GW-5

Groundwater Monitoring Annual Report 2008

Larson & Associates, Inc.
Environmental Consultants

RECEIVED OCD
2009 JUN 26 A 11: 29

June 24, 2009

Mr. Glenn Von Gonten, Sr. Hydrologist
State of New Mexico – Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Re: 2008 Annual Groundwater Monitoring Report
Targa Midstream Services, L.P., Eunice Gas Plant (GW-005)
Lea County, New Mexico

Dear Mr. Von Gonten:

The enclosed report is submitted to the New Mexico Oil Conservation Division on behalf of Targa Midstream Services, L. P. (Targa) to present the results of groundwater monitoring performed at the Eunice Gas Plant for the 2008 calendar year.

If you have any questions or concerns, please call me at 432.687.0901 to discuss.

Sincerely,

LARSON & ASSOCIATES, INC.

William D. Green, PG No. 136
Texas Licensed Professional Geologist
wgreen@laenvironmental.com

Attachments 2008 Annual Groundwater Monitoring Report

CC Mr. Cal Wrangham, Targa Midstream Services, L.P.
Mr. James Lingnau, Targa Midstream Services, L.P.
Mr. Larry Johnson, OCD Hobbs Office

2008 Annual Report

Eunice Gas Plant

(GW-005)

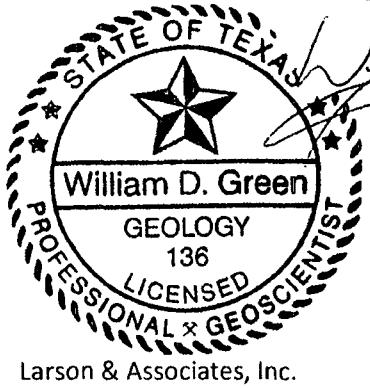
Lea County, New Mexico

Project No. 2-0103

June 22, 2009

Prepared for:
Targa Midstream Services, L.P.
6 Desta Drive, Suite 3300
Midland, Texas 79705

Prepared by:
William D. Green, PG
Texas Professional Geologist No. 136



6/22/09

Larson & Associates, Inc.
507 North Marienfeld, Suite 200
Midland, Texas 79701

Table of Content

List of Tables

List of Figures

List of Appendices

1.0 Executive Summary

This report presents the 2008 results for groundwater investigation/monitoring and surface waste management at the Targa Midstream, L.P. (Targa) Gas Plant located in Unit B (NW/4, NE/4), Section 3, Township 22 South, Range 37 East, Eunice, Lea County, New Mexico (Site or Property, Figure 1). The Facility operates under New Mexico Oil Conservation Division (OCD) discharge permit GW-005.

The following groundwater investigation activities were conducted during the past year:

- Groundwater Gauging and Sampling Event on June 24-25, 2008
- Groundwater Gauging and Sampling Event on November 25-26, 2008
- Electromagnetic Conductivity (EM) Survey of the southeast portion of the investigation area from November 2008 through January 2009
- Installation of MW-02A and MW-21
- Plugging and abandonment (P&A) of MW-02 and MW-17
- Groundwater stratification sampling
- Aquifer slug testing of MW-02A, MW-03, MW-05, MW-13, MW-14, MW-18, MW-19, MW-20, and MW-21

The following observations are documented in this report:

- Groundwater flow direction remains consistent towards the southeast
- Groundwater mounding beneath the facility continues to exist in the vicinity of MW-03, but appears to be subsiding
- Benzene concentrations exceeding the WQCC human health standard was observed in four site associated monitor wells during 2008
- Chromium concentrations exceeding WQCC human health standards were observed in upgradient MW-01 only
- Chloride, sulfate or TDS values exceeding the WQCC domestic water quality standards were observed in all monitor wells except upgradient MW-09 and MW-11
- The highest chloride and TDS values were observed in MW-14
- EM conductivity survey results indicate possible sources near the facility, the SWD well, and the pipeline along the south fenceline, may be contributing to elevated chlorides observed in MW-14
- EM conductivity survey results indicate Brunson C #6, Brunson C #12, Brunson C #13, and the plugged and abandoned (P&A) Paddock Unit oil wells may be contributing to elevated chlorides observed in MW-19
- Soil boring results and EM conductivity survey data indicate the Triassic Dockum red-beds are within 30 feet of the land surface in the vicinity of MW-17, and occlude groundwater movement
- The slug test average groundwater velocity is 1.127 ft/day
- Hydrostratigraphic data indicate relatively homogenous, non-stratified water columns for MW-02A, MW-03, MW-05, MW-18, and MW-19
- Hydrostratigraphic data indicates water column stratification with elevated surface pH values (alkaline or caustic) decreasing with depth for MW-13, MW-20, and MW-21
- Hydrostratigraphic data for MW-14 presents water column stratification with increasing chloride and conductivity values with depth, while pH values decrease with depth (from pH 7.49 at surface to 5.96 at depth), which may be indicative that an upwelling, deeper source may be

impacting this well or a density-driven plume migrating near the contact of the Triassic red-bed from upgradient and downgradient sources

- EM conductivity survey data layers indicate potential high-conductivity sources in the vicinities of the onsite disposal well, the offsite oil wells, south of MW-13, and along the south boundary pipeline

Based on the monitoring results, Larson & Associates, Inc. (LAI) recommends the following investigation activities for 2009. Additional activities will be guided by the results of these recommendations. Targa will continue monitoring groundwater semi-annually with the following proposed changes:

- Gauging all site monitor wells semi-annually
- Collecting samples for BTEX, anions, and TDS laboratory analysis from monitor wells that maybe affected by past or current Gas Plant operations – MW-02A, MW-03, MW-04, MW-05, MW-06, MW-13, MW-14, MW-16, and MW-21
- Installing monitor wells for delineation of the chloride contamination observed in MW-14 in the following locations – inside the fence at the southeast corner of the plant, south of MW-14 approximately 250 feet, southeast of MW-14 approximately 350 feet, northwest of MW-14 approximately 300 feet, and north of MW-14 approximately 300 feet
- Installing a recovery well for pump testing within approximately 100 feet of MW-14, based upon the analytical results from the delineation wells

2.0 Investigation Chronology

The following events have been documented in connection with the GW-005 investigation.

November 21, 2000	New Mexico Oil Conservation Division (OCD) inspects the Eunice Gas Plant facility for groundwater discharge plan renewal (GW-005).
November 28, 2000	OCD issues letter indicating a complaint of discharged wastewater to the ground east of the plant may contain "chrome".
December 18, 2000	Chromium in soil investigation workplan submitted to OCD.
February 7, 2001	Chromium in soil workplan approved.
April 6, 2001	OCD issues letter specifying conditions for renewal. Included are requirements for soil investigation in area east of plant, and the submission of a stormwater runoff plan.
April 26, 2001	Larson & Associates, Inc. (LAI) submits *Report of Investigation for Alleged Chromium Impact,* to OCD.
July 27, 2001	*Groundwater Discharge Plan Renewal* submitted to OCD.
December 26, 2001	OCD requests the installation of groundwater monitoring wells.
April 9, 2002	Initial investigation conducted. MW-01, MW-02, and MW-03 installed. BTEX constituents were identified in MW-02 and MW-03; Chromium was found in upgradient well MW-01.
June 7, 2002	*Preliminary Report of Subsurface Investigation* submitted to OCD.
August 6-9, 2002	Eight monitor wells, MW-04 through MW-11, are installed.
November 22, 2002	LAI submits *Preliminary Report of Continued Subsurface Investigation* to the OCD. Benzene detected in the upgradient MW-11, suggesting impacts unrelated to facility operations. Ten additional monitor wells are proposed.
February 11, 2003	*Subsurface Investigation Report* submitted to the OCD.
March 6, 2003	OCD requests additional delineation at the facility.
April 17, 2003	LAI submits *Workplan and Request for Extension for Continued Groundwater Investigation* to OCD.
June 3-4, 2003	Five monitor wells, MW-12 through MW-16, are installed.
September 4, 2003	*Subsurface and Groundwater Investigation Report* is submitted to the OCD by LAI.
January 15, 2004	LAI submits to the OCD *Modification Request for Groundwater Discharge Plan GW-005.*
March 10, 2005	*2004 Annual Groundwater Monitoring Report* submitted to OCD by LAI.
May 19, 2005	OCD Technical Meeting; OCD requires a plan to identify the source of contamination in the areas of monitor wells MW-03, MW-06, MW-11, and MW-14, and a plan to investigate contamination downgradient of MW-14.
October 4, 2005	LAI submits to OCD *Contaminant Source Identification and Investigation Work Plan*. The plan calls for four additional monitor wells south and east of the facility.
October 31, 2005	LAI install MW-19 and MW-20 south of MW-14 and the facility.
May 1, 2006	Targa proposes to the OCD a modification to the groundwater monitoring schedule.
May 5, 2006	*2005 Annual Groundwater Monitoring Report* submitted to OCD by LAI.
June 19, 2006	Technical meeting between OCD and LAI. OCD requests the HDPE near MW-03 be excavated; additional monitor wells south of MWs 18-20; historic aerial

	photograph review; Investigate potential release sources near MW-11 and the pipelines to the east.
August 25, 2006	OCD correspondence *Discharge Permit Eunice Gas Plant (GW-005).* The OCD expressed a concern that there is a "significant steady-state stream of artificial recharge water(s) and/or waste(s) infiltrating the Ogallala." Several recommendations were made.
July 31, 2007	*2006 Annual Groundwater Monitoring Report* submitted to OCD by LAI. A workplan for continued groundwater monitoring, performing an electromagnetic conductivity (EM) survey downgradient of the facility, and a soil investigation upon the decommissioning of former slop oil tanks.
September 2, 2008	*2007 Annual Groundwater Monitoring Report* submitted to OCD by LAI. Proposed investigation activities included: completion of slop oil tank soil remediation; aerial photograph review of the MW-11 area; performing EM survey south of MW-14; installing a soil boring west of MW-14; collecting stratified water samples; conducting aquifer slug and pump testing; installing a replacement well MW-02A; replacing MW-17; and resurveying MW-05.
November 4, 2008	Electromagnetic conductivity (EM) surveying activities commence.
February 18, 2009	MW-02A, MW-17A, and MW-21 installed. MW-17A subsequently plugged & abandoned (P&A) as a dry hole. MW-02 also P&A-ed.
March 3, 2009	Hydrostratigraphic profiling conducted on MW-02A, MW-03, MW-05, MW-13, MW-14, MW-18, MW-19, MW-20, and MW-21 using InSitu Troll 9500XT Pro measuring temperature, pH, conductivity, ORP, dissolved oxygen, and chlorides.
March 3 – 5, 2009	Slug tests performed using MW-02A, MW-03, MW-05, MW-13, MW-14, MW-18, MW-19, MW-20, and MW-21.

3.0 Vicinity Characteristics

3.1 Topography

The elevation of the Site is approximately 3,400 feet above mean sea level as shown on the Eunice, New Mexico (1969) USGS 7.5-Minute Quadrangle Maps. The topographic region is the relatively flat *Eunice Plains* region of the *Querecho Plains.* The facility vicinity slopes to the south with surface runoff from the facility routed south a low area near the south boundary fence, then east, terminating in the desert east of the site without any apparent surface connection to (South) Monument Draw. A current topographic map is included as Figure 1.

3.2 Geology

The *Geologic Map of New Mexico* (2003) and the *Geologic Atlas of Texas, Hobbs Sheet* indicate the vicinity's surface geology is comprised of Holocene to mid-Pleistocene age interlaid eolian and piedmont-slope deposits. This material covers the eastern flank of the Pecos River valley. These surficial deposits are primarily derived from reworking the underlying Tertiary-aged Ogallala Formation of the Southern High Plains, which are also comprised of alluvial and eolian deposits with petrocalcic soils. The Ogallala Formation is comprised of fluviatile sand, silt, clay and localized gravel, with indistinct to massive crossbeds. The Ogallala sand is generally fine- to medium-grained quartz, and is known to contain arsenic, barium and other heavy metals in an easily mobilized Van der Waals bonded surficial coating.

Monitor well boring logs indicate a general lithology of an unconsolidated veneer of eolian sand over an eight- to 20-foot thickness of carbonate-indurated sand (caliche). The caliche layer is most like the zone of illuviation where carbonate dust accumulates from surface transportation by meteoric water movement. Beneath the caliche layer is a thickness of fine-grained pink quartz sand. Locally this sand is lithified into sandstone, with clayey sand or red-bed clay observed in the bottom of some monitor wells. The sandstone layer most likely represents an *in situ* deposition layer at the funicular and pendular vadose zone interaction zone during former higher-standing water table conditions.

Regional Structure

The site is located over the north-central portion of the Central Basin Platform, a large elevated block between the Delaware and Midland Basins of southeastern New Mexico and West Texas. Prior to late Mississippian time this region had only mild structural deformation, producing broad shallow depressions and regional arches. Tectonic events associated with the Marathon-Ouachita orogeny in the late Mississippian uplifted the platform and subsequent Pennsylvanian and early Permian deformation compressed and faulted the area. Deformation ceased in the early Permian, as evidenced by high angle faulting that ended during Wolfcampian-aged sedimentation, and the presence of younger strata draped over the preexisting structures. A period of tectonic quiescence followed, during which erosion and gradual subsidence took place. An expanding sea eventually covered the area, depositing several thousand feet of evaporites, carbonates, and shales.

During Triassic time the region underwent slow uplift and erosion followed by down-warping that created a large landlocked basin that was filled with sediments that accumulated in flood plain, deltaic and lacustrine environments. This was followed by another period of erosion during Jurassic time, and a

final marine inundation by Cretaceous seas, resulting in the deposition of a basal clastic unit with overlying marine shales and carbonates.

The Laramide Orogeny (when Rocky Mountains were formed) uplifted the area west of the Permian Basin and the Cretaceous sea retreated to the south and east. There has been no significant faulting since Permian time; only gentle regional tilting with some local folding and small scale faulting. Hills (1970) postulated that later normal movement may have occurred by reactivation of existing faults, but that the movement was not sufficient to noticeably displace the overlying Permian strata. Hills (1970) further postulated that late movement along the faults may have created a conduit for fresh water for dissolution of Permian evaporate beds. The faults and fractures in the vicinity of the site do not appear to be active. Tension fractures being somewhat more open may be able to hold water longer and thereby account for the enhanced vegetation and development of erosional features such as playas along fractures. A magnitude 5 earthquake beneath the Drinkard Oilfield, approximately seven miles south of the facility, demonstrates that the region is not totally without seismic activity.

Regional Stratigraphy

Regionally, the Precambrian basement is overlain by marine Cambro-Ordovician platform carbonates and Silurian-Devonian carbonates and shales. These sediments are truncated unconformably by Permian deposits consisting of marine shale, limestone, sandstone, marl, and evaporites. Permian age deposits are unconformably overlain by the Triassic Chinle Group. The Triassic Chinle Group is described as a series of fluvial and lacustrine mudstone, siltstone, sandstone, and silty dolomite strata. Cretaceous sediment strata were deposited as a shallow sea transgressed across the region, and unconformably overlie the Chinle Group. As the shallow sea regressed much of the Cretaceous section was eroded away prior to deposition of the overlying Tertiary Ogallala Formation. The depositional facies of the Ogallala Formation is a series of fluvial valley fills with both valley fills and interfluves overlain by eolian sediments. The Quaternary Blackwater Draw Formation, which overlies the Tertiary Ogallala Formation, consists of windblown sands, silts, and clays.

In the Eunice area, the Ogallala formation consists mainly of unconsolidated to poorly consolidated, very fine to medium-grained sand and gravel, with minor amount of silt and clay up to 30 feet thick under the site. Locally the "c" horizon of the modern soil is called the caprock caliche. The caprock is a hard, erosion resistant, pedogenic calcrete that is typically five to ten feet thick but may exceed 20 feet in some areas. In these areas, the caliche is actually forming in, and incorporating, Holocene sediments, and normally is a misnomer, as the caprock can be found as a deeper stratum. The upper-most unit, the Blackwater Draw Formation, consists of reddish brown, very fine to fine grained eolian sand with minor amounts of clay and caliche. Thicknesses up to approximately 20 feet have been observed across the facility.

Subsidence features due to salt dissolution are present in the region; these all overlie the Permian-aged Capitan Reef units. Larger structures include the San Simon Swale and the Monument Draw Trough. Immediately north of the site is a possible small sinkhole (between Texas Avenue and Avenue "G", and east of South 4th Street – the Gas Plant entrance road).

3.3 Groundwater Occurrence

Regional direction for groundwater flow is towards the southeast, with variations occurring near pumping stresses and subsurface karst features. The *Office of the State Engineer Southeast New Mexico*

Water Level Data only identifies one water well within the Section, with a reported water level of 32.58 feet below ground surface (bgs) reported on January 27, 1976. Water levels observed at the facility have varied between 17.77 (MW-04, June 6, 2007) and 62.01 (MW-08, June 26, 2006) feet bgs during this investigation.

3.4 Surface Water Occurrence

Throughout much of the United States the hydraulic divisions of surface water recharge zones either affect, or are affected by the movement of groundwater. However, in the desert southwest surface water movement direction often is disassociated with the movement direction of groundwater. This scenario is consistent with conditions found in the vicinity of the facility. There are no streams, springs, or ponds on the facility, or within three miles of the facility. The nearest surface water is the ephemeral "South" Monument Draw, east of Eunice. The nearest springs are Baker Springs, located approximately four miles northeast of the Gas Plant.

There are two Monument Draws within Lea County. Both watersheds have headwaters in Lea County, west of Hobbs. Both watersheds have the same name, without a "North" or "South" discriminator. The "North" Monument Draw flows southeastward to the south of Seminole, Texas, where it combines with Seminole Draw to form Mustang Draw. Mustang Draw is an ephemeral stream, which ends at its confluence with the Colorado River.

The "South" Monument Draw flows southeastward to the east of Eunice, New Mexico, then south toward the Pecos River near Pyote, Texas. Neither watersheds have continuous flow, with the "South" draw feeders particularly broken by anastomosation and karstic playa lake sinks, however, extreme regional storm events may produce enough runoff volume to cause these discontinuous segments to act a single watershed. This "South" Monument Draw is defined by the incised cut approximately 30 feet deep, approximately 2,000 feet wide, and the increased vegetation density; it is located approximately 1.5 miles east of the Facility.

4.0 Groundwater Monitoring Results

Groundwater samples were collected on June 24-25, 2008, and November 24-25, 2008. During the two semi-annual groundwater monitoring events, all 20 monitor wells associated with this investigation were gauged and sampled as conditions allowed (Figure 2).

Monitor well MW-17 did not contain any fluid during either event, and MW-02 is now inaccessible due to mesquite roots infiltrating the screened interval. Damage to MW-05 has been repaired, but the Registered Land Surveyor has not re-established the gauging point, so this well has been excluded from groundwater gradient maps.

During the second (November) event, two previously unknown monitor wells (MW-UN-01 and MW-UN-02) were discovered within the perimeter fence of the facility. These two wells were installed by an unknown party between the two 2008 monitoring events. Neither well was locked, so LAI gauged and sampled these wells, and included these data point values with the November event.

All monitoring data has been mapped using Surfer® version 8 surface contouring and mapping software. Data was reduced using the Kriging geostatistical gridding methodology. Kriging uses a linear least squares estimation algorithm that attempts to model trends suggested by the data.

4.1 Site-Specific Groundwater Hydrology

Table 1 presents a summary of the depth to groundwater measurements. No light-nonaqueous phase liquids (LNAPL) were observed in the established monitor wells during either monitoring event. A sheen was reported for both MW-UN-01 and MW-UN-02 during the November event. Table 1 summarizes groundwater gauging data. A graph of observed fluid levels is provided in Appendix A.

4.1.1 June 2008 Event

Groundwater potentiometric surface stood between 3,346.15 feet (MW-18) and 3,371.53 feet (MW-03) elevation using WGS 84 datum reference. The groundwater mounding that was first reported in 2003 continues to exist, but the mound appears to be subsiding. This may be due to the repair of cooling tower systems and the replacement of tanks near the southeast corner of the facility during the past three years.

Groundwater flow direction is towards the southeast, consistent with previously-reported groundwater flow direction. Groundwater gradient was calculated using a sampling of monitor well pairs (MW-03 to MW-04, MW-06 to MW-15, MW-04 to MW-18, and MW-13 to MW-18). The results of these pairs (0.01094, 0.006644, 0.01218, and 0.01116) indicate an estimated gradient of 0.011.

Figure 3 is a Surfer®-generated plot of the observed groundwater gradient for the June 2008 monitoring event.

4.1.2 November 2008 Event

Groundwater potentiometric surface stood between 3,346.09 feet (MW-18) and 3,372.073 feet (MW-03) elevation using WGS 84 datum reference. The groundwater mounding centered under the east portion of the facility is the dominant hydrologic feature.

Groundwater flow direction is towards the southeast, consistent with the previous groundwater monitoring event. Groundwater gradient was calculated using the same monitor well pairs as the June event (MW-03 to MW-04, MW-06 to MW-15, MW-04 to MW-18, and MW-13 to MW-18). The results of these pairs (0.01284, 0.006513, 0.01444, and 0.01073) indicate an estimated gradient of 0.011.

Figure 4 is a Surfer®-generated plot of the observed groundwater gradient for the November 2008 monitoring event.

4.2 Groundwater Chemistry

Groundwater samples were collected from monitor wells after approximately three casing volumes of groundwater were removed from each well and the wells had sufficiently recovered. Purging and sampling was accomplished with either a stainless steel environmental pump with backflow preventer and polyethylene tubing, or for lower-volume wells, using dedicated disposable polyethylene bailers. Purge pumps were cleaned internally and externally with Alconox® and flushed with commercially available distilled water before the event and between wells.

Sample aliquots were collected in laboratory prepared containers, individually labeled, and placed into an ice-chilled chest. Lone Star Overnight courier services delivered the samples under custody seal and chain-of-custody control to DHL Analytical, Inc. (DHL), a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory in Round Rock, Texas. All samples were received intact and below the NELAP-required temperature parameter.

DHL was contracted to analyze the samples for benzene, toluene, ethylbenzene, and total xylenes (BTEX), dissolved metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium, silver, calcium, magnesium, potassium and sodium), anions (chloride, sulfate) and water quality parameters alkalinity, and total dissolved solids (TDS). Duplicate samples for a quality control (QC) check were submitted as blind samples to DHL. The duplicates were collected from MW-14 and MW-07 during the June and November events, respectively. Laboratory analytical results are discussed in the following sections. Appendix G contains a CD-ROM of the laboratory analytical reports.

4.2.1 BTEX Analytical Results

Samples for the BTEX petroleum-compounds were submitted for analyses using EPA SW846 method 8021B. The graph of benzene concentrations observed during the life of this investigation indicate there are no clear increasing or decreasing trends (Appendix A). All benzene values represent dissolved-phase concentrations that are well below the benzene solubility limit of 1,770 mg/l.

Table 2 presents a cumulative summary of the BTEX analyses. A graph of observed benzene concentrations over time (Appendix A) depicts wide fluctuation in the affected monitor wells. Four wells, MW-03, MW-06, MW-11, and MW-14, consistently exceed the WQCC human health level of 0.01 mg/l, while MW-02 and MW-12 have exhibited excursions above this level. Only MW-03 is downgradient from the facility and appears to be affected by gas plant operations; MW-06 is cross-gradient to the southwest and MW-11 is cross-gradient to the northeast, while MW-14 appears to be affected by either pipelines or past practices. MW-UN-01 also exceeds this level, but with only one monitoring event, no trends can be established.

June 2008 Benzene Results

Analytical data indicates the following samples exhibited benzene concentrations in excess of the 0.01 milligrams per liter (parts per million, mg/l) WQCC human health standard in the following samples:

- MW-03 (0.0728 mg/l)
- MW-06 (0.403 mg/l)
- MW-11 (0.145 mg/l)
- MW-14 (0.574 mg/l)

A comparison of the primary (MW-14, 0.574 mg/l) and duplicate (0.575 mg/l) samples indicate a deviation of 0.7%. No data quality exceptions were noted in the DHL case narratives.

Figure 5 is a Surfer®-generated plot of the observed benzene concentration for the June 2008 monitoring event.

November 2008 Benzene Results

Analytical data indicates the following samples exhibited benzene concentrations in excess of the 0.01 mg/l WQCC human health standard in the following samples:

- MW-03 (0.159 mg/l)
- MW-06 (0.520 mg/l)
- MW-11 (0.0279 mg/l)
- MW-14 (0.657 mg/l)
- MW-UN-01 (0.0173 mg/l)

A comparison of the primary (MW-07, <0.0008 mg/l) and duplicate (<0.0008 mg/l) samples indicate a deviation of 0.0%. DHL's case narrative stated the surrogate recovery for Sample (MW-UN-02) was above the control limit for a,a,a-Trifluorotoluene due to co-elution with a non-target analyte present in the sample. Since the observed concentrations are below the method detection limit (MDL), this data is considered valid and acceptable for site characterization.

Figure 6 is a Surfer®-generated plot of the observed benzene concentration for the November 2008 monitoring event.

4.2.2 Dissolved Metal Analytical Results

Samples for metal analytes were submitted for analyses using EPA SW846 methods 6020 (arsenic, barium, cadmium, chromium, lead, selenium, silver, calcium, magnesium, potassium and sodium) and 7470A (mercury). All samples were laboratory-filtered to exclude particles larger than 0.45µ and acidified with nitric acid within 24 hours of collection.

With the exception of reoccurring arsenic and barium concentrations in MW-03 (downgradient), selenium in MW-04 (downgradient), and barium in MW-11 (upgradient), only chromium is observed above WQCC concentrations regularly (discussed below). Other metals are observed only sporadically above WQCC concentrations. Neither arsenic, barium, cadmium, lead, mercury, selenium, nor silver were observed in concentrations exceeding the associated WQCC human health standards during either monitoring event.

Table 3 presents a cumulative summary of the dissolved metals analyses. The graph of chromium concentrations observed during the life of this investigation indicate there are no clear increasing or decreasing trends (Appendix A). The spatial distribution of chromium concentrations above the 0.05 mg/l WQCC human health standard are primarily to the north and west of the facility – directions that

are upgradient of the facility. It appears the observed chromium (and other heavy metals) in groundwater is from normal metal partitioning and disassociation from the parent soils.

June 2008 Chromium Results
Analytical data indicates chromium concentrations in excess of the 0.05 mg/l WQCC human health standard was only observed in the upgradient MW-01 (0.0793 mg/l).

Data quality exceptions noted in the DHL case narratives were validated, and did not adversely affect the data.

Figure 7 is a Surfer®-generated plot of the observed chromium concentration for the June 2008 monitoring event.

November 2008 Chromium Results
Analytical data indicates chromium concentrations in excess of the 0.05 mg/l WQCC human health standard was only observed in the upgradient MW-01 (0.101 mg/l).

Data quality exceptions noted in the DHL case narratives were validated, and did not adversely affect the data.

Figure 8 is a Surfer®-generated plot of the observed chromium concentration for the November 2008 monitoring event.

4.2.3 Water Chemistry Analytical Results

Water chemistry samples were analyzed for alkalinity (Standard Method M2320B), chloride and sulfate anions (Standard Method E300), and total dissolved solids (Standard Methods M2540C). Chloride, sulfate, or TDS values exceeding WQCC values were observed in all monitor wells except MW-09 and MW-11, both upgradient wells adjacent to multiple east-west oriented pipes. Three other upgradient monitor wells, MW-08, MW-10, and MW-12 are located in proximity and are oriented along pipelines, but exhibit elevated anion or TDS concentrations. This is perplexing, especially when considering that MW-09 is juxtaposed between MW-08 and MW-10.

Table 4 presents a summary of water chemistry analytical results. Graphs were prepared from chlorides and TDS concentrations over time. The two charts have very similar trends – both appear to be relatively linear with neither increasing nor decreasing trends exhibited. Only two upgradient monitor wells, MW-09 and MW-11, appear to be consistently exhibit concentrations within the WQCC domestic water quality standards.

June 2008 Results
Chlorides – Analytical data indicates the following samples exhibited chloride concentrations in excess of the 250 mg/l WQCC domestic water quality standard in the following samples:

- MW-01 (909 mg/l)
- MW-03 (2,830 mg/l)
- MW-04 (650 mg/l)
- MW-06 (306 mg/l)
- MW-07 (310 mg/l)
- MW-08 (746 mg/l)
- MW-10 (619 mg/l)
- MW-12 (2,060 mg/l)
- MW-13 (7,290 mg/l)
- MW-14 (43,400 mg/l)

- MW-15 (882 mg/l)
- MW-16 (373 mg/l)
- MW-18 (5,710 mg/l)
- MW-19 (7,130 mg/l)
- MW-20 (2,270 mg/l)

Sulfates – Analytical data indicates the following samples exhibited sulfate concentrations in excess of the 600 mg/l WQCC domestic water quality standard in the following samples:

- MW-04 (1,730 mg/l)
- MW-12 (809 mg/l)
- MW-13 (1,390 mg/l)
- MW-14 (1,430 mg/l)
- MW-15 (791 mg/l)
- MW-18 (461 mg/l)
- MW-19 (732 mg/l)
- MW-20 (733 mg/l)

TDS – Analytical data indicates the following samples exhibited TDS concentrations in excess of the 1,000 mg/l WQCC domestic water quality standard in the following samples:

- MW-01 (2,730 mg/l)
- MW-03 (5,790 mg/l)
- MW-04 (4,440 mg/l)
- MW-05 (1,660 mg/l)
- MW-06 (1,460 mg/l)
- MW-07 (1,470 mg/l)
- MW-08 (1,850 mg/l)
- MW-10 (1,930 mg/l)
- MW-12 (5,880 mg/l)
- MW-13 (16,900 mg/l)
- MW-14 (77,300 mg/l)
- MW-15 (3,140 mg/l)
- MW-16 (1,520 mg/l)
- MW-18 (11,600 mg/l)
- MW-19 (14,300 mg/l)
- MW-20 (5,440 mg/l)

Data quality exceptions noted in the DHL case narratives indicate TDS samples maybe biased high. All data was reviewed and validated, and is considered usable for this investigation.

Figures 9 and 11 are Surfer®-generated plots of observed chloride and TDS concentration for the June 2008 monitoring event.

November 2008 Results

Chlorides – Analytical data indicates the following samples exhibited chloride concentrations in excess of the 250 mg/l WQCC domestic water quality standard in the following samples:

- MW-01 (849 mg/l)
- MW-03 (2,950 mg/l)
- MW-04 (637 mg/l)
- MW-06 (316 mg/l)
- MW-07 (307 mg/l)
- MW-08 (686 mg/l)
- MW-10 (503 mg/l)
- MW-12 (1,940 mg/l)
- MW-13 (6,500 mg/l)
- MW-14 (44,600 mg/l)
- MW-15 (1,090 mg/l)
- MW-16 (485 mg/l)
- MW-18 (5,670 mg/l)
- MW-19 (7,930 mg/l)
- MW-20 (2,380 mg/l)
- MW-UN-01 (965 mg/l)
- MW-UN-02 (337 mg/l)

Sulfates – Analytical data indicates the following samples exhibited sulfate concentrations in excess of the 600 mg/l WQCC domestic water quality standard in the following samples:

- MW-04 (1,740 mg/l)
- MW-12 (753 mg/l)
- MW-13 (1,270 mg/l)
- MW-14 (1,160 mg/l)

- MW-15 (742 mg/l)
- MW-18 (447 mg/l)
- MW-19 (746 mg/l)
- MW-20 (686 mg/l)

TDS – Analytical data indicates the following samples exhibited TDS concentrations in excess of the 1,000 mg/l WQCC domestic water quality standard in the following samples:

- MW-01 (2,380 mg/l)
- MW-03 (5,230 mg/l)
- MW-04 (4,300 mg/l)
- MW-05 (1,710 mg/l)
- MW-06 (1,540 mg/l)
- MW-07 (1,420 mg/l)
- MW-08 (1,630 mg/l)
- MW-10 (1,390 mg/l)
- MW-12 (4,580 mg/l)
- MW-13 (14,100 mg/l)
- MW-14 (77,000 mg/l)
- MW-15 (3,840 mg/l)
- MW-16 (1,760 mg/l)
- MW-18 (11,300 mg/l)
- MW-19 (17,000 mg/l)
- MW-20 (5,480 mg/l)
- MW-UN-01 (2,250 mg/l)
- MW-UN-02 (1,630 mg/l)

No data quality exceptions were noted in the DHL case narratives.

Figures 10 and 12 are Surfer®-generated plots of observed chloride and TDS concentration for the November 2008 monitoring event.

5.0 Groundwater Stratification Profiling

Groundwater stratification occurs primarily in two situations:

- Immiscible-phase liquids, aka light non-aqueous phase liquids (LNAPL, e.g. gasoline) or dense non-aqueous phase liquids (DNAPL, e.g. chlorinated solvents), or
- Density stratification caused by thermal processes, nitrification or salinification.

Immiscible-phase liquids are most often associated with anthropogenic pollution, but can be naturally occurring, such as the oil-tar seeps on the Pecos River near Iraan, Texas. Nitrification-induced stratification is almost always due to over-fertilization of agricultural lands. However, salinification can be caused by many processes; agricultural, industrial, municipal, and natural sources. Groundwater salinification due to industrial and natural processes is the focus of this portion of the Eunice Gas Plant investigation.

On March 3, 2009, LAI staff conducted hydrostratigraphic profiling using an InSitu® Troll 9500 datalogger probe and electronically-controlled reel. The Troll data logger records several water quality parameters including pressure, temperature, oxidation-reduction potential (ORP), pH, dissolved oxygen, chloride, and conductivity. Transducer depth is calculated using the recorded pressure, and adding the gauged depth to water. Total dissolved solid concentrations are calculated using the conductivity value.

At the beginning of the day, the datalogger was field calibrated for ORP (single point), pH (pH 4 and 7), dissolved oxygen (single point), chloride (35.5 and 355 ppm), and conductivity (single point) using NIST-traceable standards. Pressure and temperature are factory calibrated parameters. The pressure transducer has a vented cable to compensate for changing barometric pressure. Calibration checks were performed approximately every other well for all parameters except chloride, which was recalibrated before every well profile. After calibration or calibration checks were performed the datalogger probe was slowly lowered into the water column, with the intention to not disturb water and to reduce mechanical mixing. Chloride linearity is achieved up to approximately 2,500 ppm. Chloride values are adversely affected by elevated conductivity values, as observed in response data from several of the profile runs. A review of the chloride, conductivity and total dissolved solids (TDS) data for each well follows. Profile run data has been tabulated, and is included as Tables 5A – 5I.

MW-02A

This well is directly east of the gas plant, and was completed to approximately 38 feet below ground surface (bgs). Groundwater was encountered at about 30 feet bgs during drilling. On the day of profiling, groundwater was gauged at 27.95 feet below top of casing (TOC). The total depth of this well is approximately 40.2 feet below TOC.

Throughout the water column the temperature gradually decreased from 68.77°F at the surface, to 68.23°F at the terminal depth. Near neutral pH values were similar from the top to the bottom of the water column, varying from a high of 6.91 near the top, to 6.79 near the bottom. Dissolved oxygen concentrations varied from 68.2 ppm at the surface, to 69.0 ppm at the terminal depth.

Conductivity and TDS values are related by a numeric conversion factor, therefore have similar variance. These values drop from the water surface (4,048/2,712 ppm respectfully) to approximately 34.5 feet below TOC (4,031/2,700 ppm), then rise to approximately 37.75 feet below TOC (4,035/2,704 ppm),

then plummeting to the terminal depth (3,108/2,083 ppm). Chloride values vary throughout the water column, with 485 ppm at the surface, high values near 508 ppm, with 498.7 ppm recorded near the bottom of the well.

MW-03

This well is located near the southeast corner of the gas plant, and is directly downgradient from the plant. On the day of profiling, groundwater was gauged at 27.01 feet below TOC in this well. The total depth of this well is approximately 42.5 feet below TOC.

Throughout the water column the temperature gradually increased from 68.67°F at the surface, to 69.58°F at about 38 feet, then decreasing to 69.52°F at the terminal depth. pH values varied from 6.73 near the top, to 6.86 at about 30 feet, then decreased to 6.46 near the bottom. Dissolved oxygen concentrations declined steadily from 24.8 ppm at the surface, to 17.7 ppm at the terminal depth. Conductivity and TDS values increase from the water surface (3,187/2,135 ppm respectfully) to the terminal depth (10,154/6,803 ppm). Chloride values are unusually low for a natural system, and are suspect due to the relatively high conductivity values.

MW-05

This well is the closest monitoring point to the south of the gas plant. On the day of profiling, groundwater was gauged at 29.84 feet below TOC in this well. The total depth of this well is approximately 42.5 feet below TOC.

The water column temperature decreased with fluctuations from 67.21°F at the surface, to 67.17°F at about 35 feet, and then increased to 67.42°F at the terminal depth. pH values consistently decreased from 7.28 near the surface, to 7.15 at the bottom. Dissolved oxygen concentrations declined steadily from 90.5 ppm at the surface, to 28.2 ppm at the terminal depth. Conductivity and TDS values increase from the water surface (2,414/1,617 ppm, respectfully) to 2,476/1,657ppm at 34 feet below TOC, then decreasing to the terminal depth (2,335/1,564 ppm). Chloride values are unusually low for a natural system, and are suspect.

MW-13

This well is the farthest well east-southeast of the gas plant, but is still onsite. On the day of profiling, groundwater was gauged at 27.75 feet below TOC in this well. The total depth of this well is approximately 37 feet below TOC.

The water column temperature decreased steadily from 68.42°F at the surface, to 66.93°F at the terminal depth. pH values consistently decreased from a very basic 9.78 near the surface, to 6.57 at the bottom. Dissolved oxygen concentrations declined steadily from 110.4 ppm at the surface, to 69.1 ppm at the terminal depth. Conductivity and TDS values increase from the water surface (18,270/12,241 ppm, respectfully) to the terminal depth (21,886/14,663 ppm). Chloride values are unusually low for a natural system, and are suspect due to the high conductivity values.

MW-14

This well is the farthest well southeast of the gas plant, but is still onsite. MW-14 has consistently exhibited the highest chloride concentration observed for this project. On the day of profiling,

groundwater was gauged at 30.98 feet below TOC in this well. The total depth of this well is approximately 49.3 feet below TOC.

The water column temperature decreased from 70.45°F at the surface, to 69.64°F at the terminal depth. pH values consistently decreased from 7.49 near the surface, to 5.96 at the bottom. Dissolved oxygen concentrations declined steadily from 91.6 ppm at the surface, to 50.4 ppm at the terminal depth. Conductivity and TDS values increase quickly from the water surface (8,175/5,477 ppm, respectfully) to the terminal depth (90,573/60,684 ppm). Chloride values are suspect due to the high conductivity values, but increase from 384.3 ppm at the surface, to 1,973.5 ppm at terminal depth. The consistent increase in conductivity and chloride concentrations may indicate a deeper chloride source, or density driven plumes migrating from an upgradient or downgradient sources along the Triassic red-bed contact.

MW-18

This well is the farthest well southeast for this investigation, and is located offsite near active oil wells and tank batteries. On the day of profiling, groundwater was gauged at 29.16 feet below TOC in this well. The total depth of this well is approximately 37 feet below TOC.

The water column temperature decreased steadily from 69.09°F at the surface, to 67.84°F at the terminal depth. pH values consistently decreased from 7.49 near the surface, to 6.47 at the bottom. Dissolved oxygen concentrations declined steadily from 111.7 ppm at the surface, to 50.6 ppm at the terminal depth. Conductivity and TDS values slightly increase from the water surface (16,125/10,804 ppm, respectfully) to the terminal depth (17,543/11,754 ppm). Chloride values increase from 298.7 ppm at the surface, to 686.4 ppm at the terminal depth.

MW-19

This well is the farthest well south-southeast for this investigation, and is located offsite. On the day of profiling, groundwater was gauged at 32.00 feet below TOC in this well. The total depth of this well is approximately 40 feet below TOC.

The water column temperature decreased steadily from 69.13°F at the surface, to 68.32°F at the terminal depth. pH values consistently decreased from 8.87 near the surface, to 6.63 at the bottom. Dissolved oxygen concentrations declined steadily from 112.9 ppm at the surface, to 46.2 ppm at the terminal depth. Conductivity and TDS values slightly increase from the water surface (22,787/15,267 ppm, respectfully) to near the terminal depth (23,881/16,005 ppm). Chloride values increase from 434.1 ppm at the surface, to 1,012.1 ppm at the terminal depth.

MW-20

This well is the farthest offsite well south for this investigation. On the day of profiling, groundwater was gauged at 38.32 feet below TOC in this well. The total depth of this well is approximately 50 feet below TOC.

