV-1)

QC Batch: 101996

Date Analyzed: 2013-06-02

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.95	99	90 - 110	2013-06-02

**Standard (CCV-2)**

QC Batch: 101996

Date Analyzed: 2013-06-02

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	24.6	98	90 - 110	2013-06-02

**Standard (CCV-2)**

QC Batch: 101996

Date Analyzed: 2013-06-02

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.96	99	90 - 110	2013-06-02

**Standard (CCV-1)**

QC Batch: 101997

Date Analyzed: 2013-06-03

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	24.5	98	90 - 110	2013-06-03

**Standard (CCV-1)**

QC Batch: 101997

Date Analyzed: 2013-06-03

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.93	99	90 - 110	2013-06-03

**Standard (CCV-2)**

QC Batch: 101997

Date Analyzed: 2013-06-03

Analyzed By: JR



Report Date: June 7, 2013

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Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	24.3	97	90 - 110	2013-06-03

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**Standard (CCV-2)**

QC Batch: 101997

Date Analyzed: 2013-06-03

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.91	98	90 - 110	2013-06-03

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## Limits of Detection (LOD)

Test	Method	Matrix	Instrument	Analyte	Spike Amount	Pass
Chloride (IC)	E 300.0	water	Dionex IC	Chloride	0.0962	Pass
NO3 (IC)	E 300.0	water	Dionex IC	Nitrate-N	0.0192	Pass
TKN	SM 4500-NH3 B,C	water	N/A	Total Kjeldahl Nitrogen - N	5.00	Pass

# Appendix

## Report Definitions

Name	Definition
MDL	Method Detection Limit
MQL	Minimum Quantitation Limit
SDL	Sample Detection Limit

## Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704221-12-3	El Paso
2	NELAP	T104704219-13-9	Lubbock

## Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less than ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
MI1	Split peak or shoulder peak
MI2	Instrument software did not integrate
MI3	Instrument software misidentified the peak
MI4	Instrument software integrated improperly
MI5	Baseline correction
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

## Result Comments

- 1 Nitrate result was 31.6 mg/L on 5-16-13.

- 2 Nitrate result was 26.7 mg/L on 5-16-13.
- 3 Nitrate result was 14.9 mg/L on 5-16-13.
- 4 Original nitrate result (within hold time) was 17.9 mg/L analyzed on 5-17-13.
- 5 Original nitrate result (analyzed within hold time) was 28.4 mg/L on 5-17-13.
- 6 Original nitrate result (analyzed within hold time) was 26.9 mg/L on 5-17-13.

## Attachments

The scanned attachments will follow this page.  
Please note, each attachment may consist of more than one page.

13051526

6701 Aberdeen, Ste. 9  
 Lubbock, TX 79424  
 Tel (806) 794-1296  
 Fax (806) 794-1298

**TraceAnalysis, Inc.**

155 McCutcheon, Ste. H El Paso, TX 79932  
 Tel (915) 585-3443  
 Fax (915) 585-4944

Company Name: D&H Petroleum & Environmental Services Phone #: 915-859-8150 Page 1 of 1

Address: (Street, City, Zip) 1221 Tower Trail Ln, El Paso TX 79907 Cell #:  CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Contact Person: Victor Ayala Fax #:  LAB Order ID # 13051526

Invoice to (if different from above): Gonzalez Dairy, PO Box 199, Mesquite, NM 88048

Project #: 415786 Project Name: Joe Gonzalez 575-233-4801

Project Location (including state): Gonzalez Dairy, 14310 Stern Dr., Mesquite, NM Sampler Signature: [Signature]

LAB #	Field Code	# Containers	Volume/Amount	MATRIX			PRESERVATIVE METHOD				SAMPLING		
				WATER	AIR	SLUDGE	HCl	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	NaOH	ICE	NONE	DATE
309301-1	177-01	1	250ml	X			X	X	X	X	X	5-15-13	12:56
04-2	177-01	1	250ml	X			X	X	X	X	X	5-15-13	12:56
05-1	177-02	1	250ml	X			X	X	X	X	X	5-15-13	13:59
05-2	177-02	1	250ml	X			X	X	X	X	X	5-15-13	13:59
06-1	177-03 A	1	250ml	X			X	X	X	X	X	5-15-13	8:45
06-2	177-03 A	1	250ml	X			X	X	X	X	X	5-15-13	8:45
07-1	177-04	1	250ml	X			X	X	X	X	X	5-15-13	10:08
07-2	177-04	1	250ml	X			X	X	X	X	X	5-15-13	10:08
08-1	177-05	1	250ml	X			X	X	X	X	X	5-15-13	7:55
08-2	177-05	1	250ml	X			X	X	X	X	X	5-15-13	7:55
477-06		1		X			X	X	X	X	X		
477-06		1		X			X	X	X	X	X		
07-1	177-07 R	1	250ml	X			X	X	X	X	X	5-15-13	14:42
08-2	177-07 R	1	250ml	X			X	X	X	X	X	5-15-13	14:42

LAB #	Field Code	# Containers	Volume/Amount	MATRIX			PRESERVATIVE METHOD				SAMPLING		Turn Around Time	
				WATER	AIR	SLUDGE	HCl	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	NaOH	ICE	NONE		DATE
309301-1	177-01	1	250ml	X			X	X	X	X	X	5-15-13	12:56	
04-2	177-01	1	250ml	X			X	X	X	X	X	5-15-13	12:56	
05-1	177-02	1	250ml	X			X	X	X	X	X	5-15-13	13:59	
05-2	177-02	1	250ml	X			X	X	X	X	X	5-15-13	13:59	
06-1	177-03 A	1	250ml	X			X	X	X	X	X	5-15-13	8:45	
06-2	177-03 A	1	250ml	X			X	X	X	X	X	5-15-13	8:45	
07-1	177-04	1	250ml	X			X	X	X	X	X	5-15-13	10:08	
07-2	177-04	1	250ml	X			X	X	X	X	X	5-15-13	10:08	
08-1	177-05	1	250ml	X			X	X	X	X	X	5-15-13	7:55	
08-2	177-05	1	250ml	X			X	X	X	X	X	5-15-13	7:55	
477-06		1		X			X	X	X	X	X			
477-06		1		X			X	X	X	X	X			
07-1	177-07 R	1	250ml	X			X	X	X	X	X	5-15-13	14:42	
08-2	177-07 R	1	250ml	X			X	X	X	X	X	5-15-13	14:42	

Relinquished By: Charles A. Fiver Date: 5-15-13 Time: 15:19 Received By: [Signature] Date: 5-15-13 Time: 15:09

Reinquired By: [Signature] Date: 5-15-13 Time: 16:30 Received at Laboratory By: Ward Subback Date: 5/16/13 Time: 9:15

Lab Use Only  
 Intact (Y) N  
 Headspace Y I N  
 Temp 113.200  
 Log-in Review DA

Remarks: TDS, Cl, UO<sub>3</sub> w/ EEP 19/022  
By: [Signature] 25 481305417 (2 samp)  
 Dry Weight Basis Required  
 TRRP Report Required





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## Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

# Analytical and Quality Control Report

Isaac Dominguez  
Dominguez Dairy #2  
13600 Stern Drive  
P. O. Box 21  
Mesquite, NM, 88048

Report Date: June 7, 2013

Work Order: 13051430



Project Location: 13600 Stern Drive, Mesquite, NM  
Project Name: Dominguez Dairy #2  
Project #: 42

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
329235	42-2	water	2013-05-14	10:53	2013-05-14
329236	42-3	water	2013-05-14	08:44	2013-05-14
329237	42-6	water	2013-05-14	12:18	2013-05-14
329238	42-8	water	2013-05-14	11:32	2013-05-14
329239	42-9	water	2013-05-14	09:12	2013-05-14
329240	42-10	water	2013-05-14	14:44	2013-05-14
329241	42-11	water	2013-05-14	13:48	2013-05-14
329242	42-12	water	2013-05-14	14:11	2013-05-14
329243	42-13	water	2013-05-14	10:18	2013-05-14
329244	42 Lagoon	water	2013-05-14	09:55	2013-05-14

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 33 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

### Notes:

*For inorganic analyses, the term MQL should actually read PQL.*

*Blair Leftwich*

---

Dr. Blair Leftwich, Director  
Dr. Michael Abel, Project Manager

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## Case Narrative

Samples for project Dominguez Dairy #2 were received by TraceAnalysis, Inc. on 2013-05-14 and assigned to work order 13051430. Samples for work order 13051430 were received intact at a temperature of 4 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
Chloride (IC)	E 300.0	86372	2013-05-13 at 19:23	101947	2013-05-15 at 19:23
Chloride (IC)	E 300.0	86373	2013-05-15 at 23:36	101948	2013-05-15 at 23:36
Chloride (IC)	E 300.0	86374	2013-05-15 at 03:50	101949	2013-05-16 at 03:50
Chloride (IC)	E 300.0	86435	2013-05-31 at 03:18	102019	2013-05-31 at 03:18
NO3 (IC)	E 300.0	86324	2013-05-15 at 01:14	101883	2013-05-15 at 01:14
NO3 (IC)	E 300.0	86372	2013-05-13 at 19:23	101947	2013-05-15 at 19:23
NO3 (IC)	E 300.0	86373	2013-05-15 at 23:36	101948	2013-05-15 at 23:36
NO3 (IC)	E 300.0	86374	2013-05-15 at 03:50	101949	2013-05-16 at 03:50
TDS	SM 2540C	86103	2013-05-20 at 08:30	101621	2013-05-20 at 08:30
TDS	SM 2540C	86104	2013-05-20 at 08:30	101622	2013-05-20 at 08:30
TKN	SM 4500-NH3 B,C	85993	2013-05-17 at 08:35	101550	2013-05-17 at 13:35
TKN	SM 4500-NH3 B,C	85994	2013-05-17 at 08:35	101599	2013-05-17 at 02:25

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 13051430 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.



# Analytical Report

## Sample: 329235 - 42-2

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 102019 Date Analyzed: 2013-05-31 Analyzed By: JR  
 Prep Batch: 86435 Sample Preparation: 2013-05-31 Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Chloride		1	<b>432</b>	<b>432</b>	<1.96	mg/L	50	1.96	2.5	0.0392

## Sample: 329235 - 42-2

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101883 Date Analyzed: 2013-05-15 Analyzed By: JR  
 Prep Batch: 86324 Sample Preparation: 2013-05-15 Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Nitrate-N		1	<b>12.0</b>	<b>12.0</b>	<0.0420	mg/L	5	0.0420	0.5	0.0084

## Sample: 329235 - 42-2

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 101621 Date Analyzed: 2013-05-20 Analyzed By: DL  
 Prep Batch: 86103 Sample Preparation: 2013-05-20 Prepared By: DL

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	<b>2220</b>	<b>2220</b>	<5.00	mg/L	1	5.00	5	5

## Sample: 329235 - 42-2

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: SM 4500-NH3 B,C Prep Method: N/A  
 QC Batch: 101550 Date Analyzed: 2013-05-17 Analyzed By: AK  
 Prep Batch: 85993 Sample Preparation: 2013-05-17 Prepared By: AK

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.66	<10.0	<1.66	mg/L	1	1.66	10	1.66

**Sample: 329236 - 42-3**

Laboratory: El Paso  
 Analysis: Chloride (IC)      Analytical Method: E 300.0      Prep Method: N/A  
 QC Batch: 102019      Date Analyzed: 2013-05-31      Analyzed By: JR  
 Prep Batch: 86435      Sample Preparation: 2013-05-31      Prepared By: JR

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Chloride		1	<b>1150</b>	<b>1150</b>	<1.96	mg/L	50	1.96	2.5	0.0392

**Sample: 329236 - 42-3**

Laboratory: El Paso  
 Analysis: NO3 (IC)      Analytical Method: E 300.0      Prep Method: N/A  
 QC Batch: 101883      Date Analyzed: 2013-05-15      Analyzed By: JR  
 Prep Batch: 86324      Sample Preparation: 2013-05-15      Prepared By: JR

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Nitrate-N		1	<b>59.6</b>	<b>59.6</b>	<0.0840	mg/L	10	0.0840	0.5	0.0084

**Sample: 329236 - 42-3**

Laboratory: El Paso  
 Analysis: TDS      Analytical Method: SM 2540C      Prep Method: N/A  
 QC Batch: 101621      Date Analyzed: 2013-05-20      Analyzed By: DL  
 Prep Batch: 86103      Sample Preparation: 2013-05-20      Prepared By: DL

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Dissolved Solids		1	<b>3800</b>	<b>3800</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 329236 - 42-3**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: SM 4500-NH3 B,C Prep Method: N/A  
 QC Batch: 101550 Date Analyzed: 2013-05-17 Analyzed By: AK  
 Prep Batch: 85993 Sample Preparation: 2013-05-17 Prepared By: AK

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	MQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.66	<10.0	<1.66	mg/L	1	1.66	10	1.66

**Sample: 329237 - 42-6**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101947 Date Analyzed: 2013-05-15 Analyzed By: JR  
 Prep Batch: 86372 Sample Preparation: 2013-05-15 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	MQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Chloride		1	<b>413</b>	<b>413</b>	<0.392	mg/L	10	0.392	2.5	0.0392

**Sample: 329237 - 42-6**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101947 Date Analyzed: 2013-05-15 Analyzed By: JR  
 Prep Batch: 86372 Sample Preparation: 2013-05-15 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	MQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Nitrate-N		1	<b>86.5</b>	<b>86.5</b>	<0.420	mg/L	50	0.420	0.5	0.0084

**Sample: 329237 - 42-6**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 101621 Date Analyzed: 2013-05-20 Analyzed By: DL  
 Prep Batch: 86103 Sample Preparation: 2013-05-20 Prepared By: DL

*continued . . .*

*sample 329237 continued ...*

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	<b>2390</b>	<b>2390</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 329237 - 42-6**

Laboratory: Lubbock  
 Analysis: TKN  
 QC Batch: 101550  
 Prep Batch: 85993

Analytical Method: SM 4500-NH3 B,C  
 Date Analyzed: 2013-05-17  
 Sample Preparation: 2013-05-17

Prep Method: N/A  
 Analyzed By: AK  
 Prepared By: AK

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.66	<10.0	<1.66	mg/L	1	1.66	10	1.66

**Sample: 329238 - 42-8**

Laboratory: El Paso  
 Analysis: Chloride (IC)  
 QC Batch: 101947  
 Prep Batch: 86372

Analytical Method: E 300.0  
 Date Analyzed: 2013-05-15  
 Sample Preparation: 2013-05-15

Prep Method: N/A  
 Analyzed By: JR  
 Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Chloride		1	<b>259</b>	<b>259</b>	<0.392	mg/L	10	0.392	2.5	0.0392

**Sample: 329238 - 42-8**

Laboratory: El Paso  
 Analysis: NO3 (IC)  
 QC Batch: 101947  
 Prep Batch: 86372

Analytical Method: E 300.0  
 Date Analyzed: 2013-05-15  
 Sample Preparation: 2013-05-15

Prep Method: N/A  
 Analyzed By: JR  
 Prepared By: JR

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Nitrate-N		1	<b>29.9</b>	<b>29.9</b>	<0.0420	mg/L	5	0.0420	0.5	0.0084

**Sample: 329238 - 42-8**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 101621 Date Analyzed: 2013-05-20 Analyzed By: DL  
 Prep Batch: 86103 Sample Preparation: 2013-05-20 Prepared By: DL

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	<b>1880</b>	<b>1880</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 329238 - 42-8**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: SM 4500-NH3 B,C Prep Method: N/A  
 QC Batch: 101550 Date Analyzed: 2013-05-17 Analyzed By: AK  
 Prep Batch: 85993 Sample Preparation: 2013-05-17 Prepared By: AK

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N	U	2	<1.66	<10.0	<1.66	mg/L	1	1.66	10	1.66

**Sample: 329239 - 42-9**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101947 Date Analyzed: 2013-05-15 Analyzed By: JR  
 Prep Batch: 86372 Sample Preparation: 2013-05-15 Prepared By: JR

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Chloride		1	<b>717</b>	<b>717</b>	<1.96	mg/L	50	1.96	2.5	0.0392

**Sample: 329239 - 42-9**



Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101947 Date Analyzed: 2013-05-15 Analyzed By: JR  
 Prep Batch: 86372 Sample Preparation: 2013-05-15 Prepared By: JR

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Nitrate-N		1	<b>51.6</b>	<b>51.6</b>	<0.0840	mg/L	10	0.0840	0.5	0.0084

**Sample: 329239 - 42-9**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 101621 Date Analyzed: 2013-05-20 Analyzed By: DL  
 Prep Batch: 86103 Sample Preparation: 2013-05-20 Prepared By: DL

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Dissolved Solids		1	<b>3200</b>	<b>3200</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 329239 - 42-9**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: SM 4500-NH3 B,C Prep Method: N/A  
 QC Batch: 101550 Date Analyzed: 2013-05-17 Analyzed By: AK  
 Prep Batch: 85993 Sample Preparation: 2013-05-17 Prepared By: AK

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N	U	2	<1.66	<10.0	<1.66	mg/L	1	1.66	10	1.66

**Sample: 329240 - 42-10**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101948 Date Analyzed: 2013-05-15 Analyzed By: JR  
 Prep Batch: 86372 Sample Preparation: 2013-05-15 Prepared By: JR

*continued ...*

*sample 329240 continued ...*

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Chloride		1	<b>395</b>	<b>395</b>	<0.392	mg/L	10	0.392	2.5	0.0392

**Sample: 329240 - 42-10**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101948 Date Analyzed: 2013-05-15 Analyzed By: JR  
 Prep Batch: 86373 Sample Preparation: 2013-05-15 Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Nitrate-N	J	1	<b>0.976</b>	<2.50	<0.0420	mg/L	5	0.0420	0.5	0.0084

**Sample: 329240 - 42-10**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 101621 Date Analyzed: 2013-05-20 Analyzed By: DL  
 Prep Batch: 86103 Sample Preparation: 2013-05-20 Prepared By: DL

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	<b>1400</b>	<b>1400</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 329240 - 42-10**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: SM 4500-NH3 B,C Prep Method: N/A  
 QC Batch: 101550 Date Analyzed: 2013-05-17 Analyzed By: AK  
 Prep Batch: 85993 Sample Preparation: 2013-05-17 Prepared By: AK

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N	U	2	<1.66	<10.0	<1.66	mg/L	1	1.66	10	1.66

**Sample: 329241 - 42-11**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101948 Date Analyzed: 2013-05-15 Analyzed By: JR  
 Prep Batch: 86373 Sample Preparation: 2013-05-15 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Chloride		1	<b>303</b>	<b>303</b>	<0.392	mg/L	10	0.392	2.5	0.0392

**Sample: 329241 - 42-11**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101948 Date Analyzed: 2013-05-15 Analyzed By: JR  
 Prep Batch: 86373 Sample Preparation: 2013-05-15 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Nitrate-N	J	1	<b>1.78</b>	<2.50	<0.0420	mg/L	5	0.0420	0.5	0.0084

**Sample: 329241 - 42-11**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 101621 Date Analyzed: 2013-05-20 Analyzed By: DL  
 Prep Batch: 86103 Sample Preparation: 2013-05-20 Prepared By: DL

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Dissolved Solids		1	<b>1220</b>	<b>1220</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 329241 - 42-11**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: SM 4500-NH3 B,C Prep Method: N/A  
 QC Batch: 101550 Date Analyzed: 2013-05-17 Analyzed By: AK  
 Prep Batch: 85993 Sample Preparation: 2013-05-17 Prepared By: AK

*continued ...*

sample 329241 continued ...

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.66	<10.0	<1.66	mg/L	1	1.66	10	1.66

**Sample: 329242 - 42-12**

Laboratory: El Paso  
 Analysis: Chloride (IC)                      Analytical Method: E 300.0                      Prep Method: N/A  
 QC Batch: 101948                              Date Analyzed: 2013-05-15                      Analyzed By: JR  
 Prep Batch: 86373                              Sample Preparation: 2013-05-15                      Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Chloride		1	<b>319</b>	<b>319</b>	<0.392	mg/L	10	0.392	2.5	0.0392

**Sample: 329242 - 42-12**

Laboratory: El Paso  
 Analysis: NO3 (IC)                              Analytical Method: E 300.0                      Prep Method: N/A  
 QC Batch: 101948                              Date Analyzed: 2013-05-15                      Analyzed By: JR  
 Prep Batch: 86373                              Sample Preparation: 2013-05-15                      Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Nitrate-N	J	1	<b>1.73</b>	<2.50	<0.0420	mg/L	5	0.0420	0.5	0.0084

**Sample: 329242 - 42-12**

Laboratory: El Paso  
 Analysis: TDS                                      Analytical Method: SM 2540C                      Prep Method: N/A  
 QC Batch: 101622                              Date Analyzed: 2013-05-20                      Analyzed By: DL  
 Prep Batch: 86104                              Sample Preparation: 2013-05-20                      Prepared By: DL

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Dissolved Solids		1	<b>1170</b>	<b>1170</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 329242 - 42-12**

Laboratory: Lubbock

Analysis: TKN

QC Batch: 101550

Prep Batch: 85993

Analytical Method: SM 4500-NH3 B,C

Date Analyzed: 2013-05-17

Sample Preparation: 2013-05-17

Prep Method: N/A

Analyzed By: AK

Prepared By: AK

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.66	<10.0	<1.66	mg/L	1	1.66	10	1.66

**Sample: 329243 - 42-13**

Laboratory: El Paso

Analysis: Chloride (IC)

QC Batch: 101949

Prep Batch: 86374

Analytical Method: E 300.0

Date Analyzed: 2013-05-16

Sample Preparation: 2013-05-15

Prep Method: N/A

Analyzed By: JR

Prepared By: JR

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Chloride		1	<b>809</b>	<b>809</b>	<1.96	mg/L	50	1.96	2.5	0.0392

**Sample: 329243 - 42-13**

Laboratory: El Paso

Analysis: NO3 (IC)

QC Batch: 101949

Prep Batch: 86374

Analytical Method: E 300.0

Date Analyzed: 2013-05-16

Sample Preparation: 2013-05-15

Prep Method: N/A

Analyzed By: JR

Prepared By: JR

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Nitrate-N		1	<b>49.7</b>	<b>49.7</b>	<0.0840	mg/L	10	0.0840	0.5	0.0084

**Sample: 329243 - 42-13**



Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 101622 Date Analyzed: 2013-05-20 Analyzed By: DL  
 Prep Batch: 86104 Sample Preparation: 2013-05-20 Prepared By: DL

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Dissolved Solids		1	<b>3320</b>	<b>3320</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 329243 - 42-13**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: SM 4500-NH3 B,C Prep Method: N/A  
 QC Batch: 101550 Date Analyzed: 2013-05-17 Analyzed By: AK  
 Prep Batch: 85993 Sample Preparation: 2013-05-17 Prepared By: AK

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N		2	<1.66	<10.0	<1.66	mg/L	1	1.66	10	1.66

**Sample: 329244 - 42 Lagoon**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101949 Date Analyzed: 2013-05-16 Analyzed By: JR  
 Prep Batch: 86374 Sample Preparation: 2013-05-15 Prepared By: JR

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Chloride		1	<b>752</b>	<b>752</b>	<1.96	mg/L	50	1.96	2.5	0.0392

