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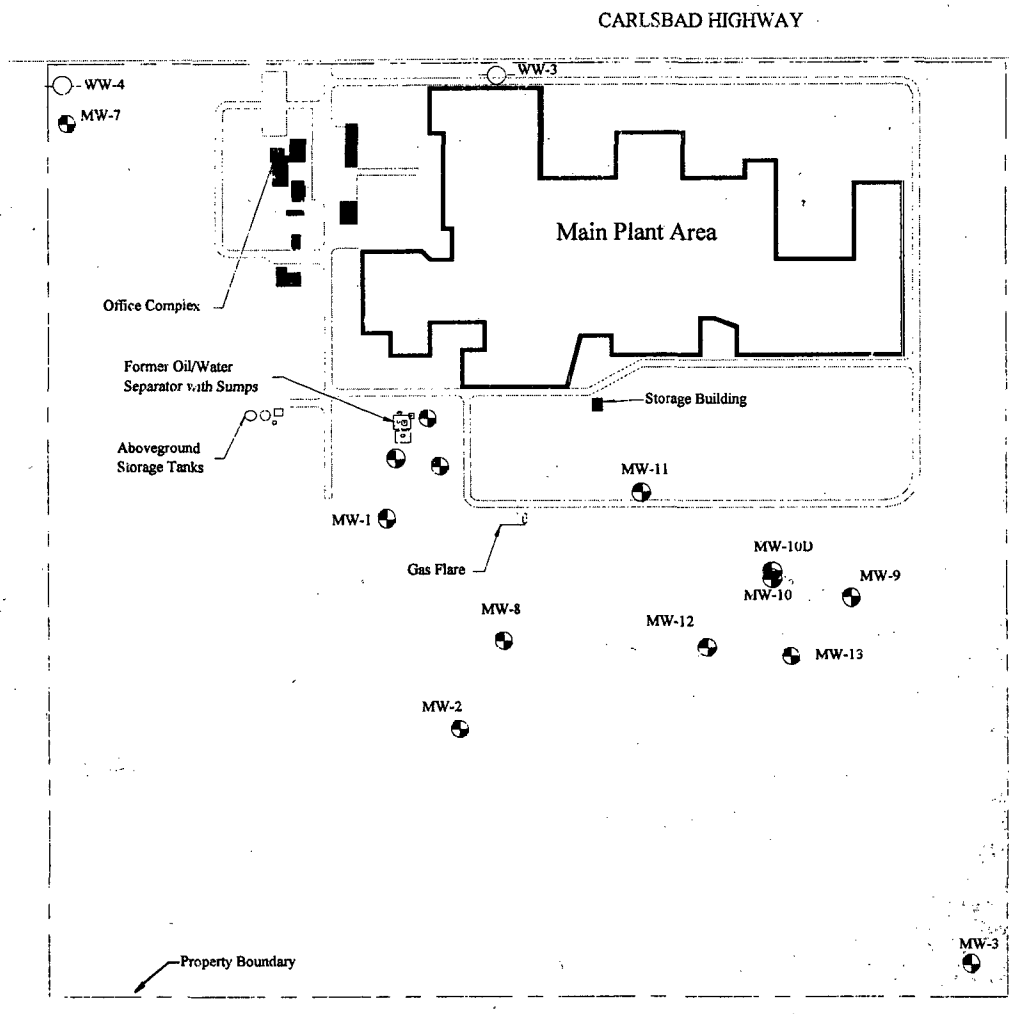
MONITORING REPORTS

DATE:

2004

2004 Annual Groundwater Sampling and Monitoring Report
Duke Energy Field Services
Linam Ranch Natural Gas Plant
Township 19 South, Range 37 East, Section 6
Lea County, New Mexico

OCTOBER 28, 2004



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Duke Energy Field Services
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1.0 Executive Summary

Trident Environmental (Trident) was retained by Duke Energy Field Services (DEFS) to perform the sampling and monitoring operations at the Linam Ranch Plant which is located approximately 8 miles west of Hobbs, New Mexico on State Highway 62/180. The legal description of the site is described as the north half of section 6 in township 19 south, range 37 east in Lea County, New Mexico. This 2004 Annual Groundwater Monitoring Report documents the two semi-annual sampling events performed by Trident at the DEFS Linam Ranch Plant on March 16, 2004 and August 18-19, 2004. This report also contains the historical groundwater elevation and analytical data and includes data from all monitoring wells on site. The monitoring and sampling program was conducted in accordance with the revised monitoring plan specified by Mr. Bill Olson of the New Mexico Oil Conservation Division (OCD) in his letter dated March 19, 1999.

Based on the sampling and monitoring data to date, the following conclusions relevant to groundwater conditions at the Linam Ranch Plant are evident:

- Benzene, toluene, ethylbenzene, and xylene (BTEX) concentrations in monitoring wells MW-1, MW-2, MW-3, MW-7, MW-8, MW-9, MW-11, MW-12 and MW-13 were below the New Mexico Water Quality Control Commission (WQCC) standards for each constituent.

- Benzene levels in MW-4 (16.6 mg/L), MW-5 (0.012 mg/L), MW-10 (1.30 mg/L), and MW-10D (0.011 mg/L), exceed the WQCC standard of 0.010 mg/L. The toluene, ethylbenzene, and xylene concentrations were below WQCC standards for each of these wells.

- The dissolved-phase hydrocarbons in groundwater are localized near the former oil/water separator system (former liquid waste disposal area) and the former EOTT tank area. There are no indications that the hydrocarbon plume in the groundwater has migrated beyond the boundaries of the facility.

- As of October 18, 2004, the light non-aqueous phase liquids (LNAPL) recovery activities at Linam Ranch Plant have been successful at removing a total of approximately 30.2 gallons of LNAPL (condensate) from monitoring wells MW-4 and MW-6. Approximately 10.6 gallons of LNAPL was recovered during the first 10 months of 2004. Although the measured thickness of LNAPL in MW-4 had been at or below 0.01 feet since February 17, 2002 until increasing to 0.32 feet on April 29, 2004, it has since returned to 0.00 feet on October 18, 2004. The LNAPL thickness in MW-6 has varied from 0.09 feet on September 9, 2004, to 2.11 feet on October 18, 2004. The minimal LNAPL thickness in monitoring well MW-4 has allowed groundwater samples to be collected during the last two years.

- Based on the historical results of the inorganic analyses, the groundwater in the site area is not adversely affected or impacted with dissolved metals or major ions. Although iron and manganese concentrations exceed WQCC standards in some monitoring wells, increased levels of these constituents indicate intrinsic bioremediation processes are active.

- Continued semi-annual sampling is necessary to monitor plume stability and to evaluate the effectiveness of natural attenuation in limiting the downgradient migration of the plume.

The following corrective actions are recommended for Linam Ranch Plant.

- Continue the sampling and monitoring program on a semi-annual basis. The next sampling event is scheduled during the first quarter of 2005.

- Continue LNAPL removal from MW-4 and MW-6 using absorbent socks or passive bailers with monthly inspections. Obtain groundwater samples from these two wells if the LNAPL thickness is less than 0.01 feet.

2.0 Chronology of Events

February 7, 1994	Geoscience Consultants Ltd (GCL) was retained by ENRON Operations Corporation (ENRON) to address groundwater quality conditions at the Hobbs Gas Plant, which was scheduled for acquisition by GPM. As part of a subsurface investigation for two areas within the plant, GCL completed temporary drive point wells DP-1 and DP-2 downgradient and upgradient, respectively, of the EOTT tanks, and one monitoring well, MW-8, downgradient of the former liquid waste disposal area. Hydrocarbon-impacted groundwater was identified in DP-1.
May 18-22, 1994	Daniel B. Stevens and Associates (DBS&A) completed seven temporary drive point wells (EOTT-1 through EOTT-7) to delineate the horizontal extent of hydrocarbon-impacted soils and groundwater in the EOTT tank area. Drive point well EOTT-6 was converted into monitoring well MW-9. Hydrocarbon-impacted groundwater was identified east of the EOTT tanks.
October 7, 1994	The OCD requested ENRON to provide a work plan to completely define the extent of groundwater contamination at the Hobbs Gas Plant.
November 1994	GPM acquired ownership and operation of the Linam Ranch Plant (formerly Hobbs Gas Plant) from ENRON.
February 23, 1995	GPM submitted a subsurface investigation work plan to the OCD to address the groundwater conditions at Linam Ranch Plant.
April 5, 1995	The OCD approved the subsurface investigation work plan.
May 10-13, 1995	GCL completed a subsurface investigation for GPM to delineate the extent of the hydrocarbon-impacted groundwater. The investigation included the installation and sampling of five monitoring wells (MW-10D, MW-10, MW-11, MW-12, and MW-13) and two soils borings (SB-1 and SB-2).
September 18, 1995	GPM submitted the *Subsurface Investigation and Preliminary Remedial Response* report for the Linam Ranch Plant to the OCD.
October 19, 1995	The OCD approved GPM's recommendations for remedial action, which included a quarterly sampling and monitoring program.
November 14, 1995	GCL conducted the fourth quarter 1995 sampling event at Linam Ranch Plant.
January 17, 1996	GCL conducted the first quarter 1996 sampling event at Linam Ranch Plant.
April 24, 1996	GCL conducted the annual (second quarter 1996) sampling event at Linam Ranch Plant. The annual report included recommendations to the OCD for continued monitoring on a semi-annual basis.
January 22, 1997	BDM International, Inc. (formerly GCL) conducted the semi-annual (first quarter 1997) sampling event.

February 5, 1997	The OCD approved GPM's recommendations for continued monitoring on a semi-annual basis.
August 15, 1997	BDM International, Inc. (BDM) conducted the third quarter 1997 (annual) sampling event.
December 11, 1997	GPM submitted the 1997 Annual Groundwater Monitoring and Sampling Report to the OCD.
January 22, 1998	BDM, a wholly owned subsidiary of TRW, conducted the semi-annual (first quarter 1998) sampling event.
March 25, 1998	The OCD approved GPM's recommendations for continued monitoring on a semi-annual basis.
July 22, 1998	TRW conducted the third quarter 1998 (annual) sampling event.
December 4, 1998	GPM submitted the 1998 Annual Groundwater Monitoring and Sampling Report to the OCD.
February 9, 1999	TRW conducted the semi-annual (first quarter 1999) sampling event.
February 10, 1999	GPM submitted a request to revise the monitoring plan to the OCD. The request proposed additional downgradient monitoring in the area of the EOTT tanks (MW-3) in lieu of installing additional wells. The request also proposed expanding the monitoring program to include semi-annual sampling of monitoring wells in the vicinity of the former liquid waste disposal area.
March 19, 1999	The OCD approved GPM's proposed request to revise the monitoring plan.
August 24-25, 1999	TRW conducted the annual (third quarter 1999) sampling event.
October 26, 1999	TRW conducted a site visit to empty the passive bailer in MW-4 and check the absorbent sock in MW-6.
November 22, 1999	TRW conducted a site visit to empty the passive bailer in MW-4 and replace the absorbent sock in MW-6.
December 20, 1999	TRW conducted a site visit to empty the passive bailer in MW-4 and check the absorbent sock in MW-6.
January 26, 2000	TRW conducted a site visit to empty the passive bailer in MW-4 and replace the absorbent sock in MW-6.
February 22-23, 2000	TRW conducted the semi-annual (first quarter 2000) sampling event. Groundwater samples were recovered from MW-1, MW-2, MW-3, MW-5, MW-7, MW-8, MW-9, MW-10, MW-10D, MW-11, MW-12, and MW-13. The passive bailer in MW-4 was emptied and the absorbent sock in MW-6 was removed.

April 4, 2000	TRW conducted a site visit to empty the passive bailer in MW-4 and gauge the product thickness in MW-4 and MW-6.
April 24, 2000	TRW conducted a site visit to empty the passive bailer in MW-4, gauge the product thickness in MW-4 and MW-6, and install a new absorbent sock in MW-6.
June 15, 2000	TRW conducted a site visit to gauge the product thickness in MW-4 and MW-6, empty the passive bailer in MW-4, and replace the absorbent sock in MW-6.
July 12, 2000	TRW conducted a site visit to gauge the product thickness in MW-4 and MW-6, empty the passive bailer in MW-4, and check the absorbent sock in MW-6. Product from the sock in MW-6 was squeezed out and returned to the well.
August 17-18, 2000	TRW conducted the annual (third quarter 2000) sampling event. Groundwater samples were recovered from MW-1, MW-2, MW-3, MW-5, MW-7, MW-8, MW-9, MW-10, MW-10D, MW-11, MW-12, and MW-13. The passive bailer in MW-4 was emptied and replaced with an absorbent sock. The absorbent sock in MW-6 was checked and replaced.
October 2, 2000	TRW conducted a site visit to gauge the product thickness and check and/or replace the absorbent socks in MW-4 and MW-6.
December 14, 2000	TRW conducted a site visit to gauge the product thickness and check and/or replace the absorbent socks in MW-4 and MW-6.
January 23, 2001	TRW conducted a site visit to gauge the product thickness and check and/or replace the absorbent socks in MW-4 and MW-6.
February 6-7, 2001	TRW conducted the semi-annual (first quarter 2001) sampling event. Groundwater samples were recovered from MW-1, MW-2, MW-3, MW-5, MW-7, MW-8, MW-9, MW-10, MW-10D, MW-11, MW-12, and MW-13. The absorbent socks in MW-4 and MW-6 were checked and/or replaced.
March 21, 2001	TRW conducted a site visit to gauge the product thickness and check and/or replace the absorbent socks in MW-4 and MW-6.
May 1, 2001	Trident Environmental acquired the Midland Texas resources of TRW, Inc.
May 16, 2001	Trident conducted a site visit to gauge the product thickness and check and/or replace the absorbent socks in MW-4 and MW-6.
June 19, 2001	Trident conducted a site visit to gauge the product thickness and check and/or replace the absorbent socks in MW-4 and MW-6.

July 20, 2001	Trident conducted a site visit to gauge the product thickness and check and/or replace the absorbent socks in MW-4 and MW-6.
August 2-3, 2001	Trident conducted the annual (third quarter 2001) sampling event. Groundwater samples were recovered from MW-1, MW-2, MW-3, MW-5, MW-7, MW-8, MW-9, MW-10, MW-10D, MW-11, MW-12, and MW-13. The absorbent socks in MW-4 and MW-6 were checked and replaced.
September 11, 2001	Trident conducted a site visit to gauge the product thickness and check and/or replace the absorbent socks in MW-4 and MW-6.
October 9, 2001	Trident conducted a site visit to gauge the product thickness and check and/or replace the absorbent socks in MW-4 and MW-6.
November 8, 2001	Trident conducted a site visit to gauge the product thickness and check and/or replace the absorbent socks in MW-4 and MW-6.
December 10, 2001	Trident conducted a site visit to gauge the product thickness and check and/or replace the absorbent socks in MW-4 and MW-6.
January 14, 2002	Trident conducted a site visit to gauge the product thickness and check and/or replace the absorbent socks in MW-4 and MW-6.
February 17, 2002	Trident conducted a site visit to gauge the product thickness and check and/or replace the absorbent socks in MW-4 and MW-6.
March 11-12, 2002	Trident conducted the semi-annual (first quarter 2002) sampling event. Groundwater samples were recovered from MW-1, MW-2, MW-3, MW-4, MW-5, MW-7, MW-8, MW-9, MW-10, MW-10D, MW-11, MW-12, and MW-13. The absorbent socks in MW-4 and MW-6 were checked and/or replaced.
April 9, 2002	Trident conducted a site visit to gauge the product thickness and check and/or replace the absorbent socks in MW-4 and MW-6.
May 14, 2002	Trident conducted a site visit to gauge the product thickness and check and/or replace the absorbent socks in MW-4 and MW-6.
June 18, 2002	Trident conducted a site visit to gauge the product thickness and check and/or replace the absorbent socks in MW-4 and MW-6.
July 11, 2002	Trident conducted a site visit to gauge the product thickness and check and/or replace the absorbent socks in MW-4 and MW-6.
August 14, 2002	Trident conducted a site visit to gauge the product thickness and check and/or replace the absorbent socks in MW-4 and MW-6.

September 25-26, 2002	Trident conducted the annual (third quarter 2002) sampling event. Groundwater samples were recovered from MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, MW-7, MW-8, MW-9, MW-10, MW-10D, MW-11, MW-12, and MW-13. The absorbent socks in MW-4 and MW-6 were checked and replaced.
October 24, 2002	Trident conducted a site visit to gauge the product thickness and check and/or replace the absorbent socks in MW-4 and MW-6.
November 22, 2002	Trident conducted a site visit to gauge the product thickness and check and/or replace the absorbent socks in MW-4 and MW-6.
December 17, 2002	Trident conducted a site visit to gauge the product thickness and check and/or replace the absorbent socks in MW-4 and MW-6.
January 14, 2003	Trident conducted a site visit to gauge the product thickness and check and/or replace the absorbent socks in MW-4 and MW-6.
February 19, 2003	Trident conducted a site visit to gauge the product thickness and check and/or replace the absorbent socks in MW-4 and MW-6.
March 11-12, 2003	Trident conducted the semi-annual (first quarter 2003) sampling event. Groundwater samples were recovered from MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, MW-7, MW-8, MW-9, MW-10, MW-10D, MW-11, MW-12, and MW-13. The absorbent socks in MW-4 and MW-6 were checked and/or replaced.
April 23, 2003	Trident conducted a site visit to gauge the product thickness and check and/or replace the absorbent socks in MW-4 and MW-6.
May 29, 2003	Trident conducted a site visit to gauge the product thickness and recover product from the absorbent socks in MW-4 and MW-6. The absorbent sock in MW-6 was replaced with a passive bailer.
June 23, 2003	Trident conducted a site visit to gauge product thickness, and recover product from the absorbent sock in MW-4 and the passive bailer in MW-6.
July 30, 2003	Trident conducted a site visit to gauge product thickness, and recover product from the absorbent sock in MW-4 and the passive bailer in MW-6.
August 20, 2003	Trident conducted a site visit to gauge product thickness, and recover product from the absorbent sock in MW-4 and the passive bailer in MW-6.
September 17-18, 2003	Trident conducted the annual (third quarter 2003) sampling event. Groundwater samples were recovered from MW-1, MW-2, MW-3, MW-4, MW-5, MW-7, MW-8, MW-9, MW-10, MW-10D, MW-11, MW-12, and MW-13. The absorbent socks in MW-4 and MW-6 were checked and replaced.

October 28/30, 2003	Trident conducted a site visit to gauge product thickness, and recover product from the absorbent sock in MW-4 and the passive bailer in MW-6.
November 21, 2003	Trident conducted a site visit to gauge product thickness, and recover product from the absorbent sock in MW-4 and the passive bailer in MW-6.
December 8/30, 2003	Trident conducted a site visit to gauge product thickness, and recover product from the absorbent sock in MW-4 and the passive bailer in MW-6.
January 15, 2004	Trident conducted a site visit to gauge product thickness, and recover product from the absorbent sock in MW-4 and the passive bailer in MW-6.
February 18, 2004	Trident conducted a site visit to gauge product thickness, and recover product from the absorbent sock in MW-4 and the passive bailer in MW-6.
March 16, 2004	Trident conducted the semi-annual (first quarter 2004) sampling event. Groundwater samples were recovered from MW-1, MW-2, MW-3, MW-4, MW-5, MW-7, MW-8, MW-9, MW-10, MW-10D, MW-11, MW-12, and MW-13. Product was recovered from the absorbent sock in MW-4 and passive bailer in MW-6.
April 28, 2004	Trident conducted a site visit to gauge product thickness, and recover product from the absorbent sock in MW-4 and the passive bailer in MW-6.
May 26, 2004	Trident conducted a site visit to gauge product thickness, and recover product from the absorbent sock in MW-4 and the passive bailer in MW-6.
June 30, 2004	Trident conducted a site visit to gauge product thickness, and recover product from the absorbent sock in MW-4 and the passive bailer in MW-6.
July 31, 2004	Trident conducted a site visit to gauge product thickness, and recover product from the absorbent sock in MW-4 and the passive bailer in MW-6.
August 17, 2004	Trident conducted the annual (third quarter 2004) sampling event. Groundwater samples were recovered from MW-1, MW-2, MW-3, MW-4, MW-5, MW-7, MW-8, MW-9, MW-10, MW-10D, MW-11, MW-12, and MW-13. Product was recovered from the absorbent sock in MW-4 and passive bailer in MW-6.
October 18, 2004	Trident conducted a site visit to gauge product thickness, and recover product from the absorbent sock in MW-4 and the passive bailer in MW-6.

3.0 Procedures

During each sampling event, all on-site monitoring wells were gauged for depth to groundwater using a Solinst Model 101 water level indicator with the exception of MW-4 and MW-6, which were gauged using a GeoTech electronic water/product interface probe. During both sampling events in 2004 all of the monitoring wells were sampled, with the exception of MW-6 due to presence of LNAPL. Immediately prior to collecting groundwater samples, the wells were purged using a decontaminated submersible pump, or purged by hand using a decontaminated PVC bailer. Groundwater parameters, including pH, conductivity, temperature, and dissolved oxygen (DO) were measured during and after purging using a Milwaukee Model SM600 DO meter, and a Hanna Model 98130 pH, conductivity, and temperature meter. Groundwater samples were collected after these parameters stabilized. A total of 363 gallons of water was purged from monitoring wells during the two 2004 sampling events. Groundwater samples were obtained using a new, clean, disposable bailer for each well after purging.

The first set of water samples were transferred into air-tight, septum-sealed, 40-ml glass VOA sample vials with zero head space for BTEX analysis using EPA Method 8021B. The next set of water samples were transferred into appropriately preserved containers for analysis of nitrate (NO_3) and sulfate (SO_4), to assess the efficacy of intrinsic bioremedial activity currently taking place. The annual sampling event conducted on August 18-19, 2004, included a third and fourth set of water samples that were transferred into appropriately preserved containers for analysis of chlorides and total dissolved solids (TDS) and WQCC metals (arsenic, barium, iron, and manganese). Samples for metals analysis were filtered in the field with a 45mm element. Ferrous iron could not be measured in the field due to the malfunctioning of the Hach DR2010 spectrophotometer (Hach Method 8146). A summary of purging and sampling methods is provided on Table 1. Chain-of-custody (COC) forms documenting sample identification numbers, collection times, and delivery times to the laboratories were completed for each set of samples. The water samples were placed in an ice-filled cooler immediately after collection. All samples were shipped to Trace Analysis, Inc. of Lubbock, Texas for laboratory analysis with the exception of those delivered to Cardinal Laboratories in Hobbs, New Mexico in order to meet the 48 hour holding time for nitrate analysis.

4.0 Groundwater Elevations, Hydraulic Gradient and Flow Direction

Based on the most recent gauging data collected by Trident on August 17, 2004, the groundwater conditions at the Linam Ranch Plant are characterized below.

- The depth to the water table averages approximately 47 feet below ground surface and varies from a low of 35.70 feet at MW-2 to a high of 55.56 at MW-7.
- The hydraulic gradient is approximately 0.0068 feet/foot.
- The direction of groundwater flow is to the northeast.
- The water table elevation has decreased an average of 0.2 feet across the site since May 1995.

Groundwater elevation maps depicting the water table elevation and direction of groundwater flow using the gauging data obtained during the two year 2004 sampling events are presented in Figure 1A (March 16, 2004) and Figure 1B (August 17, 2004). Historical groundwater elevations and depth to water measurements are summarized on Table 2, and depicted graphically in Figure 2.

The direction of groundwater flow and hydraulic gradient had remained consistent for the past nine years, with groundwater elevations steadily decreasing at the rate of approximately 0.2 feet per year during this time. However, during the most recent monitoring event in August 2004, groundwater elevations have returned to similar levels as in 1995. Also, the groundwater gradient has more than doubled in magnitude and changed in direction from southeast to northeast. This recent change is attributed to the higher than normal rainfall experienced in southeast New Mexico this summer and resultant recharge to the aquifer, particularly in the natural depression located between MW-2 and MW-4. As climatic (rainfall) conditions return to normal the magnitude of the groundwater gradient and direction of groundwater flow are expected to return to approximately 0.003 feet/foot in the southeast direction. Also, the 0.2 feet per year decline trend in groundwater elevation is expected to resume.

5.0 Groundwater Quality Conditions

5.1 Distribution of Hydrocarbons in Groundwater

A historical listing of BTEX concentrations obtained from the on site monitoring wells is summarized in Table 3. Hydrocarbon concentration maps depicting the BTEX concentrations for the two 2004 sampling events are presented in Figure 3A (March 16, 2004) and Figure 3B (August 18-19, 2004). Figures 4 (A through H) graphically depict the BTEX concentrations in groundwater and the groundwater elevations versus time (monitoring period) for monitoring wells MW-4, MW-5, MW-6, MW-9, MW-10, MW-10D, MW-11, and MW-13, respectively.

Based on the analytical results, the distribution of hydrocarbons at the Linam Ranch Plant is described below.

- BTEX concentrations in monitoring wells MW-1, MW-2, MW-3, MW-7, MW-8, MW-9, MW-11, MW-12 and MW-13 were below the WQCC standards for each constituent.
- Benzene levels in MW-4 (16.6 mg/L), MW-5 (0.012 mg/L), MW-10 (1.30 mg/L), and MW-10D (0.011 mg/L), exceed the WQCC standard of 0.010 mg/L. The toluene, ethylbenzene, and xylene concentrations were below WQCC standards for each of these wells.
- The dissolved-phase hydrocarbons in groundwater are localized near the former oil/water separator system (liquid waste disposal area) and the former EOTT tank area. There are no indications that the hydrocarbon plume in the groundwater has migrated beyond the boundaries of the facility.

5.2 Distribution of WQCC Metals and Ions in Groundwater

Historical groundwater sample analytical results for WQCC metals (aluminum, arsenic, barium, cadmium, chromium, iron, manganese, and silver) and selected ions (chloride and TDS) are presented in Table 4. The WQCC standards are also listed in the table for comparison. Constituents with concentrations above the WQCC standards are highlighted in boldface type. The laboratory reports and COC documentation are included in Appendix A.

Beginning in the 2003 annual sampling event, analyses for aluminum, cadmium, chromium, and silver were discontinued since these constituents have been below WQCC standards for the previous four years (seven years in most cases). However, analysis for arsenic, barium, iron, and manganese were continued. The WQCC standard for iron was exceeded in monitoring wells MW-4 (11.6 mg/L) and MW-5 (7.82 mg/L), and manganese in MW-1 (0.196 mg/L), MW-5 (0.63 mg/L), MW-10 (0.371 mg/L), and MW-10D (0.323 mg/L). The elevated levels of iron and manganese appear to be due to the reduced chemical environment caused by the presence of dissolved hydrocarbons. Under this condition, certain metal ions (particularly manganese and iron) have a greater affinity to go into the dissolved state resulting in higher concentrations. Based on the results of the metal analyses during the annual sampling event, the groundwater in the site area is not adversely affected or impacted with dissolved metals.

During the 2004 annual sampling event, arsenic concentrations were below WQCC standards (0.1 mg/L) and below the laboratory detection limit (0.05 mg/L) for all monitoring wells with the marginal exception of MW-10D (0.111 mg/L). Other than natural conditions, there is no known source that explains the occurrence of arsenic in MW-1 and MW-4.

Barium concentrations were below the WQCC standard of 1.0 mg/L for each monitoring well during the 2004 annual sampling event. Barium concentrations in all monitoring wells have not exceeded the WQCC standard since a slight exceedence of 1.03 mg/L was observed in MW-4 in September 2002. Other than natural conditions, there is no known source that explains the occurrence of barium.

Analyses of chlorides during the annual 2004 sampling event indicate the WQCC standard of 250 mg/L was not exceeded with the exception of MW-4 (696 mg/L), MW-5 (267 mg/L), and MW-13 (258 mg/L). The TDS concentrations in MW-1 (1,510 mg/L), MW-4 (1,720 mg/L), MW-5 (1,450 mg/L), MW-10 (1,090 mg/L), MW-10D (1,110 mg/L), and MW-13 (1,230 mg/L) were slightly above the WQCC standards of 1,000 mg/L. The elevated chloride and TDS levels observed in the aforementioned monitoring wells do not represent a significant risk to human health or the environment. Chloride and TDS concentrations in the remaining monitoring wells were below the WQCC standards.

Since the groundwater on site is not used for potable drinking water, nor will it be in the foreseeable future, and the constituents of concern above WQCC standards are limited to being on site, there is low risk to human health and the environment.

6.0 Monitoring Natural Attenuation

Dissolved oxygen (DO), nitrate (NO_3), sulfate (SO_4), iron (Fe), and manganese (Mn) concentrations are listed in Table 5. Changes in DO, nitrate, and sulfate concentrations with time on the east side and west side of the plant are depicted in Figures 5A, 5B, 6A, 6B, 7A and 7B, respectively.

One approach in assessing the efficacy of natural attenuation, is to observe changes in electron acceptor concentrations over time that may be related to subsurface biodegradation. The relationships in the electron acceptor data are observed:

- The general decline in dissolved oxygen levels on the east side of the plant appears to indicate oxygen utilization during biodegradation processes. DO levels fluctuate over time on the west side of the plant therefore no trend relationship is noted.

- Nitrate and sulfate concentrations fluctuate over time therefore no trend relationship is readily apparent. However, the presence of these constituents as electron acceptors indicate their availability for use by microorganisms in the course of hydrocarbon degradation.

Another approach to analyzing the efficacy of biodegradation is to compare the concentrations of various biological parameters versus the downgradient distance from the source of hydrocarbons. For this reason, monitoring wells were plotted with respect to their distance from the nearest source area on the east side and west side of the plant in Figures 8A and 8B, respectively, to evaluate if any trends were evident. With this analysis the following relationships in the electron acceptor data are observed:

- Generally, DO values are low and benzene values are high within the plume indicating that oxygen is being utilized as an electron acceptor (aerobic respiration).

- Nitrate and sulfate concentrations exhibit decreasing tendencies in the downgradient direction as they are being utilized as electron acceptors indicating denitrification and sulfate reduction processes are occurring.

- Manganese concentrations are higher within the plume indicating that manganese in solute form is a metabolic byproduct resulting from anaerobic biodegradation processes.

- Ferric and ferrous concentrations have been higher within the plume indicating the availability of ferric iron as an electron acceptor and ferrous iron being produced as a metabolic byproduct.

In a third approach, using stoichiometric derivations, the mass of benzene degraded per unit mass of electron acceptor utilized and metabolic byproduct produced was calculated to determine the biodegradation capacity of these constituents relative to the highest and average benzene concentration observed on site. This comparison is summarized in Table 6.

The calculated biodegradation capacity of electron acceptors and metabolic byproducts (105.4 mg/L) exceeds the highest benzene concentration (16.6 mg/L) observed on site by more than a factor of six. The biodegradation capacity of electron acceptors and metabolic byproducts far exceeds the average benzene concentration (1.38 mg/L) observed on site by a ratio of 76 to 1. This indicates that the biodegradation process will continue.

7.0 Free Product Recovery

Hydrophobic adsorbent socks and/or passive bailers have been used in monitoring wells MW-4 and MW-6 to recover free product from the groundwater beneath the former oil/water separator system at Linam Ranch Plant since 1998. The passive bailer in MW-6 was replaced with a larger passive bailer on June 30, 2004 to maximize potential recovery rates.

As of October 18, 2004, the LNAPL recovery activities at Linam Ranch Plant have been successful at removing a total of approximately 30.2 gallons of LNAPL (condensate) from monitoring wells MW-4 and MW-6. Approximately 10.6 gallons of LNAPL was recovered during the first 10 months of 2004.

Although the measured thickness of LNAPL in MW-4 had been at or below 0.01 feet since February 17, 2002 until increasing to 0.32 feet on April 29, 2004, it has since returned to 0.00 feet on October 18, 2004. The LNAPL thickness in MW-6 has varied from 0.09 feet on September 9, 2004, to 2.11 feet on October 18, 2004.

Product thickness and recovery volumes are listed on Table 7. Figures 9A and 9B graphically depict the produce thickness and cumulative recovery versus time for MW-4 and MW-6, respectively.

8.0 Conclusions

Conclusions relevant to groundwater conditions and the remediation performance at the Linam Ranch Plant are presented below.

- BTEX concentrations in monitoring wells MW-1, MW-2, MW-3, MW-7, MW-8, MW-9, MW-11, MW-12, and MW-13 were below the WQCC standards for each constituent.

- Benzene levels in MW-4 (16.6 mg/L), MW-5 (0.012 mg/L), MW-10 (1.30 mg/L), and MW-10D (0.011 mg/L), exceed the WQCC standard of 0.010 mg/L. The toluene, ethylbenzene, and xylene concentrations were below WQCC standards for each of these wells.

- The dissolved-phase hydrocarbons in groundwater are localized near the former oil/water separator system (former liquid waste disposal area) and the former EOTT tank area. There are no indications that the hydrocarbon plume in the groundwater has migrated beyond the boundaries of the facility.

- As of October 18, 2004, the LNAPL recovery activities at Linam Ranch Plant have been successful at removing a total of approximately 30.2 gallons of LNAPL from monitoring wells MW-4 and MW-6. Approximately 10.6 gallons of LNAPL was recovered during the first 10 months of 2004. Although the measured thickness of LNAPL in MW-4 had been at or below 0.01 feet since February 17, 2002 until increasing to 0.32 feet on April 29, 2004, it has since returned to 0.00 feet on October 18, 2004. The LNAPL thickness in MW-6 has varied from 0.09 feet on September 9, 2004, to 2.11 feet on October 18, 2004. The minimal LNAPL thickness in monitoring well MW-4 has allowed groundwater samples to be collected during the last two years.

- Based on the historical results of the inorganic analyses, the groundwater in the site area is not adversely affected or impacted with dissolved metals or major ions. Although iron and manganese concentrations exceed WQCC standards in some monitoring wells, increased levels of these constituents indicate intrinsic bioremediation processes are active.

- As climatic (rainfall) conditions return to normal the magnitude of the groundwater gradient and direction of groundwater flow are expected to return to approximately 0.003 feet/foot in the southeast direction.

- Continued semi-annual sampling is necessary to monitor plume stability and to evaluate the effectiveness of natural attenuation in limiting the downgradient migration of the plume.

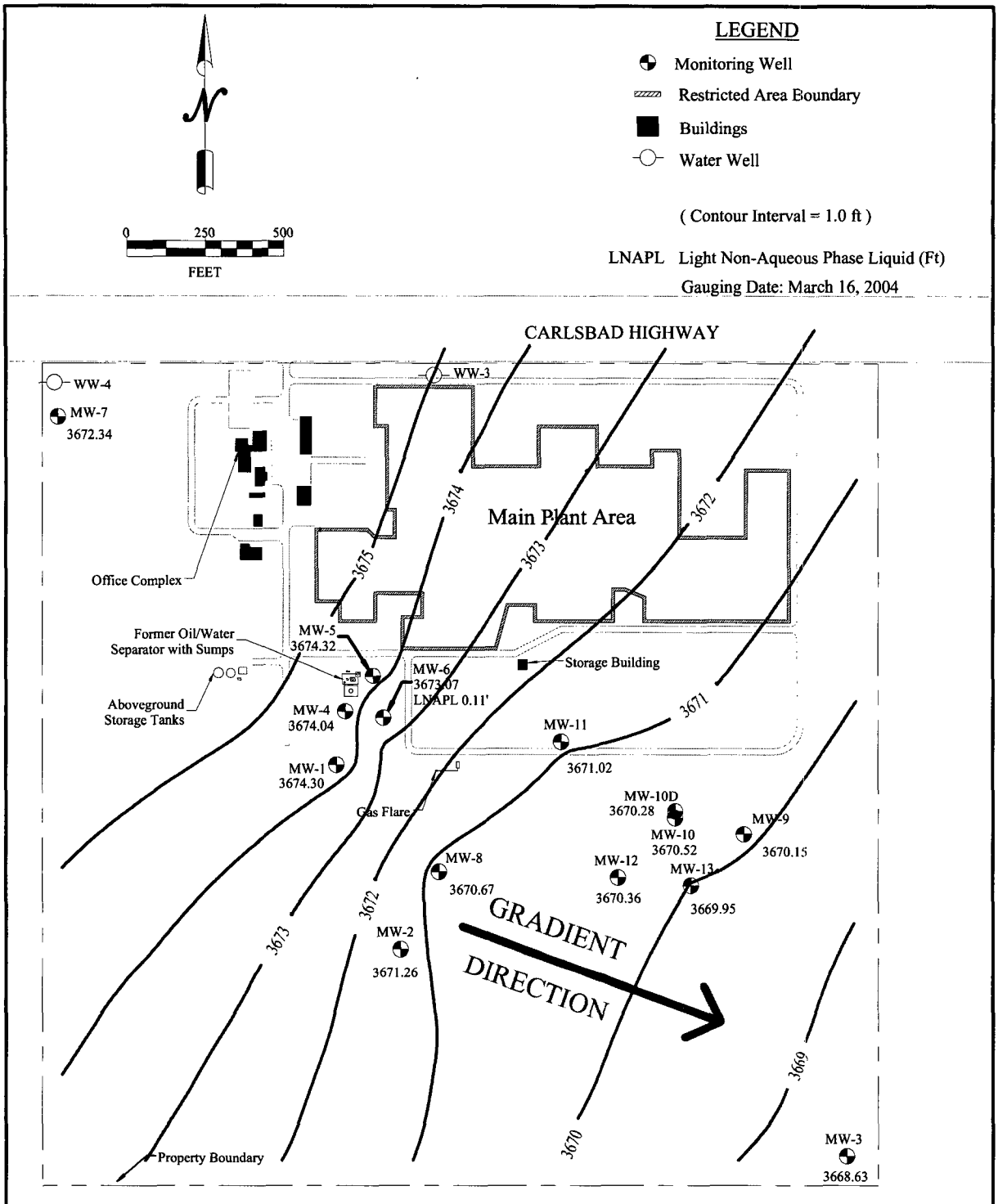
9.0 Recommendations

The following corrective actions are recommended for Linam Ranch Plant.

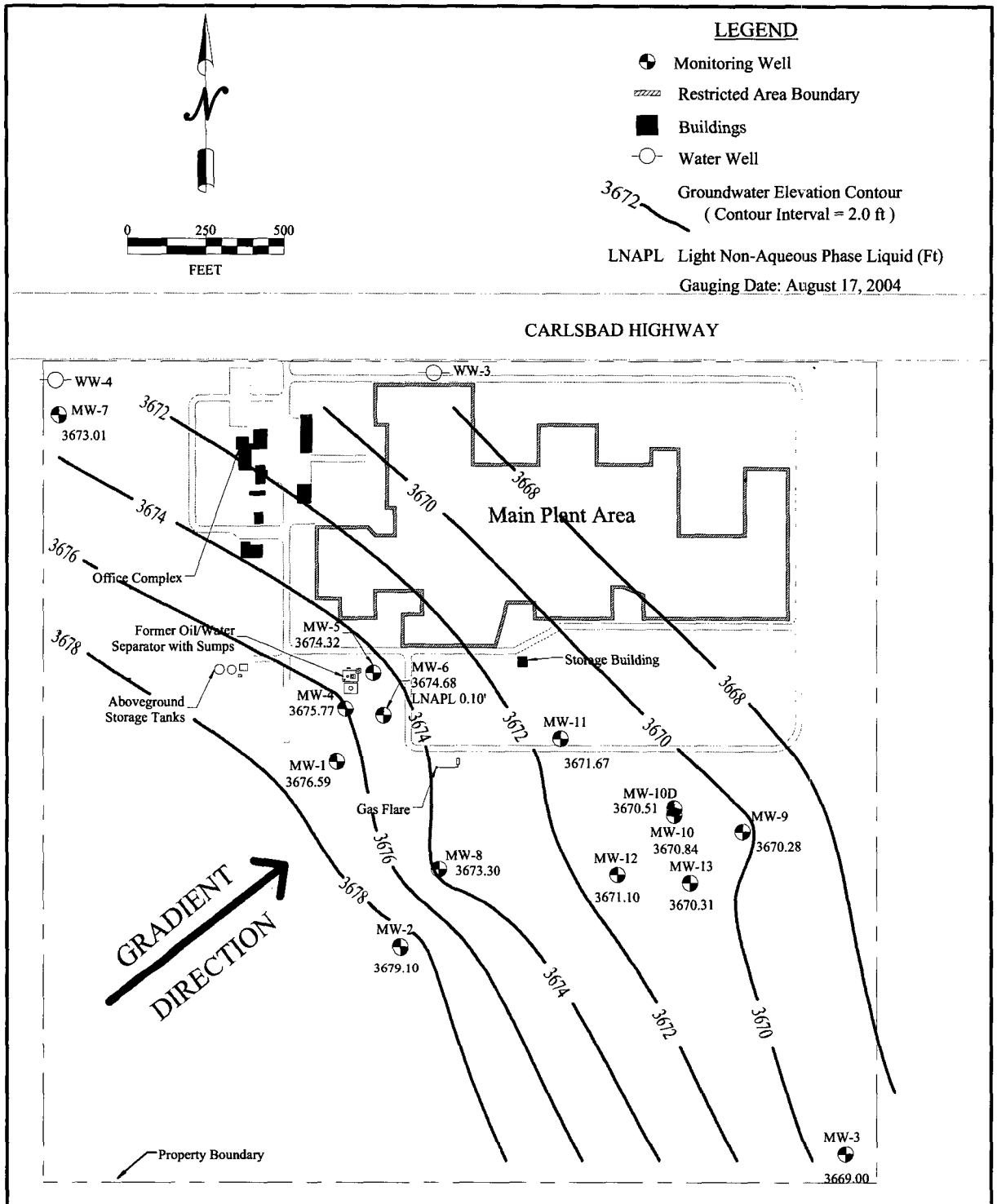
- Continue the sampling and monitoring program on a semi-annual basis. The next sampling event is scheduled during the first quarter of 2005.

- Continue LNAPL removal from MW-4 and MW-6 using absorbent socks or passive bailers with monthly inspections. Obtain groundwater samples from these two wells if the LNAPL thickness is less than 0.01 feet.