The water column temperature decreased steadily from 68.78°F at the surface, to 67.93°F at the terminal depth. pH values consistently decreased from a caustic 10.24 near the surface, to a basic 7.77 at the bottom. Dissolved oxygen concentrations declined steadily from 100.7 ppm at the surface, to 38.8 ppm at the terminal depth. Conductivity and TDS values slightly increase from the water surface

(9,759/6,539 ppm, respectfully) to the terminal depth (10,098/6,766) ppm. Chloride values increase from 277.9 ppm at the surface, to 494.4 ppm at the terminal depth.

MW-21

This well was recently installed inside the perimeter fence south of the gas plant, and is located within a former brine storage pond. On the day of profiling, groundwater was gauged at 33.86 feet below TOC in this well. The total depth of this well is approximately 44.5 feet below TOC.

The water column temperature decreased steadily from 68.54°F at the surface, to 67.87°F at the terminal depth. pH values consistently decreased from a caustic 10.48 near the surface, to a slightly basic 6.87 at the bottom. Dissolved oxygen concentrations declined steadily from 113.3 ppm at the surface, to 48.8 ppm at the terminal depth. Conductivity and TDS values slightly increase from the water surface (15,170/10,164 ppm, respectfully) to 15,492/10,380 ppm approximately 42 feet below TOC , then drops to 12,924/8,659 ppm at 43 feet, increasing to the terminal depth (13,404/8,981 ppm). Chloride values increase from 184.3 ppm at the surface, to 480.5 ppm at the terminal depth.

6.0 EM Conductivity Survey Results

An electromagnetic conductivity (EM) survey was performed using an EM34-3 instrument with 10M and 20M separation in both vertical and horizontal dipole modes. The area surveyed is a roughly-square area southeast of the facility, from approximately MW-03 to the north, east to MW-18, west to MW-20, and south of MW-19 and MW-20. This information produced by the EM survey can be correlated to elevated chloride and TDS concentrations.

EM Conductivity is based on the design principles of inductive electromagnetics. This technology is a non-invasive method for measurement of subsurface conductivity and magnetic susceptibility. The EM34-3 was used with 2 inter-coil spacings to give variable depths of exploration down to approximately 20 meters (0 to approximately 66 feet) for this investigation. With the two dipole spacings (10- and 20-meters) and two dipole modes (horizontal coplanar and vertical), vertical electrical soundings can be obtained. In the vertical dipole mode the EM34-3 is very sensitive to vertical geological anomalies and is widely used for groundwater exploration in fractured, faulted and weathered bedrock zones.

Factors affecting EM surveys include:

- Material porosity
- Moisture content
- Dissolved electrolytes in the soil moisture
- Temperature and phase-state of the pore moisture (water or ice)
- Amount and composition of colloids

Horizontal dipoles may also be affected by cultural and atmospheric interferences, which generally degrade the instrument response sensitivity. This is evident for both the 10- and 20-meter horizontal data grids, which display fewer features than the vertical data grids.

The survey was conducted between November 13, 2008 and January 19, 2009, with approximate 100-foot grid spacing, with 372 data collection points established. Data points were logged directly to a Trimble GeoXT® survey-grade global positioning system (GPS) meter. The surface position was post-process corrected to provide sub-meter horizontal position accuracy. For this investigation the EM34-3 selectable depths are approximately 25 feet bgs (10 meter horizontal dipole separation), 33 feet bgs (10 meter vertical dipole separation), 49 feet bgs (20 meter horizontal dipole separation), and 66 feet bgs (20 meter vertical dipole separation).

Background EM values were collected at the beginning of each day, and ranged from 7.05 millimhos per meter (mmhos/m, 10M-V) to 13.58 mmhos/m (10M-H). To discriminate unaffected soils, the median low-end values were calculated from survey data, which ranged from 15.53 mmhos/m (10M-H) to 16.235 mmhos/m (20M-V).

EM survey data has been mapped using Surfer® version 8 surface contouring and mapping software. Data was reduced using the Kriging geostatistical gridding methodology. For data evaluation purposes, values below 20 mmhos/m are considered background conductivity for all four layers; bottom end values are truncated at 10 mmhos/m and top end values are truncated at 1,000 mmhos/m. Several areas of interest are noted in the different data layers. EM Conductivity maps are presented in Appendix B.

6.1 10 Meter Horizontal Dipole

In the shallowest layer, Figure 13, the 10-meter horizontal dipole separation, four "bulls-eye-shaped" anomalies are noted. The largest of the anomalies, area of interest one (AOI-1), is centered about 110 feet east of the facility disposal well, and underlies a north-south trending pipeline scar.

The second largest anomaly (AOI-2) is south of the facility's fence located near active oil wells and also underlying the same north-south pipeline scar as AOI-1. A rectangular area of elevated EM conductivity response exists east of AOI-2, extending to the Texas New Mexico Railroad (TNMRR) easement.

The third anomaly of note (AOI-3) is east of AOI-1 approximately 400 feet. When compared with current and past cultural feature it appears that this area may have been a runoff path from a former reserve pit.

The fourth anomaly (AOI-4) is adjacent to the east fenceline and approximately 800 feet east-northeast of AOI-1. No current or former cultural disturbances can be found near this subsurface feature.

6.2 10 Meter Vertical Dipole

This layer, Figure 14, represents the subsurface at approximately 33 feet bgs and immediately above or at the groundwater surface. The AOI-1 anomaly persists into this layer, with two additional anomalies developing to the south-southwest and south-southeast. These two new anomalies appear to be associated with an east-west trending pipeline inside the facility's fenced property and could represent interference from the pipeline.

AOI-2 also persists, with four additional anomalies clustered about the oil wells located south of the facility's south fence. The area of elevated EM conductivity responses also continues trending towards the east of AOI-2. Another area of interest, AOI-5, has two small anomalies, one inside the rectangular trend area, and south of the trend area. Although indistinguishable in aerial photographs, pipeline markers were found in this area and alignment during the EM survey, possibly suggesting interference from the pipeline.

AOI-3 continues through to this layer with an increase in area with depth.

AOI-4 does not appear in this layer. East of the TNMRR easement are five more EM conductivity anomalies, AOI-6 through AOI-10 from north to south. AOI-6 and AOI-7 appear to be associated with a north-south trending pipeline, while AOI-8, AOI-9, and AOI-10 appear to be associated with oil wells.

In the northwest corner of the survey another feature is developing (AOI-11). This is directly downgradient of the former slop oil tanks.

Another map feature is the less-than 10 mmhos/m response area aligned with the TNMRR. This is most likely due to the lack of data points centered on the length of the railroad tracks.

6.3 20 Meter Horizontal Dipole

This layer, Figure 15, represents the subsurface at approximately 49 feet bgs and near the base of the unconfined aquifer or upper Triassic red-beds. This layer has fewer features than the vertical dipole

layer due to cultural and atmospheric interference. AOI's -1, -2, -3, -4, and -5 all appear this layer, but other features to the east of the TNMRR and in the northwest corner do not appear. The rectangular higher-conductivity area east of AOI-2 is slightly expanded and extends east across the railroad easement.

6.4 20 Meter Vertical Dipole

This is the deepest layer and represents the subsurface at approximately 66 feet bgs, below the aquifer in some areas and within the Triassic Chinle Group (Figure 16). All of the previously identified areas of interest features are visible, as is a north-south linear feature west of AOI-1 and AOI-2, and an east-west linear feature south AOI-1. The north-south linear feature corresponds with another pipeline entering the facility, but may represents a Chinle Group ridge, as does the north-south linear feature east of the site. The east-west linear feature approximates the position of an overhead high-power line south of the property boundary. Note the TNMRR easement is excluded by the modeling software. In whole, this layer depicts two ridge lines of Chinle Group, with a lower area between the ridges that may represent preferential subsidence, a graben block, or infilling of an erosional feature.

7.0 Aquifer Slug Test Data

Aquifer slug testing was conducted to provide hydraulic conductivity, transmissivity, and storativity estimates for the design of a remediation pump test. Tests were conducted in several monitor wells in the southeast portion of the site and in the downgradient off-site wells. The wells tested include MW-02A, MW-03, MW-05, MW-13, MW-14, MW-18, MW-19, MW-20, and MW-21. Testing consisted of a minimum of three iterations of falling head and rising head cycles. A synopsis of the procedures and data interpretation follows. Slug test data curves are presented as Appendix C.

7.1 Slug Test Introduction

A slug test consists of measuring groundwater head recovery in a well after a near-instantaneous change in head at that well. This is done by rapidly introducing a solid object (the "slug"), or removing the same, into the well causing an abrupt change in water level. The water level in the well returns to static conditions as fluid moves in or out of the well in response to the gradient forced by the sudden change in head. The hydraulic head changes through time, the response data, can be used to estimate the hydraulic conductivity of the formation through comparisons with theoretical models of test response. This data can be used to predict the subsurface movement of a contaminant, and to design a remediation plan. The analysis of response data from slug tests involves fitting straight lines or type curves to plots of field data. To ensure the quality of response data, LAI used an In-Situ® Troll 700 pressure transducer to log the aquifer response in one-second intervals.

7.2 AQTESOLV® Software

AQTESOLV® software provides a variety of slug test response solutions based upon the aquifer conditions encountered. At the Eunice Gas Plant, the water bearing zone is capped with a lower-permeability carbonate induration (caliche). The bulk of the aquifer is comprised of silty-fine sand primarily deposited by aeolian processes. The High Plains/Ogallala system is considered an unconfined aquifer under water table condition. Based upon the observed aquifer conditions, the Bouwer-Rice slug test solution (1976) was chosen to evaluate the response data.

Bouwer-Rice (1976) developed a method for the analysis of an overdamped slug test in a fully or partially penetrating well in an unconfined aquifer. The Bouwer-Rice method employs a quasi-steady-state model that ignores elastic storage in the aquifer. Assumptions used in the Bouwer-Rice solution include:

- Aquifer has infinite areal extent
- Aquifer is homogeneous and of uniform thickness in the vicinity of the test well
- Test well is fully or partially penetrating
- Flow to well is quasi-steady-state (storage is negligible)
- Volume of the slug is injected into or discharged from the well instantaneously

To perform the slug test analysis, a graph of the slug test data is made by plotting the head difference logarithmically on the Y-axis versus time (t) on the X-axis. The section of the graph which best approximates a straight line slope is used to determine y_o , y_t , and t. Once the values for y_o , y_t , t, and natural logarithm of the effective well radius are obtained, they are used to calculate the hydraulic conductivity (K).

7.3 Response Data Interpretation

The numeric results of the response data indicates a mean falling head hydraulic conductivity of 0.570 ft/day, while the rising head data had a mean hydraulic conductivity of 1.684 ft/day; the average of both rising and falling head tests is 1.127 ft/day. The falling head conductivity extremes were 0.001113 ft/day (MW-03 Test 1) and 4.906 ft/day (MW-14 Test 3); the rising head conductivity extremes were 0.1865 (MW-03 Test 3) and 3.893 (MW-18 Test 3). All of the tests appear to indicate the water-bearing zone is composed of silts or fine to coarse sand (Maidmont, 1993), which is consistent with soil boring logs produced during well installation.

These numeric values may be skewed with a low bias. A test curve generally has three curve parts – a near vertical initial segment that represents the forcing of water into/out-of the well bore and the sand filter pack; the main curve that reflects movement of water into/out-of the aquifer; and a near horizontal tailing line that indicates the water table returning to static conditions. Plotted test data from MW-02A falling head data lack the vertical and curved response portions in all but Test 3. This may indicate the permeability of the aquifer in the vicinity of this well is so high that the Bouwer and Rice solution are invalid, or that secondary porosity – either karstic solution cavities or intercepted normal jointing or fractures – contribute to the migration pathway for groundwater. Similarly falling head data from all other monitor well have poor responses for either the initial or curved portion of the test.

Using this slug test data to design a pump is acceptable, as long as the designer recognizes the low bias when considering observation point geometry and wastewater management, and compensates appropriately.

8.0 Other Investigation Activities

In the *2007 Annual Groundwater Monitoring Report* the following proposals and recommendations were made:

- Decommissioning the slop oil tank battery located near the southeast corner of the facility
- Reviewing aerial photographs and One-Call records for the area near MW-11
- Re-drilling MW-17 (MW-17A)to groundwater-bearing strata, if encountered
- Install an additional well downgradient from MW-18, MW-19 and MW-20 to assess the extent of the chloride and TDS
- Installing a replacement for monitoring well MW-02 (MW-02A) which has become root-bound
- Installing a soil boring into the former brine pit located west of MW-14 to assess the potential source for the elevated chloride in groundwater south of the facility.
- Resurveying MW-05's top of casing (TOC) elevation, after damage-repair work
- Collecting multi-level groundwater samples from selected monitor wells
- Installing a groundwater recovery well to contain chlorides near the south property line, based on the EM survey results
- Conducting a pump test prepare a capture zone model
- Conducting aquifer conductivity slug tests to design the pump test

These proposed activities have been completed:

- Decommissioning the slop oil tank battery located near the southeast corner of the facility performed by Targa
- Reviewing aerial photographs and One-Call records for the area near MW-11
- Re-drilling MW-17 (MW-17A) to 80 feet bgs (Appendix D)
- Installing a replacement for monitoring well MW-02 (MW-02A, Appendix D)
- Installing a soil boring into the former brine pit located west of MW-14 to assess the potential source for the elevated chloride in groundwater south of the facility (Appendix D)
- Resurveying MW-05's TOC elevation
- Collecting multi-level groundwater samples from selected monitor wells
- Conducting aquifer conductivity slug tests to design the pump test

8.1 Slop Oil (Shell) Tank Removal

The Slop Oil Shell tanks located near the southeast corner of the facility were removed by Targa personnel. Documentation of removal activities and confirmation samples will be submitted at a future date.

8.2 Aerial Photograph Review

A review of historical aerial photographs was conducted by LAI personnel and a report of the findings was submitted to the OCD on October 4, 2005. The review of the area near MW-11 revealed a crude oil spill area to the north and northeast. A copy of that report is included as Appendix E.

8.3 Scheduled Activities

The following activities are scheduled for completion during 2009:

- Possibly conducting a pump test to prepare a capture zone model *A technical meeting will be convened to discuss the various planning activities needed for a pump test in what is expected to be a higher hydraulic conductivity aquifer; this will include test well and test monitoring piezometer locations, waste management, and other logistics.*
- Installing an additional well downgradient from MW-18, MW-19 and MW-20 to assess the aerial extent of the chloride and TDS based in the EM-34 survey results
- Semi-annual groundwater monitoring according to the OCD approved schedule

9.0 Surface Waste Management Operations

On October 23, 2006, the OCD approved the renewal application for discharge permit GW-005 that included approval for Targa to construct a centralized surface waste management facility to treat non-hazardous petroleum contaminated soil from its operations. The waste management facility is comprised of two cells. Cell 1 is divided into three sub-cells labeled A through C, and occupies approximately 2.19 acres. Cell 2 is divided into four (4) sub-cells labeled A through D, and occupies approximately 3 acres. The Facility drawing presented as Figure 2 depicts the location of these two cells.

The OCD discharge permit allows the facility to "spread contaminated soils on the surface in eight-inch or less lifts or approximately 1,000 cubic yards (CY) per acre per eight-inch lift". The facility total from 2006 to present for Cell 1 is 578.5 CY and 3,480 CY for Cell 2. The land farm accepted approximately 2,270 cubic yards of soil during 2008; all soil was placed in Cell 2. Quarterly soil log summaries for 2008 are presented in Appendix F.

On July 14, 2006, July 18, 2006, October 4, 2006, November 20, 2006, and November 29, 2006, LAI personnel collected background samples from Cells 1 and 2 (sub-cells A, B and C). The background sample for Cell 2 sub-cell D was collected on October 12, 2007. The samples were collected from approximately 3 to 4 feet below native ground surface (bngs). Samples were placed in pre-cleaned four (4) ounce jars, properly labeled and placed on ice upon collection.

9.1 Vadose Zone Samples

Vadose zone samples were collected on April 16, and October 28, 2008, from 3 to 4 feet bngs. LAI personnel collected vadose zone samples from Cell 1 and Cell 2 using the methods previously described. During each semi-annual event, four locations were randomly selected from each cell and all the samples were analyzed for the following constituents:

- BTEX
- TPH (GRO and DRO)
- Metals
- Anions

Tables 6A – 6D present summaries of BTEX, TPH, metals, and chloride analyses, respectfully. Laboratory reports are presented in Appendix G.

Soil samples were collected from Cells 1 and 2 during the first semi-annual sampling event in February 2009 to verify the October 2008 samples results. Samples were collected from four randomly selected locations in Cell 1 and Cell 2 at depths of approximately 3 to 4 feet bngs. The samples will be analyzed for BTEX, TPH, and chloride. The laboratory results will be compared to the background data and will be reported to the NMOCD 45 days after the receipt of the laboratory reports for the first semi-annual sampling event.

9.1.1 Organic Sample Results

Sample results from Cells 1A, 1B, 2A, 2B, 2C, and 2D were below detection limits for the BTEX constituents. Ethylbenzene (0.0965 ppm), total xylenes (0.0583 ppm) and total BTEX (0.1818 ppm) were detected above background levels, collected on April 16, 2008, in Cell 1C. A secondary sample (Cell

1C-1) was also collected on April 16, 2008; the BTEX constituents were below detection limits. This may be attributed to cross-contamination from the treatment zone during sample collection.

In Cell 1C the vadose zone sample collected on April 16, 2008, TPH was detected above background (350.4 ppm). Samples from Cells 2B and 2D, collected on October 28, 2008, exhibited TPH above background (25.603 and 16.1 ppm, respectively). This may be due to cross-contamination from the treatment zone.

9.1.2 Metals Sample Results

Arsenic vadose zone samples collected for Cell 1B and 1C were slightly above the background concentration, but are within what is considered normal natural system distribution (2.94 and 2.43 ppm, respectively). Chromium was detected above background concentrations for Cells 1A, 1B, 2A, 2B, and 2D. Lead was slightly above the individual cell background concentration for Cells 1B, 2A, 2B, 2C, and 2D. Selenium was above the background concentrations (0.163 ppm) in vadose zone samples collected April 16 and October 24, 2008 for Cell 1B. The concentrations of arsenic, chromium, lead and selenium in the vadose zone samples are within the normal variation expected in a soil matrix. Barium was detected in Cells 1A (276 and 220 ppm), 1B (190 ppm), 1C (321 and 292 ppm), 2A (1,290 ppm), 2C (1,150 and 702 ppm), and 2D (634 and 1,140 ppm) above the background concentrations for each cell.

9.1.3 Chloride Sample Results

Chloride samples from Cell 1A and Cell 2D collected on April 16 and October 28, 2008 exceeded the background concentration of 400 and 6.0 ppm, respectively. Cell 1B (1,770 ppm), Cell 1C (1,190 ppm), and Cell 2C (75.3 ppm) exceed background concentrations for chloride (589, 115, and 5.28 ppm, respectively) and may be attributed to effects from the past land uses.

9.2 Treatment (Tilled) Zone Soil Samples

Per OCD permit requirements, four 5-part composite soil samples were collected from the Cell 1 (sub-Cells A, B, and C) and Cell 2 (sub-Cells A, C, and D) treatment (tilled) zone on March 13, June 27, September 25 and November 6, 2008, with Cell 2B samples collected on June 27, September 25, and November 6, 2008.

Collected samples were retrieved from 0-1 foot depth of the tilled zone using a hand auger. Sample aliquots were immediately placed in pre-cleaned 4-ounce jars, properly labeled, and iced upon collection. The samples were shipped via LoneStar Overnight, under chain of custody to DHL. The samples were analyzed for BTEX, TPH, and chloride.

Table 7A presents a summary of the BTEX analysis. Table 7B presents a summary of the TPH and chloride analyses. Laboratory reports are included in Appendix G.

9.2.1 Organic Sample Results

Benzene was below detection limits for all the samples collected in Cell 1 and Cell 2. BTEX constituents were detected in samples from Cells 1B, 2A, 2B, and 2C, but were below the permit threshold of 50 ppm for the first and second quarterly events. BTEX constituents were below detection limits for the third and forth quarterly sampling events.

TPH was detected below the permit threshold of 500 ppm in treatment zone samples from Cells 1A and 1B. Composite samples collected from Cells 1C, 2A, 2B, 2C, and 2D consistently exceeded the 500 ppm permit threshold.

9.2.2 Chloride Sample Results

Chloride was detected above the 500 ppm permit threshold in November 6, 2008 samples from Cell 1C (579 ppm) and Cell 2B (3,320, 950, and 1,070 ppm).

9.3 Additional Sampling

On April 16, 2008, samples were collected from the vadose zone at approximately 3 to 4 feet bngs using methods previously described. These samples were analyzed according to OCD protocol for the 3103 parameters listed in the permit. Samples from Cell 1A and Cell 1B were collected on October 28, 2008. The samples were analyzed for the semi-annual requirements including WQCC 3103-listed metals. The results were compared to the background samples and appear to be within the normal variation of soil. A report summarizing the findings was submitted to the NM OCD on December 11, 2008.

Table 8 presents a summary table of the treatment zone samples for Cell 1 compared to the background concentrations and Table 9 presents vadose zone samples for Cells 1 and 2 compared to background level for WQCC 3103 target analytes. Appendix G presents the laboratory reports.

9.4 Future Surface Waste Management Plan

Cells 1A, 1B, and 1C appear to be placed in an area where historical use may have included a brine pond thus chloride and TPH contamination in the vadose zone may have been indicative of historical releases. Targa proposes to collect additional vadose zone samples in each sub-Cell 1A, 1B, and 1C to isolate the contaminated area. Bi-weekly tilling of Cells 1 and 2 will continue to promote volatilization and microbial degradation.

The next quarterly treatment zone and semi-annual events are scheduled for February 2009. Analytical data will be submitted to OCD within 45 days following receipt of the final report for the first semi-annual sampling event.

10.0 Conclusions Based Upon Current Investigation Data

The following observations are documented in this report:

- Groundwater flow direction remains consistent towards the southeast
- Groundwater mounding beneath the facility continues to exist in the vicinity of MW-03, but appears to be subsiding
- Benzene concentrations exceeding WQCC human health standards were observed in four site associated monitor wells during 2008
- Chromium concentrations exceeding WQCC human health standards were observed in upgradient MW-01 only
- Chloride, sulfate, or TDS values exceeding the WQCC domestic water quality standards were observed in all monitor wells except upgradient MW-09 and MW-11
- The highest chloride and TDS values were observed in MW-14
- EM conductivity survey results indicate the Eunice SWD, and the pipeline along the south fenceline, may be contributing to elevated chlorides observed in MW-14
- EM conductivity survey results indicate active oil and gas wells and production facilities, and plugged and abandoned oil wells may be contributing to elevated chlorides observed in MW-19
- Soil boring results and EM conductivity survey data indicate the Triassic Dockum red-beds are within 30 feet of the land surface in the vicinity of MW-17, and occlude groundwater movement
- The slug test average groundwater velocity is 1.127 ft/day
- Hydrostratigraphic data indicate relatively homogenous, non-stratified water columns for MW-02A, MW-03, MW-05, MW-18, and MW-19
- Hydrostratigraphic data indicates water column stratification with elevated surface pH values (alkaline or caustic) decreasing with depth for MW-13, MW-20, and MW-21
- Hydrostratigraphic data for MW-14 presents water column stratification with increasing chloride and conductivity values with depth, while pH values decrease with depth (from pH 7.49 at surface to 5.96 at depth), which may be indicative that an upwelling, deeper source may be impacting this well or density driven plumes migrating at the Triassic red-bed contact from upgradient or downgradient sources
- EM conductivity survey data layers indicate potential high-conductivity sources in the vicinities of the onsite disposal well, the offsite oil wells, south of MW-13, and along the south boundary pipeline

11.0 Proposed Remedial Investigation Actions for 2009

Targa will continue monitoring groundwater semiannually. Notice will be given to the OCD at least 48-hours prior to each sampling event and results will be reported to the OCD in an annual report to be submitted during the first half of 2010. Any significant changes in groundwater quality will be reported to the OCD as soon as possible. Previously proposed or requested investigation activities will be scheduled and performed. LAI proposes the following actions and changes for the upcoming events:

- Gauging all site monitor wells semi-annually
- Collecting samples for BTEX, anions, and TDS laboratory analysis from monitor wells that maybe affected by past or current Gas Plant operations – MW-02A, MW-03, MW-04, MW-05, MW-06, MW-13, MW-14, MW-16, and MW-21
- Installing monitor wells for delineation of the chloride contamination observed in MW-14 in the following locations – inside the fence at the southeast corner of the plant, south of MW-14 approximately 250 feet, southeast of MW-14 approximately 350 feet, northwest of MW-14 approximately 300 feet, and north of MW-14 approximately 300 feet
- Installing a recovery well for pump testing within approximately 100 feet of MW-14, based upon the analytical results from the delineation wells

Table 1
Monitoring Well Completion and Gauging Summary
Targa Midstream Services, L.P., Eunice Middle Plant Gas Plant
Lea County, New Mexico

Well Information									Groundwater Data			
Well ID	Date Drilled	Drilled Depth (bgs)	Well Depth from TOC	Well Diameter (inches)	Surface Elevation	Screen Interval (bgs)	Casing Stickup	TOC Elevation	Date Gauged	Depth to Fluid	Depth to Water	Corrected Water Elevation
MW-01	4/9/2002	60	62.05	2	3,416.39	40.17 - 59.79	2.05	3,418.44	11/5/2002	--	51.41	3,367.03
									6/12/2003	--	51.14	3,367.30
									11/11/2003	--	49.81	3,368.63
									5/24/2004	--	50.88	3,367.56
									11/8/2004	--	50.69	3,367.75
									5/24/2005	--	50.36	3,368.08
									11/30/2005	--	50.06	3,368.38
									1/19/2006	--	50.08	3,368.36
									6/26/2006	--	50.23	3,368.21
									12/4/2006	--	49.90	3,368.54
									6/6/2007	--	49.91	3,368.53
									12/3/2007	--	49.96	3,368.48
									6/25/2008	--	49.76	3,368.68
									11/24/2008	--	49.78	3,368.66
									3/23/2009	--	49.67	3,368.77
MW-02	4/9/2002	40	42.14	2	3,392.80	19.17 - 38.79	2.14	3,394.94	11/5/2002	--	28.51	3,366.43
									6/12/2003	--	28.90	3,366.04
									11/11/2003	--	29.10	3,365.84
									5/24/2004	--	--	--
									11/8/2004	--	26.65	3,368.29
									5/24/2005	--	25.57	3,369.37
									11/30/2005	--	26.33	3,368.61
									1/19/2006	--	26.35	3,368.59
									6/26/2006	--	23.27	3,371.67
									12/4/2006	--	--	--
									6/6/2007	--	26.71	3,368.23
									12/3/2007	--	27.35	3,367.59
									6/25/2008	--	root bound	
									11/24/2008	--	root bound	
MW-02A	2/18/2009	40	40.22	2	3392.68	18 - 38	2.65	3,395.33	3/23/2009	--	27.91	3,367.42

Table 1
Monitoring Well Completion and Gauging Summary
Targa Midstream Services, L.P., Eunice Middle Plant Gas Plant
Lea County, New Mexico

Well Information									Groundwater Data			
Well ID	Date Drilled	Drilled Depth (bgs)	Well Depth from TOC	Well Diameter (inches)	Surface Elevation	Screen Interval (bgs)	Casing Stickup	TOC Elevation	Date Gauged	Depth to Fluid	Depth to Water	Corrected Water Elevation
MW-03	4/9/2002	40	42.49	2	3,395.97	19.47 - 39.09	2.49	3,398.46	11/5/2002	--	26.18	3,372.28
									6/12/2003	--	25.83	3,372.63
									11/11/2003	--	26.82	3,371.64
									5/24/2004	--	25.78	3,372.68
									11/8/2004	--	25.11	3,373.35
									5/24/2005	--	24.43	3,374.03
									11/30/2005	--	24.64	3,373.82
									1/19/2006	--	24.97	3,373.49
									6/26/2006	sheen	26.21	3,372.25
									12/4/2006	--	25.93	3,372.53
									6/6/2007	--	24.43	3,374.03
									12/3/2007	--	25.72	3,372.74
									6/25/2008	--	26.73	3,371.73
									11/24/2008	--	26.39	3,372.07
									3/23/2009	--	27.10	3,371.36
MW-04	8/6/2002	35	37.48	2	3,385.73	14.87 - 34.49	2.48	3,388.21	11/5/2002	--	25.28	3,362.93
									6/12/2003	--	24.77	3,363.44
									11/11/2003	--	24.66	3,363.55
									5/24/2004	--	23.19	3,365.02
									11/8/2004	--	18.07	3,370.14
									5/24/2005	--	18.22	3,369.99
									11/30/2005	--	18.27	3,369.94
									1/19/2006	--	18.62	3,369.59
									6/26/2006	--	19.73	3,368.48
									12/4/2006	--	18.85	3,369.36
									6/6/2007	--	17.77	3,370.44
									12/3/2007	--	19.36	3,368.85
									6/25/2008	--	21.95	3,366.26
									11/24/2008	--	22.56	3,365.65
									3/23/2009	--	23.24	3,364.97

Table 1
Monitoring Well Completion and Gauging Summary
Targa Midstream Services, *L.P., Eunice Middle Plant Gas Plant*
Lea County, New Mexico

Well Information									Groundwater Data			
Well ID	Date Drilled	Drilled Depth (bgs)	Well Depth from TOC	Well Diameter (inches)	Surface Elevation	Screen Interval (bgs)	Casing Stickup	TOC Elevation	Date Gauged	Depth to Fluid	Depth to Water	Corrected Water Elevation
MW-05	8/6/2002	40	42.55	2	3,394.29	19.87 - 39.49	2.55	3,396.84	11/5/2002	--	30.84	3,366.00
									6/12/2003	--	28.22	3,368.62
									11/11/2003	--	28.02	3,368.82
									5/24/2004	--	28.30	3,368.54
									11/8/2004	--	28.72	3,368.12
									5/24/2005	--	28.25	3,368.59
									11/30/2005	--	28.75	3,368.09
									1/19/2006	--	28.81	3,368.03
									6/26/2006	--	29.20	3,367.64
									12/4/2006	--	29.01	3,367.83
			36.78		3,394.22			3,396.34	6/7/2007[1]	--	26.46	3,369.88
									12/3/2007	--	26.73	3,369.61
									6/25/2008	--	29.38	3,366.96
									11/24/2008	--	29.78	3,366.56
									3/23/2009	--	29.88	3,366.46
MW-06	8/6/2002	52	54.59	2	3,401.15	31.87 - 51.49	2.59	3,403.74	11/5/2002	--	40.40	3,363.34
									6/12/2003	--	39.97	3,363.77
									11/11/2003	--	39.12	3,364.62
									5/24/2004	--	39.37	3,364.37
									11/8/2004	--	39.18	3,364.56
									5/24/2005	--	38.69	3,365.05
									11/30/2005	--	38.73	3,365.01
									1/19/2006	--	38.71	3,365.03
									6/26/2006	--	38.81	3,364.93
									12/4/2006	--	38.56	3,365.18
									6/6/2007	--	38.74	3,365.00
									12/3/2007	--	38.79	3,364.95
									6/25/2008	--	38.78	3,364.96
									11/24/2008	--	38.88	3,364.86
									3/23/2009	--	38.82	3,364.92

Table 1
Monitoring Well Completion and Gauging Summary
Targa Midstream Services, L.P., Eunice Middle Plant Gas Plant
Lea County, New Mexico

Well Information									Groundwater Data			
Well ID	Date Drilled	Drilled Depth (bgs)	Well Depth from TOC	Well Diameter (inches)	Surface Elevation	Screen Interval (bgs)	Casing Stickup	TOC Elevation	Date Gauged	Depth to Fluid	Depth to Water	Corrected Water Elevation
MW-07	8/7/2002	60	62.46	2	3,417.25	39.87 - 59.49	2.46	3,419.71	11/5/2002	--	53.80	3,365.91
									6/12/2003	--	53.51	3,366.20
									11/11/2003	--	53.39	3,366.32
									5/24/2004	--	53.22	3,366.49
									11/8/2004	--	53.16	3,366.55
									5/24/2005	--	52.70	3,367.01
									11/30/2005	--	52.56	3,367.15
									1/19/2006	--	52.46	3,367.25
									6/26/2006	--	52.43	3,367.28
									12/4/2006	--	52.21	3,367.50
									6/6/2007	--	52.11	3,367.60
									12/3/2007	--	52.13	3,367.58
									6/25/2008	--	51.89	3,367.82
									11/24/2008	--	51.94	3,367.77
									3/23/2009	--	51.77	3,367.94
MW-08	8/7/2002	75	77.35	2	3,428.66	54.87 - 74.49	2.35	3,431.01	11/5/2002	--	66.33	3,364.68
									6/12/2003	--	63.09	3,367.92
									11/11/2003	--	63.05	3,367.96
									5/24/2004	--	62.80	3,368.21
									11/8/2004	--	62.80	3,368.21
									5/24/2005	--	62.41	3,368.60
									11/30/2005	--	62.24	3,368.77
									1/19/2006	--	62.15	3,368.86
									6/26/2006	--	62.01	3,369.00
									12/4/2006	--	61.86	3,369.15
									6/6/2007	--	61.64	3,369.37
									12/3/2007	--	61.21	3,369.80
									6/25/2008	--	61.30	3,369.71
									11/24/2008	--	61.40	3,369.61
									3/23/2009	--	61.16	3,369.85

Table 1
Monitoring Well Completion and Gauging Summary
Targa Midstream Services, L.P., Eunice Middle Plant Gas Plant
Lea County, New Mexico

Well Information									Groundwater Data			
Well ID	Date Drilled	Drilled Depth (bgs)	Well Depth from TOC	Well Diameter (inches)	Surface Elevation	Screen Interval (bgs)	Casing Stickup	TOC Elevation	Date Gauged	Depth to Fluid	Depth to Water	Corrected Water Elevation
MW-09	8/7/2002	60	62.45	2	3,418.14	39.87 - 59.49	2.45	3,420.59	11/5/2002	--	52.69	3,367.90
									6/12/2003	--	52.42	3,368.17
									11/11/2003	--	52.37	3,368.22
									5/24/2004	--	52.12	3,368.47
									11/8/2004	--	52.08	3,368.51
									5/24/2005	--	51.67	3,368.92
									11/30/2005	--	51.47	3,369.12
									1/19/2006	--	51.68	3,368.91
									6/26/2006	--	51.21	3,369.38
									12/4/2006	--	51.08	3,369.51
									6/6/2007	--	50.86	3,369.73
									12/3/2007	--	50.89	3,369.70
									6/25/2008	--	50.63	3,369.96
									11/24/2008	--	50.65	3,369.94
									3/23/2009	--	50.49	3,370.10
MW-10	8/9/002	47	49.42	2	3,403.31	26.87 - 46.49	2.42	3,405.73	11/5/2002	--	38.10	3,367.63
									6/12/2003	--	37.87	3,367.86
									11/11/2003	--	37.71	3,368.02
									5/24/2004	--	37.52	3,368.21
									11/8/2004	--	37.32	3,368.41
									5/24/2005	--	36.88	3,368.85
									11/30/2005	--	36.52	3,369.21
									1/19/2006	--	36.47	3,369.26
									6/26/2006	--	36.27	3,369.46
									12/4/2006	--	36.14	3,369.59
									6/6/2007	--	35.99	3,369.74
									12/3/2007	--	35.96	3,369.77
									6/25/2008	--	35.79	3,369.94
									11/24/2008	--	35.80	3,369.93
									3/23/2009	--	35.72	3,370.01

Table 1
Monitoring Well Completion and Gauging Summary
Targa Midstream Services, L.P., Eunice Middle Plant Gas Plant
Lea County, New Mexico

Well Information									Groundwater Data			
Well ID	Date Drilled	*Drilled* Depth (bgs)	Well Depth from TOC	*Well* Diameter (inches)	Surface Elevation	Screen Interval (bgs)	Casing Stickup	TOC Elevation	Date Gauged	Depth to Fluid	Depth to Water	*Corrected* Water Elevation
MW-11	8/8/2002	47	49.51	2	3,395.51	30.87 - 50.49	2.50	3,398.01	11/5/2002	--	33.01	3,365.00
									6/12/2003	--	32.75	3,365.26
									11/11/2003	--	33.77	3,364.24
									5/24/2004	--	32.67	3,365.34
									11/8/2004	--	32.36	3,365.65
									5/24/2005	--	31.50	3,366.51
									11/30/2005	--	30.84	3,367.17
									1/19/2006	--	30.77	3,367.24
									6/26/2006	--	30.62	3,367.39
									12/4/2006	--	30.50	3,367.51
									6/6/2007	--	30.27	3,367.74
									12/3/2007	--	30.36	3,367.65
									6/25/2008	--	30.28	3,367.73
									11/24/2008	--	30.46	3,367.55
									3/23/2009	--	30.23	3,367.78
MW-12	6/3/2003	45	46.97	2	3,394.81	25.00 - 44..49	1.97	3,396.78	6/12/2003	--	30.54	3,366.24
									11/11/2003	--	31.06	3,365.72
									5/24/2004	--	30.63	3,366.15
									11/8/2004	--	30.22	3,366.56
									5/24/2005	--	28.28	3,368.50
									11/30/2005	--	28.38	3,368.40
									1/19/2006	--	28.35	3,368.43
									6/26/2006	--	28.60	3,368.18
									12/4/2006	--	28.47	3,368.31
									6/6/2007	--	28.25	3,368.53
									12/3/2007	--	28.46	3,368.32
									6/25/2008	--	28.64	3,368.14
									11/24/2008	--	28.72	3,368.06
									3/23/2009	--	28.49	3,368.29

Table 1
Monitoring Well Completion and Gauging Summary
Targa Midstream Services, L.P., Eunice Middle Plant Gas Plant
Lea County, New Mexico

Well Information									Groundwater Data			
Well ID	Date Drilled	Drilled Depth (bgs)	Well Depth from TOC	Well Diameter (inches)	Surface Elevation	Screen Interval (bgs)	Casing Stickup	TOC Elevation	Date Gauged	Depth to Fluid	Depth to Water	Corrected Water Elevation
MW-13	6/3/2003	35	36.87	2	3,385.82	25.00 - 34.49	1.87	3,387.69	6/12/2003	--	29.20	3,358.49
									11/11/2003	--	30.99	3,356.70
									5/24/2004	--	30.44	3,357.25
									11/8/2004	--	23.99	3,363.70
									5/24/2005	--	24.17	3,363.52
									11/30/2005	--	22.91	3,364.78
									1/19/2006	--	23.21	3,364.48
									6/26/2006	--	25.47	3,362.22
									12/4/2006	--	24.43	3,363.26
									6/6/2007	--	23.05	3,364.64
									12/3/2007	--	24.51	3,363.18
									6/25/2008	--	27.03	3,360.66
									11/24/2008	--	27.65	3,360.04
									3/23/2009	--	27.78	3,359.91
MW-14	6/3/2003	47	49.33	2	3,379.66	27.00 - 46.49	2.33	3,381.99	6/12/2003	--	32.23	3,349.76
									11/11/2003	--	32.34	3,355.35
									5/24/2004	--	32.09	3,355.60
									11/8/2004	--	31.20	3,356.49
									5/24/2005	--	30.10	3,357.59
									11/30/2005	--	30.07	3,357.62
									1/19/2006	--	30.09	3,357.60
									6/26/2006	--	30.48	3,357.21
									12/4/2006	--	30.14	3,357.55
									6/6/2007	--	29.59	3,358.10
									12/3/2007	--	29.94	3,357.75
									6/25/2008	--	30.66	3,357.03
									11/24/2008	--	30.92	3,356.77
									3/23/2009	--	31.01	3,356.68

Table 1
Monitoring Well Completion and Gauging Summary
Targa Midstream Services, L.P., Eunice Middle Plant Gas Plant
Lea County, New Mexico

Well Information									Groundwater Data			
Well ID	Date Drilled	Drilled Depth (bgs)	Well Depth from TOC	Well Diameter (inches)	Surface Elevation	Screen Interval (bgs)	Casing Stickup	TOC Elevation	Date Gauged	Depth to Fluid	Depth to Water	Corrected Water Elevation
MW-15	6/4/2003	45	46.94	2	3,394.67	25.00 - 44.49	1.94	3,396.61	6/12/2003	--	40.67	3,355.94
									11/11/2003	--	38.99	3,357.62
									5/24/2004	--	38.75	3,357.86
									11/8/2004	--	38.49	3,358.12
									5/24/2005	--	38.02	3,358.59
									11/30/2005	--	37.95	3,358.66
									1/19/2006	--	37.90	3,358.71
									6/26/2006	--	37.87	3,358.74
									12/4/2006	--	37.74	3,358.87
									6/6/2007	--	37.70	3,358.91
									12/3/2007	--	37.66	3,358.95
									6/25/2008	--	37.71	3,358.90
									11/24/2008	--	37.69	3,358.92
									3/23/2009	--	37.70	3,358.91
MW-16	6/4/2003	45	47.03	2	3,402.48	25.00 - 44.49	2.03	3,404.51	6/12/2003	--	43.28	3,361.23
									11/11/2003	--	41.84	3,362.67
									5/24/2004	--	41.48	3,363.03
									11/8/2004	--	41.51	3,363.00
									5/24/2005	--	41.00	3,363.51
									11/30/2005	--	40.96	3,363.55
									1/19/2006	--	40.85	3,363.66
									6/26/2006	--	40.89	3,363.62
									12/4/2006	--	40.73	3,363.78
									6/6/2007	--	40.64	3,363.87
									12/3/2007	--	40.68	3,363.83
									6/25/2008	--	40.57	3,363.94
									11/24/2008	--	40.62	3,363.89
									3/23/2009	--	40.48	3,364.03

Table 1
Monitoring Well Completion and Gauging Summary
Targa Midstream Services, L.P., Eunice Middle Plant Gas Plant
Lea County, New Mexico

Well Information									Groundwater Data			
Well ID	Date Drilled	Drilled Depth (bgs)	Well Depth from TOC	Well Diameter (inches)	Surface Elevation	Screen Interval (bgs)	Casing Stickup	TOC Elevation	Date Gauged	Depth to Fluid	Depth to Water	Corrected Water Elevation
MW-17	12/19/2005	35	37.02	2	3,372.62	19.49 - 34.49	2.02	3,374.64	1/19/2006	--	DRY	--
									6/26/2006	--	DRY	--
									12/4/2006	--	DRY	--
									6/7/2007	--	DRY	--
									12/3/2007	--	DRY	--
									6/25/2008	--	DRY	--
									11/24/2008	--	DRY	--
MW-18	12/19/2005	35	37.15	2	3,373.02	19.49 - 34.49	2.15	3,375.17	1/19/2006	--	28.21	3,346.96
									6/26/2006	--	28.69	3,346.48
									12/4/2006	--	28.59	3,346.58
									6/7/2007	--	28.30	3,346.87
									12/3/2007	--	28.58	3,346.59
									6/25/2008	--	29.02	3,346.15
									11/24/2008	--	29.08	3,346.09
									3/23/2009	--	29.18	3,345.99
MW-19	10/31/2005	38	40.00	2	3,378.55	23.00 - 37.49	2.46	3,381.01	11/30/2005	--	31.82	3,349.19
									1/19/2006	--	31.73	3,349.28
									6/26/2006	--	31.54	3,349.47
									12/4/2006	--	31.77	3,349.24
									6/6/2007	--	31.71	3,349.30
									12/3/2007	--	31.65	3,349.36
									6/25/2008	--	31.85	3,349.16
									11/24/2008	--	32.01	3,349.00
									3/23/2009	--	32.01	3,349.00

Table 1
Monitoring Well Completion and Gauging Summary
Targa Midstream Services, L.P., Eunice Middle Plant Gas Plant
Lea County, New Mexico

Well Information									Groundwater Data			
Well ID	Date Drilled	Drilled Depth (bgs)	Well Depth from TOC	Well Diameter (inches)	Surface Elevation	Screen Interval (bgs)	Casing Stickup	TOC Elevation	Date Gauged	Depth to Fluid	Depth to Water	Corrected Water Elevation
MW-20	10/31/2005	48	50.00	2	3,387.68	33.00 - 47.41	2.41	3,390.09	11/30/2005	--	38.57	3,351.52
									1/19/2006	--	38.47	3,351.62
									6/26/2006	--	38.30	3,351.79
									12/4/2006	--	38.28	3,351.81
									6/6/2007	--	38.20	3,351.89
									12/3/2007	--	38.07	3,352.02
									6/25/2008	--	38.21	3,351.88
									11/24/2008	--	38.33	3,351.76
									3/23/2009	--	38.33	3,351.76
MW-21	2/19/2009	45.00	44.46	2	3,385.82	25 - 45	2.18	3,388.00	3/23/2009	--	33.93	3,354.07
MW-UN-01	--	--	32.68	2	--	--	--	--	11/24/2008	sheen	23.83	--
									3/23/2009	sheen	23.89	--
MW-UN-02	--	--	38.84	2	--	--	--	--	11/24/2008	sheen	30.01	--
									3/23/2009	--	30.12	--

Notes
All values are in feet, unless otherwise noted.
bgs - below ground surface
TOC - top of casing
Elevations are above mean sea level referenced to 1984 Geodetic Datum.
Wells drilled and installed by Scarbrough Drilling, Inc., Lamesa, Texas. Schedule 40 threaded PVC casing and screen set.
[1]MW-5 damaged during road repair. TOC height resurveyed.