**Sample: 329244 - 42 Lagoon**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101949 Date Analyzed: 2013-05-16 Analyzed By: JR  
 Prep Batch: 86374 Sample Preparation: 2013-05-15 Prepared By: JR

*continued ...*



## Method Blanks

### Method Blank (1)

QC Batch: 101550  
Prep Batch: 85993Date Analyzed: 2013-05-17  
QC Preparation: 2013-05-17Analyzed By: AK  
Prepared By: AK

Parameter	F	C	Result	Units	Reporting Limits
Total Kjeldahl Nitrogen - N		2	<1.66	mg/L	1.66

### Method Blank (1)

QC Batch: 101599  
Prep Batch: 85994Date Analyzed: 2013-05-17  
QC Preparation: 2013-05-17Analyzed By: AK  
Prepared By: AK

Parameter	F	C	Result	Units	Reporting Limits
Total Kjeldahl Nitrogen - N		2	<1.66	mg/L	1.66

### Method Blank (1)

QC Batch: 101621  
Prep Batch: 86103Date Analyzed: 2013-05-20  
QC Preparation: 2013-05-20Analyzed By: DL  
Prepared By: DL

Parameter	F	C	Result	Units	Reporting Limits
Total Dissolved Solids		1	<5.00	mg/L	5

### Method Blank (1)

QC Batch: 101622  
Prep Batch: 86104Date Analyzed: 2013-05-20  
QC Preparation: 2013-05-20Analyzed By: DL  
Prepared By: DL

---

Parameter	F	C	Result	Units	Reporting Limits
Total Dissolved Solids		1	<5.00	mg/L	5

---

**Method Blank (1)**QC Batch: 101883  
Prep Batch: 86324Date Analyzed: 2013-05-15  
QC Preparation: 2013-05-15Analyzed By: JR  
Prepared By: JR

---

Parameter	F	C	Result	Units	Reporting Limits
Nitrate-N		1	0.155	mg/L	0.0084

---

**Method Blank (1)**QC Batch: 101947  
Prep Batch: 86372Date Analyzed: 2013-05-15  
QC Preparation: 2013-05-13Analyzed By: JR  
Prepared By: JR

---

Parameter	F	C	Result	Units	Reporting Limits
Chloride		1	1.31	mg/L	0.0392

---

**Method Blank (1)**QC Batch: 101947  
Prep Batch: 86372Date Analyzed: 2013-05-15  
QC Preparation: 2013-05-13Analyzed By: JR  
Prepared By: JR

---

Parameter	F	C	Result	Units	Reporting Limits
Nitrate-N		1	<0.00840	mg/L	0.0084

---

**Method Blank (1)**QC Batch: 101948  
Prep Batch: 86373Date Analyzed: 2013-05-15  
QC Preparation: 2013-05-15Analyzed By: JR  
Prepared By: JR

---

Parameter	F	C	Result	Units	Reporting Limits
Chloride		1	<0.0392	mg/L	0.0392

---

**Method Blank (1)**QC Batch: 101948  
Prep Batch: 86373Date Analyzed: 2013-05-15  
QC Preparation: 2013-05-15Analyzed By: JR  
Prepared By: JR

---

Parameter	F	C	Result	Units	Reporting Limits
Nitrate-N		1	<0.00840	mg/L	0.0084

---

**Method Blank (1)**QC Batch: 101949  
Prep Batch: 86374Date Analyzed: 2013-05-16  
QC Preparation: 2013-05-15Analyzed By: JR  
Prepared By: JR

---

Parameter	F	C	Result	Units	Reporting Limits
Chloride		1	<0.0392	mg/L	0.0392

---

**Method Blank (1)**QC Batch: 101949  
Prep Batch: 86374Date Analyzed: 2013-05-16  
QC Preparation: 2013-05-15Analyzed By: JR  
Prepared By: JR

---

Parameter	F	C	Result	Units	Reporting Limits
Nitrate-N		1	<0.00840	mg/L	0.0084

---

**Method Blank (1)**QC Batch: 102019  
Prep Batch: 86435Date Analyzed: 2013-05-31  
QC Preparation: 2013-05-31Analyzed By: JR  
Prepared By: JR



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Parameter	F	C	Result	Units	Reporting Limits
Chloride		1	<0.0392	mg/L	0.0392

---

**Duplicate (1)** Duplicated Sample: 329144

QC Batch: 101621 Date Analyzed: 2013-05-20 Analyzed By: DL  
Prep Batch: 86103 QC Preparation: 2013-05-20 Prepared By: DL

---

Param	F	C	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids		1	35600	34100	mg/L	1	4	10

---

**Duplicate (1)** Duplicated Sample: 329308

QC Batch: 101622 Date Analyzed: 2013-05-20 Analyzed By: DL  
Prep Batch: 86104 QC Preparation: 2013-05-20 Prepared By: DL

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Param	F	C	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids		1	4130	4160	mg/L	1	1	10

---

# Laboratory Control Spikes

## Laboratory Control Spike (LCS-1)

QC Batch: 101621  
Prep Batch: 86103Date Analyzed: 2013-05-20  
QC Preparation: 2013-05-20Analyzed By: DL  
Prepared By: DL

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Dissolved Solids		1	1000	mg/L	1	1000	<5.00	100	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Dissolved Solids		1	998	mg/L	1	1000	<5.00	100	90 - 110	0	10

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

## Laboratory Control Spike (LCS-1)

QC Batch: 101622  
Prep Batch: 86104Date Analyzed: 2013-05-20  
QC Preparation: 2013-05-20Analyzed By: DL  
Prepared By: DL

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Dissolved Solids		1	955	mg/L	1	1000	<5.00	96	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Dissolved Solids		1	991	mg/L	1	1000	<5.00	99	90 - 110	4	10

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

## Matrix Spike (MS-1) Spiked Sample: 329243

QC Batch: 101550  
Prep Batch: 85993Date Analyzed: 2013-05-17  
QC Preparation: 2013-05-17Analyzed By: AK  
Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Kjeldahl Nitrogen - N		2	35.0	mg/L	1	50.0	<1.66	70	10 - 151

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Total Kjeldahl Nitrogen - N		2	35.7	mg/L	1	50.0	<1.66	71	10 - 151	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 329309

QC Batch: 101599 Date Analyzed: 2013-05-17 Analyzed By: AK  
Prep Batch: 85994 QC Preparation: 2013-05-17 Prepared By: AK

Param	F	C	MS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
			Result	Units					
Total Kjeldahl Nitrogen - N		2	32.9	mg/L	1	50.0	<1.66	66	10 - 151

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Total Kjeldahl Nitrogen - N		2	34.3	mg/L	1	50.0	<1.66	69	10 - 151	4	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 329235

QC Batch: 101883 Date Analyzed: 2013-05-15 Analyzed By: JR  
Prep Batch: 86324 QC Preparation: 2013-05-15 Prepared By: JR

Param	F	C	MS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
			Result	Units					
Nitrate-N		1	266	mg/L	55.6	278	12	91	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Nitrate-N		1	266	mg/L	55.6	278	12	91	90 - 110	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 329238

QC Batch: 101947 Date Analyzed: 2013-05-15 Analyzed By: JR  
Prep Batch: 86372 QC Preparation: 2013-05-13 Prepared By: JR

Param	F	C	MS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
			Result	Units					
Chloride		1	1580	mg/L	55.6	1390	259	95	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Chloride		1	1580	mg/L	55.6	1390	259	95	90 - 110	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 329238

QC Batch: 101947  
Prep Batch: 86372

Date Analyzed: 2013-05-15  
QC Preparation: 2013-05-13

Analyzed By: JR  
Prepared By: JR

Param	F	C	MS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
			Result	Units					
Nitrate-N		1	293	mg/L	55.6	278	29.9	95	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Nitrate-N		1	293	mg/L	55.6	278	29.9	95	90 - 110	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 329242

QC Batch: 101948  
Prep Batch: 86373

Date Analyzed: 2013-05-15  
QC Preparation: 2013-05-15

Analyzed By: JR  
Prepared By: JR

Param	F	C	MS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
			Result	Units					
Chloride		1	1620	mg/L	55.6	1390	319	94	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Chloride		1	1620	mg/L	55.6	1390	319	94	90 - 110	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 329242QC Batch: 101948  
Prep Batch: 86373Date Analyzed: 2013-05-15  
QC Preparation: 2013-05-15Analyzed By: JR  
Prepared By: JR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Nitrate-N		1	259	mg/L	55.6	278	1.73	92	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Nitrate-N		1	258	mg/L	55.6	278	1.73	92	90 - 110	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 329243QC Batch: 101949  
Prep Batch: 86374Date Analyzed: 2013-05-16  
QC Preparation: 2013-05-15Analyzed By: JR  
Prepared By: JR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1	2180	mg/L	55.6	1390	809	99	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride		1	2180	mg/L	55.6	1390	809	99	90 - 110	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 329243QC Batch: 101949  
Prep Batch: 86374Date Analyzed: 2013-05-16  
QC Preparation: 2013-05-15Analyzed By: JR  
Prepared By: JR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Nitrate-N		1	307	mg/L	55.6	278	49.7	92	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Nitrate-N		1	305	mg/L	55.6	278	49.7	92	90 - 110	1	20



Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 330388

QC Batch: 102019  
 Prep Batch: 86435

Date Analyzed: 2013-05-31  
 QC Preparation: 2013-05-31

Analyzed By: JR  
 Prepared By: JR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1	1960	mg/L	55.6	1390	504	105	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride		1	1960	mg/L	55.6	1390	504	105	90 - 110	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

## Calibration Standards

### Standard (ICV-1)

QC Batch: 101550

Date Analyzed: 2013-05-17

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	4.34	87	85 - 115	2013-05-17

### Standard (CCV-1)

QC Batch: 101550

Date Analyzed: 2013-05-17

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	4.76	95	85 - 115	2013-05-17

### Standard (ICV-1)

QC Batch: 101599

Date Analyzed: 2013-05-17

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	4.48	90	85 - 115	2013-05-17

### Standard (CCV-1)

QC Batch: 101599

Date Analyzed: 2013-05-17

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	4.90	98	85 - 115	2013-05-17

**Standard (CCV-1)**

QC Batch: 101883

Date Analyzed: 2013-05-15

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.76	95	90 - 110	2013-05-15

**Standard (CCV-2)**

QC Batch: 101883

Date Analyzed: 2013-05-15

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.69	94	90 - 110	2013-05-15

**Standard (CCV-1)**

QC Batch: 101947

Date Analyzed: 2013-05-15

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	24.0	96	90 - 110	2013-05-15

**Standard (CCV-1)**

QC Batch: 101947

Date Analyzed: 2013-05-15

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.82	96	90 - 110	2013-05-15

**Standard (CCV-2)**

QC Batch: 101947

Date Analyzed: 2013-05-15

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	23.5	94	90 - 110	2013-05-15

**Standard (CCV-2)**

QC Batch: 101947

Date Analyzed: 2013-05-15

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.73	95	90 - 110	2013-05-15

**Standard (CCV-1)**

QC Batch: 101948

Date Analyzed: 2013-05-15

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	23.5	94	90 - 110	2013-05-15

**Standard (CCV-1)**

QC Batch: 101948

Date Analyzed: 2013-05-15

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.73	95	90 - 110	2013-05-15

**Standard (CCV-2)**

QC Batch: 101948

Date Analyzed: 2013-05-15

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	23.0	92	90 - 110	2013-05-15

**Standard (CCV-2)**

QC Batch: 101948

Date Analyzed: 2013-05-15

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.64	93	90 - 110	2013-05-15

**Standard (CCV-1)**

QC Batch: 101949

Date Analyzed: 2013-05-16

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	23.0	92	90 - 110	2013-05-16

**Standard (CCV-1)**

QC Batch: 101949

Date Analyzed: 2013-05-16

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.64	93	90 - 110	2013-05-16

**Standard (CCV-2)**

QC Batch: 101949

Date Analyzed: 2013-05-16

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	22.8	91	90 - 110	2013-05-16

**Standard (CCV-2)**

QC Batch: 101949

Date Analyzed: 2013-05-16

Analyzed By: JR



Report Date: June 7, 2013

Work Order: 13051430  
Dominguez Dairy #2

Page Number: 31 of 33  
13600 Stern Drive, Mesquite, NM

---

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.60	92	90 - 110	2013-05-16

---

**Standard (CCV-1)**

QC Batch: 102019

Date Analyzed: 2013-05-31

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	24.2	97	90 - 110	2013-05-31

---

**Standard (CCV-2)**

QC Batch: 102019

Date Analyzed: 2013-05-31

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	24.1	96	90 - 110	2013-05-31

---

---

## Limits of Detection (LOD)

Test	Method	Matrix	Instrument	Analyte	Spike Amount	Pass
Chloride (IC)	E 300.0	water	Dionex IC	Chloride	0.0962	Pass
NO3 (IC)	E 300.0	water	Dionex IC	Nitrate-N	0.0192	Pass
TKN	SM 4500-NH3 B,C	water	N/A	Total Kjeldahl Nitrogen - N	5.00	Pass

# Appendix

## Report Definitions

Name	Definition
MDL	Method Detection Limit
MQL	Minimum Quantitation Limit
SDL	Sample Detection Limit

## Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704221-12-3	El Paso
2	NELAP	T104704219-13-9	Lubbock

## Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less than ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
MI1	Split peak or shoulder peak
MI2	Instrument software did not integrate
MI3	Instrument software misidentified the peak
MI4	Instrument software integrated improperly
MI5	Baseline correction
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

## Attachments

The scanned attachments will follow this page.  
Please note, each attachment may consist of more than one page.

13051430

6701 Aberdeen, Ste. 9  
Lubbock, TX 79424  
Tel (806) 794-1296  
Fax (806) 794-1298

Company Name: D&H Petroleum & Environmental Services  
Address: (Street, City, Zip)  
1221 Tower Trail Ln., El Paso, Texas 79907  
Contact Person: Victor Ayala  
Phone #: 915-859-8150  
Cell #:   
Fax #:   
E-mail: vayala@dhpump.com

Invoice to (if different from above):  
Dominguez Dairy #2, P.O. Box 21, Mesquite, NM 88048  
Project #: 415785  
Project Name: Dominguez Dairy #2  
Sampler Signature: *[Signature]*

Project Location (including state):  
Dominguez Dairy #2, 13600 Stern Drive, Mesquite, NM

LAB #	Field Code	# Containers	Volume/Amount	MATRIX			PRESERVATIVE METHOD				SAMPLING		
				WATER	AIR	SLUDGE	HCl	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	NaOH	ICE	NONE	DATE
329235-1	42-2	1	250ml	X				X				5-14-13	10:53
1-2	42-2	1	250ml	X				X				5-14-13	10:53
36-1	42-3	1	250ml	X				X				5-14-13	8:44
1-2	42-3	1	250ml	X				X				5-14-13	8:44
37-1	42-6	1	250ml	X				X				5-14-13	12:18
1-2	42-6	1	250ml	X				X				5-14-13	12:18
	42-7	1		X				X					
	42-7	1		X				X					
38-1	42-8	1	250ml	X				X				5-14-13	11:32
1-2	42-8	1	250ml	X				X				5-14-13	11:32
39-1	42-9	1	250ml	X				X				5-14-13	9:12
1-2	42-9	1	250ml	X				X				5-14-13	9:12
40-1	42-10	1	250ml	X				X				5-14-13	14:44
1-2	42-10	1	250ml	X				X				5-14-13	14:44
41-1	42-11	1	250ml	X				X				5-14-13	13:48
1-2	42-11	1	250ml	X				X				5-14-13	13:48

Relinquished By: *[Signature]* Date: 5-14-13 Time: 15:43  
 Relinquished By: *[Signature]* Date: 5-14-13 Time: 15:43  
 Relinquished By: *[Signature]* Date: 5-14-13 Time: 15:43  
 Received By: *[Signature]* Date: 5-14-13 Time: 15:43  
 Received at Laboratory By: *[Signature]* Date: 5/14/13 Time: 9:05  
 Date: 5-14-13 Time: 15:43  
 Date: 5-14-13 Time: 15:43  
 Date: 5-14-13 Time: 15:43

ANALYSIS REQUEST	Turn Around Time
MTBE 8021B/602	
BTEX 8021B/602	
TPH 418.1 / TX1005	
TX 1005 Extended (C35)	
PAH 8270C	
PAH 8270 (Low Level Analysis)	
Total Metals Ag As BA Cd Cr Pb Se Hg 6010B/200.7	
Nitrates EPA 300	
Total Kjeldahl Nitrogen SM 4500 NOR/C	
Chloride EPA 300.0	
Total Dissolved Solids SM 2540 C MOD	

Remarks: *[Handwritten notes]*  
 Lab Use Only  
 Intact  Y  N  
 Headspace  Y  N  
 Temp *[Handwritten]*  
 Log-in Review *[Handwritten]*  
 Dry Weight Basis Required   
 TRRP Report Required   
 5-14-13

Company Name: \_\_\_\_\_  
 D&H Petroleum & Environmental Services  
 Address: (Street, City, Zip)  
 1221 Tower Trail Ln., El Paso, Texas 79907  
 Contact Person: \_\_\_\_\_  
 Victor Ayala

Phone #: 915-859-8150  
 Cell #: \_\_\_\_\_  
 Fax #: \_\_\_\_\_  
 E-mail: vayala@dhpump.com

Invoice to (if different from above):  
 Dominguez Dairy #2, P.O. Box 21, Mesquite, NM 88048  
 Project #: 415785  
 Project Name: Dominguez Dairy #2  
 Sampler Signature: [Signature]

LAB #	Field Code	# Containers	Volume/Amount	MATRIX				PRESERVATIVE METHOD				SAMPLING		
				WATER	AIR	SOIL	SLUDGE	HCl	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	NaOH	ICE	NONE	DATE
329242-42-12		1	250ml	X				X		X			5-14-13	14:11
1-2 42-12		1	250ml	X				X		X			5-14-13	14:11
43-42-13		1	250ml	X				X		X			5-14-13	10:18
1-2 42-13		1	250ml	X				X		X			5-14-13	10:18
44-42 Lagoon		1	250ml	X				X		X			5-14-13	09:55
1-2 42 Lagoon		1	250ml	X				X		X			5-14-13	09:55

Relinquished By:	Date:	Time:	Received By:	Date:	Time:
<u>[Signature]</u>	5-14-13	15:43	<u>[Signature]</u>	5-14-13	15:43
<u>[Signature]</u>	5-15-13	16:30	<u>[Signature]</u>	5/16/13	9:25

Received at Laboratory By: [Signature]  
 Received By: [Signature]

**ANALYSIS REQUEST**

MTBE 8021B/602	
BTEX 8021B/602	
TPH 418.1 / TX1005	
TX 1005 Extended (C35)	
PAH 8270C	
PAH 8270 (Low Level Analysis)	
Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	X
Nitrates EPA 300	X
Total Kjeldahl Nitrogen SM 4500 NORG C	X
Chloride EPA 300.0	X
Total Dissolved Solids SM 2540 C MOD	X

Remarks: TKNE Lubbock  
ICE  
Carry in  
25 H8130547  
 Dry Weight Basis Required  
 TRRP Report Required

Lab Use Only  
 Intac (Y) / N  
 Headspace Y / N  
 Temp 12 / 31  
 Log-in Review [Signature]





6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800-378-1296 806-794-1296 FAX 806-794-1298  
 200 East Sunset Road, Suite E El Paso, Texas 79922 915-585-3443 FAX 915-585-4944  
 5002 Basin Street, Suite A1 Midland, Texas 79703 432-689-6301 FAX 432-689-6313  
 (BioAquatic) 2501 Mayes Rd., Suite 100 Carrollton, Texas 75006 972-242-7750  
 E-Mail: lab@traceanalysis.com WEB: www.traceanalysis.com

## Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

# Analytical and Quality Control Report

Isaac Dominguez  
 Dominguez Dairy #1  
 13950 Stern Drive  
 P.O. Box 21  
 Mesquite, NM, 88048

Report Date: June 7, 2013

Work Order: 13051324



DP: 624  
 Project Location: 13950 Stern Dr., Mesquite, NM  
 Project Name: Dominguez Dairy #1

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
329142	624-01	water	2013-05-13	10:28	2013-05-13
329143	624-02	water	2013-05-13	11:52	2013-05-13
329144	624 Lagoon	water	2013-05-13	12:59	2013-05-13

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 16 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

**Notes:**

*For inorganic analyses, the term MQL should actually read PQL.*

Dr. Blair Leftwich, Director  
 Dr. Michael Abel, Project Manager

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## Case Narrative

Samples for project Dominguez Dairy #1 were received by TraceAnalysis, Inc. on 2013-05-13 and assigned to work order 13051324. Samples for work order 13051324 were received intact at a temperature of 3.0 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
Chloride (IC)	E 300.0	86321	2013-05-14 at 20:44	101881	2013-05-14 at 20:44
NO3 (IC)	E 300.0	86321	2013-05-14 at 20:44	101881	2013-05-14 at 20:44
NO3 (IC)	E 300.0	86324	2013-05-15 at 01:14	101883	2013-05-15 at 01:14
TDS	SM 2540C	86103	2013-05-20 at 08:30	101621	2013-05-20 at 08:30
TKN	E 351.3	85950	2013-05-15 at 10:30	101418	2013-05-15 at 15:17

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 13051324 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

# Analytical Report

**Sample: 329142 - 624-01**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101881 Date Analyzed: 2013-05-14 Analyzed By: JR  
 Prep Batch: 86321 Sample Preparation: 2013-05-14 Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Chloride		1	<b>894</b>	<b>894</b>	<1.96	mg/L	50	1.96	2.5	0.0392

**Sample: 329142 - 624-01**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101881 Date Analyzed: 2013-05-14 Analyzed By: JR  
 Prep Batch: 86321 Sample Preparation: 2013-05-14 Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Nitrate-N		1	<b>20.8</b>	<b>20.8</b>	<0.0420	mg/L	5	0.0420	0.5	0.0084

**Sample: 329142 - 624-01**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 101621 Date Analyzed: 2013-05-20 Analyzed By: DL  
 Prep Batch: 86103 Sample Preparation: 2013-05-20 Prepared By: DL

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	<b>2720</b>	<b>2720</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 329142 - 624-01**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: E 351.3 Prep Method: N/A  
 QC Batch: 101418 Date Analyzed: 2013-05-15 Analyzed By: AK  
 Prep Batch: 85950 Sample Preparation: 2013-05-15 Prepared By: AK

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.66	<10.0	<1.66	mg/L	1	1.66	10	1.66

**Sample: 329143 - 624-02**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101881 Date Analyzed: 2013-05-14 Analyzed By: JR  
 Prep Batch: 86321 Sample Preparation: 2013-05-14 Prepared By: JR

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Chloride		1	<b>950</b>	<b>950</b>	<1.96	mg/L	50	1.96	2.5	0.0392

**Sample: 329143 - 624-02**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101881 Date Analyzed: 2013-05-14 Analyzed By: JR  
 Prep Batch: 86321 Sample Preparation: 2013-05-14 Prepared By: JR

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Nitrate-N		1	<b>9.98</b>	<b>9.98</b>	<0.0420	mg/L	5	0.0420	0.5	0.0084

**Sample: 329143 - 624-02**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 101621 Date Analyzed: 2013-05-20 Analyzed By: DL  
 Prep Batch: 86103 Sample Preparation: 2013-05-20 Prepared By: DL

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Dissolved Solids		1	<b>3360</b>	<b>3360</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 329143 - 624-02**



Laboratory: Lubbock  
 Analysis: TKN Analytical Method: E 351.3 Prep Method: N/A  
 QC Batch: 101418 Date Analyzed: 2013-05-15 Analyzed By: AK  
 Prep Batch: 85950 Sample Preparation: 2013-05-15 Prepared By: AK

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.66	<10.0	<1.66	mg/L	1	1.66	10	1.66

**Sample: 329144 - 624 Lagoon**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101881 Date Analyzed: 2013-05-14 Analyzed By: JR  
 Prep Batch: 86321 Sample Preparation: 2013-05-14 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Chloride		1	<b>7520</b>	<b>7520</b>	<19.6	mg/L	500	19.6	2.5	0.0392

**Sample: 329144 - 624 Lagoon**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101883 Date Analyzed: 2013-05-15 Analyzed By: JR  
 Prep Batch: 86324 Sample Preparation: 2013-05-15 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Nitrate-N	u	1	<0.0840	<5.00	<0.0840	mg/L	10	0.0840	0.5	0.0084

**Sample: 329144 - 624 Lagoon**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 101621 Date Analyzed: 2013-05-20 Analyzed By: DL  
 Prep Batch: 86103 Sample Preparation: 2013-05-20 Prepared By: DL

*continued . . .*

sample 329144 continued ...