FIGURES

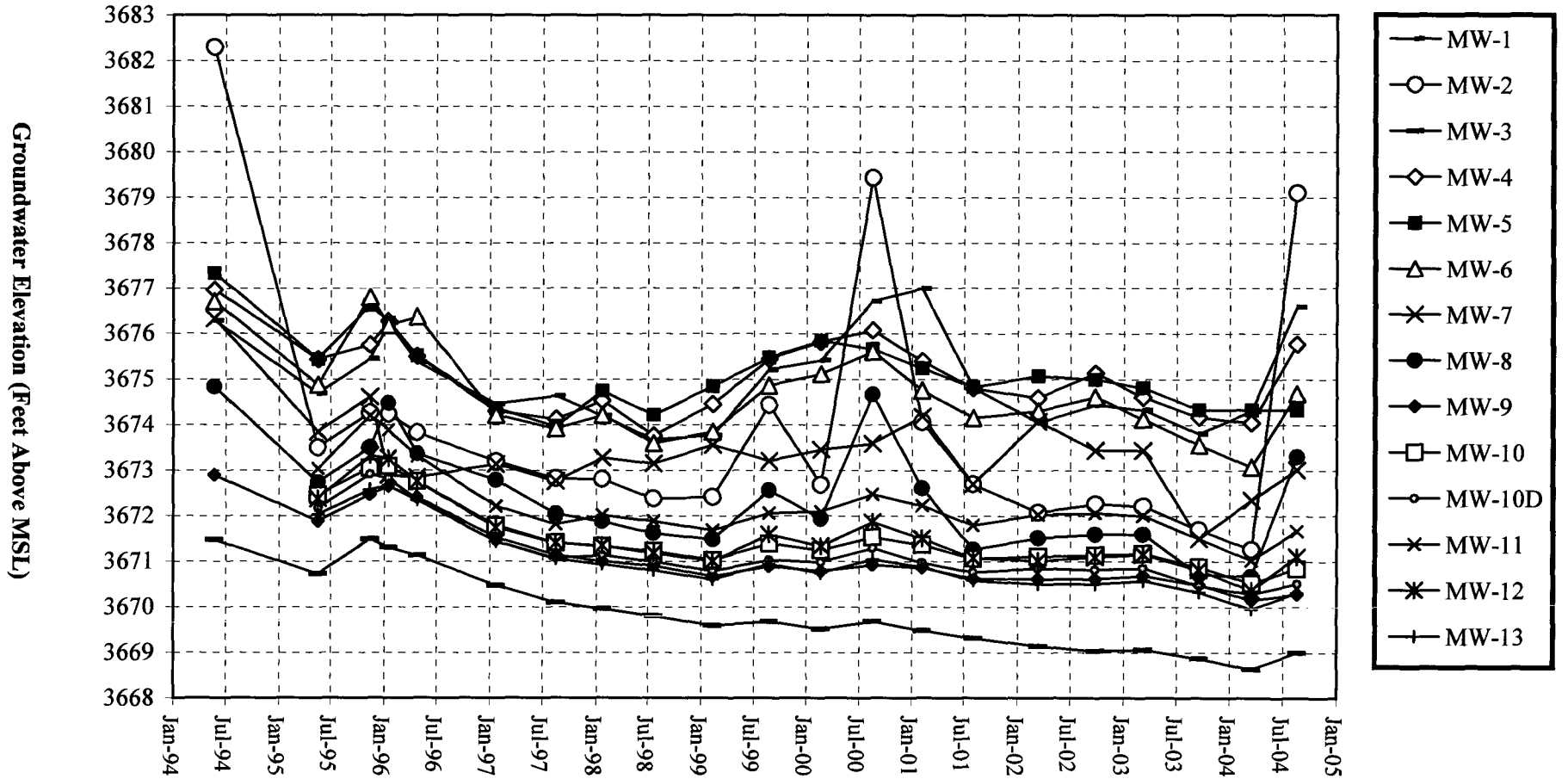


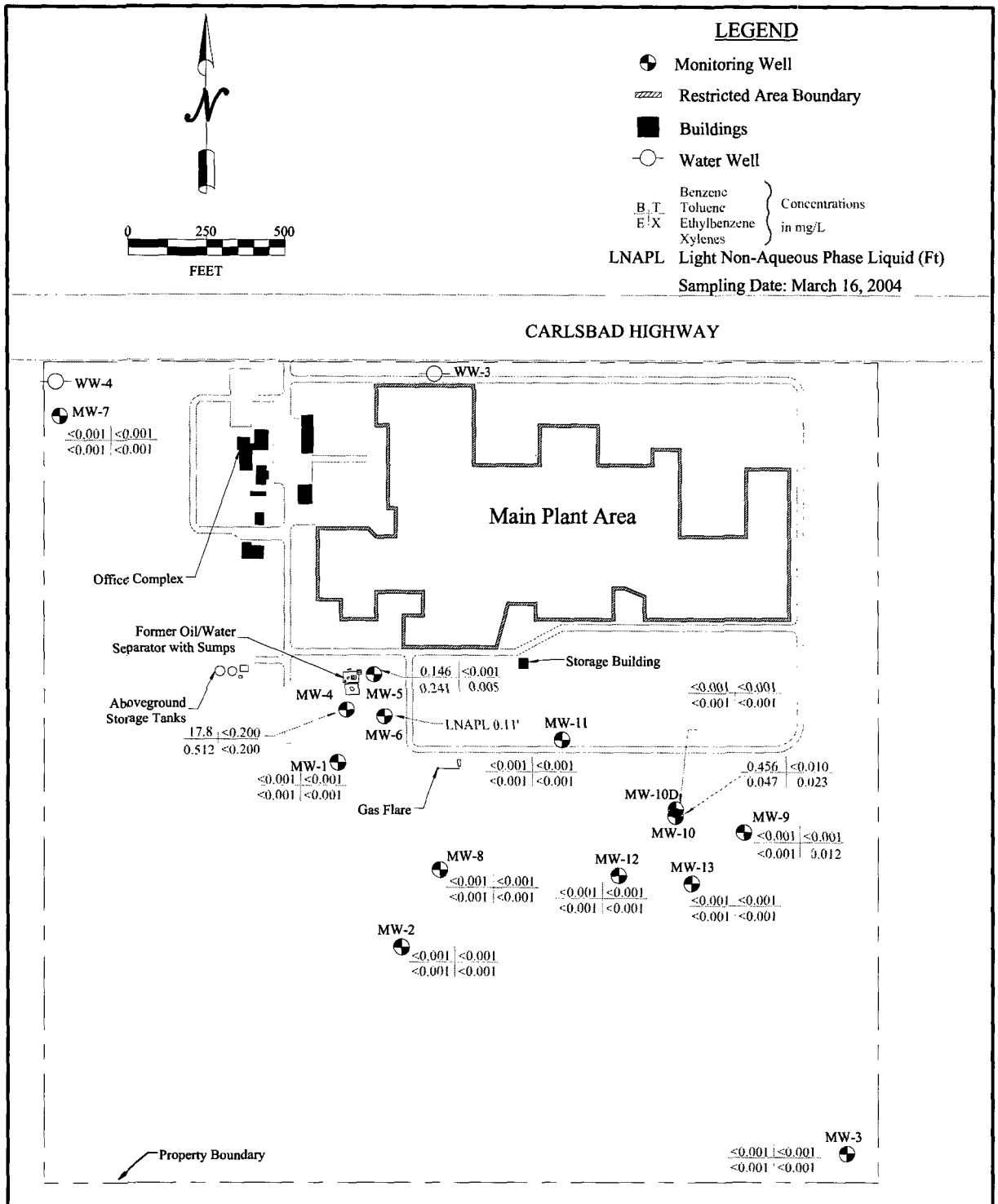
TRIDENT ENVIRONMENTAL	SITE: DEFS - LINAM RANCH PLANT DATE: MARCH 16, 2004 AUTHOR: G. VAN DEVENTER SCALE: 1 IN = 500 FT	Figure 1A GROUNDWATER ELEVATION MAP



TRIDENT ENVIRONMENTAL	SITE: DEFS - LINAM RANCH PLANT DATE: AUGUST 17, 2004 AUTHOR: G. VAN DEVENTER SCALE: 1 IN = 500 FT	Figure 1B GROUNDWATER ELEVATION MAP

FIGURE 2
Groundwater Elevation Versus Time

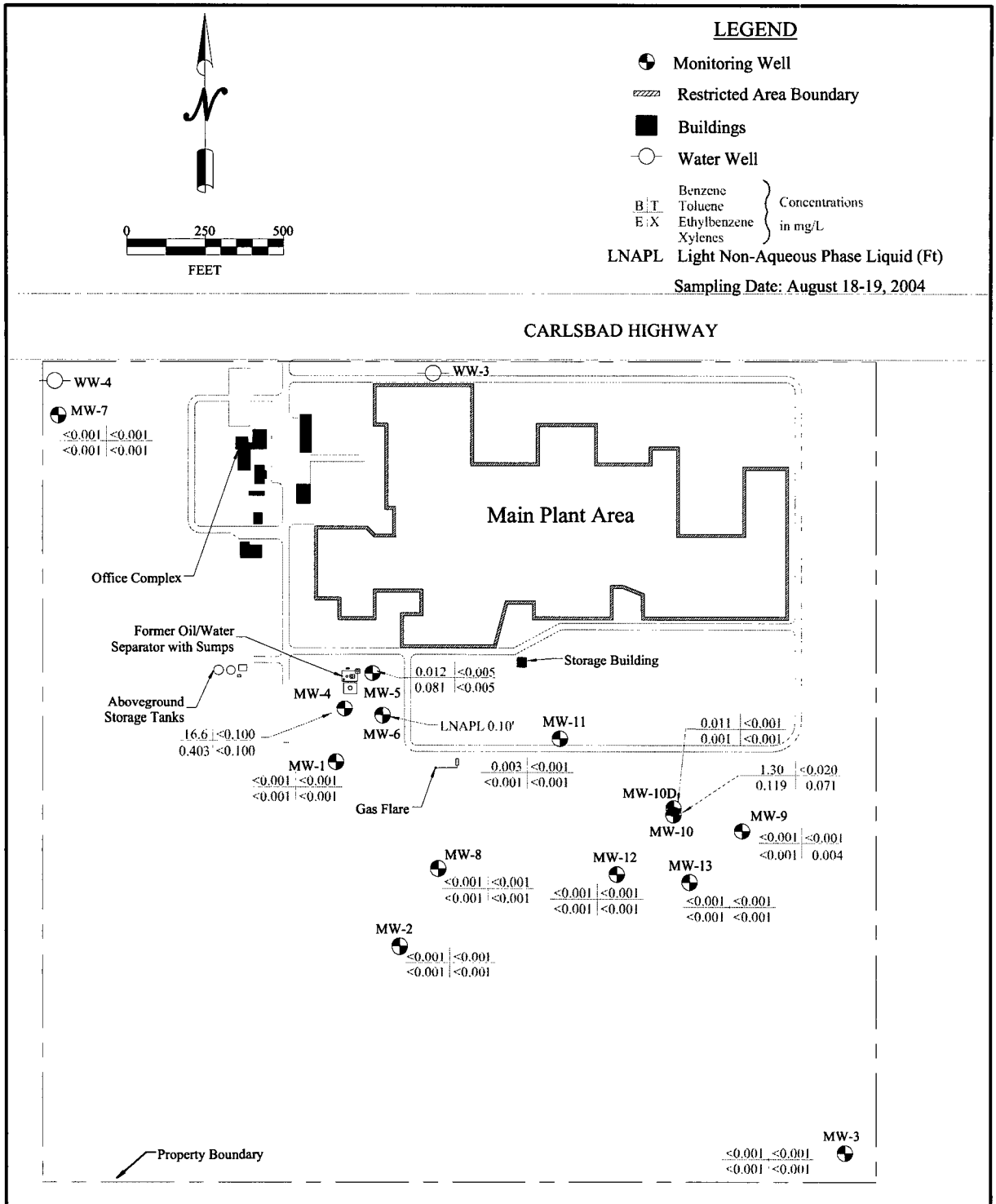




TRIDENT ENVIRONMENTAL	SITE: DEFS - LINAM RANCH PLANT
	SAMPLE DATE: MARCH 16, 2004
	AUTHOR: G. VAN DEVENTER
	SCALE: 1 IN = 500 FT

Figure 3A

BTEX CONCENTRATION MAP



TRIDENT ENVIRONMENTAL	SITE: DEFS - LINAM RANCH PLANT SAMPLE DATE: AUGUST 18-19, 2004 AUTHOR: G. VAN DEVENTER SCALE: 1 IN = 500 FT	Figure 3B BTEX CONCENTRATION MAP

FIGURE 4A
BTEX Concentration and Groundwater Elevation Versus Time (MW-4)

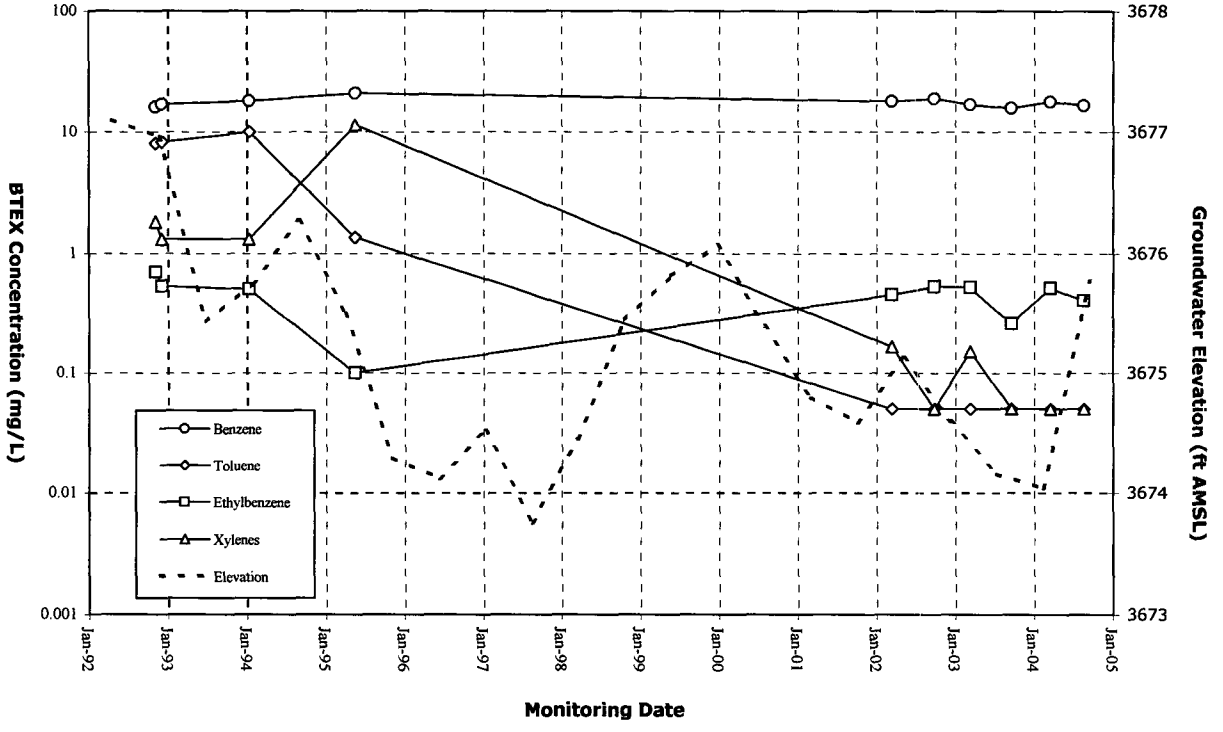


FIGURE 4B
BTEX Concentration and Groundwater Elevation Versus Time (MW-5)

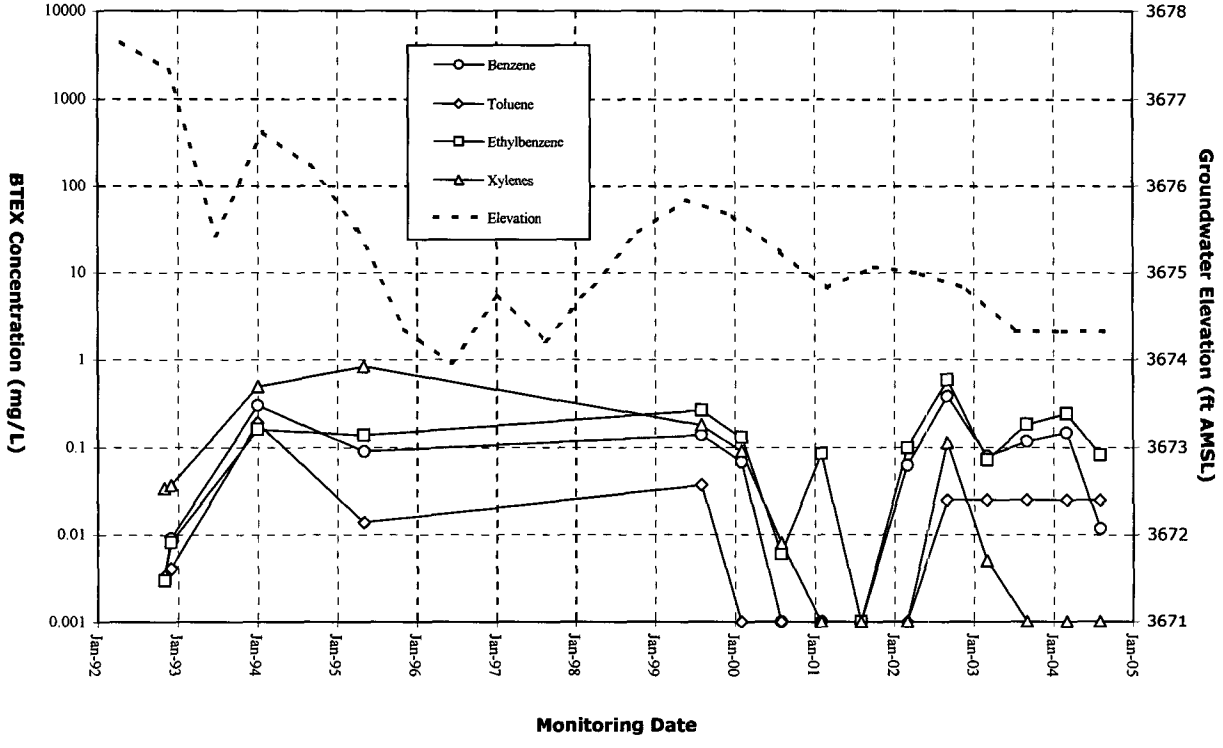


FIGURE 4C
BTEX Concentration and Groundwater Elevation Versus Time (MW-6)

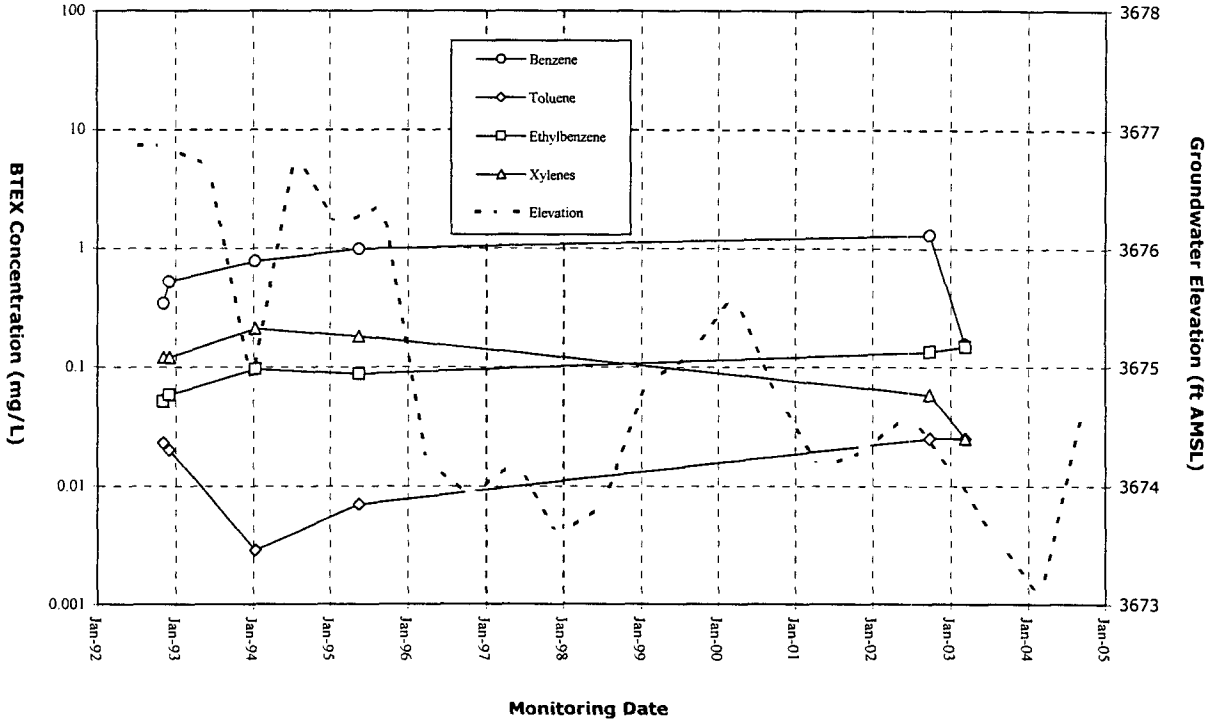


FIGURE 4D
BTEX Concentration and Groundwater Elevation Versus Time (MW-9)

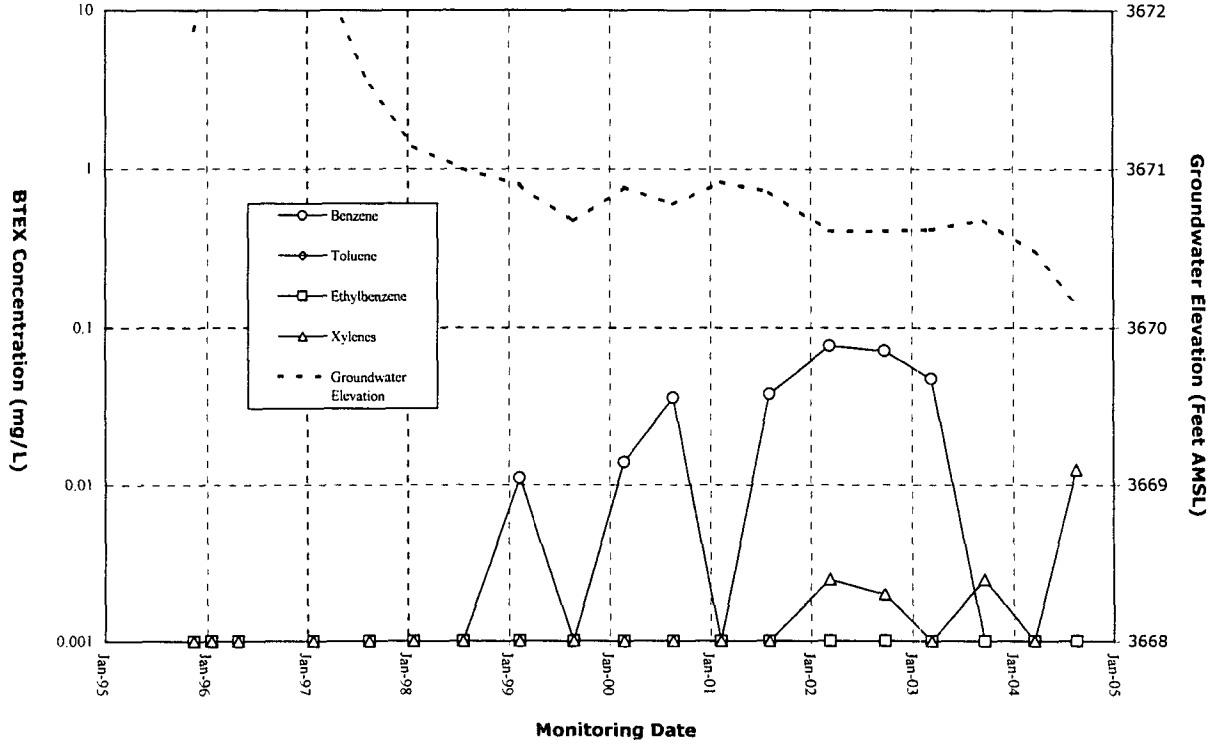


FIGURE 4E
BTEX Concentration and Groundwater Elevation Versus Time (MW-10)

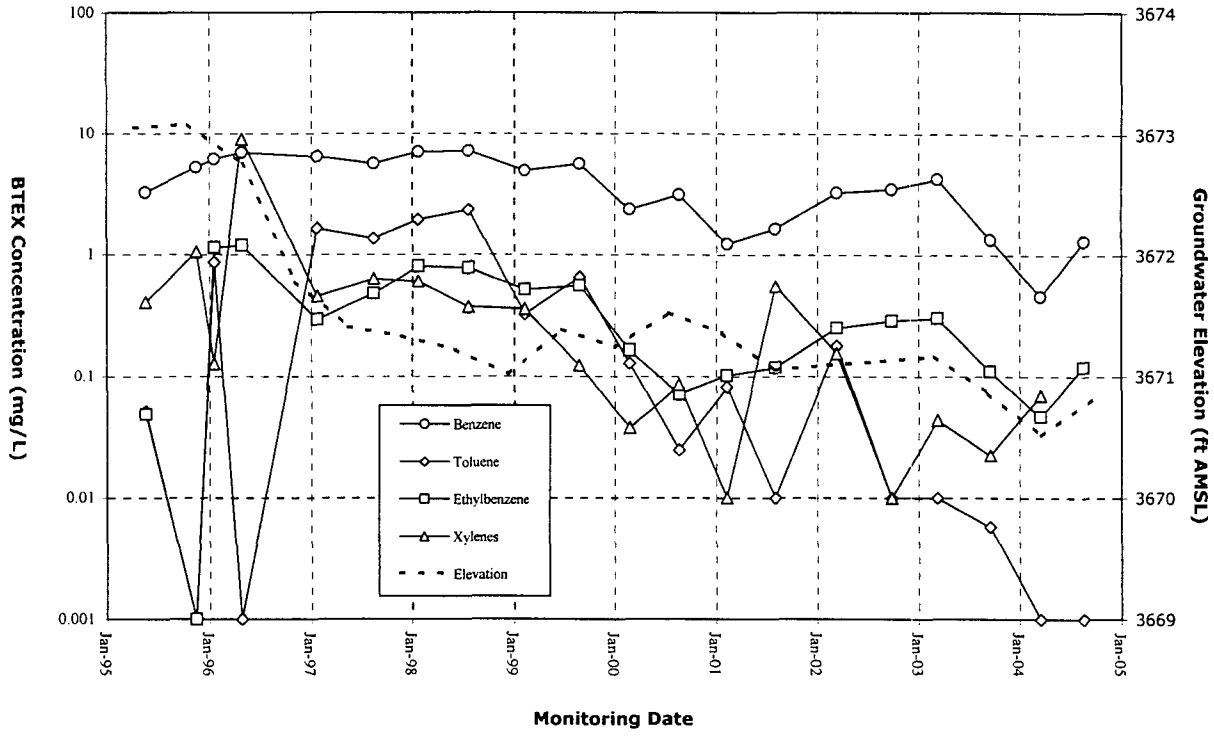


FIGURE 4F
BTEX Concentration and Groundwater Elevation Versus Time (MW-10D)

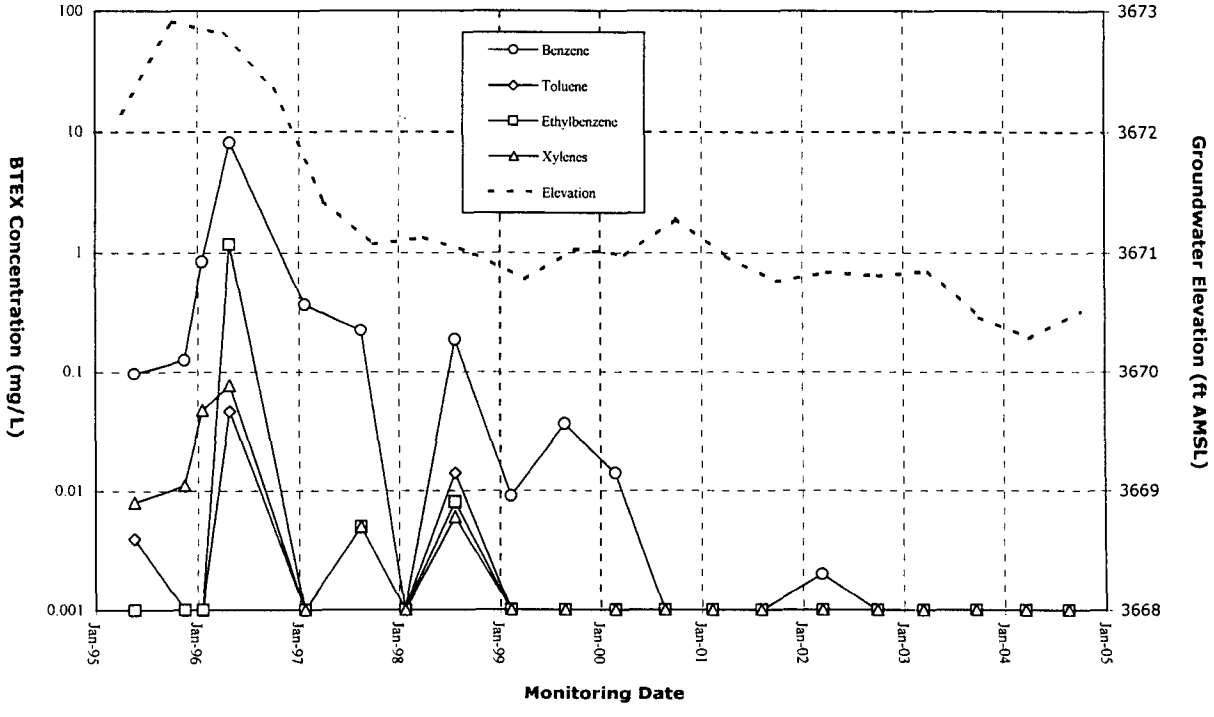


FIGURE 4G
BTEX Concentration and Groundwater Elevation Versus Time (MW-11)

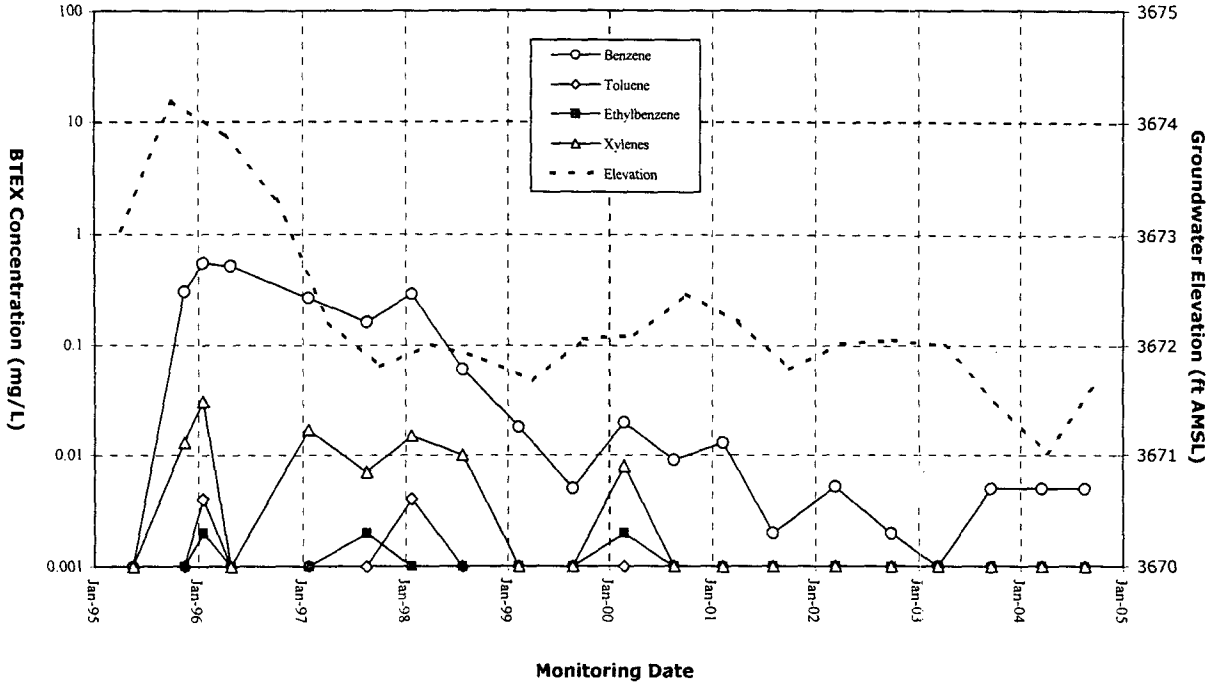


FIGURE 4H
BTEX Concentration and Groundwater Elevation Versus Time (MW-13)

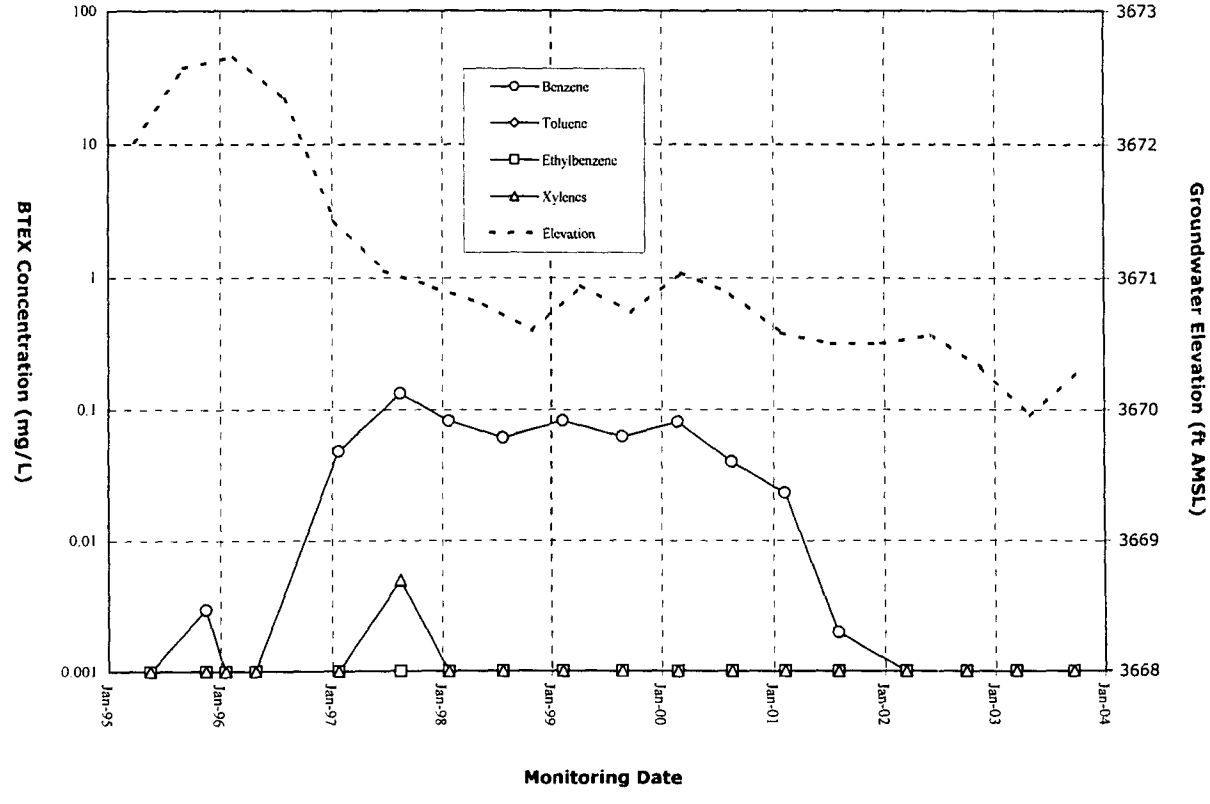


FIGURE 5A
Dissolved Oxygen Concentrations Versus Time
(WEST SIDE OF PLANT)

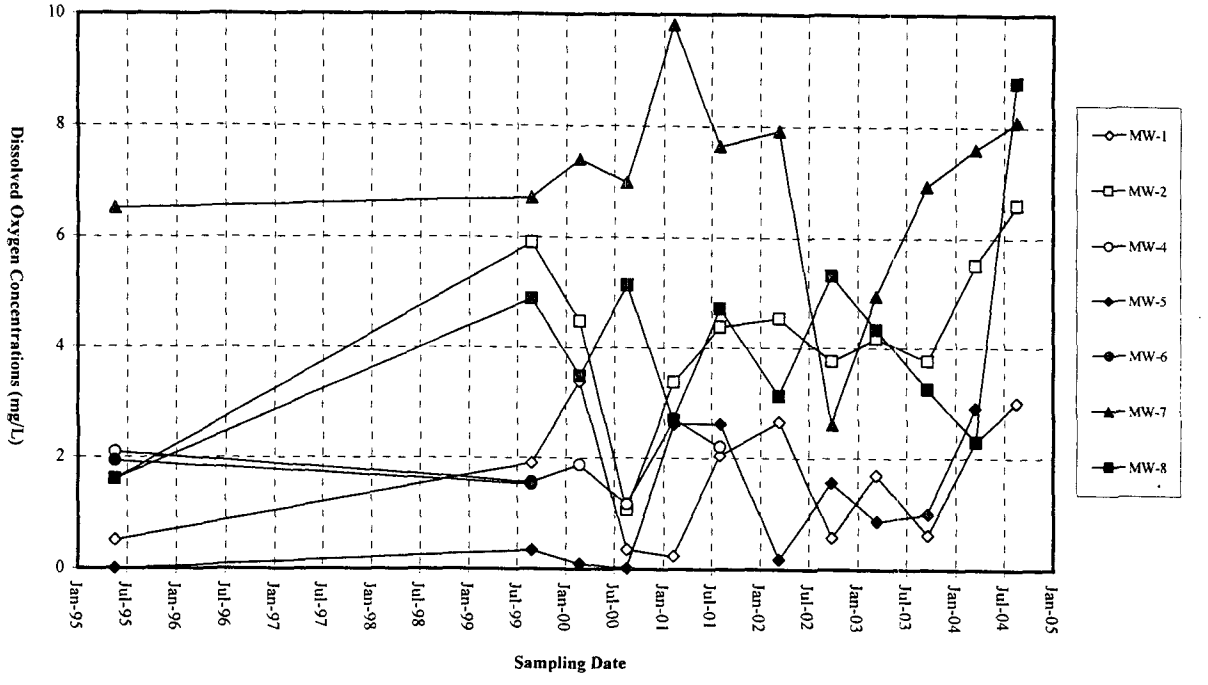


FIGURE 5B
Dissolved Oxygen Concentrations Versus Time
(EAST SIDE OF PLANT)

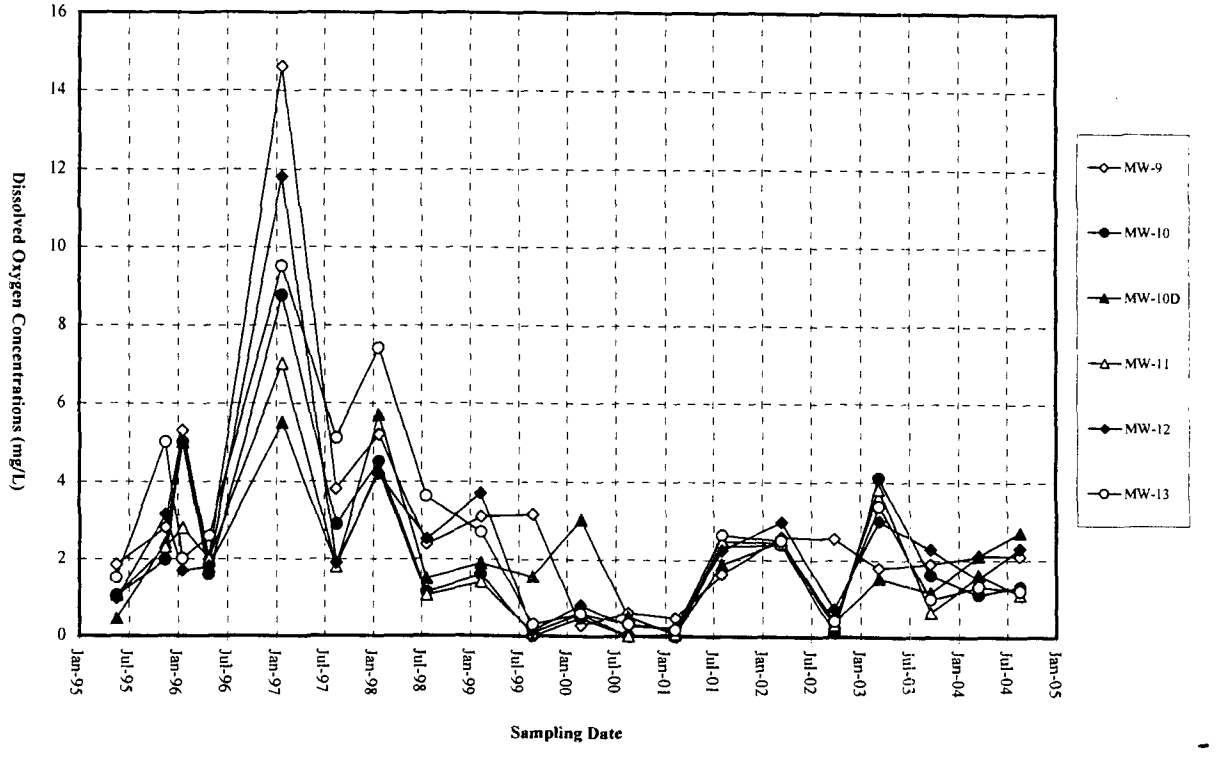


FIGURE 6A
Nitrate Concentrations Versus Time
(WEST SIDE OF PLANT)

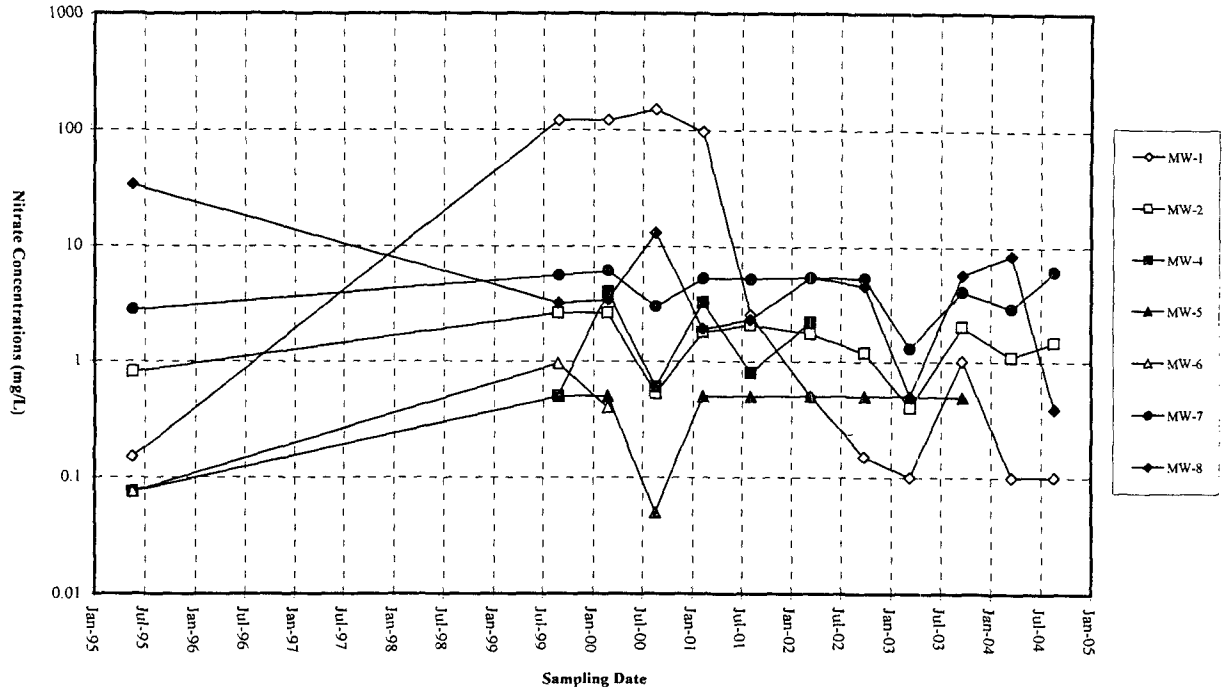


FIGURE 6B
Nitrate Concentrations Versus Time
(EAST SIDE OF PLANT)