Table 2
Summary of Groundwater BTEX Analyses
Targa Midstream Services, LP - Eunice Middle Gas Plant
Eunice, Lea County, New Mexico

Well ID	Date	Benzene	Toluene	Ethylbenzene	Total Xylenes	Total BTEX
WQCC Standard		0.01	0.75	0.75	0.62	--
MW-01	04/23/02	<0.001	<0.001	<0.001	<0.001	<0.004
	09/05/02	<0.001	<0.001	<0.001	<0.001	<0.004
	06/13/03	<0.001	<0.001	<0.001	<0.001	<0.004
	11/11/03	<0.001	<0.001	<0.001	<0.002	<0.005
Duplicate	11/11/03	<0.001	<0.001	<0.001	<0.002	<0.005
	05/24/04	<0.001	<0.001	<0.001	<0.002	<0.005
	11/10/04	<0.001	<0.001	<0.001	<0.002	<0.005
Duplicate	11/10/04	<0.001	<0.001	<0.001	<0.002	<0.005
	05/25/05	<0.001	<0.001	<0.001	<0.002	<0.005
	11/30/05	<0.001	<0.001	<0.001	<0.002	<0.005
	06/27/06	<0.001	<0.001	<0.001	<0.002	<0.005
	12/05/06	<0.001	<0.001	<0.001	<0.002	<0.005
	06/07/07	<0.0002	<0.0002	<0.0002	<0.0006	<0.0012
	12/03/07	<0.0002	<0.0002	<0.0002	<0.0006	<0.0012
	06/25/08	<0.0008	<0.002	<0.002	<0.003	<0.0078
	11/24/08	<0.0008	<0.002	<0.002	<0.003	<0.0078
	03/23/09	<0.0008	<0.002	<0.002	<0.003	<0.0078
MW-02	04/23/02	**0.0083**	**0.0062**	**0.001**	**0.005**	**0.021**
	09/05/02	<0.001	<0.001	<0.001	<0.001	<0.004
	06/16/03	<0.001	<0.001	<0.001	<0.001	<0.004
	11/11/04	**0.000332**	<0.001	<0.001	<0.002	**0.000332**
	05/25/05	<0.001	<0.001	<0.001	<0.002	<0.005
Duplicate	05/25/05	<0.001	<0.001	<0.001	<0.002	<0.005
	12/02/05	<0.001	<0.001	<0.001	<0.002	<0.005
	06/27/06	<0.001	<0.001	<0.001	<0.002	<0.005
	06/07/07	<0.0002	<0.0002	<0.0002	<0.0006	<0.0012
	12/03/07	**0.24**	<0.0002	<0.0002	<0.0006	**0.24**
	06/25/08	Unable to sample - roots in well				
	11/24/08	Unable to sample - roots in well				
MW-02A	03/23/09	**0.000823**	<0.002	<0.002	<0.003	**0.000823**
MW-03	04/23/02	**0.193**	**0.0054**	**0.040**	**0.101**	**0.339**
	05/14/02	**0.379**	<0.005	**0.108**	**0.184**	**0.671**
	09/05/02	**0.759**	**0.574**	**0.005**	**0.367**	**1.705**
	11/06/02	**1.00**	<0.010	**0.604**	**0.619**	<2.233
Duplicate	11/06/02	**1.05**	<0.010	**0.655**	**0.673**	<2.388
	06/16/03	**2.04**	**0.024**	**1.230**	**1.319**	**4.613**
Duplicate	06/16/03	**1.41**	<0.010	**0.790**	**0.872**	<3.082
	09/16/03	**2.04**	**0.024**	**1.230**	**1.319**	**4.603**
	11/13/03	**0.378**	**0.004**	**0.158**	**0.181**	**0.721**
	05/24/04	**1.29**	<0.0500	**0.499**	**0.469**	**2.258**
	11/10/04	**1.84**	**0.00825**	**0.813**	**0.842**	**3.50325**
	05/25/05	**1.16**	**0.00632**	**0.498**	**0.29811**	**1.96243**
	12/02/05	**3.78**	**0.0117**	**1.52**	**1.4502**	**6.7619**
	06/27/06	**1.21**	<0.0500	**0.475**	**0.2660**	**1.9510**
	12/06/06	**0.130**	**0.0116**	**0.0542**	**0.0632**	**0.2590**
	06/06/07	**4.3**	<0.008	**1.7**	**1.5**	**7.5**
	12/03/07	**0.60**	<0.001	**0.21**	**0.031**	**0.8410**
	06/25/08	**0.0728**	<0.002	**0.0597**	**0.00456**	**0.13706**
	11/24/08	**0.159**	**0.00515**	**0.0843**	**0.0229**	**0.27135**
	03/23/09	**0.197**	**0.0417**	**0.0422**	**0.0197**	**0.3006**

Table 2
Summary of Groundwater BTEX Analyses
Targa Midstream Services, LP - Eunice Middle Gas Plant
Eunice, Lea County, New Mexico

Well ID	Date	Benzene	Toluene	Ethylbenzene	Total Xylenes	Total BTEX
WQCC Standard		0.01	0.75	0.75	0.62	--
MW-04	09/05/02	<0.001	<0.001	<0.001	<0.001	<0.004
	06/16/03	<0.001	<0.001	<0.001	<0.001	<0.004
	09/16/03	<0.001	<0.001	<0.001	<0.001	<0.004
	11/12/03	<0.001	<0.001	<0.001	<0.002	<0.005
	05/26/04	<0.001	<0.001	<0.001	<0.002	<0.005
	11/11/04	**0.000456**	<0.001	<0.001	<0.002	**0.000456**
	05/25/05	<0.001	<0.001	<0.001	<0.002	<0.005
	12/02/05	**0.00478**	**<0.001**	**0.00348**	**0.00256**	**0.01082**
	06/27/06	<0.001	<0.001	<0.001	<0.002	<0.005
	12/06/06	**0.000519**	**0.000746**	**0.000217**	**0.002166**	**0.003648**
	06/06/07	<0.0002	<0.0002	<0.0002	<0.0006	<0.0012
	12/03/07	**0.0057**	<0.0002	**0.0077**	**0.0035**	**0.0169**
	06/25/08	**0.00276**	<0.002	**0.00449**	<0.003	**0.00725**
	11/24/08	**0.00561**	<0.002	**0.00779**	<0.003	**0.01340**
	03/23/09	<0.0008	<0.002	<0.002	<0.003	<0.0078
MW-05	09/05/02	<0.001	<0.001	<0.001	<0.001	<0.004
	06/13/03	<0.001	<0.001	<0.001	<0.001	<0.004
	11/12/03	<0.001	<0.001	<0.001	<0.002	<0.005
Duplicate	11/12/03	<0.001	<0.001	<0.001	<0.002	<0.005
	05/24/04	<0.001	<0.001	<0.001	<0.002	<0.005
	11/10/04	<0.001	<0.001	<0.001	<0.002	<0.005
	05/25/05	<0.001	<0.001	<0.001	<0.002	<0.005
	12/02/05	**0.00108**	<0.001	**0.000992**	**0.000936**	**0.003008**
	06/27/06	<0.001	<0.001	<0.001	<0.002	<0.005
	12/12/06	<0.001	<0.001	<0.001	<0.002	<0.005
Duplicate	12/12/06	<0.001	<0.001	<0.001	<0.002	<0.005
	06/06/07	**0.0016**	<0.0002	<0.0002	<0.0006	**0.0016**
	12/04/07	**0.0069**	<0.0002	<0.0002	<0.0006	**0.0069**
	06/26/06	**0.00166**	<0.002	<0.002	<0.003	**0.00166**
	11/25/08	**0.000839**	<0.002	<0.002	<0.003	**0.000839**
	03/23/09	**0.000805**	<0.002	<0.002	<0.003	**0.000805**
Duplicate	03/23/09	**0.000875**	<0.002	<0.002	<0.003	**0.000875**
MW-06	09/05/02	**0.136**	**0.307**	**0.003**	**0.229**	**0.675**
	11/06/02	**0.102**	<0.010	**0.212**	<0.219	<0.543
	06/13/03	**0.036**	**0.005**	**0.019**	**0.029**	**0.089**
	11/12/03	**0.007**	**0.004**	**0.084**	<0.001	**0.095**
	05/24/04	**0.186**	<0.001	**0.002**	<0.001	**0.188**
	11/10/04	**0.0385**	**0.00318**	**0.00435**	**0.01089**	**0.05692**
	05/25/05	**0.787**	**0.00577**	**1.16**	**0.0514**	**2.00417**
	12/02/05	**0.684**	**0.00279**	**0.109**	<0.02	**0.79579**
	06/27/06	**0.0533**	<0.001	<0.001	<0.002	**0.05330**
	12/08/06	**0.335**	**0.0025**	**0.060**	**0.00307**	**0.40027**
	06/07/07	**1.0**	<0.002	**0.019**	<0.006	**1.019**
	12/04/07	**0.12**	**0.0035**	**0.013**	<0.006	**0.1365**
	06/26/08	**0.403**	<0.002	**0.153**	**0.0922**	**0.64820**
	11/25/08	**0.520**	<0.01	**0.130**	**0.235**	**0.885**
	03/24/09	**0.393**	**0.00210**	**0.0653**	**0.162**	**0.622**

Table 2
Summary of Groundwater BTEX Analyses
Targa Midstream Services, LP - Eunice Middle Gas Plant
Eunice, Lea County, New Mexico

Well ID	Date	Benzene	Toluene	Ethylbenzene	Total Xylenes	Total BTEX
WQCC Standard		0.01	0.75	0.75	0.62	--
MW-07	09/05/02	<0.001	<0.001	<0.001	<0.001	<0.004
Duplicate	09/05/02	<0.001	<0.001	<0.001	<0.001	<0.004
	06/13/03	<0.001	<0.001	<0.001	<0.001	<0.004
	11/11/03	<0.001	<0.001	<0.001	<0.002	<0.005
	05/24/04	<0.001	<0.001	<0.001	<0.002	<0.005
Duplicate	05/24/04	<0.001	<0.001	<0.001	<0.002	<0.005
	11/10/04	<0.001	<0.001	<0.001	<0.002	<0.005
	05/26/05	<0.001	<0.001	<0.001	<0.002	<0.005
	12/06/05	<0.001	<0.001	<0.001	<0.002	<0.005
Duplicate	12/06/05	<0.001	<0.001	<0.001	<0.002	<0.005
	12/05/06	**0.000989**	**0.0154**	**0.006**	**0.039**	**0.06162**
	06/06/07	<0.0002	<0.0002	<0.0002	<0.0006	<0.0012
	12/03/07	<0.0002	<0.0002	<0.0002	<0.0006	<0.0012
	06/25/08	<0.0008	<0.002	<0.002	<0.003	<0.0078
	11/24/08	<0.0008	<0.002	<0.002	<0.003	<0.0078
Duplicate	11/24/08	<0.0008	<0.002	<0.002	<0.003	<0.0078
	03/23/09	<0.0008	<0.002	<0.002	<0.003	<0.0078
MW-08	09/06/02	<0.001	<0.001	<0.001	<0.001	<0.004
	06/13/03	<0.001	<0.001	<0.001	<0.001	<0.004
	11/11/03	<0.001	<0.001	<0.001	<0.002	<0.005
	05/24/04	<0.001	<0.001	<0.001	<0.002	<0.005
	11/10/04	<0.001	<0.001	<0.001	<0.002	<0.005
	05/26/05	<0.001	<0.001	<0.001	<0.002	<0.005
Duplicate	05/26/05	<0.001	<0.001	<0.001	<0.002	<0.005
	12/06/05	<0.001	<0.001	<0.001	<0.002	<0.005
	12/05/06	<0.001	<0.001	<0.001	<0.002	<0.005
	06/06/07	<0.0002	<0.0002	<0.0002	<0.0006	<0.0012
	12/03/07	<0.0002	<0.0002	<0.0002	<0.0006	<0.0012
	06/25/08	<0.0008	<0.002	<0.002	<0.003	<0.0078
	11/24/08	<0.0008	<0.002	<0.002	<0.003	<0.0078
	03/23/09	<0.0008	<0.002	<0.002	<0.003	<0.0078
MW-09	09/06/02	<0.001	<0.001	<0.001	<0.001	<0.004
	06/13/03	<0.001	<0.001	<0.001	<0.001	<0.004
	11/11/03	<0.001	<0.001	<0.001	<0.002	<0.005
	05/24/04	<0.001	<0.001	<0.001	<0.002	<0.005
	11/10/04	<0.001	<0.001	<0.001	<0.002	<0.005
	05/26/05	<0.001	<0.001	<0.001	<0.002	<0.005
	12/06/05	<0.001	<0.001	<0.001	<0.002	<0.005
	12/05/06	<0.001	<0.001	<0.001	<0.002	<0.005
	06/06/07	<0.0002	<0.0002	<0.0002	<0.0006	<0.0012
	12/03/07	<0.0002	<0.0002	<0.0002	<0.0006	<0.0012
	06/25/08	<0.0008	<0.002	<0.002	<0.003	<0.0078
	11/24/08	<0.0008	<0.002	<0.002	<0.003	<0.0078
	03/23/09	<0.0008	<0.002	<0.002	<0.003	<0.0078

Table 2
Summary of Groundwater BTEX Analyses
Targa Midstream Services, LP - Eunice Middle Gas Plant
Eunice, Lea County, New Mexico

Well ID	Date	Benzene	Toluene	Ethylbenzene	Total Xylenes	Total BTEX
WQCC Standard		0.01	0.75	0.75	0.62	--
MW-10	09/06/02	<0.001	<0.001	<0.001	<0.001	<0.004
	06/13/03	<0.001	<0.001	<0.001	<0.001	<0.004
	11/13/03	<0.001	<0.001	<0.001	<0.002	<0.005
	05/24/04	<0.001	<0.001	<0.001	<0.002	<0.005
	11/11/04	<0.001	<0.001	<0.001	<0.002	<0.005
	05/26/05	<0.001	<0.001	<0.001	<0.002	<0.005
	12/06/05	<0.001	<0.001	<0.001	<0.002	<0.005
	12/05/06	<0.001	<0.001	<0.001	<0.002	<0.005
	06/06/07	<0.0002	<0.0002	<0.0002	<0.0006	<0.0012
	12/03/07	<0.0002	<0.0002	<0.0002	<0.0006	<0.0012
	06/25/08	<0.0008	<0.002	<0.002	<0.003	<0.0078
	11/24/08	<0.0008	<0.002	<0.002	<0.003	<0.0078
	03/23/09	<0.0008	<0.002	<0.002	<0.003	<0.0078
MW-11	09/06/02	**5.05**	**0.052**	**0.024**	**0.167**	**5.293**
	11/07/02	**5.01**	**0.012**	**0.053**	**0.154**	**5.229**
Duplicate	11/07/02	**5.00**	**0.018**	**0.053**	**0.179**	**5.250**
	06/16/03	**5.09**	<0.025	<0.025	<0.107	<5.247
	11/13/03	**2.55**	**0.03**	**0.023**	**0.057**	**2.660**
	05/26/04	**2.18**	<0.005	<0.005	<0.005	**2.180**
Duplicate	05/26/04	**2.180**	<0.005	<0.005	<0.005	**2.180**
	11/11/04	**3.96**	**0.0129**	**0.0232**	**0.1177**	**4.1138**
	05/26/05	**3.36**	**0.00402**	**0.00743**	**0.03513**	**3.40658**
	06/28/06	**5.37**	<0.0500	<0.0500	**0.05860**	**5.4286**
	12/06/05	**4.87**	<0.100	<0.100	<0.200	**4.87**
	12/05/06	**5.11**	<0.001	<0.001	**0.055**	**5.2**
	06/06/07	**0.93**	<0.001	**0.0049**	**0.012**	**0.9469**
	12/03/07	**2.1**	<0.004	<0.004	<0.012	**2.1**
	06/25/08	**0.145**	<0.002	**0.00216**	<0.003	**0.14716**
	11/24/08	**0.0279**	<0.002	**0.00494**	<0.003	**0.03284**
	03/23/09	**0.0356**	<0.002	**0.00384**	<0.003	**0.03944**
MW-12	06/16/03	<0.001	<0.001	<0.001	<0.001	**<0.004**
	11/13/03	<0.001	<0.001	<0.001	<0.002	<0.005
Duplicate	11/13/03	<0.001	<0.001	<0.001	<0.002	<0.005
	05/26/04	<0.005	<0.005	<0.005	<0.005	<0.020
	11/11/04	<0.001	<0.001	<0.001	<0.002	<0.005
Duplicate	11/11/04	<0.001	<0.001	<0.001	<0.002	<0.005
	05/26/05	<0.001	<0.001	<0.001	<0.002	<0.005
	12/06/05	**0.0230**	**0.000271**	**0.000658**	**0.000900**	**0.024829**
Duplicate	12/06/05	**0.0193**	**0.000273**	**0.000722**	**0.00115**	**0.021445**
	06/28/06	<0.001	<0.001	<0.001	<0.002	<0.005
	12/08/06	<0.001	<0.001	<0.001	<0.002	<0.005
	06/06/07	<0.0002	<0.0002	<0.0002	<0.0006	<0.0012
	12/03/07	<0.0002	<0.0002	<0.0002	<0.0006	<0.0012
	06/25/08	**0.00118**	<0.002	<0.002	<0.003	**0.00118**
	11/24/08	<0.0008	<0.002	<0.002	<0.003	<0.0078
	03/23/09	<0.0008	<0.002	<0.002	<0.003	<0.0078

Table 2
Summary of Groundwater BTEX Analyses
Targa Midstream Services, LP - Eunice Middle Gas Plant
Eunice, Lea County, New Mexico

Well ID	Date	Benzene	Toluene	Ethylbenzene	Total Xylenes	Total BTEX
WQCC Standard		0.01	0.75	0.75	0.62	--
MW-13	06/16/03	<0.001	<0.001	<0.001	<0.001	<0.004
	11/13/03	<0.001	<0.001	<0.001	<0.002	<0.005
	05/26/04	<0.001	<0.001	<0.001	<0.002	<0.005
	11/11/04	**0.000404**	<0.001	<0.001	<0.002	**0.000404**
	05/25/05	<0.001	<0.001	<0.001	<0.002	<0.005
	12/07/05	<0.001	<0.001	<0.001	<0.002	<0.005
	06/27/06	<0.001	<0.001	<0.001	<0.002	<0.005
Duplicate	06/27/06	<0.001	<0.001	<0.001	<0.002	<0.005
	12/06/06	<0.001	<0.001	<0.001	<0.002	<0.005
	06/06/07	<0.0002	<0.0002	<0.0002	<0.0006	<0.0012
	12/03/07	**0.0061**	<0.0002	<0.0002	<0.0006	**0.0061**
	06/25/08	**0.00560**	<0.002	**0.00797**	<0.003	**0.01357**
	11/24/08	**0.00430**	<0.002	**0.00716**	<0.003	**0.01146**
	03/24/09	**0.00447**	<0.002	<0.002	**0.00444**	**0.00891**
MW-14	06/16/03	**0.012**	<0.001	<0.001	<0.002	<0.016
	11/12/03	**0.002**	<0.001	<0.001	<0.001	**0.002**
	05/24/04	**0.510**	<0.001	<0.001	<0.001	**0.510**
	11/10/04	**0.817**	**0.000813**	**0.001820**	**0.006435**	**0.826068**
	05/25/05	**0.95**	<0.005	**0.0302**	**0.0215**	**1.0017**
	12/07/05	**0.334**	<0.010	<0.010	<0.020	**0.334**
Duplicate	12/07/05	**0.334**	<0.010	<0.010	<0.010	**0.334**
	06/27/06	**0.639**	<0.001	<0.001	<0.002	**0.639**
	12/06/06	**0.0271**	**0.00707**	**0.0004**	**0.0258**	**0.0604**
	06/07/07	**0.20**	**0.00054**	**0.00049**	**0.0025**	**0.2035**
	12/03/07	**0.40**	<0.0008	**0.011**	**0.0077**	**0.4187**
Duplicate	12/03/07	**0.41**	<0.0008	**0.011**	**0.008**	**0.429**
	06/26/08	**0.574**	<0.002	**0.00461**	**0.00505**	**0.58366**
Duplicate	06/26/08	**0.575**	<0.002	**0.00515**	**0.00577**	**0.58592**
	11/25/08	**0.657**	<0.01	<0.01	**<0.015**	**0.657**
	03/24/09	**0.555**	<0.002	**0.00474**	**0.00534**	**0.565**
MW-15	06/16/03	<0.001	<0.001	<0.001	<0.001	<0.004
	11/12/03	<0.001	<0.001	<0.001	<0.002	<0.005
	05/24/04	<0.001	<0.001	<0.001	<0.002	<0.005
	11/10/04	<0.001	<0.001	<0.001	<0.002	<0.005
	05/25/05	<0.001	<0.001	**0.000718**	**0.000665**	**0.001383**
	12/07/05	<0.001	<0.001	<0.001	<0.002	<0.005
	12/08/06	<0.001	**0.00121**	**0.000355**	**0.002667**	0.004232
Duplicate	12/08/06	<0.001	<0.001	<0.001	<0.002	<0.005
	06/07/07	<0.0002	<0.0002	<0.0002	<0.0006	<0.0012
	12/04/07	**0.0028**	<0.0002	<0.0002	<0.0006	**0.0028**
	06/26/08	**0.00330**	<0.002	<0.002	<0.003	**0.00330**
	11/25/08	**0.00354**	<0.002	**0.00269**	**0.005680**	**0.01191**
	03/24/09	**0.00333**	<0.002	<0.002	<0.003	**0.00333**

Table 2
Summary of Groundwater BTEX Analyses
Targa Midstream Services, LP - Eunice Middle Gas Plant
Eunice, Lea County, New Mexico

Well ID	Date	Benzene	Toluene	Ethylbenzene	Total Xylenes	Total BTEX
WQCC Standard		0.01	0.75	0.75	0.62	--
MW-16	06/13/03	<0.001	<0.001	<0.001	<0.001	<0.004
	11/12/03	<0.001	<0.001	<0.001	<0.002	<0.005
	05/24/04	<0.001	<0.001	<0.001	<0.002	<0.005
	11/11/04	<0.001	<0.001	<0.001	<0.002	<0.005
	05/25/05	<0.001	<0.001	<0.001	<0.002	<0.005
	12/07/05	**0.00088**	<0.001	<0.001	<0.002	**0.00088**
	12/12/06	<0.001	<0.001	<0.001	<0.002	<0.005
Duplicate	12/12/06	<0.001	<0.001	<0.001	<0.002	<0.005
	06/07/07	<0.0002	<0.0002	<0.0002	<0.0006	<0.0012
Duplicate	06/07/07	<0.0002	<0.0002	<0.0002	<0.0006	<0.0012
	12/04/07	**0.0013**	<0.0002	<0.0002	<0.0006	**0.0013**
	06/26/08	**0.00165**	<0.002	<0.002	<0.003	**0.00165**
	11/25/08	<0.0008	<0.002	<0.002	<0.003	<0.0078
	03/24/09	**0.00142**	<0.002	<0.002	<0.003	**0.00142**
MW-17	01/19/06	Dry - No Sample Collected				
	06/26/06	Dry - No Sample Collected				
	12/04/06	Dry - No Sample Collected				
	06/07/07	Dry - No Sample Collected				
	12/03/07	Dry - No Sample Collected				
	06/25/08	Dry - No Sample Collected				
	11/25/08	Dry - No Sample Collected				
MW-18	01/19/06	<0.001	<0.001	<0.001	<0.002	<0.005
	06/28/06	<0.001	<0.001	<0.001	<0.002	<0.005
	12/08/06	<0.001	<0.001	<0.001	<0.002	<0.005
	06/07/07	<0.0002	<0.0002	<0.0002	<0.0006	<0.0012
	12/04/07	<0.0002	<0.0002	<0.0002	<0.0006	<0.0012
	06/25/08	<0.0008	<0.002	<0.002	<0.003	<0.0078
	11/25/08	<0.0008	<0.002	<0.002	<0.003	<0.0078
	03/24/09	<0.0008	<0.002	<0.002	<0.003	<0.0078
MW-19	12/07/05	**0.000812**	<0.001	<0.001	<0.002	**0.000812**
	06/28/06	<0.001	<0.001	<0.001	<0.002	<0.005
Duplicate	06/28/06	<0.001	<0.001	<0.001	<0.002	<0.005
	12/08/06	<0.001	<0.001	<0.001	<0.002	<0.005
	06/06/07	<0.0002	<0.0002	<0.0002	<0.0006	<0.0012
	12/04/07	<0.0002	<0.0002	<0.0002	<0.0006	<0.0012
	06/25/08	<0.0008	<0.002	<0.002	<0.003	<0.0078
	11/25/08	**0.00262**	<0.002	<0.002	<0.003	**0.00262**
	03/24/09	**0.00400**	<0.002	<0.002	<0.003	**0.00400**
MW-20	12/07/05	<0.001	<0.001	<0.001	<0.002	<0.005
	06/28/06	<0.001	<0.001	<0.001	<0.002	<0.005
	12/08/06	<0.001	<0.001	<0.001	<0.002	<0.005
Duplicate	12/08/06	<0.001	<0.001	<0.001	<0.002	<0.005
	06/06/07	<0.0002	<0.0002	<0.0002	<0.0006	<0.0012
	12/04/07	<0.0002	<0.0002	<0.0002	<0.0006	<0.0012
	06/25/08	<0.0008	<0.002	<0.002	<0.003	<0.0078
	11/25/08	**0.000936**	<0.002	<0.002	<0.003	**0.000936**
	03/24/09	**0.00105**	<0.002	<0.002	<0.003	**0.00105**

Table 2
Summary of Groundwater BTEX Analyses
Targa Midstream Services, LP - Eunice Middle Gas Plant
Eunice, Lea County, New Mexico

Well ID	Date	Benzene	Toluene	Ethylbenzene	Total Xylenes	Total BTEX
WQCC Standard		**0.01**	**0.75**	**0.75**	**0.62**	--
MW-21	03/24/09	**0.00977**	<0.002	<0.002	<0.003	**0.00977**
MW-UN-01	11/24/08	**0.01730**	<0.002	<0.002	<0.003	**0.01730**
	03/23/09	**0.0147**	<0.002	<0.002	<0.003	**0.0147**
MW-UN-02	11/24/08	**0.00127**	<0.002	<0.002	**0.00635**	**0.00762**
	03/23/09	**0.00166**	**0.00369**	<0.002	<0.003	**0.00535**

Notes:
All results reported in milligrams per liter (mg/L)
"<" Indicates the reported concentration is below the method detection limit (MDL).
"--" Indicates the chemical was not analyzed.
Bold indicates the chemical of concern was detected above the MDL.
Blue indicated the chemical exceeds the Water Quality Control Commission (WQCC) standard.

Table 3
Summary of Dissolved Metals in Groundwater
Targa Midstream Services, LP - Eunice Middle Gas Plant
Eunice, Lea County, New Mexico

Well ID	Date	Arsenic	Barium	Cadmium	Calcium	Chromium	Lead	Magnesium	Mercury	Potassium	Selenium	Silver	Sodium
WQCC Standard		0.1	1.0	0.01	--	0.05	0.05	--	0.002	--	0.05	0.05	--
MW-01	04/23/02	<0.050	<0.100	<0.005	183	**0.316**	<0.010	68.5	0.00092	18.3	<0.050	<0.0125	471
	05/14/02	<0.050	<0.100	<0.005	--	**0.282**	<0.010	--	<0.0002	--	<0.050	<0.0125	--
	09/05/02	0.052	0.062	<0.001	140	**0.174**	<0.011	67.3	<0.002	14.5	0.020	<0.002	606
	11/07/02	--	--	--	175	**0.184**	--	7.1	--	14.8	--	--	586
	06/13/03	<0.009	0.044	<0.001	143	**0.200**	<0.012	76.5	<0.0005	17.9	<0.004	<0.002	554
	11/11/03	0.015	0.053	<0.001	269	**0.064**	<0.011	96.3	<0.005	17.4	0.026	<0.002	636
Duplicate	11/11/03	0.012	0.055	<0.001	257	**0.054**	<0.011	92.8	<0.0005	16.8	0.022	<0.002	592
	05/24/04	<0.010	0.072	<0.005	243	**0.064**	<0.010	95.6	<0.002	19.5	<0.010	<0.0125	490
	11/10/04	0.0052	0.072	<0.001	231	0.049	0.01	121.0	<0.005	19.9	0.012	<0.005	471
Duplicate	11/10/04	0.0126	0.106	<0.001	251	0.0414	0.0099	124	<0.0005	18.1	0.0110	<0.0005	400
	05/25/05	0.0406	0.117	0.003	218	**0.206**	<0.011	104	<0.001	17.9	0.0306	<0.005	278
	11/30/05	<0.020	0.101	<0.0100	274	**0.295**	0.00679	120	0.0001	18.9	<0.0525	<0.0140	370
	06/27/06	0.0071	0.276	<0.00692	288	**0.194**	<0.00296	124	0.0001301	13.0	0.0145	<0.00405	231
	12/05/06	0.0116	0.037	<0.003	360	**0.077**	<0.000692	96.2	<0.00250	13.4	0.0100	0.0104	350
	06/07/07	0.0053	0.082	<0.001	320	**0.074**	<0.001	120	0.00023	11.0	0.0100	<0.001	320
	12/03/07	0.0063	0.094	<0.001	320	**0.074**	<0.001	120	<0.00013	11.0	0.01100	<0.001	380
	06/25/08	0.00432	0.0581	0.000422	289	**0.0793**	<0.000429	113	<0.00008	10.4	0.00854	<0.001	337
	11/24/08	0.00516	0.0577	<0.0003	259	**0.101**	0.000304	112	<0.00008	10.8	0.00948	<0.001	317
	03/23/09	0.00406	0.0570	<0.0003	273	0.031	0.000300	110	<0.00008	10.8	0.00912	<0.001	361
MW-02	04/23/02	<0.050	<0.100	<0.005	340.00	<0.010	<0.010	128.0	<0.0002	20.0	<0.050	<0.0125	445
	09/05/02	0.018	0.020	<0.001	317	<0.002	<0.011	139.0	<0.002	17.0	0.018	<0.002	509
	11/16/02	--	--	--	314	--	--	12.8	--	17.2	--	--	468
	06/16/03	<0.008	0.020	0.001	389	0.012	0.011	141.0	<0.0005	33.1	**0.050**	<0.002	703
	11/11/04	**0.392**	0.027	<0.001	285	<0.005	**0.425**	136.0	<0.005	13.2	<0.004	<0.005	439
	05/25/05	<0.008	0.0402	0.003	272	0.0085	<0.011	116	<0.001	16.4	0.0365	<0.005	440
Duplicate	05/25/05	0.0224	0.0415	0.0032	276	<0.005	<0.011	122	<0.001	16.5	0.0422	<0.005	464
	12/02/05	<0.020	0.0438	<0.01	297	<0.0125	0.0136	106	0.00008	17.8	0.0080	<0.0140	619
	06/27/06	0.0386	0.0245	<0.00692	296	<0.00698	<0.00296	123	0.00018	16.3	**0.0656**	<0.00405	434
	06/07/07	0.023	0.053	<0.001	400	<0.0011	<0.0011	160	0.00022	17	0.0250	<0.001	700
	12/03/07	0.016	0.073	<0.001	310	<0.002	<0.001	120	<0.00013	11	0.0250	<0.001	380
	06/25/08	No sample - roots clogging well											
	11/24/08	No sample - roots clogging well											
MW-02A	03/23/09	0.00688	0.0387	<0.0003	278	<0.002	<0.0003	123	<0.00008	16.2	0.0237	<0.001	396

Table 3
Summary of Dissolved Metals in Groundwater
Targa Midstream Services, LP - Eunice Middle Gas Plant
Eunice, Lea County, New Mexico

Well ID	Date	Arsenic	Barium	Cadmium	Calcium	Chromium	Lead	Magnesium	Mercury	Potassium	Selenium	Silver	Sodium
WQCC Standard		0.1	1.0	0.01	--	0.05	0.05	--	0.002	--	0.05	0.05	--
MW-03	04/23/02	<0.050	0.528	<0.005	447	<0.010	<0.010	274.0	<0.0002	50.6	<0.050	<0.0125	729
	09/05/02	0.082	**3.220**	<0.001	137	<0.002	<0.011	228.0	<0.002	27.7	0.014	<0.002	871
	11/06/03	--	--	--	176	--	--	18.7	--	18.4	--	--	589
	06/16/03	**0.116**	**3.180**	<0.001	238	<0.002	<0.011	215.0	<0.0005	35.1	<0.004	<0.002	951
Duplicate	06/16/03	**0.147**	**2.610**	<0.010	275	0.040	<0.110	192	<0.0005	61.3	<0.040	<0.020	2,690
	11/13/03	0.047	0.490	<0.001	578	<0.002	<0.011	438.0	<0.005	70.5	0.005	<0.002	1,270
	05/24/04	**0.112**	**4.170**	<0.005	208	<0.010	<0.0100	169.0	<0.0002	23.5	<0.010	<0.0125	503
	11/10/04	**0.119**	**4.090**	<0.001	200	<0.005	<0.0110	216.0	<0.005	29.0	0.012	<0.005	899
	05/25/05	**0.202**	**4.410**	0.0056	208	<0.005	<0.011	222	<0.001	20.6	<0.004	<0.005	390
	12/02/05	0.0223	**3.040**	<0.0100	58.2	<0.0125	<0.0300	164	<0.0005	12.9	<0.0525	0.00457	430
	06/27/06	0.0948	**3.420**	<0.00692	169.0	<0.00698	<0.00296	176	0.00006	13.7	<0.0300	<0.00405	514
	12/06/06	**0.107**	**1.780**	<0.0150	288.0	0.0012	<0.000692	246	<0.00025	23.6	0.00326	0.000336	707
	06/06/07	0.072	**5.100**	<0.001	99	<0.0011	<0.001	100	0.00019	3.9	<0.001	<0.001	240
	12/03/07	0.091	0.580	<0.001	240	0.0099	0.0056	160	<0.00013	23.0	<0.002	<0.001	790
	06/25/08	0.0537	0.389	<0.0003	450	<0.002	<0.0003	264	<0.00008	33.2	<0.002	<0.001	830
	11/24/08	0.0570	0.458	<0.0003	437	<0.002	0.000300	270	<0.00008	31.0	<0.002	<0.001	870
	03/23/09	0.0599	0.524	<0.0003	561	<0.002	<0.0003	332	<0.00008	35.6	<0.002	<0.001	936
MW-04	09/05/02	0.034	0.045	0.007	190	<0.002	<0.011	132.0	<0.002	20.2	0.021	<0.002	491
	11/06/02	--	--	--	253	--	--	12.3	--	19.4	--	--	406
	06/16/03	<0.008	0.038	<0.001	292	<0.002	<0.011	134.0	<0.0005	33.2	0.028	<0.002	805
	11/12/03	<0.008	0.040	<0.001	170	<0.002	<0.011	142.0	<0.005	24.8	0.022	<0.022	786
	05/26/04	<0.010	0.043	<0.005	263	<0.010	<0.010	96.5	<0.0002	18.7	<0.010	<0.0125	549
	11/11/04	0.0332	0.042	0.001	97.3	**0.087**	0.01	27.7	<0.0005	27.0	**0.5980**	<0.005	1,210
	05/25/05	<0.008	0.039	0.0018	120.0	0.0228	<0.011	46.3	<0.001	21.3	**0.2500**	<0.005	1,020
	12/02/05	<0.020	0.0448	<0.010	23.9	<0.0125	<0.030	26.6	0.00004	27.8	0.0363	<0.014	1,190
	06/27/06	0.0351	0.0228	<0.00692	85.0	0.0068	<0.00296	32.8	0.00027	17.4	0.0402	<0.00405	954
	12/06/06	0.0405	0.0297	<0.0150	142.0	0.0162	<0.000692	28.1	<0.00025	22.8	**0.1080**	<.00148	1,060
	06/06/07	0.0290	0.0360	<0.001	82.0	**0.0770**	<0.001	13.0	0.0002	13.0	**0.1700**	<0.001	790
	12/03/07	0.032	0.058	<0.001	120	0.0190	0.0022	28.0	0.00015	14.0	**0.0690**	<0.001	950
	06/25/08	0.0158	0.0363	<0.0003	248	0.00359	<0.0003	88.3	<0.00008	12.4	0.0294	<0.001	915
	11/24/08	0.0146	0.0318	<0.0003	222	0.00293	<0.0003	89.4	<0.00008	10.5	0.0449	<0.001	853
	03/23/09	0.0138	0.0329	<0.0003	282	<0.002	<0.0003	108	0.000117	12.6	0.00984	<0.001	803