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	<b>34100</b>	<b>34100</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 329144 - 624 Lagoon**

Laboratory: Lubbock  
Analysis: TKN  
QC Batch: 101418  
Prep Batch: 85950

Analytical Method: E 351.3  
Date Analyzed: 2013-05-15  
Sample Preparation: 2013-05-15

Prep Method: N/A  
Analyzed By: AK  
Prepared By: AK

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N	1	2	<b>284</b>	<b>284</b>	<8.30	mg/L	5	8.30	10	1.66

## Method Blanks

### Method Blank (1)

QC Batch: 101418  
Prep Batch: 85950Date Analyzed: 2013-05-15  
QC Preparation: 2013-05-15Analyzed By: AK  
Prepared By: AK

Parameter	F	C	Result	Units	Reporting Limits
Total Kjeldahl Nitrogen - N		2	<1.66	mg/L	1.66

### Method Blank (1)

QC Batch: 101621  
Prep Batch: 86103Date Analyzed: 2013-05-20  
QC Preparation: 2013-05-20Analyzed By: DL  
Prepared By: DL

Parameter	F	C	Result	Units	Reporting Limits
Total Dissolved Solids		1	<5.00	mg/L	5

### Method Blank (1)

QC Batch: 101881  
Prep Batch: 86321Date Analyzed: 2013-05-14  
QC Preparation: 2013-05-14Analyzed By: JR  
Prepared By: JR

Parameter	F	C	Result	Units	Reporting Limits
Chloride		1	<0.0392	mg/L	0.0392

### Method Blank (1)

QC Batch: 101881  
Prep Batch: 86321Date Analyzed: 2013-05-14  
QC Preparation: 2013-05-14Analyzed By: JR  
Prepared By: JR

Parameter	F	C	Result	Units	Reporting Limits
Nitrate-N		1	<0.00840	mg/L	0.0084

**Method Blank (1)**

QC Batch: 101883  
Prep Batch: 86324

Date Analyzed: 2013-05-15  
QC Preparation: 2013-05-15

Analyzed By: JR  
Prepared By: JR

Parameter	F	C	Result	Units	Reporting Limits
Nitrate-N		1	0.155	mg/L	0.0084

**Duplicate (1)** Duplicated Sample: 329144

QC Batch: 101621  
Prep Batch: 86103

Date Analyzed: 2013-05-20  
QC Preparation: 2013-05-20

Analyzed By: DL  
Prepared By: DL

Param	F	C	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids		1	35600	34100	mg/L	1	4	10

# Laboratory Control Spikes

## Laboratory Control Spike (LCS-1)

QC Batch: 101621  
Prep Batch: 86103Date Analyzed: 2013-05-20  
QC Preparation: 2013-05-20Analyzed By: DL  
Prepared By: DL

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Dissolved Solids		1	1000	mg/L	1	1000	<5.00	100	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Dissolved Solids		1	998	mg/L	1	1000	<5.00	100	90 - 110	0	10

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

## Matrix Spike (MS-1) Spiked Sample: 329156

QC Batch: 101418  
Prep Batch: 85950Date Analyzed: 2013-05-15  
QC Preparation: 2013-05-15Analyzed By: AK  
Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Kjeldahl Nitrogen - N		2	44.8	mg/L	1	50.0	<1.66	90	45.3 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Kjeldahl Nitrogen - N		2	44.8	mg/L	1	50.0	<1.66	90	45.3 - 115	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

## Matrix Spike (MS-1) Spiked Sample: 329142

QC Batch: 101881  
Prep Batch: 86321Date Analyzed: 2013-05-14  
QC Preparation: 2013-05-14Analyzed By: JR  
Prepared By: JR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1	2330	mg/L	55.6	1390	894	103	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Chloride		1	2300	mg/L	55.6	1390	894	101	90 - 110	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 329142

QC Batch: 101881  
Prep Batch: 86321

Date Analyzed: 2013-05-14  
QC Preparation: 2013-05-14

Analyzed By: JR  
Prepared By: JR

Param	F	C	MS		Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit
			Result	Units					
Nitrate-N		1	285	mg/L	55.6	278	20.8	95	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Nitrate-N		1	281	mg/L	55.6	278	20.8	94	90 - 110	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 329235

QC Batch: 101883  
Prep Batch: 86324

Date Analyzed: 2013-05-15  
QC Preparation: 2013-05-15

Analyzed By: JR  
Prepared By: JR

Param	F	C	MS		Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit
			Result	Units					
Nitrate-N		1	266	mg/L	55.6	278	12	91	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Nitrate-N		1	266	mg/L	55.6	278	12	91	90 - 110	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.



## Calibration Standards

### Standard (ICV-1)

QC Batch: 101418

Date Analyzed: 2013-05-15

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	4.48	90	85 - 115	2013-05-15

### Standard (CCV-1)

QC Batch: 101418

Date Analyzed: 2013-05-15

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	4.90	98	85 - 115	2013-05-15

### Standard (CCV-1)

QC Batch: 101881

Date Analyzed: 2013-05-14

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	24.1	96	90 - 110	2013-05-14

### Standard (CCV-1)

QC Batch: 101881

Date Analyzed: 2013-05-14

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.86	97	90 - 110	2013-05-14

**Standard (CCV-2)**

QC Batch: 101881

Date Analyzed: 2013-05-14

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	23.6	94	90 - 110	2013-05-14

**Standard (CCV-2)**

QC Batch: 101881

Date Analyzed: 2013-05-14

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.76	95	90 - 110	2013-05-14

**Standard (CCV-1)**

QC Batch: 101883

Date Analyzed: 2013-05-15

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.76	95	90 - 110	2013-05-15

**Standard (CCV-2)**

QC Batch: 101883

Date Analyzed: 2013-05-15

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.69	94	90 - 110	2013-05-15

---

## Limits of Detection (LOD)

Test	Method	Matrix	Instrument	Analyte	Spike	
					Amount	Pass
Chloride (IC)	E 300.0	water	Dionex IC	Chloride	0.0962	Pass
NO3 (IC)	E 300.0	water	Dionex IC	Nitrate-N	0.0192	Pass
TKN	E 351.3	water	N/A	Total Kjeldahl Nitrogen - N	5.00	Pass

# Appendix

## Report Definitions

Name	Definition
MDL	Method Detection Limit
MQL	Minimum Quantitation Limit
SDL	Sample Detection Limit

## Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704221-12-3	El Paso
2	NELAP	T104704219-13-9	Lubbock

## Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less than ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
MI1	Split peak or shoulder peak
MI2	Instrument software did not integrate
MI3	Instrument software misidentified the peak
MI4	Instrument software integrated improperly
MI5	Baseline correction
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

## Result Comments

- Sample came in at pH 7. Added H<sub>2</sub>SO<sub>4</sub> until pH<2.

## **Attachments**

The scanned attachments will follow this page.

Please note, each attachment may consist of more than one page.







6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800-378-1296 806-794-1296 FAX 806-794-1298  
 200 East Sunset Road, Suite E El Paso, Texas 79922 915-585-3443 FAX 915-585-4944  
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 (BioAquatic) 2501 Mayes Rd., Suite 100 Carrollton, Texas 75006 972-242-7750  
 E-Mail: lab@traceanalysis.com WEB: www.traceanalysis.com

## Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

# Analytical and Quality Control Report

Jerry Settles  
 Del Oro Dairy, LLC.  
 1025 East O'Hara  
 P.O. Box 1846  
 Anthony, NM, 88021

Report Date: June 11, 2013

Work Order: 13052830



DP: 692  
 Project Location: 1025 East OHara, Anthony, NM  
 Project Name: Del Oro Dairy

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
330293	692-01	water	2013-05-28	14:12	2013-05-28
330294	692-05	water	2013-05-28	12:17	2013-05-28
330295	692-07	water	2013-05-28	11:39	2013-05-28
330296	692-08	water	2013-05-28	10:34	2013-05-28
330297	692-09	water	2013-05-28	13:36	2013-05-28

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 21 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

**Notes:**

*For inorganic analyses, the term MQL should actually read PQL.*

*Michael Abel*

---

Dr. Blair Leftwich, Director  
Dr. Michael Abel, Project Manager

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## Case Narrative

Samples for project Del Oro Dairy were received by TraceAnalysis, Inc. on 2013-05-28 and assigned to work order 13052830. Samples for work order 13052830 were received intact at a temperature of 4 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
Chloride (IC)	E 300.0	86287	2013-05-28 at 19:48	101844	2013-05-28 at 19:48
Chloride (IC)	E 300.0	86288	2013-05-28 at 23:54	101873	2013-05-28 at 23:54
NO3 (IC)	E 300.0	86287	2013-05-28 at 19:48	101844	2013-05-28 at 19:48
NO3 (IC)	E 300.0	86288	2013-05-28 at 23:54	101873	2013-05-28 at 23:54
TDS	SM 2540C	86366	2013-05-31 at 12:00	101940	2013-05-31 at 12:00
TDS	SM 2540C	86534	2013-06-06 at 08:00	102134	2013-06-06 at 08:00
TKN	SM 4500-NH3 B,C	86367	2013-06-03 at 08:15	101942	2013-06-03 at 13:27

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 13052830 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

# Analytical Report

**Sample: 330293 - 692-01**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101844 Date Analyzed: 2013-05-28 Analyzed By: JR  
 Prep Batch: 86287 Sample Preparation: 2013-05-28 Prepared By: JR

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Chloride		1	<b>612</b>	<b>612</b>	<1.96	mg/L	50	1.96	2.5	0.0392

**Sample: 330293 - 692-01**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101844 Date Analyzed: 2013-05-28 Analyzed By: JR  
 Prep Batch: 86287 Sample Preparation: 2013-05-28 Prepared By: JR

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Nitrate-N		1	<b>82.4</b>	<b>82.4</b>	<0.0840	mg/L	10	0.0840	0.5	0.0084

**Sample: 330293 - 692-01**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 101940 Date Analyzed: 2013-05-31 Analyzed By: MC  
 Prep Batch: 86366 Sample Preparation: 2013-05-31 Prepared By: JR

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Dissolved Solids		1	<b>2660</b>	<b>2660</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 330293 - 692-01**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: SM 4500-NH3 B,C Prep Method: N/A  
 QC Batch: 101942 Date Analyzed: 2013-06-03 Analyzed By: AK  
 Prep Batch: 86367 Sample Preparation: 2013-06-03 Prepared By: AK

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.66	<10.0	<1.66	mg/L	1	1.66	10	1.66

**Sample: 330294 - 692-05**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101844 Date Analyzed: 2013-05-28 Analyzed By: JR  
 Prep Batch: 86287 Sample Preparation: 2013-05-28 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Chloride		1	<b>417</b>	<b>417</b>	<0.392	mg/L	10	0.392	2.5	0.0392

**Sample: 330294 - 692-05**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101844 Date Analyzed: 2013-05-28 Analyzed By: JR  
 Prep Batch: 86287 Sample Preparation: 2013-05-28 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Nitrate-N	J	1	<b>1.90</b>	<2.50	<0.0420	mg/L	5	0.0420	0.5	0.0084

**Sample: 330294 - 692-05**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 101940 Date Analyzed: 2013-05-31 Analyzed By: MC  
 Prep Batch: 86366 Sample Preparation: 2013-05-31 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Dissolved Solids		1	<b>1280</b>	<b>1280</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 330294 - 692-05**



Laboratory: Lubbock  
 Analysis: TKN Analytical Method: SM 4500-NH3 B,C Prep Method: N/A  
 QC Batch: 101942 Date Analyzed: 2013-06-03 Analyzed By: AK  
 Prep Batch: 86367 Sample Preparation: 2013-06-03 Prepared By: AK

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.66	<10.0	<1.66	mg/L	1	1.66	10	1.66

**Sample: 330295 - 692-07**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101844 Date Analyzed: 2013-05-28 Analyzed By: JR  
 Prep Batch: 86287 Sample Preparation: 2013-05-28 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Chloride		1	<b>524</b>	<b>524</b>	<1.96	mg/L	50	1.96	2.5	0.0392

**Sample: 330295 - 692-07**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101844 Date Analyzed: 2013-05-28 Analyzed By: JR  
 Prep Batch: 86287 Sample Preparation: 2013-05-28 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Nitrate-N		1	<b>3.68</b>	<b>3.68</b>	<0.0420	mg/L	5	0.0420	0.5	0.0084

**Sample: 330295 - 692-07**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 101940 Date Analyzed: 2013-05-31 Analyzed By: MC  
 Prep Batch: 86366 Sample Preparation: 2013-05-31 Prepared By: JR

*continued . . .*

*sample 330295 continued ...*

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	<b>1530</b>	<b>1530</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 330295 - 692-07**

Laboratory: Lubbock

Analysis: TKN

QC Batch: 101942

Prep Batch: 86367

Analytical Method: SM 4500-NH3 B,C

Date Analyzed: 2013-06-03

Sample Preparation: 2013-06-03

Prep Method: N/A

Analyzed By: AK

Prepared By: AK

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N		2	<1.66	<10.0	<1.66	mg/L	1	1.66	10	1.66

**Sample: 330296 - 692-08**

Laboratory: El Paso

Analysis: Chloride (IC)

QC Batch: 101873

Prep Batch: 86288

Analytical Method: E 300.0

Date Analyzed: 2013-05-28

Sample Preparation: 2013-05-28

Prep Method: N/A

Analyzed By: JR

Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Chloride		1	<b>434</b>	<b>434</b>	<0.392	mg/L	10	0.392	2.5	0.0392

**Sample: 330296 - 692-08**

Laboratory: El Paso

Analysis: NO3 (IC)

QC Batch: 101873

Prep Batch: 86288

Analytical Method: E 300.0

Date Analyzed: 2013-05-28

Sample Preparation: 2013-05-28

Prep Method: N/A

Analyzed By: JR

Prepared By: JR

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Nitrate-N		1	<b>3.49</b>	<b>3.49</b>	<0.0420	mg/L	5	0.0420	0.5	0.0084

**Sample: 330296 - 692-08**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 102134 Date Analyzed: 2013-06-06 Analyzed By: MC  
 Prep Batch: 86534 Sample Preparation: 2013-06-06 Prepared By: MC

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids	H,Qr	1	<b>2760</b>	<b>2760</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 330296 - 692-08**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: SM 4500-NH3 B,C Prep Method: N/A  
 QC Batch: 101942 Date Analyzed: 2013-06-03 Analyzed By: AK  
 Prep Batch: 86367 Sample Preparation: 2013-06-03 Prepared By: AK

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N	U	2	<1.66	<10.0	<1.66	mg/L	1	1.66	10	1.66

**Sample: 330297 - 692-09**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101873 Date Analyzed: 2013-05-28 Analyzed By: JR  
 Prep Batch: 86288 Sample Preparation: 2013-05-28 Prepared By: JR

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Chloride		1	<b>457</b>	<b>457</b>	<0.392	mg/L	10	0.392	2.5	0.0392

**Sample: 330297 - 692-09**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101873 Date Analyzed: 2013-05-28 Analyzed By: JR  
 Prep Batch: 86288 Sample Preparation: 2013-05-28 Prepared By: JR

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Nitrate-N		1	<b>8.92</b>	<b>8.92</b>	<0.0420	mg/L	5	0.0420	0.5	0.0084

**Sample: 330297 - 692-09**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 102134 Date Analyzed: 2013-06-06 Analyzed By: MC  
 Prep Batch: 86534 Sample Preparation: 2013-06-06 Prepared By: MC

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Total Dissolved Solids		H,Qr 1	<b>1410</b>	<b>1410</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 330297 - 692-09**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: SM 4500-NH3 B,C Prep Method: N/A  
 QC Batch: 101942 Date Analyzed: 2013-06-03 Analyzed By: AK  
 Prep Batch: 86367 Sample Preparation: 2013-06-03 Prepared By: AK

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N		u 2	<1.66	<10.0	<1.66	mg/L	1	1.66	10	1.66

## Method Blanks

### Method Blank (1)

QC Batch: 101844  
Prep Batch: 86287Date Analyzed: 2013-05-28  
QC Preparation: 2013-05-28Analyzed By: JR  
Prepared By: JR

Parameter	F	C	Result	Units	Reporting Limits
Chloride		1	<0.0392	mg/L	0.0392

### Method Blank (1)

QC Batch: 101844  
Prep Batch: 86287Date Analyzed: 2013-05-28  
QC Preparation: 2013-05-28Analyzed By: JR  
Prepared By: JR

Parameter	F	C	Result	Units	Reporting Limits
Nitrate-N		1	<0.00840	mg/L	0.0084

### Method Blank (1)

QC Batch: 101873  
Prep Batch: 86288Date Analyzed: 2013-05-28  
QC Preparation: 2013-05-28Analyzed By: JR  
Prepared By: JR

Parameter	F	C	Result	Units	Reporting Limits
Chloride		1	1.41	mg/L	0.0392

### Method Blank (1)

QC Batch: 101873  
Prep Batch: 86288Date Analyzed: 2013-05-28  
QC Preparation: 2013-05-28Analyzed By: JR  
Prepared By: JR

Parameter	F	C	Result	Units	Reporting Limits
Nitrate-N		1	<0.00840	mg/L	0.0084

**Method Blank (1)**QC Batch: 101940  
Prep Batch: 86366Date Analyzed: 2013-05-31  
QC Preparation: 2013-05-31Analyzed By: MC  
Prepared By: MC

Parameter	F	C	Result	Units	Reporting Limits
Total Dissolved Solids		1	<5.00	mg/L	5

**Method Blank (1)**QC Batch: 101942  
Prep Batch: 86367Date Analyzed: 2013-06-03  
QC Preparation: 2013-06-03Analyzed By: AK  
Prepared By: AK

Parameter	F	C	Result	Units	Reporting Limits
Total Kjeldahl Nitrogen - N		2	<1.66	mg/L	1.66

**Method Blank (1)**QC Batch: 102134  
Prep Batch: 86534Date Analyzed: 2013-06-06  
QC Preparation: 2013-06-06Analyzed By: MC  
Prepared By: MC

Parameter	F	C	Result	Units	Reporting Limits
Total Dissolved Solids		1	<5.00	mg/L	5

**Duplicate (1)** Duplicated Sample: 330233QC Batch: 101940  
Prep Batch: 86366Date Analyzed: 2013-05-31  
QC Preparation: 2013-05-31Analyzed By: MC  
Prepared By: MC



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Param	F	C	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids		1	2500	2580	mg/L	1	3	10

---

**Duplicate (1)** Duplicated Sample: 330387

QC Batch: 102134  
Prep Batch: 86534

Date Analyzed: 2013-06-06  
QC Preparation: 2013-06-06

Analyzed By: MC  
Prepared By: MC

---

Param	F	C	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids	Qr	1	3600	3520	mg/L	1	2	10

---

# Laboratory Control Spikes

## Laboratory Control Spike (LCS-1)

QC Batch: 101940  
Prep Batch: 86366

Date Analyzed: 2013-05-31  
QC Preparation: 2013-05-31

Analyzed By: MC  
Prepared By: MC

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Dissolved Solids		1	956	mg/L	1	1000	<5.00	96	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Dissolved Solids		1	990	mg/L	1	1000	<5.00	99	90 - 110	4	10

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

## Laboratory Control Spike (LCS-1)

QC Batch: 102134  
Prep Batch: 86534

Date Analyzed: 2013-06-06  
QC Preparation: 2013-06-06

Analyzed By: MC  
Prepared By: MC

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Dissolved Solids		1	1000	mg/L	1	1000	<5.00	100	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Dissolved Solids		1	968	mg/L	1	1000	<5.00	97	90 - 110	3	10

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

## Matrix Spike (MS-1) Spiked Sample: 330294

QC Batch: 101844  
Prep Batch: 86287

Date Analyzed: 2013-05-28  
QC Preparation: 2013-05-28

Analyzed By: JR  
Prepared By: JR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1	1790	mg/L	55.6	1390	417	99	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Chloride		1	1790	mg/L	55.6	1390	417	99	90 - 110	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 330294

QC Batch: 101844  
Prep Batch: 86287

Date Analyzed: 2013-05-28  
QC Preparation: 2013-05-28

Analyzed By: JR  
Prepared By: JR

Param	F	C	MS		Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit
			Result	Units					
Nitrate-N		1	272	mg/L	55.6	278	<0.467	98	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Nitrate-N		1	272	mg/L	55.6	278	<0.467	98	90 - 110	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 330296

QC Batch: 101873  
Prep Batch: 86288

Date Analyzed: 2013-05-28  
QC Preparation: 2013-05-28

Analyzed By: JR  
Prepared By: JR

Param	F	C	MS		Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit
			Result	Units					
Chloride		1	1830	mg/L	55.6	1390	434	100	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Chloride		1	1840	mg/L	55.6	1390	434	101	90 - 110	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 330296

QC Batch: 101873  
Prep Batch: 86288

Date Analyzed: 2013-05-28  
QC Preparation: 2013-05-28

Analyzed By: JR  
Prepared By: JR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Nitrate-N		1	278	mg/L	55.6	278	3.49	99	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Nitrate-N		1	280	mg/L	55.6	278	3.49	99	90 - 110	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 330297

QC Batch: 101942  
Prep Batch: 86367

Date Analyzed: 2013-06-03  
QC Preparation: 2013-06-03

Analyzed By: AK  
Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Kjeldahl Nitrogen - N		2	40.6	mg/L	1	50.0	<1.66	81	10 - 151

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Kjeldahl Nitrogen - N		2	39.2	mg/L	1	50.0	<1.66	78	10 - 151	4	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

## Calibration Standards

### Standard (CCV-1)

QC Batch: 101844

Date Analyzed: 2013-05-28

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	24.7	99	90 - 110	2013-05-28

### Standard (CCV-1)

QC Batch: 101844

Date Analyzed: 2013-05-28

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.96	99	90 - 110	2013-05-28

### Standard (CCV-2)

QC Batch: 101844

Date Analyzed: 2013-05-28

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	24.5	98	90 - 110	2013-05-28

### Standard (CCV-2)

QC Batch: 101844

Date Analyzed: 2013-05-28

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.92	98	90 - 110	2013-05-28

**Standard (CCV-1)**

QC Batch: 101873

Date Analyzed: 2013-05-28

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	24.5	98	90 - 110	2013-05-28

**Standard (CCV-1)**

QC Batch: 101873

Date Analyzed: 2013-05-28

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.92	98	90 - 110	2013-05-28

**Standard (CCV-2)**

QC Batch: 101873

Date Analyzed: 2013-05-28

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	24.4	98	90 - 110	2013-05-28

**Standard (CCV-2)**

QC Batch: 101873

Date Analyzed: 2013-05-28

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.91	98	90 - 110	2013-05-28

**Standard (ICV-1)**

QC Batch: 101942

Date Analyzed: 2013-06-03

Analyzed By: AK



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Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	4.35	87	85 - 115	2013-06-03

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**Standard (CCV-1)**

QC Batch: 101942

Date Analyzed: 2013-06-03

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	4.76	95	85 - 115	2013-06-03

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## Limits of Detection (LOD)

Test	Method	Matrix	Instrument	Analyte	Spike	
					Amount	Pass
Chloride (IC)	E 300.0	water	Dionex IC	Chloride	0.0962	Pass
NO3 (IC)	E 300.0	water	Dionex IC	Nitrate-N	0.0192	Pass
TKN	SM 4500-NH3 B,C	water	N/A	Total Kjeldahl Nitrogen - N	5.00	Pass

# Appendix

## Report Definitions

Name	Definition
MDL	Method Detection Limit
MQL	Minimum Quantitation Limit
SDL	Sample Detection Limit

## Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704221-12-3	El Paso
2	NELAP	T104704219-13-9	Lubbock

## Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less than ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
MI1	Split peak or shoulder peak
MI2	Instrument software did not integrate
MI3	Instrument software misidentified the peak
MI4	Instrument software integrated improperly
MI5	Baseline correction
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

## Attachments

The scanned attachments will follow this page.  
Please note, each attachment may consist of more than one page.