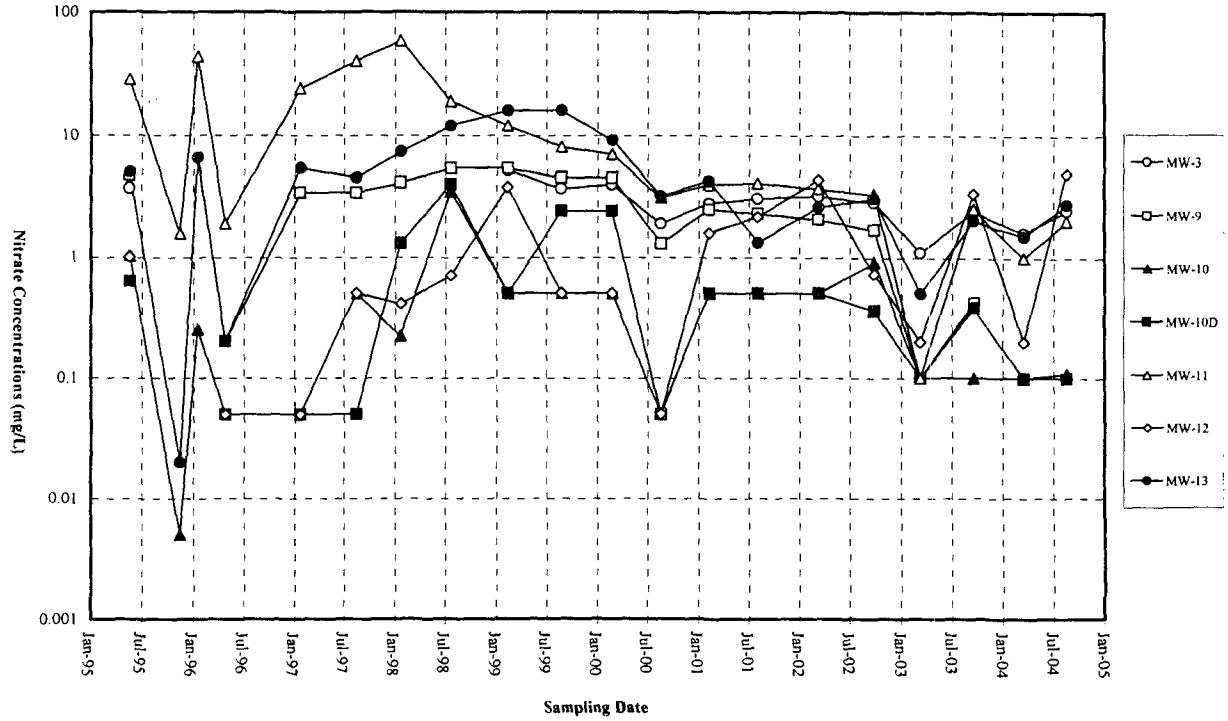


FIGURE 7A
Sulfate Concentrations Versus Time
(WEST SIDE OF PLANT)

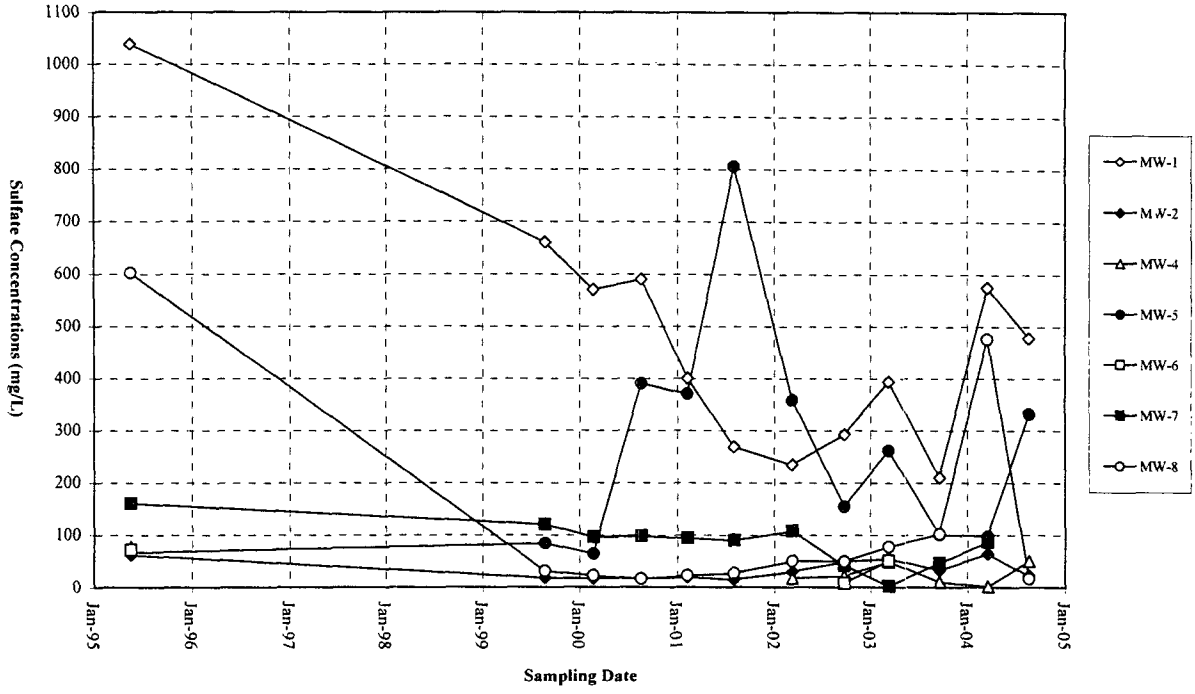


FIGURE 7B
Sulfate Concentrations Versus Time
(EAST SIDE OF PLANT)

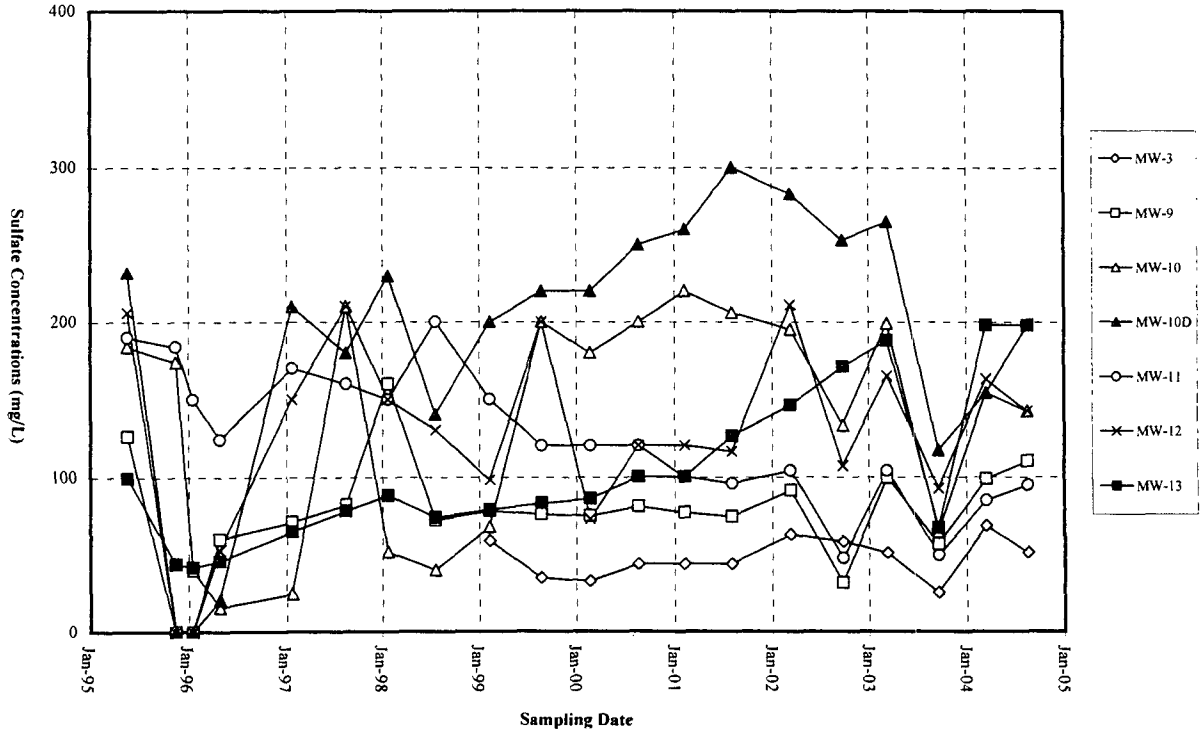


Figure 8A
Benzene and Biological Parameter Concentrations
Versus Distance From Source Area (West Side of Plant)
(August 19, 2004)

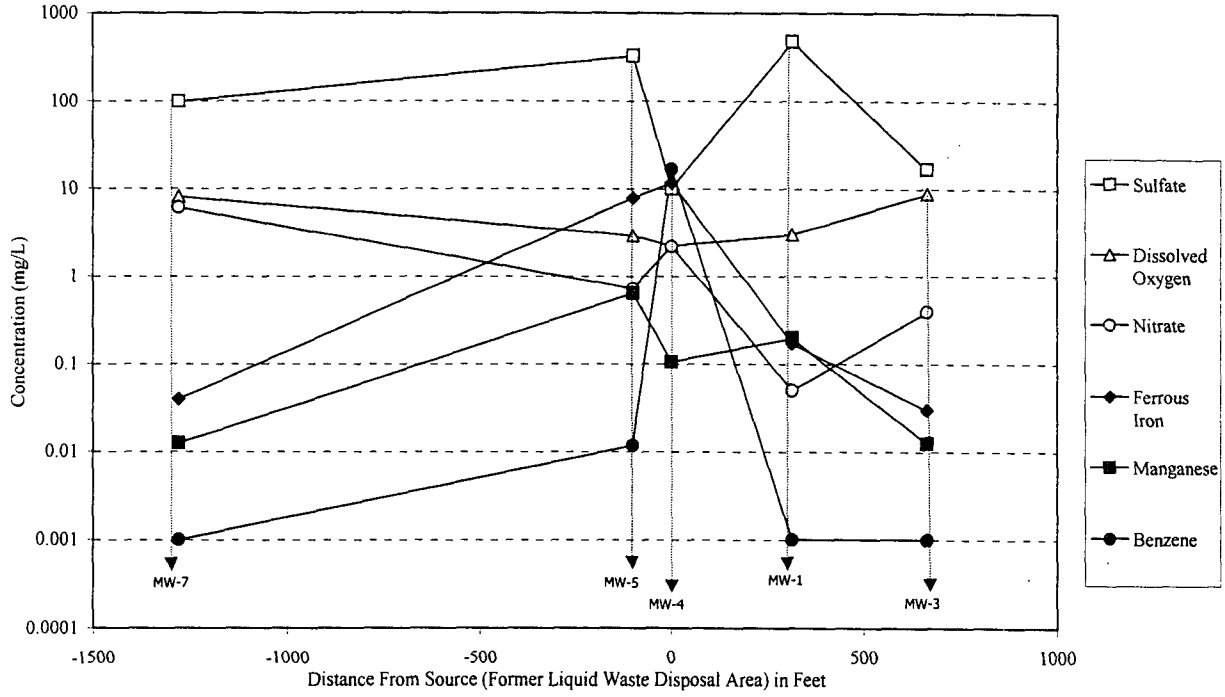


Figure 8B
Benzene and Biological Parameter Concentrations
Versus Distance From Source Area (East Side of Plant)
(August 19, 2004)

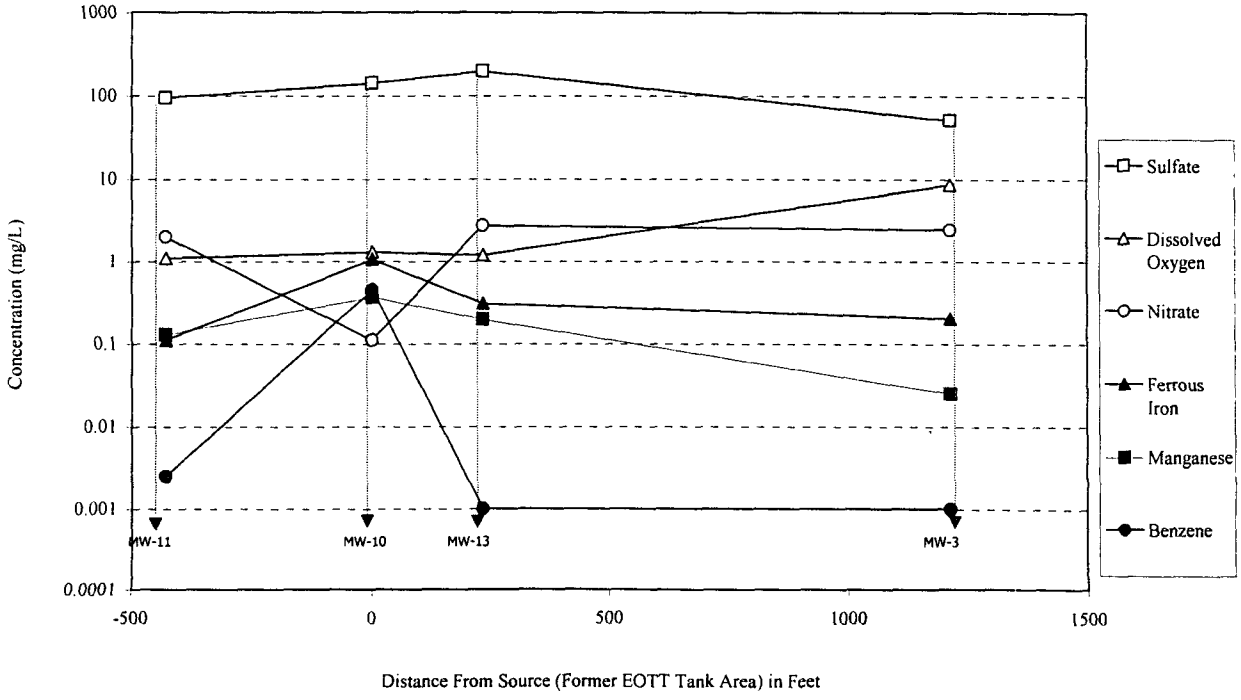


FIGURE 9A
LNAPL Thickness and Recovery Versus Time (MW-4)

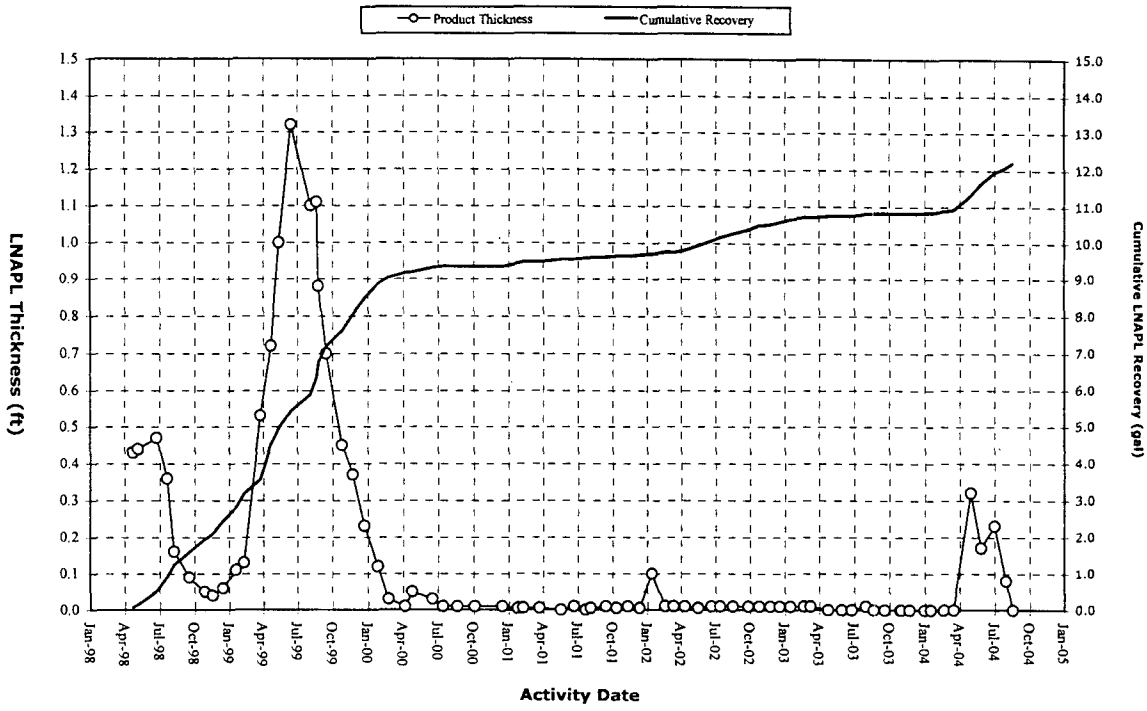


FIGURE 9B
LNAPL Thickness and Recovery Versus Time (MW-6)

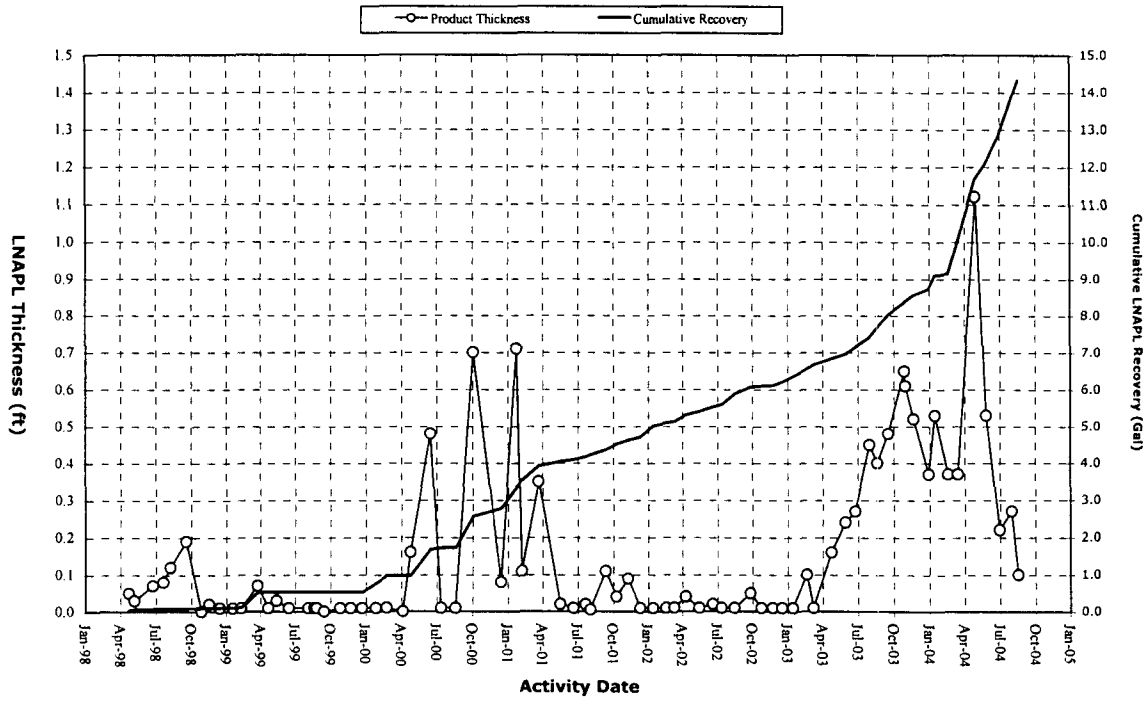


Table 1

Summary of Purging and Sampling Methods

Monitoring Well No.	Sample Date	Purge Method	Purge Volume (gallons)	Sampling Method	Groundwater Analytes
MW-1	03/16/04	Bailer	6	Disposable bailer	BTEX and Bio-indicators
	09/17/04	Pump	5	Disposable bailer	BTEX, Metals, Ions, Bio-indicators
MW-2	03/16/04	Bailer	2	Disposable bailer	BTEX and Bio-indicators
	09/17/04	Bailer	6	Disposable bailer	BTEX, Metals, Ions, Bio-indicators
MW-3	03/16/04	Bailer	4	Disposable bailer	BTEX and Bio-indicators
	09/17/04	Pump	5	Disposable bailer	BTEX, Metals, Ions, Bio-indicators
MW-4	03/16/04	Bailer	25	Disposable bailer	BTEX and Bio-indicators
	09/17/04	Bailer	24	Disposable bailer	BTEX, Metals, Ions, Bio-indicators
MW-5	03/16/04	Pump	25	Disposable bailer	BTEX and Bio-indicators
	09/17/04	Pump	24	Disposable bailer	BTEX, Metals, Ions, Bio-indicators
MW-7	03/16/04	Bailer	1	Disposable bailer	BTEX and Bio-indicators
	09/17/04	Bailer	1	Disposable bailer	BTEX, Metals, Ions, Bio-indicators
MW-8	03/16/04	Pump	25	Disposable bailer	BTEX and Bio-indicators
	09/17/04	Pump	25	Disposable bailer	BTEX, Metals, Ions, Bio-indicators
MW-9	03/16/04	Bailer	5	Disposable bailer	BTEX and Bio-indicators
	09/17/04	Bailer	4	Disposable bailer	BTEX, Metals, Ions, Bio-indicators
MW-10	03/16/04	Pump	25	Disposable bailer	BTEX and Bio-indicators
	09/17/04	Pump	14	Disposable bailer	BTEX, Metals, Ions, Bio-indicators
MW-10D	03/16/04	Bailer	12	Disposable bailer	BTEX and Bio-indicators
	09/17/04	Bailer	12	Disposable bailer	BTEX, Metals, Ions, Bio-indicators
MW-11	03/16/04	Pump	25	Disposable bailer	BTEX and Bio-indicators
	09/17/04	Pump	12	Disposable bailer	BTEX, Metals, Ions, Bio-indicators
MW-12	03/16/04	Pump	25	Disposable bailer	BTEX and Bio-indicators
	09/17/04	Pump	14	Disposable bailer	BTEX, Metals, Ions, Bio-indicators
MW-13	03/16/04	Pump	25	Disposable bailer	BTEX and Bio-indicators
	09/17/04	Pump	12	Disposable bailer	BTEX, Metals, Ions, Bio-indicators

BTEX - benzene, toluene, ethylbenzene, xylenes

WQCC Metals - As, Ba, Fe, and Mn

Major ions - TDS, Cl, NO_3, and SO_4

Bio-indicators - DO, NO3, SO4

Monitoring well MW-6 was not sampled due to presence of free product.

Table 2
Summary of Groundwater Elevations

Monitoring Well Number	Gauging Date	Ground Surface Elevations (Feet)	Top of Casing Elevations (Feet)	Groundwater Depth Below Top of Casing (Feet)	Groundwater Elevation (Feet)	LNAPL Thickness (Feet)
MW-1	05/22/94	3718.29	3720.18	43.90	3676.28	0.00
	05/17/95	3718.29	3720.18	45.50	3674.68	0.00
	01/17/96	3718.29	3720.18	43.95	3676.23	0.00
	04/24/96	3718.29	3720.18	44.81	3675.37	0.00
	01/22/97	3718.29	3720.18	45.73	3674.45	0.00
	08/15/97	3718.29	3720.18	45.55	3674.63	0.00
	01/22/98	3718.29	3720.18	45.99	3674.19	0.00
	07/20/98	3718.29	3720.18	46.51	3673.67	0.00
	02/09/99	3718.29	3720.18	46.42	3673.76	0.00
	08/24/99	3718.29	3720.18	44.97	3675.21	0.00
	02/21/00	3718.29	3720.18	44.77	3675.41	0.00
	08/17/00	3718.29	3720.18	43.47	3676.71	0.00
	02/06/01	3718.29	3720.18	43.19	3676.99	0.00
	08/02/01	3718.29	3720.18	45.37	3674.81	0.00
	03/11/02	3718.29	3720.18	46.14	3674.04	0.00
	09/25/02	3718.29	3720.18	45.75	3674.43	0.00
	03/08/03	3718.29	3720.18	45.86	3674.32	0.00
	09/17/03	3718.29	3720.18	46.38	3673.80	0.00
	03/16/04	3718.29	3720.18	45.88	3674.30	0.00
	08/17/04	3718.29	3720.18	43.59	3676.59	0.00
MW-2	05/22/94	3714.80	3717.24	34.95	3682.29	0.00
	05/17/95	3714.80	3717.24	43.75	3673.49	0.00
	01/22/97	3714.80	3717.24	44.05	3673.19	0.00
	01/22/98	3714.80	3717.24	44.44	3672.80	0.00
	07/20/98	3714.80	3717.24	44.87	3672.37	0.00
	02/09/99	3714.80	3717.24	44.83	3672.41	0.00
	08/24/99	3714.80	3717.24	42.81	3674.43	0.00
	02/21/00	3714.80	3717.24	44.56	3672.68	0.00
	08/17/00	3714.80	3717.24	37.81	3679.43	0.00
	02/06/01	3714.80	3717.24	43.19	3674.05	0.00
	08/02/01	3714.80	3717.24	44.55	3672.69	0.00
	03/11/02	3714.80	3717.24	45.17	3672.07	0.00
	09/25/02	3714.80	3717.24	44.98	3672.26	0.00
	03/08/03	3714.80	3717.24	45.03	3672.21	0.00
	09/17/03	3714.80	3717.24	45.55	3671.69	0.00
	03/16/04	3714.80	3717.24	45.98	3671.26	0.00
	08/17/04	3714.80	3717.24	38.14	3679.10	0.00
MW-3	05/22/94	3715.50	3717.70	46.23	3671.47	0.00
	05/17/95	3715.50	3717.70	46.98	3670.72	0.00
	11/14/95	3715.50	3717.70	46.40	3671.30	0.00
	04/24/96	3715.50	3717.70	46.57	3671.13	0.00
	01/22/97	3715.50	3717.70	47.23	3670.47	0.00
	01/22/98	3715.50	3717.70	47.74	3669.96	0.00
	07/20/98	3715.50	3717.70	47.90	3669.80	0.00
	02/09/99	3715.50	3717.70	48.11	3669.59	0.00
	08/24/99	3715.50	3717.70	48.02	3669.68	0.00
	02/21/00	3715.50	3717.70	48.19	3669.51	0.00
	08/17/00	3715.50	3717.70	48.02	3669.68	0.00
	02/06/01	3715.50	3717.70	48.22	3669.48	0.00
	08/02/01	3715.50	3717.70	48.39	3669.31	0.00
	03/11/02	3715.50	3717.70	48.56	3669.14	0.00
	09/25/02	3715.50	3717.70	48.67	3669.03	0.00
	03/08/03	3715.50	3717.70	48.64	3669.06	0.00
	09/17/03	3715.50	3717.70	48.83	3668.87	0.00
	03/16/04	3715.50	3717.70	49.07	3668.63	0.00
	08/17/04	3715.50	3717.70	48.70	3669.00	0.00

Table 2 (Continued)
Summary of Groundwater Elevations

Monitoring Well Number	Gauging Date	Ground Surface Elevations (Feet)	Top of Casing Elevations (Feet)	Groundwater Depth Below Top of Casing (Feet)	Groundwater Elevation (Feet)	LNAPL Thickness (Feet)
MW-4	12/01/92	3720.46	3722.45	45.35	3677.10	0.00
	05/22/94	3720.46	3722.45	45.49	3676.96	0.00
	05/17/95	3720.46	3722.45	47.20	3675.43	0.22
	11/15/95	3720.46	3722.45	46.71	3675.75	0.01
	01/17/96	3720.46	3722.45	46.18	3676.27	0.00
	04/24/96	3720.46	3722.45	46.95	3675.50	0.00
	01/22/97	3720.46	3722.45	48.19	3674.29	0.04
	08/15/97	3720.46	3722.45	48.55	3674.12	0.27
	01/22/98	3720.46	3722.45	49.11	3674.52	1.44
	07/20/98	3720.46	3722.45	48.99	3673.76	0.36
	02/09/99	3720.46	3722.45	48.11	3674.45	0.13
	08/24/99	3720.46	3722.45	47.73	3675.44	0.88
	02/21/00	3720.46	3722.45	46.66	3675.81	0.03
	08/17/00	3720.46	3722.45	46.39	3676.07	0.01
	02/06/01	3720.46	3722.45	47.06	3675.39	0.01
	08/02/01	3720.46	3722.45	47.66	3674.80	0.01
	03/11/02	3720.46	3722.45	47.86	3674.59	<0.01
	09/25/02	3720.46	3722.45	47.33	3675.13	0.01
	03/08/03	3720.46	3722.45	47.85	3674.60	<0.01
	09/17/03	3720.46	3722.45	48.29	3674.16	0.00
	03/16/04	3720.46	3722.45	48.41	3674.04	0.00
	08/17/04	3720.46	3722.45	46.68	3675.77	<0.01
MW-5	12/01/92	3721.53	3723.60	45.95	3677.65	0.00
	05/22/94	3721.53	3723.60	46.27	3677.33	0.00
	05/17/95	3721.53	3723.60	48.17	3675.43	0.01
	11/15/95	3721.53	3723.60	46.98	3676.62	0.00
	01/17/96	3721.53	3723.60	47.37	3676.23	0.00
	04/24/96	3721.53	3723.60	48.09	3675.51	0.00
	01/22/97	3721.53	3723.60	49.25	3674.35	0.00
	08/15/97	3721.53	3723.60	49.64	3673.96	0.00
	01/22/98	3721.53	3723.60	48.86	3674.74	0.00
	07/20/98	3721.53	3723.60	49.39	3674.21	0.00
	02/09/99	3721.53	3723.60	48.76	3674.84	0.00
	08/24/99	3721.53	3723.60	48.13	3675.47	0.00
	02/21/00	3721.53	3723.60	47.76	3675.84	0.00
	08/17/00	3721.53	3723.60	47.94	3675.66	0.00
	02/06/01	3721.53	3723.60	48.36	3675.24	0.00
	08/02/01	3721.53	3723.60	48.78	3674.82	0.00
	03/11/02	3721.53	3723.60	48.53	3675.07	0.00
	09/25/02	3721.53	3723.60	48.61	3674.99	0.00
	03/08/03	3721.53	3723.60	48.79	3674.81	0.00
	09/17/03	3721.53	3723.60	49.28	3674.32	0.00
	03/16/04	3721.53	3723.60	49.75	3674.32	0.00
	08/17/04	3721.53	3723.60	48.56	3674.32	0.00

Table 2 (Continued)
Summary of Groundwater Elevations

Monitoring Well Number	Gauging Date	Ground Surface Elevations (Feet)	Top of Casing Elevations (Feet)	Groundwater Depth Below Top of Casing (Feet)	Groundwater Elevation (Feet)	LNAPL Thickness (Feet)
MW-6	12/01/92	3720.99	3723.08	46.21	3676.87	0.00
	05/22/94	3720.99	3723.08	46.38	3676.70	0.00
	05/17/95	3720.99	3723.08	48.25	3674.87	0.05
	11/15/95	3720.99	3723.08	46.29	3676.80	0.01
	01/17/96	3720.99	3723.08	46.90	3676.18	0.00
	04/24/96	3720.99	3723.08	46.72	3676.37	0.01
	01/22/97	3720.99	3723.08	48.89	3674.21	0.02
	08/15/97	3720.99	3723.08	49.21	3673.91	0.05
	01/22/98	3720.99	3723.08	48.91	3674.21	0.05
	07/20/98	3720.99	3723.08	49.56	3673.59	0.08
	02/09/99	3720.99	3723.08	49.24	3673.84	0.00
	08/24/99	3720.99	3723.08	48.22	3674.86	0.00
	02/21/00	3720.99	3723.08	47.97	3675.11	0.00
	08/17/00	3720.99	3723.08	47.48	3675.61	0.01
	02/06/01	3720.99	3723.08	48.42	3674.75	0.11
	08/02/01	3720.99	3723.08	48.94	3674.15	0.01
	03/11/02	3720.99	3723.08	48.79	3674.30	0.01
	09/25/02	3720.99	3723.08	48.48	3674.61	0.01
	03/08/03	3720.99	3723.08	48.96	3674.12	<0.01
	09/17/03	3720.99	3723.08	49.92	3673.55	0.48
	03/16/04	3720.99	3723.08	50.10	3673.07	0.11
	08/17/04	3720.99	3723.08	48.48	3674.68	0.10
MW-7	05/22/94	3728.57	3730.84	54.52	3676.32	0.00
	05/17/95	3728.57	3730.84	57.00	3673.84	0.00
	11/14/95	3728.57	3730.84	57.95	3672.89	0.00
	04/24/96	3728.57	3730.84	58.00	3672.84	0.00
	01/22/97	3728.57	3730.84	57.71	3673.13	0.00
	01/22/98	3728.57	3730.84	57.57	3673.27	0.00
	02/09/99	3728.57	3730.84	57.29	3673.55	0.00
	08/24/99	3728.57	3730.84	57.64	3673.20	0.00
	02/21/00	3728.57	3730.84	57.39	3673.45	0.00
	08/17/00	3728.57	3730.84	57.26	3673.58	0.00
	02/06/01	3728.57	3730.84	56.66	3674.18	0.00
	08/02/01	3728.57	3730.84	58.15	3672.69	0.00
	03/11/02	3728.57	3730.84	56.77	3674.07	0.00
	09/25/02	3728.57	3730.84	57.41	3673.43	0.00
	03/08/03	3728.57	3730.84	57.41	3673.43	0.00
	09/17/03	3728.57	3730.84	59.35	3671.49	0.00
	03/16/04	3728.57	3730.84	58.50	3672.34	0.00
	08/17/04	3728.57	3730.84	57.83	3673.01	0.00
MW-8	05/22/94	3714.18	3716.18	41.35	3674.83	0.00
	05/17/95	3714.18	3716.18	43.45	3672.73	0.00
	01/17/96	3714.18	3716.18	41.71	3674.47	0.00
	04/24/96	3714.18	3716.18	42.82	3673.36	0.00
	01/22/97	3714.18	3716.18	43.40	3672.78	0.00
	08/15/97	3714.18	3716.18	44.14	3672.04	0.00
	01/22/98	3714.18	3716.18	44.31	3671.87	0.00
	07/20/98	3714.18	3716.18	44.57	3671.61	0.00
	02/09/99	3714.18	3716.18	44.70	3671.48	0.00
	08/24/99	3714.18	3716.18	43.62	3672.56	0.00
	02/21/00	3714.18	3716.18	44.25	3671.93	0.00
	08/17/00	3714.18	3716.18	41.52	3674.66	0.00
	02/06/01	3714.18	3716.18	43.58	3672.60	0.00
	08/02/01	3714.18	3716.18	44.92	3671.26	0.00
	03/11/02	3714.18	3716.18	44.67	3671.51	0.00
	09/25/02	3714.18	3716.18	44.59	3671.59	0.00
	03/08/03	3714.18	3716.18	44.59	3671.59	0.00
	09/17/03	3714.18	3716.18	45.47	3670.71	0.00
	03/16/04	3714.18	3716.18	45.51	3670.67	0.00
	08/17/04	3714.18	3716.18	42.88	3673.30	0.00

Table 2 (Continued)
Summary of Groundwater Elevations

Monitoring Well Number	Gauging Date	Ground Surface Elevations (Feet)	Top of Casing Elevations (Feet)	Groundwater Depth Below Top of Casing (Feet)	Groundwater Elevation (Feet)	LNAPL Thickness (Feet)
MW-9	05/22/94	3720.48	3722.48	49.59	3672.89	0.00
	05/17/95	3720.48	3722.48	50.60	3671.88	0.00
	11/14/95	3720.48	3722.48	50.02	3672.46	0.00
	01/17/96	3720.48	3722.48	49.84	3672.64	0.00
	04/24/96	3720.48	3722.48	50.08	3672.40	0.00
	02/07/97	3720.48	3722.48	50.96	3671.52	0.00
	08/15/97	3720.48	3722.48	51.34	3671.14	0.00
	01/22/98	3720.48	3722.48	51.48	3671.00	0.00
	07/20/98	3720.48	3722.48	51.58	3670.90	0.00
	02/09/99	3720.48	3722.48	51.81	3670.67	0.00
	08/24/99	3720.48	3722.48	51.59	3670.89	0.00
	02/21/00	3720.48	3722.48	51.70	3670.78	0.00
	08/17/00	3720.48	3722.48	51.56	3670.92	0.00
	02/06/01	3720.48	3722.48	51.62	3670.86	0.00
	08/02/01	3720.48	3722.48	51.86	3670.62	0.00
	03/11/02	3720.48	3722.48	51.87	3670.61	0.00
	09/25/02	3720.48	3722.48	51.87	3670.61	0.00
	03/08/03	3720.48	3722.48	51.80	3670.68	0.00
	09/17/03	3720.48	3722.48	52.00	3670.48	0.00
	03/16/04	3720.48	3722.48	52.33	3670.15	0.00
	08/17/04	3720.48	3722.48	52.20	3670.28	0.00
MW-10	05/17/95	3720.76	3722.90	50.45	3672.45	0.00
	11/14/95	3720.76	3722.90	49.85	3673.05	0.00
	01/17/96	3720.76	3722.90	49.82	3673.08	0.00
	04/24/96	3720.76	3722.90	50.15	3672.75	0.00
	02/07/97	3720.76	3722.90	51.12	3671.78	0.00
	08/15/97	3720.76	3722.90	51.49	3671.41	0.00
	01/22/98	3720.76	3722.90	51.57	3671.33	0.00
	07/20/98	3720.76	3722.90	51.68	3671.22	0.00
	02/09/99	3720.76	3722.90	51.88	3671.02	0.00
	08/24/99	3720.76	3722.90	51.51	3671.39	0.00
	02/21/00	3720.76	3722.90	51.66	3671.24	0.00
	08/17/00	3720.76	3722.90	51.37	3671.53	0.00
	02/06/01	3720.76	3722.90	51.54	3671.36	0.00
	08/02/01	3720.76	3722.90	51.84	3671.06	0.00
	03/11/02	3720.76	3722.90	51.80	3671.10	0.00
	09/25/02	3720.76	3722.90	51.77	3671.13	0.00
	03/08/03	3720.76	3722.90	51.73	3671.17	0.00
	09/17/03	3720.76	3722.90	52.03	3670.87	0.00
	03/16/04	3720.76	3722.90	52.38	3670.52	0.00
	08/17/04	3720.76	3722.90	52.06	3670.84	0.00
MW-10D	05/17/95	3720.85	3723.54	51.38	3672.16	0.00
	11/14/95	3720.85	3723.54	50.63	3672.91	0.00
	01/17/96	3720.85	3723.54	50.73	3672.81	0.00
	04/24/96	3720.85	3723.54	51.18	3672.36	0.00
	02/07/97	3720.85	3723.54	52.11	3671.43	0.00
	08/15/97	3720.85	3723.54	52.47	3671.07	0.00
	01/22/98	3720.85	3723.54	52.41	3671.13	0.00
	07/20/98	3720.85	3723.54	52.55	3670.99	0.00
	02/09/99	3720.85	3723.54	52.76	3670.78	0.00
	08/24/99	3720.85	3723.54	52.51	3671.03	0.00
	02/21/00	3720.85	3723.54	52.56	3670.98	0.00
	08/17/00	3720.85	3723.54	52.25	3671.29	0.00
	02/06/01	3720.85	3723.54	52.57	3670.97	0.00
	08/02/01	3720.85	3723.54	52.78	3670.76	0.00
	03/11/02	3720.85	3723.54	52.70	3670.84	0.00
	09/25/02	3720.85	3723.54	52.73	3670.81	0.00
	03/08/03	3720.85	3723.54	52.69	3670.85	0.00
	09/17/03	3720.85	3723.54	53.08	3670.46	0.00
	03/16/04	3720.85	3723.54	53.26	3670.28	0.00
	08/17/04	3720.85	3723.54	53.03	3670.51	0.00

Table 2 (Continued)
Summary of Groundwater Elevations

Monitoring Well Number	Gauging Date	Ground Surface Elevations (Feet)	Top of Casing Elevations (Feet)	Groundwater Depth Below Top of Casing (Feet)	Groundwater Elevation (Feet)	LNAPL Thickness (Feet)
MW-11	05/17/95	3722.02	3724.53	51.50	3673.03	0.00
	11/14/95	3722.02	3724.53	50.34	3674.19	0.00
	01/17/96	3722.02	3724.53	50.65	3673.88	0.00
	04/24/96	3722.02	3724.53	51.22	3673.31	0.00
	02/07/97	3722.02	3724.53	52.32	3672.21	0.00
	08/15/97	3722.02	3724.53	52.72	3671.81	0.00
	01/22/98	3722.02	3724.53	52.52	3672.01	0.00
	07/20/98	3722.02	3724.53	52.65	3671.88	0.00
	02/09/99	3722.02	3724.53	52.85	3671.68	0.00
	08/24/99	3722.02	3724.53	52.47	3672.06	0.00
	02/21/00	3722.02	3724.53	52.44	3672.09	0.00
	08/17/00	3722.02	3724.53	52.06	3672.47	0.00
	02/06/01	3722.02	3724.53	52.31	3672.22	0.00
	08/02/01	3722.02	3724.53	52.74	3671.79	0.00
	03/11/02	3722.02	3724.53	52.51	3672.02	0.00
	09/25/02	3722.02	3724.53	52.48	3672.05	0.00
	03/08/03	3722.02	3724.53	52.53	3672.00	0.00
	09/17/03	3722.02	3724.53	53.04	3671.49	0.00
	03/16/04	3722.02	3724.53	53.51	3671.02	0.00
	08/17/04	3722.02	3724.53	52.86	3671.67	0.00
MW-12	05/17/95	3720.60	3722.84	50.47	3672.37	0.00
	11/14/95	3720.60	3722.84	49.52	3673.32	0.00
	01/17/96	3720.60	3722.84	49.59	3673.25	0.00
	04/24/96	3720.60	3722.84	50.09	3672.75	0.00
	02/07/97	3720.60	3722.84	51.10	3671.74	0.00
	08/15/97	3720.60	3722.84	51.44	3671.40	0.00
	01/22/98	3720.60	3722.84	51.50	3671.34	0.00
	07/20/98	3720.60	3722.84	51.66	3671.18	0.00
	02/09/99	3720.60	3722.84	51.84	3671.00	0.00
	08/24/99	3720.60	3722.84	51.25	3671.59	0.00
	02/21/00	3720.60	3722.84	51.51	3671.33	0.00
	08/17/00	3720.60	3722.84	50.98	3671.86	0.00
	02/06/01	3720.60	3722.84	51.34	3671.50	0.00
	08/02/01	3720.60	3722.84	51.77	3671.07	0.00
	03/11/02	3720.60	3722.84	51.83	3671.01	0.00
	09/25/02	3720.60	3722.84	51.75	3671.09	0.00
	03/08/03	3720.60	3722.84	51.69	3671.15	0.00
	09/17/03	3720.60	3722.84	52.03	3670.81	0.00
	03/16/04	3720.60	3722.84	52.48	3670.36	0.00
	08/17/04	3720.60	3722.84	51.74	3671.10	0.00
MW-13	05/17/95	3721.63	3723.99	51.97	3672.02	0.00
	11/14/95	3721.63	3723.99	51.42	3672.57	0.00
	01/17/96	3721.63	3723.99	51.33	3672.66	0.00
	04/24/96	3721.63	3723.99	51.65	3672.34	0.00
	02/07/97	3721.63	3723.99	52.56	3671.43	0.00
	08/15/97	3721.63	3723.99	52.94	3671.05	0.00
	01/22/98	3721.63	3723.99	53.06	3670.93	0.00
	07/20/98	3721.63	3723.99	53.19	3670.80	0.00
	02/09/99	3721.63	3723.99	53.39	3670.60	0.00
	08/24/99	3721.63	3723.99	53.05	3670.94	0.00
	02/21/00	3721.63	3723.99	53.25	3670.74	0.00
	08/17/00	3721.63	3723.99	52.95	3671.04	0.00
	02/06/01	3721.63	3723.99	53.11	3670.88	0.00
	08/02/01	3721.63	3723.99	53.41	3670.58	0.00
	03/11/02	3721.63	3723.99	53.49	3670.50	0.00
	09/25/02	3721.63	3723.99	53.49	3670.50	0.00
	03/08/03	3721.63	3723.99	53.42	3670.57	0.00
	09/17/03	3721.63	3723.99	53.67	3670.32	0.00
	03/16/04	3721.63	3723.99	54.04	3669.95	0.00
	08/17/04	3721.63	3723.99	53.68	3670.31	0.00

* Elevations surveyed by John W. West Engineering Company of Hobbs, NM.
The monitoring well casings were marked on the north side to provide consistent reference points for future gauging operations.