Table 3
Summary of Dissolved Metals in Groundwater
Targa Midstream Services, LP - Eunice Middle Gas Plant
Eunice, Lea County, New Mexico

Well ID	Date	Arsenic	Barium	Cadmium	Calcium	Chromium	Lead	Magnesium	Mercury	Potassium	Selenium	Silver	Sodium
WQCC Standard		0.1	1.0	0.01	--	0.05	0.05	--	0.002	--	0.05	0.05	--
MW-05	09/05/02	0.056	0.072	<0.001	41.6	0.008	<0.011	33.3	<0.002	22.9	0.031	<0.002	693
	11/06/02	--	--	--	124	--	--	4.2	--	18.8	--	--	520
	06/13/03	0.017	0.036	<0.001	113	0.004	<0.012	44.4	<0.0005	15.6	0.010	<0.002	588
	11/11/03	0.020	0.033	<0.001	134	<0.002	<0.011	47.0	<0.0005	18.0	0.022	<0.002	722
Duplicate	11/11/03	0.026	0.033	<0.001	135	<0.002	<0.011	48.1	<0.0005	17.3	0.022	<0.002	747
	05/24/04	0.030	0.063	<0.005	126	<0.010	<0.010	45.8	<0.0002	19.7	<0.010	<0.0125	674
	11/10/04	0.0314	0.0588	<0.001	121	<0.005	0.0074	41.4	<0.0005	19.5	0.0233	<0.005	860
	05/25/05	0.0174	0.1250	0.0042	192	<0.005	<0.011	88.4	<0.001	47.5	0.0306	<0.005	413
	12/02/05	<0.020	0.1240	<0.010	59.9	<0.0125	<0.030	74.6	<0.0005	66.3	<0.0525	<0.014	957
	06/27/06	0.0203	0.0603	<0.00692	122.0	<0.00698	<0.00296	54.2	0.00008	51.6	<0.0300	<0.00405	1040
	12/12/06	0.0267	0.0409	<0.0150	90.3	0.00114	<0.00346	33.7	<0.00025	38.2	0.00763	0.000551	1110
Duplicate	12/12/06	0.0259	0.044	<0.00346	130.0	0.000135	<0.00148	44.8	<0.00025	39.4	0.0123	0.00522	1,200
	06/07/07	0.0330	0.1700	<0.001	85.0	0.00510	0.00150	22.0	0.00025	15.0	0.0044	<0.001	600
	12/04/07	0.0380	0.0670	<0.001	72.0	0.00500	0.00220	23.0	0.00016	14.0	0.0049	<0.001	550
	06/26/08	0.0206	0.0490	<0.003	47.4	0.00236	0.000527	16.0	<0.00008	13.0	0.00224	<0.001	485
	11/25/08	0.0225	0.0693	<0.0003	35.9	<0.002	0.000791	12.9	<0.00008	14.4	0.00367	<0.001	509
	03/23/09	0.0209	0.0589	<0.0003	35.0	0.00204	0.00116	11.9	<0.00008	12.7	<0.002	<0.001	491
Duplicate	03/23/09	0.0204	0.0576	<0.0003	36.9	0.00204	0.00109	12.7	<0.00008	12.6	<0.002	<0.001	494
MW-06	09/05/02	0.082	0.263	<0.001	17.6	<0.002	<0.011	50.3	<0.002	17.5	0.034	<0.002	537
	11/06/03	--	--	--	91.2	--	--	6.4	--	14.3	--	--	448
	06/13/03	0.013	0.199	<0.001	47.9	0.002	<0.012	51.1	<0.0005	14.8	<0.004	<0.002	407
	11/11/03	0.033	0.140	<0.001	104	<0.002	<0.011	56.7	<0.0005	12.0	0.019	<0.002	423
	05/24/04	0.055	0.193	<0.005	76.8	<0.010	<0.010	39.5	<0.0002	15.2	<0.010	<0.0125	381
	11/10/04	0.0369	0.167	<0.001	39.2	<0.005	0.0144	44.4	0.0001	14.0	<0.004	<0.005	400
	05/25/05	0.0718	0.164	0.0046	92.3	<0.005	<0.011	57.5	<0.001	12.1	<0.004	<0.005	315
	12/02/05	<0.020	0.194	<0.010	18.0	**0.054**	**0.1810**	43.2	0.00004	12.4	<0.0525	<0.0140	395
	06/27/06	0.0417	0.122	<0.00692	45.5	<0.00698	<0.00296	30.6	0.00014	8.94	<0.0300	<0.00405	376
	12/08/06	0.0353	0.144	<0.0150	95.2	<0.00202	<0.00346	9.2	<0.00025	47.6	0.00518	<0.00148	385
	06/07/07	0.038	0.200	<0.001	110	0.0030	0.0012	42.0	0.00019	7.30	0.0016	<0.001	390
	12/04/07	0.040	0.140	<0.001	85.0	<0.002	<0.001	44.0	<0.00013	7.30	<0.002	<0.001	410
	06/26/08	0.0258	0.0117	<0.0003	63.6	<0.002	<0.0003	36.8	<0.00008	6.08	<0.002	<0.001	366
	11/25/08	0.0273	0.144	<0.0003	73.2	<0.002	<0.0003	40.6	<0.00008	6.21	<0.002	<0.001	435
	03/24/09	0.0291	0.0804	<0.0003	79.5	<0.002	<0.0003	44.9	<0.00008	6.64	<0.002	<0.001	370

Table 3
Summary of Dissolved Metals in Groundwater
Targa Midstream Services, LP - Eunice Middle Gas Plant
Eunice, Lea County, New Mexico

Well ID	Date	Arsenic	Barium	Cadmium	Calcium	Chromium	Lead	Magnesium	Mercury	Potassium	Selenium	Silver	Sodium
WQCC Standard		0.1	1.0	0.01	--	0.05	0.05	--	0.002	--	0.05	0.05	--
MW-07	09/05/02	0.028	0.055	<0.001	130	0.011	<0.011	63.0	<0.002	13.6	0.026	<0.002	297
Duplicate	09/05/02	0.023	0.054	<0.001	145	0.014	<0.011	64.2	<0.002	14.4	0.024	<0.002	303
	11/07/02	--	--	--	189	0.029	--	6.3	--	12.1	--	--	283
	06/13/03	<0.009	0.074	<0.001	140	<0.002	<0.012	57.2	<0.0005	12.8	0.014	<0.002	209
	11/11/03	<0.008	0.055	<0.001	179	<0.002	<0.011	59.2	<0.0005	11.2	0.026	<0.002	240
	05/24/04	<0.010	0.074	<0.005	158	<0.010	<0.020	54.1	<0.0002	13.8	<0.010	<0.0125	215
Duplicate	05/24/04	0.037	0.064	<0.005	157	<0.010	<0.010	54.3	<0.0002	13.3	<0.010	<0.0125	215
	11/10/04	0.0205	0.0632	<0.001	112	<0.005	0.0087	49.4	0.00015	12.0	0.0159	<0.005	214
	05/26/05	0.0373	0.0817	<0.001	153	<0.005	0.0116	56.7	<0.001	11.9	0.0101	<0.005	199
	12/06/05	<0.020	0.0590	0.002	141	<0.0125	<0.0300	52.4	0.00004	11.0	<0.0525	<0.0140	200
Duplicate	12/06/05	<0.020	0.0801	<0.010	144	<0.0125	<0.030	45.0	0.00004	10.8	<0.0525	<0.0140	215
	12/05/06	0.0101	0.0510	<0.003	141	0.00183	<0.000692	76.4	<0.00025	9.8	0.00881	0.000163	280
	06/06/07	0.0061	0.0540	<0.001	140	0.0013	<0.001	50.0	0.00016	8.1	0.00670	<0.001	160
	12/03/07	0.009	0.100	<0.001	190	0.0025	<0.001	56.0	<0.00013	8.2	0.00930	<0.001	180
	06/25/08	0.00578	0.0520	<0.0003	151	<0.002	<0.0003	53.1	<0.00008	8.22	0.00754	<0.001	191
	11/24/08	0.00638	0.0518	<0.0003	136	<0.002	<0.0003	55.7	<0.00008	8.05	0.00884	<0.001	187
Duplicate	11/24/08	0.00681	0.0534	<0.0003	148	<0.002	<0.0003	57.5	<0.00008	8.97	0.00958	<0.001	200
	03/23/09	0.00584	0.0528	<0.0003	151	<0.002	<0.0003	55.0	<0.00008	8.54	0.00718	<0.001	208
MW-08	09/06/02	0.034	0.092	<0.001	128	<0.002	<0.011	55.8	<0.002	8.2	<0.004	<0.002	151
	11/07/02	--	--	--	160	--	--	7.7	--	11.1	--	--	199
	06/13/03	0.012	0.124	<0.001	110	<0.002	<0.012	55.0	<0.0005	8.7	0.006	<0.002	136
	11/11/03	<0.008	0.110	<0.001	263	<0.002	<0.011	134.0	<0.0005	15.1	0.006	<0.002	351
	05/24/04	<0.010	0.078	<0.005	123	<0.010	<0.010	53.3	<0.0002	12.8	<0.010	<0.0125	157
	11/10/04	0.0148	0.101	<0.001	145	<0.005	0.01	84.3	<0.0005	13.6	0.007	<0.005	245
	05/26/05	0.0456	0.118	0.0022	100	<0.005	0.0137	48.9	<0.001	8.63	0.0117	<0.005	106
Duplicate	05/26/05	0.0723	0.124	0.0047	99.3	<0.005	0.0064	57.7	<0.001	10.4	<0.004	<0.005	135
	12/06/05	<0.020	0.118	<0.010	103	0.0325	0.0173	60.4	0.00006	10.4	<0.0525	<0.0140	214
	12/05/06	0.0156	0.067	<0.003	141	0.0011	<0.000692	76.4	<0.00025	9.8	0.00921	0.000575	280
	06/06/07	0.012	0.08	<0.001	120	<0.0011	<0.001	52.0	0.00017	9.0	0.00660	<0.001	250
	12/03/07	0.012	0.082	<0.001	150	<0.002	<0.001	66.0	<0.00013	8.5	0.00650	<0.001	410
	06/25/08	0.0115	0.0588	<0.0003	108	<0.002	<0.0003	51.6	<0.00008	7.57	0.00574	<0.001	341
	11/24/08	0.0127	0.0571	<0.0003	104	<0.002	<0.0003	53.2	<0.00008	7.07	0.00727	<0.001	348
	03/23/09	0.0115	0.0602	<0.0003	113	<0.002	<0.0003	53.2	<0.00008	7.91	0.00564	<0.001	360

Table 3
Summary of Dissolved Metals in Groundwater
Targa Midstream Services, LP - Eunice Middle Gas Plant
Eunice, Lea County, New Mexico

Well ID	Date	Arsenic	Barium	Cadmium	Calcium	Chromium	Lead	Magnesium	Mercury	Potassium	Selenium	Silver	Sodium
WQCC Standard		0.1	1.0	0.01	--	0.05	0.05	--	0.002	--	0.05	0.05	--
MW-09	09/06/02	0.025	0.089	<0.001	21.5	<0.002	<0.011	25.8	<0.002	4.2	0.021	<0.002	78.9
	11/07/02	--	--	--	76.8	--	--	3.4	--	9.1	--	--	91.0
	06/13/03	<0.009	0.152	0.001	50.6	0.004	<0.012	26.0	<0.0005	9.3	<0.004	<0.002	85.0
	11/11/03	0.011	0.066	<0.001	79.8	<0.002	<0.011	32.0	<0.0005	8.0	0.010	<0.002	95.2
	05/24/04	<0.010	0.065	<0.005	74.4	<0.010	<0.010	29.8	<0.0002	6.3	<0.010	<0.0125	80.6
	11/10/04	0.009	0.085	<0.001	35.1	<0.005	0.0108	26.3	0.00017	4.8	<0.004	<0.005	89.2
	05/26/05	0.0824	0.0928	0.0038	69.7	<0.005	0.0258	32.4	<0.001	6.32	<0.004	<0.005	50.9
	12/06/05	<0.020	0.1130	<0.0100	35.2	<0.0125	0.0152	34.9	0.00008	5.59	<0.0525	0.00566	99.4
	12/05/06	0.0114	0.0563	<0.003	71.8	0.001	<0.000692	31.9	<0.00025	5.12	0.00091	0.000226	79.2
	06/06/07	0.0096	0.069	<0.001	86.0	<0.0011	<0.001	33.0	0.00018	5.3	<0.001	<0.001	100
	12/03/07	0.0089	0.072	<0.001	77.0	<0.0020	<0.001	30.0	<0.00013	4.4	<0.002	<0.001	93.0
	06/25/08	0.00769	0.0514	<0.0003	68.0	<0.002	0.000618	26.6	<0.00008	4.40	<0.002	<0.001	82.5
	11/24/08	0.00885	0.0457	<0.0003	63.6	<0.002	<0.0003	26.4	<0.00008	4.04	<0.002	<0.001	86.4
	03/23/09	0.00891	0.0534	<0.0003	69.7	<0.002	<0.0003	28.8	<0.00008	4.60	<0.002	<0.001	90.8
MW-10	09/06/02	0.029	0.097	<0.001	90.6	0.002	<0.011	27.0	<0.002	4.1	<0.004	<0.002	61.6
	11/07/02	--	--	--	237	--	--	3.3	--	6.2	--	--	56.8
	06/13/03	<0.009	0.233	<0.001	154	<0.002	<0.012	35.2	<0.0005	6.5	<0.004	<0.002	54.2
	11/13/03	<0.008	0.170	<0.001	175	<0.002	<0.011	45.5	<0.0005	8.2	<0.004	<0.002	91.2
	05/24/04	<0.010	0.201	<0.005	186	<0.020	<0.010	44.2	<0.0002	5.3	<0.010	<0.0125	47.9
	11/11/04	0.0129	0.250	<0.001	185	<0.005	<0.011	49.2	<0.0005	4.0	0.0036	<0.005	47.9
	05/26/05	0.0794	0.376	0.0042	211	<0.005	<0.011	53.9	<0.001	5.34	0.0039	<0.005	75.2
	12/06/05	<0.020	0.467	<0.010	272	<0.0125	**0.2090**	61.0	0.00004	4.69	<0.0525	<0.0140	60.8
	12/05/06	0.00934	0.303	<0.003	280	0.000368	<0.000692	76.5	<0.00025	4.31	0.00376	0.000464	44.7
	06/06/07	0.0067	0.37	<0.001	270	0.0019	<0.001	62.0	0.00021	4.1	0.0032	<0.001	50.0
	12/03/07	0.0074	0.31	<0.001	280	<0.002	<0.001	63.0	<0.00013	4.0	0.0035	<0.001	54.0
	06/25/08	0.00707	0.253	<0.0003	252	<0.002	<0.0003	60.8	<0.00008	4.16	0.00370	<0.001	51.2
	11/24/08	0.00824	0.233	<0.0003	230	<0.002	<0.0003	60.4	<0.00008	4.18	0.00435	<0.001	56.2
	03/23/09	0.00802	0.221	<0.0003	239	<0.002	<0.0003	60.2	<0.00008	4.32	0.00412	<0.001	58.2

Table 3
Summary of Dissolved Metals in Groundwater
Targa Midstream Services, LP - Eunice Middle Gas Plant
Eunice, Lea County, New Mexico

Well ID	Date	Arsenic	Barium	Cadmium	Calcium	Chromium	Lead	Magnesium	Mercury	Potassium	Selenium	Silver	Sodium
WQCC Standard		0.1	1.0	0.01	--	0.05	0.05	--	0.002	--	0.05	0.05	--
MW-11	09/06/02	0.053	0.088	<0.001	37.4	<0.002	<0.011	20.8	<0.002	5.1	<0.004	<0.002	64.3
	11/07/02	--	--	--	40.8	--	--	2.4	--	7.3	--	--	64.1
Duplicate	11/07/02	--	--	--	39.8	--	--	2.3	--	7.5	--	--	70.9
	06/16/03	<0.080	0.179	<0.010	49.6	0.031	**0.111**	22.0	<0.0005	32.2	<0.040	<0.020	282
	11/13/03	0.050	0.167	<0.001	28.8	<0.002	<0.011	15.9	<0.0005	9.8	<0.004	<0.002	116
	05/26/04	0.037	0.888	<0.005	36.7	<0.010	<0.010	18.5	<0.0002	4.5	<0.010	<0.0125	51.3
Duplicate	05/26/04	<0.010	**1.020**	<0.005	36.1	<0.010	<0.010	18.4	<0.0002	4.5	<0.010	<0.0125	51.3
	11/11/04	0.0444	**1.090**	<0.001	26.9	<0.005	<0.0110	18.3	<0.0005	3.5	0.004	<0.005	51.1
	05/26/05	0.0621	0.914	0.0023	30.1	<0.005	0.0174	19.4	<0.001	4.94	<0.004	<0.005	63.3
	06/28/06	0.00348	0.583	<0.00692	41.4	<0.00698	<0.00296	23.5	0.0001	4.36	<0.0300	<0.00405	77.2
	12/06/05	<0.020	0.745	<0.010	26.4	<0.0125	0.00959	15.9	0.00004	3.04	<0.0525	<0.0140	51.1
	12/05/06	0.0127	**1.17**	<0.003	34.9	0.000387	<0.000692	21.1	<0.00025	3.15	0.001	<0.000296	51.9
	06/06/07	0.014	**1.40**	<0.001	42	<0.0011	<0.001	24	0.00019	3.8	<0.001	<0.001	57
	12/03/07	0.011	0.81	<0.001	44	<0.002	<0.001	23	<0.00013	4.0	<0.002	<0.001	57
	06/25/08	0.0106	0.397	<0.0003	38.1	<0.002	<0.0003	21.1	<0.00008	4.41	<0.002	<0.001	64.8
	11/24/08	0.0219	0.523	<0.0003	37.4	<0.002	<0.0003	22.5	<0.00008	3.81	<0.002	<0.001	61.0
	03/23/09	0.00470	0.604	<0.0003	42.5	<0.002	<0.0003	25.8	<0.00008	4.43	<0.002	<0.001	69.6
MW-12	06/16/03	0.021	0.074	<0.001	357	<0.002	<0.011	171.0	<0.0005	44.9	0.010	<0.002	1,680
	11/13/03	<0.008	0.069	<0.001	434	<0.002	<0.011	261.0	<0.0005	274.0	<0.004	<0.002	758
Duplicate	11/13/03	<0.008	0.074	<0.001	449	<0.002	<0.011	272	<0.0005	29.2	<0.004	<0.002	789
	05/26/04	<0.010	0.074	<0.005	355	<0.010	<0.010	167.0	<0.0002	21.2	<0.010	<0.0125	539
	11/11/04	0.0402	0.124	<0.001	525	<0.005	<0.011	315.0	<0.0005	24.3	**0.059**	**0.358**	448
Duplicate	11/11/04	0.0332	0.170	<0.001	563	<0.005	0.0322	396	<0.005	27.1	0.00850	<0.0005	505
	05/26/05	0.0452	0.105	0.003	259	<0.005	0.0158	150	<0.001	18.8	0.011	<0.005	445
	12/06/05	<0.020	0.077	<0.010	354	<0.0125	<0.030	191	0.00006	14.5	<0.0525	<0.0140	514
Duplicate	12/06/05	<0.020	0.0784	<0.010	372	<0.0125	<0.030	194	0.00004	14.0	<0.0525	<0.0140	554
	06/28/06	0.0116	0.046	<0.00692	339	<0.00698	<0.00296	164	0.00027	13.6	0.0145	<0.00405	520
	12/08/06	0.0195	0.047	<0.0150	680	<0.00202	<0.000692	252.0	<0.00025	13.6	0.0201	0.00151	705
	06/06/07	0.012	0.049	<0.001	450	<0.0011	<0.001	200	0.00021	11.0	0.0180	<0.001	600
	12/03/07	0.031	0.30	<0.001	500	0.044	0.014	220	<0.00013	20.0	0.0180	<0.001	560
	06/25/08	0.00968	0.053	<0.0003	499	<0.002	<0.0003	229	<0.00008	11.4	0.0162	<0.001	574
	11/24/08	0.0113	0.0512	<0.0003	466	<0.002	<0.0003	223	<0.00008	9.87	0.0206	<0.001	573
	03/23/09	0.00946	0.0526	<0.0003	526	<0.002	<0.0003	248	<0.00008	11.40	0.0145	<0.001	610

Table 3
Summary of Dissolved Metals in Groundwater
Targa Midstream Services, LP - Eunice Middle Gas Plant
Eunice, Lea County, New Mexico

Well ID	Date	Arsenic	Barium	Cadmium	Calcium	Chromium	Lead	Magnesium	Mercury	Potassium	Selenium	Silver	Sodium
WQCC Standard		0.1	1.0	0.01	--	0.05	0.05	--	0.002	--	0.05	0.05	--
MW-13	06/16/03	<0.080	0.190	<0.010	2,100	<0.020	**0.158**	650.0	<0.0005	202.0	<0.040	<0.020	5,990
	11/13/03	<0.008	0.103	<0.001	1,990	<0.002	<0.011	670.0	<0.0005	77.9	0.006	<0.002	3,790
	05/26/04	<0.010	0.160	<0.005	1,570	<0.010	0.013	531.0	<0.0002	43.4	<0.010	<0.0125	1,970
	11/11/04	0.037	0.125	0.0052	1,680	<0.005	<0.0110	659.0	<0.0005	36.2	0.037	<0.005	1,990
	05/25/05	0.0146	0.123	0.0049	1,600	<0.005	<0.011	393	<0.001	46.8	0.0079	<0.005	892
	12/07/05	<0.020	0.191	<0.010	2,570	<0.0125	0.0329	805	0.00006	33.1	<0.0525	<0.0140	1,210
	06/27/06	0.0157	0.108	<0.00692	2,170	<0.00698	<0.00296	702	0.00009	30.3	0.0267	<0.00405	860
Duplicate	06/27/06	0.00823	0.105	<0.00692	2,020	<0.00698	<0.00296	766.00	0.00013	29.1	0.0196	<0.00405	910
	12/06/06	0.0325	0.117	<0.0150	2,500	<0.00202	<0.000692	978	<0.00025	40.2	0.0246	0.00121	1,110
	06/06/07	0.0089	0.092	<0.001	1,900	<0.0011	<0.001	560	0.00021	23.0	0.0200	<0.001	1,400
	12/03/07	0.0100	0.140	<0.001	2,100	0.0035	<0.001	590	<0.00013	25.0	0.0230	<0.001	1,400
	06/25/08	0.00800	0.0952	<0.0003	1,860	<0.002	<0.0003	595	<0.00008	23.8	0.0173	<0.001	1,320
	11/24/08	0.00746	0.0937	<0.0003	1,780	<0.002	<0.0003	602	<0.00008	24.4	0.0215	<0.001	1,350
	03/24/09	0.00661	0.115	<0.0003	2,000	<0.002	<0.0003	650	<0.00008	23.5	0.0165	<0.001	927
MW-14	06/16/03	<0.080	0.138	<0.010	1,720	<0.020	<0.110	691	<0.0005	464	<0.040	<0.020	39,200
	11/12/03	<0.008	0.103	<0.001	1,620	<0.002	<0.011	692	<0.0005	166	<0.004	<0.002	15,200
	05/24/04	0.031	0.241	<0.005	625	<0.010	<0.010	332	<0.0002	73.60	<0.010	<0.0125	4,490
	11/10/04	0.0253	0.208	<0.001	1,100	<0.005	<0.0110	668	<0.005	203	<0.004	0.0088	13,700
	05/25/05	<0.08	0.146	**0.0257**	936	<0.05	<0.11	738	<0.001	526	<0.04	<0.05	11,400
	12/07/05	<0.020	0.281	<0.010	1,060	<0.0125	0.0122	654	<0.0005	272	<0.0525	<0.0140	15,200
Duplicate	12/07/05	<0.020	0.229	<0.010	1,010	<0.0125	0.0235	660	<0.0005	291	0.0433	<0.0140	14,800
	06/27/06	0.0306	0.232	<0.00692	836	<0.00698	<0.00296	446	<0.00025	99	<0.0300	<0.00405	6,480
	12/06/06	0.0339	0.238	<0.0150	882	0.000826	<0.000692	394	<0.00025	80	0.000850	0.00102	5,350
	06/07/07	0.024	0.300	<0.001	760	0.0180	0.0055	420	<0.00013	91	0.00190	<0.001	13,000
	12/03/07	0.023	0.200	<0.001	960	<0.002	<0.001	510	<0.00013	230	0.00380	<0.001	26,000
Duplicate	12/03/07	0.023	0.210	<0.001	1,000	<0.002	<0.001	540	<0.00013	240	0.00400	<0.001	27,000
	06/26/08	0.0151	0.177	<0.003	1,130	<0.002	<0.003	592	<0.00008	177	0.00394	<0.01	24,000
Duplicate	06/26/08	0.0151	0.176	<0.003	1,110	<0.002	<0.003	606	<0.00008	178	0.00423	<0.01	23,900
	11/25/08	0.0217	0.184	0.000576	1,060	<0.002	0.000908	580	<0.00008	186	0.00706	<0.001	25,100
	03/24/09	0.0171	0.179	<0.0015	1,040	<0.002	<0.0015	591	<0.00008	195	<0.01	<0.005	22,600

Table 3
Summary of Dissolved Metals in Groundwater
Targa Midstream Services, LP - Eunice Middle Gas Plant
Eunice, Lea County, New Mexico

Well ID	Date	Arsenic	Barium	Cadmium	Calcium	Chromium	Lead	Magnesium	Mercury	Potassium	Selenium	Silver	Sodium
WQCC Standard		0.1	1.0	0.01	--	0.05	0.05	--	0.002	--	0.05	0.05	--
MW-15	06/16/03	<0.080	0.045	<0.010	189	<0.020	<0.110	78.5	<0.0005	260	**0.100**	<0.020	3,560
	11/11/03	0.024	0.045	<0.001	135	<0.002	<0.011	62.5	<0.0005	45.1	0.022	<0.002	1,060
	05/24/04	<0.010	0.206	<0.005	96.8	0.011	<0.010	46.9	<0.0002	36.6	<0.010	<0.0125	825
	11/10/04	0.0199	0.0485	<0.001	40.1	0.0149	0.0450	43.4	<0.0005	33.8	0.0049	<0.005	813
	05/25/05	0.019	0.0545	0.0033	108	0.0127	<0.011	56.0	<0.001	32.2	0.0221	0.0027	680
	12/07/05	<0.020	0.0947	<0.010	55.2	0.0112	0.00574	37.9	0.00004	32.5	<0.0525	<0.0140	819
	12/08/06	0.0197	0.0471	<0.0150	175	0.0356	<0.00346	103	<0.00025	26.8	0.00887	<0.00148	773
Duplicate	12/08/06	0.0206	0.0476	<0.0150	190	0.0343	<0.00346	112	<0.00025	27.5	0.00972	0.000361	1,070
	06/07/07	0.017	0.170	<0.001	200	0.0460	<0.001	100	0.00028	23.0	0.00850	<0.001	860
	12/04/07	0.019	0.370	<0.001	200	**0.0630**	0.0012	90.0	0.00013	24.0	0.00520	<0.001	780
	06/26/08	0.0102	0.034	<0.0003	132	0.0460	<0.0003	70.2	<0.00008	19.1	0.00296	<0.001	755
	11/25/08	0.0114	0.0438	<0.0003	185	**0.0501**	<0.0003	98.6	<0.00008	20.3	0.00762	<0.001	715
	03/24/09	0.00909	0.0430	<0.0003	205	0.0422	<0.0003	98.5	<0.00008	22.3	0.00532	<0.001	723
MW-16	06/13/03	<0.009	0.210	<0.001	94.9	<0.002	<0.012	48.2	<0.0005	13.7	<0.004	<0.002	366
	11/12/03	<0.008	0.203	<0.001	56	<0.002	<0.011	61.4	<0.0005	14.6	0.033	<0.002	470
	05/24/04	<0.010	0.208	<0.005	106	<0.010	<0.010	33.4	<0.0002	11.8	<0.010	<0.0125	373
	11/11/04	0.0141	0.202	<0.001	47.3	<0.005	0.0169	31.2	<0.0005	10.6	0.0032	<0.005	369
	05/25/05	<0.008	0.510	0.0026	102	<0.005	<0.011	49.0	<0.001	11.3	<0.004	<0.005	312
	12/07/05	<0.020	0.346	<0.010	73.9	<0.0125	<0.0300	56.6	0.0001	13.4	<0.0525	<0.0140	456
	12/12/06	0.0125	0.255	<0.0150	171	<0.00202	<0.00346	46.2	<0.00025	13.0	0.0024	0.00596	760
Duplicate	12/12/06	0.0114	0.288	<0.000692	177	0.000824	<0.000296	52.2	<0.00025	13.6	0.00115	0.000322	728
	06/07/07	0.01100	0.820	<0.001	180	0.0110	0.0029	52.0	0.00095	11.0	<0.001	<0.001	510
Duplicate	06/07/07	0.00790	0.510	<0.001	160	0.0047	0.0012	50.0	0.00065	9.40	<0.001	<0.001	500
	12/04/07	0.00830	0.180	<0.001	100	<0.002	<0.001	33.0	0.00016	7.90	<0.002	<0.001	480
	06/26/08	0.00794	0.122	<0.0003	69.6	<0.002	<0.0003	23.0	<0.00008	6.10	<0.002	<0.001	419
	11/25/08	0.00827	0.161	0.000706	84.1	<0.002	<0.0003	29.6	0.000224	6.62	<0.002	<0.001	394
	03/24/09	0.00569	0.160	<0.0003	94.6	<0.002	<0.0003	32.9	<0.00008	7.54	<0.002	<0.001	486
MW-18	01/19/06	0.0213	0.0952	0.00382	412	0.00370	0.0117	210	<0.001	23.7	<0.0210	<0.0056	1,640
	06/28/06	0.0106	0.0757	<0.00692	386	<0.00698	<0.00296	177	0.00009	22.3	<0.0300	0.00191	1,690
	12/08/06	0.0149	0.0794	<0.0150	669	0.00116	<0.00346	233	<0.00025	29.7	0.00588	0.00134	1,640
	06/07/07	0.0091	0.120	<0.001	610	0.0019	<0.001	260	0.00027	18.0	0.00430	<0.001	1,800
	12/04/07	0.0091	0.110	<0.001	710	<0.002	<0.001	290	<0.00013	21.0	0.00300	<0.001	2,000
	06/25/08	0.00683	0.111	<0.0003	770	<0.002	<0.0003	311	<0.00008	19.9	0.00220	<0.001	2,100
	11/25/08	0.00784	0.108	0.00108	765	<0.002	<0.0003	343	<0.00008	22.1	0.00508	<0.001	2,070
	03/24/09	0.00635	0.108	<0.0003	835	<0.002	<0.0003	344	<0.00008	22.1	0.00240	<0.001	2,050

Table 3
Summary of Dissolved Metals in Groundwater
Targa Midstream Services, LP - Eunice Middle Gas Plant
Eunice, Lea County, New Mexico

Well ID	Date	Arsenic	Barium	Cadmium	Calcium	Chromium	Lead	Magnesium	Mercury	Potassium	Selenium	Silver	Sodium
WQCC Standard		0.1	1.0	0.01	--	0.05	0.05	--	0.002	--	0.05	0.05	--
MW-19	12/07/05	<0.020	0.0598	<0.010	439	0.00173	<0.030	204	0.00036	23.1	<0.0525	<0.0140	1,460
	06/28/06	0.0155	0.0367	<0.00692	465	0.00460	<0.00296	232	0.00011	24.9	<0.0300	<0.00405	1,540
Duplicate	06/28/06	0.0144	0.041	<0.00692	496	0.00576	<0.00296	237	0.00009	25.6	0.01570	<0.00405	1,520
	12/08/06	0.021	0.0415	<0.0150	984	0.00413	<0.00346	700	<0.00025	38.6	0.00802	0.00088	2,480
	06/06/07	0.014	0.052	<0.001	790	0.00450	<0.001	380	0.00039	23.0	0.00560	<0.001	2,200
	12/04/07	0.014	0.058	<0.001	860	0.00520	<0.001	400	<0.00013	25.0	0.00600	<0.001	2,300
	06/25/08	0.0113	0.0577	<0.0003	869	0.00369	<0.0003	411	0.000194	23.2	0.00538	<0.001	2,560
	11/25/08	0.0124	0.0609	<0.0003	1,050	0.00439	<0.0003	514	0.000207	25.7	0.00805	<0.001	2,760
	03/24/09	0.00956	0.0728	<0.0003	1,160	<0.002	<0.0003	539	<0.00008	28.6	0.00515	<0.001	2,830
MW-20	12/07/05	<0.020	0.066	<0.0100	27.7	<0.0125	<0.0300	36.9	0.00004	80.6	<0.0525	<0.0140	2,760
	06/28/06	<0.0170	0.036	<0.00692	35.2	0.00386	<0.00296	20.9	0.0002	63.2	0.01010	<0.00405	2,180
	12/08/06	0.0562	0.0205	<0.0150	31.6	0.00516	<0.00346	20.4	<0.00025	61.2	0.00838	0.00087	2,910
Duplicate	12/08/06	0.0567	0.0208	<0.0150	32.6	0.00447	<0.00346	16.7	<0.00025	55.0	0.00958	0.00107	2,780
	06/06/07	0.061	0.024	<0.001	32.0	0.00590	<0.001	18.0	0.00019	44.0	0.00760	<0.001	2,000
	12/04/07	0.058	0.044	<0.001	38.0	0.0070	<0.001	17.0	<0.00013	40.0	0.00760	<0.001	1,900
	06/25/08	0.0558	0.0190	<0.0003	25.7	0.00484	0.00223	13.3	<0.00008	35.0	0.00618	<0.001	1,750
	11/25/08	0.0583	0.0204	<0.0003	26.5	0.00621	<0.0003	15.4	<0.00008	36.6	0.00889	<0.001	1,800
	03/24/09	0.0458	0.0258	<0.0003	34.3	0.00574	<0.0003	18.3	<0.00008	43.9	0.00533	<0.001	1,960
MW-21	03/24/09	0.00587	0.117	<0.0003	274	<0.002	<0.0003	113	0.0000894	51.5	0.00908	<0.001	2,900
MW-UN-01	11/24/08	0.0122	1.12	<0.0003	168	<0.002	<0.0003	102	<0.00008	8.66	<0.002	<0.001	341
	03/23/09	0.00955	1.31	<0.0003	206	<0.002	<0.0003	111	<0.00008	10.5	<0.002	<0.001	406
MW-UN-02	11/24/08	0.00764	0.249	0.000939	89.4	<0.002	0.000308	40.9	<0.00008	9.41	<0.002	<0.001	390
	03/23/09	0.00638	0.492	0.000474	125	<0.002	<0.0003	55.2	<0.00008	12.2	<0.002	<0.001	537

Notes:
All results reported in milligrams per liter (mg/L)
"<" Indicates the reported concentration is below the method detection limit (MDL).
"--" Indicates the chemical was not analyzed.
Blue indicated the chemical exceeds the Water Quality Control Commission (WQCC) standard.