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## Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

# Analytical and Quality Control Report

Jerry Settles  
 Del Oro Dairy, LLC.  
 1025 East O'Hara  
 P.O. Box 1846  
 Anthony, NM, 88021

Report Date: June 11, 2013

Work Order: 13052327



DP: 692  
 Project Location: 1025 East OHara, Anthony, NM  
 Project Name: Del Oro Dairy

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
330148	692-02	water	2013-05-23	11:11	2013-05-23
330149	692-04	water	2013-05-23	12:09	2013-05-23
330150	692-06	water	2013-05-23	09:13	2013-05-23
330151	692 Lagoon	water	2013-05-23	09:58	2013-05-23

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 20 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

**Notes:**

*For inorganic analyses, the term MQL should actually read PQL.*

*Michael Abel*

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Dr. Blair Leftwich, Director  
Dr. Michael Abel, Project Manager



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## Case Narrative

Samples for project Del Oro Dairy were received by TraceAnalysis, Inc. on 2013-05-23 and assigned to work order 13052327. Samples for work order 13052327 were received intact at a temperature of 2.0 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
Chloride (IC)	E 300.0	86283	2013-05-24 at 19:32	101839	2013-05-24 at 19:32
Chloride (IC)	E 300.0	86379	2013-05-24 at 04:00	101956	2013-05-24 at 04:00
NO3 (IC)	E 300.0	86283	2013-05-24 at 19:32	101839	2013-05-24 at 19:32
NO3 (IC)	E 300.0	86379	2013-05-24 at 04:00	101956	2013-05-24 at 04:00
TDS	SM 2540C	86331	2013-05-28 at 14:00	101889	2013-05-28 at 14:00
TKN	E 351.3	86211	2013-05-28 at 08:24	101832	2013-05-29 at 15:05
TKN	SM 4500-NH3 B,C	86210	2013-05-28 at 08:22	101830	2013-05-29 at 15:02

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 13052327 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

# Analytical Report

**Sample: 330148 - 692-02**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101956 Date Analyzed: 2013-05-24 Analyzed By: JR  
 Prep Batch: 86379 Sample Preparation: 2013-05-24 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Chloride		1	<b>742</b>	<b>742</b>	<1.96	mg/L	50	1.96	2.5	0.0392

**Sample: 330148 - 692-02**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101956 Date Analyzed: 2013-05-24 Analyzed By: JR  
 Prep Batch: 86379 Sample Preparation: 2013-05-24 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Nitrate-N		1	<b>47.8</b>	<b>47.8</b>	<0.0840	mg/L	10	0.0840	0.5	0.0084

**Sample: 330148 - 692-02**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 101889 Date Analyzed: 2013-05-28 Analyzed By: DL  
 Prep Batch: 86331 Sample Preparation: 2013-05-28 Prepared By: DL

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Dissolved Solids		1	<b>2720</b>	<b>2720</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 330148 - 692-02**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: SM 4500-NH3 B,C Prep Method: N/A  
 QC Batch: 101830 Date Analyzed: 2013-05-29 Analyzed By: AK  
 Prep Batch: 86210 Sample Preparation: 2013-05-28 Prepared By: AK

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.66	<10.0	<1.66	mg/L	1	1.66	10	1.66

**Sample: 330149 - 692-04**

Laboratory: El Paso  
 Analysis: Chloride (IC)                      Analytical Method: E 300.0                      Prep Method: N/A  
 QC Batch: 101956                              Date Analyzed: 2013-05-24                      Analyzed By: JR  
 Prep Batch: 86379                              Sample Preparation: 2013-05-24                      Prepared By: JR

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Chloride		1	<b>676</b>	<b>676</b>	<1.96	mg/L	50	1.96	2.5	0.0392

**Sample: 330149 - 692-04**

Laboratory: El Paso  
 Analysis: NO3 (IC)                              Analytical Method: E 300.0                      Prep Method: N/A  
 QC Batch: 101956                              Date Analyzed: 2013-05-24                      Analyzed By: JR  
 Prep Batch: 86379                              Sample Preparation: 2013-05-24                      Prepared By: JR

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Nitrate-N		1	<b>71.3</b>	<b>71.3</b>	<0.0840	mg/L	10	0.0840	0.5	0.0084

**Sample: 330149 - 692-04**

Laboratory: El Paso  
 Analysis: TDS                                      Analytical Method: SM 2540C                      Prep Method: N/A  
 QC Batch: 101889                              Date Analyzed: 2013-05-28                      Analyzed By: DL  
 Prep Batch: 86331                              Sample Preparation: 2013-05-28                      Prepared By: DL

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Dissolved Solids		1	<b>2740</b>	<b>2740</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 330149 - 692-04**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: SM 4500-NH3 B,C Prep Method: N/A  
 QC Batch: 101830 Date Analyzed: 2013-05-29 Analyzed By: AK  
 Prep Batch: 86210 Sample Preparation: 2013-05-28 Prepared By: AK

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.66	<10.0	<1.66	mg/L	1	1.66	10	1.66

**Sample: 330150 - 692-06**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101839 Date Analyzed: 2013-05-24 Analyzed By: JR  
 Prep Batch: 86283 Sample Preparation: 2013-05-24 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Chloride		1	<b>415</b>	<b>415</b>	<0.392	mg/L	10	0.392	2.5	0.0392

**Sample: 330150 - 692-06**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101839 Date Analyzed: 2013-05-24 Analyzed By: JR  
 Prep Batch: 86283 Sample Preparation: 2013-05-24 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Nitrate-N		1	<b>2.71</b>	<b>2.71</b>	<0.0420	mg/L	5	0.0420	0.5	0.0084

**Sample: 330150 - 692-06**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 101889 Date Analyzed: 2013-05-28 Analyzed By: DL  
 Prep Batch: 86331 Sample Preparation: 2013-05-28 Prepared By: DL

*continued . . .*

*sample 330150 continued ...*

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	<b>1370</b>	<b>1370</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 330150 - 692-06**

Laboratory: Lubbock

Analysis: TKN

QC Batch: 101830

Prep Batch: 86210

Analytical Method: SM 4500-NH3 B,C

Date Analyzed: 2013-05-29

Sample Preparation: 2013-05-28

Prep Method: N/A

Analyzed By: AK

Prepared By: AK

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.66	<10.0	<1.66	mg/L	1	1.66	10	1.66

**Sample: 330151 - 692 Lagoon**

Laboratory: El Paso

Analysis: Chloride (IC)

QC Batch: 101839

Prep Batch: 86283

Analytical Method: E 300.0

Date Analyzed: 2013-05-24

Sample Preparation: 2013-05-24

Prep Method: N/A

Analyzed By: JR

Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Chloride		1	<b>2870</b>	<b>2870</b>	<3.92	mg/L	100	3.92	2.5	0.0392

**Sample: 330151 - 692 Lagoon**

Laboratory: El Paso

Analysis: NO3 (IC)

QC Batch: 101839

Prep Batch: 86283

Analytical Method: E 300.0

Date Analyzed: 2013-05-24

Sample Preparation: 2013-05-24

Prep Method: N/A

Analyzed By: JR

Prepared By: JR



Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Nitrate-N		1	<b>6.94</b>	<b>6.94</b>	<0.0840	mg/L	10	0.0840	0.5	0.0084

**Sample: 330151 - 692 Lagoon**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 101889 Date Analyzed: 2013-05-28 Analyzed By: DL  
 Prep Batch: 86331 Sample Preparation: 2013-05-28 Prepared By: DL

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	<b>15300</b>	<b>15300</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 330151 - 692 Lagoon**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: E 351.3 Prep Method: N/A  
 QC Batch: 101832 Date Analyzed: 2013-05-29 Analyzed By: AK  
 Prep Batch: 86211 Sample Preparation: 2013-05-28 Prepared By: AK

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N		2	<b>658</b>	<b>658</b>	<8.30	mg/L	5	8.30	10	1.66

## Method Blanks

### Method Blank (1)

QC Batch: 101830  
Prep Batch: 86210Date Analyzed: 2013-05-29  
QC Preparation: 2013-05-28Analyzed By: AK  
Prepared By: AK

Parameter	F	C	Result	Units	Reporting Limits
Total Kjeldahl Nitrogen - N		2	<1.66	mg/L	1.66

### Method Blank (1)

QC Batch: 101832  
Prep Batch: 86211Date Analyzed: 2013-05-29  
QC Preparation: 2013-05-28Analyzed By: AK  
Prepared By: AK

Parameter	F	C	Result	Units	Reporting Limits
Total Kjeldahl Nitrogen - N		2	<1.66	mg/L	1.66

### Method Blank (1)

QC Batch: 101839  
Prep Batch: 86283Date Analyzed: 2013-05-24  
QC Preparation: 2013-05-24Analyzed By: JR  
Prepared By: JR

Parameter	F	C	Result	Units	Reporting Limits
Chloride		1	1.41	mg/L	0.0392

### Method Blank (1)

QC Batch: 101839  
Prep Batch: 86283Date Analyzed: 2013-05-24  
QC Preparation: 2013-05-24Analyzed By: JR  
Prepared By: JR

Parameter	F	C	Result	Units	Reporting Limits
Nitrate-N		1	0.160	mg/L	0.0084

**Method Blank (1)**

QC Batch: 101889                      Date Analyzed: 2013-05-28                      Analyzed By: DL  
 Prep Batch: 86331                      QC Preparation: 2013-05-28                      Prepared By: DL

Parameter	F	C	Result	Units	Reporting Limits
Total Dissolved Solids		1	<5.00	mg/L	5

**Method Blank (1)**

QC Batch: 101956                      Date Analyzed: 2013-05-24                      Analyzed By: JR  
 Prep Batch: 86379                      QC Preparation: 2013-05-24                      Prepared By: JR

Parameter	F	C	Result	Units	Reporting Limits
Chloride		1	1.41	mg/L	0.0392

**Method Blank (1)**

QC Batch: 101956                      Date Analyzed: 2013-05-24                      Analyzed By: JR  
 Prep Batch: 86379                      QC Preparation: 2013-05-24                      Prepared By: JR

Parameter	F	C	Result	Units	Reporting Limits
Nitrate-N		1	<0.00840	mg/L	0.0084

**Duplicate (1)**    Duplicated Sample: 330027

QC Batch: 101889                      Date Analyzed: 2013-05-28                      Analyzed By: DL  
 Prep Batch: 86331                      QC Preparation: 2013-05-28                      Prepared By: DL

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1025 East OHara, Anthony, NM

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Param	F	C	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids		1	3600	3630	mg/L	1	1	10

---

# Laboratory Control Spikes

## Laboratory Control Spike (LCS-1)

QC Batch: 101889  
Prep Batch: 86331Date Analyzed: 2013-05-28  
QC Preparation: 2013-05-28Analyzed By: DL  
Prepared By: DL

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Dissolved Solids		1	988	mg/L	1	1000	<5.00	99	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Dissolved Solids		1	993	mg/L	1	1000	<5.00	99	90 - 110	0	10

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

## Matrix Spike (MS-1) Spiked Sample: 320233

QC Batch: 101830  
Prep Batch: 86210Date Analyzed: 2013-05-29  
QC Preparation: 2013-05-28Analyzed By: AK  
Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Kjeldahl Nitrogen - N		2	39.2	mg/L	1	50.0	<1.66	78	10 - 151

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Kjeldahl Nitrogen - N		2	37.1	mg/L	1	50.0	<1.66	74	10 - 151	6	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

## Matrix Spike (MS-1) Spiked Sample: 330153

QC Batch: 101832  
Prep Batch: 86211Date Analyzed: 2013-05-29  
QC Preparation: 2013-05-28Analyzed By: AK  
Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Kjeldahl Nitrogen - N		2	46.2	mg/L	1	50.0	<1.66	92	45.3 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Total Kjeldahl Nitrogen - N		2	45.5	mg/L	1	50.0	<1.66	91	45.3 - 115	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 330150

QC Batch: 101839  
Prep Batch: 86283

Date Analyzed: 2013-05-24  
QC Preparation: 2013-05-24

Analyzed By: JR  
Prepared By: JR

Param	F	C	MS		Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit
			Result	Units					
Chloride		1	1780	mg/L	55.6	1390	415	98	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Chloride		1	1770	mg/L	55.6	1390	415	97	90 - 110	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 330150

QC Batch: 101839  
Prep Batch: 86283

Date Analyzed: 2013-05-24  
QC Preparation: 2013-05-24

Analyzed By: JR  
Prepared By: JR

Param	F	C	MS		Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit
			Result	Units					
Nitrate-N		1	272	mg/L	55.6	278	2.71	97	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Nitrate-N		1	269	mg/L	55.6	278	2.71	96	90 - 110	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 330028

QC Batch: 101956  
Prep Batch: 86379

Date Analyzed: 2013-05-24  
QC Preparation: 2013-05-24

Analyzed By: JR  
Prepared By: JR



Param	F	C	MS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
			Result	Units					
Chloride		1	2140	mg/L	55.6	1390	648	107	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Chloride		1	2140	mg/L	55.6	1390	648	107	90 - 110	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 330028

QC Batch: 101956  
Prep Batch: 86379

Date Analyzed: 2013-05-24  
QC Preparation: 2013-05-24

Analyzed By: JR  
Prepared By: JR

Param	F	C	MS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
			Result	Units					
Nitrate-N		1	282	mg/L	55.6	278	3.96	100	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Nitrate-N		1	282	mg/L	55.6	278	3.96	100	90 - 110	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

## Calibration Standards

### Standard (ICV-1)

QC Batch: 101830

Date Analyzed: 2013-05-29

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	4.34	87	85 - 115	2013-05-29

### Standard (CCV-1)

QC Batch: 101830

Date Analyzed: 2013-05-29

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	4.76	95	85 - 115	2013-05-29

### Standard (ICV-1)

QC Batch: 101832

Date Analyzed: 2013-05-29

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	4.48	90	85 - 115	2013-05-29

### Standard (CCV-1)

QC Batch: 101832

Date Analyzed: 2013-05-29

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	4.76	95	85 - 115	2013-05-29

**Standard (CCV-1)**

QC Batch: 101839

Date Analyzed: 2013-05-24

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	24.3	97	90 - 110	2013-05-24

**Standard (CCV-1)**

QC Batch: 101839

Date Analyzed: 2013-05-24

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.85	97	90 - 110	2013-05-24

**Standard (CCV-2)**

QC Batch: 101839

Date Analyzed: 2013-05-24

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	24.2	97	90 - 110	2013-05-24

**Standard (CCV-2)**

QC Batch: 101839

Date Analyzed: 2013-05-24

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.85	97	90 - 110	2013-05-24

**Standard (CCV-1)**

QC Batch: 101956

Date Analyzed: 2013-05-24

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	24.0	96	90 - 110	2013-05-24

**Standard (CCV-1)**

QC Batch: 101956

Date Analyzed: 2013-05-24

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.80	96	90 - 110	2013-05-24

**Standard (CCV-2)**

QC Batch: 101956

Date Analyzed: 2013-05-24

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	24.0	96	90 - 110	2013-05-24

**Standard (CCV-2)**

QC Batch: 101956

Date Analyzed: 2013-05-24

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.80	96	90 - 110	2013-05-24

---

## Limits of Detection (LOD)

Test	Method	Matrix	Instrument	Analyte	Spike Amount	Pass
Chloride (IC)	E 300.0	water	Dionex IC	Chloride	0.0962	Pass
NO3 (IC)	E 300.0	water	Dionex IC	Nitrate-N	0.0192	Pass
TKN	E 351.3	water	N/A	Total Kjeldahl Nitrogen - N	5.00	Pass
TKN	SM 4500-NH3 B,C	water	N/A	Total Kjeldahl Nitrogen - N	5.00	Pass

---

# Appendix

## Report Definitions

Name	Definition
MDL	Method Detection Limit
MQL	Minimum Quantitation Limit
SDL	Sample Detection Limit

## Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704221-12-3	El Paso
2	NELAP	T104704219-13-9	Lubbock

## Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less than ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
MI1	Split peak or shoulder peak
MI2	Instrument software did not integrate
MI3	Instrument software misidentified the peak
MI4	Instrument software integrated improperly
MI5	Baseline correction
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

## Attachments

The scanned attachments will follow this page.  
Please note, each attachment may consist of more than one page.







**TraceAnalysis, Inc.**

Company Name: Phone #: 915-859-8150

D&H Petroleum & Environmental Services  
Address: (Street, City, Zip)  
1221 Tower Trail Ln, El Paso TX 79907

Contact Person: Victor Ayala  
E-mail: vajala@dhpump.com

Project Name: Jerry Settles 575-882-4331  
Del Oro Dairy

Project #: 415795

Project Location (including state):  
Del Oro Dairy, 1025 East O'Hara, Anthony, NM

Sampler Signature: *[Signature]*

LAB #	Field Code	# Containers	Volume/Amount	MATRIX			PRESERVATIVE METHOD				SAMPLING				
				WATER	AIR	SLUDGE	HCl	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	NaOH	ICE	NONE	DATE	TIME	
692-01		1	250ml	X			X	X	X	X	X				
692-01		1	250ml	X			X	X	X	X	X				
330148		1	250ml	X			X	X	X	X	X	5-23-13	11:11		
692-02		1	250ml	X			X	X	X	X	X	5-23-13	11:11		
692-04		1	250ml	X			X	X	X	X	X	5-23-13	12:09		
692-04		1	250ml	X			X	X	X	X	X	5-23-13	12:09		
692-05		1	250ml	X			X	X	X	X	X				
692-06		1	250ml	X			X	X	X	X	X	5-23-13	9:13		
692-06		1	250ml	X			X	X	X	X	X	5-23-13	9:13		
692-07		1	250ml	X			X	X	X	X	X				
692-07		1	250ml	X			X	X	X	X	X				
692-08		1	250ml	X			X	X	X	X	X				
692-08		1	250ml	X			X	X	X	X	X				
692-09		1	250ml	X			X	X	X	X	X				
692-09		1	250ml	X			X	X	X	X	X				
692-09		1	250ml	X			X	X	X	X	X				

Relinquished By:	Date:	Time:	Received By:	Date:	Time:	Lab Use Only	Remarks:
<i>[Signature]</i>	5-23-13	14:52	<i>[Signature]</i>	5/23/13	14:50	Intact <input checked="" type="checkbox"/> N	ON ICE - IR 6002
<i>[Signature]</i>	5/23/13	16:30	<i>[Signature]</i>	5/24/13	9:30	Headspace Y / N	
						Temp 0/2 20.2	
						Log-in Review <i>[Signature]</i>	

Dry Weight Basis Required  
TRRP Report Required

5-23-13 154015034





6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800-378-1296 806-794-1296 FAX 806-794-1298  
 200 East Sunset Road, Suite E El Paso, Texas 79922 915-585-3443 FAX 915-585-4944  
 5002 Basin Street, Suite A1 Midland, Texas 79703 432-689-6301 FAX 432-689-6313  
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 E-Mail: lab@traceanalysis.com WEB: www.traceanalysis.com

## Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

# Analytical and Quality Control Report

Linda Armstrong  
 Dona Ana Dairies

Report Date: June 11, 2013

P.O. Box 10  
 Mesquite, NM, 88048

Work Order: 13052328



Project Location: Various Dairies, Dona Ana County, NM  
 Project Name: Dona Ana Dairies Consortium  
 Project #: DAD

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
330152	DAD -10	water	2013-05-23	13:28	2013-05-23
330153	DAD -20	water	2013-05-23	14:16	2013-05-23

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 16 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

**Notes:**

*For inorganic analyses, the term MQL should actually read PQL.*

Dr. Blair Leftwich, Director  
 Dr. Michael Abel, Project Manager

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## Case Narrative

Samples for project Dona Ana Dairies Consortium were received by TraceAnalysis, Inc. on 2013-05-23 and assigned to work order 13052328. Samples for work order 13052328 were received intact at a temperature of 2.0 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
Chloride (IC)	E 300.0	86283	2013-05-24 at 19:32	101839	2013-05-24 at 19:32
Chloride (IC)	E 300.0	86284	2013-05-24 at 23:53	101840	2013-05-24 at 23:53
NO3 (IC)	E 300.0	86283	2013-05-24 at 19:32	101839	2013-05-24 at 19:32
NO3 (IC)	E 300.0	86284	2013-05-24 at 23:53	101840	2013-05-24 at 23:53
TDS	SM 2540C	86366	2013-05-31 at 12:00	101940	2013-05-31 at 12:00
TKN	E 351.3	86211	2013-05-28 at 08:24	101832	2013-05-29 at 15:05

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 13052328 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

# Analytical Report

**Sample: 330152 - DAD -10**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101839 Date Analyzed: 2013-05-24 Analyzed By: JR  
 Prep Batch: 86283 Sample Preparation: 2013-05-24 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Chloride		1	<b>453</b>	<b>453</b>	<0.392	mg/L	10	0.392	2.5	0.0392

**Sample: 330152 - DAD -10**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101839 Date Analyzed: 2013-05-24 Analyzed By: JR  
 Prep Batch: 86283 Sample Preparation: 2013-05-24 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Nitrate-N		1	<b>5.42</b>	<b>5.42</b>	<0.0420	mg/L	5	0.0420	0.5	0.0084