Table 3

Summary of Dissolved BTEX Concentrations

Monitoring Well	Sampling Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylenes (mg/L)
MW-1	09/20/91	0.0053	0.0067	0.001	<0.001
	11/03/92	0.0015	0.0015	<0.001	0.010
	12/02/92	0.0013	0.0014	<0.001	0.006
	01/12/94	0.0039	<0.001	0.0021	0.002
	05/17/95	<0.002	<0.002	<0.002	<0.002
	08/25/99	<0.005	<0.005	<0.005	0.006
	02/22/00	<0.005	<0.005	<0.005	0.006
	08/18/00	<0.001	<0.001	<0.001	0.011
	02/07/01	<0.005	<0.005	<0.005	<0.005
	08/02/01	0.003	<0.001	<0.001	<0.001
	03/11/02	<0.001	<0.001	<0.001	<0.001
	09/25/02	<0.005	<0.005	<0.005	<0.005
	03/10/03	<0.001	<0.001	<0.001	<0.001
	09/17/03	<0.001	<0.001	<0.001	<0.001
	03/16/04	<0.001	<0.001	<0.001	<0.001
	08/18/04	<0.001	<0.001	<0.001	<0.001
MW-2	09/20/91	<0.001	<0.001	<0.001	<0.001
	05/17/95	<0.001	<0.001	<0.001	<0.001
	08/24/99	<0.005	<0.005	<0.005	<0.005
	02/22/00	<0.005	<0.005	<0.005	<0.005
	08/18/00	<0.001	<0.001	<0.001	<0.001
	02/07/01	<0.005	<0.005	<0.005	<0.005
	08/02/01	0.007	<0.001	<0.001	<0.001
	03/11/02	<0.001	<0.001	<0.001	<0.001
	09/25/02	<0.001	<0.001	<0.001	<0.001
	03/10/03	<0.001	<0.001	<0.001	<0.001
	09/17/03	<0.001	<0.001	<0.001	<0.001
	03/16/04	<0.001	<0.001	<0.001	<0.001
	08/19/04	<0.001	<0.001	<0.001	<0.001
MW-3	09/20/91	<0.001	0.0021	<0.001	<0.001
	05/17/95	<0.001	<0.001	<0.001	<0.001
	02/09/99	<0.001	<0.001	<0.001	<0.001
	08/24/99	<0.001	<0.001	<0.001	<0.001
	02/22/00	<0.001	<0.001	<0.001	<0.001
	08/17/00	<0.005	<0.005	<0.005	<0.005
	02/07/01	<0.005	<0.005	<0.005	<0.005
	08/02/01	0.002	<0.001	<0.001	<0.001
	03/11/02	<0.001	<0.001	<0.001	<0.001
	09/25/02	<0.001	<0.001	<0.001	<0.001
	03/10/03	<0.001	<0.001	<0.001	<0.001
	09/17/03	<0.001	<0.001	<0.001	<0.001
	03/16/04	<0.001	<0.001	<0.001	<0.001
	08/19/04	<0.001	<0.001	<0.001	<0.001
MW-4	11/03/92	**16.0**	**8.0**	0.7	**1.8**
	12/02/92	**17.0**	**8.2**	0.53	**1.3**
	01/10/94	**18.0**	**10.0**	0.5	**1.3**
	05/17/95	**20.9**	**1.35**	<0.2	**11.4**
	03/12/02	**17.9**	<0.100	0.450	0.166
	09/25/02	**18.8**	<0.100	0.526	<0.100
	03/11/03	**16.9**	<0.100	0.520	0.151
	09/18/03	**15.8**	<0.200	0.259	<0.200
	03/16/04	**17.8**	<0.200	0.512	<0.200
	08/19/04	**16.6**	<0.100	0.403	<0.100

Analyses performed by Trace Analysis, Inc., Lubbock, Texas.

All samples analyzed for BTEX using EPA Method 8021 except for samples obtained on May 17, 1995 (EPA Method 8240).

New Mexico Water Quality Control Commission (WQCC) standards are listed as specified in Section 3-103.

Values in **boldface** type indicate concentrations exceed WQCC groundwater standards

Table 3 (Continued)

Summary of Dissolved BTEX Concentrations

Monitoring Well	Sampling Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylenes (mg/L)
MW-5	11/03/92	0.003	0.0034	0.003	0.034
	12/02/92	0.0091	0.0041	0.0082	0.037
	01/10/94	**0.300**	0.190	0.160	0.490
	05/17/95	**0.090**	0.014	0.138	**0.831**
	08/25/99	**0.137**	0.037	0.262	0.179
	02/23/00	**0.068**	<0.005	0.13	0.09
	08/18/00	<0.005	<0.005	0.006	0.008
	02/08/01	<0.005	<0.005	0.084	<0.005
	08/03/01	<0.005	<0.005	<0.005	<0.005
	03/12/02	**0.062**	<0.001	0.097	<0.001
	09/26/02	**0.381**	<0.050	0.588	0.112
	03/11/03	**0.079**	<0.050	0.072	<0.050
	09/18/03	**0.116**	<0.001	0.182	<0.001
	03/16/04	**0.146**	<0.001	0.241	0.005
	08/19/04	**0.012**	<0.005	0.081	<0.005
MW-6	11/03/92	**0.340**	0.023	0.051	0.120
	12/02/92	**0.520**	0.020	0.058	0.120
	01/10/94	**0.770**	0.0029	0.096	0.210
	05/17/95	**0.980**	0.007	0.087	0.181
	09/25/02	**1.29**	<0.050	0.134	0.058
	03/11/03	**0.155**	<0.100	0.148	<0.100
MW-7	05/17/95	<0.001	<0.001	<0.001	<0.001
	08/24/99	<0.005	<0.005	<0.005	<0.005
	02/22/00	<0.005	<0.005	<0.005	<0.005
	08/17/00	<0.005	<0.005	<0.005	<0.005
	02/07/01	<0.005	<0.005	<0.005	<0.005
	08/02/01	<0.005	<0.005	<0.005	<0.005
	03/11/02	<0.001	<0.001	<0.001	<0.001
	09/26/02	<0.005	<0.005	<0.005	<0.005
	03/11/03	<0.005	<0.005	<0.005	<0.005
	09/17/03	<0.001	<0.001	<0.001	<0.001
	03/16/04	<0.001	<0.001	<0.001	<0.001
	08/19/04	<0.001	<0.001	<0.001	<0.001
MW-8	02/09/94	<0.001	<0.005	<0.005	<0.005
	05/17/95	<0.001	<0.001	<0.001	<0.001
	08/24/99	<0.001	<0.001	<0.001	<0.001
	02/22/00	<0.005	<0.005	<0.005	<0.005
	08/18/00	0.002	<0.001	<0.001	<0.001
	02/07/01	<0.005	<0.005	<0.005	<0.005
	08/02/01	<0.001	<0.001	<0.001	<0.001
	03/11/02	<0.001	<0.001	<0.001	<0.001
	09/25/02	<0.001	<0.001	<0.001	<0.001
	03/11/03	<0.001	<0.001	<0.001	<0.001
	09/17/03	<0.005	<0.005	<0.005	<0.005
	03/16/04	<0.001	<0.001	<0.001	<0.001
	08/18/04	<0.001	<0.001	<0.001	<0.001

Analyses performed by Trace Analysis, Inc., Lubbock, Texas.

All samples analyzed for BTEX using EPA Method 8021 except for samples obtained on May 17, 1995 (EPA Method 8240).

New Mexico Water Quality Control Commission (WQCC) standards are listed as specified in Section 3-103.

Values in boldface type indicate concentrations exceed WQCC groundwater standards

Table 3 (Continued)
Summary of Dissolved BTEX Concentrations

Monitoring Well	Sampling Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylenes (mg/L)
MW-9	05/17/95	<0.001	<0.001	<0.001	<0.001
	11/14/95	<0.001	<0.001	<0.001	<0.001
	01/17/96	0.001	<0.001	<0.001	0.001
	04/24/96	<0.001	<0.001	<0.001	<0.001
	01/22/97	<0.001	<0.001	<0.001	<0.001
	08/15/97	<0.001	<0.001	<0.001	<0.001
	01/22/98	<0.001	<0.001	<0.001	<0.001
	07/20/98	<0.001	<0.001	<0.001	<0.001
	02/09/99	**0.011**	<0.001	<0.001	<0.001
	08/24/99	<0.005	<0.005	<0.005	<0.005
	02/22/00	**0.014**	<0.005	<0.005	<0.005
	08/18/00	**0.036**	<0.005	<0.005	<0.005
	02/07/01	<0.005	<0.005	<0.005	<0.005
	08/02/01	**0.038**	<0.001	<0.001	<0.001
	03/10/03	**0.048**	<0.001	<0.001	<0.001
	09/25/02	**0.071**	<0.001	<0.001	0.002
	03/11/02	**0.077**	<0.001	<0.001	0.003
	09/18/03	<0.005	<0.005	<0.005	<0.005
	03/16/04	<0.001	<0.001	<0.001	0.012
	08/18/04	<0.001	<0.001	<0.001	0.004
MW-10	05/17/95	**3.225**	0.052	0.049	0.169
	11/14/95	**5.230**	0.001	<0.001	0.406
	01/17/96	**6.110**	**0.863**	**1.140**	**1.050**
	04/24/96	**6.940**	<0.010	**1.190**	0.127
	01/22/97	**6.41**	**1.63**	0.294	**8.97**
	08/15/97	**5.63**	**1.35**	0.479	**0.453**
	01/22/98	**7.03**	**1.93**	**0.802**	**0.635**
	07/22/98	**7.18**	**2.34**	**0.777**	0.606
	02/09/99	**4.87**	0.32	0.516	0.372
	08/25/99	**5.58**	0.658	0.557	0.359
	02/23/00	**2.35**	0.129	0.164	0.124
	08/18/00	**3.11**	0.025	0.072	0.038
	02/08/01	**1.23**	0.082	0.102	0.086
	08/03/01	**1.64**	<0.02	0.119	<0.02
	03/12/02	**3.26**	0.178	0.251	0.550
	09/26/02	**3.48**	<0.100	0.290	0.155
	03/10/03	**4.21**	<0.100	0.303	<0.100
	09/18/03	**1.34**	0.006	0.110	0.044
	03/16/04	**0.456**	<0.010	0.047	0.023
	08/18/04	**1.30**	<0.020	0.119	0.071
MW-10D	05/17/95	**0.096**	0.004	<0.001	0.008
	11/14/95	**0.125**	0.001	<0.001	0.011
	01/17/96	**0.841**	0.001	<0.001	0.047
	04/24/96	**8.140**	0.046	**1.170**	0.076
	01/22/97	**0.365**	<0.005	<0.005	<0.005
	08/15/97	**0.221**	<0.01	<0.01	<0.01
	01/22/98	<0.001	<0.001	<0.001	<0.001
	07/22/98	**0.184**	0.014	0.008	0.006
	02/09/99	0.009	<0.005	<0.005	<0.005
	08/25/99	**0.036**	<0.001	0.001	0.002
	02/23/00	**0.014**	<0.005	<0.005	<0.005
	08/18/00	<0.005	<0.005	<0.005	<0.005
	02/07/01	<0.005	<0.005	<0.005	<0.005
	08/03/01	<0.001	<0.001	<0.001	<0.001
	03/12/02	0.002	<0.001	<0.001	<0.001
	09/25/02	<0.001	<0.001	<0.001	<0.001
	03/10/03	<0.005	<0.005	<0.005	<0.005
	09/18/03	<0.005	<0.005	<0.005	<0.005
	03/16/04	<0.001	<0.001	<0.001	<0.001
	08/18/04	**0.011**	<0.001	0.001	<0.001

Table 3 (Continued)

Summary of Dissolved BTEX Concentrations

Monitoring Well	Sampling Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylenes (mg/L)
MW-11	05/17/95	<0.001	<0.001	<0.001	<0.001
	11/14/95	**0.306**	<0.001	<0.001	0.013
	01/17/96	**0.549**	0.004	0.002	0.031
	04/24/96	**0.520**	<0.002	<0.002	<0.002
	01/22/97	**0.267**	<0.001	<0.001	0.017
	08/15/97	**0.164**	<0.001	0.002	0.007
	01/22/98	**0.291**	0.004	<0.001	0.015
	07/22/98	**0.061**	<0.001	<0.001	0.010
	02/09/99	**0.018**	<0.001	<0.001	<0.001
	08/24/99	0.005	<0.001	<0.001	<0.001
	02/23/00	**0.02**	<0.001	0.002	0.008
	08/18/00	0.009	<0.005	<0.005	<0.005
	02/07/01	**0.013**	<0.001	<0.001	<0.001
	08/03/01	0.002	<0.001	<0.001	<0.001
	03/12/02	0.005	<0.001	<0.001	<0.001
	09/26/02	0.002	<0.001	<0.001	<0.001
	03/10/03	<0.001	<0.001	<0.001	<0.001
	09/17/03	<0.005	<0.005	<0.005	<0.005
	03/16/04	<0.001	<0.001	<0.001	<0.001
	08/18/04	0.003	<0.001	<0.001	<0.001
MW-12	05/17/95	<0.001	<0.001	<0.001	<0.001
	11/14/95	<0.001	<0.001	<0.001	<0.001
	01/17/96	<0.001	<0.001	<0.001	<0.001
	04/24/96	<0.001	<0.001	<0.001	<0.001
	01/22/97	<0.001	<0.001	<0.001	<0.001
	08/15/97	0.001	<0.001	<0.001	<0.001
	01/22/98	<0.001	<0.001	<0.001	<0.001
	07/22/98	0.002	<0.001	<0.001	<0.001
	02/09/99	0.001	<0.001	<0.001	<0.001
	08/24/99	0.003	<0.001	<0.001	<0.001
	02/22/00	<0.001	<0.001	<0.001	<0.001
	08/18/00	<0.005	<0.005	<0.005	<0.005
	02/07/01	<0.001	<0.001	<0.001	<0.001
	08/03/01	<0.001	<0.001	<0.001	<0.001
	03/12/02	<0.001	<0.001	<0.001	<0.001
	09/26/02	<0.001	<0.001	<0.001	<0.001
	03/10/03	<0.001	<0.001	<0.001	<0.001
	09/17/03	<0.005	<0.005	<0.005	<0.005
	03/16/04	<0.001	<0.001	<0.001	<0.001
	08/18/04	<0.001	<0.001	<0.001	<0.001
MW-13	05/17/95	<0.001	<0.001	<0.001	<0.001
	11/14/95	0.003	<0.001	0.001	<0.001
	01/17/96	<0.001	<0.001	<0.001	<0.001
	04/24/96	<0.001	<0.001	<0.001	<0.001
	01/22/97	**0.048**	<0.001	<0.001	<0.001
	08/15/97	**0.132**	<0.001	<0.001	0.005
	01/22/98	**0.082**	<0.001	<0.001	<0.001
	07/20/98	**0.061**	<0.001	<0.001	<0.001
	02/09/99	**0.082**	<0.001	<0.001	<0.001
	08/24/99	**0.062**	<0.001	<0.001	<0.001
	02/23/00	**0.08**	<0.001	<0.001	<0.001
	08/18/00	**0.04**	<0.005	<0.005	<0.005
	02/07/01	**0.023**	<0.005	<0.005	<0.005
	08/03/01	0.002	<0.001	<0.001	<0.001
	03/12/02	<0.001	<0.001	<0.001	<0.001
	09/26/02	<0.001	<0.001	<0.001	<0.001
	03/10/03	<0.001	<0.001	<0.001	<0.001
	09/17/03	<0.005	<0.005	<0.005	<0.005
	03/16/04	<0.001	<0.001	<0.001	<0.001
	08/18/04	<0.001	<0.001	<0.001	<0.001
WQCC Standards		0.010	0.75	0.75	0.62

Analyses performed by Trace Analysis, Inc., Lubbock, Texas.

All samples analyzed for BTEX using EPA Method 8021 except for samples obtained on May 17, 1995 (EPA Method 8240).

New Mexico Water Quality Control Commission (WQCC) standards are listed as specified in Section 3-103.

Values in **boldface** type indicate concentrations exceed WQCC groundwater standards

Table 4
Summary of Analytical Results for WQCC Metals and Ions

Monitoring Well	Sample Date	WQCC Metal Constituents (mg/L)								Ions (mg/L)	
		Ag	Al	As	Ba	Cd	Cr	Fe	Mn	Cl	TDS
MW-1	05/17/95	<0.01	**62.67**	**0.2**	0.8	**0.02**	**0.46**	**30.76**	**0.56**	188	**2,204**
	08/24/99	<0.01	<0.2	0.08	<0.05	<0.01	0.01	<0.05	**0.22**	110	**2,400**
	08/18/00	<0.01	<0.2	<0.05	<0.05	<0.01	<0.01	<0.05	<0.01	160	**2,700**
	08/02/01	<0.0125	0.286	**0.197**	<0.1	<0.025	<0.01	<0.05	0.194	80.6	**1,120**
	09/25/02	<0.0125	<0.100	**0.616**	0.258	<0.005	<0.01	<0.05	0.164	80	**1,251**
	09/17/03	---	---	**0.117**	0.053	---	---	0.099	0.242	54.9	**1,410**
	08/18/04	---	---	<0.01	<0.1	---	---	0.583	0.196	191	**1,510**
MW-2	05/17/95	**0.77**	0.16	<0.1	0.41	<0.01	0.02	0.34	**0.41**	6	378
	08/24/99	<0.01	1.0	<0.05	0.13	**0.01**	0.01	0.73	0.03	31	290
	08/17/00	<0.01	<0.2	<0.05	<0.05	<0.01	<0.01	<0.05	<0.01	11	300
	08/02/01	<0.0125	0.262	<0.05	0.169	<0.025	<0.01	<0.05	<0.025	45.7	412
	09/25/02	<0.0125	0.158	<0.05	0.910	<0.005	<0.01	0.090	<0.025	68	398
	09/17/03	---	---	<0.01	0.197	---	---	<0.05	<0.025	16.5	477
	08/19/04	---	---	<0.01	<0.1	---	---	<0.05	<0.025	8.13	264
MW-3	05/17/95	**0.23**	**13.48**	<0.1	0.24	<0.01	0.04	**8.65**	**0.24**	13	328
	08/24/99	<0.01	0.35	<0.05	0.09	<0.01	<0.01	0.22	<0.01	16	280
	08/17/00	<0.01	<0.2	<0.05	0.11	<0.01	<0.01	<0.05	<0.01	11	300
	08/02/01	<0.0125	0.265	<0.05	0.472	<0.025	<0.01	<0.05	<0.025	13.1	312
	09/25/02	<0.0125	<0.100	<0.05	0.299	<0.005	<0.01	<0.05	<0.025	24	235
	09/17/03	---	---	<0.01	0.089	---	---	<0.05	<0.025	11.7	345
	08/19/04	---	---	<0.01	0.103	---	---	<0.05	<0.025	144	351
MW-4	05/17/95	<0.01	2.44	**0.2**	0.69	<0.01	<0.01	**12.33**	0.15	**934**	**2,211**
	09/25/02	<0.0125	<0.100	0.083	**1.03**	<0.005	<0.01	**12.6**	0.132	**820**	**1,944**
	09/17/03	---	---	**0.119**	0.781	---	---	**12.6**	0.113	**691**	**1,836**
	08/19/04	---	---	0.098	0.745	---	---	**11.6**	0.106	**696**	**1,720**
MW-5	05/17/95	<0.01	**5.65**	**0.1**	**4.1**	<0.01	<0.01	**8.34**	**0.49**	**254**	937
	08/24/99	<0.01	<0.2	<0.05	**2.5**	<0.01	<0.01	**6.4**	**0.53**	**320**	**1,300**
	08/18/00	<0.01	<0.2	0.05	0.17	<0.01	<0.01	<0.05	**0.77**	240	**1,600**
	08/03/01	<0.0125	0.317	0.074	0.196	<0.025	<0.01	**16.8**	**1.11**	**250**	**2,200**
	09/26/02	<0.0125	<0.100	0.057	0.884	<0.005	<0.01	**7.30**	**0.554**	**260**	**1,330**
	09/18/03	---	---	0.082	0.85	---	---	**8.02**	**0.586**	215	**1,310**
	08/19/04	---	---	0.078	0.478	---	---	**7.82**	**0.628**	**267**	**1,450**
MW-6	05/17/95	<0.01	**11.43**	**0.2**	**1.25**	<0.01	<0.01	**19.66**	**0.25**	181	**1,001**
	09/25/02	<0.0125	0.148	0.090	**1.55**	<0.005	<0.01	**7.13**	0.0752	**584**	**1,312**
MW-7	05/17/95	<0.01	**38.16**	**0.1**	0.45	**0.01**	**0.07**	**18.28**	**0.22**	113	713
	08/24/99	<0.01	<0.2	<0.05	0.87	<0.01	<0.01	0.06	<0.01	97	650
	08/17/00	<0.01	<0.2	<0.05	0.07	<0.01	<0.01	<0.05	<0.01	98	630
	08/02/01	<0.0125	0.259	<0.05	<0.1	<0.025	<0.01	<0.05	<0.025	94.5	646
	09/26/02	<0.0125	<0.100	<0.05	0.517	<0.005	<0.01	<0.05	<0.025	112	684
	09/17/03	---	---	<0.01	0.065	---	---	<0.05	<0.025	95.6	659
	08/19/04	---	---	<0.01	<0.1	---	---	<0.05	<0.025	99.3	672
MW-8	05/17/95	<0.01	0.21	**0.2**	0.11	<0.01	<0.01	0.17	0.07	83	**1,366**
	08/24/99	<0.01	<0.2	<0.05	0.12	<0.01	<0.01	0.05	<0.01	25	350
	08/18/00	<0.01	<0.2	<0.05	0.19	<0.01	<0.01	<0.05	<0.01	9.4	290
	08/02/01	<0.0125	0.279	<0.05	0.153	<0.025	<0.01	<0.05	<0.025	21.5	400
	09/25/02	<0.0125	<0.100	<0.05	0.181	<0.005	<0.01	<0.05	<0.025	56	416
	09/17/03	---	---	<0.01	0.138	---	---	<0.05	<0.025	38.8	799
	08/18/04	---	---	<0.01	<0.1	---	---	<0.05	<0.025	8.92	257
WQCC Standard		0.05	5.0	0.1	1.0	0.01	0.05	1.0	0.2	250	1,000

Analyses performed by Trace Analysis, Inc. using EPA Methods 160.1, 200.7, 239.2, 270.2, 272.2, and 300.0.

New Mexico Water Quality Control Commission (WQCC) Standards are listed as specified in Section 3-103.

Bold values indicate concentrations exceed WQCC groundwater standards.

Samples for metals analysis were not filtered on 05-17-95, therefore results indicate total (dissolved and undissolved) metals.

Samples for metals analysis were filtered with a 45 mm element after 05-17-95, therefore results indicate total dissolved metals

--- Indicates sample was not analyzed for this constituent.

Table 4 (Continued)
Summary of Analytical Results for WQCC Metals and Ions

Monitoring Well	Sample Date	WQCC Metal Constituents (mg/L)								Ions (mg/L)	
		Ag	Al	As	Ba	Cd	Cr	Fe	Mn	Cl	TDS
MW-9	05/17/95	<0.01	**26.58**	<0.1	0.3	<0.01	**0.06**	**12.08**	0.15	73	602
	04/24/96	<0.01	<0.2	---	---	---	<0.05	<0.03	<0.01	58	579
	08/15/97	<0.01	0.5	---	---	---	<0.05	0.91	<0.01	53	**1,600**
	07/22/98	<0.002	<0.01	---	---	---	<0.01	0.07	<0.01	53	580
	08/24/99	<0.01	<0.2	<0.05	0.12	<0.01	<0.01	<0.05	<0.01	52	580
	08/18/00	<0.01	<0.2	<0.05	0.14	<0.01	<0.01	<0.05	0.02	57	600
	08/02/01	<0.0125	0.745	<0.05	0.473	<0.025	<0.01	0.197	<0.025	52.9	616
	09/25/02	<0.0125	<0.100	<0.05	0.746	<0.005	<0.01	<0.05	0.040	84	615
	09/18/03	---	---	<0.01	0.135	---	---	<0.05	0.047	66.6	734
	08/18/04	---	---	<0.01	0.141	---	---	<0.05	0.048	84.3	798
MW-10	05/17/95	<0.01	4.79	<0.1	0.18	<0.01	<0.01	**3.05**	**0.41**	98	903
	04/24/96	0.01	<0.2	---	---	---	<0.01	0.26	**0.93**	72	909
	08/15/97	<0.01	<0.2	---	---	---	<0.01	0.61	**0.63**	120	**1,300**
	07/22/98	<0.002	<0.3	---	---	---	<0.002	**3.1**	**0.77**	67	820
	08/25/99	<0.01	<0.2	<0.05	0.18	<0.01	<0.01	0.62	**0.69**	120	**1,200**
	08/18/00	<0.01	<0.2	<0.05	0.17	<0.01	<0.01	<0.05	**0.58**	100	**1,100**
	08/03/01	<0.0125	0.341	<0.05	0.507	<0.025	<0.01	0.492	**0.482**	106	**1,190**
	09/26/02	<0.0125	<0.100	<0.05	0.300	<0.005	<0.01	0.870	**0.455**	112	**1,140**
	09/18/03	---	---	<0.01	0.152	---	---	0.886	**0.422**	78.2	**1,076**
	08/18/04	---	---	<0.1	0.166	---	---	0.695	**0.371**	85.9	**1,090**
MW-10D	05/17/95	<0.01	3.99	<0.1	0.17	**0.01**	0.02	**2.88**	**0.25**	59	707
	04/24/96	<0.01	<0.2	---	---	---	<0.05	0.22	0.17	72	861
	08/15/97	<0.01	<0.2	---	---	---	<0.05	0.39	**0.2**	78	910
	07/22/98	<0.002	<0.3	---	---	---	<0.01	0.6	0.15	82	690
	08/25/99	<0.01	0.2	<0.05	0.08	<0.01	<0.01	0.51	**0.28**	110	**1,000**
	08/18/00	<0.01	<0.2	<0.05	0.1	<0.01	<0.01	0.57	**0.38**	87	950
	08/03/01	<0.0125	0.26	<0.05	0.527	<0.025	<0.01	**1.19**	**0.477**	92.8	**1,180**
	09/25/02	<0.0125	<0.100	<0.05	0.171	<0.005	<0.01	**1.05**	**0.374**	120	**1,127**
	09/18/03	---	---	0.073	0.067	---	---	0.561	**0.313**	93	**1,088**
	08/18/04	---	---	**0.111**	<0.1	---	---	0.695	**0.323**	96	**1,110**
MW-11	05/17/95	<0.01	2.14	<0.1	0.1	<0.01	0.05	**1.34**	0.15	49	890
	04/24/96	0.02	<0.2	---	---	---	<0.03	0.13	0.08	28	963
	08/15/97	<0.01	<0.2	---	---	---	<0.05	0.11	0.17	39	**1,200**
	07/22/98	<0.002	<0.3	---	---	---	<0.01	<0.05	0.09	31	**1,000**
	08/24/99	<0.01	<0.2	<0.05	0.08	<0.01	<0.01	<0.05	0.13	40	850
	08/18/00	<0.01	<0.2	<0.05	0.1	<0.01	<0.01	<0.05	0.16	44	830
	08/03/01	<0.0125	0.326	<0.05	0.514	<0.025	<0.01	<0.05	0.143	51.1	835
	09/26/02	<0.0125	<0.100	<0.05	0.227	<0.005	<0.01	<0.05	0.155	80	896
	09/17/03	---	---	<0.01	0.084	---	---	<0.05	0.142	73.1	844
	08/18/04	---	---	<0.01	<0.1	---	---	<0.05	0.128	85.4	914
MW-12	05/17/95	<0.01	**5.35**	<0.1	0.13	<0.01	0.03	**2.8**	0.07	225	**1,128**
	04/24/96	<0.01	<0.2	---	---	---	<0.05	<0.03	<0.01	91	736
	08/15/97	<0.01	<0.2	---	---	---	<0.05	0.48	0.05	**320**	**1,600**
	07/22/98	<0.002	<0.3	---	---	---	<0.01	0.4	0.05	210	**1,100**
	08/24/99	<0.01	<0.2	<0.05	0.12	**0.03**	0.04	0.29	0.07	190	**1,300**
	08/18/00	<0.01	<0.2	<0.05	0.11	<0.01	<0.01	0.31	0.03	130	990
	08/02/01	<0.0125	0.196	<0.05	0.481	<0.025	<0.01	<0.05	<0.025	118	996
	09/26/02	<0.0125	<0.100	<0.05	0.247	<0.005	<0.01	<0.05	0.0381	**276**	**1,488**
	09/17/03	---	---	<0.01	0.062	---	---	<0.05	0.027	65.6	996
	08/18/04	---	---	<0.01	<0.1	---	---	<0.05	<0.025	63.8	966
MW-13	05/17/95	**0.18**	**14.08**	<0.1	0.59	<0.01	<0.01	**7.02**	0.11	137	629
	04/24/96	<0.01	<0.2	---	---	---	<0.05	<0.03	<0.01	96	667
	08/15/97	<0.01	<0.2	---	---	---	<0.05	0.24	0.01	190	930
	07/22/98	<0.002	0.36	---	---	---	<0.01	0.34	0.01	97	800
	08/24/99	<0.01	<0.2	0.06	0.22	**0.04**	0.04	0.08	0.05	140	930
	08/18/00	<0.01	<0.2	<0.05	0.18	<0.01	<0.01	<0.05	0.05	230	960
	08/03/01	<0.0125	0.302	<0.05	0.442	<0.025	<0.01	0.078	0.14	**339**	**1,410**
	09/26/02	<0.0125	<0.100	<0.05	0.284	<0.005	<0.01	0.081	0.157	96	**1,098**
	09/17/03	---	---	<0.01	0.126	---	---	0.159	0.170	**267**	**1,198**
	08/18/04	---	---	<0.01	0.113	---	---	0.327	0.196	**258**	**1,230**
WQCC Standard		0.05	5.0	0.1	1.0	0.01	0.05	1.0	0.2	250	1,000

Analyses performed by Trace Analysis, Inc. using EPA Methods 160.1, 200.7, 239.2, 270.2, 272.2, and 300.0.

New Mexico Water Quality Control Commission (WQCC) Standards are listed as specified in Section 3-103.

Bold values indicate concentrations exceed WQCC groundwater standards.

Samples for metals analysis were not filtered on 05-17-95, therefore results indicate total (dissolved and undissolved) metals.

Samples for metals analysis were filtered with a 45 mm element after 05-17-95, therefore results indicate total dissolved metals

--- Indicates sample was not analyzed for this constituent.

Table 5
Summary of Biological Parameter Results

Monitoring Well	Sampling Date	Dissolved Oxygen (mg/L)	Nitrate - NO_3 (mg/L)	Sulfate - SO_4 (mg/L)	Total Iron (mg/L)	Manganese (mg/L)	Ferrous Iron - Fe [2] (mg/L)
MW-1	05/17/95	0.51	<0.3	**1,039**	**30.76**	**0.56**	---
	08/25/99	1.90	**120**	**660**	<0.05	**0.22**	---
	02/22/00	3.37	**130**	570	---	---	---
	08/17/00	0.35	**150**	590	<0.05	<0.01	---
	02/07/01	0.24	**96**	400	---	---	---
	08/02/01	2.04	2.5	268	<0.05	0.194	---
	03/11/02	2.65	<1.00	234	---	---	---
	09/25/02	0.57	0.15	293	<0.05	0.164	0.05
	03/10/03	1.70	0.10	394	0.068	0.199	0.10
	09/17/03	0.62	1.01	210	0.099	**0.242**	0.14
	03/16/04	2.3	0.10	575	---	---	0.17
	08/18/04	3.0	<0.1	478	0.583	**0.196**	---
MW-2	05/17/95	1.60	0.81	62	0.34	**0.41**	---
	08/24/99	5.90	2.6	18	0.73	0.03	---
	02/22/00	4.47	2.8	17	---	---	---
	08/17/00	1.06	0.53	17	<0.05	<0.01	---
	02/07/01	3.36	1.8	19	---	---	---
	08/02/01	4.37	2.1	14.6	<0.05	<0.025	---
	03/11/02	4.53	1.75	29.9	---	---	---
	09/25/02	3.75	1.19	49.2	0.09	<0.025	0.35
	03/10/03	4.17	0.40	54.4	<0.05	<0.025	0.03
	09/17/03	3.76	2.00	32.8	<0.05	<0.025	0.08
	03/16/04	5.5	1.10	63.7	---	---	0.17
	08/19/04	6.6	1.47	22.3	<0.05	<0.025	---
MW-3	05/17/95	4.88	3.71	126	**8.65**	**0.24**	---
	02/09/99	8.5	5.2	59	---	<0.01	---
	08/24/99	7.61	3.7	35	0.22	<0.01	---
	02/22/00	8.08	4.0	33	---	---	---
	08/17/00	7.48	1.9	44	<0.05	<0.01	---
	02/07/01	6.78	2.8	44	---	---	---
	08/02/01	8.79	3.1	44.2	<0.05	<0.025	---
	03/11/02	8.64	3.21	63.2	---	---	---
	09/25/02	7.97	2.85	58.5	<0.05	<0.025	0.18
	03/10/03	6.40	1.10	51.3	0.096	<0.025	0.00
	09/17/03	7.50	2.41	25.7	<0.05	<0.025	0.12
	03/16/04	7.9	1.60	68.7	---	---	0.20
	08/19/04	8.6	2.45	51.5	<0.05	<0.025	---
MW-4	05/17/95	---	<0.15	78	**12.33**	0.15	---
	03/12/02	2.09	<1.00	17.6	---	---	---
	09/25/02	1.56	3.94	21.9	**12.6**	0.13	**1.56**
	03/11/03	1.87	0.60	49.2	**14.9**	0.125	**6.28**
	09/17/03	1.16	3.23	10.8	**12.6**	0.113	**5.92**
	03/16/04	2.7	0.80	2.00	---	---	**6.44**
	08/19/04	2.2	2.18	<50.0	**11.6**	0.106	---
MW-5	05/17/95	---	3	67	**8.34**	**0.49**	---
	08/25/99	0.00	<1.0	84	**6.4**	**0.53**	---
	02/23/00	0.34	< 1.0	64	---	---	---
	08/18/00	0.10	<0.1	390	<0.05	**0.77**	---
	02/08/01	0.02	<1.0	370	---	---	---
	08/03/01	2.61	<1.0	**805**	**16.8**	**1.11**	---
	03/12/02	2.61	<1.0	358	---	---	---
	09/26/02	0.18	<1.0	155	**7.30**	**0.55**	**9.86**
	03/11/03	1.56	0.50	261	**9.02**	0.639	**3.20**
	09/18/03	0.87	0.49	101	**8.02**	**0.59**	**4.50**
	03/16/04	1.0	0.60	98	---	---	**6.34**
	08/19/04	2.9	0.71	331	**7.82**	**0.63**	---
MW-6	05/17/95	---	<0.15	72	**19.66**	**0.25**	---
	09/25/02	1.93	0.96	8.16	**7.13**	0.08	**9.56**
	03/11/03	1.52	0.40	50.1	**8.59**	0.09	**3.18**
MW-7	05/17/95	6.50	2.8	161	18.28	0.22	---
	08/24/99	6.70	5.5	120	0.06	<0.01	---
	02/22/00	7.39	6.0	96	---	---	---
	08/17/00	6.98	3.0	98	<0.05	<0.05	---
	02/07/01	9.82	5.2	94	---	---	---
	08/02/01	7.64	5.2	89.5	<0.05	<0.05	---
	03/11/02	7.92	5.33	108	---	---	---
	09/26/02	2.60	5.23	41.6	<0.05	<0.05	0.10
	03/11/03	4.94	1.30	<2.50	0.096	<0.025	0.12
	09/17/03	6.93	4.04	46.6	<0.05	<0.025	0.30
	03/16/04	7.6	2.90	86.2	---	---	0.04
	08/19/04	8.1	6.05	98.6	<0.05	<0.025	---
WQCC Standards		---	10.0	600	1.0	0.2	1.0

Table 5 (Continued)
Summary of Biological Parameter Results

Monitoring Well	Sampling Date	Dissolved Oxygen (mg/L)	Nitrate - NO_3 (mg/L)	Sulfate - SO_4 (mg/L)	Total Iron (mg/L)	Manganese (mg/L)	Ferrous Iron - Fe^{+2} (mg/L)
MW-8	05/17/95	1.60	**33.4**	**602**	0.17	0.07	---
	08/24/99	4.88	3.2	31	0.05	<0.01	---
	02/22/00	3.48	3.4	22	---	---	---
	08/18/00	5.13	13	16	<0.05	<0.01	---
	02/07/01	2.67	1.9	22	---	---	---
	08/02/01	4.70	2.3	26.7	<0.05	<0.05	---
	03/11/02	3.11	5.36	49.9	---	---	---
	09/25/02	5.31	4.54	49.3	<0.05	<0.05	0.14
	03/10/03	4.33	0.50	77.1	<0.05	<0.025	0.01
	09/17/03	3.24	5.60	102	<0.05	<0.025	0.00
	03/16/04	2.3	8.40	476	---	---	0.03
	08/18/04	8.8	0.39	16.7	<0.05	<0.025	---
MW-9	05/17/95	1.85	4.70	126	12.08	0.15	---
	11/14/95	2.82	---	---	---	---	---
	01/17/96	5.3	---	---	---	---	---
	04/24/96	2.0	0.2	60	<0.03	<0.01	---
	01/22/97	14.6	3.4	71	---	---	---
	08/15/97	3.8	3.4	82	0.91	<0.01	---
	01/22/98	5.2	4.1	160	---	---	---
	07/20/98	2.38	5.4	72	0.07	<0.01	---
	02/09/99	3.1	5.4	78	---	---	---
	08/24/99	3.16	4.5	76	<0.05	<0.01	---
	02/22/00	0.28	4.5	75	---	---	---
	08/18/00	0.60	1.3	81	<0.05	0	---
	02/07/01	0.48	2.5	77	---	---	---
	08/02/01	1.61	2.3	74.6	0.197	<0.025	---
	03/11/02	2.58	2.05	91.1	---	---	---
	09/25/02	2.54	1.69	31.9	<0.05	0.040	0.11
	03/10/03	1.79	0.10	99.2	<0.05	0.031	0.02
	09/18/03	1.89	0.42	57	<0.05	0.047	0.05
	03/16/04	2.1	0.20	98.6	---	---	0.05
	08/18/04	2.1	0.34	110	<0.05	0.048	---
MW-10	05/17/95	1.05	1.03	184	**3.05**	**0.41**	---
	11/14/95	1.98	<0.01	174	---	---	---
	01/17/96	5.0	<0.5	40	---	---	---
	04/24/96	1.6	<0.1	16	0.26	**0.93**	---
	01/22/97	8.75	<0.1	25	---	---	---
	08/15/97	2.9	< 1.0	210	0.61	**0.63**	---
	01/22/98	4.5	0.22	52	---	---	---
	07/22/98	1.13	3.50	40	**3.1**	**0.8**	---
	02/09/99	1.6	< 1.0	68	---	---	---
	08/25/99	0.00	<1.0	200	0.62	**0.69**	---
	02/23/00	0.47	< 1.0	180	---	---	---
	08/18/00	---	<0.1	200	<0.05	**1**	---
	02/08/01	0.00	<1.0	220	---	---	---
	08/03/01	2.34	<1.0	206	0.492	**0.482**	---
	03/12/02	2.38	<1.0	195	---	---	---
	09/26/02	0.10	0.91	133	0.87	**0.46**	0.90
	03/10/03	4.11	0.10	199	0.286	**0.477**	0.41
	09/18/03	1.60	<0.1	64.8	0.886	**0.422**	0.92
	03/16/04	1.1	0.10	154	---	---	**1.06**
	08/18/04	1.3	0.11	142	0.695	**0.371**	---
MW-10D	05/17/95	0.45	0.63	232	**2.88**	**0.25**	---
	11/14/95	2.41	---	---	---	---	---
	01/17/96	5.0	---	---	---	---	---
	04/24/96	1.8	<0.1	21	0.22	0.17	---
	01/22/97	5.5	<0.1	210	---	---	---
	08/15/97	1.8	< 1.0	180	0.39	**0.20**	---
	01/22/98	5.7	1.30	230	---	---	---
	07/22/98	1.49	4.0	140	0.60	0.15	---
	02/09/99	1.9	< 1.0	200	---	---	---
	08/25/99	1.54	2.4	220	0.51	**0.28**	---
	02/23/00	3.03	2.7	220	---	---	---
	08/18/00	0.50	<0.1	250	0.57	**0.38**	---
	02/07/01	0.06	<1.0	260	---	---	---
	08/03/01	1.88	<1.0	300	**1.19**	**0.48**	---
	03/12/02	2.46	<1.0	283	---	---	---
	09/25/02	0.36	0.64	253	**1.05**	**0.37**	**1.05**
	03/10/03	1.51	0.10	265	0.915	**0.361**	---
	09/18/03	1.15	0.38	117	0.561	**0.313**	---
	03/16/04	2.1	0.10	154	---	---	0.75
	08/18/04	2.7	<0.1	198	0.695	**0.323**	---
WQCC Standards		---	10.0	600	1.0	0.2	1.0