Table 4
Water Quality Parameters
Targa Midstream Services, LP - Eunice Middle Gas Plant
Eunice, Lea County, New Mexico

Well ID	Date	Alkalinity	Chloride	Sulfate	TDS
WQCC Standard		--	250	600	1,000
MW-01	04/23/02	300	724	542	2,340
	05/14/02	--	---	--	--
	09/05/02	266	851	621	2,620
	11/06/02	292	957	665	2,800
	06/13/03	356	939	505	2,720
	11/11/03	375	1,080	507	3,120
Duplicate	11/11/03	378	1,170	535	3,450
	05/24/04	302	956	479	3,050
	11/10/04	346	1,080	555	2,990
Duplicate	11/10/04	332	1,060	528	2,960
	05/25/05	281	1,170	479	3,610
	11/30/05	292	828	400	2,550
	06/27/06	250	808	406	2,550
	12/05/06	392	662	402	1,920
	06/07/07	380	740	480	2,400
	12/03/07	420	810	440	2,600
	06/25/08	376	909	421	2,730
	11/24/08	392	849	342	2,380
	03/23/09	374	836	405	2,590
MW-02	04/23/02	180	625	1,270	3,240
	09/05/02	198	638	1,090	3,290
	11/06/02	180	691	1,160	3,420
	06/16/03	200	691	929	3,270
	11/11/04	240	780	990	3,380
	05/25/05	266	706	1,180	3,490
Duplicate	05/25/05	268	729	1,220	3,350
	12/02/05	260	531	795	2,330
	06/27/06	314	598	913	3,230
	06/07/07	490	1,200	2,100	6,800
	12/03/07	430	470	870	2,900
	06/25/08	No sample - roots clogging well			
	11/24/08	No sample - roots clogging well			
MW-02A	03/23/09	398	510	904	2960
MW-03	04/23/02	304	2,500	245	4,880
	09/05/02	520	1,910	120	4,280
	11/06/02	528	1,360	76.4	3,200
	06/16/03	502	1,540	85.0	3,780
Duplicate	06/16/03	532	1,370	76.8	2,460
	11/13/03	345	3,370	218	6,630
	05/24/04	514	1,580	69.9	3,590
	11/10/04	536	1,950	59.4	4,030
	05/25/05	560	1,410	63.8	3,580
	12/02/05	704	915	42.5	2,260
	06/27/06	656	1,190	117	2,970
	12/06/06	680	1,340	486	2,700
	06/06/07	730	580	64	1,900
	12/03/07	660	990	34	2,600
	06/25/08	436	2,830	140	5,790
	11/24/08	393	2,950	165	5,230
	03/23/09	370	3,050	193	6,540

Table 4
Water Quality Parameters
Targa Midstream Services, LP - Eunice Middle Gas Plant
Eunice, Lea County, New Mexico

Well ID	Date	Alkalinity	Chloride	Sulfate	TDS
WQCC Standard		--	250	600	1,000
MW-04	09/05/02	410	674	872	2,950
	11/06/02	400	691	975	3,060
	06/16/03	492	638	905	2,920
	11/12/03	482	585	727	3,170
	05/26/04	410	642	1,170	4,160
	11/11/04	740	691	1,610	4,820
	05/25/05	324	614	1,520	3,900
	12/02/05	724	292	1,050	3,460
	06/27/06	732	374	985	3,370
	12/06/06	930	259	1,230	3,100
	06/06/07	750	190	950	3,000
	12/03/07	840	210	1,100	3,400
	06/25/08	610	650	1,730	4,440
	11/24/08	581	637	1,740	4,300
	03/23/09	594	517	1,540	4,320
MW-05	09/05/02	628	514	446	2,190
	11/06/02	608	585	403	2,310
	06/13/03	372	425	784	2,450
	11/11/03	381	549	596	2,490
Duplicate	11/11/03	388	549	619	2,430
	05/24/04	312	898	1,010	3,595
	11/10/04	276	727	962	2,950
	05/25/05	524	794	950	3,580
	12/02/05	774	568	655	2,840
	06/27/06	1060	682	800	3,830
	12/12/06	680	565	960	2,750
Duplicate	12/12/06	620	546	928	3,110
	06/07/07	710	350	480	2,200
	12/04/07	790	210	330	2,000
	06/26/08	847	196	213	1,660
	11/25/08	951	170	197	1,710
	03/23/09	918	150	171	1,620
Duplicate	03/23/09	904	159	173	1,620
MW-06	09/05/02	700	514	67.5	1,790
	11/06/02	700	567	69.8	1,870
	06/13/03	600	487	114	1,660
	11/11/03	592	487	309	1,770
	05/24/04	568	418	178	1,712
	11/10/04	556	496	357	1,800
	05/25/05	640	404	232	1,710
	12/02/05	660	241	105	1,330
	06/27/06	592	279	115	1,420
	12/08/06	710	244	131	1,370
	06/07/07	730	240	190	1,500
	12/04/07	760	230	200	1,700
	06/26/08	707	306	169	1,460
	11/25/08	718	316	114	1,540
	03/24/09	760	322	150	1,520

Table 4
Water Quality Parameters
Targa Midstream Services, LP - Eunice Middle Gas Plant
Eunice, Lea County, New Mexico

Well ID	Date	Alkalinity	Chloride	Sulfate	TDS
WQCC Standard		--	250	600	1,000
MW-07	09/05/02	312	**443**	455	**1,810**
Duplicate	09/05/02	284	**461**	452	**1,920**
	11/07/02	260	**461**	**620**	**1,880**
	06/13/03	242	**372**	482	**1,660**
	11/11/03	290	**354**	454	**1,740**
	05/24/04	330	**326**	385	**1,520**
Duplicate	05/24/04	306	**310**	370	**1,632**
	11/10/04	304	**266**	412	**1,580**
	05/26/05	314	**287**	356	**1,490**
	12/06/05	328	191	215	**1,230**
Duplicate	12/06/05	292	185	210	**1,300**
	12/05/06	388	202	258	**1,150**
	06/06/07	380	210	280	**1,300**
	12/03/07	460	240	250	**1,300**
	06/25/08	339	**310**	279	**1,470**
	11/24/08	436	**307**	306	**1,420**
Duplicate	11/24/08	334	**300**	304	**1,450**
	03/23/09	342	**285**	306	**1,500**
MW-08	09/06/02	210	**337**	216	**1,180**
	11/07/02	180	**638**	241	**1,980**
	06/13/03	176	**399**	178	**1,100**
	11/11/03	199	**1,080**	217	**2,930**
	05/24/04	222	**400**	169	**1,232**
	11/10/04	180	**674**	196	**1,960**
	05/26/05	204	**281**	165	**1,020**
Duplicate	05/26/05	212	**417**	161	**1,280**
	12/06/05	212	**385**	133	**1,000**
	12/05/06	260	**588**	155	**1,220**
	06/06/07	230	**460**	190	**1,600**
	12/03/07	230	**750**	250	**2,000**
	06/25/08	227	**746**	170	**1,850**
	11/24/08	229	**686**	150	**1,630**
	03/23/09	237	**662**	150	**1,730**
MW-09	09/06/02	306	56.7	74.7	555
	11/07/02	346	65	90.8	718
	06/13/03	352	58.5	98	546
	11/11/03	362	63.8	96	745
	05/24/04	372	55.6	81.3	716
	11/10/04	364	63.8	105	730
	05/26/05	341	67.9	93.1	669
	12/06/05	340	48.6	68.4	564
	12/05/06	376	45.7	63.5	564
	06/06/07	370	55.0	96.0	730
	12/03/07	360	50.0	80.0	630
	06/25/08	342	66.4	91.3	673
	11/24/08	336	61.2	87.4	623
	03/23/09	356	58.7	88.3	652

Table 4
Water Quality Parameters
Targa Midstream Services, LP - Eunice Middle Gas Plant
Eunice, Lea County, New Mexico

Well ID	Date	Alkalinity	Chloride	Sulfate	TDS
WQCC Standard		--	**250**	**600**	**1,000**
MW-10	09/06/02	160	168	94	696
	11/07/02	132	239	107	**1,020**
	06/13/03	120	**301**	91.6	**1,000**
	11/13/03	122	248	77.9	**1,250**
	05/24/04	148	**396**	74.5	**1,216**
	11/11/04	136	**496**	98.6	**1,230**
	05/26/05	128	**486**	89.5	**1,940**
	12/06/05	114	**444**	73.1	**1,320**
	12/05/06	160	**529**	65.6	**1,520**
	06/06/07	150	**560**	120	**2,400**
	12/03/07	160	**530**	130	**1,500**
	06/25/08	147	**619**	110	**1,930**
	11/24/08	152	**503**	107	**1,390**
	03/23/09	165	**509**	113	**1,530**
MW-11	09/06/02	194	42.5	72.3	428
	11/07/02	152	47.3	76.5	459
Duplicate	11/07/02	154.0	47.3	80	460
	06/16/03	168	44.3	87.8	324
	11/13/03	200	40.7	25.7	411
	05/26/04	218	39.3	11.5	555
Duplicate	05/26/04	232	39	12.7	515
	11/11/04	210	53.1	<0.5	356
	05/26/05	214	54.2	17.1	358
	12/06/05	206	42.4	16.0	326
	06/27/06	222	46.7	19.4	412
	12/05/06	262	29.0	5.86	338
	06/06/07	280	38.0	7.4	**1,000**
	12/03/07	260	36.0	2.0	420
	06/25/08	282	42.1	21.9	495
	11/24/08	434	41.1	5.21	434
	03/23/09	329	41.2	12.6	508
MW-12	06/16/03	168	**1,510**	485	**2,550**
	11/13/03	170	**1,580**	482	**3,720**
Duplicate	11/13/03	172	**1,560**	457	**4,360**
	05/26/04	202	**1,470**	514	**4,200**
	11/11/04	158	**2,380**	197	**4,890**
Duplicate	11/11/04	156	**2,290**	199	**5,720**
	05/26/05	180	**1,460**	537	**4,040**
	12/06/05	156	**1,170**	418	**3,020**
Duplicate	12/06/05	156	**1,200**	445	**3,290**
	06/28/06	198	**1,490**	573	**3,800**
	12/08/06	280	**1,540**	**709**	**3,240**
	06/06/07	200	**1,500**	**690**	**4,200**
	12/03/07	200	**1,700**	**700**	**4,200**
	06/25/08	197	**2,060**	**809**	**5,880**
	11/24/08	199	**1,940**	**753**	**4,580**
	03/23/09	210	**2,020**	**766**	**5,120**

Table 4
Water Quality Parameters
Targa Midstream Services, LP - Eunice Middle Gas Plant
Eunice, Lea County, New Mexico

Well ID	Date	Alkalinity	Chloride	Sulfate	TDS
WQCC Standard		--	250	600	1,000
MW-13	06/16/03	170	8,680	1,230	20,900
	11/13/03	210	9,310	1,210	17,900
	05/26/04	176	7,500	961	20,260
	11/11/04	220	9,390	1,040	15,200
	05/25/05	201	4,220	1,290	15,900
	12/07/05	194	5,950	1,100	12,700
	06/27/06	194	6,890	1,280	20,900
Duplicate	06/27/06	197	6,960	1,300	19,600
	12/06/06	320	6,150	970	11,700
	06/06/07	210	5,800	2,300	16,000
	12/03/07	210	5,900	1,700	13,000
	06/25/08	228	7,290	1,390	16,900
	11/24/08	222	6,500	1,270	14,100
	03/24/09	225	6,460	1,260	13,400
MW-14	06/16/03	268	25,000	750	44,700
	11/12/03	358	25,900	759	47,200
	05/24/04	354	12,300	519	47,100
	11/10/04	384	25,500	844	43,600
	05/25/05	484	57,600	2,680	91,400
	12/07/05	444	22,800	1,250	40,000
Duplicate	12/07/05	472	25,800	1,140.0	43,300
	06/27/06	442	13,700	1,190	23,700
	12/06/06	550	8,770	311	14,000
	06/07/07	440	31,000	3,200	56,000
	12/03/07	490	42,000	3,100	75,000
Duplicate	12/03/07	490	43,000	3,200	75,000
	06/26/08	492	43,400	1,430	77,300
Duplicate	06/26/08	486	45,900	1,400	77,700
	11/25/08	518	44,600	1,160	77,000
	03/24/09	534	45,500	1,270	81,400
MW-15	06/16/03	364	1,600	612	2,310
	11/11/03	492	1,120	568	3,470
	05/24/04	486	924	535	3,050
	11/10/04	488	1,240	638	2,750
	05/25/05	206	782	482	2,720
	12/07/05	512	746	381	2,430
	12/08/06	440	834	539	2,600
Duplicate	12/08/06	520	769	465	2,340
	06/07/07	390	1,100	720	3,800
	12/04/07	440	940	710	3,800
	06/26/08	491	882	791	3,140
	11/25/08	440	1,090	742	3,840
	03/24/09	477	1,130	794	3,400

Table 4
Water Quality Parameters
Targa Midstream Services, LP - Eunice Middle Gas Plant
Eunice, Lea County, New Mexico

Well ID	Date	Alkalinity	Chloride	Sulfate	TDS
WQCC Standard		--	250	600	1,000
MW-16	06/13/03	432	585	184	1,730
	11/12/03	477	585	154	1,940
	05/24/04	584	438	95.7	1,610
	11/11/04	570	461	108	1,500
	05/25/05	420	708	165	1,910
	12/07/05	502	420	67.6	1,750
	12/12/06	590	863	83.3	1,820
Duplicate	12/12/06	530	997	114.0	2,290
	06/07/07	430	790	160	2,100
Duplicate	06/07/07	410	790	160	2,100
	12/04/07	570	500	170	1,800
	06/26/08	633	373	131	1,520
	11/25/08	608	485	132	1,760
	03/24/09	609	570	178	1,830
MW-18	01/19/06	414	2,430	350	5,610
	06/28/06	434	3,100	453	6,710
	12/08/06	490	2,910	300	5,750
	06/07/07	420	3,700	610	7,700
	12/04/07	450	4,600	670	9,600
	06/25/08	434	5,710	461	11,600
	11/25/08	433	5,670	447	11,300
	03/24/09	220	5,750	511	11,600
MW-19	12/07/05	264	2,730	552	5,900
	06/28/06	267	3,760	638	7,880
Duplicate	06/28/06	272	3,780	638	7,580
	12/08/06	390	4,510	593	7,100
	06/06/07	260	4,900	1,700	12,000
	12/04/07	280	5,300	1,200	13,000
	06/25/08	265	7,130	732	14,300
	11/25/08	252	7,930	746	17,000
	03/24/09	262	8,750	776	16,000
MW-20	12/07/05	644	3,110	460	6,860
	06/28/06	560	2,960	684	6,010
	12/08/06	580	2,110	564	4,820
Duplicate	12/08/06	600	2,020	547	4,720
	06/06/07	530	2,100	910	6,200
	12/04/07	690	2,300	740	5,800
	06/25/08	570	2,270	733	5,440
	11/25/08	569	2,380	686	5,480
	03/24/09	591	2,790	706	6,260
MW-21	03/24/09	722	5,000	350	9,200
MW-UN-01	11/24/08	571	965	41.3	2,250
	03/23/09	624	937	32.5	2,380
MW-UN-02	11/24/08	850	377	64.2	1,630
	03/23/09	990	564	49.1	2,110

Notes:
All results reported in milligrams per liter (mg/L)
"<" Indicates the reported concentration is below the method detection limit (MDL).
"--" Indicates the chemical was not analyzed.
Blue indicated the chemical exceeds the Water Quality Control Commission (WQCC) standard.

Project No.: 2-0103

Table 5A
MW-02A Groundwater Stratification Profile
Targa Midstream - Eunice Gas Plant
Lea County, New Mexico

Date 3/3/2009		Pressure	Depth from TOC	Temp.	ORP	pH	Dissolved Oxygen	Chloride	Conduct-ivity	Total Dissolved Solids
Time	ET (sec)	Feet H_2O	Feet (bgs)	°F	mV	standard units	ppm	ppm	µS/cm	ppm
11:24:39	77	0.114	28.06	68.77	303	6.9	68.2	485.0	4048	2712
11:24:43	81	0.682	28.63	68.76	312	6.91	68.6	501.7	4047	2711
11:24:48	86	1.089	29.04	68.76	318	6.91	68.8	505.2	4047	2712
11:24:53	91	1.463	29.41	68.77	332	6.91	70.1	503.5	4043	2709
11:24:57	95	1.852	29.80	68.79	340	6.91	68.0	501.8	4041	2707
11:25:02	100	2.242	30.19	68.79	347	6.9	70.3	502.6	4037	2705
11:25:07	105	2.615	30.57	68.77	355	6.9	70.6	504.3	4037	2705
11:25:11	109	2.924	30.87	68.72	356	6.9	70.7	495.0	4036	2704
11:25:16	114	3.233	31.18	68.7	356	6.9	70.2	486.7	4036	2704
11:25:21	119	3.607	31.56	68.66	368	6.89	70.4	507.0	4037	2705
11:25:25	123	3.948	31.90	68.64	368	6.89	69.7	501.8	4036	2704
11:25:30	128	4.29	32.24	68.62	381	6.89	70.5	507.8	4036	2704
11:25:35	133	4.632	32.58	68.61	385	6.88	70.0	506.1	4036	2704
11:25:40	138	5.007	32.96	68.59	393	6.88	69.9	501.0	4035	2703
11:25:44	142	5.398	33.35	68.55	396	6.87	69.9	502.7	4033	2702
11:25:49	147	5.675	33.63	68.5	397	6.87	69.6	506.2	4033	2702
11:25:54	152	5.677	33.63	68.47	386	6.87	69.5	506.2	4036	2704
11:25:58	156	5.694	33.64	68.46	375	6.86	69.3	503.6	4036	2704
11:26:03	161	5.68	33.63	68.45	364	6.86	69.1	506.2	4037	2705
11:26:08	166	5.698	33.65	68.46	356	6.85	68.9	507.1	4037	2705
11:26:12	170	5.698	33.65	68.46	348	6.85	68.8	506.2	4037	2705
11:26:36	194	6.532	34.48	68.45	394	6.83	66.7	496.1	4031	2700
11:26:40	198	6.956	34.91	68.45	407	6.83	66.4	491.9	4034	2703
11:26:45	203	7.411	35.36	68.43	428	6.83	67.7	494.4	4034	2703
11:26:50	208	8.11	36.06	68.42	434	6.82	68.1	491.1	4033	2702
11:26:55	213	8.501	36.45	68.42	435	6.82	68.4	491.1	4035	2704
11:26:59	217	9.053	37.00	68.41	447	6.81	68.7	484.5	4035	2703
11:27:04	222	9.687	37.64	68.39	451	6.8	69.0	476.4	4035	2704
11:27:09	227	10.143	38.09	68.37	448	6.8	69.0	474.8	4035	2703
11:27:13	231	10.55	38.50	68.35	450	6.79	69.2	475.6	4034	2703
11:27:18	236	10.957	38.91	68.35	452	6.78	69.4	486.2	3846	2577
11:27:23	241	11.673	39.62	68.26	430	6.85	68.9	498.7	3143	2106
11:27:27	245	12.161	40.11	68.23	411	6.86	69.0	498.7	3108	2083

Chloride Average: **497.18**
Conductivity Average: **3975.86**
Calculated TDS Average: **2663.82**

Project No.: 2-0103

Table 5B
MW-03 Groundwater Stratification Profile
Targa Midstream - Eunice Gas Plant
Lea County, New Mexico

Date 3/3/2009		Pressure	Depth from TOC	Temp.	ORP	pH	Dissolved Oxygen	Chloride	Conduct-ivity	Total Dissolved Solids
Time	ET (sec)	Feet H_2O	Feet (bgs)	°F	mV	standard units	ppm	ppm	µS/cm	ppm
11:45:32	94	0.33	27.34	68.67	-54	6.73	24.8	9.5	3187	2135
11:45:37	99	0.767	27.78	68.75	-87	6.74	23.7	9.4	4034	2703
11:45:42	104	1.002	28.01	68.81	-111	6.76	23.0	9.4	4361	2922
11:45:47	109	1.283	28.29	68.90	-141	6.77	22.5	10.1	4713	3158
11:45:51	113	1.645	28.66	68.96	-162	6.78	21.9	10.9	5234	3507
11:45:56	118	1.992	29.00	69.01	-179	6.81	21.4	12.0	5639	3778
11:46:01	123	2.371	29.38	69.08	-189	6.84	21.1	13.6	5942	3981
11:46:05	127	2.753	29.76	69.13	-197	6.85	20.7	15.0	6395	4284
11:46:10	132	3.136	30.15	69.18	-203	6.86	20.4	16.7	6652	4457
11:46:15	137	3.488	30.50	69.21	-207	6.85	20.1	18.2	7042	4718
11:46:19	141	3.891	30.90	69.26	-209	6.84	19.8	19.7	7548	5057
11:46:24	146	4.296	31.31	69.31	-210	6.81	19.6	21.1	8060	5400
11:46:29	151	4.718	31.73	69.35	-208	6.77	19.5	22.6	8360	5601
11:46:33	155	5.125	32.14	69.37	-205	6.73	19.4	23.4	8791	5890
11:46:38	160	5.534	32.54	69.38	-199	6.68	19.2	24.0	9078	6082
11:46:43	165	5.944	32.95	69.41	-195	6.65	19.1	24.8	9372	6280
11:46:48	170	6.404	33.41	69.42	-190	6.62	18.9	25.2	9635	6455
11:46:52	174	6.864	33.87	69.46	-184	6.59	18.8	26.0	9830	6586
11:46:57	179	7.357	34.37	69.48	-179	6.56	18.7	26.4	9907	6638
11:47:02	184	7.802	34.81	69.49	-173	6.54	18.5	26.7	9996	6697
11:47:06	188	8.298	35.31	69.50	-170	6.53	18.4	27.4	10032	6721
11:47:11	193	8.907	35.92	69.54	-167	6.52	18.3	27.7	10065	6743
11:47:16	198	9.469	36.48	69.55	-164	6.51	18.2	28.0	10089	6759
11:47:20	202	10.014	37.02	69.57	-163	6.51	18.1	28.3	10094	6763
11:47:25	207	10.592	37.60	69.57	-161	6.5	17.4	28.4	10122	6782
11:47:30	212	11.122	38.13	69.58	-160	6.49	17.9	28.8	10129	6787
11:47:34	216	11.718	38.73	69.57	-160	6.49	18.0	29.1	10137	6792
11:47:39	221	12.281	39.29	69.56	-160	6.48	17.8	29.4	10140	6794
11:47:44	226	12.781	39.79	69.55	-160	6.47	17.7	29.9	10141	6794
11:47:48	230	13.329	40.34	69.55	-160	6.47	17.7	30.2	10141	6794
11:47:53	235	13.845	40.86	69.54	-161	6.47	17.7	30.7	10147	6798
11:47:58	240	14.346	41.36	69.52	-161	6.46	17.7	30.8	10154	6803

Chloride Average: **22.28**
Conductivity Average: **8286.5**
Calculated TDS Average: **5551.96**

Project No.: 2-0103

Table 5C
MW-05 Groundwater Stratification Profile
Targa Midstream - Eunice Gas Plant
Lea County, New Mexico

Date 3/3/2009		Pressure	Depth from TOC	Temp.	ORP	pH	Dissolved Oxygen	Chloride	Conduct-ivity	Total Dissolved Solids
Time	ET (sec)	Feet H_2O	Feet (bgs)	°F	mV	standard units	ppm	ppm	µS/cm	ppm
12:18:56	76	0.415	30.26	67.21	56	7.28	90.5	5.0	2414	1617
12:19:00	80	1.008	30.85	67.22	55	7.27	84.2	5.2	2452	1643
12:19:05	85	1.67	31.51	67.2	54	7.27	76.0	5.4	2469	1654
12:19:10	90	2.35	32.19	67.22	52	7.26	67.8	5.6	2470	1655
12:19:14	94	2.981	32.82	67.18	51	7.26	60.2	5.8	2469	1655
12:19:19	99	3.611	33.45	67.18	50	7.26	53.6	5.9	2472	1656
12:19:24	104	4.222	34.06	67.18	50	7.26	48.2	6.1	2473	1657
12:19:28	108	4.848	34.69	67.2	49	7.25	43.7	6.3	2472	1656
12:19:33	113	5.391	35.23	67.17	48	7.25	40.1	6.3	2472	1657
12:19:38	118	5.412	35.25	67.18	48	7.24	37.5	6.3	2472	1656
12:19:42	122	5.43	35.27	67.17	47	7.23	34.4	6.2	2472	1656
12:19:47	127	5.089	34.93	67.17	47	7.22	32.4	6.3	2376	1592
12:19:52	132	6.84	36.68	67.39	42	7.18	30.9	6.6	2308	1546
12:19:56	136	5.57	35.41	67.44	37	7.17	29.3	6.8	2238	1499
12:20:01	141	5.631	35.47	67.42	32	7.15	28.2	6.9	2335	1564

Chloride Average: **6.05**
Conductivity Average: **2424.27**
Calculated TDS Average: **1624.26**

Project No.: 2-0103

Table 5D
MW-13 Groundwater Stratification Profile
Targa Midstream - Eunice Gas Plant
Lea County, New Mexico

Date 3/3/2009		Pressure	Depth from TOC	Temp.	ORP	pH	Dissolved Oxygen	Chloride	Conduct-ivity	Total Dissolved Solids
Time	ET (sec)	Feet H_2O	Feet (bgs)	°F	mV	standard units	ppm	ppm	µS/cm	ppm
14:12:51	15	0.288	28.04	68.42	184	9.78	110.4	15.9	18270	12241
14:12:55	19	0.942	28.69	67.67	175	8.51	106.9	8.9	18458	12367
14:13:00	24	1.651	29.40	67.37	170	7.87	103.6	6.5	18501	12396
14:13:05	29	2.432	30.18	67.24	167	7.49	99.6	5.1	18597	12460
14:13:09	33	3.182	30.93	67.14	165	7.23	95.6	4.3	18586	12453
14:13:14	38	3.928	31.68	67.11	163	7.05	90.9	3.6	18620	12476
14:13:19	43	4.702	32.45	67.09	162	6.92	87.0	3.1	18609	12468
14:13:24	48	5.405	33.16	67.05	161	6.82	82.8	2.7	18603	12464
14:13:28	52	6.136	33.89	67.03	160	6.74	79.7	2.9	18861	12637
14:13:33	57	6.91	34.66	67.02	162	6.68	77.2	3.2	19443	13027
14:13:38	62	7.745	35.50	66.97	164	6.63	75.4	3.1	19646	13163
14:13:42	66	8.477	36.23	66.93	164	6.6	71.8	3.0	19934	13356
14:13:47	71	9.272	37.02	66.93	166	6.57	69.1	3.7	21886	14663

Chloride Average: **4.94**
Conductivity Average: **19284**
Calculated TDS Average: **12920**

Project No.: 2-0103

Table 5E
MW-14 Groundwater Stratification Profile
Targa Midstream - Eunice Gas Plant
Lea County, New Mexico

Date 3/3/2009		Pressure	Depth from TOC	Temp.	ORP	pH	Dissolved Oxygen	Chloride	Conduct-ivity	Total Dissolved Solids
Time	ET (sec)	Feet H_2O	Feet (bgs)	°F	mV	standard units	ppm	ppm	µS/cm	ppm
16:19:16	42	0.259	31.24	70.45	207	7.49	91.6	384.3	8175	5477
16:19:21	47	1.614	32.59	70.26	196	7.07	86.7	462.8	8851	5930
16:19:26	52	3.087	34.07	70.15	191	6.93	80.8	523.9	9951	6667
16:19:30	56	4.602	35.58	70.07	192	6.74	75.5	545.7	15379	10304
16:19:35	61	6.006	36.99	69.99	198	6.52	70.0	573.1	22910	15349
16:19:40	66	7.197	38.18	69.95	203	6.34	65.7	598.9	33884	22702
16:19:44	70	8.348	39.33	69.88	208	6.22	63.2	613.7	50722	33984
16:19:49	75	9.526	40.51	69.85	213	6.12	63.0	711.9	71501	47906
16:19:54	80	10.713	41.69	69.82	215	6.06	63.1	829.9	88651	59396
16:19:58	84	11.912	42.89	69.75	218	6.02	58.9	1011.0	90464	60611
16:20:03	89	13.204	44.18	69.7	219	5.98	55.0	1325.5	90519	60648
16:20:08	94	14.506	45.49	69.67	219	5.96	52.3	1652.0	90546	60666
16:20:13	99	15.661	46.64	69.64	219	5.96	50.4	1973.5	90573	60684

Chloride Average: **862.02**
Conductivity Average: **51702**
Calculated TDS Average: **34640.3**

Project No.: 2-0103

Table 5F
MW-18 Groundwater Stratification Profile
Targa Midstream - Eunice Gas Plant
Lea County, New Mexico

Date 3/3/2009		Pressure	Depth from TOC	Temp.	ORP	pH	Dissolved Oxygen	Chloride	Conduct-ivity	Total Dissolved Solids
Time	ET (sec)	Feet H_2O	Feet (bgs)	°F	mV	standard units	ppm	ppm	µS/cm	ppm
15:10:50	62	0.138	29.30	69.09	236	7.49	111.7	298.7	16125	10804
15:10:55	67	1.181	30.34	68.59	225	6.96	106.6	379.7	17165	11501
15:10:59	71	2.281	31.44	68.38	219	6.74	99.7	452.1	17388	11650
15:11:04	76	3.34	32.50	68.2	215	6.64	89.5	516.0	17433	11680
15:11:09	81	4.367	33.53	68.09	212	6.58	79.7	571.8	17467	11703
15:11:13	85	5.503	34.66	67.97	209	6.54	70.3	618.4	17495	11722
15:11:18	90	6.47	35.63	67.89	208	6.51	62.5	649.4	17509	11731
15:11:23	95	6.555	35.72	67.86	206	6.49	56.1	668.7	17500	11725
15:11:27	99	6.614	35.77	67.84	205	6.47	50.6	686.4	17543	11754

Chloride Average: **537.90**
Conductivity Average: **17292**
Calculated TDS Average: **11585.4**

Project No.: 2-0103

Table 5G
MW-19 Groundwater Stratification Profile
Targa Midstream - Eunice Gas Plant
Lea County, New Mexico

Date 3/3/2009		Pressure	Depth from TOC	Temp.	ORP	pH	Dissolved Oxygen	Chloride	Conduct-ivity	Total Dissolved Solids
Time	ET (sec)	Feet H_2O	Feet (bgs)	°F	mV	standard units	ppm	ppm	µS/cm	ppm
15:52:15	61	0.868	32.87	69.13	263	8.87	112.9	434.1	22787	15267
15:52:20	66	1.903	33.90	68.87	251	7.85	109.8	540.1	23498	15744
15:52:25	71	3.019	35.02	68.72	244	7.38	103.0	638.9	23789	15939
15:52:29	75	4.124	36.12	68.62	239	7.12	93.6	726.8	23854	15982
15:52:34	80	5.163	37.16	68.55	236	6.96	83.2	806.8	23892	16008
15:52:39	85	6.31	38.31	68.48	233	6.85	73.4	873.9	23853	15981
15:52:43	89	7.47	39.47	68.41	231	6.77	64.5	931.3	23880	16000
15:52:48	94	8.251	40.25	68.33	229	6.71	56.9	966.9	23900	16013
15:52:53	99	8.281	40.28	68.32	227	6.67	51.0	987.6	23888	16005
15:52:57	103	8.305	40.31	68.32	226	6.63	46.2	1012.1	23881	16000

Chloride Average: **791.84**
Conductivity Average: **23722**
Calculated TDS Average: **15893.9**

Project No.: 2-0103

Table 5H
MW-20 Groundwater Stratification Profile
Targa Midstream - Eunice Gas Plant
Lea County, New Mexico

Date 3/3/2009		Pressure	Depth from TOC	Temp.	ORP	pH	Dissolved Oxygen	Chloride	Conduct-ivity	Total Dissolved Solids
Time	ET (sec)	Feet H_2O	Feet (bgs)	°F	mV	standard units	ppm	ppm	µS/cm	ppm
15:39:00	104	0.446	38.83	68.78	285	10.24	100.7	277.9	9759	6539
15:39:05	109	1.153	39.53	68.5	272	9.33	95.4	325.5	9775	6549
15:39:09	113	1.952	40.33	68.32	263	8.84	87.3	360.8	9785	6556
15:39:14	118	2.758	41.14	68.18	256	8.54	78.4	389.5	9799	6565
15:39:19	123	3.565	41.95	68.13	251	8.34	70.0	412.4	9814	6575
15:39:23	127	4.386	42.77	68.08	247	8.19	62.3	430.3	9819	6579
15:39:28	132	5.19	43.57	68.03	244	8.08	56.0	444.6	9842	6594
15:39:33	137	5.975	44.36	68.02	241	7.99	51.0	457.1	9860	6606
15:39:37	141	6.789	45.17	68	239	7.92	46.5	469.2	9904	6635
15:39:42	146	7.6	45.98	68.02	237	7.86	43.4	479.2	9928	6652
15:39:47	151	8.425	46.81	67.97	235	7.81	41.0	487.1	9992	6694
15:39:51	155	8.955	47.34	67.93	233	7.77	38.8	494.4	10098	6766

Chloride Average: **418.99**
Conductivity Average: **9864.4**
Calculated TDS Average: **6609.17**

Project No.: 2-0103

Table 5I
MW-21 Groundwater Stratification Profile
Targa Midstream - Eunice Gas Plant
Lea County, New Mexico

Date 3/3/2009		Pressure	Depth from TOC	Temp.	ORP	pH	Dissolved Oxygen	Chloride	Conduct-ivity	Total Dissolved Solids
Time	ET (sec)	Feet H_2O	Feet (bgs)	°F	mV	standard units	ppm	ppm	µS/cm	ppm
14:35:41	52	0.101	33.96	68.54	248	10.48	113.3	184.3	15170	10164
14:35:46	57	1.406	35.27	67.98	235	9.06	107.6	228.7	15229	10204
14:35:51	62	2.753	36.61	67.72	228	8.38	105.2	265.8	15239	10210
14:35:55	66	4.144	38.00	67.61	223	7.98	104.0	298.1	15319	10264
14:36:00	71	5.471	39.33	67.47	219	7.71	103.2	327.2	15380	10305
14:36:05	76	6.813	40.67	67.42	216	7.51	101.5	350.4	15419	10331
14:36:09	80	8.035	41.90	67.35	214	7.37	98.7	368.0	15492	10380
14:36:14	85	9.121	42.98	67.34	213	7.27	93.6	379.0	12924	8659
14:36:19	90	9.177	43.04	67.37	212	7.19	89.4	386.5	13546	9076
14:36:23	94	9.224	43.08	67.38	211	7.13	82.8	394.8	13739	9205
14:36:28	99	9.26	43.12	67.4	210	7.08	75.7	404.6	13836	9270
14:36:33	104	9.305	43.17	67.4	209	7.04	69.7	412.7	13947	9344
14:36:37	108	9.343	43.20	67.42	208	7	64.7	420.9	14015	9390
14:37:01	132	9.645	43.51	67.87	206	6.87	48.8	480.5	13404	8981

Chloride Average: **350.11**
Conductivity Average: **14476**
Calculated TDS Average: **9698.77**

Table 6A
2008 Vadose Zone Soil BTEX Analytical Summary
Targa Midstream - Eunice Gas Plant
Lea County, New Mexico

Date	Cell Number	Cell Letter	Sample Number	Sample Depth (Feet)	Benzene	Ethylbenzene	Toluene	Total Xylenes	Total BTEX
Vadose Zone Samples									
04/16/08	1	A	Cell 1A	3 - 4	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011
10/28/08	1	A	Cell 1A	3 - 4	<0.00308	<0.00513	<0.00513	<0.00513	<0.01847
04/16/08	1	B	Cell 1B	3 - 4	<0.00096	<0.00096	<0.00096	<0.00096	<0.00096
10/28/08	1	B	Cell 1B	3 - 4	<0.00329	<0.00548	<0.00548	<0.00548	<0.01973
04/16/08	1	C	Cell 1C	3 - 4	<0.00106	**0.0965**	<0.00106	**0.0583**	**0.1818**
04/16/08	1	C	Cell 1C-1	3 - 4	<0.001	<0.001	<0.001	<0.001	<0.001
10/28/08	1	C	Cell 1C	3 - 4	<0.00293	<0.00489	<0.00489	<0.00489	<0.0176
10/28/08	1	C	Cell 1C-1	3 - 4	<0.00268	<0.00446	<0.00446	<0.00446	<0.01606
04/16/08	2	A	Cell 2A	3 - 4	<0.000992	<0.000992	<0.000992	<0.000992	<0.000992
10/28/08	2	A	Cell 2A	3 - 4	<0.00298	<0.00497	<0.00497	<0.00497	<0.01789
04/16/08	2	B	Cell 2B	3 - 4	<0.000982	<0.000982	<0.000982	<0.000982	<0.000982
10/28/08	2	B	Cell 2B	3 - 4	<0.00291	<0.00485	<0.00485	<0.00485	<0.01746
04/16/08	2	C	Cell 2C	3 - 4	<0.000907	<0.000907	<0.000907	<0.000907	<0.000907
10/28/08	2	C	Cell 2C	3 - 4	<0.00301	<0.00502	<0.00502	<0.00502	<0.01807
04/16/08	2	D	Cell 2D	3 - 4	<0.000832	<0.000832	<0.000832	<0.000832	<0.000832
10/28/08	2	D	Cell 2D	3 - 4	<0.00270	<0.00450	<0.00450	<0.00450	<0.0162
Background Samples									
07/14/06	1	A	Cell 1A	3 - 4	<0.025	<0.025	<0.025	<0.050	<0.125
07/14/06	1	B	Cell 1B	3 - 4	<0.025	<0.025	<0.025	<0.050	<0.125
07/14/06	1	C	Cell 1C	3 - 4	<0.025	<0.025	<0.025	<0.050	<0.125
07/14/06	2	A	Cell 2A	3 - 4	<0.025	<0.025	<0.025	<0.050	<0.125
07/14/06	2	B	Cell 2B	3 - 4	<0.025	<0.025	<0.025	<0.050	<0.125
07/14/06	2	C	Cell 2C	3 - 4	<0.025	<0.025	<0.025	<0.050	<0.125
07/14/06	2	D	Cell 2D	3 - 4	<0.025	<0.025	<0.025	<0.050	<0.125

Notes

Analysis performed by DHL Analytical, Round Rock, TX

Results are reported in milligram per Kilograms (mg/Kg).

< - Below method detection limit

Table 6B
2008 Vadose Zone Soil TPH Analytical Summary
Targa Midstream - Eunice Gas Plant
Lea County, New Mexico

Date	Cell Number	Cell Letter	Sample Number	Sample Depth (Feet)	TPH - GRO C6-C10	TPH - DRO C10-C28	Total TPH
Vadose Zone Samples							
04/16/08	1	A	Cell 1A	3 - 4	<0.0630	<3.23	<3.293
10/28/08	1	A	Cell 1A	3 - 4	<0.0655	<3.28	<3.3455
04/16/08	1	B	Cell 1B	3 - 4	<0.0608	<2.98	<3.0408
10/28/08	1	B	Cell 1B	3 - 4	<0.0631	<3.44	<3.5031
04/16/08	1	C	Cell 1C	3 - 4	**14.4**	**336**	**350.4**
04/16/08	1	C	Cell 1C-1	3 - 4	<0.063	<3.05	<3.113
10/28/08	1	C	Cell 1C	3 - 4	<0.0569	<3.26	<3.3169
10/28/08	1	C	Cell 1C-1	3 - 4	<0.0615	<3.09	<3.1515
04/16/08	2	A	Cell 2A	3 - 4	<0.0665	<3.17	<3.2365
10/28/08	2	A	Cell 2A	3 - 4	<0.0591	**7.93**	**7.93**
04/16/08	2	B	Cell 2B	3 - 4	<0.062	<2.94	<3.002
10/28/08	2	B	Cell 2B	3 - 4	**0.103**	**25.5**	**25.603**
04/16/08	2	C	Cell 2C	3 - 4	<0.0628	<3.1	<3.1628
10/28/08	2	C	Cell 2C	3 - 4	<0.0573	<3.24	<3.2973
04/16/08	2	D	Cell 2D	3 - 4	<0.0577	<3.1	<3.1577
10/28/08	2	D	Cell 2D	3 - 4	<0.0527	**16.1**	**16.1**
Background Samples							
11/20/06	1	A	Cell 1A	3 - 4	<10	<10	<10
11/29/06	1	B	Cell 1B	3 - 4	<10	<10	<10
11/29/06	1	C	Cell 1C	3 - 4	<10	<10	<10
11/29/06	2	A	Cell 2A	3 - 4	<10	<10	<10
11/29/06	2	B	Cell 2B	3 - 4	<10	<10	<10
11/29/06	2	C	Cell 2C	3 - 4	<10	<10	<10
11/29/06	2	D	Cell 2D	3 - 4	<10	<10	<10

Notes

Analysis performed by DHL Analytical, Round Rock, TX

Results are reported in milligram per Kilograms (mg/Kg).

< - Below method detection limit

Table 6C
2008 Vadose Zone Soil Metals Analytical Summary
Targa Midstream - Eunice Gas Plant
Lea County, New Mexico

Date	Cell Number	Cell Letter	Sample Number	Sample Depth (feet)	Arsenic	Barium	Cadmium	Chromium	Lead	Mercury	Selenium	Silver
Vadose Zone Samples												
04/16/08	1	A	Cell 1A	3 - 4	3.81	**276**	0.142	**3.69**	2.06	<0.0173	0.498	<0.104
10/28/08	1	A	Cell 1A	3 - 4	3.28	**220**	0.136	**6.83**	2.87	<0.0151	1.11	<0.0963
04/16/08	1	B	Cell 1B	3 - 4	1.56	25.2	<0.102	**6.22**	**3.22**	<0.0159	**0.516**	<0.102
10/28/08	1	B	Cell 1B	3 - 4	**3.77**	**190**	<0.108	4.50	**2.60**	<0.0171	**0.841**	<0.108
04/16/08	1	C	Cell 1C	3 - 4	**3.67**	**321**	0.114	1.80	0.766	<0.0163	<0.16	<0.107
04/16/08	1	C	Cell 1C-1	3 - 4	**3.62**	**140**	<0.102	2.77	1.230	<0.0158	0.575	<0.102
10/28/08	1	C	Cell 1C	3 - 4	**3.43**	**292**	<0.0952	1.58	0.968	<0.0147	0.484	<0.0952
10/28/08	1	C	Cell 1C-1	3 - 4	**3.43**	2.92	<0.0952	1.58	0.968	<0.0147	0.484	<0.0952
04/16/08	2	A	Cell 2A	3 - 4	5.48	134	<0.102	**2.62**	**1.53**	<0.0172	0.334	<0.102
10/28/08	2	A	Cell 2A	3 - 4	3.70	**1,290**	<0.101	1.40	**1.18**	<0.0170	0.355	<0.101
04/16/08	2	B	Cell 2B	3 - 4	4.27	767	<0.095	**2.58**	**1.03**	<0.0158	0.241	<0.095
10/28/08	2	B	Cell 2B	3 - 4	6.01	468	<0.102	**2.72**	**1.73**	<0.0158	0.623	<0.102
04/16/08	2	C	Cell 2C	3 - 4	5.29	**1,150**	<0.0934	1.65	0.73	<0.0163	0.267	<0.0934
10/28/08	2	C	Cell 2C	3 - 4	3.57	**702**	<0.0967	2.39	**1.71**	<0.0152	0.570	<0.0967
04/16/08	2	D	Cell 2D	3 - 4	3.28	**634**	<0.1	**5.97**	**1.50**	<0.0165	0.391	<0.1
10/28/08	2	D	Cell 2D	3 - 4	3.05	**1,140**	<0.0940	**3.29**	**1.90**	<0.0166	0.603	<0.0940
Vadose Zone Background Samples												
10/04/06	1	A	Cell 1A	3 - 4	7.02	133	0.41	3.15	4.3	0.008814	1.18	0.29
10/04/06	1	B	Cell 1B	3 - 4	2.94	99.1	<0.173	5.27	2.17	0.0105	0.163	0.242
10/04/06	1	C	Cell 1C	3 - 4	2.43	116	<0.173	5.27	1.51	0.003743	<0.751	0.235
07/18/06	2	A	Cell 2A	3 - 4	6.02	481	<0.346	2.09	0.607	0.01469	<0.751	<0.202
07/18/06	2	B	Cell 2B	3 - 4	6.59	1210	<0.346	2.50	0.568	0.01566	<0.751	<0.202
07/18/06	2	C	Cell 2C	3 - 4	4.20	195	<0.346	2.90	0.770	0.01597	<0.751	<0.202
10/12/07	2	D	Cell 2D	2 - 3	4.4	500	<0.25	1.9	0.63	<0.032	1.4	0.32

Notes

Analysis performed by DHL Analytical, Round Rock, TX
Results are reported in milligram per Kilograms (mg/Kg).
Depth in feet below cell
< - Below method detection limit

Table 6D
2008 Vadose Zone Soil Chloride Analytical Summary
Targa Midstream - Eunice Gas Plant
Lea County, New Mexico

	Cell Number	Cell Letter	Sample Number	Sample Depth (Feet)	Chloride
Vadose Zone Samples					
04/16/08	1	A	Cell 1A	3 - 4	**3,710**
10/28/08	1	A	Cell 1A	3 - 4	**1,210**
04/16/08	1	B	Cell 1B	3 - 4	25.3
10/28/08	1	B	Cell 1B	3 - 4	**1,770**
04/16/08	1	C	Cell 1C	3 - 4	**1,190**
04/16/08	1	C	Cell 1C-1	3 - 4	52.8
10/28/08	1	C	Cell 1C	3 - 4	80.6
10/28/08	1	C	Cell 1C-1	3 - 4	14.1
04/16/08	2	A	Cell 2A	3 - 4	31.9
10/28/08	2	A	Cell 2A	3 - 4	18.3
04/16/08	2	B	Cell 2B	3 - 4	<5.26
10/28/08	2	B	Cell 2B	3 - 4	45.8
04/16/08	2	C	Cell 2C	3 - 4	<5.23
10/28/08	2	C	Cell 2C	3 - 4	**75.3**
04/16/08	2	D	Cell 2D	3 - 4	**132**
10/28/08	2	D	Cell 2D	3 - 4	**14.1**
Vadose Zone Background Samples					
10/04/06	1	A	Cell 1A	3 - 4	400
10/04/06	1	B	Cell 1B	3 - 4	589
10/04/06	1	C	Cell 1C	3 - 4	115
07/18/06	2	A	Cell 2A	3 - 4	320
07/18/06	2	B	Cell 2B	3 - 4	241
07/18/06	2	C	Cell 2C	3 - 4	5.28
10/12/07	2	D	Cell 2D	3 - 4	6.0

Notes

Analysis performed by DHL Analytical, Round Rock, TX

Results are reported in milligram per Kilograms (mg/Kg).