**Sample: 330152 - DAD -10**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 101940 Date Analyzed: 2013-05-31 Analyzed By: MC  
 Prep Batch: 86366 Sample Preparation: 2013-05-31 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Dissolved Solids		1	<b>1450</b>	<b>1450</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 330152 - DAD -10**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: E 351.3 Prep Method: N/A  
 QC Batch: 101832 Date Analyzed: 2013-05-29 Analyzed By: AK  
 Prep Batch: 86211 Sample Preparation: 2013-05-28 Prepared By: AK

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.66	<10.0	<1.66	mg/L	1	1.66	10	1.66

**Sample: 330153 - DAD -20**

Laboratory: El Paso  
 Analysis: Chloride (IC)                      Analytical Method: E 300.0                      Prep Method: N/A  
 QC Batch: 101840                              Date Analyzed: 2013-05-24                      Analyzed By: JR  
 Prep Batch: 86284                              Sample Preparation: 2013-05-24                      Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Chloride		1	<b>707</b>	<b>707</b>	<1.96	mg/L	50	1.96	2.5	0.0392

**Sample: 330153 - DAD -20**

Laboratory: El Paso  
 Analysis: NO3 (IC)                              Analytical Method: E 300.0                              Prep Method: N/A  
 QC Batch: 101840                              Date Analyzed: 2013-05-24                              Analyzed By: JR  
 Prep Batch: 86284                              Sample Preparation: 2013-05-24                              Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Nitrate-N		1	<b>25.2</b>	<b>25.2</b>	<0.0420	mg/L	5	0.0420	0.5	0.0084

**Sample: 330153 - DAD -20**

Laboratory: El Paso  
 Analysis: TDS                                      Analytical Method: SM 2540C                              Prep Method: N/A  
 QC Batch: 101940                              Date Analyzed: 2013-05-31                              Analyzed By: MC  
 Prep Batch: 86366                              Sample Preparation: 2013-05-31                              Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Total Dissolved Solids		1	<b>2320</b>	<b>2320</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 330153 - DAD -20**

Laboratory: Lubbock  
 Analysis: TKN  
 QC Batch: 101832  
 Prep Batch: 86211

Analytical Method: E 351.3  
 Date Analyzed: 2013-05-29  
 Sample Preparation: 2013-05-28

Prep Method: N/A  
 Analyzed By: AK  
 Prepared By: AK

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based	Based	Blank			(Unadjusted)	(Unadjusted)	
Total Kjeldahl Nitrogen - N	u	2	<1.66	<10.0	<1.66	mg/L	1	1.66	10	1.66

## Method Blanks

### Method Blank (1)

QC Batch: 101832  
Prep Batch: 86211Date Analyzed: 2013-05-29  
QC Preparation: 2013-05-28Analyzed By: AK  
Prepared By: AK

Parameter	F	C	Result	Units	Reporting Limits
Total Kjeldahl Nitrogen - N		2	<1.66	mg/L	1.66

### Method Blank (1)

QC Batch: 101839  
Prep Batch: 86283Date Analyzed: 2013-05-24  
QC Preparation: 2013-05-24Analyzed By: JR  
Prepared By: JR

Parameter	F	C	Result	Units	Reporting Limits
Chloride		1	1.41	mg/L	0.0392

### Method Blank (1)

QC Batch: 101839  
Prep Batch: 86283Date Analyzed: 2013-05-24  
QC Preparation: 2013-05-24Analyzed By: JR  
Prepared By: JR

Parameter	F	C	Result	Units	Reporting Limits
Nitrate-N		1	0.160	mg/L	0.0084

### Method Blank (1)

QC Batch: 101840  
Prep Batch: 86284Date Analyzed: 2013-05-24  
QC Preparation: 2013-05-24Analyzed By: JR  
Prepared By: JR

Parameter	F	C	Result	Units	Reporting Limits
Chloride		1	<0.0392	mg/L	0.0392

**Method Blank (1)**

QC Batch: 101840                                      Date Analyzed: 2013-05-24                                      Analyzed By: JR  
 Prep Batch: 86284                                      QC Preparation: 2013-05-24                                      Prepared By: JR

Parameter	F	C	Result	Units	Reporting Limits
Nitrate-N		1	<0.00840	mg/L	0.0084

**Method Blank (1)**

QC Batch: 101940                                      Date Analyzed: 2013-05-31                                      Analyzed By: MC  
 Prep Batch: 86366                                      QC Preparation: 2013-05-31                                      Prepared By: MC

Parameter	F	C	Result	Units	Reporting Limits
Total Dissolved Solids		1	<5.00	mg/L	5

**Duplicate (1)**    Duplicated Sample: 330233

QC Batch: 101940                                      Date Analyzed: 2013-05-31                                      Analyzed By: MC  
 Prep Batch: 86366                                      QC Preparation: 2013-05-31                                      Prepared By: MC

Param	F	C	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids		1	2500	2580	mg/L	1	3	10



# Laboratory Control Spikes

## Laboratory Control Spike (LCS-1)

QC Batch: 101940  
Prep Batch: 86366Date Analyzed: 2013-05-31  
QC Preparation: 2013-05-31Analyzed By: MC  
Prepared By: MC

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Dissolved Solids		1	956	mg/L	1	1000	<5.00	96	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Dissolved Solids		1	990	mg/L	1	1000	<5.00	99	90 - 110	4	10

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

## Matrix Spike (MS-1) Spiked Sample: 330153

QC Batch: 101832  
Prep Batch: 86211Date Analyzed: 2013-05-29  
QC Preparation: 2013-05-28Analyzed By: AK  
Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Kjeldahl Nitrogen - N		2	46.2	mg/L	1	50.0	<1.66	92	45.3 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Kjeldahl Nitrogen - N		2	45.5	mg/L	1	50.0	<1.66	91	45.3 - 115	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

## Matrix Spike (MS-1) Spiked Sample: 330150

QC Batch: 101839  
Prep Batch: 86283Date Analyzed: 2013-05-24  
QC Preparation: 2013-05-24Analyzed By: JR  
Prepared By: JR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1	1780	mg/L	55.6	1390	415	98	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Chloride		1	1770	mg/L	55.6	1390	415	97	90 - 110	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 330150

QC Batch: 101839 Date Analyzed: 2013-05-24 Analyzed By: JR  
 Prep Batch: 86283 QC Preparation: 2013-05-24 Prepared By: JR

Param	F	C	MS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
			Result	Units					
Nitrate-N		1	272	mg/L	55.6	278	2.71	97	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Nitrate-N		1	269	mg/L	55.6	278	2.71	96	90 - 110	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 330153

QC Batch: 101840 Date Analyzed: 2013-05-24 Analyzed By: JR  
 Prep Batch: 86284 QC Preparation: 2013-05-24 Prepared By: JR

Param	F	C	MS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
			Result	Units					
Chloride		1	2140	mg/L	55.6	1390	707	103	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Chloride		1	2140	mg/L	55.6	1390	707	103	90 - 110	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 330153

QC Batch: 101840 Date Analyzed: 2013-05-24 Analyzed By: JR  
 Prep Batch: 86284 QC Preparation: 2013-05-24 Prepared By: JR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Nitrate-N		1	292	mg/L	55.6	278	25.2	96	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Nitrate-N		1	292	mg/L	55.6	278	25.2	96	90 - 110	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

## Calibration Standards

### Standard (ICV-1)

QC Batch: 101832

Date Analyzed: 2013-05-29

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	4.48	90	85 - 115	2013-05-29

### Standard (CCV-1)

QC Batch: 101832

Date Analyzed: 2013-05-29

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	4.76	95	85 - 115	2013-05-29

### Standard (CCV-1)

QC Batch: 101839

Date Analyzed: 2013-05-24

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	24.3	97	90 - 110	2013-05-24

### Standard (CCV-1)

QC Batch: 101839

Date Analyzed: 2013-05-24

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.85	97	90 - 110	2013-05-24

**Standard (CCV-2)**

QC Batch: 101839

Date Analyzed: 2013-05-24

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	24.2	97	90 - 110	2013-05-24

**Standard (CCV-2)**

QC Batch: 101839

Date Analyzed: 2013-05-24

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.85	97	90 - 110	2013-05-24

**Standard (CCV-1)**

QC Batch: 101840

Date Analyzed: 2013-05-24

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	24.2	97	90 - 110	2013-05-24

**Standard (CCV-1)**

QC Batch: 101840

Date Analyzed: 2013-05-24

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.85	97	90 - 110	2013-05-24

**Standard (CCV-2)**

QC Batch: 101840

Date Analyzed: 2013-05-24

Analyzed By: JR

Report Date: June 11, 2013

Work Order: 13052328  
Dona Ana Dairies Consortium

Page Number: 14 of 16  
Various Dairies, Dona Ana County, NM

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Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	24.2	97	90 - 110	2013-05-24

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**Standard (CCV-2)**

QC Batch: 101840

Date Analyzed: 2013-05-24

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.84	97	90 - 110	2013-05-24

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## Limits of Detection (LOD)

Test	Method	Matrix	Instrument	Analyte	Spike	
					Amount	Pass
Chloride (IC)	E 300.0	water	Dionex IC	Chloride	0.0962	Pass
NO3 (IC)	E 300.0	water	Dionex IC	Nitrate-N	0.0192	Pass
TKN	E 351.3	water	N/A	Total Kjeldahl Nitrogen - N	5.00	Pass

# Appendix

## Report Definitions

Name	Definition
MDL	Method Detection Limit
MQL	Minimum Quantitation Limit
SDL	Sample Detection Limit

## Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704221-12-3	El Paso
2	NELAP	T104704219-13-9	Lubbock

## Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less than ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
MI1	Split peak or shoulder peak
MI2	Instrument software did not integrate
MI3	Instrument software misidentified the peak
MI4	Instrument software integrated improperly
MI5	Baseline correction
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

## Attachments

The scanned attachments will follow this page.  
Please note, each attachment may consist of more than one page.

# Trace Analysis, Inc.

6701 Aberdeen Avenue, Suite 9  
Lubbock, Texas 79424  
Tel (806) 794-1296  
Fax (806) 794-1298  
1 (800) 378-1296

200 East Sunset Rd., Suite E  
El Paso, Texas 79922  
Tel (915) 585-3443  
Fax (915) 585-4944  
1 (888) 588-3443

5002 Basin Street, Suite A1  
Midland, Texas 79703  
Tel (432) 689-6301  
Fax (432) 689-6313

8808 Camp Bowie Blvd. West, Suite 180  
Ft. Worth, Texas 76116  
Tel (817) 201-5260  
Fax (817) 560-4336

email: lab@traceanalysis.com

Company Name: **D&K Petroleum & Environmental Services** Phone #: **915-859-8150**

Address: (Street, City, Zip) **1221 Tower Trail In. El Paso, TX 79907** Fax #: \_\_\_\_\_

Contact Person: **Victor Ayala** E-mail: **vayala@dkpump.com**

Invoice to: **Dona Ann Dairies, P.O. Box 10, Mesquite, NM 88048** Project Name: **Dona Ann Dairies Construction**

(If different from above) Project #: **415783** Sampler Signature: **Paul M. P...**

Project Location (including state): **Various Dairies, Dona Ann County, NM**

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX			PRESERVATIVE METHOD					SAMPLING		
				WATER	SOIL	AIR	SLUDGE	HCl	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	NaOH	ICE	NONE	DATE
330529	DAD-10	1	250ml X					X		X			5-23-13	13:28
	DAD-10	1	250ml X					X		X			5-23-13	13:28
330153	DAD-20	1	250ml X					X		X			5-23-13	14:16
	DAD-20	1	250ml X					X		X			5-23-13	14:16

Relinquished by: **David N. Pava** Company: **D&K** Date: **5/23/13** Time: **14:52** Received by: **MCC** Company: **TAEP** Date: **5/23/13** Time: **14:50** Temp: **12.4**

Relinquished by: **Victor Ayala** Company: **TAEP** Date: **5/23/13** Time: **16:30** Received by: **Frank R. Johnson** Company: **TAEP** Date: **5/24/13** Time: **9:30** Temp: **12.4**

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

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

<input type="checkbox"/>	MTBE	8021B / 602 / 8260B / 624
<input type="checkbox"/>	BTEX	8021B / 602 / 8260B / 624
<input type="checkbox"/>	TPH 418.1 / TX1005 / TX1005 Ext(C35)	
<input type="checkbox"/>	TPH 8015 GRO / DRO / TVHC	
<input type="checkbox"/>	PAH 8270C / 625	
<input type="checkbox"/>	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	
<input type="checkbox"/>	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	
<input type="checkbox"/>	TCLP Volatiles	
<input type="checkbox"/>	TCLP Semi Volatiles	
<input type="checkbox"/>	TCLP Pesticides	
<input type="checkbox"/>	RCI	
<input type="checkbox"/>	GC/MS Vol. 8260B / 624	
<input type="checkbox"/>	GC/MS Semi. Vol. 8270C / 625	
<input type="checkbox"/>	PCBs 8082 / 608	
<input type="checkbox"/>	BOD, TSS, pH	
<input type="checkbox"/>	Moisture Content	
<input checked="" type="checkbox"/>	Nitrates EPA 300	
<input checked="" type="checkbox"/>	TKN Sm 4500 NOLG C	
<input checked="" type="checkbox"/>	Chloride EPA 300	
<input checked="" type="checkbox"/>	TDS Sm 2540 C med	
<input type="checkbox"/>	Turn Around Time if different from standard	

REMARKS: **Info. Rec Sun 2- ON ICE RE-ANALYSIS 5/23/13**

Dry Weight Basis Required

TRRP Report Required

Check If Special Reporting Limits Are Needed

LAB USE ONLY

Intact  / N / NA

Headspace  / N / NA

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



6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800-378-1296 806-794-1296 FAX 806-794-1298  
 200 East Sunset Road, Suite E El Paso, Texas 79922 915-585-3443 FAX 915-585-4944  
 5002 Basin Street, Suite A1 Midland, Texas 79703 432-689-6301 FAX 432-689-6313  
 (BioAquatic) 2501 Mayes Rd., Suite 100 Carrollton, Texas 75006 972-242-7750  
 E-Mail: lab@traceanalysis.com WEB: www.traceanalysis.com

## Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

# Analytical and Quality Control Report

Linda Armstrong  
 Dona Ana Dairies

Report Date: June 11, 2013

P.O. Box 10  
 Mesquite, NM, 88048

Work Order: 13053027



Project Location: Various Dairies, Dona Ana County, NM  
 Project Name: Dona Ana Dairies Consortium  
 Project #: DAD

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
330560	DAD-06	water	2013-05-30	08:47	2013-05-30
330561	DAD-09	water	2013-05-30	14:41	2013-05-30
330562	DAD-19	water	2013-05-30	10:06	2013-05-30

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 17 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

**Notes:**

*For inorganic analyses, the term MQL should actually read PQL.*

Dr. Blair Leftwich, Director  
 Dr. Michael Abel, Project Manager

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## Case Narrative

Samples for project Dona Ana Dairies Consortium were received by TraceAnalysis, Inc. on 2013-05-30 and assigned to work order 13053027. Samples for work order 13053027 were received intact at a temperature of 4.0 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
Chloride (IC)	E 300.0	86444	2013-06-01 at 00:48	102030	2013-06-01 at 00:48
Chloride (IC)	E 300.0	86445	2013-06-01 at 04:54	102031	2013-06-01 at 04:54
NO3 (IC)	E 300.0	86444	2013-06-01 at 00:48	102030	2013-06-01 at 00:48
NO3 (IC)	E 300.0	86445	2013-06-01 at 04:54	102031	2013-06-01 at 04:54
TDS	SM 2540C	86506	2013-06-06 at 08:00	102103	2013-06-06 at 08:00
TKN	SM 4500-NH3 B,C	86446	2013-06-06 at 08:13	102098	2013-06-06 at 12:55

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 13053027 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.



# Analytical Report

## Sample: 330560 - DAD-06

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 102030 Date Analyzed: 2013-06-01 Analyzed By: JR  
 Prep Batch: 86444 Sample Preparation: 2013-06-01 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Chloride		1	<b>508</b>	<b>508</b>	<1.96	mg/L	50	1.96	2.5	0.0392

## Sample: 330560 - DAD-06

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 102030 Date Analyzed: 2013-06-01 Analyzed By: JR  
 Prep Batch: 86444 Sample Preparation: 2013-06-01 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Nitrate-N		1	<b>6.07</b>	<b>6.07</b>	<0.0420	mg/L	5	0.0420	0.5	0.0084

## Sample: 330560 - DAD-06

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 102103 Date Analyzed: 2013-06-06 Analyzed By: MC  
 Prep Batch: 86506 Sample Preparation: 2013-06-06 Prepared By: DDH

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Dissolved Solids		1	<b>1690</b>	<b>1690</b>	<5.00	mg/L	1	5.00	5	5

## Sample: 330560 - DAD-06

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: SM 4500-NH3 B,C Prep Method: N/A  
 QC Batch: 102098 Date Analyzed: 2013-06-06 Analyzed By: AK  
 Prep Batch: 86446 Sample Preparation: 2013-06-06 Prepared By: AK

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.66	<10.0	<1.66	mg/L	1	1.66	10	1.66

**Sample: 330561 - DAD-09**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 102030 Date Analyzed: 2013-06-01 Analyzed By: JR  
 Prep Batch: 86444 Sample Preparation: 2013-06-01 Prepared By: JR

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Chloride		1	<b>435</b>	<b>435</b>	<1.96	mg/L	50	1.96	2.5	0.0392

**Sample: 330561 - DAD-09**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 102030 Date Analyzed: 2013-06-01 Analyzed By: JR  
 Prep Batch: 86444 Sample Preparation: 2013-06-01 Prepared By: JR

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Nitrate-N		1	<b>9.69</b>	<b>9.69</b>	<0.0420	mg/L	5	0.0420	0.5	0.0084

**Sample: 330561 - DAD-09**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 102103 Date Analyzed: 2013-06-06 Analyzed By: MC  
 Prep Batch: 86506 Sample Preparation: 2013-06-06 Prepared By: DDH

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Dissolved Solids		1	<b>1740</b>	<b>1740</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 330561 - DAD-09**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: SM 4500-NH3 B,C Prep Method: N/A  
 QC Batch: 102098 Date Analyzed: 2013-06-06 Analyzed By: AK  
 Prep Batch: 86446 Sample Preparation: 2013-06-06 Prepared By: AK

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	MQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.66	<10.0	<1.66	mg/L	1	1.66	10	1.66

**Sample: 330562 - DAD-19**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 102031 Date Analyzed: 2013-06-01 Analyzed By: JR  
 Prep Batch: 86445 Sample Preparation: 2013-06-01 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	MQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Chloride		1	<b>951</b>	<b>951</b>	<1.96	mg/L	50	1.96	2.5	0.0392

**Sample: 330562 - DAD-19**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 102031 Date Analyzed: 2013-06-01 Analyzed By: JR  
 Prep Batch: 86445 Sample Preparation: 2013-06-01 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	MQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Nitrate-N		1	<b>71.3</b>	<b>71.3</b>	<0.0840	mg/L	10	0.0840	0.5	0.0084

**Sample: 330562 - DAD-19**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 102103 Date Analyzed: 2013-06-06 Analyzed By: MC  
 Prep Batch: 86506 Sample Preparation: 2013-06-06 Prepared By: DDH

*continued . . .*

sample 330562 continued ...

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	<b>3560</b>	<b>3560</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 330562 - DAD-19**

Laboratory: Lubbock  
 Analysis: TKN  
 QC Batch: 102098  
 Prep Batch: 86446

Analytical Method: SM 4500-NH3 B,C  
 Date Analyzed: 2013-06-06  
 Sample Preparation: 2013-06-06

Prep Method: N/A  
 Analyzed By: AK  
 Prepared By: AK

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.66	<10.0	<1.66	mg/L	1	1.66	10	1.66

## Method Blanks

### Method Blank (1)

QC Batch: 102030  
Prep Batch: 86444Date Analyzed: 2013-06-01  
QC Preparation: 2013-06-01Analyzed By: JR  
Prepared By: JR

Parameter	F	C	Result	Units	Reporting Limits
Chloride		1	<0.0392	mg/L	0.0392

### Method Blank (1)

QC Batch: 102030  
Prep Batch: 86444Date Analyzed: 2013-06-01  
QC Preparation: 2013-06-01Analyzed By: JR  
Prepared By: JR

Parameter	F	C	Result	Units	Reporting Limits
Nitrate-N		1	0.154	mg/L	0.0084

### Method Blank (1)

QC Batch: 102031  
Prep Batch: 86445Date Analyzed: 2013-06-01  
QC Preparation: 2013-06-01Analyzed By: JR  
Prepared By: JR

Parameter	F	C	Result	Units	Reporting Limits
Chloride		1	1.41	mg/L	0.0392

### Method Blank (1)

QC Batch: 102031  
Prep Batch: 86445Date Analyzed: 2013-06-01  
QC Preparation: 2013-06-01Analyzed By: JR  
Prepared By: JR

Parameter	F	C	Result	Units	Reporting Limits
Nitrate-N		1	<0.00840	mg/L	0.0084

**Method Blank (1)**QC Batch: 102098  
Prep Batch: 86446Date Analyzed: 2013-06-06  
QC Preparation: 2013-06-06Analyzed By: AK  
Prepared By: AK

Parameter	F	C	Result	Units	Reporting Limits
Total Kjeldahl Nitrogen - N		2	<1.66	mg/L	1.66

**Method Blank (1)**QC Batch: 102103  
Prep Batch: 86506Date Analyzed: 2013-06-06  
QC Preparation: 2013-06-06Analyzed By: MC  
Prepared By: MC

Parameter	F	C	Result	Units	Reporting Limits
Total Dissolved Solids		1	<5.00	mg/L	5

**Duplicate (1)** Duplicated Sample: 330547QC Batch: 102103  
Prep Batch: 86506Date Analyzed: 2013-06-06  
QC Preparation: 2013-06-06Analyzed By: MC  
Prepared By: MC

Param	F	C	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids		1	1800	1800	mg/L	1	0	10



# Laboratory Control Spikes

## Laboratory Control Spike (LCS-1)

QC Batch: 102103  
Prep Batch: 86506Date Analyzed: 2013-06-06  
QC Preparation: 2013-06-06Analyzed By: MC  
Prepared By: MC

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Dissolved Solids		1	983	mg/L	1	1000	<5.00	98	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Dissolved Solids		1	996	mg/L	1	1000	<5.00	100	90 - 110	1	10

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

## Matrix Spike (MS-1) Spiked Sample: 330561

QC Batch: 102030  
Prep Batch: 86444Date Analyzed: 2013-06-01  
QC Preparation: 2013-06-01Analyzed By: JR  
Prepared By: JR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1	1840	mg/L	55.6	1390	435	101	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride		1	1850	mg/L	55.6	1390	435	102	90 - 110	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

## Matrix Spike (MS-1) Spiked Sample: 330561

QC Batch: 102030  
Prep Batch: 86444Date Analyzed: 2013-06-01  
QC Preparation: 2013-06-01Analyzed By: JR  
Prepared By: JR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Nitrate-N		1	283	mg/L	55.6	278	9.69	98	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Nitrate-N		1	285	mg/L	55.6	278	9.69	99	90 - 110	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 330679