Table 5 (Continued)
Summary of Biological Parameter Results

Monitoring Well	Sampling Date	Dissolved Oxygen (mg/L)	Nitrate - NO_3 (mg/L)	Sulfate - SO_4 (mg/L)	Total Iron (mg/L)	Manganese (mg/L)	Ferrous Iron - Fe [2] (mg/L)
MW-11	05/17/95	1.05	**28.6**	190	**1.34**	**0.15**	---
	11/14/95	2.30	1.56	184	---	---	---
	01/17/96	2.8	**43.3**	150	---	---	---
	04/24/96	2.0	1.9	124	0.13	0.08	---
	01/22/97	7.0	**24**	170	---	---	---
	08/15/97	1.8	**40**	160	0.11	0.17	---
	01/22/98	4.3	**58**	150	---	---	---
	07/22/98	1.06	**19**	200	<0.05	0.09	---
	02/09/99	1.4	**12**	150	---	---	---
	08/24/99	0.09	8.0	120	<0.05	0.13	---
	02/23/00	0.58	7.0	120	---	---	---
	08/18/00	0.00	3.1	120	<0.05	0.16	---
	02/07/01	0.07	4.0	100	---	---	---
	08/03/01	2.46	4.1	95.7	<0.05	0.143	---
	03/12/02	2.43	3.69	104	---	---	---
	09/26/02	0.30	3.33	47.9	<0.05	0.155	0.10
	03/10/03	3.82	0.10	104	<0.05	0.151	0.01
	09/17/03	0.63	2.53	49.9	<0.05	0.142	0.04
	03/16/04	1.6	1.00	85	---	---	0.11
	08/18/04	1.1	2.00	94.7	<0.05	0.128	---
MW-12	05/17/95	0.97	1.01	206	**2.80**	**0.07**	---
	11/14/95	3.15	---	---	---	---	---
	01/17/96	1.7	---	---	---	---	---
	04/24/96	1.8	<0.1	53	<0.03	<0.01	---
	01/22/97	11.8	<0.1	150	---	---	---
	08/15/97	1.9	< 1.0	210	0.48	0.05	---
	01/22/98	4.2	0.41	150	---	---	---
	07/22/98	2.52	0.71	130	0.40	0.05	---
	02/09/99	3.7	3.80	98	---	---	---
	08/24/99	0.14	<1.0	200	0.29	0.07	---
	02/22/00	0.81	3.10	73	---	---	---
	08/18/00	0.26	<0.1	120	0.31	0.03	---
	02/07/01	0.22	1.6	120	---	---	---
	08/02/01	2.23	2.2	116	<0.05	<0.025	---
	03/12/02	2.98	4.39	211	---	---	---
	09/26/02	0.72	3.14	107	<0.05	0.038	0.07
	03/10/03	3.00	0.20	165	<0.05	0.031	0.14
	09/17/03	2.27	3.37	92.5	<0.05	0.027	0.01
	03/16/04	1.5	0.20	163	---	---	0.03
	08/18/04	2.3	4.95	142	<0.05	<0.025	---
MW-13	05/17/95	1.51	5.00	99	**7.02**	**0.11**	---
	11/14/95	5.00	0.02	44	---	---	---
	01/17/96	2.0	6.54	42	---	---	---
	04/24/96	2.6	0.2	46	<0.03	<0.01	---
	01/22/97	9.5	5.4	65	---	---	---
	08/15/97	5.1	4.5	78	0.24	0.01	---
	01/22/98	7.4	7.3	88	---	---	---
	07/20/98	3.62	**12**	74	0.34	0.01	---
	02/09/99	2.7	**16**	79	---	---	---
	08/24/99	0.30	**16**	83	0.08	0.05	---
	02/23/00	0.59	9.1	86	---	---	---
	08/18/00	0.31	3.2	100	<0.05	0.05	---
	02/07/01	0.17	4.3	100	---	---	---
	08/03/01	2.63	1.3	126	0.08	0.140	---
	03/12/02	2.49	2.61	146	---	---	---
	09/26/02	0.40	3.09	171	0.08	0.157	0.18
	03/10/03	3.38	0.50	188	0.115	0.154	0.32
	09/17/03	0.98	2.01	67.2	0.159	0.170	**1.12**
	03/16/04	1.3	1.50	198	---	---	0.31
	08/18/04	1.2	2.75	198	0.327	0.196	---
WQCC Standards		---	10.0	600	1.0	0.2	1.0

--- indicates not analyzed for this constituent.
Analyses performed by Trace A'---lysis, Inc., Lubbock, Texas.
Dissolved oxygen (DO) readings obtained with electronic DO meters.
New Mexico Water Quality Control Commission (WQCC) standards as listed in Section 3-103.
Values in **boldface** type indicate concentrations exceed WQCC groundwater standards

Table 6
Expressed Assimilative Capacity

Electron Acceptor/ Byproduct	Terminal Electron Accepting Process (in order of preferred utilization)	Trend in Analyte Concentration During Biodegradation	Mass of benzene Degraded per unit mass of Electron Acceptor Utilized/Produced	Concentrations of Electron Acceptors/ Byproducts (mg/L)	Biodegradation Capacity of Electron Acceptors/ Byproducts (mg/L)
DO	Aerobic Respiration	Decreases	0.326	7.70	2.51
Mn^{2+}	Manganese Reduction	Increases	0.14	0.371	0.05
NO_3	Denitrification	Decreases	0.21*	4.84	1.02
Fe^{2+}	Ferric Iron Reduction	Increases	0.046	6.44	0.30
SO_4	Sulfate Reduction	Decreases	0.22*	461	101.5
				Total Biodegradation Capacity	105.4
				Highest benzene concentration observed on site	16.6
				Average benzene concentration observed on site	1.38

* Conservative assumption (does not take into account microbial cell mass production)

Degradation capacity based on values provided by "*Technical Protocol for Implementing Intrinsic Remediation With Long-Term Monitoring of Natural Attenuation of Fuel-Contamination Dissolved in Groundwater*" (Volume 1, 1995, Air Force Center for Environmental Excellence, Technology Transfer Division)

Table 7

LNAPL Recovery Volumes

Date	LNAPL Thickness (feet)		LNAPL Recovered (gallons)		Cumulative Product LNAPL (gallons)
	MW-4	MW-6	MW-4	MW-6	
04/22/98	0.43	0.05	0.09	0.04	0.13
05/06/98	0.44	0.03	0.08	0.03	0.24
06/23/98	0.47	0.07	0.35	0.00	0.60
07/20/98	0.36	0.08	0.38	0.00	0.98
08/07/98	0.16	0.12	0.35	0.00	1.33
09/17/98	0.09	0.19	0.35	0.01	1.68
10/28/98	0.05	0.00	0.36	0.01	2.05
11/17/98	0.04	0.02	0.14	0.01	2.19
12/15/98	0.06	<0.01	0.35	0.01	2.55
01/18/99	0.11	0.01	0.37	0.00	2.92
02/09/99	0.13	<0.01	0.38	0.00	3.30
03/24/99	0.53	0.07	0.40	0.41	4.11
04/21/99	0.72	0.01	0.94	0.00	5.05
05/13/99	1.00	0.03	0.45	0.00	5.50
06/14/99	1.32	0.01	0.47	0.00	5.96
08/04/99	1.10	<0.01	0.46	0.00	6.42
08/20/99	1.11	<0.01	0.45	0.00	6.87
08/25/99	0.88	<0.01	0.42	0.00	7.29
09/14/99	0.70	0.00	0.43	0.00	7.72
10/26/99	0.45	<0.01	0.42	0.00	8.14
11/22/99	0.37	<0.01	0.42	0.00	8.56
12/22/99	0.23	0.01	0.42	0.00	8.98
01/26/00	0.12	<0.01	0.40	0.25	9.63
02/22/00	0.03	<0.01	0.18	0.20	10.01
04/04/00	<0.01	0.00	0.13	0.00	10.14
04/24/00	0.05	0.16	0.02	0.00	10.16
06/15/00	0.03	0.48	0.13	0.71	11.00
07/12/00	<0.01	<0.01	0.03	0.04	11.07
08/18/00	<0.01	<0.01	0.002	0.002	11.08
10/02/00	<0.01	0.70	0.00	0.84	11.92
12/14/00	<0.01	0.08	0.00	0.22	12.14
01/23/01	0.01	0.71	0.10	0.56	12.80
02/06/01	0.01	0.11	0.04	0.18	13.02
03/21/01	0.01	0.35	0.00	0.39	13.41
05/16/01	0.00	0.02	0.07	0.12	13.61
06/19/01	0.01	0.01	0.01	0.05	13.66
07/20/01	0.00	0.02	0.03	0.08	13.78
08/02/01	0.01	0.01	0.00	0.05	13.83
09/11/01	0.01	0.11	0.02	0.14	14.00

Table 7 (Continued)

LNAPL Recovery Volumes

Date	LNAPL Thickness (feet)		LNAPL Recovered (gallons)		Cumulative Product LNAPL (gallons)
	MW-4	MW-6	MW-4	MW-6	
10/09/01	0.01	0.04	0.02	0.15	14.16
11/08/01	<0.01	0.09	0.00	0.11	14.28
12/10/01	0.01	0.01	0.04	0.09	14.41
01/14/02	0.10	0.01	0.02	0.30	14.73
02/17/02	<0.01	<0.01	0.04	0.08	14.85
03/11/02	<0.01	0.01	0.00	0.04	14.89
04/09/02	<0.01	0.04	0.05	0.18	15.13
05/14/02	0.01	0.01	0.13	0.09	15.34
06/18/02	<0.01	0.02	0.12	0.12	15.59
07/11/02	<0.01	0.01	0.10	0.06	15.75
08/14/02	0.01	0.01	0.11	0.30	16.15
09/25/02	<0.01	0.05	0.11	0.18	16.45
10/24/02	0.01	0.01	0.12	0.02	16.58
11/22/02	<0.01	<0.01	0.03	0.02	16.62
12/17/02	<0.01	<0.01	0.06	0.10	16.78
01/14/03	<0.01	0.01	0.08	0.15	17.01
02/19/03	<0.01	0.10	0.06	0.21	17.28
03/08/03	<0.01	<0.01	0.00	0.10	17.38
04/23/03	0.00	0.16	0.04	0.16	17.58
05/29/03	0.00	0.24	0.00	0.13	17.71
06/23/03	0.00	0.27	0.01	0.19	17.91
07/30/03	0.01	0.45	0.06	0.26	18.23
08/20/03	0.00	0.40	0.00	0.26	18.49
09/17/03	0.00	0.48	0.00	0.35	18.84
10/28/03	0.00	0.65	0.00	0.34	19.18
10/30/03	0.00	0.61	0.00	0.04	19.22
11/21/03	0.00	0.52	0.00	0.16	19.39
12/08/03	0.00	0.37	0.00	0.00	19.39
12/30/03	0.00	0.37	0.02	0.17	19.58
01/15/04	0.00	0.53	0.00	0.36	19.94
02/18/04	0.00	0.37	0.05	0.05	20.04
03/15/04	0.00	0.37	0.03	0.90	20.97
04/29/04	0.32	1.12	0.40	1.65	23.01
05/26/04	0.17	0.53	0.33	0.42	23.77
06/30/04	0.23	0.22	0.31	0.77	24.84
07/31/04	0.08	0.27	0.14	0.95	25.93
08/17/04	<0.01	0.10	0.11	0.49	26.53
09/09/04	0.00	0.09	0.00	0.15	26.69
10/18/04	0.00	2.11	0.00	3.52	30.21
Total Volume of LNAPL Recovered Since April 22, 1998:					**30.21**
Total Volume of LNAPL Recovered January - October 2004:					**10.63**

LNAPL recovery methods used:

MW-4: Hydrophobic (oil adsorbent) sock.

MW-6: Passive bailer (hydrophobic sock replaced with bailer on 05-29-03).

APPENDIX A

LABORATORY ANALYTICAL REPORTS AND

CHAIN-OF-CUSTODY DOCUMENTATION

Summary Report

Gil Van Deventer
Trident Environmental
P.O. Box 7624
Midland, TX 79708

Report Date: March 24, 2004

Work Order: 4031904

Project Location: Linam Ranch Gas Plant
Project Name: Duke Energy Field Services
Project Number: V-102

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
29724	MW-1	water	2004-03-16	14:20	2004-03-19
29725	MW-2	water	2004-03-16	09:00	2004-03-19
29726	MW-3	water	2004-03-16	14:00	2004-03-19
29727	MW-4	water	2004-03-16	13:25	2004-03-19
29728	MW-5	water	2004-03-16	13:15	2004-03-19
29729	MW-7	water	2004-03-16	14:50	2004-03-19
29730	MW-8	water	2004-03-16	08:50	2004-03-19
29731	MW-9	water	2004-03-16	10:40	2004-03-19
29732	MW-10	water	2004-03-16	10:35	2004-03-19
29733	MW-10d	water	2004-03-16	11:20	2004-03-19
29734	MW-11	water	2004-03-16	10:05	2004-03-19
29735	MW-12	water	2004-03-16	08:00	2004-03-19
29736	MW-13	water	2004-03-16	09:40	2004-03-19
29737	Duplicate	water	2004-03-16	00:00	2004-03-19

	BTEX			
Sample - Field Code	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylene (mg/L)
29724 - MW-1	<0.00100	<0.00100	<0.00100	<0.00100
29725 - MW-2	<0.00100	<0.00100	<0.00100	<0.00100
29726 - MW-3	<0.00100	<0.00100	<0.00100	<0.00100
29727 - MW-4	17.8	<0.200	0.512	<0.200
29728 - MW-5	0.146	<0.00100	0.241	0.00500
29729 - MW-7	<0.00100	<0.00100	<0.00100	<0.00100
29730 - MW-8	<0.00100	<0.00100	<0.00100	<0.00100
29731 - MW-9	<0.00100	<0.00100	<0.00100	0.0124
29732 - MW-10	0.456	<0.0100	0.0471	0.0226
29733 - MW-10d	<0.00500	<0.00500	<0.00500	<0.00500
29734 - MW-11	<0.00100	<0.00100	<0.00100	<0.00100
29735 - MW-12	<0.00100	<0.00100	<0.00100	<0.00100
29736 - MW-13	<0.00100	<0.00100	<0.00100	<0.00100
29737 - Duplicate	<0.00100	<0.00100	<0.00100	<0.00100

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
155 McCutcheon, Suite H El Paso, Texas 79932 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Gil Van Deventer
Trident Environmental
P.O. Box 7624
Midland, TX 79708

Report Date: March 24, 2004

Work Order: 4031904

Project Location: Linam Ranch Gas Plant
Project Name: Duke Energy Field Services
Project Number: Duke Energy Field Services

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
29724	MW-1	water	2004-03-16	14:20	2004-03-19
29725	MW-2	water	2004-03-16	09:00	2004-03-19
29726	MW-3	water	2004-03-16	14:00	2004-03-19
29727	MW-4	water	2004-03-16	13:25	2004-03-19
29728	MW-5	water	2004-03-16	13:15	2004-03-19
29729	MW-7	water	2004-03-16	14:50	2004-03-19
29730	MW-8	water	2004-03-16	08:50	2004-03-19
29731	MW-9	water	2004-03-16	10:40	2004-03-19
29732	MW-10	water	2004-03-16	10:35	2004-03-19
29733	MW-10d	water	2004-03-16	11:20	2004-03-19
29734	MW-11	water	2004-03-16	10:05	2004-03-19
29735	MW-12	water	2004-03-16	08:00	2004-03-19
29736	MW-13	water	2004-03-16	09:40	2004-03-19
29737	Duplicate	water	2004-03-16	00:00	2004-03-19

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.

Dr. Blair Leftwich, Director

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0902	mg/L	1	0.100	90	71.2 - 115
4-Bromofluorobenzene (4-BFB)		0.0820	mg/L	1	0.100	82	76.5 - 116

Sample: 29727 - MW-4

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	8419	Date Analyzed:	2004-03-22	Analyzed By:	MS
Prep Batch:	7502	Date Prepared:	2004-03-22	Prepared By:	MS

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		17.8	mg/L	200	0.00100
Toluene		<0.200	mg/L	200	0.00100
Ethylbenzene		0.512	mg/L	200	0.00100
Xylene		<0.200	mg/L	200	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	[1]	40.7	mg/L	200	0.200	102	79.7 - 119
4-Bromofluorobenzene (4-BFB)	[2]	36.3	mg/L	200	0.200	91	65.6 - 141

Sample: 29728 - MW-5

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	8376	Date Analyzed:	2004-03-18	Analyzed By:	MS
Prep Batch:	7469	Date Prepared:	2004-03-18	Prepared By:	MS

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.146	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		0.241	mg/L	1	0.00100
Xylene		0.00500	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0994	mg/L	1	0.100	99	71.2 - 115
4-Bromofluorobenzene (4-BFB)		0.114	mg/L	1	0.100	114	76.5 - 116

Sample: 29729 - MW-7

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	8376	Date Analyzed:	2004-03-18	Analyzed By:	MS
Prep Batch:	7469	Date Prepared:	2004-03-18	Prepared By:	MS

[1] *Changed spike amount from 0.1 to 0.2 due to prep. Sample was spiked with double amount of surrogate.*
[2] Changed spike amount from 0.1 to 0.2 due to prep. Sample was spiked with double amount of surrogate.

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.00100	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene		<0.00100	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0881	mg/L	1	0.100	88	71.2 - 115
4-Bromofluorobenzene (4-BFB)		0.0819	mg/L	1	0.100	82	76.5 - 116

Sample: 29730 - MW-8

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	8376	Date Analyzed:	2004-03-18	Analyzed By:	MS
Prep Batch:	7469	Date Prepared:	2004-03-18	Prepared By:	MS

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.00100	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene		<0.00100	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0917	mg/L	1	0.100	92	71.2 - 115
4-Bromofluorobenzene (4-BFB)		0.0819	mg/L	1	0.100	82	76.5 - 116

Sample: 29731 - MW-9

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	8376	Date Analyzed:	2004-03-18	Analyzed By:	MS
Prep Batch:	7469	Date Prepared:	2004-03-18	Prepared By:	MS

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.00100	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene		0.0124	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0860	mg/L	1	0.100	86	71.2 - 115
4-Bromofluorobenzene (4-BFB)		0.0832	mg/L	1	0.100	83	76.5 - 116

Sample: 29732 - MW-10

Analysis:	*BTEX*	Analytical Method:	S 8021B	Prep Method:	S 5030B

QC Batch: 8419 | Date Analyzed: 2004-03-22 | Analyzed By: MS
Prep Batch: 7502 | Date Prepared: 2004-03-22 | Prepared By: MS

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.456	mg/L	10	0.00100
Toluene		<0.0100	mg/L	10	0.00100
Ethylbenzene		0.0471	mg/L	10	0.00100
Xylene		0.0226	mg/L	10	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.996	mg/L	10	0.100	100	79.7 - 119
4-Bromofluorobenzene (4-BFB)		0.841	mg/L	10	0.100	84	65.6 - 141

Sample: 29733 - MW-10d

Analysis: BTEX | Analytical Method: S 8021B | Prep Method: S 5030B
QC Batch: 8419 | Date Analyzed: 2004-03-22 | Analyzed By: MS
Prep Batch: 7502 | Date Prepared: 2004-03-22 | Prepared By: MS

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.00500	mg/L	5	0.00100
Toluene		<0.00500	mg/L	5	0.00100
Ethylbenzene		<0.00500	mg/L	5	0.00100
Xylene		<0.00500	mg/L	5	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.496	mg/L	5	0.100	99	79.7 - 119
4-Bromofluorobenzene (4-BFB)		0.417	mg/L	5	0.100	83	65.6 - 141

Sample: 29734 - MW-11

Analysis: BTEX | Analytical Method: S 8021B | Prep Method: S 5030B
QC Batch: 8419 | Date Analyzed: 2004-03-22 | Analyzed By: MS
Prep Batch: 7502 | Date Prepared: 2004-03-22 | Prepared By: MS

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.00100	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene		<0.00100	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0945	mg/L	1	0.100	94	79.7 - 119
4-Bromofluorobenzene (4-BFB)		0.0752	mg/L	1	0.100	75	65.6 - 141

Sample: 29735 - MW-12

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	8419	Date Analyzed:	2004-03-22	Analyzed By:	MS
Prep Batch:	7502	Date Prepared:	2004-03-22	Prepared By:	MS

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.00100	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene		<0.00100	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0935	mg/L	1	0.100	94	79.7 - 119
4-Bromofluorobenzene (4-BFB)		0.0755	mg/L	1	0.100	76	65.6 - 141

Sample: 29736 - MW-13

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	8419	Date Analyzed:	2004-03-22	Analyzed By:	MS
Prep Batch:	7502	Date Prepared:	2004-03-22	Prepared By:	MS

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.00100	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene		<0.00100	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.101	mg/L	1	0.100	101	79.7 - 119
4-Bromofluorobenzene (4-BFB)		0.0858	mg/L	1	0.100	86	65.6 - 141

Sample: 29737 - Duplicate

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	8419	Date Analyzed:	2004-03-22	Analyzed By:	MS
Prep Batch:	7502	Date Prepared:	2004-03-22	Prepared By:	MS

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.00100	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene		<0.00100	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0961	mg/L	1	0.100	96	79.7 - 119
4-Bromofluorobenzene (4-BFB)		0.0875	mg/L	1	0.100	88	65.6 - 141

Method Blank (1) QC Batch: 8376

Parameter	Flag	Result	Units	RL
Benzene		<0.00100	mg/L	0.001
Toluene		<0.00100	mg/L	0.001
Ethylbenzene		<0.00100	mg/L	0.001
Xylene		<0.00100	mg/L	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0985	mg/L	1	0.100	98	64.1 - 117
4-Bromofluorobenzene (4-BFB)		0.0858	mg/L	1	0.100	86	72.2 - 118

Method Blank (1) QC Batch: 8419

Parameter	Flag	Result	Units	RL
Benzene		<0.00100	mg/L	0.001
Toluene		<0.00100	mg/L	0.001
Ethylbenzene		<0.00100	mg/L	0.001
Xylene		<0.00100	mg/L	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0985	mg/L	1	0.100	98	76.2 - 119
4-Bromofluorobenzene (4-BFB)		0.0791	mg/L	1	0.100	79	58.5 - 136

Laboratory Control Spike (LCS-1) QC Batch: 8376

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Benzene	0.0983	0.0982	mg/L	1	0.100	<0.000255	98	0	79.2 - 113	20
Toluene	0.0985	0.0984	mg/L	1	0.100	<0.000153	98	0	78.8 - 114	20
Ethylbenzene	0.0966	0.0966	mg/L	1	0.100	<0.000226	97	0	79.8 - 112	20
Xylene	0.293	0.293	mg/L	1	0.300	<0.000531	98	0	76.8 - 114	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0927	0.0956	mg/L	1	0.100	93	96	71.2 - 115
4-Bromofluorobenzene (4-BFB)	0.0908	0.0928	mg/L	1	0.100	91	93	76.5 - 116

Laboratory Control Spike (LCS-1) QC Batch: 8419

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Benzene	0.108	0.109	mg/L	1	0.100	<0.000338	108	1	84.6 - 117	20
Toluene	0.105	0.107	mg/L	1	0.100	<0.000299	105	2	80.9 - 115	20

continued . . .

control spikes continued ...

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Ethylbenzene	0.104	0.104	mg/L	1	0.100	<0.000469	104	0	77.6 - 119	20
Xylene	0.309	0.327	mg/L	1	0.300	<0.000787	103	6	76.2 - 122	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.112	0.104	mg/L	1	0.100	112	104	79.7 - 119
4-Bromofluorobenzene (4-BFB)	0.102	0.0936	mg/L	1	0.100	102	94	65.6 - 141

Standard (ICV-1) QC Batch: 8376

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.100	100	85 - 115	2004-03-18
Toluene		mg/L	0.100	0.101	101	85 - 115	2004-03-18
Ethylbenzene		mg/L	0.100	0.100	100	85 - 115	2004-03-18
Xylene		mg/L	0.300	0.302	101	85 - 115	2004-03-18

Standard (CCV-1) QC Batch: 8376

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0943	94	85 - 115	2004-03-18
Toluene		mg/L	0.100	0.0958	96	85 - 115	2004-03-18
Ethylbenzene		mg/L	0.100	0.0953	95	85 - 115	2004-03-18
Xylene		mg/L	0.300	0.286	95	85 - 115	2004-03-18

Standard (CCV-2) QC Batch: 8376

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0940	94	85 - 115	2004-03-18
Toluene		mg/L	0.100	0.0954	95	85 - 115	2004-03-18
Ethylbenzene		mg/L	0.100	0.0940	94	85 - 115	2004-03-18
Xylene		mg/L	0.300	0.285	95	85 - 115	2004-03-18

Standard (ICV-1) QC Batch: 8419

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.106	106	85 - 115	2004-03-22
Toluene		mg/L	0.100	0.102	102	85 - 115	2004-03-22
Ethylbenzene		mg/L	0.100	0.101	101	85 - 115	2004-03-22
Xylene		mg/L	0.300	0.300	100	85 - 115	2004-03-22

Standard (CCV-1) QC Batch: 8419

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.106	106	85 - 115	2004-03-22
Toluene		mg/L	0.100	0.103	103	85 - 115	2004-03-22
Ethylbenzene		mg/L	0.100	0.102	102	85 - 115	2004-03-22
Xylene		mg/L	0.300	0.303	101	85 - 115	2004-03-22

Standard (CCV-2) QC Batch: 8419

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.108	108	85 - 115	2004-03-22
Toluene		mg/L	0.100	0.104	104	85 - 115	2004-03-22
Ethylbenzene		mg/L	0.100	0.102	102	85 - 115	2004-03-22
Xylene		mg/L	0.300	0.303	101	85 - 115	2004-03-22

Report Date: March 24, 2004
Duke Energy Field Services

Work Order: 4031904
Duke Energy Field Services

Page Number: 10 of 11
Linam Ranch Gas Plant

4031904

V-102-0304-

TRIDENT ENVIRONMENTAL

Trident Environmental
P.O. Box 7624
Midland, Texas 79708
(915) 682-0808
(915) 682-0727 (Fax)

Chain of Custody

Date 3-16-04 Page 1 of 2

Lab Name: TraceAnalysis Inc.
Address: 6701 Aberdeen, Ste. 9
Lubbock, Texas 79424
Telephone: 800-378-1296

Sampler's (SIGNATURE): Gil VanDeventer

Sample Identification		Matrix	Date	Time	Sample Type: G - Grab, C- Composite	BTEX (EPA 8021B)	MTBE (EPA 8021B)	SVOC (EPA 8270)	PAH (EPA 8270)	VOC (EPA 8260)	TPH (EPA 418.1)	TPH (TX-1005)	TPH (TX-1006)	GRO (EPA 8015G)	DRO (EPA 8015D)	TDS (EPA 160.1)	Anions/Cations	TCLP Metals	Total Metals: Ag,Al,As,Ba,Cd,Cr,Fe, & Mn	Ions: SO_4, Cl, & TDS	Ions: NO_3					Number of Containers
MW-1	29724	Water	3-16-04	1420	G	✓																				2
MW-2	29725	Water	3-16-04	0900	G	✓																				2
MW-3	29726	Water	3-16-04	1400	G	✓																				2
MW-4	29727	Water	3-16-04	1325	G	✓																				2
MW-5	29728	Water	3-16-04	1315	G	✓																				2
MW-7	29729	Water	3-16-04	0950	G	✓																				2
MW-8	29730	Water	3-16-04	0850	G	✓																				2
MW-9	29731	Water	3-16-04	1040	G	✓																				2
MW-10	29732	Water	3-16-04	1035	G	✓																				2
MW-10d	29733	Water	3-16-04	1120	G	✓																				2

Analysis Request

Project Information		Sample Receipt	
Project Name:	Duke Energy Field Services	Total Containers:	
Project Location:	Linam Ranch Gas Plant	COC Seals:	
Project Manager:	Gil Van Deventer	Rec'd Good Cond/Cold:	4°
Cost Center No.:	V-102	Conforms to Records:	
Shipping ID No.:	Lonestar 524072	Lab No.:	
Bill to (see below):			

Special Instructions/Comments: Please send invoice direct to client:
Duke Energy Field Svcs, Attn: ~~Steve Weathers~~ Daniel Dick, PO Box 5493, Denver, CO 80217

Relinquished By: (1)	Relinquished By: (2)	Relinquished By: (3)
(Company) Trident Environmental	(Company) TRACE ANALYSIS	(Company)
(Printed Name) Gil Van Deventer	(Printed Name) HELEN SHELTON	(Printed Name)
(Signature) Gil VanDeventer	(Signature) Helen Shelton	(Signature)
(Date) 3-17-04 (Time) 1730	(Date) 3/18/04 (Time) 1730	(Date) (Time)
Received By: (1)	**Received By: (2)**	**Received By: (3)**
(Company) TRACE ANALYSIS	(Company) TraceAnalysis	(Company)
(Printed Name) HELEN SHELTON	(Printed Name) BRENDA WARD	(Printed Name)
(Signature) Helen Shelton	(Signature) Brenda Ward	(Signature)
(Date) 3/17/04 (Time) 1730	(Date) 3/18/04 (Time) 9:36	(Date) (Time)

Copy signed original form for Trident Environmental records

Shipped Lone Star 20 samples - HS

4031904

V-102-0304-2 DAV

Chain of Custody

TRIDENT ENVIRONMENTAL

Trident Environmental
P.O. Box 7624
Midland, Texas 79708
(915) 682-0808
(915) 682-0727 (Fax)

Date 3-16-04 Page 2 of 2

Lab Name: TraceAnalysis Inc.
Address: 6701 Aberdeen, Ste. 9
Lubbock, Texas 79424
Telephone: 800-378-1296

Samplers (SIGNATURES): Gil Van Deventer

Sample Identification		Matrix	Date	Time	Sample Type: G - Grab, C- Composite	BTEX (EPA 8021B)	MTBE (EPA 8021B)	SVOC (EPA 8270)	PAH (EPA 8270)	VOC (EPA 8260)	TPH (EPA 418.1)	TPH (TX-1005)	TPH (TX-1006)	GRO (EPA 8015G)	DRO (EPA 8015D)	TDS (EPA 160.1)	Anions/Cations	TCLP Metals	Total Metals: Ag,Al,As,Ba,Cd,Cr,Fe, & Mn	Ions: SO_4, Cl, & TDS	Ions: NO_3					Number of Containers
MW-11	29734	Water	3-16-04	1005	G	✓																			2
MW-12	29735	Water	3-16-04	0800	G	✓																			2
MW-13	29736	Water	3-16-04	0940	G	✓																			2
Duplicate	29737	Water	3-16-04	0000	G	✓																			2

Analysis Request

Project Information	
Project Name:	Duke Energy Field Services
Project Location:	Linam Ranch Gas Plant
Project Manager:	Gil Van Deventer
Cost Center No.:	V-102
Shipping ID No.:	Lone Star P524072
Bill to (see below):	

Sample Receipt	
Total Containers:	
COC Seals:	
Rec'd Good Cond/Cold:	HC
Conforms to Records:	
Lab No.:	

Special Instructions/Comments: Please send invoice direct to client:
Duke Energy Field Svcs, Attn: ~~Steve Weathers~~ Daniel Dick, PO Box 5493, Denver, CO 80217

Relinquished By: (1)	Relinquished By: (2)	Relinquished By: (3)
(Company) Trident Environmental	(Company) TRACE ANALYSIS	(Company)
(Printed Name) Gil Van Deventer	(Printed Name) HELEN SHELTON	(Printed Name)
(Signature) Gil Van Deventer	(Signature) Helen Shelton	(Signature)
(Date) 3-17-04 (Time) 1730	(Date) 3/18/04 (Time) 1730	(Date) (Time)
Received By: (1)	**Received By: (2)**	**Received By: (3)**
(Company) TRACE ANALYSIS	(Company)	(Company)
(Printed Name) HELEN SHELTON	(Printed Name)	(Printed Name)
(Signature) Helen Shelton	(Signature)	(Signature)
(Date) 3/17/04 (Time) 1730	(Date) (Time)	(Date) (Time)

Copy signed original form for Trident Environmental records

shipped Lone Star 9714 8 samples - HS

Summary Report

Gil Van Deventer
Trident Environmental
P.O. Box 7624
Midland, TX 79708

Report Date: September 8, 2004

Work Order: 4082308

Cost Center #: V-102
Project Location: Linam Ranch Plant
Project Name: Duke Energy Field Services

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
42072	MW-1	water	2004-08-18	11:55	2004-08-21
42073	MW-2	water	2004-08-19	12:17	2004-08-21
42074	MW-3	water	2004-08-19	10:40	2004-08-21
42075	MW-4	water	2004-08-19	15:39	2004-08-21
42076	MW-5	water	2004-08-19	14:15	2004-08-21
42077	MW-7	water	2004-08-19	12:44	2004-08-21
42078	MW-8	water	2004-08-18	10:40	2004-08-21
42079	MW-9	water	2004-08-19	11:31	2004-08-21
42080	MW-10	water	2004-08-18	16:40	2004-08-21
42081	MW-10D	water	2004-08-19	17:20	2004-08-21
42082	MW-11	water	2004-08-18	16:45	2004-08-21
42083	MW-12	water	2004-08-18	13:30	2004-08-21
42084	MW-13	water	2004-08-18	14:30	2004-08-21
42085	Duplicate	water	2004-08-19	00:00	2004-08-21
42086	Rinsate (10d)	water	2004-08-18	18:00	2004-08-21
42087	Trip Blank	water	2004-06-15	00:00	2004-08-21

	BTEX			
Sample - Field Code	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylene (mg/L)
42072 - MW-1	<0.00100	<0.00100	<0.00100	<0.00100
42073 - MW-2	<0.00100	<0.00100	<0.00100	<0.00100
42074 - MW-3	<0.00100	<0.00100	<0.00100	<0.00100
42075 - MW-4	16.6	<0.100	0.403	<0.100
42076 - MW-5	0.0118	<0.00500	0.0814	<0.00500
42077 - MW-7	<0.00100	<0.00100	<0.00100	<0.00100
42078 - MW-8	<0.00100	<0.00100	<0.00100	<0.00100
42079 - MW-9	<0.00100	<0.00100	<0.00100	0.00430
42080 - MW-10	1.30	<0.0200	0.119	0.0706
42081 - MW-10D	0.0108	<0.00100	0.00140	<0.00100
42082 - MW-11	0.00250	<0.00100	<0.00100	<0.00100
42083 - MW-12	<0.00100	<0.00100	<0.00100	<0.00100
42084 - MW-13	<0.00100	<0.00100	<0.00100	<0.00100
42085 - Duplicate	<0.00500	<0.00500	0.0620	<0.00500
42086 - Rinsate (10d)	<0.00100	<0.00100	<0.00100	<0.00100
42087 - Trip Blank	<0.00100	<0.00100	<0.00100	<0.00100

Sample: 42072 - MW-1

Param	Flag	Result	Units	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1.00
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1.00
Bicarbonate Alkalinity		552	mg/L as CaCo3	4.00
Total Alkalinity		552	mg/L as CaCo3	4.00
Total Arsenic		<0.0100	mg/L	0.0100
Total Barium		<0.100	mg/L	0.100
Dissolved Calcium		224	mg/L	0.500
Dissolved Potassium		16.1	mg/L	0.500
Dissolved Magnesium		60.3	mg/L	0.500
Dissolved Sodium		144	mg/L	0.500
Total Iron		0.583	mg/L	0.0500
Chloride		191	mg/L	0.500
Sulfate		478	mg/L	0.500
Total Manganese		0.196	mg/L	0.0250
Total Dissolved Solids		1510	mg/L	10.00

Sample: 42073 - MW-2

Param	Flag	Result	Units	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1.00
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1.00
Bicarbonate Alkalinity		170	mg/L as CaCo3	4.00
Total Alkalinity		170	mg/L as CaCo3	4.00
Total Arsenic		<0.0100	mg/L	0.0100
Total Barium		<0.100	mg/L	0.100
Dissolved Calcium		55.3	mg/L	0.500
Dissolved Potassium		5.85	mg/L	0.500
Dissolved Magnesium		4.28	mg/L	0.500
Dissolved Sodium		22.8	mg/L	0.500
Total Iron		<0.0500	mg/L	0.0500
Chloride		8.13	mg/L	0.500
Sulfate		22.3	mg/L	0.500
Total Manganese		<0.0250	mg/L	0.0250
Total Dissolved Solids		264.0	mg/L	10.00

Sample: 42074 - MW-3

Param	Flag	Result	Units	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1.00
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1.00
Bicarbonate Alkalinity		158	mg/L as CaCo3	4.00
Total Alkalinity		158	mg/L as CaCo3	4.00
Total Arsenic		<0.0100	mg/L	0.0100
Total Barium		0.103	mg/L	0.100
Dissolved Calcium		69.1	mg/L	0.500
Dissolved Potassium		2.89	mg/L	0.500
Dissolved Magnesium		8.05	mg/L	0.500
Dissolved Sodium		22.0	mg/L	0.500
Total Iron		<0.0500	mg/L	0.0500
Chloride		144	mg/L	0.500

continued ...

sample 42074 continued ...

Param	Flag	Result	Units	RL
Sulfate		51.5	mg/L	0.500
Total Manganese		<0.0250	mg/L	0.0250
Total Dissolved Solids		351.0	mg/L	10.00

Sample: 42075 - MW-4

Param	Flag	Result	Units	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1.00
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1.00
Bicarbonate Alkalinity		662	mg/L as CaCo3	4.00
Total Alkalinity		662	mg/L as CaCo3	4.00
Total Arsenic		0.0980	mg/L	0.0100
Total Barium		0.745	mg/L	0.100
Dissolved Calcium		153	mg/L	0.500
Dissolved Potassium		21.7	mg/L	0.500
Dissolved Magnesium		77.3	mg/L	0.500
Dissolved Sodium		378	mg/L	0.500
Total Iron		11.6	mg/L	0.0500
Chloride		696	mg/L	0.500
Sulfate		<50.0	mg/L	0.500
Total Manganese		0.106	mg/L	0.0250
Total Dissolved Solids		1720	mg/L	10.00

Sample: 42076 - MW-5

Param	Flag	Result	Units	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1.00
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1.00
Bicarbonate Alkalinity		574	mg/L as CaCo3	4.00
Total Alkalinity		574	mg/L as CaCo3	4.00
Total Arsenic		0.0780	mg/L	0.0100
Total Barium		0.478	mg/L	0.100
Dissolved Calcium		199	mg/L	0.500
Dissolved Potassium		9.99	mg/L	0.500
Dissolved Magnesium		77.0	mg/L	0.500
Dissolved Sodium		177	mg/L	0.500
Total Iron		7.82	mg/L	0.0500
Chloride		267	mg/L	0.500
Sulfate		331	mg/L	0.500
Total Manganese		0.628	mg/L	0.0250
Total Dissolved Solids		1450	mg/L	10.00

Sample: 42077 - MW-7

Param	Flag	Result	Units	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1.00
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1.00
Bicarbonate Alkalinity		248	mg/L as CaCo3	4.00

continued ...

sample 42077 continued ...

Param	Flag	Result	Units	RL
Total Alkalinity		248	mg/L as CaCo3	4.00
Total Arsenic		<0.0100	mg/L	0.0100
Total Barium		<0.100	mg/L	0.100
Dissolved Calcium		124	mg/L	0.500
Dissolved Potassium		4.84	mg/L	0.500
Dissolved Magnesium		12.6	mg/L	0.500
Dissolved Sodium		62.9	mg/L	0.500
Total Iron		<0.0500	mg/L	0.0500
Chloride		99.3	mg/L	0.500
Sulfate		98.6	mg/L	0.500
Total Manganese		<0.0250	mg/L	0.0250
Total Dissolved Solids		672.0	mg/L	10.00

Sample: 42078 - MW-8

Param	Flag	Result	Units	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1.00
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1.00
Bicarbonate Alkalinity		144	mg/L as CaCo3	4.00
Total Alkalinity		144	mg/L as CaCo3	4.00
Total Arsenic		<0.0100	mg/L	0.0100
Total Barium		<0.100	mg/L	0.100
Dissolved Calcium		50.4	mg/L	0.500
Dissolved Potassium		4.84	mg/L	0.500
Dissolved Magnesium		4.49	mg/L	0.500
Dissolved Sodium		15.8	mg/L	0.500
Total Iron		<0.0500	mg/L	0.0500
Chloride		8.92	mg/L	0.500
Sulfate		16.7	mg/L	0.500
Total Manganese		<0.0250	mg/L	0.0250
Total Dissolved Solids		257.0	mg/L	10.00

Sample: 42079 - MW-9

Param	Flag	Result	Units	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1.00
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1.00
Bicarbonate Alkalinity		370	mg/L as CaCo3	4.00
Total Alkalinity		370	mg/L as CaCo3	4.00
Total Arsenic		<0.0100	mg/L	0.0100
Total Barium		0.141	mg/L	0.100
Dissolved Calcium		175	mg/L	0.500
Dissolved Potassium		4.10	mg/L	0.500
Dissolved Magnesium		18.9	mg/L	0.500
Dissolved Sodium		51.2	mg/L	0.500
Total Iron		<0.0500	mg/L	0.0500
Chloride		84.3	mg/L	0.500
Sulfate		110	mg/L	0.500
Total Manganese		0.0480	mg/L	0.0250
Total Dissolved Solids		798.0	mg/L	10.00

Sample: 42080 - MW-10

Param	Flag	Result	Units	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1.00
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1.00
Bicarbonate Alkalinity		540	mg/L as CaCo3	4.00
Total Alkalinity		540	mg/L as CaCo3	4.00
Total Arsenic		<0.0100	mg/L	0.0100
Total Barium		0.166	mg/L	0.100
Dissolved Calcium		126	mg/L	0.500
Dissolved Potassium		8.74	mg/L	0.500
Dissolved Magnesium		27.0	mg/L	0.500
Dissolved Sodium		195	mg/L	0.500
Total Iron		0.527	mg/L	0.0500
Chloride		85.9	mg/L	0.500
Sulfate		142	mg/L	0.500
Total Manganese		0.371	mg/L	0.0250
Total Dissolved Solids		1090	mg/L	10.00

Sample: 42081 - MW-10D

Param	Flag	Result	Units	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1.00
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1.00
Bicarbonate Alkalinity		380	mg/L as CaCo3	4.00
Total Alkalinity		380	mg/L as CaCo3	4.00
Total Arsenic		0.111	mg/L	0.0100
Total Barium		<0.100	mg/L	0.100
Dissolved Calcium		200	mg/L	0.500
Dissolved Potassium		4.33	mg/L	0.500
Dissolved Magnesium		31.2	mg/L	0.500
Dissolved Sodium		79.5	mg/L	0.500
Total Iron		0.695	mg/L	0.0500
Chloride		95.7	mg/L	0.500
Sulfate		198	mg/L	0.500
Total Manganese		0.323	mg/L	0.0250
Total Dissolved Solids		1110	mg/L	10.00

Sample: 42082 - MW-11

Param	Flag	Result	Units	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1.00
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1.00
Bicarbonate Alkalinity		484	mg/L as CaCo3	4.00
Total Alkalinity		484	mg/L as CaCo3	4.00
Total Arsenic		<0.0100	mg/L	0.0100
Total Barium		<0.100	mg/L	0.100
Dissolved Calcium		187	mg/L	0.500
Dissolved Potassium		4.80	mg/L	0.500
Dissolved Magnesium		26.7	mg/L	0.500
Dissolved Sodium		60.9	mg/L	0.500
Total Iron		<0.0500	mg/L	0.0500
Chloride		85.4	mg/L	0.500

continued ...

sample 42082 continued ...