Depth in feet below cell

< - Less than method detection limit

Table 7A
2008 Treatment Zone (Tilled Zone) Soil BTEX Analytical Summary
Targa Midstream - Eunice Gas Plant
Lea County, New Mexico

Date	Cell Number	Cell Letter	Sample Number	Sample Depth (Feet)	Benzene	Ethylbenzene	Toluene	Total Xylenes	Total BTEX
Action Level (mg/Kg):					**0.2**				**50**
3/13/2008	1	A	Cell 1A	0 - 1	<0.00308	<0.00513	<0.00513	<0.00513	<0.0185
6/27/2008	1	A	Cell 1A	0 - 1	<0.00314	<0.00524	<0.00524	<0.00524	<0.0189
9/25/2008	1	A	Cell 1A	0 - 1	<0.00293	<0.00488	<0.00488	<0.00488	<0.01757
11/6/2008	1	A	Cell 1A	0 - 1	<0.000871	<0.000871	<0.000871	<0.000871	<0.003484
3/13/2008	1	B	Cell 1B	0 - 1	<0.00271	<0.00452	<0.00452	<0.00452	<0.0163
6/27/2008	1	B	Cell 1B	0 - 1	<0.00292	**0.0278**	<0.00486	**0.533**	**0.5608**
6/27/2008	1	B	Cell 1B-1	0 - 1	<0.00365	**0.0265**	**0.0155**	**0.454**	**0.4805**
9/25/2008	1	B	Cell 1B	0 - 1	<0.00306	<0.00510	<0.00510	<0.00510	<0.01836
11/6/2008	1	B	Cell 1B	0 - 1	<0.000989	<0.000989	<0.000989	<0.000989	<0.03956
3/13/2008	1	C	Cell 1C	0 - 1	<0.00273	<0.00455	<0.00455	<0.00455	<0.0164
3/13/2008	1	C	Cell 1C-1	0 - 1	<0.00277	<0.00461	<0.00461	<0.00461	<0.0166
6/27/2008	1	C	Cell 1C	0 - 1	<0.000993	<0.000993	<0.000993	<0.000993	<0.003972
9/25/2008	1	C	Cell 1C	0 - 1	<0.00271	<0.00452	<0.00452	<0.00452	<0.01627
9/25/2008	1	C	Cell 1C-1	0 - 1	<0.00368	<0.00614	<0.00614	<0.00614	<0.02210
11/6/2008	1	C	Cell 1C	0 - 1	<0.00284	<0.00474	<0.00474	<0.00474	<0.01706
11/6/2008	1	C	Cell 1C-1	0 - 1	<0.00281	<0.00468	<0.00468	<0.00468	<0.01685
3/13/2008	2	A	Cell 2A	0 - 1	<0.00290	**0.0100**	**0.00865**	**0.0451**	**0.0638**
3/13/2008	2	A	Cell 2A-1	0 - 1	<0.00350	0.00680	<0.00583	**0.144**	**0.1508**
6/27/2008	2	A	Cell 2A	0 - 1	<0.00286	<0.00476	<0.00476	**0.0258**	**0.0258**
9/25/2008	2	A	Cell 2A	0 - 1	<0.00302	<0.00503	<0.00503	<0.00503	<0.01811
11/6/2008	2	A	Cell 2A	0 - 1	<0.00307	<0.00511	<0.00511	<0.00511	<0.0184
6/27/2008	2	B	Cell 2B	0 - 1	<0.00323	**0.496**	<0.00538	**4.61**	**5.1060**
9/25/2008	2	B	Cell 2B	0 - 1	<0.00296	**0.0329**	<0.00493	**0.135**	**0.1679**
11/6/2008	2	B	Cell 2B	0 - 1	<0.00290	**0.0117**	<0.00484	<0.00484	**0.0117**
3/13/2008	2	C	Cell 2C	0 - 1	<0.00295	**0.122**	**0.184**	**0.935**	**1.241**
6/27/2008	2	C	Cell 2C	0 - 1	<0.00275	<0.00458	<0.00458	**0.00540**	**0.00540**
9/25/2008	2	C	Cell 2C	0 - 1	<0.00275	<0.00458	<0.00458	<0.00458	<0.0165
11/6/2008	2	C	Cell 2C	0 - 1	<0.00286	<0.00477	<0.00477	<0.00477	<0.01717

Table 7A
2008 Treatment Zone (Tilled Zone) Soil BTEX Analytical Summary
Targa Midstream - Eunice Gas Plant
Lea County, New Mexico

Date	Cell Number	Cell Letter	Sample Number	Sample Depth (Feet)	Benzene	Ethylbenzene	Toluene	Total Xylenes	Total BTEX
Action Level (mg/Kg):					**0.2**				**50**
3/13/2008	2	D	Cell 2D	0 - 1	<0.00261	<0.00435	<0.00435	<0.00435	<0.0157
6/27/2008	2	D	Cell 2D	0 - 1	<0.00308	<0.00514	<0.00514	<0.00514	<0.0185
9/25/2008	2	D	Cell 2D	0 - 1	<0.00280	<0.00467	<0.00467	<0.00467	<0.01681
11/6/2008	2	D	Cell 2D	0 - 1	<0.00299	<0.00499	<0.00499	<0.00499	<0.01796

Notes

Analysis perform Results are reported in milligram per kilogram (mg/Kg)

Results are rep Below method detection limit

< - Below method detection limit

Table 7B
2008 Treatment Zone (Tilled Zone) Soil TPH Chloride Analytical Summary
Targa Midstream - Eunice Gas Plant
Lea County, New Mexico

Date	Cell Number	Cell Letter	Sample Number	Sample Depth (Feet)	TPH - GRO C6-C10	TPH - DRO C10-C28	Total TPH	Chloride
Action Level (mg/Kg):							**500**	**500**
3/13/2008	1	A	Cell 1A	0 - 1	<0.0616	**427**	**427**	114
6/27/2008	1	A	Cell 1A	0 - 1	<0.0603	**141**	**141**	154
9/25/2008	1	A	Cell 1A	0 - 1	<0.0564	**98.6**	**98.6**	10.5
11/6/2008	1	A	Cell 1A	0 - 1	<0.0607	**370**	**370**	10.6
3/13/2008	1	B	Cell 1B	0 - 1	<0.0523	<1.46	<1.51	51.4
6/27/2008	1	B	Cell 1B	0 - 1	**2.20**	**132**	**134**	71.7
6/27/2008	1	B	Cell 1B-1	0 - 1	**2.75**	**118**	**118**	24.1
9/25/2008	1	B	Cell 1B	0 - 1	<0.0576	**239**	**239**	30.9
11/6/2008	1	B	Cell 1B-1	0 - 1	<0.0616	**131**	**131**	65.9
3/13/2008	1	C	Cell 1C	0 - 1	**0.0689**	**1,970**	**1,970**	254
3/13/2008	1	C	Cell 1C-1	0 - 1	**0.099**	**1,910**	**1,910**	180
6/27/2008	1	C	Cell 1C	0 - 1	<0.0596	**762**	**762**	191
9/25/2008	1	C	Cell 1C	0 - 1	<0.0566	**563**	**563**	233
9/25/2008	1	C	Cell 1C-1	0 - 1	<0.0653	**595**	**595**	252
11/6/2008	1	C	Cell 1C	0 - 1	<0.0568	**636**	**636**	103
11/6/2008	1	C	Cell 1C-1	0 - 1	<0.0628	**600**	**600**	**579**
3/13/2008	2	A	Cell 2A	0 - 1	**2.92**	**5,430**	**5,433**	291
3/13/2008	2	A	Cell 2A-1	0 - 1	**4.33**	**7,150**	**7,158**	353
6/27/2008	2	A	Cell 2A	0 - 1	**1.06**	**4,280**	**4,281**	221
9/25/2008	2	A	Cell 2A	0 - 1	**0.340**	**3,190**	**3,190**	134
11/6/2008	2	A	Cell 2A	0 - 1	<0.0602	**3,270**	**3,270**	81
6/27/2008	2	B	Cell 2B	0 - 1	**22.1**	**4,990**	**5,012**	**3,320**
9/25/2008	2	B	Cell 2B	0 - 1	**13.5**	**5,230**	**5,244**	**950**
11/6/2008	2	B	Cell 2B	0 - 1	**6.42**	**5,890**	**5,896**	**1,070**
3/13/2008	2	C	Cell 2C	0 - 1	4.95	3,840	**3,845**	361
6/27/2008	2	C	Cell 2C	0 - 1	1.90	5,960	**5,962**	451
9/25/2008	2	C	Cell 2C	0 - 1	0.483	3,760	**3,760**	313
11/6/2008	2	C	Cell 2C	0 - 1	0.578	5,830	**5,831**	167

Table 7B
2008 Treatment Zone (Tilled Zone) Soil TPH Chloride Analytical Summary
Targa Midstream - Eunice Gas Plant
Lea County, New Mexico

Date	Cell Number	Cell Letter	Sample Number	Sample Depth (Feet)	TPH - GRO C6-C10	TPH - DRO C10-C28	Total TPH	Chloride
Action Level (mg/Kg):							**500**	**500**
3/13/2008	2	D	Cell 2D	0 - 1	0.421	2,570	**2,570**	334
6/27/2008	2	D	Cell 2D	0 - 1	0.101	1,710	**1,710**	367
9/25/2008	2	D	Cell 2D	0 - 1	<0.0612	1,040	**1,040**	211
11/6/2008	2	D	Cell 2D	0 - 1	<0.0610	1,110	**1,110**	130

Notes

Analysis perform Results are reported in milligram per kilogram (mg/Kg)

Results are rep Below method detection limit

< - Below method detection limit

Table 8
3103 List Analytical Summary - Treatment Zone (Tilled Zone) Surface Waste Management Facility
Targa Midstream - Eunice Gas Plant
Lea County, New Mexico

Parameters	Reporting Units	WQQC Limits	Cell 1A (3-4) Background 7/14/2006	Cell 1A (3-4) Background 2006	Cell 1A (0-1) 11/6/2008	Cell 1B (3-4) Background 7/14/2006	Cell 1B (3-4) Background 10/4/2006	Cell 1B (0-1) 11/6/2008	Cell 1C (3-4) Background 2006	Cell 1C (3-4) Background 2006	Cell 1C (3-4) Background 2006	Cell 1C (0-1) 6/27/2008
Volatile Organic Compounds												
1,1,1-Trichloroethane	mg/Kg	0.06	<0.025	<0.025	<0.000871	<0.025	<0.025	<0.000989	<0.025	<0.025	<0.025	<0.000993
1,1,2,2-Tetrachloroethane	mg/Kg	0.01	<0.025	<0.025	<0.000871	<0.025	<0.025	<0.000989	<0.025	<0.025	<0.025	<0.000993
1,1,2-Trichloroethane	mg/Kg	0.01	<0.025	<0.025	<0.000871	<0.025	<0.025	<0.000989	<0.025	<0.025	<0.025	<0.000993
1,1-Dichloroethane	mg/Kg	0.025	<0.025	<0.025	<0.000871	<0.025	<0.025	<0.000989	<0.025	<0.025	<0.025	<0.000993
1,1-Dichloroethene	mg/Kg	0.005	<0.025	<0.025	<0.000871	<0.025	<0.025	<0.000989	<0.025	<0.025	<0.025	<0.000993
1,2-Dibromoethane	mg/Kg	0.0001	<0.025	<0.025	<0.000871	<0.025	<0.025	<0.000989	<0.025	<0.025	<0.025	<0.000993
1,2-Dichloroethane	mg/Kg	0.01	<0.025	<0.025	<0.000871	<0.025	<0.025	<0.000989	<0.025	<0.025	<0.025	<0.000993
Benzene	mg/Kg	0.01	<0.025	<0.025	<0.000871	<0.025	<0.025	<0.000989	<0.025	<0.025	<0.025	<0.000993
Carbon tetrachloride	mg/Kg	0.01	<0.025	<0.025	<0.000871	<0.025	<0.025	<0.000989	<0.025	<0.025	<0.025	<0.000993
Chloroform	mg/Kg	0.1	<0.025	<0.025	<0.000871	<0.025	<0.025	<0.000989	<0.025	<0.025	<0.025	<0.000993
Ethylbenzene	mg/Kg	0.75	<0.025	0.019	<0.000871	<0.025	<0.025	<0.000989	<0.025	<0.025	<0.025	<0.000993
Methylene chloride	mg/Kg	0.1	<0.025	<0.025	<0.00435	<0.025	<0.025	<0.00495	<0.025	<0.025	<0.025	<0.00497
Tetrachloroethene	mg/Kg	0.02	<0.025	<0.025	<0.000871	<0.025	<0.025	<0.000989	<0.025	<0.025	<0.025	<0.000993
Toluene	mg/Kg	0.75	<0.025	0.0193	<0.000871	<0.025	<0.025	<0.000989	<0.025	<0.025	<0.025	<0.000993
Total Xylenes	mg/Kg	0.62	<0.025	0.0245	<0.000871	<0.025	<0.025	<0.000989	<0.025	<0.025	<0.025	<0.000993
Trichloroethene	mg/Kg	0.1	<0.025	<0.025	<0.000871	<0.025	<0.025	<0.000989	<0.025	<0.025	<0.025	<0.000993
Vinyl chloride	mg/Kg	0.001	<0.025	<0.025	<0.000871	<0.025	<0.025	<0.000989	<0.025	<0.025	<0.025	<0.000993
Semivolatile & PAH Compounds												
1-Methylnaphthalene	mg/Kg	0.03	--	0.13	<0.00956	--	0.428	<0.0096	--	--	0.0479	<0.00659
2,3,4,6-Tetrachlorophenol	mg/Kg	0.005	--	--	<0.0405	--	--	<0.0402	--	--	--	<0.0395
2,4,5-Trichlorophenol	mg/Kg	0.005	--	--	<0.071	--	--	<0.0703	--	--	--	<0.0692
2,4,6-Trichlorophenol	mg/Kg	0.005	--	--	<0.0608	--	--	<0.0603	--	--	--	<0.0593
2,4-Dichlorophenol	mg/Kg	0.005	--	--	<0.0811	--	--	<0.0804	--	--	--	<0.0791
2,4-Dimethylphenol	mg/Kg	0.005	--	--	<0.0608	--	--	<0.0603	--	--	--	<0.0593
2,4-Dinitrophenol	mg/Kg	0.005	--	--	<0.0507	--	--	<0.0502	--	--	--	<0.0494
2,6-Dichlorophenol	mg/Kg	0.005	--	--	<0.0608	--	--	<0.0603	--	--	--	<0.0593
2-Methylnaphthalene	mg/Kg	0.03	--	--	<0.0191	--	--	<0.0192	--	--	--	<0.0132
2-Methylphenol	mg/Kg	0.005	--	--	<0.071	--	--	<0.0703	--	--	--	<0.0692
2-Nitrophenol	mg/Kg	0.005	--	--	<0.071	--	--	<0.0703	--	--	--	<0.0692
4,6-Dinitro-2-methylphenol	mg/Kg	0.005	--	--	<0.0811	--	--	<0.0804	--	--	--	<0.0791
4-Chloro-3-methylphenol	mg/Kg	0.005	--	--	<0.0608	--	--	<0.0603	--	--	--	<0.0593
4-Methylphenol	mg/Kg	0.005	--	--	<0.101	--	--	<0.1	--	--	--	<0.0988
4-Nitrophenol	mg/Kg	0.005	--	--	<0.142	--	--	<0.141	--	--	--	<0.138
Acenaphthene	mg/Kg	0.03	<0.2	--	<0.0191	<0.2	--	<0.0192	<0.2	<0.2	--	<0.0132
Acenaphthylene	mg/Kg	0.03	<0.2	--	<0.00956	<0.2	--	<0.0096	<0.2	<0.2	--	<0.00659
Anthracene	mg/Kg	0.03	<0.2	--	**0.0158**	<0.2	--	**0.0182**	<0.2	<0.2	--	**0.00750**
Benzo[a]anthracene	mg/Kg	0.03	<0.2	--	**0.0446**	<0.2	--	**0.0196**	<0.2	<0.2	--	**0.0285**
Benzo[a]pyrene	mg/Kg	0.0007	<0.2	--	<0.0287	<0.2	--	<0.0288	<0.2	<0.2	--	<0.0198
Benzo[b]fluoranthene	mg/Kg	0.03	<0.2	--	<0.0191	<0.2	--	**0.0214**	<0.2	<0.2	--	**0.0470**
Benzo[g,h,i]perylene	mg/Kg	0.03	<0.2	--	<0.0191	<0.2	--	<0.0192	<0.2	<0.2	--	**0.0208**
Benzo[k]fluoranthene	mg/Kg	0.03	<0.2	--	<0.0287	<0.2	--	<0.0288	<0.2	<0.2	--	<0.0198
Chrysene	mg/Kg	0.03	<0.2	--	<0.0191	<0.2	--	<0.0192	<0.2	<0.2	--	**0.0701**
Dibenz[a,h]anthracene	mg/Kg	0.03	<0.032	--	<0.0191	<0.032	--	<0.0192	<0.032	<0.032	--	<0.0132
Fluoranthene	mg/Kg	0.03	<0.2	--	**0.0224**	<0.2	--	**0.0460**	<0.2	<0.2	--	**0.0552**
Fluorene	mg/Kg	0.03	<0.2	--	<0.00956	<0.2	--	<0.0096	<0.2	<0.2	--	<0.00659
Indeno[1,2,3-cd]pyrene	mg/Kg	0.03	<0.2	--	<0.00956	<0.2	--	**0.0101**	<0.2	<0.2	--	**0.0194**
Naphthalene	mg/Kg	0.03	<0.2	--	<0.00956	<0.2	--	<0.0096	<0.2	<0.2	--	<0.00659
Pentachlorophenol	mg/Kg	0.005	--	--	<0.0912	--	--	<0.0904	--	--	--	<0.0889
Phenanthrene	mg/Kg	0.03	<0.2	--	<0.00956	<0.2	--	**0.0154**	<0.2	<0.2	--	**0.0378**
Phenol	mg/Kg	0.005	--	--	<0.0608	--	--	<0.0603	--	--	--	<0.0593
Pyrene	mg/Kg	0.03	<0.2	--	<0.0191	<0.2	--	**0.0558**	<0.2	<0.2	--	**0.0512**
Total Phenols	mg/Kg	--	<0.05	--	--	<0.05	--	--	<0.05	<0.05	--	--

Table 8
3103 List Analytical Summary - Treatment Zone (Tilled Zone) Surface Waste Management Facility
Targa Midstream - Eunice Gas Plant
Lea County, New Mexico

Parameters	Reporting Units	WQQC Limits	Cell 1A (3-4) Background 7/14/2006	Cell 1A (3-4) Background 2006	Cell 1A (0-1) 11/6/2008	Cell 1B (3-4) Background 7/14/2006	Cell 1B (3-4) Background 10/4/2006	Cell 1B (0-1) 11/6/2008	Cell 1C (3-4) Background 2006	Cell 1C (3-4) Background 2006	Cell 1C (3-4) Background 2006	Cell 1C (0-1) 6/27/2008
PCB Compounds												
Aroclor 1016	mg/Kg	0.001	<0.0321	--	<0.0505	<0.0184	--	<0.0503	<0.0186	--	--	<0.0472
Aroclor 1221	mg/Kg	0.001	<0.0321	--	<0.0505	<0.0184	--	<0.0503	<0.0186	--	--	<0.0472
Aroclor 1232	mg/Kg	0.001	<0.0321	--	<0.0505	<0.0184	--	<0.0503	<0.0186	--	--	<0.0472
Aroclor 1242	mg/Kg	0.001	<0.0321	--	<0.0505	<0.0184	--	<0.0503	<0.0186	--	--	<0.0472
Aroclor 1248	mg/Kg	0.001	<0.0321	--	<0.0505	<0.0184	--	<0.0503	<0.0186	--	--	<0.0472
Aroclor 1254	mg/Kg	0.001	<0.0321	--	<0.0505	<0.0184	--	<0.0503	<0.0186	--	--	<0.0472
Aroclor 1260	mg/Kg	0.001	<0.0321	--	<0.0505	<0.0184	--	<0.0503	<0.0186	--	--	<0.0472
Metals												
Arsenic	mg/Kg	0.1	2.99	7.02	3.94	2.79	2.94	**3.48**	1.46	2.87	2.43	2.00
Barium	mg/Kg	1.0	59.8	133	128	157	99.1	92.7	51.3	91.2	116	53.2
Cadmium	mg/Kg	0.01	<0.346	0.405	0.301	<0.346	<0.173	0.193	<0.346	0.118	<0.173	<0.0993
Chromium	mg/Kg	0.05	4.68	3.15	**14.5**	80.0	5.27	9.27	7.48	2.24	2.77	**7.81**
Copper	mg/Kg	1.0	3.09	4.9	**18.4**	21.4	5.05	16.7	4.08	2.98	3.65	3.03
Iron	mg/Kg	1.0	3480	1070	**5040**	4100	2090	**6230**	4910	1110	1300	**6690**
Lead	mg/Kg	0.05	2.16	4.30	**11.5**	6.86	49.1	9.59	3.16	1.61	1.51	**4.37**
Manganese	mg/Kg	0.2	39.0	30.6	**68.7**	75.7	2.17	64.2	72.8	66.3	17.8	61.7
Selenium	mg/Kg	0.05	1.93	1.18	1.32	0.506	0.163	**1.44**	<1.50	<0.751	<0.751	**0.796**
Silver	mg/Kg	0.05	<0.202	0.29	<0.093	<0.202	0.242	<0.0942	<0.202	0.0364	0.235	<0.0993
Uranium	mg/Kg	0.03	<5	--	<0.93	--	--	<0.942	<5.59	--	--	<0.993
Zinc	mg/Kg	10.0	21.1	17.1	**45.5**	50.1	18.6	38.9	20.5	5.95	8.68	14.1
Mercury	mg/Kg	0.002	0.02505	0.008814	**1.85**	0.1308	0.0105	<0.0154	0.06681	0.04745	0.003743	<0.0148
Total Petroleum Hydrocartons												
TPH - DRO	mg/Kg	--	<10	--	**370**	<10	--	**131**	<10	--	--	**762**
TPH - GRO	mg/Kg	--	<10	--	<0.0607	<10	--	<0.0616	<10	--	--	<0.0596
TPH - Total (8015B)	mg/Kg	500	<10	--	**370**	<10	--	**131**	<10	--	--	**762**
Inorganic Compounds												
Chloride	mg/Kg	250	400	--	10.6	589	--	65.9	115	744	--	**191**
Fluoride	mg/Kg	1.6	5.35	--	2.6	12.8	--	1.53	5.66	4.56	--	**1.55**
Nitrate-N	mg/Kg	10.0	2.47	--	<5.11	2.66	--	<5.11	0.835	0.670	--	<5.1
Sulfate	mg/Kg	600	112	--	93.9	86.2	--	**2050**	48.0	129	--	**3130**
Cyanide, Total	mg/Kg	0.2	<0.09	--	<0.197	<0.09	--	<0.203	<0.09	<0.09	<0.09	<0.153
pH	pH Units	6 - 9	--	--	7.53	--	--	7.54	--	--	--	7.23
Radioactivity												
Radium 226 & Radium 228	pCi/gm	30	--	--	3.05	--	--	6.3	--	--	--	--

Notes
Analyses performed by DHL Analytical, Round Rock, Texas
Radioactivity analysis was performed by Environmental Laboratory of Texas, Odessa, Texas
WQQC limits are based on the 3101 Standard for Groundwater, limits are in mg/L
mg/Kg - milligrams per kilogram
< - Less than method detection limit

Table 9
3103 List Analytical Summary - Vadose Zone (3' - 4') Surface Waste Management Facility
Targa Midstream - Eunice Gas Plant
Lea County, New Mexico

Parameter	Reporting Units	WQQC Limits	Cell 1A (3-4) Background 7/14/2006	Cell 1A (3-4) Background 2006	Cell 1A (3-4) 4/16/2008	Cell 1A (3-4) 10/28/2008	Cell 1B (3-4) Background 7/14/2006	Cell 1B (3-4) Background 10/4/2006	Cell 1B (3-4) 4/16/2008	Cell 1B (3-4) 10/28/2008	Cell 1C (3-4) Background 2006	Cell 1C (3-4) Background 2006	Cell 1C (3-4) Background 2006	Cell 1C (3-4) 4/16/2008	Cell 1C-1 (3-4) 4/16/2008	Cell 1C (3-4) 10/28/2008
Volatile Organic Compounds																
1,1,1-Trichloroethane	mg/Kg	0.06	<0.025	<0.025	<0.0011	--	<0.025	<0.025	<0.00096	--	<0.025	<0.025	<0.025	<0.00106	<0.001	--
1,1,2,2-Tetrachloroethane	mg/Kg	0.01	<0.025	<0.025	<0.0011	--	<0.025	<0.025	<0.00096	--	<0.025	<0.025	<0.025	<0.00106	<0.001	--
1,1,2-Trichloroethane	mg/Kg	0.01	<0.025	<0.025	<0.0011	--	<0.025	<0.025	<0.00096	--	<0.025	<0.025	<0.025	<0.00106	<0.001	--
1,1-Dichloroethane	mg/Kg	0.025	<0.025	<0.025	<0.0011	--	<0.025	<0.025	<0.00096	--	<0.025	<0.025	<0.025	<0.00106	<0.001	--
1,1-Dichloroethene	mg/Kg	0.005	<0.025	<0.025	<0.0011	--	<0.025	<0.025	<0.00096	--	<0.025	<0.025	<0.025	<0.00106	<0.001	--
1,2-Dibromoethane	mg/Kg	0.0001	<0.025	<0.025	<0.0011	--	<0.025	<0.025	<0.00096	--	<0.025	<0.025	<0.025	<0.00106	<0.001	--
1,2-Dichloroethane	mg/Kg	0.01	<0.025	<0.025	<0.0011	--	<0.025	<0.025	<0.00096	--	<0.025	<0.025	<0.025	<0.00106	<0.001	--
Benzene	mg/Kg	0.01	<0.025	<0.025	<0.0011	<0.00308	<0.025	<0.025	<0.00096	<0.00329	<0.025	<0.025	<0.025	<0.00106	<0.001	<0.00293
Carbon tetrachloride	mg/Kg	0.01	<0.025	<0.025	<0.0011	--	<0.025	<0.025	<0.00096	--	<0.025	<0.025	<0.025	<0.00106	<0.001	--
Chloroform	mg/Kg	0.1	<0.025	<0.025	<0.0011	--	<0.025	<0.025	<0.00096	--	<0.025	<0.025	<0.025	<0.00106	<0.001	--
Ethylbenzene	mg/Kg	0.75	<0.025	0.019	<0.0011	<0.00513	<0.025	<0.025	<0.00096	<0.00548	<0.025	<0.025	<0.025	**0.0965**	<0.001	<0.00489
Methylene chloride	mg/Kg	0.1	<0.025	<0.025	<0.00549	--	<0.025	<0.025	<0.0048	--	<0.025	<0.025	<0.025	<0.0053	<0.00501	--
Tetrachloroethene	mg/Kg	0.02	<0.025	<0.025	<0.0011	--	<0.025	<0.025	<0.00096	--	<0.025	<0.025	<0.025	<0.00106	<0.001	--
Toluene	mg/Kg	0.75	<0.025	0.0193	<0.0011	<0.00513	<0.025	<0.025	<0.00096	<0.00548	<0.025	<0.025	<0.025	<0.00106	<0.001	<0.00489
Total Xylenes	mg/Kg	0.62	<0.025	0.0245	<0.0011	<0.00513	<0.025	<0.025	<0.00096	<0.00548	<0.025	<0.025	<0.025	**0.0583**	<0.001	<0.00489
Trichloroethene	mg/Kg	0.1	<0.025	<0.025	<0.0011	--	<0.025	<0.025	<0.00096	--	<0.025	<0.025	<0.025	<0.00106	<0.001	--
Vinyl chloride	mg/Kg	0.001	<0.025	<0.025	<0.0011	--	<0.025	<0.025	<0.00096	--	<0.025	<0.025	<0.025	<0.00106	<0.001	--
Semivolatile & PAH Compounds																
1-Methylnaphthalene	mg/Kg	0.03	--	0.13	<0.0549	--	--	0.428	<0.0504	--	--	--	0.0479	**1.53**	<0.0534	--
2,3,4,6-Tetrachlorophenol	mg/Kg	0.005	--	--	<0.0439	--	--	--	<0.0403	--	--	--	--	<0.0407	<0.0427	--
2,4,5-Trichlorophenol	mg/Kg	0.005	--	--	<0.0769	--	--	--	<0.0706	--	--	--	--	<0.0712	<0.0748	--
2,4,6-Trichlorophenol	mg/Kg	0.005	--	--	<0.0659	--	--	--	<0.0605	--	--	--	--	<0.061	<0.0641	--
2,4-Dichlorophenol	mg/Kg	0.005	--	--	<0.0879	--	--	--	<0.0807	--	--	--	--	<0.0813	<0.0855	--
2,4-Dimethylphenol	mg/Kg	0.005	--	--	<0.0659	--	--	--	<0.0605	--	--	--	--	<0.061	<0.0641	--
2,4-Dinitrophenol	mg/Kg	0.005	--	--	<0.0549	--	--	--	<0.0504	--	--	--	--	<0.0508	<0.0534	--
2,6-Dichlorophenol	mg/Kg	0.005	--	--	<0.0659	--	--	--	<0.0605	--	--	--	--	<0.061	<0.0641	--
2-Methylnaphthalene	mg/Kg	0.03	--	--	<0.022	--	--	--	<0.0202	--	--	--	--	**1.53**	<0.0214	--
2-Methylphenol	mg/Kg	0.005	--	--	<0.0769	--	--	--	<0.0706	--	--	--	--	<0.0712	<0.0748	--
2-Nitrophenol	mg/Kg	0.005	--	--	<0.0769	--	--	--	<0.0706	--	--	--	--	<0.0712	<0.0748	--
4,6-Dinitro-2-methylphenol	mg/Kg	0.005	--	--	<0.0879	--	--	--	<0.0807	--	--	--	--	<0.0813	<0.0855	--
4-Chloro-3-methylphenol	mg/Kg	0.005	--	--	<0.0659	--	--	--	<0.0605	--	--	--	--	<0.061	<0.0641	--
4-Methylphenol	mg/Kg	0.005	--	--	<0.11	--	--	--	<0.101	--	--	--	--	<0.102	<0.107	--
4-Nitrophenol	mg/Kg	0.005	--	--	<0.154	--	--	--	<0.141	--	--	--	--	<0.142	<0.15	--
Acenaphthene	mg/Kg	0.03	<0.2	--	<0.0146	--	<0.2	--	<0.0134	--	<0.2	<0.2	--	<0.0136	<0.0142	--
Acenaphthylene	mg/Kg	0.03	<0.2	--	<0.00732	--	<0.2	--	<0.00672	--	<0.2	<0.2	--	<0.00678	<0.00712	--
Anthracene	mg/Kg	0.03	<0.2	--	<0.00732	--	<0.2	--	<0.00672	--	<0.2	<0.2	--	<0.00678	<0.00712	--
Benzo[a]anthracene	mg/Kg	0.03	<0.2	--	<0.0146	--	<0.2	--	<0.0134	--	<0.2	<0.2	--	<0.0136	<0.0142	--
Benzo[a]pyrene	mg/Kg	0.0007	<0.2	--	<0.022	--	<0.2	--	<0.0202	--	<0.2	<0.2	--	<0.0203	<0.0214	--
Benzo[b]fluoranthene	mg/Kg	0.03	<0.2	--	<0.0146	--	<0.2	--	<0.0134	--	<0.2	<0.2	--	<0.0136	<0.0142	--
Benzo[g,h,i]perylene	mg/Kg	0.03	<0.2	--	<0.0146	--	<0.2	--	<0.0134	--	<0.2	<0.2	--	<0.0136	<0.0142	--
Benzo[k]fluoranthene	mg/Kg	0.03	<0.2	--	<0.022	--	<0.2	--	<0.0202	--	<0.2	<0.2	--	<0.0203	<0.0214	--
Chrysene	mg/Kg	0.03	<0.2	--	<0.0146	--	<0.2	--	<0.0134	--	<0.2	<0.2	--	<0.0136	<0.0142	--
Dibenz[a,h]anthracene	mg/Kg	0.03	<0.032	--	<0.0146	--	<0.032	--	<0.0134	--	<0.032	<0.032	--	<0.0136	<0.0142	--
Fluoranthene	mg/Kg	0.03	<0.2	--	<0.00732	--	<0.2	--	<0.00672	--	<0.2	<0.2	--	<0.00678	<0.00712	--
Fluorene	mg/Kg	0.03	<0.2	--	<0.00732	--	<0.2	--	<0.00672	--	<0.2	<0.2	--	<0.00678	<0.00712	--
Indeno[1,2,3-cd]pyrene	mg/Kg	0.03	<0.2	--	<0.00732	--	<0.2	--	<0.00672	--	<0.2	<0.2	--	<0.00678	<0.00712	--
Naphthalene	mg/Kg	0.03	<0.2	--	<0.00732	--	<0.2	--	<0.00672	--	<0.2	<0.2	--	**0.178**	<0.00712	--
Pentachlorophenol	mg/Kg	0.005	--	--	<0.0989	--	--	--	<0.0908	--	--	--	--	<0.0915	<0.0962	--
Phenanthrene	mg/Kg	0.03	<0.2	--	<0.00732	--	<0.2	--	<0.00672	--	<0.2	<0.2	--	**0.0484**	<0.00712	--
Phenol	mg/Kg	0.005	--	--	<0.0659	--	--	--	<0.0605	--	--	--	--	<0.061	<0.0641	--
Pyrene	mg/Kg	0.03	<0.2	--	<0.0146	--	<0.2	--	<0.0134	--	<0.2	<0.2	--	<0.0136	<0.0142	--
Total Phenols	mg/Kg	--	<0.05	--	--	--	<0.05	--	--	--	<0.05	<0.05	--	--	--	--

Table 9
3103 List Analytical Summary - Vadose Zone (3' - 4') Surface Waste Management Facility
Targa Midstream - Eunice Gas Plant
Lea County, New Mexico

Parameter	Reporting Units	WQQC Limits	Cell 1A (3-4) Background 7/14/2006	Cell 1A (3-4) Background 2006	Cell 1A (3-4) 4/16/2008	Cell 1A (3-4) 10/28/2008	Cell 1B (3-4) Background 7/14/2006	Cell 1B (3-4) Background 10/4/2006	Cell 1B (3-4) 4/16/2008	Cell 1B (3-4) 10/28/2008	Cell 1C (3-4) Background 2006	Cell 1C (3-4) Background 2006	Cell 1C (3-4) Background 2006	Cell 1C (3-4) 4/16/2008	Cell 1C-1 (3-4) 4/16/2008	Cell 1C (3-4) 10/28/2008
PCB Compounds																
Aroclor 1016	mg/Kg	0.001	<0.0321	--	<0.0524	--	<0.0184	--	<0.051	--	<0.0186	--	--	<0.0503	<0.0499	--
Aroclor 1221	mg/Kg	0.001	<0.0321	--	<0.0524	--	<0.0184	--	<0.051	--	<0.0186	--	--	<0.0503	<0.0499	--
Aroclor 1232	mg/Kg	0.001	<0.0321	--	<0.0524	--	<0.0184	--	<0.051	--	<0.0186	--	--	<0.0503	<0.0499	--
Aroclor 1242	mg/Kg	0.001	<0.0321	--	<0.0524	--	<0.0184	--	<0.051	--	<0.0186	--	--	<0.0503	<0.0499	--
Aroclor 1248	mg/Kg	0.001	<0.0321	--	<0.0524	--	<0.0184	--	<0.051	--	<0.0186	--	--	**0.0775**	<0.0499	--
Aroclor 1254	mg/Kg	0.001	<0.0321	--	<0.0524	--	<0.0184	--	<0.051	--	<0.0186	--	--	<0.0503	<0.0499	--
Aroclor 1260	mg/Kg	0.001	<0.0321	--	<0.0524	--	<0.0184	--	<0.051	--	<0.0186	--	--	<0.0503	<0.0499	--
Metals																
Arsenic	mg/Kg	0.1	2.99	7.02	3.81	3.28	2.79	2.94	1.56	**3.77**	1.46	2.87	2.43	**3.67**	**3.62**	**3.43**
Barium	mg/Kg	1.0	59.8	133	**276**	**220**	157	99.1	25.2	**190**	51.3	91.2	116	**321**	**140**	**292**
Cadmium	mg/Kg	0.01	<0.346	0.405	**0.142**	**0.136**	<0.346	<0.173	<0.102	<0.108	<0.346	0.118	<0.173	0.114	<0.102	<0.0952
Chromium	mg/Kg	0.05	4.68	3.15	3.69	**6.83**	80.0	5.27	6.22	4.50	7.48	2.24	2.77	1.80	2.77	1.58
Copper	mg/Kg	1.0	3.09	4.9	4.43	3.13	21.4	5.05	4.08	3.43	4.08	2.98	3.65	**4.36**	**5.64**	**2.81**
Iron	mg/Kg	1.0	3480	1070	2500	3490	4100	2090	**4580**	**3230**	4910	1110	1300	1320	1630	1220
Lead	mg/Kg	0.05	2.16	4.30	2.06	2.87	6.86	49.1	3.22	2.60	3.16	1.61	1.51	0.766	1.23	0.968
Manganese	mg/Kg	0.2	39.0	30.6	**49.0**	**72.8**	75.7	2.17	48.6	33.7	72.8	66.3	17.8	14.2	18.7	14.1
Selenium	mg/Kg	0.05	1.93	1.18	0.498	1.11	0.506	0.163	**0.516**	**0.841**	<1.50	<0.751	<0.751	<0.16	0.575	0.484
Silver	mg/Kg	0.05	<0.202	0.29	<0.104	<0.0963	<0.202	0.242	<0.102	<0.108	<0.202	0.0364	0.235	<0.107	<0.102	<0.0952
Uranium	mg/Kg	0.03	<5	--	<1.04	<0.963	--	--	<1.02	<1.08	<5.59	--	--	<1.07	<1.02	<0.952
Zinc	mg/Kg	10.0	21.1	17.1	6.92	8.44	50.1	18.6	11.0	6.77	20.5	5.95	8.68	5.12	6.09	3.60
Mercury	mg/Kg	0.002	0.02505	0.008814	<0.0173	<0.0151	0.1308	0.0105	<0.0159	<0.0171	0.06681	0.04745	0.003743	<0.0163	<0.0158	<0.0147
Total Petroleum Hydrocartons																
TPH - GRO	mg/Kg	--	<10	--	<3.23	<0.0655	<10	--	<2.98	<0.0631	<10	--	--	**336**	<3.05	<0.0569
TPH - DRO	mg/Kg	--	<10	--	<0.0630	<3.28	<10	--	<0.0608	<3.44	<10	--	--	**14.4**	<0.063	<3.26
TPH - Total (8015B)	mg/Kg	500	<10	--	<3.293	<3.3455	<10	--	<3.0408	<3.5031	<10	--	--	**350.4**	<3.113	<3.3169
Inorganic Compounds																
Chloride	mg/Kg	250	400	--	**3710**	**1210**	**589**	--	25.3	**1770**	115	744	--	**1190**	52.8	80.6
Fluoride	mg/Kg	1.6	5.35	--	**8.99**	--	12.8	--	1.43	--	5.66	4.56	--	**8.58**	5.30	--
Nitrate-N	mg/Kg	10.0	2.47	--	<5.4	--	2.66	--	8.49	--	0.835	0.670	--	<5.37	<5.42	--
Sulfate	mg/Kg	600	112	--	**746**	--	86.2	--	32.7	--	48.0	129	--	34.6	26.3	--
Cyanide, Total	mg/Kg	0.2	<0.09	--	<0.175	--	<0.09	--	<0.164	--	<0.09	<0.09	<0.09	<0.207	<0.198	--
pH	pH Units	6 - 9	--	--	8.74	--		--	8.55	--				8.86	8.76	--
Radioactivity																
Radium 226 & Radium 228	pCi/gm	30	--	--	<1.51	--	--	--	<1.99	--	--	--	--	<1.97	<1.54	--

Notes
WQQC limits are based on the 3101 Standard for Groundwater, limits are in mg/L
mg/Kg - milligrams per kilogram
< - Less than method detection limit