QC Batch: 102031 Date Analyzed: 2013-06-01 Analyzed By: JR  
 Prep Batch: 86445 QC Preparation: 2013-06-01 Prepared By: JR

Param	F	C	MS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
			Result	Units					
Chloride		1	1840	mg/L	55.6	1390	453	100	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Chloride		1	1840	mg/L	55.6	1390	453	100	90 - 110	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 330679

QC Batch: 102031 Date Analyzed: 2013-06-01 Analyzed By: JR  
 Prep Batch: 86445 QC Preparation: 2013-06-01 Prepared By: JR

Param	F	C	MS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
			Result	Units					
Nitrate-N		1	294	mg/L	55.6	278	18.7	99	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Nitrate-N		1	295	mg/L	55.6	278	18.7	99	90 - 110	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 330680

QC Batch: 102098 Date Analyzed: 2013-06-06 Analyzed By: AK  
 Prep Batch: 86446 QC Preparation: 2013-06-06 Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Kjeldahl Nitrogen - N		2	40.6	mg/L	1	50.0	<1.66	81	10 - 151

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Kjeldahl Nitrogen - N		2	38.5	mg/L	1	50.0	<1.66	77	10 - 151	5	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

## Calibration Standards

### Standard (CCV-1)

QC Batch: 102030

Date Analyzed: 2013-06-01

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	24.3	97	90 - 110	2013-06-01

### Standard (CCV-1)

QC Batch: 102030

Date Analyzed: 2013-06-01

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.90	98	90 - 110	2013-06-01

### Standard (CCV-2)

QC Batch: 102030

Date Analyzed: 2013-06-01

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	24.2	97	90 - 110	2013-06-01

### Standard (CCV-2)

QC Batch: 102030

Date Analyzed: 2013-06-01

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.88	98	90 - 110	2013-06-01

**Standard (CCV-1)**

QC Batch: 102031 Date Analyzed: 2013-06-01 Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	24.2	97	90 - 110	2013-06-01

**Standard (CCV-1)**

QC Batch: 102031 Date Analyzed: 2013-06-01 Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.88	98	90 - 110	2013-06-01

**Standard (CCV-2)**

QC Batch: 102031 Date Analyzed: 2013-06-01 Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	24.2	97	90 - 110	2013-06-01

**Standard (CCV-2)**

QC Batch: 102031 Date Analyzed: 2013-06-01 Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.88	98	90 - 110	2013-06-01

**Standard (ICV-1)**

QC Batch: 102098 Date Analyzed: 2013-06-06 Analyzed By: AK

Report Date: June 11, 2013

Work Order: 13053027  
Dona Ana Dairies Consortium

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Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	4.34	87	85 - 115	2013-06-06

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**Standard (CCV-1)**

QC Batch: 102098

Date Analyzed: 2013-06-06

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	4.76	95	85 - 115	2013-06-06

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## Limits of Detection (LOD)

Test	Method	Matrix	Instrument	Analyte	Spike Amount	Pass
Chloride (IC)	E 300.0	water	Dionex IC	Chloride	0.0962	Pass
NO3 (IC)	E 300.0	water	Dionex IC	Nitrate-N	0.0192	Pass
TKN	SM 4500-NH3 B,C	water	N/A	Total Kjeldahl Nitrogen - N	5.00	Pass

# Appendix

## Report Definitions

Name	Definition
MDL	Method Detection Limit
MQL	Minimum Quantitation Limit
SDL	Sample Detection Limit

## Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704221-12-3	El Paso
2	NELAP	T104704219-13-9	Lubbock

## Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less than ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
MI1	Split peak or shoulder peak
MI2	Instrument software did not integrate
MI3	Instrument software misidentified the peak
MI4	Instrument software integrated improperly
MI5	Baseline correction
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

## Attachments

The scanned attachments will follow this page.  
Please note, each attachment may consist of more than one page.





6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800-378-1296 806-794-1296 FAX 806-794-1298  
 200 East Sunset Road, Suite E El Paso, Texas 79922 915-585-3443 FAX 915-585-4944  
 5002 Basin Street, Suite A1 Midland, Texas 79703 432-689-6301 FAX 432-689-6313  
 (BioAquatic) 2501 Mayes Rd., Suite 100 Carrollton, Texas 75006 972-242-7750  
 E-Mail: lab@traceanalysis.com WEB: www.traceanalysis.com

## Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

# Analytical and Quality Control Report

Linda Armstrong  
 Dona Ana Dairies

Report Date: June 11, 2013

P.O. Box 10  
 Mesquite, NM, 88048

Work Order: 13052425



Project Location: Various Dairies, Dona Ana County, NM  
 Project Name: Dona Ana Dairies Consortium  
 Project #: DAD

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
330229	DAD-07	water	2013-05-24	11:08	2013-05-24
330230	DAD-08	water	2013-05-24	12:10	2013-05-24
330231	DAD-17	water	2013-05-24	13:25	2013-05-24
330232	DAD-21	water	2013-05-24	08:10	2013-05-24
330233	DAD-22	water	2013-05-24	10:11	2013-05-24

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 20 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

**Notes:**

*For inorganic analyses, the term MQL should actually read PQL.*

*Michael Abel*

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Dr. Blair Leftwich, Director  
Dr. Michael Abel, Project Manager

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## Case Narrative

Samples for project Dona Ana Dairies Consortium were received by TraceAnalysis, Inc. on 2013-05-24 and assigned to work order 13052425. Samples for work order 13052425 were received intact at a temperature of 3.0 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
Chloride (IC)	E 300.0	86284	2013-05-24 at 23:53	101840	2013-05-24 at 23:53
Chloride (IC)	E 300.0	86285	2013-05-25 at 04:14	101841	2013-05-25 at 04:14
NO3 (IC)	E 300.0	86284	2013-05-24 at 23:53	101840	2013-05-24 at 23:53
NO3 (IC)	E 300.0	86285	2013-05-25 at 04:14	101841	2013-05-25 at 04:14
TDS	SM 2540C	86366	2013-05-31 at 12:00	101940	2013-05-31 at 12:00
TKN	SM 4500-NH3 B,C	86210	2013-05-28 at 08:22	101830	2013-05-29 at 15:02

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 13052425 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

# Analytical Report

**Sample: 330229 - DAD-07**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101840 Date Analyzed: 2013-05-24 Analyzed By: JR  
 Prep Batch: 86284 Sample Preparation: 2013-05-24 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Chloride		1	<b>720</b>	<b>720</b>	<1.96	mg/L	50	1.96	2.5	0.0392

**Sample: 330229 - DAD-07**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101840 Date Analyzed: 2013-05-24 Analyzed By: JR  
 Prep Batch: 86284 Sample Preparation: 2013-05-24 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Nitrate-N		1	<b>8.42</b>	<b>8.42</b>	<0.0420	mg/L	5	0.0420	0.5	0.0084

**Sample: 330229 - DAD-07**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 101940 Date Analyzed: 2013-05-31 Analyzed By: MC  
 Prep Batch: 86366 Sample Preparation: 2013-05-31 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Dissolved Solids		1	<b>2570</b>	<b>2570</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 330229 - DAD-07**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: SM 4500-NH3 B,C Prep Method: N/A  
 QC Batch: 101830 Date Analyzed: 2013-05-29 Analyzed By: AK  
 Prep Batch: 86210 Sample Preparation: 2013-05-28 Prepared By: AK

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.66	<10.0	<1.66	mg/L	1	1.66	10	1.66

**Sample: 330230 - DAD-08**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101840 Date Analyzed: 2013-05-24 Analyzed By: JR  
 Prep Batch: 86284 Sample Preparation: 2013-05-24 Prepared By: JR

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Chloride		1	<b>2140</b>	<b>2140</b>	<1.96	mg/L	50	1.96	2.5	0.0392

**Sample: 330230 - DAD-08**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101840 Date Analyzed: 2013-05-24 Analyzed By: JR  
 Prep Batch: 86284 Sample Preparation: 2013-05-24 Prepared By: JR

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Nitrate-N		1	<b>71.5</b>	<b>71.5</b>	<0.0840	mg/L	10	0.0840	0.5	0.0084

**Sample: 330230 - DAD-08**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 101940 Date Analyzed: 2013-05-31 Analyzed By: MC  
 Prep Batch: 86366 Sample Preparation: 2013-05-31 Prepared By: JR

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Dissolved Solids		1	<b>6740</b>	<b>6740</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 330230 - DAD-08**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: SM 4500-NH3 B,C Prep Method: N/A  
 QC Batch: 101830 Date Analyzed: 2013-05-29 Analyzed By: AK  
 Prep Batch: 86210 Sample Preparation: 2013-05-28 Prepared By: AK

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	MQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.66	<10.0	<1.66	mg/L	1	1.66	10	1.66

**Sample: 330231 - DAD-17**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101841 Date Analyzed: 2013-05-25 Analyzed By: JR  
 Prep Batch: 86285 Sample Preparation: 2013-05-25 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	MQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Chloride		1	<b>317</b>	<b>317</b>	<0.392	mg/L	10	0.392	2.5	0.0392

**Sample: 330231 - DAD-17**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101841 Date Analyzed: 2013-05-25 Analyzed By: JR  
 Prep Batch: 86285 Sample Preparation: 2013-05-25 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	MQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Nitrate-N	j	1	<b>0.827</b>	<2.50	<0.0420	mg/L	5	0.0420	0.5	0.0084

**Sample: 330231 - DAD-17**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 101940 Date Analyzed: 2013-05-31 Analyzed By: MC  
 Prep Batch: 86366 Sample Preparation: 2013-05-31 Prepared By: JR

*continued . . .*

*sample 330231 continued ...*

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	<b>1400</b>	<b>1400</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 330231 - DAD-17**

Laboratory: Lubbock

Analysis: TKN

QC Batch: 101830

Prep Batch: 86210

Analytical Method: SM 4500-NH3 B,C

Date Analyzed: 2013-05-29

Sample Preparation: 2013-05-28

Prep Method: N/A

Analyzed By: AK

Prepared By: AK

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.66	<10.0	<1.66	mg/L	1	1.66	10	1.66

**Sample: 330232 - DAD-21**

Laboratory: El Paso

Analysis: Chloride (IC)

QC Batch: 101841

Prep Batch: 86285

Analytical Method: E 300.0

Date Analyzed: 2013-05-25

Sample Preparation: 2013-05-25

Prep Method: N/A

Analyzed By: JR

Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Chloride		1	<b>509</b>	<b>509</b>	<1.96	mg/L	50	1.96	2.5	0.0392

**Sample: 330232 - DAD-21**

Laboratory: El Paso

Analysis: NO3 (IC)

QC Batch: 101841

Prep Batch: 86285

Analytical Method: E 300.0

Date Analyzed: 2013-05-25

Sample Preparation: 2013-05-25

Prep Method: N/A

Analyzed By: JR

Prepared By: JR

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Nitrate-N		1	<b>6.73</b>	<b>6.73</b>	<0.0420	mg/L	5	0.0420	0.5	0.0084

**Sample: 330232 - DAD-21**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 101940 Date Analyzed: 2013-05-31 Analyzed By: MC  
 Prep Batch: 86366 Sample Preparation: 2013-05-31 Prepared By: JR

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		1	<b>1960</b>	<b>1960</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 330232 - DAD-21**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: SM 4500-NH3 B,C Prep Method: N/A  
 QC Batch: 101830 Date Analyzed: 2013-05-29 Analyzed By: AK  
 Prep Batch: 86210 Sample Preparation: 2013-05-28 Prepared By: AK

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N	U	2	<1.66	<10.0	<1.66	mg/L	1	1.66	10	1.66

**Sample: 330233 - DAD-22**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101841 Date Analyzed: 2013-05-25 Analyzed By: JR  
 Prep Batch: 86285 Sample Preparation: 2013-05-25 Prepared By: JR

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Chloride		1	<b>920</b>	<b>920</b>	<1.96	mg/L	50	1.96	2.5	0.0392

**Sample: 330233 - DAD-22**



Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 101841 Date Analyzed: 2013-05-25 Analyzed By: JR  
 Prep Batch: 86285 Sample Preparation: 2013-05-25 Prepared By: JR

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Nitrate-N		1	<b>9.29</b>	<b>9.29</b>	<0.0420	mg/L	5	0.0420	0.5	0.0084

**Sample: 330233 - DAD-22**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 101940 Date Analyzed: 2013-05-31 Analyzed By: MC  
 Prep Batch: 86366 Sample Preparation: 2013-05-31 Prepared By: JR

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Dissolved Solids		1	<b>2580</b>	<b>2580</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 330233 - DAD-22**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: SM 4500-NH3 B,C Prep Method: N/A  
 QC Batch: 101830 Date Analyzed: 2013-05-29 Analyzed By: AK  
 Prep Batch: 86210 Sample Preparation: 2013-05-28 Prepared By: AK

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N	U	2	<1.66	<10.0	<1.66	mg/L	1	1.66	10	1.66

## Method Blanks

### Method Blank (1)

QC Batch: 101830  
Prep Batch: 86210Date Analyzed: 2013-05-29  
QC Preparation: 2013-05-28Analyzed By: AK  
Prepared By: AK

Parameter	F	C	Result	Units	Reporting Limits
Total Kjeldahl Nitrogen - N		2	<1.66	mg/L	1.66

### Method Blank (1)

QC Batch: 101840  
Prep Batch: 86284Date Analyzed: 2013-05-24  
QC Preparation: 2013-05-24Analyzed By: JR  
Prepared By: JR

Parameter	F	C	Result	Units	Reporting Limits
Chloride		1	<0.0392	mg/L	0.0392

### Method Blank (1)

QC Batch: 101840  
Prep Batch: 86284Date Analyzed: 2013-05-24  
QC Preparation: 2013-05-24Analyzed By: JR  
Prepared By: JR

Parameter	F	C	Result	Units	Reporting Limits
Nitrate-N		1	<0.00840	mg/L	0.0084

### Method Blank (1)

QC Batch: 101841  
Prep Batch: 86285Date Analyzed: 2013-05-25  
QC Preparation: 2013-05-25Analyzed By: JR  
Prepared By: JR

Parameter	F	C	Result	Units	Reporting Limits
Chloride		1	<0.0392	mg/L	0.0392

**Method Blank (1)**

QC Batch: 101841                      Date Analyzed: 2013-05-25                      Analyzed By: JR  
 Prep Batch: 86285                      QC Preparation: 2013-05-25                      Prepared By: JR

Parameter	F	C	Result	Units	Reporting Limits
Nitrate-N		1	<0.00840	mg/L	0.0084

**Method Blank (1)**

QC Batch: 101940                      Date Analyzed: 2013-05-31                      Analyzed By: MC  
 Prep Batch: 86366                      QC Preparation: 2013-05-31                      Prepared By: MC

Parameter	F	C	Result	Units	Reporting Limits
Total Dissolved Solids		1	<5.00	mg/L	5

**Duplicate (1)**    Duplicated Sample: 330233

QC Batch: 101940                      Date Analyzed: 2013-05-31                      Analyzed By: MC  
 Prep Batch: 86366                      QC Preparation: 2013-05-31                      Prepared By: MC

Param	F	C	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids		1	2500	2580	mg/L	1	3	10

# Laboratory Control Spikes

## Laboratory Control Spike (LCS-1)

QC Batch: 101940  
Prep Batch: 86366Date Analyzed: 2013-05-31  
QC Preparation: 2013-05-31Analyzed By: MC  
Prepared By: MC

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Dissolved Solids		1	956	mg/L	1	1000	<5.00	96	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Dissolved Solids		1	990	mg/L	1	1000	<5.00	99	90 - 110	4	10

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

## Matrix Spike (MS-1) Spiked Sample: 320233

QC Batch: 101830  
Prep Batch: 86210Date Analyzed: 2013-05-29  
QC Preparation: 2013-05-28Analyzed By: AK  
Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Kjeldahl Nitrogen - N		2	39.2	mg/L	1	50.0	<1.66	78	10 - 151

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Kjeldahl Nitrogen - N		2	37.1	mg/L	1	50.0	<1.66	74	10 - 151	6	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

## Matrix Spike (MS-1) Spiked Sample: 330153

QC Batch: 101840  
Prep Batch: 86284Date Analyzed: 2013-05-24  
QC Preparation: 2013-05-24Analyzed By: JR  
Prepared By: JR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1	2140	mg/L	55.6	1390	707	103	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Chloride		1	2140	mg/L	55.6	1390	707	103	90 - 110	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 330153

QC Batch: 101840  
Prep Batch: 86284

Date Analyzed: 2013-05-24  
QC Preparation: 2013-05-24

Analyzed By: JR  
Prepared By: JR

Param	F	C	MS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
			Result	Units					
Nitrate-N		1	292	mg/L	55.6	278	25.2	96	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Nitrate-N		1	292	mg/L	55.6	278	25.2	96	90 - 110	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 330231

QC Batch: 101841  
Prep Batch: 86285

Date Analyzed: 2013-05-25  
QC Preparation: 2013-05-25

Analyzed By: JR  
Prepared By: JR

Param	F	C	MS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
			Result	Units					
Chloride		1	1660	mg/L	55.6	1390	317	97	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Chloride		1	1660	mg/L	55.6	1390	317	97	90 - 110	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 330231

QC Batch: 101841  
Prep Batch: 86285

Date Analyzed: 2013-05-25  
QC Preparation: 2013-05-25

Analyzed By: JR  
Prepared By: JR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Nitrate-N		1	265	mg/L	55.6	278	0.827	95	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Nitrate-N		1	264	mg/L	55.6	278	0.827	95	90 - 110	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.



## Calibration Standards

### Standard (ICV-1)

QC Batch: 101830

Date Analyzed: 2013-05-29

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	4.34	87	85 - 115	2013-05-29

### Standard (CCV-1)

QC Batch: 101830

Date Analyzed: 2013-05-29

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	4.76	95	85 - 115	2013-05-29

### Standard (CCV-1)

QC Batch: 101840

Date Analyzed: 2013-05-24

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	24.2	97	90 - 110	2013-05-24

### Standard (CCV-1)

QC Batch: 101840

Date Analyzed: 2013-05-24

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.85	97	90 - 110	2013-05-24

**Standard (CCV-2)**

QC Batch: 101840

Date Analyzed: 2013-05-24

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	24.2	97	90 - 110	2013-05-24

**Standard (CCV-2)**

QC Batch: 101840

Date Analyzed: 2013-05-24

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.84	97	90 - 110	2013-05-24

**Standard (CCV-1)**

QC Batch: 101841

Date Analyzed: 2013-05-25

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	24.2	97	90 - 110	2013-05-25

**Standard (CCV-1)**

QC Batch: 101841

Date Analyzed: 2013-05-25

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.84	97	90 - 110	2013-05-25

**Standard (CCV-2)**

QC Batch: 101841

Date Analyzed: 2013-05-25

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	24.2	97	90 - 110	2013-05-25

**Standard (CCV-2)**

QC Batch: 101841

Date Analyzed: 2013-05-25

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.84	97	90 - 110	2013-05-25

---

## Limits of Detection (LOD)

Test	Method	Matrix	Instrument	Analyte	Spike Amount	Pass
Chloride (IC)	E 300.0	water	Dionex IC	Chloride	0.0962	Pass
NO3 (IC)	E 300.0	water	Dionex IC	Nitrate-N	0.0192	Pass
TKN	SM 4500-NH3 B,C	water	N/A	Total Kjeldahl Nitrogen - N	5.00	Pass

# Appendix

## Report Definitions

Name	Definition
MDL	Method Detection Limit
MQL	Minimum Quantitation Limit
SDL	Sample Detection Limit

## Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704221-12-3	El Paso
2	NELAP	T104704219-13-9	Lubbock

## Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less than ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
MI1	Split peak or shoulder peak
MI2	Instrument software did not integrate
MI3	Instrument software misidentified the peak
MI4	Instrument software integrated improperly
MI5	Baseline correction
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

## Attachments

The scanned attachments will follow this page.  
Please note, each attachment may consist of more than one page.