Param	Flag	Result	Units	RL
Sulfate		94.7	mg/L	0.500
Total Manganese		0.128	mg/L	0.0250
Total Dissolved Solids		914.0	mg/L	10.00

Sample: 42083 - MW-12

Param	Flag	Result	Units	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1.00
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1.00
Bicarbonate Alkalinity		488	mg/L as CaCo3	4.00
Total Alkalinity		488	mg/L as CaCo3	4.00
Total Arsenic		<0.0100	mg/L	0.0100
Total Barium		<0.100	mg/L	0.100
Dissolved Calcium		186	mg/L	0.500
Dissolved Potassium		5.60	mg/L	0.500
Dissolved Magnesium		23.9	mg/L	0.500
Dissolved Sodium		83.9	mg/L	0.500
Total Iron		<0.0500	mg/L	0.0500
Chloride		63.8	mg/L	0.500
Sulfate		142	mg/L	0.500
Total Manganese		<0.0250	mg/L	0.0250
Total Dissolved Solids		966.0	mg/L	10.00

Sample: 42084 - MW-13

Param	Flag	Result	Units	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1.00
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1.00
Bicarbonate Alkalinity		400	mg/L as CaCo3	4.00
Total Alkalinity		400	mg/L as CaCo3	4.00
Total Arsenic		<0.0100	mg/L	0.0100
Total Barium		0.113	mg/L	0.100
Dissolved Calcium		262	mg/L	0.500
Dissolved Potassium		6.04	mg/L	0.500
Dissolved Magnesium		31.5	mg/L	0.500
Dissolved Sodium		64.4	mg/L	0.500
Total Iron		0.327	mg/L	0.0500
Chloride		258	mg/L	0.500
Sulfate		198	mg/L	0.500
Total Manganese		0.196	mg/L	0.0250
Total Dissolved Solids		1230	mg/L	10.00

TRACEANALYSIS, INC.

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Analytical and Quality Control Report

Gil Van Deventer
Trident Environmental
P.O. Box 7624
Midland, TX 79708

Report Date: September 8, 2004

Work Order: 4082308

Cost Center #: V-102
Project Location: Linam Ranch Plant
Project Name: Duke Energy Field Services
Project Number: Linam Ranch Plant

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
42072	MW-1	water	2004-08-18	11:55	2004-08-21
42073	MW-2	water	2004-08-19	12:17	2004-08-21
42074	MW-3	water	2004-08-19	10:40	2004-08-21
42075	MW-4	water	2004-08-19	15:39	2004-08-21
42076	MW-5	water	2004-08-19	14:15	2004-08-21
42077	MW-7	water	2004-08-19	12:44	2004-08-21
42078	MW-8	water	2004-08-18	10:40	2004-08-21
42079	MW-9	water	2004-08-19	11:31	2004-08-21
42080	MW-10	water	2004-08-18	16:40	2004-08-21
42081	MW-10D	water	2004-08-19	17:20	2004-08-21
42082	MW-11	water	2004-08-18	16:45	2004-08-21
42083	MW-12	water	2004-08-18	13:30	2004-08-21
42084	MW-13	water	2004-08-18	14:30	2004-08-21
42085	Duplicate	water	2004-08-19	00:00	2004-08-21
42086	Rinsate (10d)	water	2004-08-18	18:00	2004-08-21
42087	Trip Blank	water	2004-06-15	00:00	2004-08-21

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.

Dr. Blair Leftwich, Director

Analytical Report

Sample: 42072 - MW-1

Analysis:	Alkalinity	Analytical Method:	SM 2320B	Prep Method:	N/A
QC Batch:	12296	Date Analyzed:	2004-08-26	Analyzed By:	RS
Prep Batch:	10867	Date Prepared:	2004-08-26	Prepared By:	RS

Parameter	Flag	Result	RL	Units	Dilution	RL
Hydroxide Alkalinity		<1.00		mg/L as CaCo3	1	1.00
Carbonate Alkalinity		<1.00		mg/L as CaCo3	1	1.00
Bicarbonate Alkalinity		552		mg/L as CaCo3	1	4.00
Total Alkalinity		552		mg/L as CaCo3	1	4.00

Sample: 42072 - MW-1

Analysis:	As, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	12351	Date Analyzed:	2004-08-30	Analyzed By:	RR
Prep Batch:	10825	Date Prepared:	2004-08-25	Prepared By:	TP

Parameter	Flag	Result	RL	Units	Dilution	RL
Total Arsenic		<0.0100		mg/L	1	0.0100

Sample: 42072 - MW-1

Analysis:	Ba, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	12351	Date Analyzed:	2004-08-30	Analyzed By:	RR
Prep Batch:	10825	Date Prepared:	2004-08-25	Prepared By:	TP

Parameter	Flag	Result	RL	Units	Dilution	RL
Total Barium		<0.100		mg/L	1	0.100

Sample: 42072 - MW-1

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	12222	Date Analyzed:	2004-08-24	Analyzed By:	MS
Prep Batch:	10799	Date Prepared:	2004-08-24	Prepared By:	MS

Parameter	Flag	Result	RL	Units	Dilution	RL
Benzene		<0.00100		mg/L	1	0.00100
Toluene		<0.00100		mg/L	1	0.00100
Ethylbenzene		<0.00100		mg/L	1	0.00100
Xylene		<0.00100		mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.102	mg/L	1	0.100	102	78.4 - 118

continued . . .

sample continued ...

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
4-Bromofluorobenzene (4-BFB)		0.0905	mg/L	1	0.100	90	53.1 - 149

Sample: 42072 - MW-1

Analysis:	Cations	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	12503	Date Analyzed:	2004-09-05	Analyzed By:	BP
Prep Batch:	10826	Date Prepared:	2004-08-25	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Calcium		224	mg/L	1	0.500
Dissolved Potassium		16.1	mg/L	1	0.500
Dissolved Magnesium		60.3	mg/L	1	0.500
Dissolved Sodium		144	mg/L	1	0.500

Sample: 42072 - MW-1

Analysis:	Fe, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	12351	Date Analyzed:	2004-08-30	Analyzed By:	RR
Prep Batch:	10825	Date Prepared:	2004-08-25	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Iron		0.583	mg/L	1	0.0500

Sample: 42072 - MW-1

Analysis:	Ion Chromatography	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	12211	Date Analyzed:	2004-08-23	Analyzed By:	MW
Prep Batch:	10784	Date Prepared:	2004-08-23	Prepared By:	MW

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		191	mg/L	50	0.500
Sulfate		478	mg/L	50	0.500

Sample: 42072 - MW-1

Analysis:	Mn, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	12351	Date Analyzed:	2004-08-30	Analyzed By:	RR
Prep Batch:	10825	Date Prepared:	2004-08-25	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Manganese		0.196	mg/L	1	0.0250

Sample: 42072 - MW-1

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	12248	Date Analyzed:	2004-08-24	Analyzed By:	WB
Prep Batch:	10821	Date Prepared:	2004-08-23	Prepared By:	WB

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		1510	mg/L	2	10.00

Sample: 42073 - MW-2

Analysis:	Alkalinity	Analytical Method:	SM 2320B	Prep Method:	N/A
QC Batch:	12296	Date Analyzed:	2004-08-26	Analyzed By:	RS
Prep Batch:	10867	Date Prepared:	2004-08-26	Prepared By:	RS

Parameter	Flag	RL Result	Units	Dilution	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Bicarbonate Alkalinity		170	mg/L as CaCo3	1	4.00
Total Alkalinity		170	mg/L as CaCo3	1	4.00

Sample: 42073 - MW-2

Analysis:	As, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	12351	Date Analyzed:	2004-08-30	Analyzed By:	RR
Prep Batch:	10825	Date Prepared:	2004-08-25	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Arsenic		<0.0100	mg/L	1	0.0100

Sample: 42073 - MW-2

Analysis:	Ba, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	12351	Date Analyzed:	2004-08-30	Analyzed By:	RR
Prep Batch:	10825	Date Prepared:	2004-08-25	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Barium		<0.100	mg/L	1	0.100

Sample: 42073 - MW-2

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	12222	Date Analyzed:	2004-08-24	Analyzed By:	MS
Prep Batch:	10799	Date Prepared:	2004-08-24	Prepared By:	MS

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.00100	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene		<0.00100	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.108	mg/L	1	0.100	108	78.4 - 118
4-Bromofluorobenzene (4-BFB)		0.0861	mg/L	1	0.100	86	53.1 - 149

Sample: 42073 - MW-2

Analysis:	Cations	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	12503	Date Analyzed:	2004-09-05	Analyzed By:	BP
Prep Batch:	10826	Date Prepared:	2004-08-25	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Calcium		55.3	mg/L	1	0.500
Dissolved Potassium		5.85	mg/L	1	0.500
Dissolved Magnesium		4.28	mg/L	1	0.500
Dissolved Sodium		22.8	mg/L	1	0.500

Sample: 42073 - MW-2

Analysis:	Fe, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	12351	Date Analyzed:	2004-08-30	Analyzed By:	RR
Prep Batch:	10825	Date Prepared:	2004-08-25	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Iron		<0.0500	mg/L	1	0.0500

Sample: 42073 - MW-2

Analysis:	Ion Chromatography	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	12211	Date Analyzed:	2004-08-23	Analyzed By:	MW
Prep Batch:	10784	Date Prepared:	2004-08-23	Prepared By:	MW

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		8.13	mg/L	5	0.500
Sulfate		22.3	mg/L	5	0.500

Sample: 42073 - MW-2

Analysis:	Mn, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	12351	Date Analyzed:	2004-08-30	Analyzed By:	RR

Prep Batch: 10825 Date Prepared: 2004-08-25 Prepared By: TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Manganese		<0.0250	mg/L	1	0.0250

Sample: 42073 - MW-2

Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A
QC Batch: 12239 Date Analyzed: 2004-08-24 Analyzed By: WB
Prep Batch: 10813 Date Prepared: 2004-08-23 Prepared By: WB

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		264.0	mg/L	1	10.00

Sample: 42074 - MW-3

Analysis: Alkalinity Analytical Method: SM 2320B Prep Method: N/A
QC Batch: 12296 Date Analyzed: 2004-08-26 Analyzed By: RS
Prep Batch: 10867 Date Prepared: 2004-08-26 Prepared By: RS

Parameter	Flag	RL Result	Units	Dilution	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Bicarbonate Alkalinity		158	mg/L as CaCo3	1	4.00
Total Alkalinity		158	mg/L as CaCo3	1	4.00

Sample: 42074 - MW-3

Analysis: As, Total Analytical Method: S 6010B Prep Method: S 3010A
QC Batch: 12351 Date Analyzed: 2004-08-30 Analyzed By: RR
Prep Batch: 10825 Date Prepared: 2004-08-25 Prepared By: TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Arsenic		<0.0100	mg/L	1	0.0100

Sample: 42074 - MW-3

Analysis: Ba, Total Analytical Method: S 6010B Prep Method: S 3010A
QC Batch: 12351 Date Analyzed: 2004-08-30 Analyzed By: RR
Prep Batch: 10825 Date Prepared: 2004-08-25 Prepared By: TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Barium		0.103	mg/L	1	0.100

Sample: 42074 - MW-3

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	12222	Date Analyzed:	2004-08-24	Analyzed By:	MS
Prep Batch:	10799	Date Prepared:	2004-08-24	Prepared By:	MS

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.00100	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene		<0.00100	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.109	mg/L	1	0.100	109	78.4 - 118
4-Bromofluorobenzene (4-BFB)		0.0841	mg/L	1	0.100	84	53.1 - 149

Sample: 42074 - MW-3

Analysis:	Cations	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	12503	Date Analyzed:	2004-09-05	Analyzed By:	BP
Prep Batch:	10826	Date Prepared:	2004-08-25	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Calcium		69.1	mg/L	1	0.500
Dissolved Potassium		2.89	mg/L	1	0.500
Dissolved Magnesium		8.05	mg/L	1	0.500
Dissolved Sodium		22.0	mg/L	1	0.500

Sample: 42074 - MW-3

Analysis:	Fe, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	12351	Date Analyzed:	2004-08-30	Analyzed By:	RR
Prep Batch:	10825	Date Prepared:	2004-08-25	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Iron		<0.0500	mg/L	1	0.0500

Sample: 42074 - MW-3

Analysis:	Ion Chromatography	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	12212	Date Analyzed:	2004-08-23	Analyzed By:	MW
Prep Batch:	10785	Date Prepared:	2004-08-23	Prepared By:	MW

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		144	mg/L	5	0.500
Sulfate		51.5	mg/L	5	0.500

Sample: 42074 - MW-3

Analysis:	Mn, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	12351	Date Analyzed:	2004-08-30	Analyzed By:	RR
Prep Batch:	10825	Date Prepared:	2004-08-25	Prepared By:	TP

Parameter	Flag	Result	RL Units	Dilution	RL
Total Manganese		<0.0250	mg/L	1	0.0250

Sample: 42074 - MW-3

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	12239	Date Analyzed:	2004-08-24	Analyzed By:	WB
Prep Batch:	10813	Date Prepared:	2004-08-23	Prepared By:	WB

Parameter	Flag	Result	RL Units	Dilution	RL
Total Dissolved Solids		351.0	mg/L	1	10.00

Sample: 42075 - MW-4

Analysis:	Alkalinity	Analytical Method:	SM 2320B	Prep Method:	N/A
QC Batch:	12296	Date Analyzed:	2004-08-26	Analyzed By:	RS
Prep Batch:	10867	Date Prepared:	2004-08-26	Prepared By:	RS

Parameter	Flag	Result	RL Units	Dilution	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Bicarbonate Alkalinity		662	mg/L as CaCo3	1	4.00
Total Alkalinity		662	mg/L as CaCo3	1	4.00

Sample: 42075 - MW-4

Analysis:	As, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	12351	Date Analyzed:	2004-08-30	Analyzed By:	RR
Prep Batch:	10825	Date Prepared:	2004-08-25	Prepared By:	TP

Parameter	Flag	Result	RL Units	Dilution	RL
Total Arsenic		0.0980	mg/L	1	0.0100

Sample: 42075 - MW-4

Analysis:	Ba, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	12351	Date Analyzed:	2004-08-30	Analyzed By:	RR
Prep Batch:	10825	Date Prepared:	2004-08-25	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Barium		0.745	mg/L	1	0.100

Sample: 42075 - MW-4

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	12298	Date Analyzed:	2004-08-26	Analyzed By:	MS
Prep Batch:	10873	Date Prepared:	2004-08-26	Prepared By:	MS

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene	[1]	16.6	mg/L	100	0.00100
Toluene		<0.100	mg/L	100	0.00100
Ethylbenzene		0.403	mg/L	100	0.00100
Xylene		<0.100	mg/L	100	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		11.8	mg/L	100	0.100	118	79.7 - 119
4-Bromofluorobenzene (4-BFB)		9.65	mg/L	100	0.100	96	65.6 - 141

Sample: 42075 - MW-4

Analysis:	Cations	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	12503	Date Analyzed:	2004-09-05	Analyzed By:	BP
Prep Batch:	10826	Date Prepared:	2004-08-25	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Calcium		153	mg/L	1	0.500
Dissolved Potassium		21.7	mg/L	1	0.500
Dissolved Magnesium		77.3	mg/L	1	0.500
Dissolved Sodium		378	mg/L	1	0.500

Sample: 42075 - MW-4

Analysis:	Fe, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	12351	Date Analyzed:	2004-08-30	Analyzed By:	RR
Prep Batch:	10825	Date Prepared:	2004-08-25	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Iron		11.6	mg/L	1	0.0500

Sample: 42075 - MW-4

Analysis:	Ion Chromatography	Analytical Method:	E 300.0	Prep Method:	N/A

[1] Sample was reanalyzed due to the benzene amount being over the curve.

QC Batch: 12212 | Date Analyzed: 2004-08-23 | Analyzed By: MW
Prep Batch: 10785 | Date Prepared: 2004-08-23 | Prepared By: MW

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		696	mg/L	100	0.500
Sulfate		<50.0	mg/L	100	0.500

Sample: 42075 - MW-4

Analysis: Mn, Total | Analytical Method: S 6010B | Prep Method: S 3010A
QC Batch: 12351 | Date Analyzed: 2004-08-30 | Analyzed By: RR
Prep Batch: 10825 | Date Prepared: 2004-08-25 | Prepared By: TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Manganese		0.106	mg/L	1	0.0250

Sample: 42075 - MW-4

Analysis: TDS | Analytical Method: SM 2540C | Prep Method: N/A
QC Batch: 12239 | Date Analyzed: 2004-08-24 | Analyzed By: WB
Prep Batch: 10813 | Date Prepared: 2004-08-23 | Prepared By: WB

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		1720	mg/L	5	10.00

Sample: 42076 - MW-5

Analysis: Alkalinity | Analytical Method: SM 2320B | Prep Method: N/A
QC Batch: 12296 | Date Analyzed: 2004-08-26 | Analyzed By: RS
Prep Batch: 10867 | Date Prepared: 2004-08-26 | Prepared By: RS

Parameter	Flag	RL Result	Units	Dilution	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Bicarbonate Alkalinity		574	mg/L as CaCo3	1	4.00
Total Alkalinity		574	mg/L as CaCo3	1	4.00

Sample: 42076 - MW-5

Analysis: As, Total | Analytical Method: S 6010B | Prep Method: S 3010A
QC Batch: 12351 | Date Analyzed: 2004-08-30 | Analyzed By: RR
Prep Batch: 10825 | Date Prepared: 2004-08-25 | Prepared By: TP

continued ...

sample 42076 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL

Parameter	Flag	RL Result	Units	Dilution	RL
Total Arsenic		0.0780	mg/L	1	0.0100

Sample: 42076 - MW-5

Analysis:	Ba, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	12351	Date Analyzed:	2004-08-30	Analyzed By:	RR
Prep Batch:	10825	Date Prepared:	2004-08-25	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Barium		0.478	mg/L	1	0.100

Sample: 42076 - MW-5

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	12298	Date Analyzed:	2004-08-26	Analyzed By:	MS
Prep Batch:	10873	Date Prepared:	2004-08-26	Prepared By:	MS

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene	[2]	0.0118	mg/L	5	0.00100
Toluene		<0.00500	mg/L	5	0.00100
Ethylbenzene		0.0814	mg/L	5	0.00100
Xylene		<0.00500	mg/L	5	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.574	mg/L	5	0.100	115	79.7 - 119
4-Bromofluorobenzene (4-BFB)		0.484	mg/L	5	0.100	97	65.6 - 141

Sample: 42076 - MW-5

Analysis:	Cations	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	12503	Date Analyzed:	2004-09-05	Analyzed By:	BP
Prep Batch:	10826	Date Prepared:	2004-08-25	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Calcium		199	mg/L	1	0.500
Dissolved Potassium		9.99	mg/L	1	0.500
Dissolved Magnesium		77.0	mg/L	1	0.500
Dissolved Sodium		177	mg/L	1	0.500

[2]*Sample was reanalyzed due to possible carry over from the previous sample.*

Sample: 42076 - MW-5

Analysis:	Fe, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	12351	Date Analyzed:	2004-08-30	Analyzed By:	RR
Prep Batch:	10825	Date Prepared:	2004-08-25	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Iron		7.82	mg/L	1	0.0500

Sample: 42076 - MW-5

Analysis:	Ion Chromatography	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	12212	Date Analyzed:	2004-08-23	Analyzed By:	MW
Prep Batch:	10785	Date Prepared:	2004-08-23	Prepared By:	MW

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		267	mg/L	50	0.500
Sulfate		331	mg/L	50	0.500

Sample: 42076 - MW-5

Analysis:	Mn, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	12351	Date Analyzed:	2004-08-30	Analyzed By:	RR
Prep Batch:	10825	Date Prepared:	2004-08-25	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Manganese		0.628	mg/L	1	0.0250

Sample: 42076 - MW-5

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	12239	Date Analyzed:	2004-08-24	Analyzed By:	WB
Prep Batch:	10813	Date Prepared:	2004-08-23	Prepared By:	WB

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		1450	mg/L	2	10.00

Sample: 42077 - MW-7

Analysis:	Alkalinity	Analytical Method:	SM 2320B	Prep Method:	N/A
QC Batch:	12296	Date Analyzed:	2004-08-26	Analyzed By:	RS
Prep Batch:	10867	Date Prepared:	2004-08-26	Prepared By:	RS

continued...

sample 42077 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL

Parameter	Flag	RL Result	Units	Dilution	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Bicarbonate Alkalinity		248	mg/L as CaCo3	1	4.00
Total Alkalinity		248	mg/L as CaCo3	1	4.00

Sample: 42077 - MW-7

Analysis:	As, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	12351	Date Analyzed:	2004-08-30	Analyzed By:	RR
Prep Batch:	10825	Date Prepared:	2004-08-25	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Arsenic		<0.0100	mg/L	1	0.0100

Sample: 42077 - MW-7

Analysis:	Ba, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	12351	Date Analyzed:	2004-08-30	Analyzed By:	RR
Prep Batch:	10825	Date Prepared:	2004-08-25	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Barium		<0.100	mg/L	1	0.100

Sample: 42077 - MW-7

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	12222	Date Analyzed:	2004-08-24	Analyzed By:	MS
Prep Batch:	10799	Date Prepared:	2004-08-24	Prepared By:	MS

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.00100	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene		<0.00100	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.108	mg/L	1	0.100	108	78.4 - 118
4-Bromofluorobenzene (4-BFB)		0.0833	mg/L	1	0.100	83	53.1 - 149

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		672.0	mg/L	2	10.00

Sample: 42078 - MW-8

Analysis:	Alkalinity	Analytical Method:	SM 2320B	Prep Method:	N/A
QC Batch:	12296	Date Analyzed:	2004-08-26	Analyzed By:	RS
Prep Batch:	10867	Date Prepared:	2004-08-26	Prepared By:	RS

Parameter	Flag	RL Result	Units	Dilution	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Bicarbonate Alkalinity		144	mg/L as CaCo3	1	4.00
Total Alkalinity		144	mg/L as CaCo3	1	4.00

Sample: 42078 - MW-8

Analysis:	As, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	12351	Date Analyzed:	2004-08-30	Analyzed By:	RR
Prep Batch:	10825	Date Prepared:	2004-08-25	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Arsenic		<0.0100	mg/L	1	0.0100

Sample: 42078 - MW-8

Analysis:	Ba, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	12351	Date Analyzed:	2004-08-30	Analyzed By:	RR
Prep Batch:	10825	Date Prepared:	2004-08-25	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Barium		<0.100	mg/L	1	0.100

Sample: 42078 - MW-8

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	12222	Date Analyzed:	2004-08-24	Analyzed By:	MS
Prep Batch:	10799	Date Prepared:	2004-08-24	Prepared By:	MS

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.00100	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene		<0.00100	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.109	mg/L	1	0.100	109	78.4 - 118
4-Bromofluorobenzene (4-BFB)		0.0839	mg/L	1	0.100	84	53.1 - 149

Sample: 42078 - MW-8

Analysis:	Cations	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	12503	Date Analyzed:	2004-09-05	Analyzed By:	BP
Prep Batch:	10826	Date Prepared:	2004-08-25	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Calcium		50.4	mg/L	1	0.500
Dissolved Potassium		4.84	mg/L	1	0.500
Dissolved Magnesium		4.49	mg/L	1	0.500
Dissolved Sodium		15.8	mg/L	1	0.500

Sample: 42078 - MW-8

Analysis:	Fe, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	12351	Date Analyzed:	2004-08-30	Analyzed By:	RR
Prep Batch:	10825	Date Prepared:	2004-08-25	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Iron		<0.0500	mg/L	1	0.0500

Sample: 42078 - MW-8

Analysis:	Ion Chromatography	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	12212	Date Analyzed:	2004-08-23	Analyzed By:	MW
Prep Batch:	10785	Date Prepared:	2004-08-23	Prepared By:	MW

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		8.92	mg/L	5	0.500
Sulfate		16.7	mg/L	5	0.500

Sample: 42078 - MW-8

Analysis:	Mn, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	12351	Date Analyzed:	2004-08-30	Analyzed By:	RR
Prep Batch:	10825	Date Prepared:	2004-08-25	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Manganese		<0.0250	mg/L	1	0.0250

Sample: 42078 - MW-8

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	12293	Date Analyzed:	2004-08-26	Analyzed By:	WB
Prep Batch:	10870	Date Prepared:	2004-08-25	Prepared By:	WB

Parameter	Flag	Result	RL Units	Dilution	RL
Total Dissolved Solids		257.0	mg/L	1	10.00

Sample: 42079 - MW-9

Analysis:	Alkalinity	Analytical Method:	SM 2320B	Prep Method:	N/A
QC Batch:	12295	Date Analyzed:	2004-08-26	Analyzed By:	RS
Prep Batch:	10868	Date Prepared:	2004-08-26	Prepared By:	RS

Parameter	Flag	Result	RL Units	Dilution	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Bicarbonate Alkalinity		370	mg/L as CaCo3	1	4.00
Total Alkalinity		370	mg/L as CaCo3	1	4.00

Sample: 42079 - MW-9

Analysis:	As, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	12351	Date Analyzed:	2004-08-30	Analyzed By:	RR
Prep Batch:	10825	Date Prepared:	2004-08-25	Prepared By:	TP

Parameter	Flag	Result	RL Units	Dilution	RL
Total Arsenic		<0.0100	mg/L	1	0.0100

Sample: 42079 - MW-9

Analysis:	Ba, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	12351	Date Analyzed:	2004-08-30	Analyzed By:	RR
Prep Batch:	10825	Date Prepared:	2004-08-25	Prepared By:	TP

Parameter	Flag	Result	RL Units	Dilution	RL
Total Barium		0.141	mg/L	1	0.100

Sample: 42079 - MW-9

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	12222	Date Analyzed:	2004-08-24	Analyzed By:	MS
Prep Batch:	10799	Date Prepared:	2004-08-24	Prepared By:	MS

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.00100	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene		0.00430	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.112	mg/L	1	0.100	112	78.4 - 118
4-Bromofluorobenzene (4-BFB)		0.0907	mg/L	1	0.100	91	53.1 - 149

Sample: 42079 - MW-9

Analysis:	Cations	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	12503	Date Analyzed:	2004-09-05	Analyzed By:	BP
Prep Batch:	10826	Date Prepared:	2004-08-25	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Calcium		175	mg/L	1	0.500
Dissolved Potassium		4.10	mg/L	1	0.500
Dissolved Magnesium		18.9	mg/L	1	0.500
Dissolved Sodium		51.2	mg/L	1	0.500

Sample: 42079 - MW-9

Analysis:	Fe, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	12351	Date Analyzed:	2004-08-30	Analyzed By:	RR
Prep Batch:	10825	Date Prepared:	2004-08-25	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Iron		<0.0500	mg/L	1	0.0500

Sample: 42079 - MW-9

Analysis:	Ion Chromatography	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	12212	Date Analyzed:	2004-08-23	Analyzed By:	MW
Prep Batch:	10785	Date Prepared:	2004-08-23	Prepared By:	MW

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		84.3	mg/L	10	0.500
Sulfate		110	mg/L	10	0.500

Sample: 42079 - MW-9

Analysis:	Mn, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	12351	Date Analyzed:	2004-08-30	Analyzed By:	RR

Prep Batch: 10825 Date Prepared: 2004-08-25 Prepared By: TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Manganese		0.0480	mg/L	1	0.0250

Sample: 42079 - MW-9

Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A
QC Batch: 12293 Date Analyzed: 2004-08-26 Analyzed By: WB
Prep Batch: 10870 Date Prepared: 2004-08-25 Prepared By: WB

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		798.0	mg/L	2	10.00

Sample: 42080 - MW-10

Analysis: Alkalinity Analytical Method: SM 2320B Prep Method: N/A
QC Batch: 12295 Date Analyzed: 2004-08-26 Analyzed By: RS
Prep Batch: 10868 Date Prepared: 2004-08-26 Prepared By: RS

Parameter	Flag	RL Result	Units	Dilution	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Bicarbonate Alkalinity		540	mg/L as CaCo3	1	4.00
Total Alkalinity		540	mg/L as CaCo3	1	4.00

Sample: 42080 - MW-10

Analysis: As, Total Analytical Method: S 6010B Prep Method: S 3010A
QC Batch: 12351 Date Analyzed: 2004-08-30 Analyzed By: RR
Prep Batch: 10825 Date Prepared: 2004-08-25 Prepared By: TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Arsenic		<0.0100	mg/L	1	0.0100

Sample: 42080 - MW-10

Analysis: Ba, Total Analytical Method: S 6010B Prep Method: S 3010A
QC Batch: 12351 Date Analyzed: 2004-08-30 Analyzed By: RR
Prep Batch: 10825 Date Prepared: 2004-08-25 Prepared By: TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Barium		0.166	mg/L	1	0.100

Sample: 42080 - MW-10

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	12298	Date Analyzed:	2004-08-26	Analyzed By:	MS
Prep Batch:	10873	Date Prepared:	2004-08-26	Prepared By:	MS

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene	[3]	1.30	mg/L	20	0.00100
Toluene		<0.0200	mg/L	20	0.00100
Ethylbenzene		0.119	mg/L	20	0.00100
Xylene		0.0706	mg/L	20	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.24	mg/L	20	0.100	112	79.7 - 119
4-Bromofluorobenzene (4-BFB)		1.88	mg/L	20	0.100	94	65.6 - 141

Sample: 42080 - MW-10

Analysis:	Cations	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	12503	Date Analyzed:	2004-09-05	Analyzed By:	BP
Prep Batch:	10826	Date Prepared:	2004-08-25	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Calcium		126	mg/L	1	0.500
Dissolved Potassium		8.74	mg/L	1	0.500
Dissolved Magnesium		27.0	mg/L	1	0.500
Dissolved Sodium		195	mg/L	1	0.500

Sample: 42080 - MW-10

Analysis:	Fe, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	12351	Date Analyzed:	2004-08-30	Analyzed By:	RR
Prep Batch:	10825	Date Prepared:	2004-08-25	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Iron		0.527	mg/L	1	0.0500

Sample: 42080 - MW-10

Analysis:	Ion Chromatography	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	12212	Date Analyzed:	2004-08-23	Analyzed By:	MW
Prep Batch:	10785	Date Prepared:	2004-08-23	Prepared By:	MW

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		85.9	mg/L	10	0.500

continued ...

[3]Sample was reanalyzed due to the benzene amount being over the curve.

sample 42080 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Sulfate		142	mg/L	10	0.500

Sample: 42080 - MW-10

Analysis:	Mn, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	12351	Date Analyzed:	2004-08-30	Analyzed By:	RR
Prep Batch:	10825	Date Prepared:	2004-08-25	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Manganese		0.371	mg/L	1	0.0250

Sample: 42080 - MW-10

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	12293	Date Analyzed:	2004-08-26	Analyzed By:	WB
Prep Batch:	10870	Date Prepared:	2004-08-25	Prepared By:	WB

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		1090	mg/L	2	10.00

Sample: 42081 - MW-10D

Analysis:	Alkalinity	Analytical Method:	SM 2320B	Prep Method:	N/A
QC Batch:	12295	Date Analyzed:	2004-08-26	Analyzed By:	RS
Prep Batch:	10868	Date Prepared:	2004-08-26	Prepared By:	RS

Parameter	Flag	RL Result	Units	Dilution	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Bicarbonate Alkalinity		380	mg/L as CaCo3	1	4.00
Total Alkalinity		380	mg/L as CaCo3	1	4.00

Sample: 42081 - MW-10D

Analysis:	As, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	12354	Date Analyzed:	2004-08-30	Analyzed By:	RR
Prep Batch:	10825	Date Prepared:	2004-08-25	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Arsenic		0.111	mg/L	1	0.0100

Sample: 42081 - MW-10D

Analysis:	Ba, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	12354	Date Analyzed:	2004-08-30	Analyzed By:	RR
Prep Batch:	10825	Date Prepared:	2004-08-25	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Barium		<0.100	mg/L	1	0.100

Sample: 42081 - MW-10D

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	12222	Date Analyzed:	2004-08-24	Analyzed By:	MS
Prep Batch:	10799	Date Prepared:	2004-08-24	Prepared By:	MS

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.0108	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		0.00140	mg/L	1	0.00100
Xylene		<0.00100	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.115	mg/L	1	0.100	115	78.4 - 118
4-Bromofluorobenzene (4-BFB)		0.0870	mg/L	1	0.100	87	53.1 - 149

Sample: 42081 - MW-10D

Analysis:	Cations	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	12503	Date Analyzed:	2004-09-05	Analyzed By:	BP
Prep Batch:	10826	Date Prepared:	2004-08-25	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Calcium		200	mg/L	1	0.500
Dissolved Potassium		4.33	mg/L	1	0.500
Dissolved Magnesium		31.2	mg/L	1	0.500
Dissolved Sodium		79.5	mg/L	1	0.500

Sample: 42081 - MW-10D

Analysis:	Fe, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	12354	Date Analyzed:	2004-08-30	Analyzed By:	RR
Prep Batch:	10825	Date Prepared:	2004-08-25	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Iron		0.695	mg/L	1	0.0500

Sample: 42081 - MW-10D

Analysis:	Ion Chromatography	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	12212	Date Analyzed:	2004-08-23	Analyzed By:	MW
Prep Batch:	10785	Date Prepared:	2004-08-23	Prepared By:	MW

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		95.7	mg/L	10	0.500
Sulfate		198	mg/L	10	0.500

Sample: 42081 - MW-10D

Analysis:	Mn, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	12354	Date Analyzed:	2004-08-30	Analyzed By:	RR
Prep Batch:	10825	Date Prepared:	2004-08-25	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Manganese		0.323	mg/L	1	0.0250

Sample: 42081 - MW-10D

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	12293	Date Analyzed:	2004-08-26	Analyzed By:	WB
Prep Batch:	10870	Date Prepared:	2004-08-25	Prepared By:	WB

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		1110	mg/L	2	10.00

Sample: 42082 - MW-11

Analysis:	Alkalinity	Analytical Method:	SM 2320B	Prep Method:	N/A
QC Batch:	12295	Date Analyzed:	2004-08-26	Analyzed By:	RS
Prep Batch:	10868	Date Prepared:	2004-08-26	Prepared By:	RS

Parameter	Flag	RL Result	Units	Dilution	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Bicarbonate Alkalinity		484	mg/L as CaCo3	1	4.00
Total Alkalinity		484	mg/L as CaCo3	1	4.00

Sample: 42082 - MW-11

Analysis:	As, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	12354	Date Analyzed:	2004-08-30	Analyzed By:	RR
Prep Batch:	10825	Date Prepared:	2004-08-25	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Arsenic		<0.0100	mg/L	1	0.0100

Sample: 42082 - MW-11

Analysis:	Ba, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	12354	Date Analyzed:	2004-08-30	Analyzed By:	RR
Prep Batch:	10825	Date Prepared:	2004-08-25	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Barium		<0.100	mg/L	1	0.100

Sample: 42082 - MW-11

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	12222	Date Analyzed:	2004-08-24	Analyzed By:	MS
Prep Batch:	10799	Date Prepared:	2004-08-24	Prepared By:	MS

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.00250	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene		<0.00100	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.113	mg/L	1	0.100	113	78.4 - 118
4-Bromofluorobenzene (4-BFB)		0.0839	mg/L	1	0.100	84	53.1 - 149

Sample: 42082 - MW-11

Analysis:	Cations	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	12503	Date Analyzed:	2004-09-05	Analyzed By:	BP
Prep Batch:	10826	Date Prepared:	2004-08-25	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Calcium		187	mg/L	1	0.500
Dissolved Potassium		4.80	mg/L	1	0.500
Dissolved Magnesium		26.7	mg/L	1	0.500
Dissolved Sodium		60.9	mg/L	1	0.500

Sample: 42082 - MW-11

Analysis:	Fe, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	12354	Date Analyzed:	2004-08-30	Analyzed By:	RR
Prep Batch:	*10825*	Date Prepared:	2004-08-25	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Iron		<0.0500	mg/L	1	0.0500

Sample: 42082 - MW-11

Analysis:	Ion Chromatography	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	12212	Date Analyzed:	2004-08-23	Analyzed By:	MW
Prep Batch:	10785	Date Prepared:	2004-08-23	Prepared By:	MW

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		85.4	mg/L	10	0.500
Sulfate		94.7	mg/L	10	0.500

Sample: 42082 - MW-11

Analysis:	Mn, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	12354	Date Analyzed:	2004-08-30	Analyzed By:	RR
Prep Batch:	10825	Date Prepared:	2004-08-25	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Manganese		0.128	mg/L	1	0.0250

Sample: 42082 - MW-11

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	12293	Date Analyzed:	2004-08-26	Analyzed By:	WB
Prep Batch:	10870	Date Prepared:	2004-08-25	Prepared By:	WB

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		914.0	mg/L	2	10.00

Sample: 42083 - MW-12

Analysis:	Alkalinity	Analytical Method:	SM 2320B	Prep Method:	N/A
QC Batch:	12295	Date Analyzed:	2004-08-26	Analyzed By:	RS
Prep Batch:	10868	Date Prepared:	2004-08-26	Prepared By:	RS

Parameter	Flag	RL Result	Units	Dilution	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Bicarbonate Alkalinity		488	mg/L as CaCo3	1	4.00
Total Alkalinity		488	mg/L as CaCo3	1	4.00

Sample: 42083 - MW-12

Analysis:	As, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	12354	Date Analyzed:	2004-08-30	Analyzed By:	RR
Prep Batch:	10825	Date Prepared:	2004-08-25	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Arsenic		<0.0100	mg/L	1	0.0100

Sample: 42083 - MW-12

Analysis:	Ba, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	12354	Date Analyzed:	2004-08-30	Analyzed By:	RR
Prep Batch:	10825	Date Prepared:	2004-08-25	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Barium		<0.100	mg/L	1	0.100

Sample: 42083 - MW-12

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	12222	Date Analyzed:	2004-08-24	Analyzed By:	MS
Prep Batch:	10799	Date Prepared:	2004-08-24	Prepared By:	MS

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.00100	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene		<0.00100	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.109	mg/L	1	0.100	109	78.4 - 118
4-Bromofluorobenzene (4-BFB)		0.0840	mg/L	1	0.100	84	53.1 - 149

Sample: 42083 - MW-12

Analysis:	Cations	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	12503	Date Analyzed:	2004-09-05	Analyzed By:	BP
Prep Batch:	10826	Date Prepared:	2004-08-25	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Calcium		186	mg/L	1	0.500
Dissolved Potassium		5.60	mg/L	1	0.500
Dissolved Magnesium		23.9	mg/L	1	0.500
Dissolved Sodium		83.9	mg/L	1	0.500

Sample: 42083 - MW-12

Analysis:	Fe, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	12354	Date Analyzed:	2004-08-30	Analyzed By:	RR
Prep Batch:	10825	Date Prepared:	2004-08-25	Prepared By:	TP

Parameter	Flag	Result	RL Units	Dilution	RL
Total Iron		<0.0500	mg/L	1	0.0500

Sample: 42083 - MW-12

Analysis:	Ion Chromatography	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	12212	Date Analyzed:	2004-08-23	Analyzed By:	MW
Prep Batch:	10785	Date Prepared:	2004-08-23	Prepared By:	MW

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		63.8	mg/L	10	0.500
Sulfate		142	mg/L	10	0.500

Sample: 42083 - MW-12

Analysis:	Mn, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	12354	Date Analyzed:	2004-08-30	Analyzed By:	RR
Prep Batch:	10825	Date Prepared:	2004-08-25	Prepared By:	TP

Parameter	Flag	Result	RL Units	Dilution	RL
Total Manganese		<0.0250	mg/L	1	0.0250

Sample: 42083 - MW-12

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	12292	Date Analyzed:	2004-08-26	Analyzed By:	WB
Prep Batch:	10871	Date Prepared:	2004-08-25	Prepared By:	WB

Parameter	Flag	Result	RL Units	Dilution	RL
Total Dissolved Solids		966.0	mg/L	2	10.00

Sample: 42084 - MW-13

Analysis:	Alkalinity	Analytical Method:	SM 2320B	Prep Method:	N/A
QC Batch:	12295	Date Analyzed:	2004-08-26	Analyzed By:	RS
Prep Batch:	10868	Date Prepared:	2004-08-26	Prepared By:	RS

continued...

sample 42084 continued...

Parameter	Flag	RL Result	Units	Dilution	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Bicarbonate Alkalinity		400	mg/L as CaCo3	1	4.00
Total Alkalinity		400	mg/L as CaCo3	1	4.00

Sample: 42084 - MW-13

Analysis:	As, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	12354	Date Analyzed:	2004-08-30	Analyzed By:	RR
Prep Batch:	10825	Date Prepared:	2004-08-25	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Arsenic		<0.0100	mg/L	1	0.0100

Sample: 42084 - MW-13

Analysis:	Ba, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	12354	Date Analyzed:	2004-08-30	Analyzed By:	RR
Prep Batch:	10825	Date Prepared:	2004-08-25	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Barium		0.113	mg/L	1	0.100

Sample: 42084 - MW-13

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	12223	Date Analyzed:	2004-08-24	Analyzed By:	MS
Prep Batch:	10800	Date Prepared:	2004-08-24	Prepared By:	MS

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.00100	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene		<0.00100	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	[4]	0.0767	mg/L	1	0.100	77	79.7 - 119

continued...

[4]Low surrogate recovery due to matrix interference. ICV/CCV show the method to be in control.

sample continued ...

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
4-Bromofluorobenzene (4-BFB)	[5]	0.0585	mg/L	1	0.100	58	65.6 - 141

Sample: 42084 - MW-13

Analysis:	Cations	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	12503	Date Analyzed:	2004-09-05	Analyzed By:	BP
Prep Batch:	10826	Date Prepared:	2004-08-25	Prepared By:	TP

Parameter	Flag	Result	RL	Units	Dilution	RL
Dissolved Calcium		262		mg/L	1	0.500
Dissolved Potassium		6.04		mg/L	1	0.500
Dissolved Magnesium		31.5		mg/L	1	0.500
Dissolved Sodium		64.4		mg/L	1	0.500

Sample: 42084 - MW-13

Analysis:	Fe, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	12354	Date Analyzed:	2004-08-30	Analyzed By:	RR
Prep Batch:	10825	Date Prepared:	2004-08-25	Prepared By:	TP

Parameter	Flag	Result	RL	Units	Dilution	RL
Total Iron		0.327		mg/L	1	0.0500

Sample: 42084 - MW-13

Analysis:	Ion Chromatography	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	12214	Date Analyzed:	2004-08-23	Analyzed By:	MW
Prep Batch:	10786	Date Prepared:	2004-08-23	Prepared By:	MW

Parameter	Flag	Result	RL	Units	Dilution	RL
Chloride		258		mg/L	50	0.500
Sulfate		198		mg/L	50	0.500

Sample: 42084 - MW-13

Analysis:	Mn, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	12354	Date Analyzed:	2004-08-30	Analyzed By:	RR
Prep Batch:	10825	Date Prepared:	2004-08-25	Prepared By:	TP

continued ...