Table 9
3103 List Analytical Summary - Vadose Zone (3' - 4') Surface Waste Management Facility
Targa Midstream - Eunice Gas Plant
Lea County, New Mexico

Parameter	Reporting Units	WQQC Limits	Cell 1C-1 (3-4) 10/28/2008	Cell 2A (3-4) Background 2006	Cell 2A (3-4) 4/16/2008	Cell 2A (3-4) 10/28/2008	Cell 2B (3-4) Background 2006	Cell 2B (3-4) 4/16/2008	Cell 2B (3-4) 10/28/2008	Cell 2C (3-4) Background 2006	Cell 2C (3-4) 4/16/2008	Cell 2C (3-4) 10/28/2008	Cell 2D (3-4) Background 2006	Cell 2D (3-4) 4/16/2008	Cell 2D (3-4) 10/28/2008
Volatile Organic Compounds															
1,1,1-Trichloroethane	mg/Kg	0.06	--	<0.025	<0.000992	--	<0.025	<0.000982	--	<0.025	<0.000907	--	<0.025	<0.000832	--
1,1,2,2-Tetrachloroethane	mg/Kg	0.01	--	<0.025	<0.000992	--	<0.025	<0.000982	--	<0.025	<0.000907	--	<0.025	<0.000832	--
1,1,2-Trichloroethane	mg/Kg	0.01	--	<0.025	<0.000992	--	<0.025	<0.000982	--	<0.025	<0.000907	--	<0.025	<0.000832	--
1,1-Dichloroethane	mg/Kg	0.025	--	<0.025	<0.000992	--	<0.025	<0.000982	--	<0.025	<0.000907	--	<0.025	<0.000832	--
1,1-Dichloroethene	mg/Kg	0.005	--	<0.025	<0.000992	--	<0.025	<0.000982	--	<0.025	<0.000907	--	<0.025	<0.000832	--
1,2-Dibromoethane	mg/Kg	0.0001	--	<0.025	<0.000992	--	<0.025	<0.000982	--	<0.025	<0.000907	--	<0.025	<0.000832	--
1,2-Dichloroethane	mg/Kg	0.01	--	<0.025	<0.000992	--	<0.025	<0.000982	--	<0.025	<0.000907	--	<0.025	<0.000832	--
Benzene	mg/Kg	0.01	<0.00268	<0.025	<0.000992	<0.00298	<0.025	<0.000982	<0.00291	<0.025	<0.000907	<0.00301	<0.025	<0.000832	<0.0027
Carbon tetrachloride	mg/Kg	0.01	--	<0.025	<0.000992	--	<0.025	<0.000982	--	<0.025	<0.000907	--	<0.025	<0.000832	--
Chloroform	mg/Kg	0.1	--	<0.025	<0.000992	--	<0.025	<0.000982	--	<0.025	<0.000907	--	<0.025	<0.000832	--
Ethylbenzene	mg/Kg	0.75	<0.00446	<0.025	<0.000992	<0.00497	<0.025	<0.000982	<0.00485	<0.025	<0.000907	<0.00502	<0.025	<0.000832	<0.0045
Methylene chloride	mg/Kg	0.1	--	<0.025	<0.00496	--	<0.025	<0.00491	--	<0.025	<0.00453	--	<0.025	<0.00416	--
Tetrachloroethene	mg/Kg	0.02	--	<0.025	<0.000992	--	<0.025	<0.000982	--	<0.025	<0.000907	--	<0.025	<0.000832	--
Toluene	mg/Kg	0.75	<0.00446	<0.025	<0.000992	<0.00497	<0.025	<0.000982	<0.00485	<0.025	<0.000907	<0.00502	<0.025	<0.000832	<0.0045
Total Xylenes	mg/Kg	0.62	<0.00446	<0.025	<0.000992	<0.00497	<0.025	<0.000982	<0.00485	<0.025	<0.000907	<0.00502	<0.025	<0.000832	<0.0045
Trichloroethene	mg/Kg	0.1	--	<0.025	<0.000992	--	<0.025	<0.000982	--	<0.025	<0.000907	--	<0.025	<0.000832	--
Vinyl chloride	mg/Kg	0.001	--	<0.025	<0.000992	--	<0.025	<0.000982	--	<0.025	<0.000907	--	<0.025	<0.000832	--
Semivolatile & PAH Compounds															
1-Methylnaphthalene	mg/Kg	0.03	--	--	<0.0535	--	0.196	<0.0517	--	0.0424	<0.0515	--	<0.025	<0.0519	--
2,3,4,6-Tetrachlorophenol	mg/Kg	0.005	--	--	<0.0428	--	--	<0.0414	--	--	<0.0412	--	--	<0.0415	--
2,4,5-Trichlorophenol	mg/Kg	0.005	--	--	<0.0748	--	--	<0.0724	--	--	<0.0721	--	--	<0.0726	--
2,4,6-Trichlorophenol	mg/Kg	0.005	--	--	<0.0641	--	--	<0.062	--	--	<0.0618	--	--	<0.0623	--
2,4-Dichlorophenol	mg/Kg	0.005	--	--	<0.0855	--	--	<0.0827	--	--	<0.0824	--	--	<0.083	--
2,4-Dimethylphenol	mg/Kg	0.005	--	--	<0.0641	--	--	<0.062	--	--	<0.0618	--	--	<0.0623	--
2,4-Dinitrophenol	mg/Kg	0.005	--	--	<0.0535	--	--	<0.0517	--	--	<0.0515	--	--	<0.0519	--
2,6-Dichlorophenol	mg/Kg	0.005	--	--	<0.0641	--	--	<0.062	--	--	<0.0618	--	--	<0.0623	--
2-Methylnaphthalene	mg/Kg	0.03	--	--	<0.0214	--	--	<0.0207	--	--	<0.0206	--	--	<0.0208	--
2-Methylphenol	mg/Kg	0.005	--	--	<0.0748	--	--	<0.0724	--	--	<0.0721	--	--	<0.0726	--
2-Nitrophenol	mg/Kg	0.005	--	--	<0.0748	--	--	<0.0724	--	--	<0.0721	--	--	<0.0726	--
4,6-Dinitro-2-methylphenol	mg/Kg	0.005	--	--	<0.0855	--	--	<0.0827	--	--	<0.0824	--	--	<0.083	--
4-Chloro-3-methylphenol	mg/Kg	0.005	--	--	<0.0641	--	--	<0.062	--	--	<0.0618	--	--	<0.0623	--
4-Methylphenol	mg/Kg	0.005	--	--	<0.107	--	--	<0.103	--	--	<0.103	--	--	<0.104	--
4-Nitrophenol	mg/Kg	0.005	--	--	<0.15	--	--	<0.145	--	--	<0.144	--	--	<0.145	--
Acenaphthene	mg/Kg	0.03	--	<0.2	<0.0143	--	<0.2	<0.0138	--	<0.2	<0.0137	--	<0.2	<0.0138	--
Acenaphthylene	mg/Kg	0.03	--	<0.2	<0.00713	--	<0.2	<0.00689	--	<0.2	<0.00686	--	<0.2	<0.00692	--
Anthracene	mg/Kg	0.03	--	<0.2	<0.00713	--	<0.2	<0.00689	--	<0.2	<0.00686	--	<0.2	<0.00692	--
Benzo[a]anthracene	mg/Kg	0.03	--	<0.2	<0.0143	--	<0.2	<0.0138	--	<0.2	<0.0137	--	<0.2	<0.0138	--
Benzo[a]pyrene	mg/Kg	0.0007	--	<0.2	<0.0214	--	<0.2	<0.0207	--	<0.2	<0.0206	--	<0.2	<0.0208	--
Benzo[b]fluoranthene	mg/Kg	0.03	--	<0.2	<0.0143	--	<0.2	<0.0138	--	<0.2	<0.0137	--	<0.2	<0.0138	--
Benzo[g,h,i]perylene	mg/Kg	0.03	--	<0.2	<0.0143	--	<0.2	<0.0138	--	<0.2	<0.0137	--	<0.2	<0.0138	--
Benzo[k]fluoranthene	mg/Kg	0.03	--	<0.2	<0.0214	--	<0.2	<0.0207	--	<0.2	<0.0206	--	<0.2	<0.0208	--
Chrysene	mg/Kg	0.03	--	<0.2	<0.0143	--	<0.2	<0.0138	--	<0.2	<0.0137	--	<0.2	<0.0138	--
Dibenz[a,h]anthracene	mg/Kg	0.03	--	<0.032	<0.0143	--	<0.032	<0.0138	--	<0.032	<0.0137	--	<0.032	<0.0138	--
Fluoranthene	mg/Kg	0.03	--	<0.2	<0.00713	--	<0.2	<0.00689	--	<0.2	<0.00686	--	<0.2	<0.00692	--
Fluorene	mg/Kg	0.03	--	<0.2	<0.00713	--	<0.2	<0.00689	--	<0.2	<0.00686	--	<0.2	<0.00692	--
Indeno[1,2,3-cd]pyrene	mg/Kg	0.03	--	<0.2	<0.00713	--	<0.2	<0.00689	--	<0.2	<0.00686	--	<0.2	<0.00692	--
Naphthalene	mg/Kg	0.03	--	<0.2	<0.00713	--	<0.2	<0.00689	--	<0.2	<0.00686	--	<0.2	<0.00692	--
Pentachlorophenol	mg/Kg	0.005	--	--	<0.0962	--	--	<0.0931	--	--	<0.0927	--	--	<0.0934	--
Phenanthrene	mg/Kg	0.03	--	<0.2	<0.00713	--	<0.2	<0.00689	--	<0.2	<0.00686	--	<0.2	<0.00692	--
Phenol	mg/Kg	0.005	--	--	<0.0641	--	--	<0.062	--	--	<0.0618	--	--	<0.0623	--
Pyrene	mg/Kg	0.03	--	<0.2	<0.0143	--	<0.2	<0.0138	--	<0.2	<0.0137	--	<0.2	<0.0138	--
Total Phenols	mg/Kg	--	--	<0.5	--	--	<0.5	--	--	<0.5	--	--	<0.5	--	--

Table 9
3103 List Analytical Summary - Vadose Zone (3' - 4') Surface Waste Management Facility
Targa Midstream - Eunice Gas Plant
Lea County, New Mexico

Parameter	Reporting Units	WQQC Limits	Cell 1C-1 (3-4) 10/28/2008	Cell 2A (3-4) Background 2006	Cell 2A (3-4) 4/16/2008	Cell 2A (3-4) 10/28/2008	Cell 2B (3-4) Background 2006	Cell 2B (3-4) 4/16/2008	Cell 2B (3-4) 10/28/2008	Cell 2C (3-4) Background 2006	Cell 2C (3-4) 4/16/2008	Cell 2C (3-4) 10/28/2008	Cell 2D (3-4) Background 2006	Cell 2D (3-4) 4/16/2008	Cell 2D (3-4) 10/28/2008
PCB Compounds															
Aroclor 1016	mg/Kg	0.001	--	<0.0173	<0.0521	--	<0.0179	<0.0513	--	<0.0172	<0.0522	--	<0.0175	<0.0494	--
Aroclor 1221	mg/Kg	0.001	--	<0.0173	<0.0521	--	<0.0179	<0.0513	--	<0.0172	<0.0522	--	<0.0175	<0.0494	--
Aroclor 1232	mg/Kg	0.001	--	<0.0173	<0.0521	--	<0.0179	<0.0513	--	<0.0172	<0.0522	--	<0.0175	<0.0494	--
Aroclor 1242	mg/Kg	0.001	--	<0.0173	<0.0521	--	<0.0179	<0.0513	--	<0.0172	<0.0522	--	<0.0175	<0.0494	--
Aroclor 1248	mg/Kg	0.001	--	<0.0173	<0.0521	--	<0.0179	<0.0513	--	<0.0172	<0.0522	--	<0.0175	<0.0494	--
Aroclor 1254	mg/Kg	0.001	--	<0.0173	<0.0521	--	<0.0179	<0.0513	--	<0.0172	<0.0522	--	<0.0175	<0.0494	--
Aroclor 1260	mg/Kg	0.001	--	<0.0173	<0.0521	--	<0.0179	<0.0513	--	<0.0172	<0.0522	--	<0.0175	<0.0494	--
Metals															
Arsenic	mg/Kg	0.1	**4.21**	6.02	5.48	3.70	6.59	4.27	**6.01**	4.2	**5.29**	3.57	5.78	3.28	3.05
Barium	mg/Kg	1.0	**436**	481	134	**1290**	1210	**767**	**468**	195	**1150**	**702**	427	**634**	**1140**
Cadmium	mg/Kg	0.01	**0.183**	<0.346	<0.102	<0.101	<0.346	<0.095	<0.102	<0.346	<0.0934	<0.0967	<0.346	<0.1	<0.094
Chromium	mg/Kg	0.05	2.48	2.09	**2.62**	1.40	2.50	**2.58**	**2.72**	2.9	1.65	2.39	1.87	**5.97**	**3.29**
Copper	mg/Kg	1.0	**3.73**	4.46	3.71	**9.59**	8.22	6.08	5.55	5.15	**15.1**	**6.91**	4.92	**451**	**9.92**
Iron	mg/Kg	1.0	2080	905	**2020**	**1290**	833	**1370**	**2390**	1610	1030	**2270**	755	**2320**	**2490**
Lead	mg/Kg	0.05	1.95	0.607	**1.53**	**1.18**	0.568	**1.03**	**1.73**	0.77	**0.731**	**1.71**	0.421	**1.50**	**1.90**
Manganese	mg/Kg	0.2	43.2	19.5	**22.2**	15.6	18.5	**20.4**	**23.1**	19.6	**19.4**	**24.9**	15.5	**35.8**	**24.7**
Selenium	mg/Kg	0.05	0.916	<0.751	0.334	0.355	<0.751	**0.241**	**0.623**	<0.751	**0.267**	**0.570**	<0.751	0.391	0.603
Silver	mg/Kg	0.05	<0.0994	<0.202	<0.102	<0.101	<0.202	<0.095	<0.102	<0.202	<0.0934	<0.0967	<0.202	<0.1	<0.094
Uranium	mg/Kg	0.03	<0.994	<5.06	<1.02	<1.01	<5.27	<0.95	<1.02	<4.78	<0.934	<0.967	<5.10	<1	<0.94
Zinc	mg/Kg	10.0	8.30	5.75	3.57	**8.65**	7.53	5.14	6.47	6.81	9.18	5.90	6.18	**337**	**9.75**
Mercury	mg/Kg	0.002	<0.0149	0.01469	<0.0172	<0.017	0.01566	<0.0158	<0.0158	0.01597	<0.0163	<0.0152	0.01242	<0.0165	<0.0166
Total Petroleum Hydrocartons															
TPH - GRO	mg/Kg	--	<0.0615	<10	<3.17	<0.0591	<10	<2.94	0.103	<10	<3.1	<0.0573	<10	<3.1	<0.0527
TPH - DRO	mg/Kg	--	<3.09	<10	<0.0665	7.93	<10	<0.062	25.5	<10	<0.0628	<3.24	<10	<0.0577	16.1
TPH - Total (8015B)	mg/Kg	500	<3.1515	<10	<3.2365	**7.93**	<10	<3.002	**25.603**	<10	<3.1628	<3.2973	<10	<3.1577	**16.1**
Inorganic Compounds															
Chloride	mg/Kg	250	14.1	**320**	31.9	18.3	**241**	<5.26	45.8	5.28	<5.23	75.3	11.5	132	14.4
Fluoride	mg/Kg	1.6	--	2.76	**4.20**	--	8.25	**3.18**	--	3.43	**3.85**	--	2.46	**7.22**	--
Nitrate-N	mg/Kg	10.0	--	0.952	<5.55	--	0.197	<5.26	--	0.200	<5.23	--	0.839	<5.15	--
Sulfate	mg/Kg	600	--	523	72.8	--	317	48.8	--	21.6	30.1	--	35.3	135	--
Cyanide, Total	mg/Kg	0.2	--	<0.09	<0.175	--	<0.09	<0.194	--	<0.09	<0.208	--	<0.09	<0.198	--
pH	pH Units	6 - 9	--	--	8.30	--	--	8.24	--	--	8.22	--	--	8.15	--
Radioactivity															
Radium 226 & Radium 228	pCi/gm	30	--	--	<1.56	--	--	<1.53	--	--	<1.53	--	--	<1.86	--

Notes
WQQC limits are based on the 3101 Standard for Groundv
mg/Kg - milligrams per kilogram
< - Less than method detection limit

JWW

Y:\PROJECTS\TARGA\8-0172\Eunice Gas Plant.dwg, 4/1/2009 2:32:21 PM

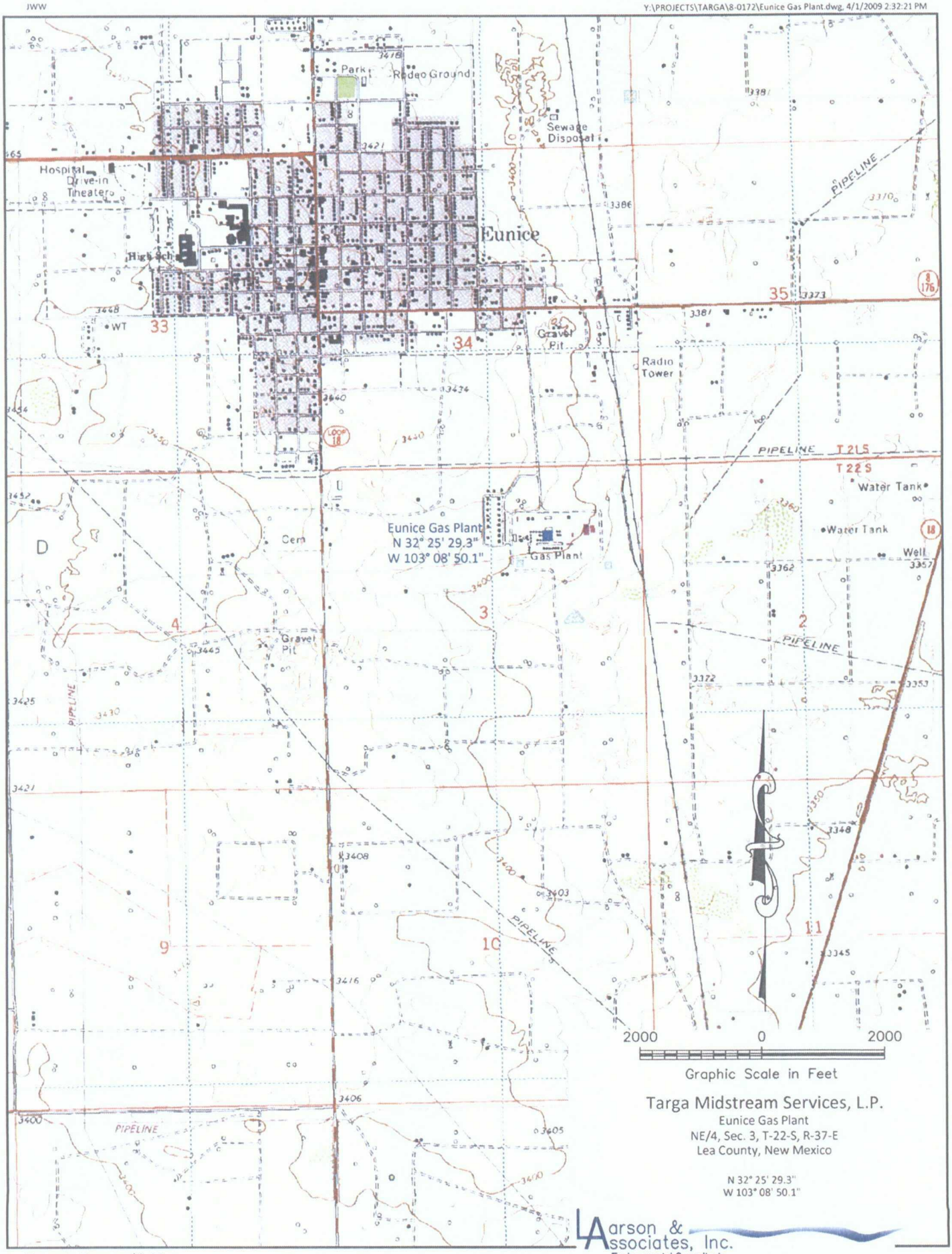
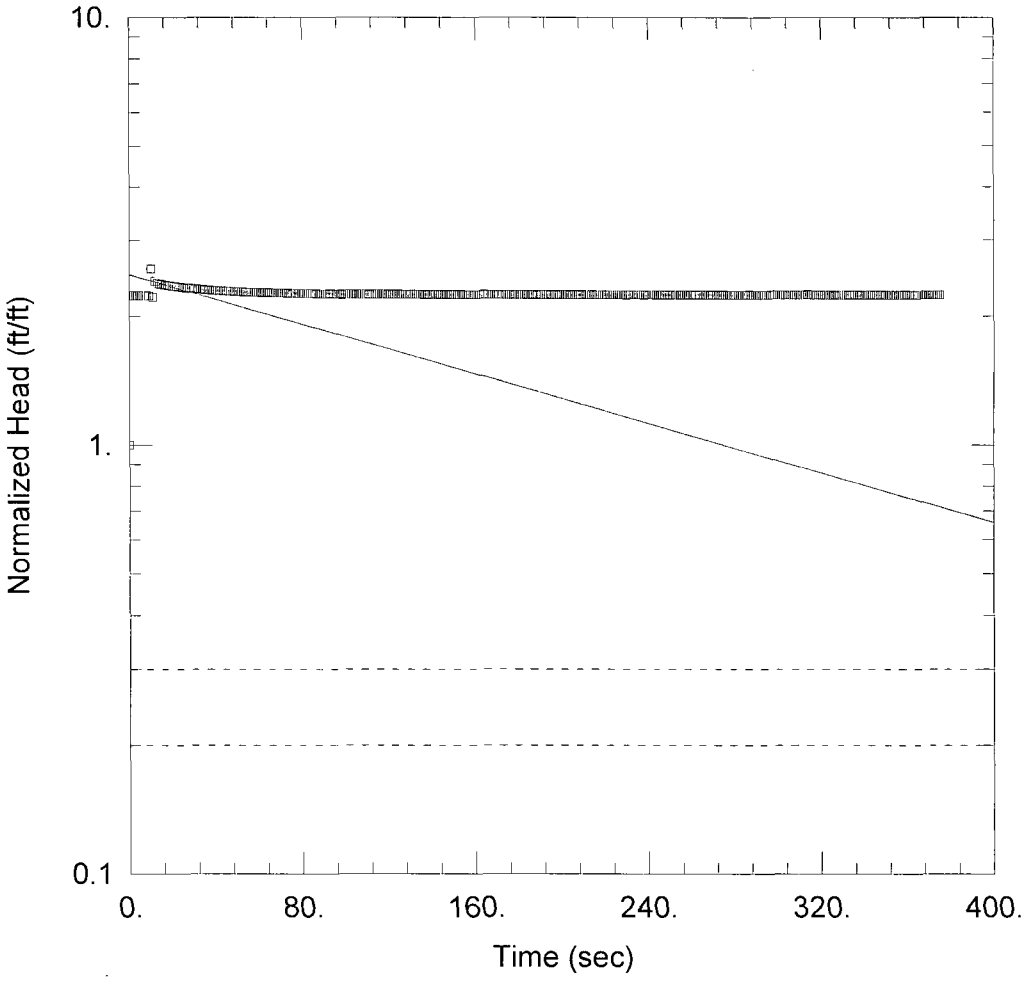


Figure 1 - Topographic Map



MW-18 TEST 1 FALLING HEAD

Data Set: Z:\...\MW-18 Falling Head Test 1.aqt
Date: 03/17/09 Time: 14:55:08

PROJECT INFORMATION

Company: Larson & Associates, Inc.
Client: Targa
Project: 2-0103
Location: Eunice Gas Plant
Test Well: MW-18
Test Date: 3/05/09

AQUIFER DATA

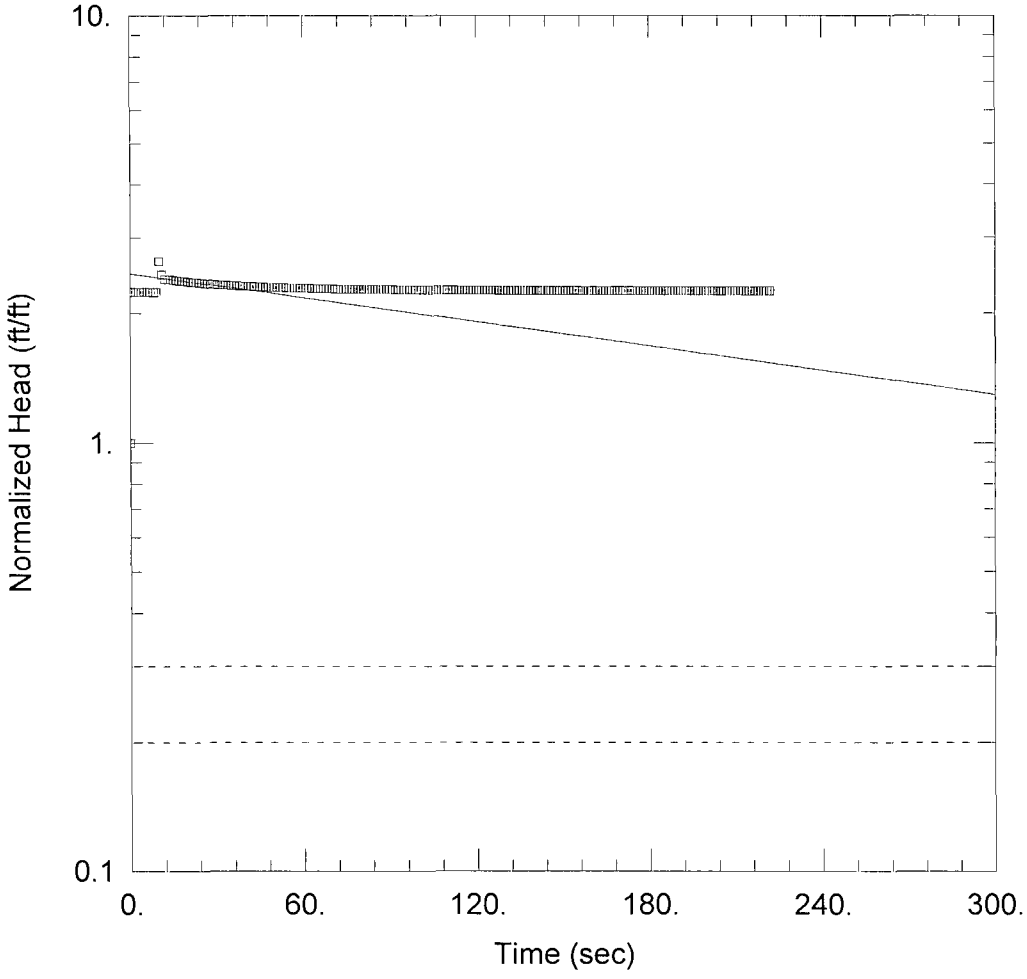
Saturated Thickness: 7.99 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-18)

Initial Displacement: 3.5 ft
Total Well Penetration Depth: 7.99 ft
Casing Radius: 0.083 ft
Static Water Column Height: 7.99 ft
Screen Length: 7.99 ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 0.4375 ft/day
y0 = 8.77 ft



MW-18 TEST 2 FALLING HEAD

Data Set: Z:\...\MW-18 Falling Head Test 2.aqt
Date: 03/19/09 Time: 16:29:00

PROJECT INFORMATION

Company: Larson & Associates, Inc.
Client: Targa
Project: 2-0103
Location: Eunice Gas Plant
Test Well: MW-18
Test Date: 3/05/09

AQUIFER DATA

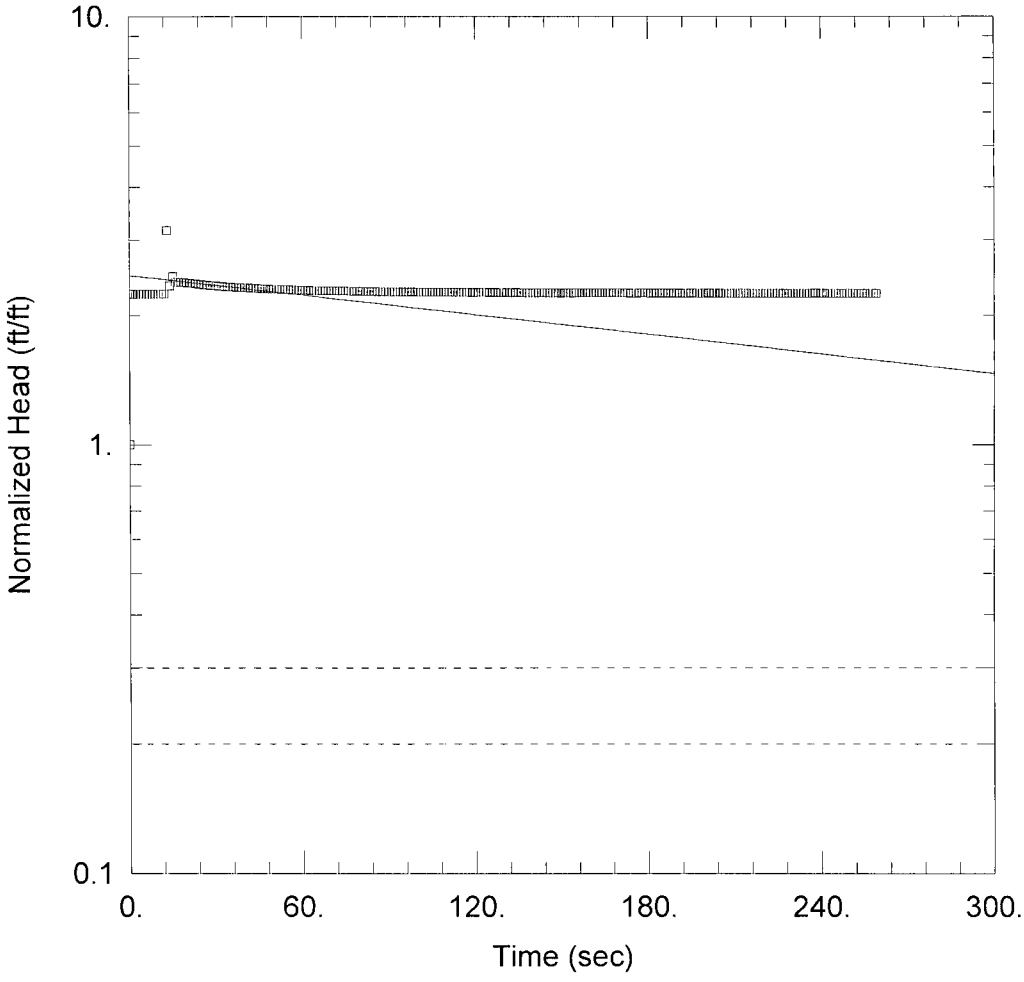
Saturated Thickness: 7.99 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-18)

Initial Displacement: 3.5 ft
Total Well Penetration Depth: 7.99 ft
Casing Radius: 0.083 ft
Static Water Column Height: 7.99 ft
Screen Length: 7.99 ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 0.283 ft/day
y0 = 8.665 ft



MW-18 TEST 3 FALLING HEAD

Data Set: Z:\...\MW-18 Falling Head Test 3.aqt
Date: 03/17/09 Time: 16:21:19

PROJECT INFORMATION

Company: Larson & Associates, Inc.
Client: Targa
Project: 2-0103
Location: Eunice Gas Plant
Test Well: MW-18
Test Date: 3/05/09

AQUIFER DATA

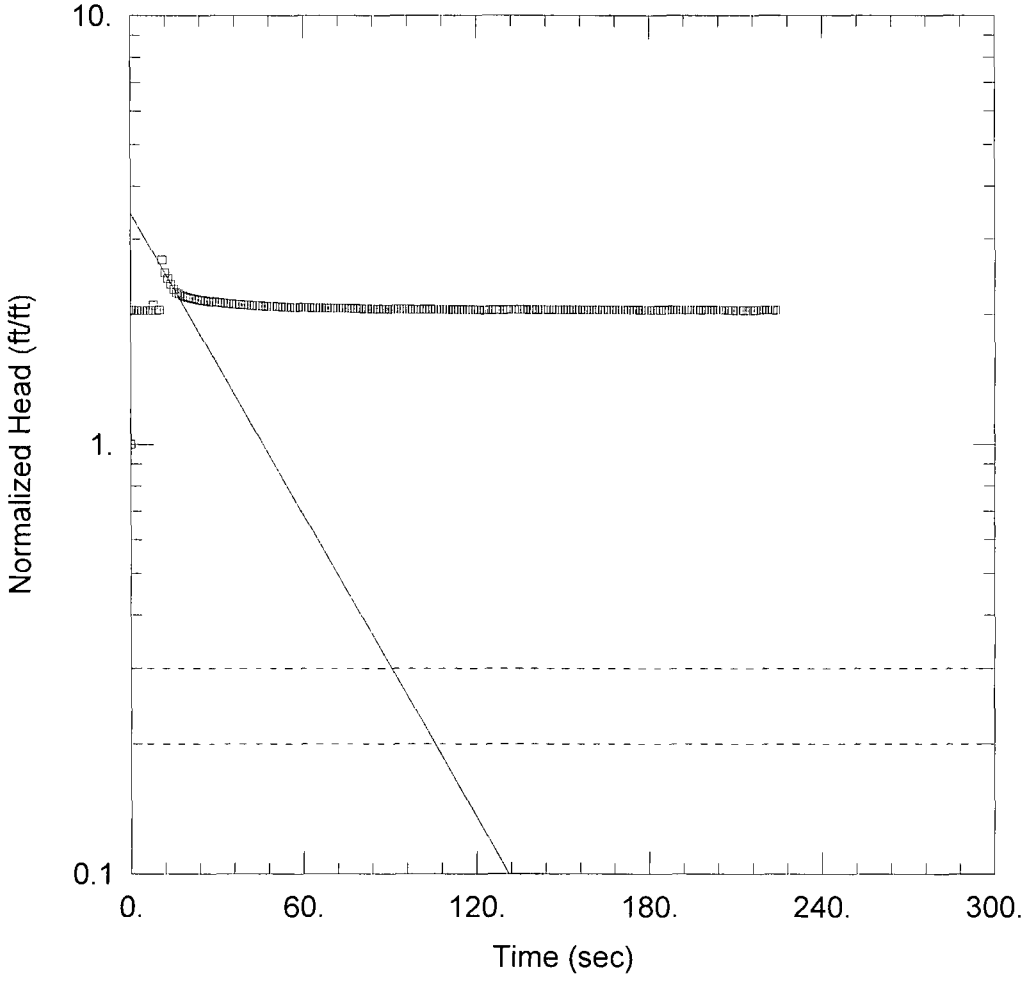
Saturated Thickness: 7.99 ft
Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-18)

Initial Displacement: 3.5 ft
Total Well Penetration Depth: 7.99 ft
Casing Radius: 0.083 ft
Static Water Column Height: 7.99 ft
Screen Length: 7.99 ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 0.2319 ft/day
y0 = 8.696 ft



MW-18 TEST 1 RISING HEAD

Data Set: Z:\...\MW-18 Rising Head Test 1.aqt
Date: 03/17/09 Time: 15:19:06

PROJECT INFORMATION

Company: Larson & Associates, Inc.
Client: Targa
Project: 2-0103
Location: Eunice Gas Plant
Test Well: MW-18
Test Date: 3/05/09

AQUIFER DATA

Saturated Thickness: 7.99 ft Anisotropy Ratio (Kz/Kr): 1.

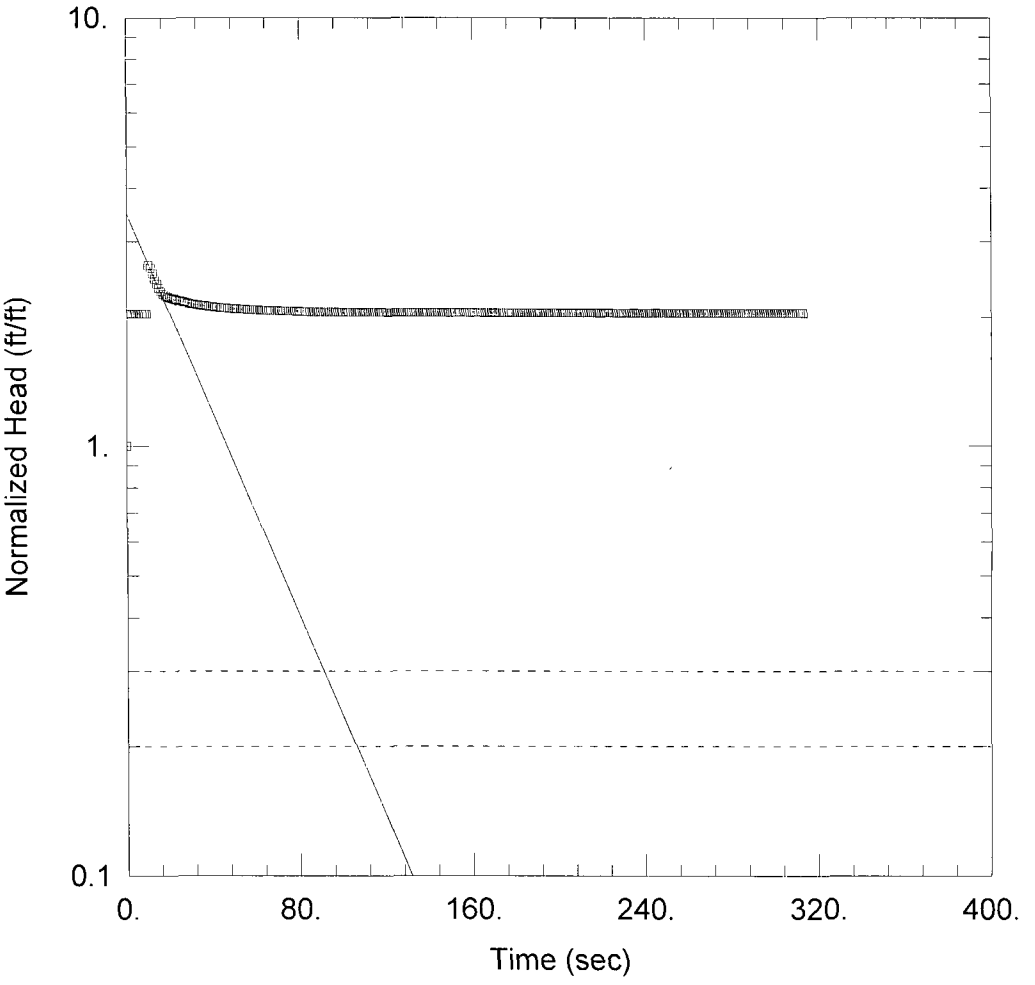
WELL DATA (MW-18)

Initial Displacement: 3.5 ft
Total Well Penetration Depth: 7.99 ft
Casing Radius: 0.083 ft
Static Water Column Height: 7.99 ft
Screen Length: 7.99 ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 3.534 ft/day y0 = 12.09 ft



MW-18 TEST 2 RISING HEAD

Data Set: Z:\...\MW-18 Rising Head Test 2.aqt
Date: 03/17/09 Time: 16:15:08

PROJECT INFORMATION

Company: Larson & Associates, Inc.
Client: Targa
Project: 2-0103
Location: Eunice Gas Plant
Test Well: MW-18
Test Date: 3/05/09

AQUIFER DATA

Saturated Thickness: 7.99 ft Anisotropy Ratio (Kz/Kr): 1.