1305 2425

LAB Order ID # 13059425

Page ( ) of ( )

# TraceAnalysis, Inc.

6701 Aberdeen Avenue, Suite 9  
Lubbock, Texas 79424  
Tel (806) 794-1296  
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Ft. Worth, Texas 76116  
Tel (817) 201-3260  
Fax (817) 560-4336

email: lab@traceanalysis.com

Company Name: **D & H Petroleum & Environmental Services**  
 Address: (Street, City, Zip)  
 1221 Tower Trail In El Paso, TX 79907  
 Contact Person: **Victor Ayala**  
 Invoice to: **Dona Ana Dairies, PO Box 10**  
 (if different from above) **mesquite, NM 88048**  
 Project #: **415-783**  
 Project Location (including state):  
**Various Dairies, Dona Ana County, NM**  
 Project Name: **Dona Ana Dairies Consortium**  
 Sampler Signature: *Chad N. R.*

Phone #: **915-859-8150**  
 Fax #:  
 E-mail: **vayala@dhpump.com**  
 Project Name: **Dona Ana Dairies Consortium**  
 Sampler Signature: *Chad N. R.*

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX			PRESERVATIVE METHOD				SAMPLING		
				WATER	AIR	SLUDGE	HCl	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	NaOH	ICE	NONE	DATE
330229	DAD-07	1	250ml X				X				X	5-24-13	11:08
↓		1	250ml X				X				X	5-24-13	11:08
330230	DAD-08	1	250ml X				X				X	5-24-13	12:10
↓		1	250ml X				X				X	5-24-13	12:10
330231	DAD-17	1	250ml X				X				X	5-24-13	13:25
↓		1	250ml X				X				X	5-24-13	13:25
330232	DAD-21	1	250ml X				X				X	5-24-13	8:10
↓		1	250ml X				X				X	5-24-13	8:10
330233	DAD-22	1	250ml X				X				X	5-24-13	10:11
↓		1	250ml X				X				X	5-24-13	10:11

Relinquished by: **Chad N. R.** Company: **D & H** Date: **5-24-13** Time: **14:02** Temp °C:  
 Received by: *[Signature]* Company: **D & H** Date: **5-26-13** Time: **14:02** Temp °C:  
 Relinquished by: *[Signature]* Company: **D & H** Date: **5-24-13** Time: **16:30** Temp °C:  
 Received by: **Timothy Bondin** Company: **D & H** Date: **5/25/13** Time: **11:05** Temp °C: **2.7/3.0**

LAB USE ONLY  
 Intact (Y/N)  Y  
 Headspace Y/N/NA  Y  
 Log-In-Review  Y

REMARKS: **TDS, Cl, NO<sub>3</sub> in EP**

Dry Weight Basis Required  
 TRRP Report Required  
 Check If Special Reporting Limits Are Needed

Carrier # **500**





6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800-378-1296 806-794-1296 FAX 806-794-1298  
 200 East Sunset Road, Suite E El Paso, Texas 79922 915-585-3443 FAX 915-585-4944  
 5002 Basin Street, Suite A1 Midland, Texas 79703 432-689-6301 FAX 432-689-6313  
 (BioAquatic) 2501 Mayes Rd., Suite 100 Carrollton, Texas 75006 972-242-7750  
 E-Mail: lab@traceanalysis.com WEB: www.traceanalysis.com

## Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

# Analytical and Quality Control Report

Linda Armstrong  
 Dona Ana Dairies

Report Date: June 11, 2013

P.O. Box 10  
 Mesquite, NM, 88048

Work Order: 13052930



Project Location: Various Dairies, Dona Ana County, NM  
 Project Name: Dona Ana Dairies Consortium  
 Project #: DAD

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
330382	DAD-05	water	2013-05-29	13:24	2013-05-29
330383	DAD-18	water	2013-05-29	14:09	2013-05-29
330384	DAD-11	water	2013-05-29	09:45	2013-05-29
330385	DAD-12	water	2013-05-29	08:24	2013-05-29
330386	DAD-13	water	2013-05-29	08:56	2013-05-29
330387	DAD-14	water	2013-05-29	10:24	2013-05-29
330388	DAD-15	water	2013-05-29	11:40	2013-05-29
330389	DAD-16	water	2013-05-29	12:48	2013-05-29

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 28 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

**Notes:**

*For inorganic analyses, the term MQL should actually read PQL.*

*Michael Abel*

---

Dr. Blair Leftwich, Director  
Dr. Michael Abel, Project Manager

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## Case Narrative

Samples for project Dona Ana Dairies Consortium were received by TraceAnalysis, Inc. on 2013-05-29 and assigned to work order 13052930. Samples for work order 13052930 were received intact at a temperature of 5.0 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
Chloride (IC)	E 300.0	86433	2013-05-30 at 19:07	102017	2013-05-30 at 19:07
Chloride (IC)	E 300.0	86434	2013-05-30 at 23:12	102018	2013-05-30 at 23:12
Chloride (IC)	E 300.0	86435	2013-05-31 at 03:18	102019	2013-05-31 at 03:18
NO3 (IC)	E 300.0	86433	2013-05-30 at 19:07	102017	2013-05-30 at 19:07
NO3 (IC)	E 300.0	86434	2013-05-30 at 23:12	102018	2013-05-30 at 23:12
NO3 (IC)	E 300.0	86435	2013-05-31 at 03:18	102019	2013-05-31 at 03:18
TDS	SM 2540C	86506	2013-06-06 at 08:00	102103	2013-06-06 at 08:00
TDS	SM 2540C	86534	2013-06-06 at 08:00	102134	2013-06-06 at 08:00
TKN	SM 4500-NH3 B,C	86441	2013-06-05 at 08:45	102027	2013-06-05 at 15:00

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 13052930 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

# Analytical Report

## Sample: 330382 - DAD-05

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 102017 Date Analyzed: 2013-05-30 Analyzed By: JR  
 Prep Batch: 86433 Sample Preparation: 2013-05-30 Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Chloride		1	<b>582</b>	<b>582</b>	<1.96	mg/L	50	1.96	2.5	0.0392

## Sample: 330382 - DAD-05

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 102017 Date Analyzed: 2013-05-30 Analyzed By: JR  
 Prep Batch: 86433 Sample Preparation: 2013-05-30 Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Nitrate-N	J	1	<b>2.44</b>	<2.50	<0.0420	mg/L	5	0.0420	0.5	0.0084

## Sample: 330382 - DAD-05

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 102134 Date Analyzed: 2013-06-06 Analyzed By: MC  
 Prep Batch: 86534 Sample Preparation: 2013-06-06 Prepared By: MC

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids	H,Q	1	<b>2580</b>	<b>2580</b>	<5.00	mg/L	1	5.00	5	5

## Sample: 330382 - DAD-05

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: SM 4500-NH3 B,C Prep Method: N/A  
 QC Batch: 102027 Date Analyzed: 2013-06-05 Analyzed By: AK  
 Prep Batch: 86441 Sample Preparation: 2013-06-05 Prepared By: AK



Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.66	<10.0	<1.66	mg/L	1	1.66	10	1.66

**Sample: 330383 - DAD-18**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 102017 Date Analyzed: 2013-05-30 Analyzed By: JR  
 Prep Batch: 86433 Sample Preparation: 2013-05-30 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Chloride		1	<b>734</b>	<b>734</b>	<1.96	mg/L	50	1.96	2.5	0.0392

**Sample: 330383 - DAD-18**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 102017 Date Analyzed: 2013-05-30 Analyzed By: JR  
 Prep Batch: 86433 Sample Preparation: 2013-05-30 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Nitrate-N		1	<b>11.9</b>	<b>11.9</b>	<0.0420	mg/L	5	0.0420	0.5	0.0084

**Sample: 330383 - DAD-18**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 102134 Date Analyzed: 2013-06-06 Analyzed By: MC  
 Prep Batch: 86534 Sample Preparation: 2013-06-06 Prepared By: MC

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
			Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Dissolved Solids	H,Qr	1	<b>3020</b>	<b>3020</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 330383 - DAD-18**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: SM 4500-NH3 B,C Prep Method: N/A  
 QC Batch: 102027 Date Analyzed: 2013-06-05 Analyzed By: AK  
 Prep Batch: 86441 Sample Preparation: 2013-06-05 Prepared By: AK

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	MQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.66	<10.0	<1.66	mg/L	1	1.66	10	1.66

**Sample: 330384 - DAD-11**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 102017 Date Analyzed: 2013-05-30 Analyzed By: JR  
 Prep Batch: 86433 Sample Preparation: 2013-05-30 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	MQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Chloride		1	<b>1110</b>	<b>1110</b>	<1.96	mg/L	50	1.96	2.5	0.0392

**Sample: 330384 - DAD-11**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 102017 Date Analyzed: 2013-05-30 Analyzed By: JR  
 Prep Batch: 86433 Sample Preparation: 2013-05-30 Prepared By: JR

Parameter	F	C	SDL	SQL	Method	Units	Dilution	SDL	MQL	MDL
			Based	Based	Blank				(Unadjusted)	(Unadjusted)
Nitrate-N		1	<b>15.7</b>	<b>15.7</b>	<0.0420	mg/L	5	0.0420	0.5	0.0084

**Sample: 330384 - DAD-11**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 102134 Date Analyzed: 2013-06-06 Analyzed By: MC  
 Prep Batch: 86534 Sample Preparation: 2013-06-06 Prepared By: MC

*continued . . .*

sample 330384 continued ...

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids	H,Qr	1	<b>3600</b>	<b>3600</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 330384 - DAD-11**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: SM 4500-NH3 B,C Prep Method: N/A  
 QC Batch: 102027 Date Analyzed: 2013-06-05 Analyzed By: AK  
 Prep Batch: 86441 Sample Preparation: 2013-06-05 Prepared By: AK

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.66	<10.0	<1.66	mg/L	1	1.66	10	1.66

**Sample: 330385 - DAD-12**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 102018 Date Analyzed: 2013-05-30 Analyzed By: JR  
 Prep Batch: 86434 Sample Preparation: 2013-05-30 Prepared By: JR

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Chloride		1	<b>686</b>	<b>686</b>	<1.96	mg/L	50	1.96	2.5	0.0392

**Sample: 330385 - DAD-12**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 102018 Date Analyzed: 2013-05-30 Analyzed By: JR  
 Prep Batch: 86434 Sample Preparation: 2013-05-30 Prepared By: JR

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Nitrate-N		1	<b>18.2</b>	<b>18.2</b>	<0.0420	mg/L	5	0.0420	0.5	0.0084

**Sample: 330385 - DAD-12**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 102134 Date Analyzed: 2013-06-06 Analyzed By: MC  
 Prep Batch: 86534 Sample Preparation: 2013-06-06 Prepared By: MC

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids	H,Qr	1	<b>3130</b>	<b>3130</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 330385 - DAD-12**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: SM 4500-NH3 B,C Prep Method: N/A  
 QC Batch: 102027 Date Analyzed: 2013-06-05 Analyzed By: AK  
 Prep Batch: 86441 Sample Preparation: 2013-06-05 Prepared By: AK

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N	U	2	<1.66	<10.0	<1.66	mg/L	1	1.66	10	1.66

**Sample: 330386 - DAD-13**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 102018 Date Analyzed: 2013-05-30 Analyzed By: JR  
 Prep Batch: 86434 Sample Preparation: 2013-05-30 Prepared By: JR

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Chloride		1	<b>550</b>	<b>550</b>	<1.96	mg/L	50	1.96	2.5	0.0392

**Sample: 330386 - DAD-13**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 102018 Date Analyzed: 2013-05-30 Analyzed By: JR  
 Prep Batch: 86434 Sample Preparation: 2013-05-30 Prepared By: JR

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Nitrate-N		1	<b>5.00</b>	<b>5.00</b>	<0.0420	mg/L	5	0.0420	0.5	0.0084

**Sample: 330386 - DAD-13**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 102134 Date Analyzed: 2013-06-06 Analyzed By: MC  
 Prep Batch: 86534 Sample Preparation: 2013-06-06 Prepared By: MC

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids	H,Qr	1	<b>2020</b>	<b>2020</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 330386 - DAD-13**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: SM 4500-NH3 B,C Prep Method: N/A  
 QC Batch: 102027 Date Analyzed: 2013-06-05 Analyzed By: AK  
 Prep Batch: 86441 Sample Preparation: 2013-06-05 Prepared By: AK

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N	v	2	<1.66	<10.0	<1.66	mg/L	1	1.66	10	1.66

**Sample: 330387 - DAD-14**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 102018 Date Analyzed: 2013-05-30 Analyzed By: JR  
 Prep Batch: 86434 Sample Preparation: 2013-05-30 Prepared By: JR

*continued ...*

sample 330387 continued ...

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Chloride		1	<b>1030</b>	<b>1030</b>	<1.96	mg/L	50	1.96	2.5	0.0392

**Sample: 330387 - DAD-14**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 102018 Date Analyzed: 2013-05-30 Analyzed By: JR  
 Prep Batch: 86434 Sample Preparation: 2013-05-30 Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Nitrate-N		1	<b>34.6</b>	<b>34.6</b>	<0.0420	mg/L	5	0.0420	0.5	0.0084

**Sample: 330387 - DAD-14**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 102134 Date Analyzed: 2013-06-06 Analyzed By: MC  
 Prep Batch: 86534 Sample Preparation: 2013-06-06 Prepared By: MC

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		H <sub>1</sub> , Q <sub>1</sub> 1	<b>3520</b>	<b>3520</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 330387 - DAD-14**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: SM 4500-NH3 B,C Prep Method: N/A  
 QC Batch: 102027 Date Analyzed: 2013-06-05 Analyzed By: AK  
 Prep Batch: 86441 Sample Preparation: 2013-06-05 Prepared By: AK

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N		U 2	<1.66	<10.0	<1.66	mg/L	1	1.66	10	1.66



**Sample: 330388 - DAD-15**

Laboratory: El Paso  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 102019 Date Analyzed: 2013-05-31 Analyzed By: JR  
 Prep Batch: 86435 Sample Preparation: 2013-05-31 Prepared By: JR

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Chloride		1	<b>504</b>	<b>504</b>	<1.96	mg/L	50	1.96	2.5	0.0392

**Sample: 330388 - DAD-15**

Laboratory: El Paso  
 Analysis: NO3 (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 102019 Date Analyzed: 2013-05-31 Analyzed By: JR  
 Prep Batch: 86435 Sample Preparation: 2013-05-31 Prepared By: JR

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Nitrate-N		1	<b>5.29</b>	<b>5.29</b>	<0.0420	mg/L	5	0.0420	0.5	0.0084

**Sample: 330388 - DAD-15**

Laboratory: El Paso  
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A  
 QC Batch: 102103 Date Analyzed: 2013-06-06 Analyzed By: MC  
 Prep Batch: 86506 Sample Preparation: 2013-06-06 Prepared By: DDH

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids	H	1	<b>1970</b>	<b>1970</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 330388 - DAD-15**

Laboratory: Lubbock  
 Analysis: TKN Analytical Method: SM 4500-NH3 B,C Prep Method: N/A  
 QC Batch: 102027 Date Analyzed: 2013-06-05 Analyzed By: AK  
 Prep Batch: 86441 Sample Preparation: 2013-06-05 Prepared By: AK

*continued ...*

sample 330388 continued ...

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Kjeldahl Nitrogen - N	u	2	<1.66	<10.0	<1.66	mg/L	1	1.66	10	1.66

**Sample: 330389 - DAD-16**

Laboratory: El Paso  
 Analysis: Chloride (IC)                      Analytical Method: E 300.0                      Prep Method: N/A  
 QC Batch: 102019                              Date Analyzed: 2013-05-31                      Analyzed By: JR  
 Prep Batch: 86435                              Sample Preparation: 2013-05-31                      Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Chloride		1	<b>501</b>	<b>501</b>	<1.96	mg/L	50	1.96	2.5	0.0392

**Sample: 330389 - DAD-16**

Laboratory: El Paso  
 Analysis: NO3 (IC)                              Analytical Method: E 300.0                      Prep Method: N/A  
 QC Batch: 102019                              Date Analyzed: 2013-05-31                      Analyzed By: JR  
 Prep Batch: 86435                              Sample Preparation: 2013-05-31                      Prepared By: JR

Parameter	F	C	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Nitrate-N	J	1	<b>1.68</b>	<2.50	<0.0420	mg/L	5	0.0420	0.5	0.0084

**Sample: 330389 - DAD-16**

Laboratory: El Paso  
 Analysis: TDS                                      Analytical Method: SM 2540C                      Prep Method: N/A  
 QC Batch: 102134                              Date Analyzed: 2013-06-06                      Analyzed By: MC  
 Prep Batch: 86534                              Sample Preparation: 2013-06-06                      Prepared By: MC

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based	Based	Blank			(Unadjusted)	(Unadjusted)	
Total Dissolved Solids	H,Qr	1	<b>2200</b>	<b>2200</b>	<5.00	mg/L	1	5.00	5	5

**Sample: 330389 - DAD-16**

Laboratory: Lubbock

Analysis: TKN

QC Batch: 102027

Prep Batch: 86441

Analytical Method: SM 4500-NH3 B,C

Date Analyzed: 2013-06-05

Sample Preparation: 2013-06-05

Prep Method: N/A

Analyzed By: AK

Prepared By: AK

Parameter	F	C	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
			Based	Based	Blank			(Unadjusted)	(Unadjusted)	
Total Kjeldahl Nitrogen - N	u	2	<1.66	<10.0	<1.66	mg/L	1	1.66	10	1.66

## Method Blanks

### Method Blank (1)

QC Batch: 102017  
Prep Batch: 86433Date Analyzed: 2013-05-30  
QC Preparation: 2013-05-30Analyzed By: JR  
Prepared By: JR

Parameter	F	C	Result	Units	Reporting Limits
Chloride		1	1.40	mg/L	0.0392

### Method Blank (1)

QC Batch: 102017  
Prep Batch: 86433Date Analyzed: 2013-05-30  
QC Preparation: 2013-05-30Analyzed By: JR  
Prepared By: JR

Parameter	F	C	Result	Units	Reporting Limits
Nitrate-N		1	0.160	mg/L	0.0084

### Method Blank (1)

QC Batch: 102018  
Prep Batch: 86434Date Analyzed: 2013-05-30  
QC Preparation: 2013-05-30Analyzed By: JR  
Prepared By: JR

Parameter	F	C	Result	Units	Reporting Limits
Chloride		1	<0.0392	mg/L	0.0392

### Method Blank (1)

QC Batch: 102018  
Prep Batch: 86434Date Analyzed: 2013-05-30  
QC Preparation: 2013-05-30Analyzed By: JR  
Prepared By: JR

Parameter	F	C	Result	Units	Reporting Limits
Nitrate-N		1	0.156	mg/L	0.0084

**Method Blank (1)**QC Batch: 102019  
Prep Batch: 86435Date Analyzed: 2013-05-31  
QC Preparation: 2013-05-31Analyzed By: JR  
Prepared By: JR

Parameter	F	C	Result	Units	Reporting Limits
Chloride		1	<0.0392	mg/L	0.0392

**Method Blank (1)**QC Batch: 102019  
Prep Batch: 86435Date Analyzed: 2013-05-31  
QC Preparation: 2013-05-31Analyzed By: JR  
Prepared By: JR

Parameter	F	C	Result	Units	Reporting Limits
Nitrate-N		1	0.157	mg/L	0.0084

**Method Blank (1)**QC Batch: 102027  
Prep Batch: 86441Date Analyzed: 2013-06-05  
QC Preparation: 2013-06-05Analyzed By: AK  
Prepared By: AK

Parameter	F	C	Result	Units	Reporting Limits
Total Kjeldahl Nitrogen - N		2	<1.66	mg/L	1.66

**Method Blank (1)**QC Batch: 102103  
Prep Batch: 86506Date Analyzed: 2013-06-06  
QC Preparation: 2013-06-06Analyzed By: MC  
Prepared By: MC

Parameter	F	C	Result	Units	Reporting Limits
Total Dissolved Solids		1	<5.00	mg/L	5

**Method Blank (1)**

QC Batch: 102134                                      Date Analyzed: 2013-06-06                                      Analyzed By: MC  
 Prep Batch: 86534                                      QC Preparation: 2013-06-06                                      Prepared By: MC

Parameter	F	C	Result	Units	Reporting Limits
Total Dissolved Solids		1	<5.00	mg/L	5

**Duplicate (1)**      Duplicated Sample: 330547

QC Batch: 102103                                      Date Analyzed: 2013-06-06                                      Analyzed By: MC  
 Prep Batch: 86506                                      QC Preparation: 2013-06-06                                      Prepared By: MC

Param	F	C	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids		1	1800	1800	mg/L	1	0	10

**Duplicate (1)**      Duplicated Sample: 330387

QC Batch: 102134                                      Date Analyzed: 2013-06-06                                      Analyzed By: MC  
 Prep Batch: 86534                                      QC Preparation: 2013-06-06                                      Prepared By: MC

Param	F	C	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids	Qr	1	3600	3520	mg/L	1	2	10





Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Chloride		1	2080	mg/L	55.6	1390	582	108	90 - 110	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 330382

QC Batch: 102017 Date Analyzed: 2013-05-30 Analyzed By: JR  
 Prep Batch: 86433 QC Preparation: 2013-05-30 Prepared By: JR

Param	F	C	MS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
			Result	Units					
Nitrate-N		1	284	mg/L	55.6	278	2.44	101	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Nitrate-N		1	285	mg/L	55.6	278	2.44	102	90 - 110	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 330386

QC Batch: 102018 Date Analyzed: 2013-05-30 Analyzed By: JR  
 Prep Batch: 86434 QC Preparation: 2013-05-30 Prepared By: JR

Param	F	C	MS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
			Result	Units					
Chloride		1	2020	mg/L	55.6	1390	550	106	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Chloride		1	2020	mg/L	55.6	1390	550	106	90 - 110	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 330386

QC Batch: 102018 Date Analyzed: 2013-05-30 Analyzed By: JR  
 Prep Batch: 86434 QC Preparation: 2013-05-30 Prepared By: JR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Nitrate-N		1	284	mg/L	55.6	278	5	100	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Nitrate-N		1	284	mg/L	55.6	278	5	100	90 - 110	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 330388

QC Batch: 102019 Date Analyzed: 2013-05-31 Analyzed By: JR  
 Prep Batch: 86435 QC Preparation: 2013-05-31 Prepared By: JR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1	1960	mg/L	55.6	1390	504	105	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride		1	1960	mg/L	55.6	1390	504	105	90 - 110	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 330388

QC Batch: 102019 Date Analyzed: 2013-05-31 Analyzed By: JR  
 Prep Batch: 86435 QC Preparation: 2013-05-31 Prepared By: JR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Nitrate-N		1	284	mg/L	55.6	278	5.29	100	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Nitrate-N		1	284	mg/L	55.6	278	5.29	100	90 - 110	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 330389

QC Batch: 102027  
 Prep Batch: 86441

Date Analyzed: 2013-06-05  
 QC Preparation: 2013-06-05

Analyzed By: AK  
 Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Kjeldahl Nitrogen - N		2	44.1	mg/L	1	50.0	<1.66	88	10 - 151

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Kjeldahl Nitrogen - N		2	46.2	mg/L	1	50.0	<1.66	92	10 - 151	5	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

## Calibration Standards

### Standard (CCV-1)

QC Batch: 102017

Date Analyzed: 2013-05-30

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	24.4	98	90 - 110	2013-05-30

### Standard (CCV-1)

QC Batch: 102017

Date Analyzed: 2013-05-30

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.92	98	90 - 110	2013-05-30

### Standard (CCV-2)

QC Batch: 102017

Date Analyzed: 2013-05-30

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	24.3	97	90 - 110	2013-05-30

### Standard (CCV-2)

QC Batch: 102017

Date Analyzed: 2013-05-30

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.90	98	90 - 110	2013-05-30

**Standard (CCV-1)**

QC Batch: 102018

Date Analyzed: 2013-05-30

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	24.3	97	90 - 110	2013-05-30

**Standard (CCV-1)**

QC Batch: 102018

Date Analyzed: 2013-05-30

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.90	98	90 - 110	2013-05-30

**Standard (CCV-2)**

QC Batch: 102018

Date Analyzed: 2013-05-30

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	24.2	97	90 - 110	2013-05-30

**Standard (CCV-2)**

QC Batch: 102018

Date Analyzed: 2013-05-30

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.88	98	90 - 110	2013-05-30

**Standard (CCV-1)**

QC Batch: 102019

Date Analyzed: 2013-05-31

Analyzed By: JR



Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	24.2	97	90 - 110	2013-05-31

**Standard (CCV-1)**

QC Batch: 102019

Date Analyzed: 2013-05-31

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.88	98	90 - 110	2013-05-31

**Standard (CCV-2)**

QC Batch: 102019

Date Analyzed: 2013-05-31

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	24.1	96	90 - 110	2013-05-31

**Standard (CCV-2)**

QC Batch: 102019

Date Analyzed: 2013-05-31

Analyzed By: JR

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		1	mg/L	5.00	4.83	97	90 - 110	2013-05-31

**Standard (ICV-1)**

QC Batch: 102027

Date Analyzed: 2013-06-05

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	4.34	87	85 - 115	2013-06-05

**Standard (CCV-1)**

QC Batch: 102027

Date Analyzed: 2013-06-05

Analyzed By: AK

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		2	mg/L	5.00	4.90	98	85 - 115	2013-06-05

---

## Limits of Detection (LOD)

Test	Method	Matrix	Instrument	Analyte	Spike Amount	Pass
Chloride (IC)	E 300.0	water	Dionex IC	Chloride	0.0962	Pass
NO3 (IC)	E 300.0	water	Dionex IC	Nitrate-N	0.0192	Pass
TKN	SM 4500-NH3 B,C	water	N/A	Total Kjeldahl Nitrogen - N	5.00	Pass

# Appendix

## Report Definitions

Name	Definition
MDL	Method Detection Limit
MQL	Minimum Quantitation Limit
SDL	Sample Detection Limit

## Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704221-12-3	El Paso
2	NELAP	T104704219-13-9	Lubbock

## Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less than ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
MI1	Split peak or shoulder peak
MI2	Instrument software did not integrate
MI3	Instrument software misidentified the peak
MI4	Instrument software integrated improperly
MI5	Baseline correction
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

## Attachments

The scanned attachments will follow this page.  
Please note, each attachment may consist of more than one page.