[5]Low surrogate recovery due to matrix interference. ICV/CCV show the method to be in control.

sample 42084 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL

Parameter	Flag	RL Result	Units	Dilution	RL
Total Manganese		0.196	mg/L	1	0.0250

Sample: 42084 - MW-13

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	12292	Date Analyzed:	2004-08-26	Analyzed By:	WB
Prep Batch:	10871	Date Prepared:	2004-08-25	Prepared By:	WB

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		1230	mg/L	2	10.00

Sample: 42085 - Duplicate

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	12298	Date Analyzed:	2004-08-26	Analyzed By:	MS
Prep Batch:	10873	Date Prepared:	2004-08-26	Prepared By:	MS

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene	[6]	<0.00500	mg/L	5	0.00100
Toluene		<0.00500	mg/L	5	0.00100
Ethylbenzene		0.0620	mg/L	5	0.00100
Xylene		<0.00500	mg/L	5	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	[7]	1.22	mg/L	5	0.200	122	79.7 - 119
4-Bromofluorobenzene (4-BFB)	[8]	1.12	mg/L	5	0.200	112	65.6 - 141

Sample: 42086 - Rinsate (10d)

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	12223	Date Analyzed:	2004-08-24	Analyzed By:	MS
Prep Batch:	10800	Date Prepared:	2004-08-24	Prepared By:	MS

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.00100	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100

continued ...

[6]Sample was reanalyzed due to possible carry over from the previous sample.
[7]Changed spike amount from 0.1 to 0.2 due to prep. Sample was spiked with a double amount of surrogate.
[8]Changed spike amount from 0.1 to 0.2 due to prep. Sample was spiked with a double amount of surrogate.

sample 42086 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene		<0.00100	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.102	mg/L	1	0.100	102	79.7 - 119
4-Bromofluorobenzene (4-BFB)		0.0810	mg/L	1	0.100	81	65.6 - 141

Sample: 42087 - Trip Blank

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	12222	Date Analyzed:	2004-08-24	Analyzed By:	MS
Prep Batch:	10799	Date Prepared:	2004-08-24	Prepared By:	MS

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.00100	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene		<0.00100	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.110	mg/L	1	0.100	110	78.4 - 118
4-Bromofluorobenzene (4-BFB)		0.0840	mg/L	1	0.100	84	53.1 - 149

Method Blank (1) QC Batch: 12211

Parameter	Flag	Result	Units	RL
Chloride		<0.500	mg/L	0.5
Sulfate		<0.500	mg/L	0.5

Method Blank (1) QC Batch: 12212

Parameter	Flag	Result	Units	RL
Chloride	[9]	1.14	mg/L	0.5
Sulfate		<0.500	mg/L	0.5

Method Blank (1) QC Batch: 12214

[9]chloride blank high due to curve

Parameter	Flag	Result	Units	RL
Chloride		<0.500	mg/L	0.5
Sulfate		<0.500	mg/L	0.5

Method Blank (1) QC Batch: 12222

Parameter	Flag	Result	Units	RL
Benzene		<0.00100	mg/L	0.001
Toluene		<0.00100	mg/L	0.001
Ethylbenzene		<0.00100	mg/L	0.001
Xylene		<0.00100	mg/L	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.111	mg/L	1	0.100	111	70 - 130
4-Bromofluorobenzene (4-BFB)		0.0871	mg/L	1	0.100	87	70 - 130

Method Blank (1) QC Batch: 12223

Parameter	Flag	Result	Units	RL
Benzene		<0.00100	mg/L	0.001
Toluene		<0.00100	mg/L	0.001
Ethylbenzene		<0.00100	mg/L	0.001
Xylene		<0.00100	mg/L	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	[10]	0.0595	mg/L	1	0.100	60	76.2 - 119
4-Bromofluorobenzene (4-BFB)	[11]	0.0441	mg/L	1	0.100	44	58.5 - 136

Method Blank (1) QC Batch: 12239

Parameter	Flag	Result	Units	RL
Total Dissolved Solids		< 10	mg/L	10

Method Blank (1) QC Batch: 12248

Parameter	Flag	Result	Units	RL
Total Dissolved Solids		<10.00	mg/L	10

[10]Low surrogate recovery due to prep. ICV/CCV show the method to be in control.
[11]Low surrogate recovery due to prep. ICV/CCV show the method to be in control.

Method Blank (1) QC Batch: 12292

Parameter	Flag	Result	Units	RL
Total Dissolved Solids		<10.00	mg/L	10

Method Blank (1) QC Batch: 12293

Parameter	Flag	Result	Units	RL
Total Dissolved Solids		<10.00	mg/L	10

Method Blank (1) QC Batch: 12295

Parameter	Flag	Result	Units	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1
Bicarbonate Alkalinity		<4.00	mg/L as CaCo3	4
Total Alkalinity		<4.00	mg/L as CaCo3	4

Method Blank (1) QC Batch: 12296

Parameter	Flag	Result	Units	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1
Bicarbonate Alkalinity		<4.00	mg/L as CaCo3	4
Total Alkalinity		<4.00	mg/L as CaCo3	4

Method Blank (1) QC Batch: 12298

Parameter	Flag	Result	Units	RL
Benzene		<0.00100	mg/L	0.001
Toluene		<0.00100	mg/L	0.001
Ethylbenzene		<0.00100	mg/L	0.001
Xylene		<0.00100	mg/L	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.114	mg/L	1	0.100	114	76.2 - 119
4-Bromofluorobenzene (4-BFB)		0.0924	mg/L	1	0.100	92	58.5 - 136

Method Blank (1) QC Batch: 12351

Parameter	Flag	Result	Units	RL
Total Arsenic		<0.0100	mg/L	0.01

Method Blank (1) QC Batch: 12351

Parameter	Flag	Result	Units	RL
Total Barium		<0.100	mg/L	0.1

Method Blank (1) QC Batch: 12351

Parameter	Flag	Result	Units	RL
Total Iron		<0.0500	mg/L	0.05

Method Blank (1) QC Batch: 12351

Parameter	Flag	Result	Units	RL
Total Manganese		<0.0250	mg/L	0.025

Method Blank (1) QC Batch: 12354

Parameter	Flag	Result	Units	RL
Total Arsenic		<0.0100	mg/L	0.01

Method Blank (1) QC Batch: 12354

Parameter	Flag	Result	Units	RL
Total Barium		<0.100	mg/L	0.1

Method Blank (1) QC Batch: 12354

Parameter	Flag	Result	Units	RL
Total Iron		<0.0500	mg/L	0.05

Method Blank (1) QC Batch: 12354

Parameter	Flag	Result	Units	RL
Total Manganese		<0.0250	mg/L	0.025

Method Blank (1) QC Batch: 12503

Parameter	Flag	Result	Units	RL
Dissolved Calcium		<0.500	mg/L	0.5
Dissolved Potassium		<0.500	mg/L	0.5
Dissolved Magnesium		<0.500	mg/L	0.5
Dissolved Sodium		<0.500	mg/L	0.5

Duplicate (1) QC Batch: 12239

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids	962.0	952.0	mg/L	2	1	8.7

Duplicate (1) QC Batch: 12248

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids	1510	1510	mg/L	2	0	8.7

Duplicate (1) QC Batch: 12292

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids	1160	1230	mg/L	2	6	8.7

Duplicate (1) QC Batch: 12293

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids	1290	1360	mg/L	2	5	8.7

Duplicate (1) QC Batch: 12295

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Hydroxide Alkalinity	<1.00	<1.00	mg/L as CaCo3	1	0	20
Carbonate Alkalinity	<1.00	<1.00	mg/L as CaCo3	1	0	20
Bicarbonate Alkalinity	358	352	mg/L as CaCo3	1	2	20

continued ...

duplicate continued . . .

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Alkalinity	358	352	mg/L as CaCo3	1	2	4.8

Duplicate (1) QC Batch: 12296

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Hydroxide Alkalinity	<1.00	<1.00	mg/L as CaCo3	1	0	20
Carbonate Alkalinity	<1.00	<1.00	mg/L as CaCo3	1	0	20
Bicarbonate Alkalinity	148	144	mg/L as CaCo3	1	3	20
Total Alkalinity	148	144	mg/L as CaCo3	1	3	4.8

Laboratory Control Spike (LCS-1) QC Batch: 12211

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Chloride	12.0	12.0	mg/L	1	12.5	<0.337	96	0	90 - 110	20
Sulfate	12.7	12.6	mg/L	1	12.5	<0.409	102	1	90 - 110	20

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: 12212

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Chloride	12.0	12.0	mg/L	1	12.5	<0.337	96	0	90 - 110	20
Sulfate	12.8	12.8	mg/L	1	12.5	<0.409	102	0	90 - 110	20

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: 12214

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Chloride	11.8	11.8	mg/L	1	12.5	<0.337	94	0	90 - 110	20
Sulfate	12.5	12.5	mg/L	1	12.5	<0.409	100	0	90 - 110	20

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: 12222

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Benzene	0.102	0.0970	mg/L	1	0.100	<0.000136	102	5	70 - 130	20
Toluene	0.105	0.0983	mg/L	1	0.100	<0.000247	105	6	70 - 130	20
Ethylbenzene	0.107	0.103	mg/L	1	0.100	<0.000550	107	4	70 - 130	20
Xylene	0.345	0.336	mg/L	1	0.300	<0.00156	115	3	70 - 130	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.113	0.110	mg/L	1	0.100	113	110	70 - 130
4-Bromofluorobenzene (4-BFB)	0.107	0.105	mg/L	1	0.100	107	105	70 - 130

Laboratory Control Spike (LCS-1) QC Batch: 12223

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Benzene	0.110	0.111	mg/L	1	0.100	<0.000338	110	1	84.6 - 117	20
Toluene	0.103	0.104	mg/L	1	0.100	<0.000299	103	1	80.9 - 115	20
Ethylbenzene	0.0989	0.100	mg/L	1	0.100	<0.000469	99	1	77.6 - 119	20
Xylene	0.294	0.297	mg/L	1	0.300	<0.000787	98	1	76.2 - 122	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.101	0.0971	mg/L	1	0.100	101	97	79.7 - 119
4-Bromofluorobenzene (4-BFB)	0.0853	0.0823	mg/L	1	0.100	85	82	65.6 - 141

Laboratory Control Spike (LCS-1) QC Batch: 12298

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Benzene	0.115	0.114	mg/L	1	0.100	<0.000338	115	1	84.6 - 117	20
Toluene	0.110	0.110	mg/L	1	0.100	<0.000299	110	0	80.9 - 115	20
Ethylbenzene	0.107	0.107	mg/L	1	0.100	<0.000469	107	0	77.6 - 119	20
Xylene	0.315	0.318	mg/L	1	0.300	<0.000787	105	1	76.2 - 122	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.116	0.114	mg/L	1	0.100	116	114	79.7 - 119
4-Bromofluorobenzene (4-BFB)	0.104	0.100	mg/L	1	0.100	104	100	65.6 - 141

Laboratory Control Spike (LCS-1) QC Batch: 12351

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Arsenic	0.486	0.483	mg/L	1	0.500	<0.00860	97	1	85 - 115	20

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: 12351

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Barium	1.03	1.03	mg/L	1	1.00	<0.000984	103	0	85 - 115	20

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: 12351

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Iron	0.512	0.528	mg/L	1	0.500	<0.00281	102	3	85 - 115	20

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: 12351

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Manganese	0.256	0.255	mg/L	1	0.250	<0.00296	102	0	85 - 115	20

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: 12354

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Arsenic	0.486	0.483	mg/L	1	0.500	<0.00860	97	1	85 - 115	20

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: 12354

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Barium	1.03	1.03	mg/L	1	1.00	<0.000984	103	0	85 - 115	20

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: 12354

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Iron	0.518	0.528	mg/L	1	0.500	<0.00281	104	2	85 - 115	20

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: 12354

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Manganese	0.256	0.255	mg/L	1	0.250	<0.00296	102	0	85 - 115	20

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: 12503

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Dissolved Calcium	99.8	97.8	mg/L	1	100	<0.00971	100	2	85 - 115	20
Dissolved Potassium	92.2	90.9	mg/L	1	100	<0.0297	92	1	85 - 115	20
Dissolved Magnesium	101	99.1	mg/L	1	100	<0.0138	101	2	85 - 115	20
Dissolved Sodium	97.5	98.0	mg/L	1	100	<0.0309	98	0	85 - 115	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) QC Batch: 12212

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Chloride	183	183	mg/L	10	12.5	63.8	95	0	74.3 - 118	20
Sulfate	271	271	mg/L	10	12.5	142	103	0	77.8 - 112	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) QC Batch: 12214

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Chloride	172	176	mg/L	10	12.5	57.6	92	2	74.3 - 118	20
Sulfate	152	156	mg/L	10	12.5	30.4	97	2	77.8 - 112	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) QC Batch: 12351

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Arsenic	0.484	0.469	mg/L	1	0.500	<0.00860	97	3	75 - 125	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) QC Batch: 12351

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Barium	0.972	0.929	mg/L	1	1.00	<0.000984	97	4	75 - 125	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) QC Batch: 12351

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Iron	1.03	1.03	mg/L	1	0.500	0.583	89	0	75 - 125	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) QC Batch: 12351

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Manganese	0.421	0.421	mg/L	1	0.250	0.196	90	0	75 - 125	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) QC Batch: 12354

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Arsenic	0.565	0.577	mg/L	1	0.500	0.111	91	2	75 - 125	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) QC Batch: 12354

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Barium	0.984	1.01	mg/L	1	1.00	0.066	92	3	75 - 125	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) QC Batch: 12354

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Iron	1.12	1.16	mg/L	1	0.500	0.695	85	4	75 - 125	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) QC Batch: 12354

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Manganese	0.536	0.555	mg/L	1	0.250	0.323	85	3	75 - 125	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Standard (ICV-1) QC Batch: 12211

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	12.5	12.0	96	90 - 110	2004-08-23
Sulfate		mg/L	12.5	12.8	102	90 - 110	2004-08-23

Standard (CCV-1) QC Batch: 12211

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	12.5	12.1	97	90 - 110	2004-08-23

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Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Sulfate		mg/L	12.5	12.9	103	90 - 110	2004-08-23

Standard (ICV-1) QC Batch: 12212

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	12.5	12.1	97	90 - 110	2004-08-23
Sulfate		mg/L	12.5	12.9	103	90 - 110	2004-08-23

Standard (CCV-1) QC Batch: 12212

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	12.5	12.0	96	90 - 110	2004-08-23
Sulfate		mg/L	12.5	12.8	102	90 - 110	2004-08-23

Standard (ICV-1) QC Batch: 12214

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	12.5	12.0	96	90 - 110	2004-08-23
Sulfate		mg/L	12.5	12.8	102	90 - 110	2004-08-23

Standard (CCV-1) QC Batch: 12214

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	12.5	11.8	94	90 - 110	2004-08-23
Sulfate		mg/L	12.5	12.5	100	90 - 110	2004-08-23

Standard (ICV-1) QC Batch: 12222

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0970	97	85 - 115	2004-08-24
Toluene		mg/L	0.100	0.0986	99	85 - 115	2004-08-24
Ethylbenzene		mg/L	0.100	0.101	101	85 - 115	2004-08-24
Xylene		mg/L	0.300	0.329	110	85 - 115	2004-08-24

Standard (CCV-1) QC Batch: 12222

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0981	98	85 - 115	2004-08-24
Toluene		mg/L	0.100	0.0978	98	85 - 115	2004-08-24
Ethylbenzene		mg/L	0.100	0.101	101	85 - 115	2004-08-24
Xylene		mg/L	0.300	0.330	110	85 - 115	2004-08-24

Standard (CCV-2) QC Batch: 12222

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0952	95	85 - 115	2004-08-24
Toluene		mg/L	0.100	0.0943	94	85 - 115	2004-08-24
Ethylbenzene		mg/L	0.100	0.100	100	85 - 115	2004-08-24
Xylene		mg/L	0.300	0.326	109	85 - 115	2004-08-24

Standard (ICV-1) QC Batch: 12223

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.112	112	85 - 115	2004-08-24
Toluene		mg/L	0.100	0.105	105	85 - 115	2004-08-24
Ethylbenzene		mg/L	0.100	0.103	103	85 - 115	2004-08-24
Xylene		mg/L	0.300	0.304	101	85 - 115	2004-08-24

Standard (CCV-1) QC Batch: 12223

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.107	107	85 - 115	2004-08-24
Toluene		mg/L	0.100	0.101	101	85 - 115	2004-08-24
Ethylbenzene		mg/L	0.100	0.0983	98	85 - 115	2004-08-24
Xylene		mg/L	0.300	0.290	97	85 - 115	2004-08-24

Standard (ICV-1) QC Batch: 12239

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Dissolved Solids		mg/L	1000	1020	102	90 - 110	2004-08-24

Standard (CCV-1) QC Batch: 12239

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Dissolved Solids		mg/L	1000	1027	103	90 - 110	2004-08-24

Standard (ICV-2) QC Batch: 12248

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Dissolved Solids		mg/L	1000	1010	101	90 - 110	2004-08-24

Standard (CCV-1) QC Batch: 12248

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Dissolved Solids		mg/L	1000	1020	102	90 - 110	2004-08-24

Standard (ICV-1) QC Batch: 12292

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Dissolved Solids		mg/L	1000	1030	103	90 - 110	2004-08-26

Standard (CCV-1) QC Batch: 12292

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Dissolved Solids		mg/L	1000	999.0	100	90 - 110	2004-08-26

Standard (ICV-1) QC Batch: 12293

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Dissolved Solids		mg/L	1000	1012	101	90 - 110	2004-08-26

Standard (CCV-1) QC Batch: 12293

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Dissolved Solids		mg/L	1000	1030	103	90 - 110	2004-08-26

Standard (ICV-1) QC Batch: 12295

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Hydroxide Alkalinity		mg/L as CaCo3	0.00	<1.00		0 - 200	2004-08-26
Carbonate Alkalinity		mg/L as CaCo3	0.00	<1.00		0 - 200	2004-08-26
Bicarbonate Alkalinity		mg/L as CaCo3	0.00	<4.00		0 - 200	2004-08-26
Total Alkalinity		mg/L as CaCo3	250	248	99	90 - 110	2004-08-26

Standard (CCV-1) QC Batch: 12295

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Hydroxide Alkalinity		mg/L as CaCo3	0.00	<1.00		0 - 200	2004-08-26
Carbonate Alkalinity		mg/L as CaCo3	0.00	<1.00		0 - 200	2004-08-26
Bicarbonate Alkalinity		mg/L as CaCo3	0.00	<4.00		0 - 200	2004-08-26
Total Alkalinity		mg/L as CaCo3	250	246	98	90 - 110	2004-08-26

Standard (ICV-1) QC Batch: 12296

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Alkalinity		mg/L as CaCo3	250	246	98	90 - 110	2004-08-26

Standard (CCV-1) QC Batch: 12296

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Alkalinity		mg/L as CaCo3	250	248	99	90 - 110	2004-08-26

Standard (ICV-1) QC Batch: 12298

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.105	105	85 - 115	2004-08-26
Toluene		mg/L	0.100	0.0994	99	85 - 115	2004-08-26
Ethylbenzene		mg/L	0.100	0.0969	97	85 - 115	2004-08-26
Xylene		mg/L	0.300	0.284	95	85 - 115	2004-08-26

Standard (CCV-1) QC Batch: 12298

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.111	111	85 - 115	2004-08-26
Toluene		mg/L	0.100	0.105	105	85 - 115	2004-08-26
Ethylbenzene		mg/L	0.100	0.105	105	85 - 115	2004-08-26
Xylene		mg/L	0.300	0.304	101	85 - 115	2004-08-26

Standard (ICV-1) QC Batch: 12351

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Arsenic		mg/L	1.00	0.993	99	90 - 110	2004-08-30

Standard (ICV-1) QC Batch: 12351

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Barium		mg/L	1.00	0.997	100	90 - 110	2004-08-30

Standard (ICV-1) QC Batch: 12351

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Iron		mg/L	1.00	0.995	100	90 - 110	2004-08-30

Standard (ICV-1) QC Batch: 12351

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Manganese		mg/L	1.00	0.999	100	90 - 110	2004-08-30

Standard (CCV-1) QC Batch: 12351

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Arsenic		mg/L	1.00	0.980	98	90 - 110	2004-08-30

Standard (CCV-1) QC Batch: 12351

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Barium		mg/L	1.00	0.990	99	90 - 110	2004-08-30

Standard (CCV-1) QC Batch: 12351

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Iron		mg/L	1.00	0.986	99	90 - 110	2004-08-30

Standard (CCV-1) QC Batch: 12351

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Manganese		mg/L	1.00	0.999	100	90 - 110	2004-08-30

Standard (ICV-1) QC Batch: 12354

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Arsenic		mg/L	1.00	0.993	99	90 - 110	2004-08-30

Standard (ICV-1) QC Batch: 12354

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Barium		mg/L	1.00	0.997	100	90 - 110	2004-08-30

Standard (ICV-1) QC Batch: 12354

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Iron		mg/L	1.00	0.995	100	90 - 110	2004-08-30

Standard (ICV-1) QC Batch: 12354

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Manganese		mg/L	1.00	0.999	100	90 - 110	2004-08-30

Standard (CCV-1) QC Batch: 12354

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Arsenic		mg/L	1.00	0.944	94	90 - 110	2004-08-30

Standard (CCV-1) QC Batch: 12354

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Barium		mg/L	1.00	0.950	95	90 - 110	2004-08-30

Standard (CCV-1) QC Batch: 12354

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Iron		mg/L	1.00	0.946	95	90 - 110	2004-08-30

Standard (CCV-1) QC Batch: 12354

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Manganese		mg/L	1.00	0.961	96	90 - 110	2004-08-30

Standard (ICV-1) QC Batch: 12503

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Calcium		mg/L	25.0	25.0	100	90 - 110	2004-09-05
Dissolved Potassium		mg/L	25.0	25.0	100	90 - 110	2004-09-05
Dissolved Magnesium		mg/L	25.0	25.0	100	90 - 110	2004-09-05
Dissolved Sodium		mg/L	25.0	24.9	100	90 - 110	2004-09-05

Standard (CCV-1) QC Batch: 12503

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Calcium		mg/L	25.0	25.1	100	90 - 110	2004-09-05
Dissolved Potassium		mg/L	25.0	24.7	99	90 - 110	2004-09-05
Dissolved Magnesium		mg/L	25.0	24.8	99	90 - 110	2004-09-05
Dissolved Sodium		mg/L	25.0	25.1	100	90 - 110	2004-09-05

Standard (CCV-2) QC Batch: 12503

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Calcium		mg/L	25.0	25.0	100	90 - 110	2004-09-05
Dissolved Potassium		mg/L	25.0	24.4	98	90 - 110	2004-09-05
Dissolved Magnesium		mg/L	25.0	24.5	98	90 - 110	2004-09-05
Dissolved Sodium		mg/L	25.0	24.8	99	90 - 110	2004-09-05

4082308

TRIDENT ENVIRONMENTAL

Trident Environmental
P.O. Box 7624
Midland, Texas 79708
(432) 682-0808
(432) 682-0727 (Fax)

V-102-0804-1

Chain of Custody

Date 8-19-04 Page 1 of 2

Lab Name: TraceAnalysis Inc.
Address: 6701 Aberdeen Avenue, Suite 9
Lubbock, Texas 79424
Telephone: 800-378-1296

Samplers (SIGNATURES): Gil Van Deventer

Sample Identification		Matrix	Date	Time	Sample Type: G - Grab, C- Composite	BTEX (EPA 8021B)	MTBE (EPA 8021B)	SVOC (EPA 8270)	PAH (EPA 8270)	VOC (EPA 8260)	TPH (EPA 418.1)	TPH (TX-1005)	TPH (TX-1006)	GRO (EPA 8015G)	DRO (EPA 8015D)	TDS (EPA 160.1)	Anions HCO_3/CO_3, SO_4, & Cl	Cations Ca, Mg, Na, & K	Total Metals: As, Ba, Fe, & Mn	Nitrate - NO_3	Iron - Fe					Number of Containers
MW-1	42072	Water	8-18-04	1155	G	✓										✓	✓	✓	✓		✓					4
MW-2	73	Water	8-19-04	1217	G	✓										✓	✓	✓	✓		✓					4
MW-3	74	Water	8-19-04	1040	G	✓										✓	✓	✓	✓		✓					4
MW-4	75	Water	8-19-04	1539	G	✓										✓	✓	✓	✓		✓					4
MW-5	76	Water	8-19-04	1415	G	✓										✓	✓	✓	✓		✓					4
MW-7	77	Water	8-19-04	1244	G	✓										✓	✓	✓	✓		✓					4
MW-8	78	Water	8-18-04	1040	G	✓										✓	✓	✓	✓		✓					4
MW-9	79	Water	8-19-04	1131	G	✓										✓	✓	✓	✓		✓					4
MW-10	80	Water	8-18-04	1640	G	✓										✓	✓	✓	✓		✓					4
MW-10d	81	Water	8-19-04	1720	G	✓										✓	✓	✓	✓		✓					4

Analysis Request

Project Information		Sample Receipt	
Project Name:	Duke Energy Field Services	Total Containers:	
Project Location:	Linam Ranch Gas Plant	COC Seals:	
Project Manager:	Gil Van Deventer	Rec'd Good Cond/Cold:	
Cost Center No.:	V-102	Conforms to Records:	
Shipping ID No.:		Lab No.:	
Bill to (see below):			

Special Instructions/Comments: Please send invoice direct to client:
Duke Energy Field Services, Attn: Daniel Dick
370 17th Street, Suite 900, Denver CO 80202

Relinquished By:	Relinquished By:	Relinquished By:
(1) (Company) Trident Environmental	(2) (Company) Helen Shelton	(3) (Company)
(Printed Name) Gil Van Deventer	(Printed Name) TRACE ANALYSIS	(Printed Name)
(Signature) Gil Van Deventer	(Signature) Helen Shelton	(Signature)
(Date) 8/19/04 (Time) 8:00AM	(Date) 8/20/04 (Time) 1700	(Date) (Time)
Received By:	**Received By:**	**Received By:**
(1) (Company) Helen Shelton	(2) (Company)	(3) (Company) Trace Analysis
(Printed Name) Helen Shelton	(Printed Name)	(Printed Name) Maria Silva
(Signature) TRACE ANALYSIS	(Signature)	(Signature)
(Date) 8/19/04 (Time) 8:00AM	(Date) (Time)	(Date) 8/21/04 (Time) 10:36

Copy signed original form for Trident Environmental records

-4°C
-Greyhound Package Express
- Bill # GLI 166 130 5459

Shipped Greyhound

40 samples - HS

MT

4082308

TRIDENT ENVIRONMENTAL

Trident Environmental
P.O. Box 7624
Midland, Texas 79708
(432) 682-0808
(432) 682-0727 (Fax)

V-102-0804-2

Chain of Custody

Date 8-19-04 Page 2 of 2

Lab Name: TraceAnalysis Inc.
Address: 6701 Aberdeen Avenue, Suite 9
Lubbock, Texas 79424
Telephone: 800-378-1296

Samplers (SIGNATURES): Gil Van Deventer

Sample Identification	Matrix	Date	Time	Sample Type: G - Grab, C- Composite	BTEX (EPA 8021B)	MTBE (EPA 8021B)	SVOC (EPA 8270)	PAH (EPA 8270)	VOC (EPA 8260)	TPH (EPA 418.1)	TPH (TX-1005)	TPH (TX-1006)	GRO (EPA 8015G)	DRO (EPA 8015D)	TDS (EPA 160.1)	Anions HCO_3/CO_3, SO_4, & Cl	Cations Ca, Mg, Na, & K	Total Metals: As, Ba, Fe, & Mn	Nitrate - NO_3	Ferrous Iron - Fe^{+2}					Number of Containers
MW-11 42082	Water	8-18-04	1645	G	✓										✓	✓	✓	✓		✓					4
MW-12 83	Water	8-19-04	1330	G	✓										✓	✓	✓	✓		✓					4
MW-13 84	Water	8-19-04	1430	G	✓										✓	✓	✓	✓		✓					5
Duplicate 85	Water	8-19-04	0000	G	✓										[illegible]										2
Rinsate (10d) 86	Water	8-19-04	1800	G	✓																				2
Trip Blank 5015A/13 (42087)	Water	6-15-04	—	G	✓																				2

Analysis Request

Project Information		Sample Receipt	
Project Name:	Duke Energy Field Services	Total Containers:	
Project Location:	Linam Ranch Gas Plant	COC Seals:	
Project Manager:	Gil Van Deventer	Rec'd Good Cond/Cold:	
Cost Center No.:	V-102	Conforms to Records:	
Shipping ID No.:		Lab No.:	
Bill to (see below):			

Special Instructions/Comments: Please send invoice direct to client:
Duke Energy Field Services, Attn: Daniel Dick
370 17th Street, Suite 900, Denver CO 80202

Relinquished By:	Relinquished By:	Relinquished By:
(1) (Company) Trident Environmental	(2) (Company) TRACE ANALYSIS	(3) (Company)
(Printed Name) Gil Van Deventer	(Printed Name) HELEN SHELTON	(Printed Name)
(Signature) Gil Van Deventer	(Signature) Helen Shelton	(Signature)
(Date) 8-19-04 (Time) 7:00 P.M.	(Date) 8/20/04 (Time) 1700	(Date) (Time)
Received By:	**Received By:**	**Received By:**
(1) (Company) TRACE ANALYSIS	(2) (Company)	(3) (Company) Trina Mayhall
(Printed Name) HELEN SHELTON	(Printed Name)	(Printed Name) Mindi Sim
(Signature) Helen Shelton	(Signature)	(Signature)
(Date) 8/19/04 (Time) 7:00 PM	(Date) (Time)	(Date) 8/21/04 (Time) 10:36

Copy signed original form for Trident Environmental records

-4°C
- Greyhound Package Express
- PBH GLI 166 130 545 9

Sheffield Greyhound MS 19 samples-US

CARDINAL LABORATORIES

PHONE (325) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
TRIDENT ENVIRONMENTAL
ATTN: GIL VAN DEVENTER
P.O. BOX 7624
MIDLAND, TX 79708
FAX TO: (432) 682-0727

Receiving Date: 08/19/04
Reporting Date: 08/20/04
Project Number: V-102
Project Name: DUKE ENERGY FIELD SERVICES
Project Location: LINAM RANCH GAS PLANT

Analysis Date: 08/20/04
Sampling Date: 08/19/04
Sample Type: WATER
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: AH

LAB NUMBER	SAMPLE ID	NITRATES (mg/L)
H9038-1	MW-2	1.47
H9038-2	MW-3	2.45
H9038-3	MW-4	2.18
H9038-4	MW-5	0.71
H9038-5	MW-7	6.05
H9038-6	MW-9	0.34
Quality Control		3.47
True Value QC		3.00
% Recovery		116
Relative Percent Difference		1.2

METHOD: EPA 600/4-79-020, 353.3

Amy Hill
Chemist

8/20/04
Date

H9038

CARDINAL LABORATORIES, INC.

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

2111 Beechwood, Abilene, TX 79603 (915) 673-7001 Fax (915) 673-7020
101 East Marland, Hobbs, NM 88240 (505) 393-2326 Fax (505) 393-2476

Page 1 of 1

Company Name:	Trident Environmental		
Project Manager:	Gilbert VanDeventer	BILL TO	PO #:
Address:	PO Box 7624	Company:	Duke Energy
City:	Midland State: Tx Zip: 79708	Attn:	Daniel Dick
Phone #:	432-682-0808	Address:	370 17th St.
Fax #:	432-682-0727	City:	Suite 900, Denver
Project #:	V-102 Project Owner: DEFS	State:	CO Zip: 80202
Project Name:	Duke Energy Field Services	Phone #:	
Project Location:	Eman Ranch Gas Plant	Fax #:	

FOR LAB USE ONLY				MATRIX							PRES.			SAMPLING		ANALYSIS REQUEST
LAB I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID:	ICE / COOL	OTHER:	DATE	TIME	Nitrate - NO3
H9038-1	MW-2	G	1	✓							✓		8-19-04	1217	
-2	MW-3	G	1	✓							✓		8-19-04	1040	
-3	MW-4	G	1	✓							✓		8-19-04	1539	
-4	MW-5	G	1	✓							✓		8-19-04	1413	
-5	MW-7	G	1	✓							✓		8-19-04	1244	
-6	MW-9	G	1	✓							✓		8-19-04	1131	

Sampler Relinquished:	Date: 8-19-04 Time: 4:50 pm	Received By:	Phone Result ☐ Yes ☐ No Additional Fax #:
Relinquished By:	Date: 8/19/2004 Time: 445P	Received By: (Lab Staff)	Fax Result: ☐ Yes ☐ No
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Sample Condition Cool: ☒ Yes ☐ No Intact: ☒ Yes ☐ No	CHECKED BY: (Initials)	REMARKS:

† Cardinal cannot accept verbal changes. Please fax written changes to 915-673-7020.

CARDINAL LABORATORIES

PHONE (325) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
TRIDENT ENVIRONMENTAL
ATTN: GIL VAN DEVENTER
P.O. BOX 7624
MIDLAND, TX 79708
FAX TO: (432) 682-0727

Receiving Date: 08/18/04
Reporting Date: 08/19/04
Project Number: V-102
Project Name: DUKE ENERGY FIELD SERVICES
Project Location: LINAM RANCH GAS PLANT

Analysis Date: 08/19/04
Sampling Date: 08/18/04
Sample Type: WATER
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: AH

LAB NUMBER	SAMPLE ID	NITRATES (mg/L)
H9028-1	MW-1	<0.1
H9028-2	MW-8	0.39
H9028-3	MW-10	0.11
H9028-4	MW-10D	<0.1
H9028-5	MW-11	2.00
H9028-6	MW-12	4.95
H9028-7	MW-13	2.75
Quality Control		3.47
True Value QC		3.00
% Recovery		116
Relative Percent Difference		1.2

METHOD: EPA 600/4-79-020, 353.3

Amy Hill
Chemist

8/19/04
Date

CARDINAL LABORATORIES, INC.

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

2111 Beechwood, Abilene, TX 79603 (915) 673-7001 Fax (915) 673-7020
101 East Marland, Hobbs, NM 88240 (505) 393-2326 Fax (505) 393-2476

Company Name: Trident Environmental	BILL TO PO #:
Project Manager: Gilbert Van Deventer	Company: Duke Energy Field Services
Address: PO Box 7624	Attn: Daniel Dick
City: Midland State: Tx Zip: 79708	Address: 370 17th St, Ste 900
Phone #: 432-682-0808	City: Denver
Fax #: 432-682-0727	State: CO Zip: 80202
Project #: V-102 Project Owner:	Phone #: 303-605-1763
Project Name: Duke Energy Field Services	Fax #:
Project Location: Linam Ranch Gas Plant	

FOR LAB USE ONLY				MATRIX							PRES.			SAMPLING		ANALYSIS REQUEST
LAB I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID:	ICE / COOL	OTHER:	DATE	TIME	N, fluate -NO3
H9028-1	MW-1		1								✓			1155	✓
-2	MW-8		1								✓			1040	✓
-3	MW-10		1								✓			1640	✓
-4	MW-10d		1								✓			1720	✓
-5	MW-11		1								✓			1645	✓
-6	MW-12		1								✓			1330	✓
-7	MW-13		1								✓			1430	✓

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Terms and Conditions: Interest will be charged on all accounts more than 30 days past due at the rate of 24% per annum from the original date of invoice, and all costs of collections, including attorney's fees.

Sampler Relinquished: Gilbert Van Deventer	Date: 8-18-04 Time: 6:30 pm	Received By:	Phone Result ☐ Yes ☐ No Additional Fax #:
Relinquished By:	Date: 08/18/2004 Time: 6:35 PM	Received By: (Lab Staff)	Fax Result: ☐ Yes ☐ No REMARKS:
Delivered By: (Circle One) Sampler - UPS - Bus - Other:		Sample Condition Cool ☑ Yes ☐ No Intact ☐ Yes ☐ No	CHECKED BY: (Initials)

† Cardinal cannot accept verbal changes. Please fax written changes to 915-673-7020.

APPENDIX B

MONITORING WELL

SAMPLING DATA SHEETS

WELL SAMPLING DATA FORM

CLIENT: Duke Energy Field Services
WELL ID: **MW-1**
SITE NAME: Linam Ranch Gas Plant
DATE: 3/16/2004
PROJECT NO. V-102
SAMPLER: Van Deventer

PURGING METHOD: ☑ Hand Bailed ☐ Pump If Pump, Type: _____

SAMPLING METHOD: ☑ Disposable Bailer ☐ Direct from Discharge Hose ☐ Other: _____

DESCRIBE EQUIPMENT DECONTAMINATION METHOD BEFORE SAMPLING THE WELL:

☑ Gloves ☑ Alconox ☑ Distilled Water Rinse ☐ Other: _____

DISPOSAL METHOD OF PURGE WATER: ☐ Surface Discharge ☐ Drums ☑ Disposal Facility

TOTAL DEPTH OF WELL: 53.15 Feet
DEPTH TO WATER: 45.88 Feet
HEIGHT OF WATER COLUMN: 7.27 Feet
WELL DIAMETER: 2.0 Inch

3.6 Minimum Gallons to purge 3 well volumes (Water Column Height x 0.49)

TIME	VOLUME PURGED	TEMP. °C	COND. mS/cm	pH	DO mg/L		PHYSICAL APPEARANCE AND REMARKS
14:04	0	-	-	-	-	-	Hand bailed
14:08	2	19.3	1.75	7.50	2.3		
14:12	4	19.1	1.68	7.56	1.6		
14:16	6	18.8	1.78	7.60	1.0		
						0.17	mg/L Ferrous Iron (Fe^{-2})
						14:20	Time of sample collection
0:12	:Total Time (hr:min)		**6**	:Total Vol (gal)		**0.50**	:Flow Rate (gal/min)

COMMENTS: Samples collected for BTEX, Cl, NO3, SO4, TDS, As, Ba, Fe & Mn analysis.

WELL SAMPLING DATA FORM

CLIENT: Duke Energy Field Services
WELL ID: **MW-2**
SITE NAME: Linam Ranch Gas Plant
DATE: 3/16/2004
PROJECT NO. V-102
SAMPLER: Van Deventer

PURGING METHOD: ☑ Hand Bailed ☐ Pump If Pump, Type: _____

SAMPLING METHOD: ☑ Disposable Bailer ☐ Direct from Discharge Hose ☐ Other: _____

DESCRIBE EQUIPMENT DECONTAMINATION METHOD BEFORE SAMPLING THE WELL:

☑ Gloves ☑ Alconox ☑ Distilled Water Rinse ☐ Other: _____

DISPOSAL METHOD OF PURGE WATER: ☐ Surface Discharge ☐ Drums ☑ Disposal Facility

TOTAL DEPTH OF WELL: 50.31 Feet
DEPTH TO WATER: 45.98 Feet
HEIGHT OF WATER COLUMN: 4.33 Feet
WELL DIAMETER: 2.0 Inch

2.1 Minimum Gallons to purge 3 well volumes (Water Column Height x 0.49)

TIME	VOLUME PURGED	TEMP. °C	COND. mS/cm	pH	DO mg/L		PHYSICAL APPEARANCE AND REMARKS
8:47	0	-	-	-	-	-	Hand bailed
8:50	1	16.5	0.64	7.05	5.4		
8:55	2	16.5	0.67	7.08	5.5		
						0.17	mg/L Ferrous Iron (Fe^{-2})
						9:00	Time of sample collection
0:08	:Total Time (hr:min)		**2**	:Total Vol (gal)		**0.25**	:Flow Rate (gal/min)

COMMENTS: Samples collected for BTEX, Cl, NO3, SO4, TDS, As, Ba, Fe & Mn analysis.

WELL SAMPLING DATA FORM

CLIENT: Duke Energy Field Services
WELL ID: **MW-3**
SITE NAME: Linam Ranch Gas Plant
DATE: 3/16/2004
PROJECT NO. V-102
SAMPLER: Van Deventer

PURGING METHOD: ☑ Hand Bailed ☐ Pump If Pump, Type: _____

SAMPLING METHOD: ☑ Disposable Bailer ☐ Direct from Discharge Hose ☐ Other: _____

DESCRIBE EQUIPMENT DECONTAMINATION METHOD BEFORE SAMPLING THE WELL:

☑ Gloves ☑ Alconox ☑ Distilled Water Rinse ☐ Other: _____

DISPOSAL METHOD OF PURGE WATER: ☐ Surface Discharge ☐ Drums ☑ Disposal Facility

TOTAL DEPTH OF WELL: 55.12 Feet
DEPTH TO WATER: 49.07 Feet
HEIGHT OF WATER COLUMN: 6.05 Feet
WELL DIAMETER: 2.0 Inch

3.0 Minimum Gallons to purge 3 well volumes (Water Column Height x 0.49)

TIME	VOLUME PURGED	TEMP. °C	COND. mS/cm	pH	DO mg/L		PHYSICAL APPEARANCE AND REMARKS
13:46	0	-	-	-	-		Hand bailed
13:51	2	19.3	0.40	7.73	7.9		
13:55	4	19.3	0.40	7.70	7.9		minutes
						0.12	mg/L Ferrous Iron (Fe^{-2})
						14:00	Time of sample collection

0:09 :Total Time (hr:min) **4** :Total Vol (gal) **0.44** :Flow Rate (gal/min)

COMMENTS: Samples collected for BTEX, Cl, NO3, SO4, TDS, As, Ba, Fe & Mn analysis.

WELL SAMPLING DATA FORM

CLIENT: Duke Energy Field Services
WELL ID: **MW-4**
SITE NAME: Linam Ranch Gas Plant
DATE: 3/16/2004
PROJECT NO. V-102
SAMPLER: Van Deventer

PURGING METHOD: ☑ Hand Bailed ☐ Pump If Pump, Type: _____

SAMPLING METHOD: ☑ Disposable Bailer ☐ Direct from Discharge Hose ☐ Other: _____

DESCRIBE EQUIPMENT DECONTAMINATION METHOD BEFORE SAMPLING THE WELL:

☑ Gloves ☑ Alconox ☑ Distilled Water Rinse ☐ Other: _____

DISPOSAL METHOD OF PURGE WATER: ☐ Surface Discharge ☐ Drums ☑ Disposal Facility

TOTAL DEPTH OF WELL: 56.00 Feet
DEPTH TO WATER: 48.41 Feet
HEIGHT OF WATER COLUMN: 7.59 Feet
WELL DIAMETER: 2.0 Inch

3.7 Minimum Gallons to purge 3 well volumes (Water Column Height x 0.49)

TIME	VOLUME PURGED	TEMP. °C	COND. mS/cm	pH	DO mg/L		PHYSICAL APPEARANCE AND REMARKS
12:47	0	-	-	-	-	-	Pump On
12:53	5	21.4	3.34	6.95	1.4		
12:59	10	20.7	3.27	7.10	1.8		
13:04	15	20.6	3.22	7.54	2.0		
13:11	20	20.0	3.23	7.64	2.7		
13:16	25	21.2	3.24	7.21	2.7		Pump Off
						6.44	mg/L Ferrous Iron (Fe^{-2})
						13:25	Time of sample collection
0:29	:Total Time (hr:min)		**25**	:Total Vol (gal)		**0.86**	:Flow Rate (gal/min)

COMMENTS: Samples collected for BTEX, Cl, NO3, SO4, TDS, As, Ba, Fe & Mn analysis.