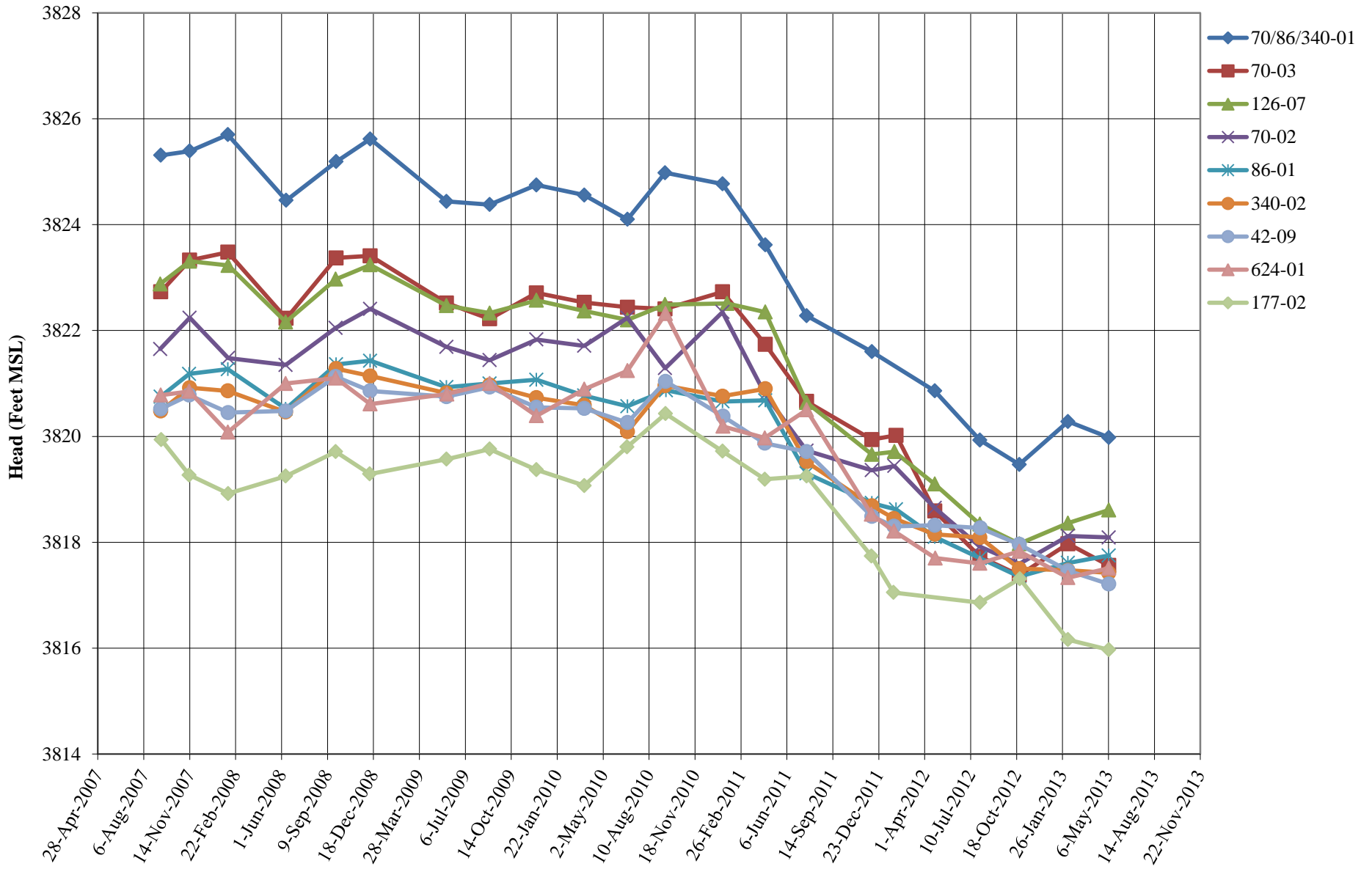




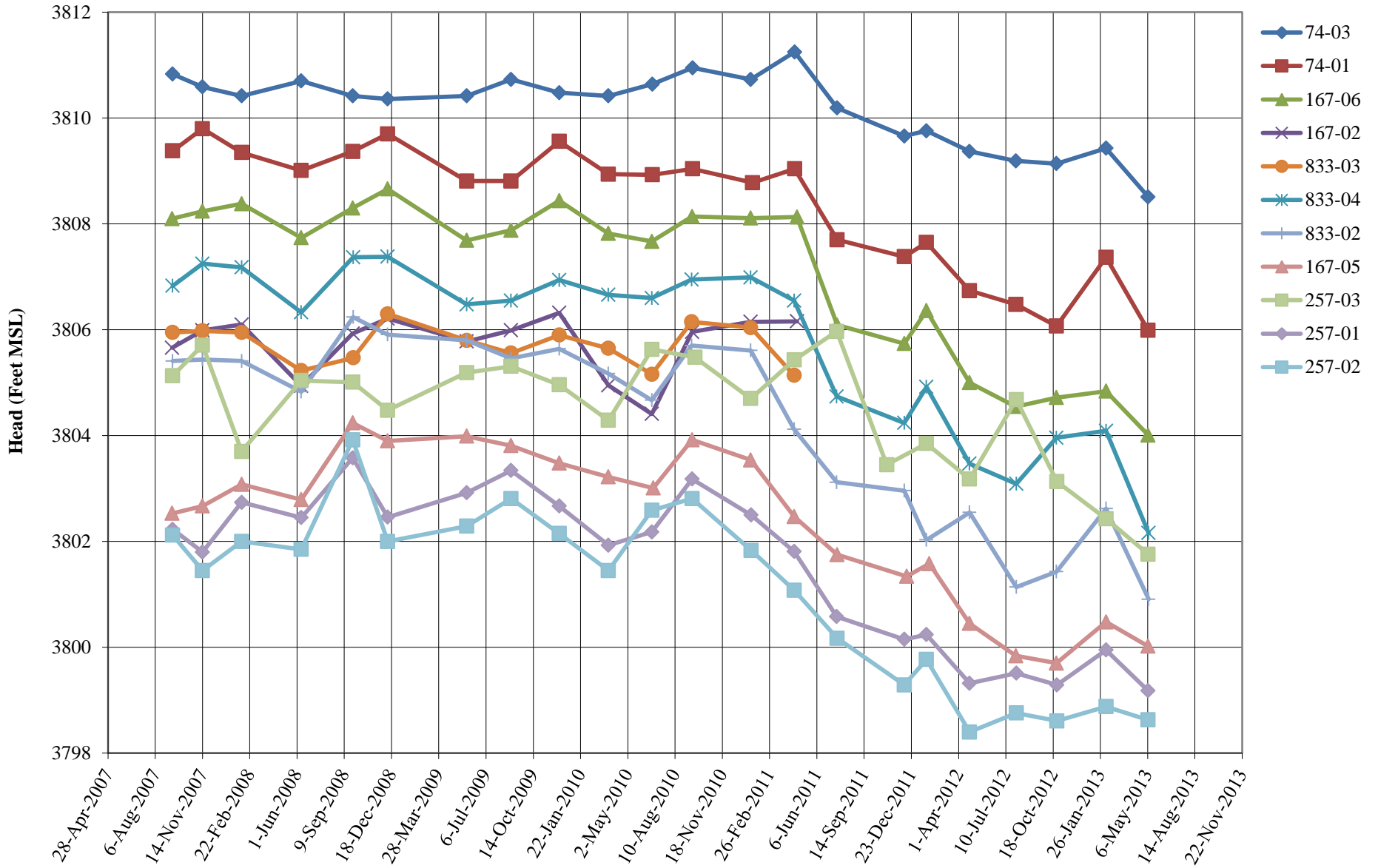
**APPENDIX C  
HYDROGRAPHS**



## HYDROGRAPHS FOR DP MONITORING WELLS NORTHERN PORTION



## HYDROGRAPHS FOR DP MONITORING WELLS CENTRAL PORTION

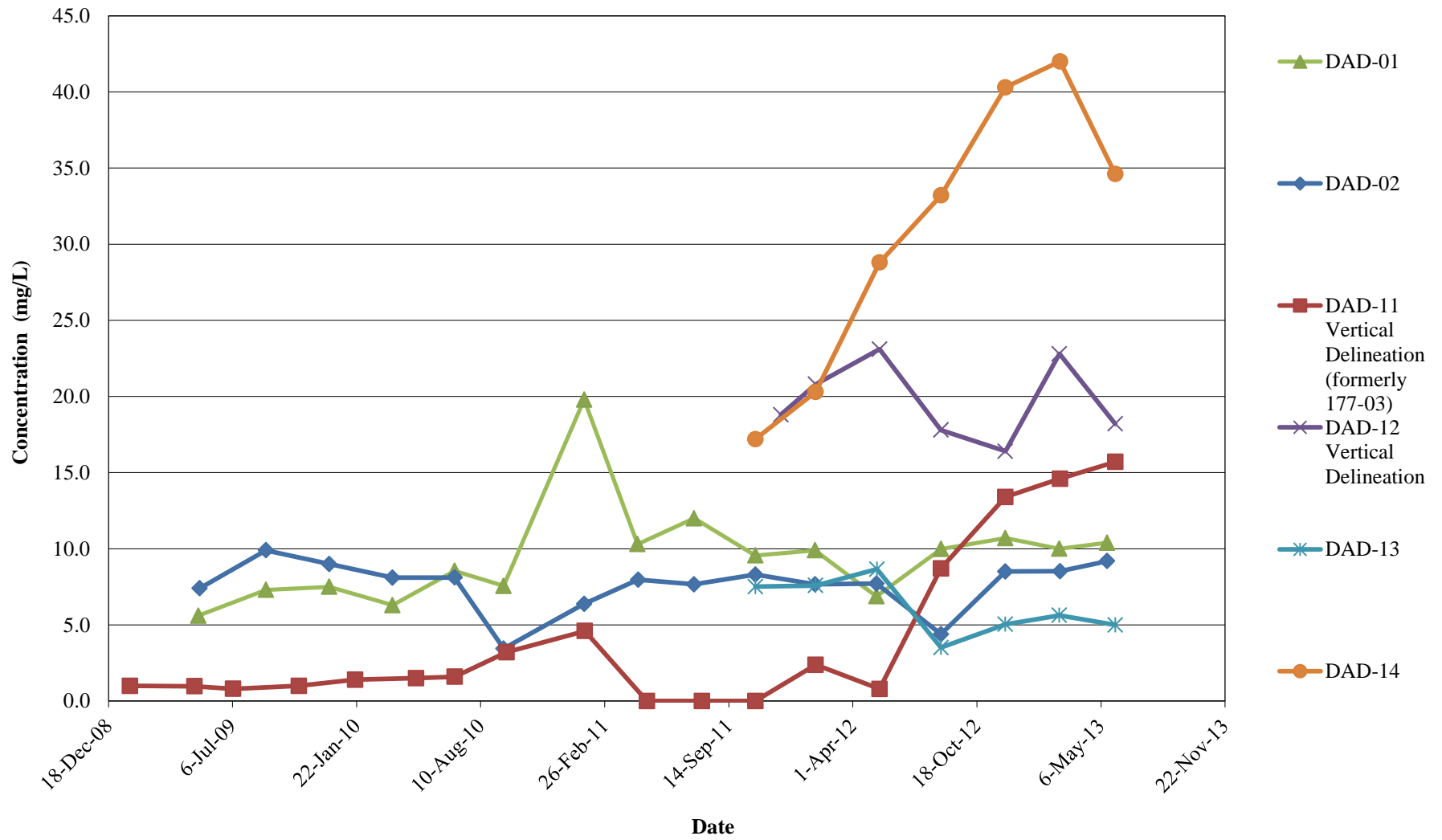




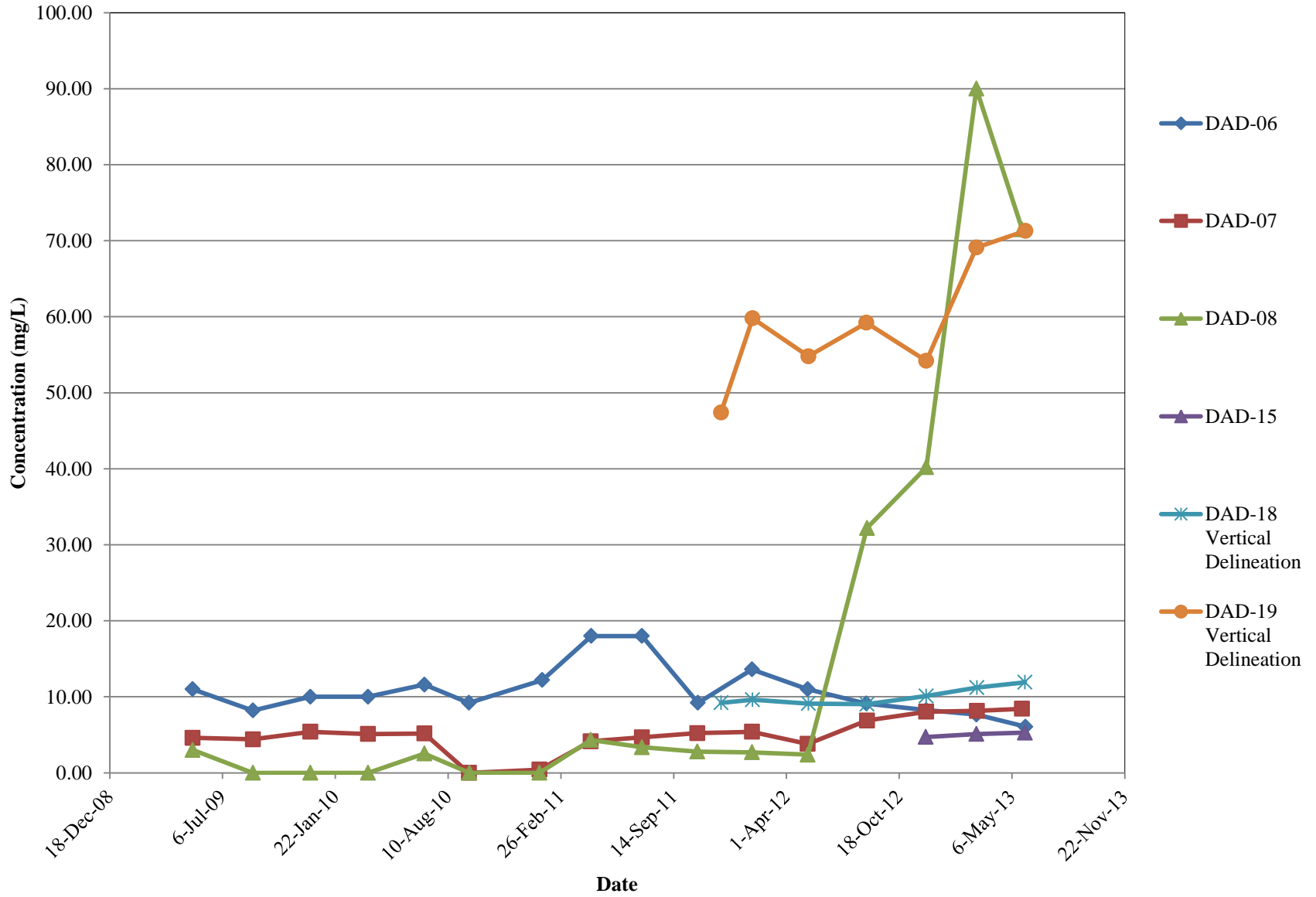
**APPENDIX D**  
**CONCENTRATION TRENDS**



## NITRATE CONCENTRATION TRENDS IN SELECT NORTHERN DAD MONITORING WELLS

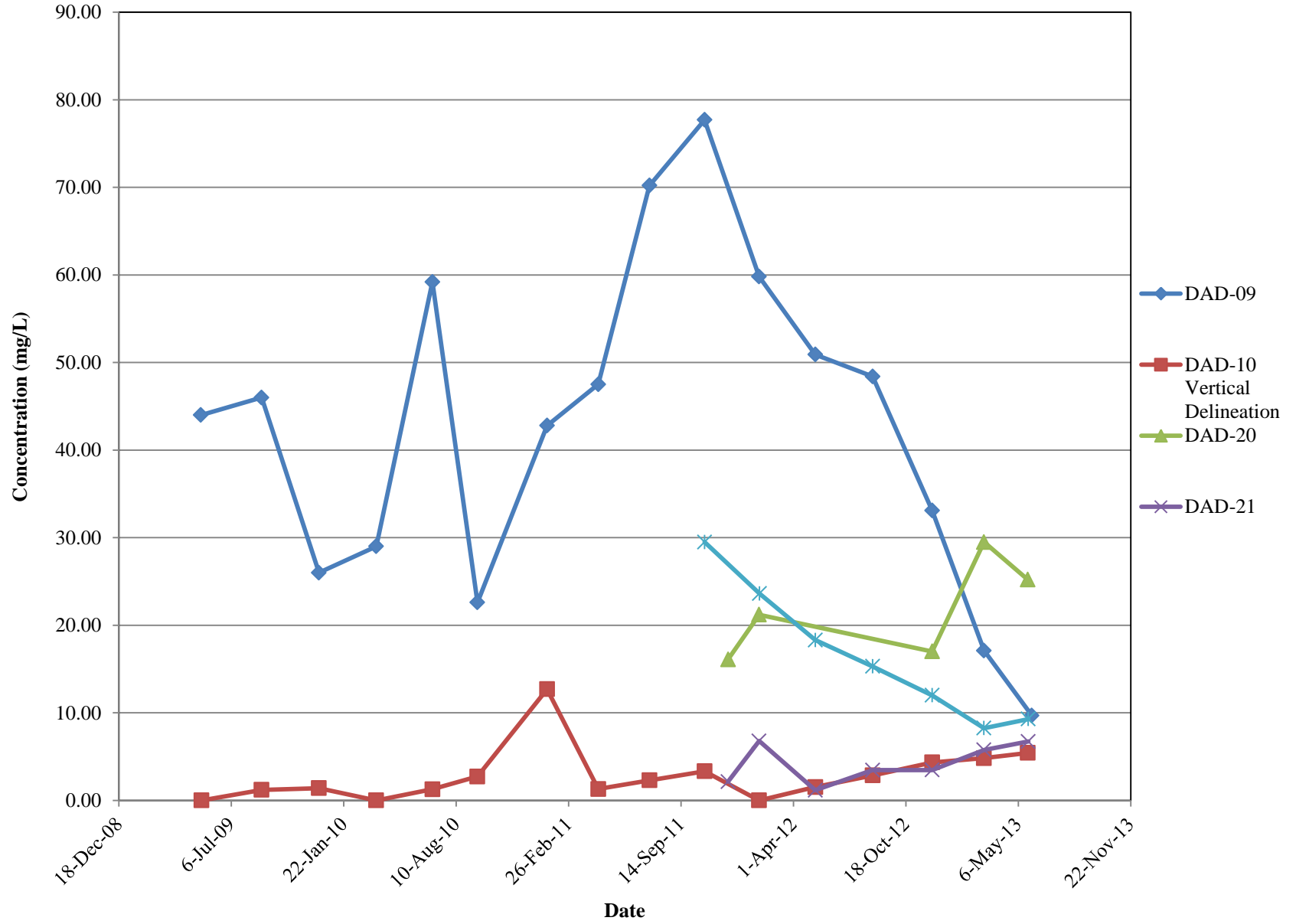


### NITRATE CONCENTRATION TRENDS IN SELECT CENTRAL DAD WELLS

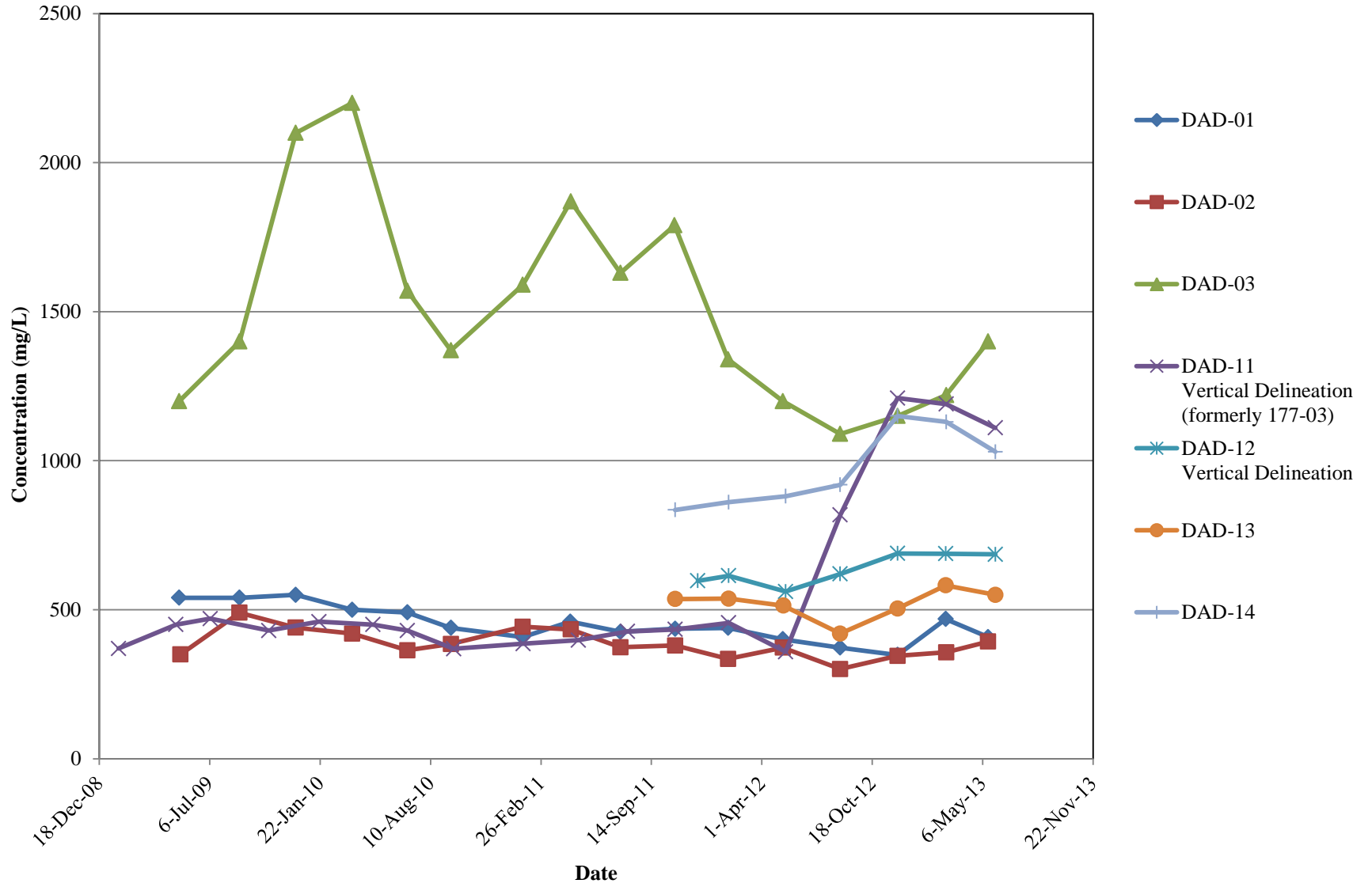




### NITRATE CONCENTRATION TRENDS IN SELECT SOUTHERN DAD WELLS



## CHLORIDE CONCENTRATION TRENDS NORTHERN DAD WELLS



# CHLORIDE CONCENTRATION TRENDS SOUTHERN DAD WELLS