C:/FORMS/SAMPLING DATA FORM

WELL SAMPLING DATA FORM

CLIENT: Duke Energy Field Services
WELL ID: **MW-5**
SITE NAME: Linam Ranch Gas Plant
DATE: 3/16/2004
PROJECT NO. V-102
SAMPLER: Van Deventer

PURGING METHOD: ☐ Hand Bailed ☑ Pump If Pump, Type: 2" Whaler SuperPurger Pump
SAMPLING METHOD: ☑ Disposable Bailer ☐ Direct from Discharge Hose ☐ Other:

DESCRIBE EQUIPMENT DECONTAMINATION METHOD BEFORE SAMPLING THE WELL:

☑ Gloves ☑ Alconox ☑ Distilled Water Rinse ☐ Other:

DISPOSAL METHOD OF PURGE WATER: ☐ Surface Discharge ☐ Drums ☑ Disposal Facility

TOTAL DEPTH OF WELL: 55.16 Feet
DEPTH TO WATER: 49.75 Feet
HEIGHT OF WATER COLUMN: 5.41 Feet
WELL DIAMETER: 4.0 Inch

10.6 Minimum Gallons to purge 3 well volumes (Water Column Height x 1.96)

TIME	VOLUME PURGED	TEMP. °C	COND. mS/cm	pH	DO mg/L		PHYSICAL APPEARANCE AND REMARKS
12:50	0	-	-	-	-	-	Pump On
12:53	5	23.7	2.15	6.99	1.8		
12:57	10	23.3	2.18	7.01	1.2		
13:02	15	23.6	2.23	7.22	1.1		
13:05	20	23.9	2.23	7.61	0.9		
13:08	25	23.4	2.22	7.52	1.0		Pump Off
						6.34	mg/L Ferrous Iron (Fe^{+2})
						13:15	Time of sample collection
0:18	:Total Time (hr:min)		**25**	:Total Vol (gal)		**1.39**	:Flow Rate (gal/min)

COMMENTS: Samples collected for BTEX, Cl, NO3, SO4, TDS, As, Ba, Fe & Mn analysis.

WELL SAMPLING DATA FORM

CLIENT: Duke Energy Field Services
WELL ID: **MW-7**
SITE NAME: Linam Ranch Gas Plant
DATE: 3/16/2004
PROJECT NO. V-102
SAMPLER: Van Deventer

PURGING METHOD: ☑ Hand Bailed ☐ Pump If Pump, Type: _____

SAMPLING METHOD: ☑ Disposable Bailer ☐ Direct from Discharge Hose ☐ Other: _____

DESCRIBE EQUIPMENT DECONTAMINATION METHOD BEFORE SAMPLING THE WELL:

☑ Gloves ☑ Alconox ☑ Distilled Water Rinse ☐ Other: _____

DISPOSAL METHOD OF PURGE WATER: ☐ Surface Discharge ☐ Drums ☑ Disposal Facility

TOTAL DEPTH OF WELL: 62.58 Feet
DEPTH TO WATER: 58.50 Feet
HEIGHT OF WATER COLUMN: 4.08 Feet
WELL DIAMETER: 2.0 Inch

2.0 Minimum Gallons to purge 3 well volumes (Water Column Height x 0.49)

TIME	VOLUME PURGED	TEMP. °C	COND. mS/cm	pH	DO mg/L		PHYSICAL APPEARANCE AND REMARKS
13:45	0	-	-	-	-	-	Hand bailed
13:50	1	19.6	0.9	7.8	7.6	-	Bailed dry
						0.04	mg/L Ferrous Iron (Fe^{-2})
						14:50	Time of sample collection
0:05	:Total Time (hr:min)		**1**	:Total Vol (gal)		**0.20**	:Flow Rate (gal/min)

COMMENTS: Samples collected for BTEX, Cl, NO3, SO4, TDS, As, Ba, Fe & Mn analysis.

WELL SAMPLING DATA FORM

CLIENT: Duke Energy Field Services
WELL ID: **MW-8**
SITE NAME: Linam Ranch Gas Plant
DATE: 3/16/2004
PROJECT NO. V-102
SAMPLER: Van Deventer

PURGING METHOD: ☐ Hand Bailed ☑ Pump If Pump, Type: 2" Whaler SuperPurger Pump
SAMPLING METHOD: ☑ Disposable Bailer ☐ Direct from Discharge Hose ☐ Other:

DESCRIBE EQUIPMENT DECONTAMINATION METHOD BEFORE SAMPLING THE WELL:
☑ Gloves ☑ Alconox ☑ Distilled Water Rinse ☐ Other:

DISPOSAL METHOD OF PURGE WATER: ☐ Surface Discharge ☐ Drums ☑ Disposal Facility

TOTAL DEPTH OF WELL: 58.11 Feet
DEPTH TO WATER: 45.51 Feet
HEIGHT OF WATER COLUMN: 12.60 Feet
WELL DIAMETER: 4.0 Inch

24.7 Minimum Gallons to purge 3 well volumes (Water Column Height x 1.96)

TIME	VOLUME PURGED	TEMP. °C	COND. mS/cm	pH	DO mg/L		PHYSICAL APPEARANCE AND REMARKS
8:29	0	-	-	-			Pump On
8:31	5	17.2	2.37	6.74	1.9		
8:33	10	18.1	1.28	6.83	3.6		
8:36	15	18.7	1.45	6.77	3.4		
8:39	20	18.9	1.49	6.77	2.6		
8:42	25	18.0	1.48	6.77	2.3		Pump Off
						0.03	mg/L Ferrous Iron (Fe^{-2})
						8:50	Time of sample collection
0:13	:Total Time (hr:min)		**25**	:Total Vol (gal)		**1.92**	:Flow Rate (gal/min)

COMMENTS: Samples collected for BTEX, Cl, NO3, SO4, TDS, As, Ba, Fe & Mn analysis.

WELL SAMPLING DATA FORM

CLIENT: Duke Energy Field Services
WELL ID: **MW-9**
SITE NAME: Linam Ranch Gas Plant
DATE: 3/16/2004
PROJECT NO. V-102
SAMPLER: Van Deventer

PURGING METHOD: ☑ Hand Bailed ☐ Pump If Pump, Type: _____

SAMPLING METHOD: ☑ Disposable Bailer ☐ Direct from Discharge Hose ☐ Other: _____

DESCRIBE EQUIPMENT DECONTAMINATION METHOD BEFORE SAMPLING THE WELL:

☑ Gloves ☑ Alconox ☑ Distilled Water Rinse ☐ Other: _____

DISPOSAL METHOD OF PURGE WATER: ☐ Surface Discharge ☐ Drums ☑ Disposal Facility

TOTAL DEPTH OF WELL: 58.90 Feet
DEPTH TO WATER: 52.33 Feet
HEIGHT OF WATER COLUMN: 6.57 Feet
WELL DIAMETER: 2.0 Inch

3.2 Minimum Gallons to purge 3 well volumes (Water Column Height x 0.49)

TIME	VOLUME PURGED	TEMP. °C	COND. mS/cm	pH	DO mg/L		PHYSICAL APPEARANCE AND REMARKS
10:30	0	-	-	-	-	-	Hand bailed
10:35	5	18.5	1.04	7.37	2.1	-	
						0.05	mg/L Ferrous Iron (Fe^{-2})
						10:40	Time of sample collection
0:05	:Total Time (hr:min)		**5**	:Total Vol (gal)		**1.00**	:Flow Rate (gal/min)

COMMENTS: Samples collected for BTEX, Cl, NO3, SO4, TDS, As, Ba, Fe & Mn analysis.

WELL SAMPLING DATA FORM

CLIENT: Duke Energy Field Services
WELL ID: **MW-10**
SITE NAME: Linam Ranch Gas Plant
DATE: 3/16/2004
PROJECT NO. V-102
SAMPLER: Van Deventer

PURGING METHOD: ☐ Hand Bailed ☑ Pump If Pump, Type: 2" Whaler SuperPurger Pump
SAMPLING METHOD: ☑ Disposable Bailer ☐ Direct from Discharge Hose ☐ Other:

DESCRIBE EQUIPMENT DECONTAMINATION METHOD BEFORE SAMPLING THE WELL:
☑ Gloves ☑ Alconox ☑ Distilled Water Rinse ☐ Other:

DISPOSAL METHOD OF PURGE WATER: ☐ Surface Discharge ☐ Drums ☑ Disposal Facility

TOTAL DEPTH OF WELL: 64.97 Feet
DEPTH TO WATER: 52.38 Feet
HEIGHT OF WATER COLUMN: 12.59 Feet
WELL DIAMETER: 4.0 Inch

24.7 Minimum Gallons to purge 3 well volumes (Water Column Height x 1.96)

TIME	VOLUME PURGED	TEMP. °C	COND. mS/cm	pH	DO mg/L		PHYSICAL APPEARANCE AND REMARKS
10:17	0	-	-	-	-	-	Pump On
10:20	5	19.4	1.52	7.39	1.3		
10:23	10	19.7	1.46	7.27	1.2		
10:25	15	19.7	1.46	7.35	1.1		
10:28	20	20.0	1.49	7.51	1.2		
10:31	25	20.2	1.49	7.60	1.1		
						1.06	mg/L Ferrous Iron (Fe^{+2})
						10:35	Time of sample collection
0:14	:Total Time (hr:min)		**25**	:Total Vol (gal)		**1.79**	:Flow Rate (gal/min)

COMMENTS: Samples collected for BTEX, Cl, NO3, SO4, TDS, As, Ba, Fe & Mn analysis.

WELL SAMPLING DATA FORM

CLIENT: Duke Energy Field Services
WELL ID: **MW-10D**
SITE NAME: Linam Ranch Gas Plant
DATE: 3/16/2004
PROJECT NO. V-102
SAMPLER: Van Deventer

PURGING METHOD: ☑ Hand Bailed ☐ Pump If Pump, Type: _____

SAMPLING METHOD: ☑ Disposable Bailer ☐ Direct from Discharge Hose ☐ Other: _____

DESCRIBE EQUIPMENT DECONTAMINATION METHOD BEFORE SAMPLING THE WELL:

☑ Gloves ☑ Alconox ☑ Distilled Water Rinse ☐ Other: _____

DISPOSAL METHOD OF PURGE WATER: ☐ Surface Discharge ☐ Drums ☑ Disposal Facility

TOTAL DEPTH OF WELL: 78.44 Feet
DEPTH TO WATER: 53.26 Feet
HEIGHT OF WATER COLUMN: 25.18 Feet
WELL DIAMETER: 2.0 Inch

12.3 Minimum Gallons to purge 3 well volumes (Water Column Height x 0.49)

TIME	VOLUME PURGED	TEMP. °C	COND. mS/cm	pH	DO mg/L		PHYSICAL APPEARANCE AND REMARKS
10:55	0	-	-	-	-	-	Hand bailed
10:59	5	18.8	1.44	7.86	1.6		
11:05	10	19.2	1.40	7.80	2.2		
11:11	15	19.0	1.38	7.78	1.9		
11:17	20	18.8	1.37	7.79	2.1		
						0.75	mg/L Ferrous Iron (Fe^{-2})
						11:20	Time of sample collection

0:22 :Total Time (hr:min) **20** :Total Vol (gal) **0.91** :Flow Rate (gal/min)

COMMENTS: Samples collected for BTEX, Cl, NO3, SO4, TDS, As, Ba, Fe & Mn analysis.

WELL SAMPLING DATA FORM

CLIENT: Duke Energy Field Services
WELL ID: **MW-11**
SITE NAME: Linam Ranch Gas Plant
DATE: 3/16/2004
PROJECT NO. V-102
SAMPLER: Van Deventer

PURGING METHOD: ☐ Hand Bailed ☑ Pump If Pump, Type: 2" Whaler SuperPurger Pump
SAMPLING METHOD: ☑ Disposable Bailer ☐ Direct from Discharge Hose ☐ Other:
DESCRIBE EQUIPMENT DECONTAMINATION METHOD BEFORE SAMPLING THE WELL:
☑ Gloves ☑ Alconox ☑ Distilled Water Rinse ☐ Other:

DISPOSAL METHOD OF PURGE WATER: ☐ Surface Discharge ☐ Drums ☑ Disposal Facility

TOTAL DEPTH OF WELL: 62.69 Feet
DEPTH TO WATER: 53.51 Feet
HEIGHT OF WATER COLUMN: 9.18 Feet
WELL DIAMETER: 4.0 Inch

18.0 Minimum Gallons to purge 3 well volumes (Water Column Height x 1.96)

TIME	VOLUME PURGED	TEMP. °C	COND. mS/cm	pH	DO mg/L		PHYSICAL APPEARANCE AND REMARKS
9:50	0	-	-	-	-	-	Pump On
9:52	5	19.5	1.22	6.81	1.5		
9:55	10	19.6	1.24	6.82	1.3		
9:57	15	19.4	1.24	6.83	1.2		
10:00	20	19.8	1.24	6.93	1.4		
10:03	25	20.3	1.26	7.11	1.6		
						0.11	mg/L Ferrous Iron (Fe^{+2})
						10:05	Time of sample collection
							Collected duplicate sample for
							BTEX analysis
0:13	:Total Time (hr:min)		**25**	:Total Vol (gal)		**1.92**	:Flow Rate (gal/min)

COMMENTS: Samples collected for BTEX, Cl, NO3, SO4, TDS, As, Ba, Fe & Mn analysis.

WELL SAMPLING DATA FORM

CLIENT: Duke Energy Field Services
WELL ID: **MW-12**
SITE NAME: Linam Ranch Gas Plant
DATE: 3/16/2004
PROJECT NO. V-102
SAMPLER: Van Deventer

PURGING METHOD: ☐ Hand Bailed ☑ Pump If Pump, Type: 2" Whaler SuperPurger Pump
SAMPLING METHOD: ☑ Disposable Bailer ☐ Direct from Discharge Hose ☐ Other:

DESCRIBE EQUIPMENT DECONTAMINATION METHOD BEFORE SAMPLING THE WELL:

☑ Gloves ☑ Alconox ☑ Distilled Water Rinse ☐ Other:

DISPOSAL METHOD OF PURGE WATER: ☐ Surface Discharge ☐ Drums ☑ Disposal Facility

TOTAL DEPTH OF WELL: 59.14 Feet
DEPTH TO WATER: 52.48 Feet
HEIGHT OF WATER COLUMN: 6.66 Feet
WELL DIAMETER: 4.0 Inch

13.0 Minimum Gallons to purge 3 well volumes (Water Column Height x 1.96)

TIME	VOLUME PURGED	TEMP. °C	COND. mS/cm	pH	DO mg/L		PHYSICAL APPEARANCE AND REMARKS
7:40	0	-	-	-	-	-	Pump On
7:43	5	17.5	3.1	6.70	3.1		
7:46	10	18.8	2.1	6.67	2.1		
7:49	15	18.5	2	6.67	2.0		
7:52	20	18.8	1.8	6.67	1.8		
7:55	25	18.3	1.5	6.73	1.5		
						0.03	mg/L Ferrous Iron (Fe^{+2})
						8:00	Time of sample collection
0:15	:Total Time (hr:min)		**25**	:Total Vol (gal)		**1.66**	:Flow Rate (gal/min)

COMMENTS: Samples collected for BTEX, Cl, NO3, SO4, TDS, As, Ba, Fe & Mn analysis.

WELL SAMPLING DATA FORM

CLIENT: Duke Energy Field Services
WELL ID: **MW-13**
SITE NAME: Linam Ranch Gas Plant
DATE: 3/16/2004
PROJECT NO. V-102
SAMPLER: Van Deventer

PURGING METHOD: ☐ Hand Bailed ☑ Pump If Pump, Type: 2" Whaler SuperPurger Pump
SAMPLING METHOD: ☑ Disposable Bailer ☐ Direct from Discharge Hose ☐ Other:

DESCRIBE EQUIPMENT DECONTAMINATION METHOD BEFORE SAMPLING THE WELL:

☑ Gloves ☑ Alconox ☑ Distilled Water Rinse ☐ Other:

DISPOSAL METHOD OF PURGE WATER: ☐ Surface Discharge ☐ Drums ☑ Disposal Facility

TOTAL DEPTH OF WELL: 62.87 Feet
DEPTH TO WATER: 54.04 Feet
HEIGHT OF WATER COLUMN: 8.83 Feet
WELL DIAMETER: 4.0 Inch

17.3 Minimum Gallons to purge 3 well volumes (Water Column Height x 1.96)

TIME	VOLUME PURGED	TEMP. °C	COND. mS/cm	pH	DO mg/L		PHYSICAL APPEARANCE AND REMARKS
9:22	0	-	-	-	-		Pump On
9:25	5	18.5	1.43	6.72	2.1		
9:27	10	19.3	1.61	6.68	1.6		
9:30	15	19.6	1.67	6.70	1.5		
9:34	20	19.5	1.69	6.72	1.6		
9:36	25	19.4	1.69	6.75	1.3		
						0.31	mg/L Ferrous Iron (Fe^{-2})
						9:40	Time of sarnple collection
0:14	:Total Time (hr:min)		**25**	:Total Vol (gal)		**1.78**	:Flow Rate (gal/min)

COMMENTS: Samples collected for BTEX, Cl, NO3, SO4, TDS, As, Ba, Fe & Mn analysis.

WELL SAMPLING DATA FORM

CLIENT: Duke Energy Field Services
WELL ID: **MW-1**
SITE NAME: Linam Ranch Gas Plant
DATE: 8/18/2004
PROJECT NO. V-102
SAMPLER: Van Deventer

PURGING METHOD: ☑ Hand Bailed ☐ Pump If Pump, Type: 2" Whaler SuperPurger Pump
SAMPLING METHOD: ☑ Disposable Bailer ☐ Direct from Discharge Hose ☐ Other:

DESCRIBE EQUIPMENT DECONTAMINATION METHOD BEFORE SAMPLING THE WELL:

☑ Gloves ☑ Alconox ☑ Distilled Water Rinse ☐ Other:

DISPOSAL METHOD OF PURGE WATER: ☐ Surface Discharge ☐ Drums ☑ Disposal Facility

TOTAL DEPTH OF WELL: 53.15 Feet
DEPTH TO WATER: 43.59 Feet
HEIGHT OF WATER COLUMN: 9.56 Feet
WELL DIAMETER: 2.0 Inch

4.7 Minimum Gallons to purge 3 well volumes (Water Column Height x 0.49)

TIME	VOLUME PURGED	TEMP. °C	COND. mS/cm	pH	DO mg/L		PHYSICAL APPEARANCE AND REMARKS
11:42	0	-	-	-	-	-	Pump on
11:45	2	23.2	1.96	6.78	3.2		
11:48	4	21.5	1.90	6.70	1.7		
11:51	5	22.3	1.88	6.80	3.0		Pumped dry
						11:55	Time of sample collection
0:09	:Total Time (hr:min)		**5**	:Total Vol (gal)		**0.56**	:Flow Rate (gal/min)

COMMENTS: Samples collected for BTEX, Cl, NO3, SO4, TDS, As, Ba, Fe & Mn analysis.
Ferrous Iron (Fe-2) field testing equipment (Hach Spectrophotometer) malfunctioned, therefore no reading availal

WELL SAMPLING DATA FORM

CLIENT: Duke Energy Field Services
WELL ID: **MW-2**
SITE NAME: Linam Ranch Gas Plant
DATE: 8/18/2004
PROJECT NO. V-102
SAMPLER: Van Deventer

PURGING METHOD: ☑ Hand Bailed ☐ Pump If Pump, Type: _____

SAMPLING METHOD: ☑ Disposable Bailer ☐ Direct from Discharge Hose ☐ Other: _____

DESCRIBE EQUIPMENT DECONTAMINATION METHOD BEFORE SAMPLING THE WELL:

☑ Gloves ☑ Alconox ☑ Distilled Water Rinse ☐ Other: _____

DISPOSAL METHOD OF PURGE WATER: ☐ Surface Discharge ☐ Drums ☑ Disposal Facility

TOTAL DEPTH OF WELL: 50.31 Feet
DEPTH TO WATER: 38.14 Feet
HEIGHT OF WATER COLUMN: 12.17 Feet
WELL DIAMETER: 2.0 Inch

6.0 Minimum Gallons to purge 3 well volumes (Water Column Height x 0.49)

TIME	VOLUME PURGED	TEMP. °C	COND. mS/cm	pH	DO mg/L		PHYSICAL APPEARANCE AND REMARKS
12:01	0	-	-	-	-	-	Hand bailed
12:05	2	19.6	0.31	7.46	6.1		
12:09	4	18.8	0.31	7.41	6.5		
12:14	6	18.6	0.31	7.43	6.6		
						12:17	Time of sample collection
0:13	:Total Time (hr:min)		**6**	:Total Vol (gal)		**0.46**	:Flow Rate (gal/min)

COMMENTS: Samples collected for BTEX, Cl, NO3, SO4, TDS, As, Ba, Fe & Mn analysis.

Ferrous Iron (Fe-2) field testing equipment (Hach Spectrophotometer) malfunctioned, therefore no reading availal

WELL SAMPLING DATA FORM

CLIENT: Duke Energy Field Services
WELL ID: **MW-3**
SITE NAME: Linam Ranch Gas Plant
DATE: 8/18/2004
PROJECT NO. V-102
SAMPLER: Van Deventer

PURGING METHOD: ☑ Hand Bailed ☐ Pump If Pump, Type: _____

SAMPLING METHOD: ☑ Disposable Bailer ☐ Direct from Discharge Hose ☐ Other: _____

DESCRIBE EQUIPMENT DECONTAMINATION METHOD BEFORE SAMPLING THE WELL:

☑ Gloves ☑ Alconox ☑ Distilled Water Rinse ☐ Other: _____

DISPOSAL METHOD OF PURGE WATER: ☐ Surface Discharge ☐ Drums ☑ Disposal Facility

TOTAL DEPTH OF WELL: 55.12 Feet
DEPTH TO WATER: 48.7 Feet
HEIGHT OF WATER COLUMN: 6.42 Feet
WELL DIAMETER: 2.0 Inch

3.1 Minimum Gallons to purge 3 well volumes (Water Column Height x 0.49)

TIME	VOLUME PURGED	TEMP. °C	COND. mS/cm	pH	DO mg/L		PHYSICAL APPEARANCE AND REMARKS
10:24	0	-	-	-	-		Hand bailed
10:27	2	20.3	0.41	7.53	8.7		
10:34	4	20.1	0.41	7.53	8.6		
10:37	5	19.8	0.40	7.54	8.6		
						10:40	Time of sample collection
0:13	:Total Time (hr:min)		**5**	:Total Vol (gal)		**0.38**	:Flow Rate (gal/min)

COMMENTS: Samples collected for BTEX, Cl, NO3, SO4, TDS, As, Ba, Fe & Mn analysis.

Ferrous Iron (Fe-2) field testing equipment (Hach Spectrophotometer) malfunctioned, therefore no reading availal

WELL SAMPLING DATA FORM

CLIENT: Duke Energy Field Services
WELL ID: **MW-4**
SITE NAME: Linam Ranch Gas Plant
DATE: 8/18/2004
PROJECT NO. V-102
SAMPLER: Van Deventer

PURGING METHOD: ☑ Hand Bailed ☐ Pump If Pump, Type: _____

SAMPLING METHOD: ☑ Disposable Bailer ☐ Direct from Discharge Hose ☐ Other: _____

DESCRIBE EQUIPMENT DECONTAMINATION METHOD BEFORE SAMPLING THE WELL:

☑ Gloves ☑ Alconox ☑ Distilled Water Rinse ☐ Other: _____

DISPOSAL METHOD OF PURGE WATER: ☐ Surface Discharge ☐ Drums ☑ Disposal Facility

TOTAL DEPTH OF WELL: 56.00 Feet
DEPTH TO WATER: 46.68 Feet
HEIGHT OF WATER COLUMN: 9.32 Feet
WELL DIAMETER: 2.0 Inch

4.6 Minimum Gallons to purge 3 well volumes (Water Column Height x 0.49)

TIME	VOLUME PURGED	TEMP. °C	COND. mS/cm	pH	DO mg/L		PHYSICAL APPEARANCE AND REMARKS
15:06	0	-	-	-	-	-	Hand bailed
15:11	4	23.1	2.88	6.84	2.0		
15:16	8	22.5	2.89	7.00	2.5		
15:21	12	21.4	2.84	7.04	2.0		
15:26	16	20.7	2.84	7.02	2.0		
15:32	20	20.8	2.81	7.31	2.3		
15:37	24	21.1	2.84	7.40	2.2		
						15:39	Time of sample collection
0:31	:Total Time (hr:min)		**24**	:Total Vol (gal)		**0.77**	:Flow Rate (gal/min)

COMMENTS: Samples collected for BTEX, Cl, NO3, SO4, TDS, As, Ba, Fe & Mn analysis.

Ferrous Iron (Fe-2) field testing equipment (Hach Spectrophotometer) malfunctioned, therefore no reading availa

WELL SAMPLING DATA FORM

CLIENT: Duke Energy Field Services
WELL ID: **MW-5**
SITE NAME: Linam Ranch Gas Plant
DATE: 8/18/2004
PROJECT NO. V-102
SAMPLER: Van Deventer

PURGING METHOD: ☐ Hand Bailed ☑ Pump If Pump, Type: 2" Whaler SuperPurger Pump
SAMPLING METHOD: ☑ Disposable Bailer ☐ Direct from Discharge Hose ☐ Other:

DESCRIBE EQUIPMENT DECONTAMINATION METHOD BEFORE SAMPLING THE WELL:
☑ Gloves ☑ Alconox ☑ Distilled Water Rinse ☐ Other:

DISPOSAL METHOD OF PURGE WATER: ☐ Surface Discharge ☐ Drums ☑ Disposal Facility

TOTAL DEPTH OF WELL: 55.16 Feet
DEPTH TO WATER: 48.56 Feet
HEIGHT OF WATER COLUMN: 6.60 Feet
WELL DIAMETER: 4.0 Inch

12.9 Minimum Gallons to purge 3 well volumes (Water Column Height x 1.96)

TIME	VOLUME PURGED	TEMP. °C	COND. mS/cm	pH	DO mg/L		PHYSICAL APPEARANCE AND REMARKS
13:36	0	-	-	-	-	-	Pump On
13:42	4	24.2	2.13	6.88	1.9		
13:48	8	22.9	2.14	6.96	3.0		
13:53	12	22.5	2.09	6.96	2.4		
13:58	16	22.4	2.10	7.00	3.1		
14:04	20	22.4	2.10	7.15	2.8		
14:11	24	22.8	2.15	7.10	2.9		Pump Off
						14:15	Time of sample collection
0:35	:Total Time (hr:min)		**24**	:Total Vol (gal)		**0.69**	:Flow Rate (gal/min)

COMMENTS: Samples collected for BTEX, Cl, NO3, SO4, TDS, As, Ba, Fe & Mn analysis.
Ferrous Iron (Fe-2) field testing equipment (Hach Spectrophotometer) malfunctioned, therefore no reading availat

WELL SAMPLING DATA FORM

CLIENT: Duke Energy Field Services
WELL ID: **MW-7**
SITE NAME: Linam Ranch Gas Plant
DATE: 8/18/2004
PROJECT NO. V-102
SAMPLER: Van Deventer

PURGING METHOD: ☑ Hand Bailed ☐ Pump If Pump, Type: _____

SAMPLING METHOD: ☑ Disposable Bailer ☐ Direct from Discharge Hose ☐ Other: _____

DESCRIBE EQUIPMENT DECONTAMINATION METHOD BEFORE SAMPLING THE WELL:

☑ Gloves ☑ Alconox ☑ Distilled Water Rinse ☐ Other: _____

DISPOSAL METHOD OF PURGE WATER: ☐ Surface Discharge ☐ Drums ☑ Disposal Facility

TOTAL DEPTH OF WELL: 62.58 Feet
DEPTH TO WATER: 57.83 Feet
HEIGHT OF WATER COLUMN: 4.75 Feet
WELL DIAMETER: 2.0 Inch

2.3 Minimum Gallons to purge 3 well volumes (Water Column Height x 0.49)

TIME	VOLUME PURGED	TEMP. °C	COND. mS/cm	pH	DO mg/L		PHYSICAL APPEARANCE AND REMARKS
9:55	0	-	-	-	-	-	Hand bailed
9:59	1	20.2	0.88	7.19	8.1	-	Bailed dry
						12:44	Time of sample collection
0:04	:Total Time (hr:min)		**1**	:Total Vol (gal)		**0.25**	:Flow Rate (gal/min)

COMMENTS: Samples collected for BTEX, Cl, NO3, SO4, TDS, As, Ba, Fe & Mn analysis.

Ferrous Iron (Fe-2) field testing equipment (Hach Spectrophotometer) malfunctioned, therefore no reading availal

WELL SAMPLING DATA FORM

CLIENT: Duke Energy Field Services
WELL ID: **MW-8**
SITE NAME: Linam Ranch Gas Plant
DATE: 8/18/2004
PROJECT NO. V-102
SAMPLER: Van Deventer

PURGING METHOD: ☐ Hand Bailed ☑ Pump If Pump, Type: 2" Whaler SuperPurger Pump
SAMPLING METHOD: ☑ Disposable Bailer ☐ Direct from Discharge Hose ☐ Other:

DESCRIBE EQUIPMENT DECONTAMINATION METHOD BEFORE SAMPLING THE WELL:
☑ Gloves ☑ Alconox ☑ Distilled Water Rinse ☐ Other:

DISPOSAL METHOD OF PURGE WATER: ☐ Surface Discharge ☐ Drums ☑ Disposal Facility

TOTAL DEPTH OF WELL: 58.11 Feet
DEPTH TO WATER: 42.88 Feet
HEIGHT OF WATER COLUMN: 15.23 Feet
WELL DIAMETER: 4.0 Inch

29.8 Minimum Gallons to purge 3 well volumes (Water Column Height x 1.96)

TIME	VOLUME PURGED	TEMP. °C	COND. mS/cm	pH	DO mg/L		PHYSICAL APPEARANCE AND REMARKS
9:52	0	-	-	-			Pump On
9:55	5	20.3	0.31	7.19	8.6		
9:57	10	19.4	0.30	7.32	8.6		
9:59	15	19.3	0.30	7.35	8.4		
10:28	20	19.0	0.29	7.40	8.4		
10:38	25	20.6	0.30	7.45	8.8		Pump Off
						10:40	Time of sample collection
0:46	:Total Time (hr:min)		**25**	:Total Vol (gal)		**0.54**	:Flow Rate (gal/min)

COMMENTS: Samples collected for BTEX, Cl, NO3, SO4, TDS, As, Ba, Fe & Mn analysis.
Ferrous Iron (Fe-2) field testing equipment (Hach Spectrophotometer) malfunctioned, therefore no reading availal

WELL SAMPLING DATA FORM

CLIENT: Duke Energy Field Services WELL ID: **MW-9**

SITE NAME: Linam Ranch Gas Plant DATE: 8/18/2004

PROJECT NO. V-102 SAMPLER: Van Deventer

PURGING METHOD: ☑ Hand Bailed ☐ Pump If Pump, Type: _____

SAMPLING METHOD: ☑ Disposable Bailer ☐ Direct from Discharge Hose ☐ Other: _____

DESCRIBE EQUIPMENT DECONTAMINATION METHOD BEFORE SAMPLING THE WELL:

☑ Gloves ☑ Alconox ☑ Distilled Water Rinse ☐ Other: _____

DISPOSAL METHOD OF PURGE WATER: ☐ Surface Discharge ☐ Drums ☑ Disposal Facility

TOTAL DEPTH OF WELL: 58.90 Feet
DEPTH TO WATER: 52.20 Feet
HEIGHT OF WATER COLUMN: 6.70 Feet
WELL DIAMETER: 2.0 Inch

3.3 Minimum Gallons to purge 3 well volumes (Water Column Height x 0.49)

TIME	VOLUME PURGED	TEMP. °C	COND. mS/cm	pH	DO mg/L		PHYSICAL APPEARANCE AND REMARKS
11:11	0	-	-	-		-	Hand bailed
11:15	1	21.2	1.03	7.04	2.0	-	
11:09	2	20.6	1.01	6.96	2.4		
11:22	3	20.3	1.00	6.98	1.8		
11:25	4	20.5	1.00	6.97	2.1		
						11:31	Time of sample collection
0:16	:Total Time (hr:min)		**4**	:Total Vol (gal)		**0.25**	:Flow Rate (gal/min)

COMMENTS: Samples collected for BTEX, Cl, NO3, SO4, TDS, As, Ba, Fe & Mn analysis.

Ferrous Iron (Fe-2) field testing equipment (Hach Spectrophotometer) malfunctioned, therefore no reading availal

WELL SAMPLING DATA FORM

CLIENT: Duke Energy Field Services
WELL ID: **MW-10**
SITE NAME: Linam Ranch Gas Plant
DATE: 8/18/2004
PROJECT NO. V-102
SAMPLER: Van Deventer

PURGING METHOD: ☐ Hand Bailed ☑ Pump If Pump, Type: 2" Whaler SuperPurger Pump
SAMPLING METHOD: ☑ Disposable Bailer ☐ Direct from Discharge Hose ☐ Other:

DESCRIBE EQUIPMENT DECONTAMINATION METHOD BEFORE SAMPLING THE WELL:
☑ Gloves ☑ Alconox ☑ Distilled Water Rinse ☐ Other:

DISPOSAL METHOD OF PURGE WATER: ☐ Surface Discharge ☐ Drums ☑ Disposal Facility

TOTAL DEPTH OF WELL: 64.97 Feet
DEPTH TO WATER: 52.06 Feet
HEIGHT OF WATER COLUMN: 12.91 Feet
WELL DIAMETER: 4.0 Inch

25.3 Minimum Gallons to purge 3 well volumes (Water Column Height x 1.96)

TIME	VOLUME PURGED	TEMP. °C	COND. mS/cm	pH	DO mg/L		PHYSICAL APPEARANCE AND REMARKS
16:12	0	-	-	-	-	-	Pump On
16:16	2	22.1	1.50	7.25	1.0		
16:09	4	21.6	1.48	7.16	0.9		
16:25	6	21.2	1.45	7.15	0.9		
16:27	8	20.8	1.42	7.16	1.0		
16:32	10	20.6	1.39	7.14	1.1		
16:35	12	20.7	1.40	7.16	0.9		
16:40	14	20.8	1.39	7.22	1.3		
						16:40	Time of sample collection
0:31	:Total Time (hr:min)		**14**	:Total Vol (gal)		**0.45**	:Flow Rate (gal/min)

COMMENTS: Samples collected for BTEX, Cl, NO3, SO4, TDS, As, Ba, Fe & Mn analysis.
Ferrous Iron (Fe-2) field testing equipment (Hach Spectrophotometer) malfunctioned, therefore no reading availal

WELL SAMPLING DATA FORM

CLIENT: Duke Energy Field Services
WELL ID: **MW-10D**
SITE NAME: Linam Ranch Gas Plant
DATE: 8/18/2004
PROJECT NO. V-102
SAMPLER: Van Deventer

PURGING METHOD: ☑ Hand Bailed ☐ Pump If Pump, Type: _____

SAMPLING METHOD: ☑ Disposable Bailer ☐ Direct from Discharge Hose ☐ Other: _____

DESCRIBE EQUIPMENT DECONTAMINATION METHOD BEFORE SAMPLING THE WELL:

☑ Gloves ☑ Alconox ☑ Distilled Water Rinse ☐ Other: _____

DISPOSAL METHOD OF PURGE WATER: ☐ Surface Discharge ☐ Drums ☑ Disposal Facility

TOTAL DEPTH OF WELL: 78.44 Feet
DEPTH TO WATER: 53.03 Feet
HEIGHT OF WATER COLUMN: 25.41 Feet
WELL DIAMETER: 2.0 Inch

12.4 Minimum Gallons to purge 3 well volumes (Water Column Height x 0.49)

TIME	VOLUME PURGED	TEMP. °C	COND. mS/cm	pH	DO mg/L		PHYSICAL APPEARANCE AND REMARKS
16:20	0	-	-	-	-	-	Hand bailed
16:25	2	20.4	1.35	7.18	2.4		
16:30	4	20.4	1.33	7.17	2.4		
16:38	6	20.0	1.27	7.11	2.5		
17:00	8	20.8	1.28	7.18	2.7		
17:06	10	20.2	1.26	7.03	2.0		
17:10	12	20.1	1.26	7.09	3.3		
						17:20	Time of sample collection
0:50	:Total Time (hr:min)		**12**	:Total Vol (gal)		**0.24**	:Flow Rate (gal/min)

COMMENTS: Samples collected for BTEX, Cl, NO3, SO4, TDS, As, Ba, Fe & Mn analysis.

Ferrous Iron (Fe-2) field testing equipment (Hach Spectrophotometer) malfunctioned, therefore no reading availal

WELL SAMPLING DATA FORM

CLIENT: Duke Energy Field Services WELL ID: **MW-11**

SITE NAME: Linam Ranch Gas Plant DATE: 8/18/2004

PROJECT NO. V-102 SAMPLER: Van Deventer

PURGING METHOD: ☐ Hand Bailed ☑ Pump If Pump, Type: 2" Whaler SuperPurger Pump

SAMPLING METHOD: ☑ Disposable Bailer ☐ Direct from Discharge Hose ☐ Other:

DESCRIBE EQUIPMENT DECONTAMINATION METHOD BEFORE SAMPLING THE WELL:

☑ Gloves ☑ Alconox ☑ Distilled Water Rinse ☐ Other:

DISPOSAL METHOD OF PURGE WATER: ☐ Surface Discharge ☐ Drums ☑ Disposal Facility

TOTAL DEPTH OF WELL: 62.69 Feet
DEPTH TO WATER: 52.86 Feet
HEIGHT OF WATER COLUMN: 9.83 Feet
WELL DIAMETER: 4.0 Inch

19.2 Minimum Gallons to purge 3 well volumes (Water Column Height x 1.96)

TIME	VOLUME PURGED	TEMP. °C	COND. mS/cm	pH	DO mg/L		PHYSICAL APPEARANCE AND REMARKS
15:58	0	-	-	-	-	-	
16:06	2	20.4	1.35	7.18	2.4		
16:14	4	20.4	1.33	7.17	2.4		
16:22	6	20.0	1.27	7.11	2.5		
16:29	8	20.8	1.28	7.18	2.7		
16:37	10	20.2	1.26	7.03	2.0		
16:41	12	20.1	1.26	7.09	3.3		
						10:05	Time of sample collection
							Collected duplicate sample for
							BTEX analysis
0:43	:Total Time (hr:min)		**12**	:Total Vol (gal)		**0.28**	:Flow Rate (gal/min)

COMMENTS: Samples collected for BTEX, Cl, NO3, SO4, TDS, As, Ba, Fe & Mn analysis.

Ferrous Iron (Fe-2) field testing equipment (Hach Spectrophotometer) malfunctioned, therefore no reading availal

WELL SAMPLING DATA FORM

CLIENT: Duke Energy Field Services
WELL ID: **MW-12**
SITE NAME: Linam Ranch Gas Plant
DATE: 8/18/2004
PROJECT NO. V-102
SAMPLER: Van Deventer

PURGING METHOD: ☐ Hand Bailed ☑ Pump If Pump, Type: 2" Whaler SuperPurger Pump
SAMPLING METHOD: ☑ Disposable Bailer ☐ Direct from Discharge Hose ☐ Other:

DESCRIBE EQUIPMENT DECONTAMINATION METHOD BEFORE SAMPLING THE WELL:
☑ Gloves ☑ Alconox ☑ Distilled Water Rinse ☐ Other:

DISPOSAL METHOD OF PURGE WATER: ☐ Surface Discharge ☐ Drums ☑ Disposal Facility

TOTAL DEPTH OF WELL: 59.14 Feet
DEPTH TO WATER: 51.74 Feet
HEIGHT OF WATER COLUMN: 7.40 Feet
WELL DIAMETER: 4.0 Inch

14.5 Minimum Gallons to purge 3 well volumes (Water Column Height x 1.96)

TIME	VOLUME PURGED	TEMP. °C	COND. mS/cm	pH	DO mg/L		PHYSICAL APPEARANCE AND REMARKS
13:00	0	-	-	-	-	-	
13:05	2	23.8	1.27	6.89	2.4		
13:09	4	21.6	1.21	6.74	2.4		
13:13	6	21.2	1.22	6.75	2.3		
13:17	8	20.7	1.20	6.76	2.3		
13:20	10	20.3	1.19	6.78	2.2		
13:25	12	20.0	1.19	6.78	2.2		
13:30	14	19.9	1.20	6.79	2.3		
						13:30	Time of sample collection
0:30	:Total Time (hr:min)		**14**	:Total Vol (gal)		**0.47**	:Flow Rate (gal/min)

COMMENTS: Samples collected for BTEX, Cl, NO3, SO4, TDS, As, Ba, Fe & Mn analysis.
Ferrous Iron (Fe-2) field testing equipment (Hach Spectrophotometer) malfunctioned, therefore no reading availal

WELL SAMPLING DATA FORM

CLIENT: Duke Energy Field Services
WELL ID: **MW-13**
SITE NAME: Linam Ranch Gas Plant
DATE: 8/18/2004
PROJECT NO. V-102
SAMPLER: Van Deventer

PURGING METHOD: ☐ Hand Bailed ☑ Pump If Pump, Type: 2" Whaler SuperPurger Pump
SAMPLING METHOD: ☑ Disposable Bailer ☐ Direct from Discharge Hose ☐ Other:

DESCRIBE EQUIPMENT DECONTAMINATION METHOD BEFORE SAMPLING THE WELL:
☑ Gloves ☑ Alconox ☑ Distilled Water Rinse ☐ Other:

DISPOSAL METHOD OF PURGE WATER: ☐ Surface Discharge ☐ Drums ☑ Disposal Facility

TOTAL DEPTH OF WELL: 62.87 Feet
DEPTH TO WATER: 53.68 Feet
HEIGHT OF WATER COLUMN: 9.19 Feet
WELL DIAMETER: 4.0 Inch

18.0 Minimum Gallons to purge 3 well volumes (Water Column Height x 1.96)

TIME	VOLUME PURGED	TEMP. °C	COND. mS/cm	pH	DO mg/L		PHYSICAL APPEARANCE AND REMARKS
13:55	0	-	-	-	-	-	
14:01	2	20.4	1.35	7.18	2.4		
14:07	4	20.4	1.33	7.17	2.4		
14:12	6	20.0	1.27	7.11	2.5		
14:17	8	20.8	1.28	7.18	2.7		
14:22	10	20.2	1.26	7.03	2.0		
14:30	12	20.1	1.26	7.09	3.3		
						14:30	Time of sample collection
0:35	:Total Time (hr:min)		**12**	:Total Vol (gal)		**0.34**	:Flow Rate (gal/min)

Ferrous Iron (Fe-2) field testing equipment (Hach Spectrophotometer) malfunctioned, therefore no reading availal

Ferrous Iron (Fe-2) field testing equipment (Hach Spectrophotometer) malfunctioned, therefore no reading availal