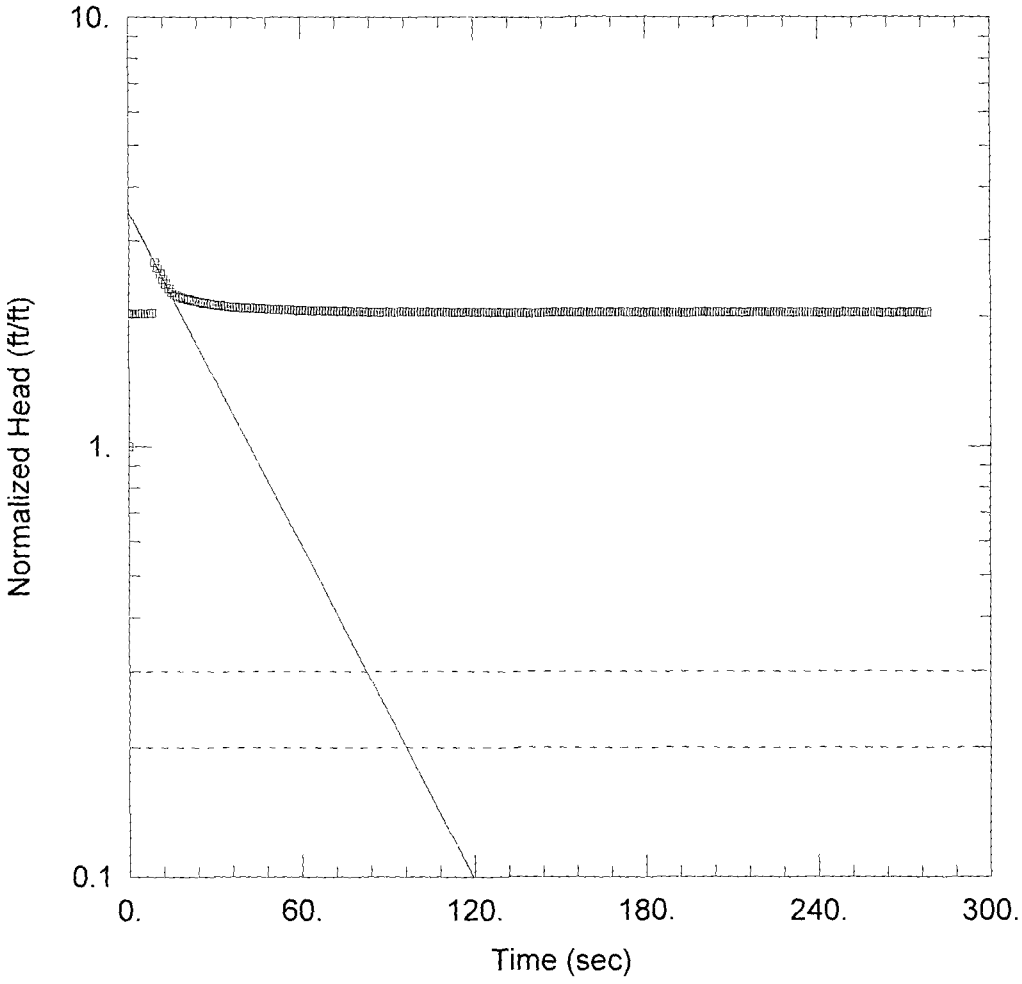
WELL DATA (MW-18)

Initial Displacement: 3.5 ft
Total Well Penetration Depth: 7.99 ft
Casing Radius: 0.083 ft
Static Water Column Height: 7.99 ft
Screen Length: 7.99 ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 3.538 ft/day y0 = 12.25 ft



MW-18 TEST 3 RISING HEAD

Data Set: Z:\...\MW-18 Rising Head Test 3.aqt
Date: 03/17/09 Time: 16:44:03

PROJECT INFORMATION

Company: Larson & Associates, Inc.
Client: Targa
Project: 2-0103
Location: Eunice Gas Plant
Test Well: MW-18
Test Date: 3/05/09

AQUIFER DATA

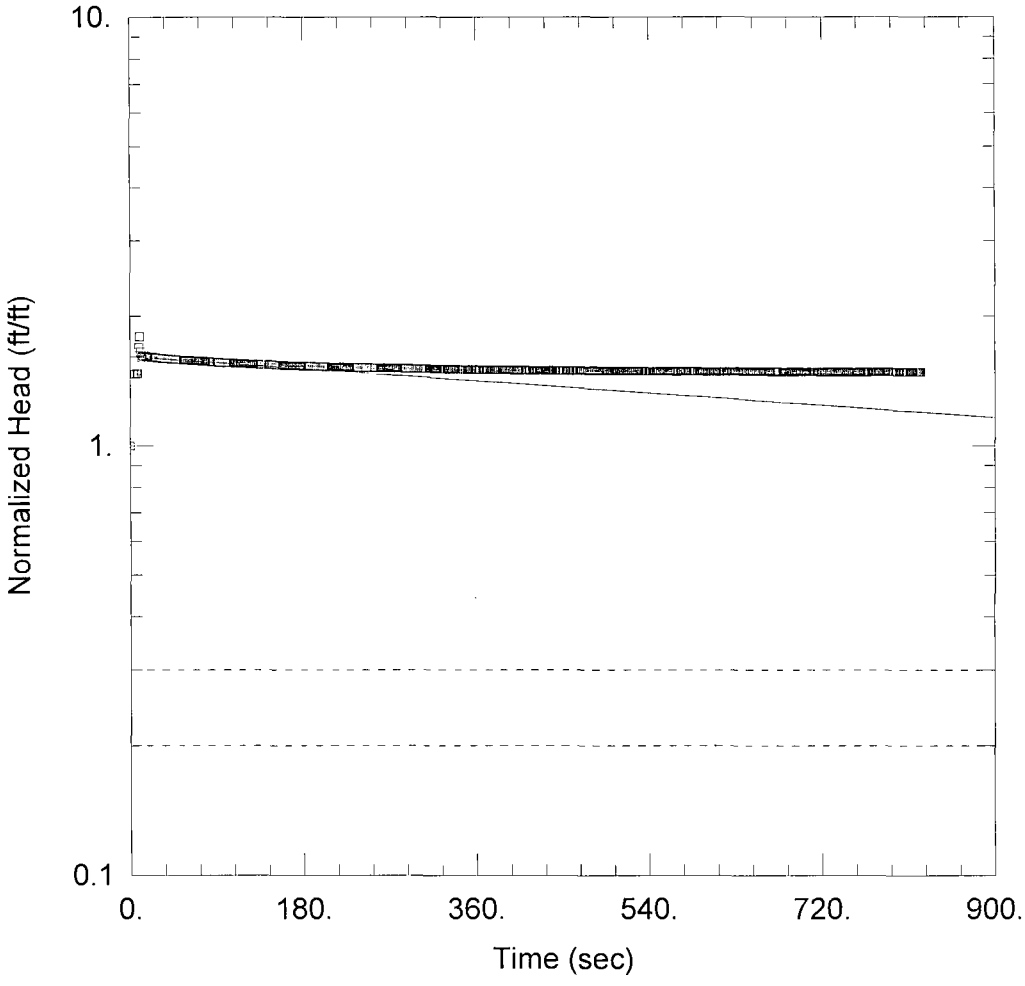
Saturated Thickness: 7.99 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-18)

Initial Displacement: 3.5 ft Static Water Column Height: 7.99 ft
Total Well Penetration Depth: 7.99 ft Screen Length: 7.99 ft
Casing Radius: 0.083 ft Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice
K = 3.893 ft/day y0 = 12.24 ft



MW-19 FALLING HEAD TEST 1

Data Set: Z:\...\MW-19 Falling Head Test 1.aqt
Date: 03/18/09 Time: 08:44:19

PROJECT INFORMATION

Company: Larson & Associates, Inc.
Client: Targa
Project: 2-0103
Location: Eunice Gas Plant
Test Well: MW-19
Test Date: 3/04/09

AQUIFER DATA

Saturated Thickness: 9. ft Anisotropy Ratio (Kz/Kr): 1.

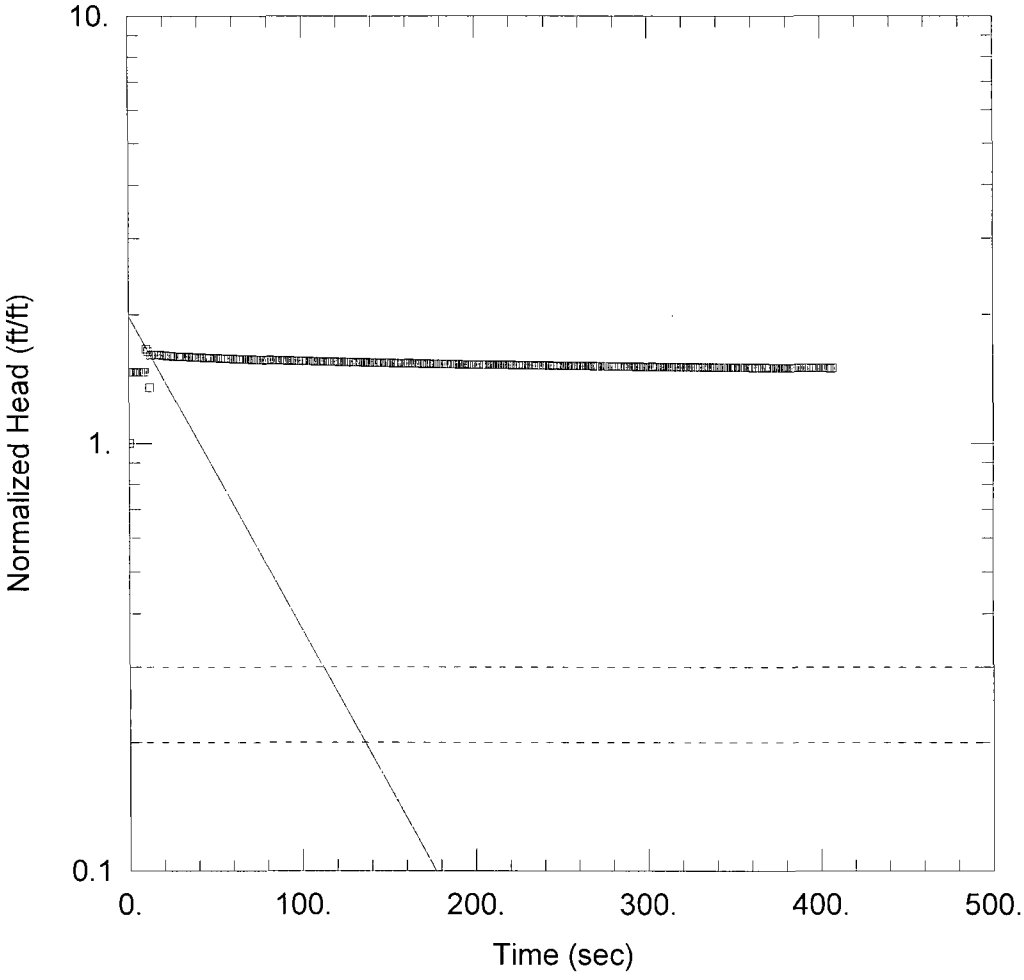
WELL DATA (MW-19)

Initial Displacement: 6. ft
Total Well Penetration Depth: 9. ft
Casing Radius: 0.083 ft
Static Water Column Height: 9. ft
Screen Length: 9. ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.04329 ft/day y0 = 9.678 ft



MW-19 FALLING HEAD TEST 2

Data Set: Z:\...\MW-19 Falling Head Test 2.aqt
Date: 03/18/09 Time: 09:34:39

PROJECT INFORMATION

Company: Larson & Associates, Inc.
Client: Targa
Project: 2-0103
Location: Eunice Gas Plant
Test Well: MW-19
Test Date: 3/04/09

AQUIFER DATA

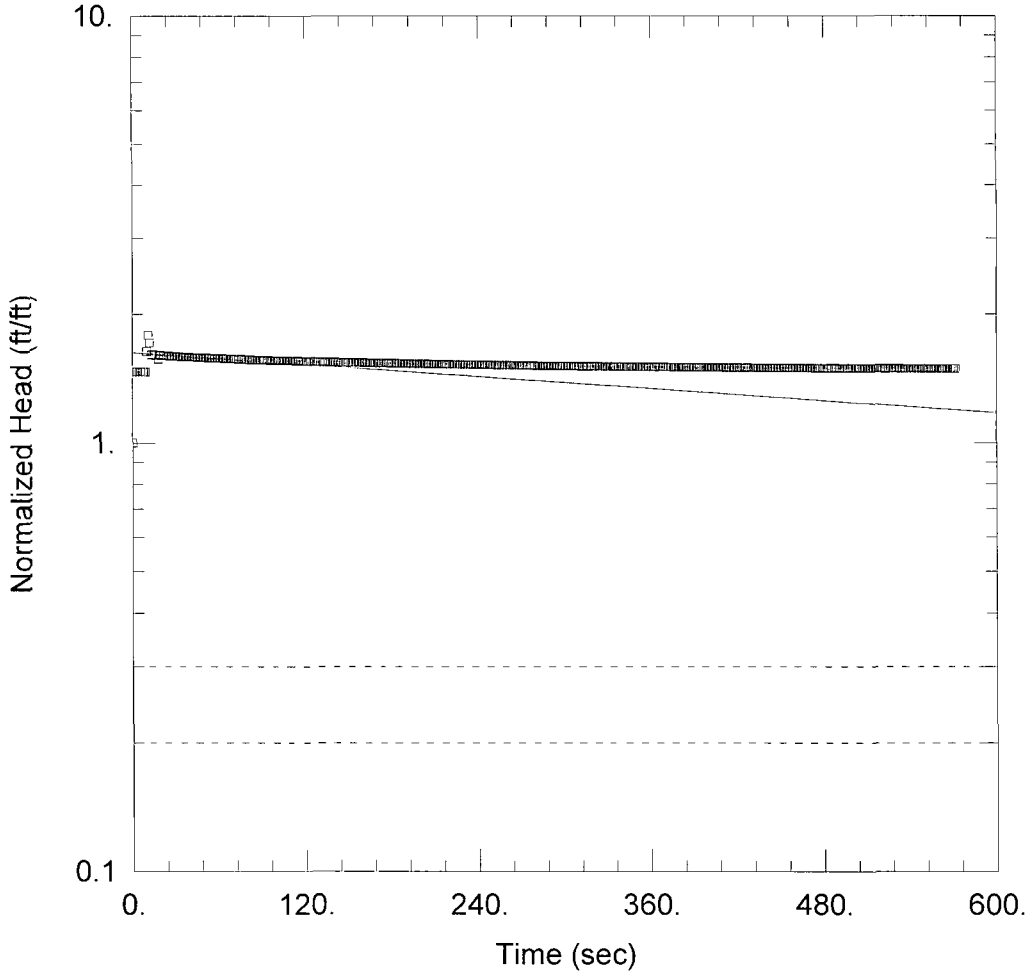
Saturated Thickness: 9. ft
Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-19)

Initial Displacement: 6. ft
Total Well Penetration Depth: 9. ft
Casing Radius: 0.083 ft
Static Water Column Height: 9. ft
Screen Length: 9. ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 2.016 ft/day
y0 = 11.91 ft



MW-19 FALLING HEAD TEST 3

Data Set: Z:\...\MW-19 Falling Head Test 3.aqt
Date: 03/18/09 Time: 10:43:39

PROJECT INFORMATION

Company: Larson & Associates, Inc.
Client: Targa
Project: 2-0103
Location: Eunice Gas Plant
Test Well: MW-19
Test Date: 3/04/09

AQUIFER DATA

Saturated Thickness: 9. ft Anisotropy Ratio (Kz/Kr): 1.

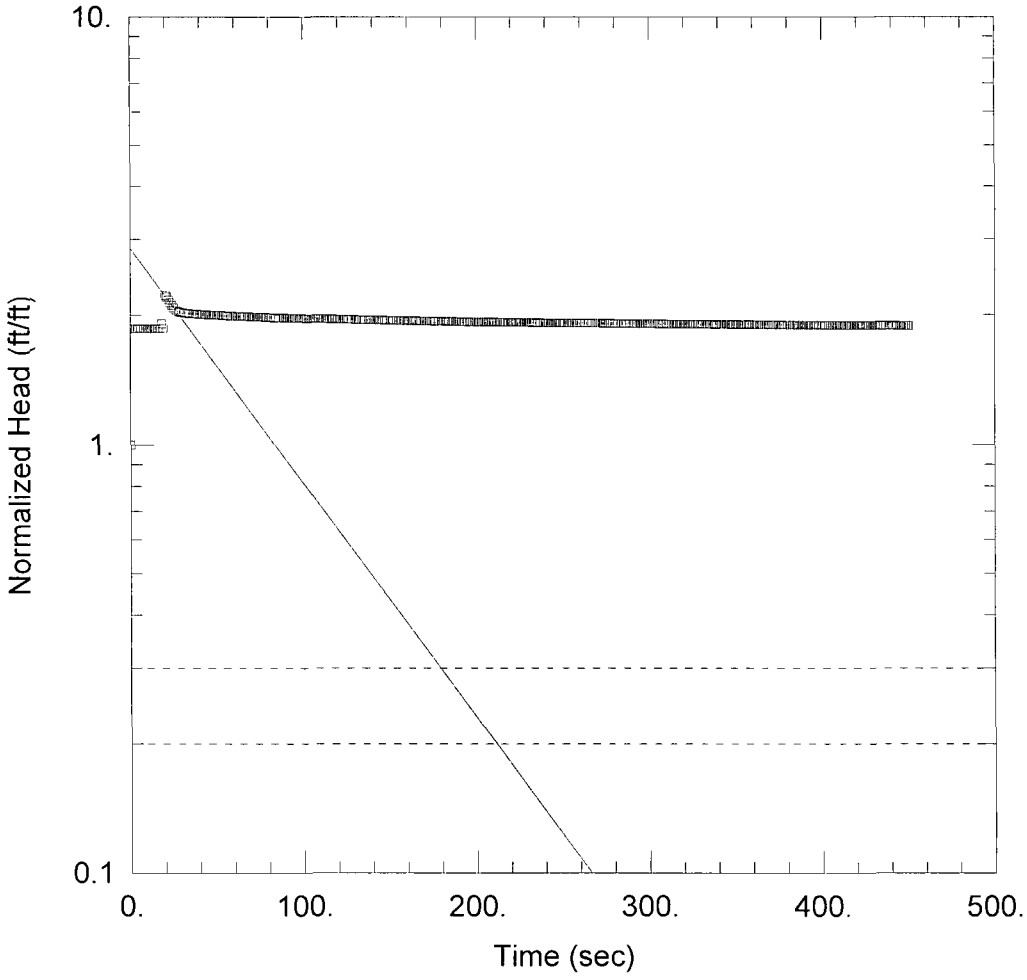
WELL DATA (MW-19)

Initial Displacement: 6. ft
Total Well Penetration Depth: 9. ft
Casing Radius: 0.083 ft
Static Water Column Height: 9. ft
Screen Length: 9. ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.06429 ft/day y0 = 9.758 ft



MW-19 RISING HEAD TEST 1

Data Set: Z:\...\MW-19 Rising Head Test 1.aqt
Date: 03/18/09 Time: 09:24:07

PROJECT INFORMATION

Company: Larson & Associates, Inc.
Client: Targa
Project: 2-0103
Location: Eunice Gas Plant
Test Well: MW-19
Test Date: 3/04/09

AQUIFER DATA

Saturated Thickness: 9. ft Anisotropy Ratio (Kz/Kr): 1.

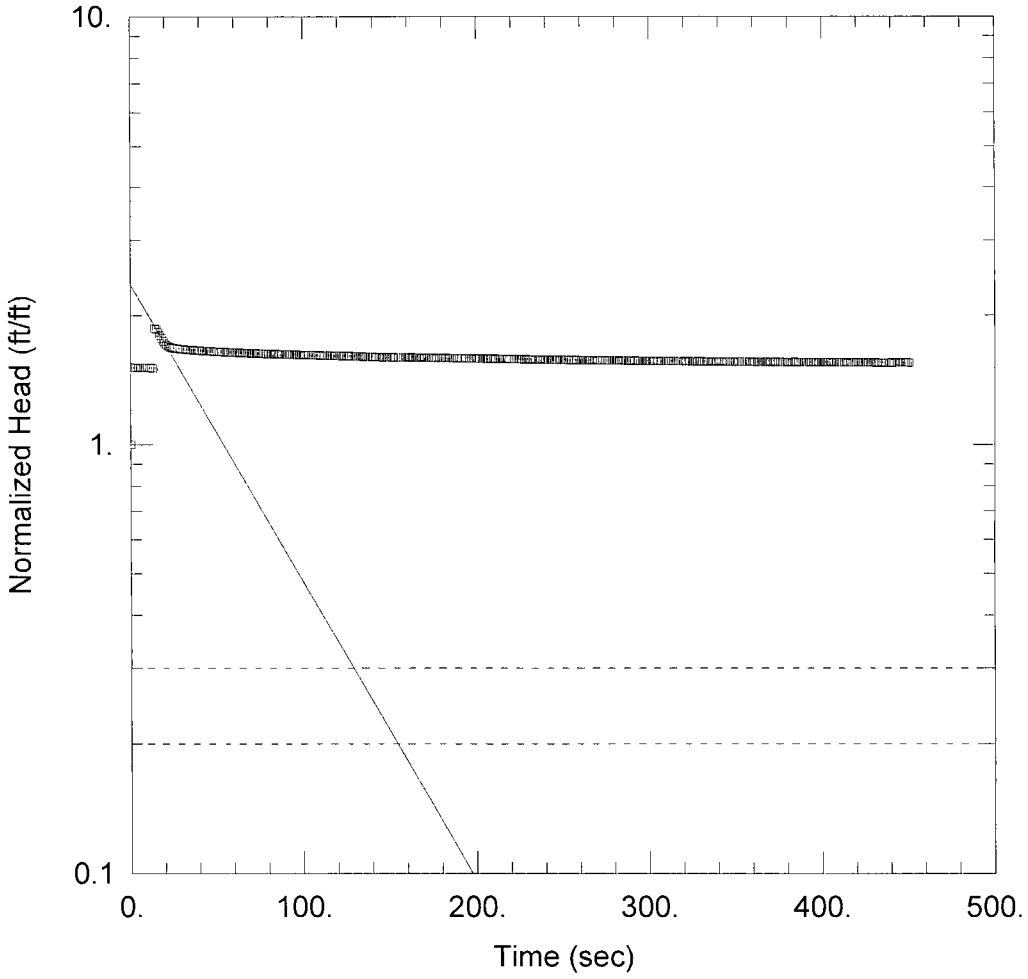
WELL DATA (MW-19)

Initial Displacement: 6. ft
Total Well Penetration Depth: 9. ft
Casing Radius: 0.083 ft
Static Water Column Height: 9. ft
Screen Length: 9. ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 1.503 ft/day y0 = 17.13 ft



MW-19 RISING HEAD TEST 2

Data Set: Z:\...\MW-19 Rising Head Test 2.aqt
Date: 03/18/09 Time: 09:51:30

PROJECT INFORMATION

Company: Larson & Associates, Inc.
Client: Targa
Project: 2-0103
Location: Eunice Gas Plant
Test Well: MW-19
Test Date: 3/04/09

AQUIFER DATA

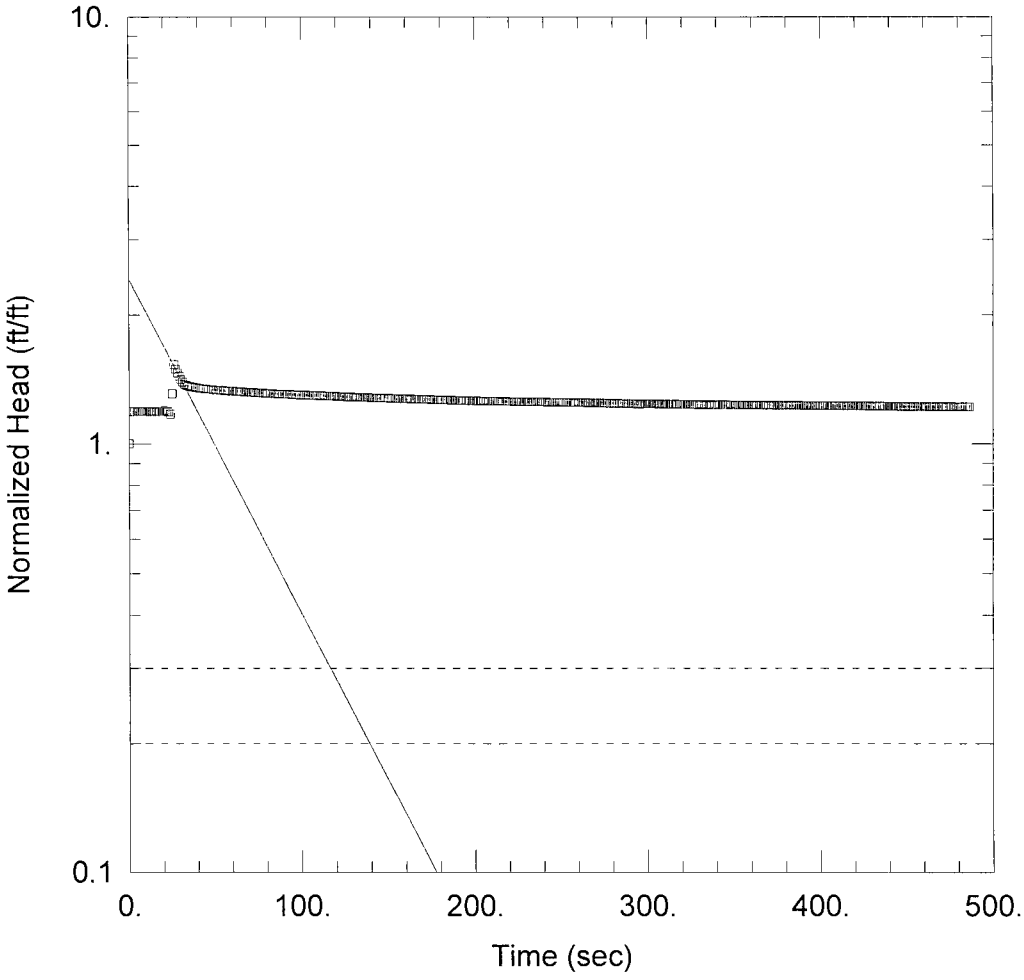
Saturated Thickness: 9. ft
Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-19)

Initial Displacement: 6. ft
Total Well Penetration Depth: 9. ft
Casing Radius: 0.083 ft
Static Water Column Height: 9. ft
Screen Length: 9. ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 1.912 ft/day
y0 = 14.18 ft



MW-19 RISING HEAD TEST 3

Data Set: Z:\...\MW-19 Rising Head Test 3.aqt
Date: 03/18/09 Time: 11:10:33

PROJECT INFORMATION

Company: Larson & Associates, Inc.
Client: Targa
Project: 2-0103
Location: Eunice Gas Plant
Test Well: MW-19
Test Date: 3/04/09

AQUIFER DATA

Saturated Thickness: 9. ft Anisotropy Ratio (Kz/Kr): 1.

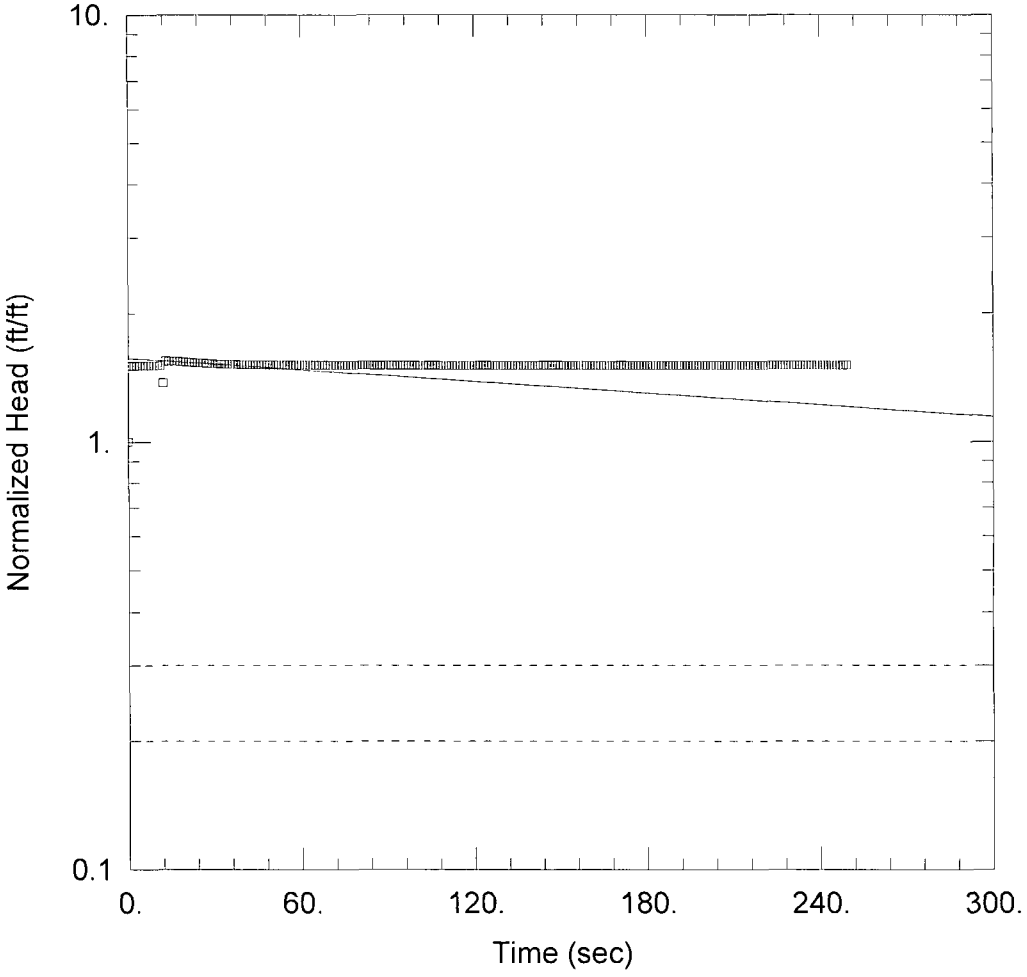
WELL DATA (MW-19)

Initial Displacement: 6. ft
Total Well Penetration Depth: 9. ft
Casing Radius: 0.083 ft
Static Water Column Height: 9. ft
Screen Length: 9. ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 2.147 ft/day y0 = 14.57 ft



MW-20 TEST 1 FALLING HEAD

Data Set: Z:\...\MW-20 Falling Head Test 1.aqt
Date: 03/18/09 Time: 16:38:50

PROJECT INFORMATION

Company: Larson & Associates, Inc.
Client: Targa
Project: 2-0103
Location: Eunice Gas Plant
Test Well: MW-20
Test Date: 3/05/09

AQUIFER DATA

Saturated Thickness: 11.62 ft Anisotropy Ratio (Kz/Kr): 1.

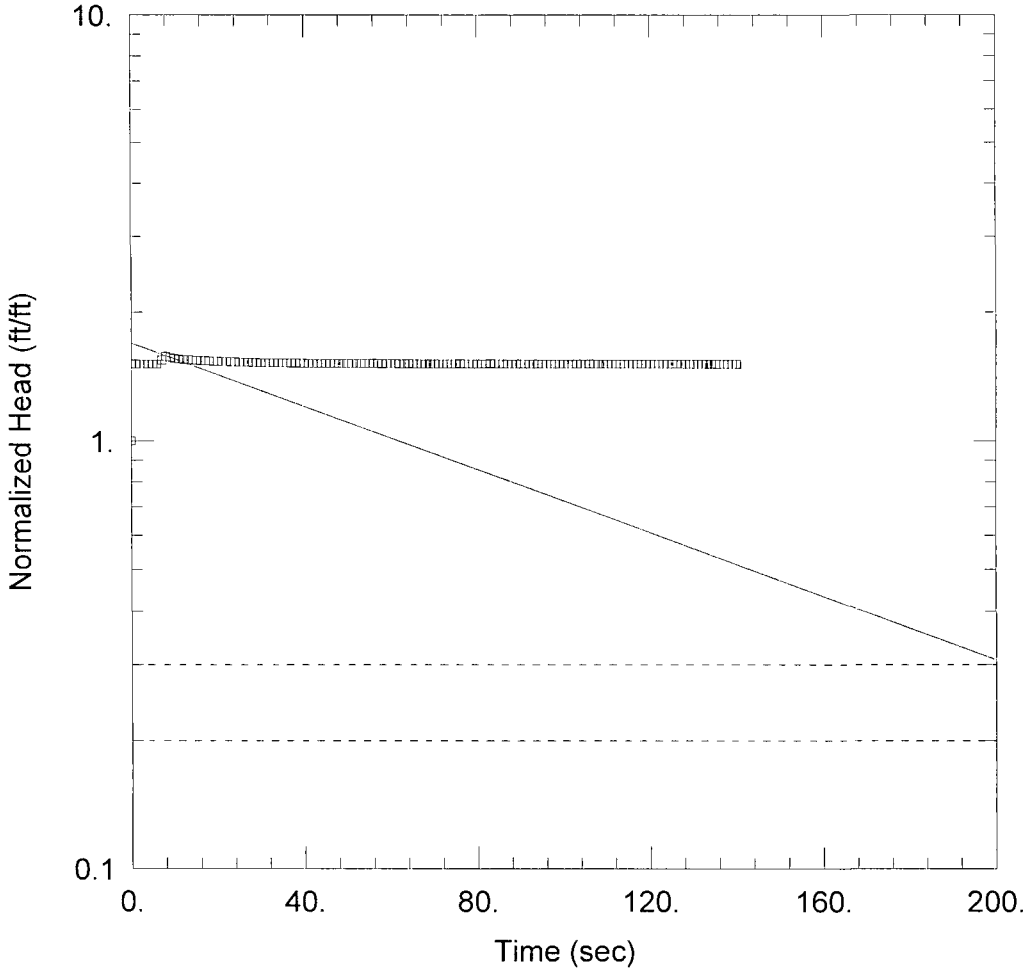
WELL DATA (MW-20)

Initial Displacement: 6. ft
Total Well Penetration Depth: 11.62 ft
Casing Radius: 0.083 ft
Static Water Column Height: 11.62 ft
Screen Length: 11.62 ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.1031 ft/day y0 = 9.426 ft



MW-20 TEST 2 FALLING HEAD

Data Set: Z:\...\MW-20 Falling Head Test 2.aqt
Date: 03/18/09 Time: 16:40:14

PROJECT INFORMATION

Company: Larson & Associates, Inc.
Client: Targa
Project: 2-0103
Location: Eunice Gas Plant
Test Well: MW-20
Test Date: 3/05/09

AQUIFER DATA

Saturated Thickness: 11.62 ft Anisotropy Ratio (Kz/Kr): 1.

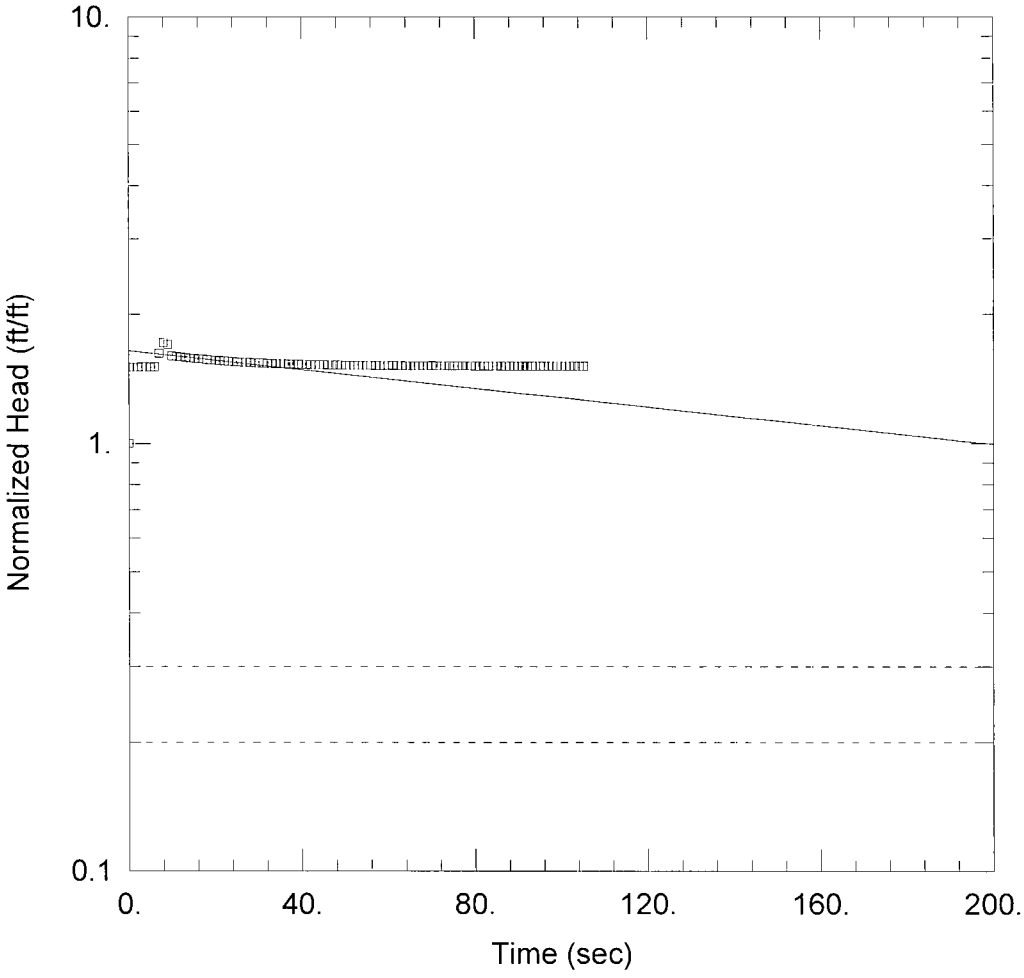
WELL DATA (MW-20)

Initial Displacement: 6. ft
Total Well Penetration Depth: 11.62 ft
Casing Radius: 0.083 ft
Static Water Column Height: 11.62 ft
Screen Length: 11.62 ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.8344 ft/day y0 = 10.17 ft



MW-20 TEST 3 FALLING HEAD

Data Set: Z:\...\MW-20 Falling Head Test 3.aqt
Date: 03/18/09 Time: 16:37:17

PROJECT INFORMATION

Company: Larson & Associates, Inc.
Client: Targa
Project: 2-0103
Location: Eunice Gas Plant
Test Well: MW-20
Test Date: 3/05/09

AQUIFER DATA

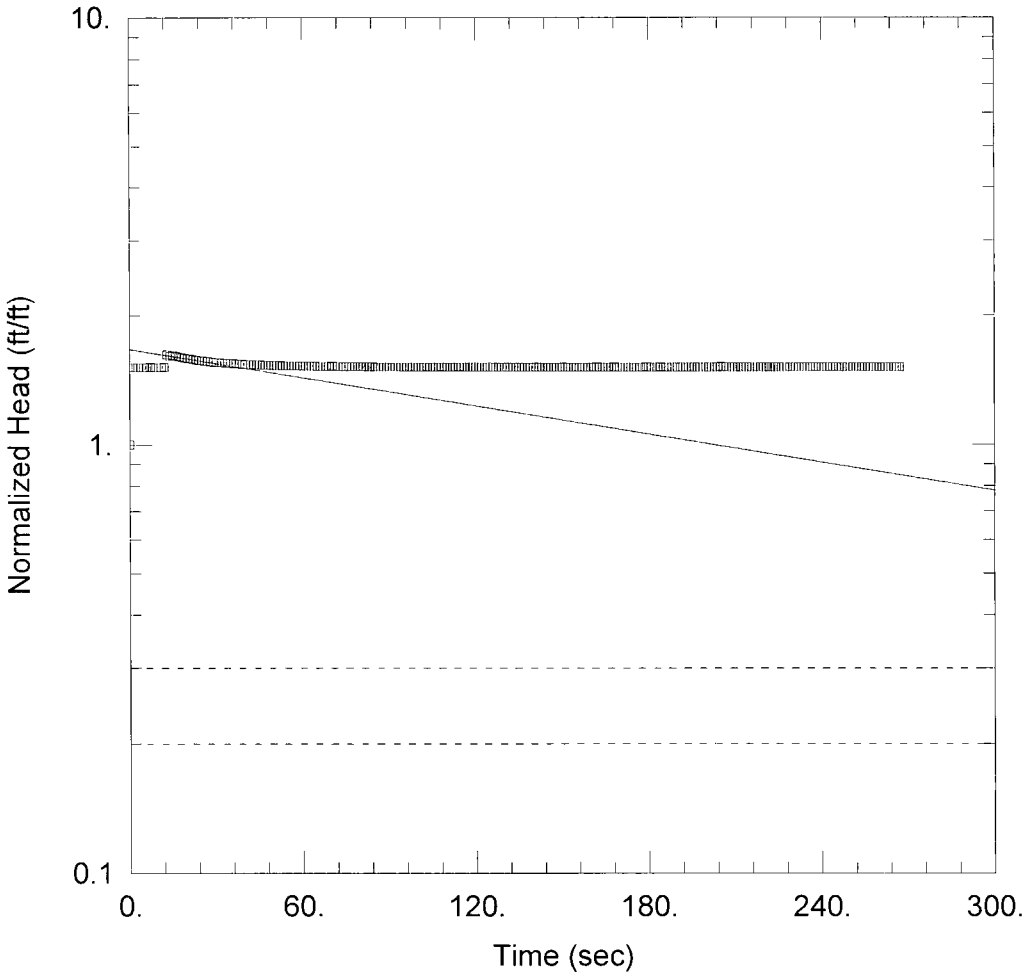
Saturated Thickness: 11.62 ft
Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-20)

Initial Displacement: 6. ft
Total Well Penetration Depth: 11.62 ft
Casing Radius: 0.083 ft
Static Water Column Height: 11.62 ft
Screen Length: 11.62 ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 0.2471 ft/day
y0 = 9.894 ft



MW-20 TEST 3A FALLING HEAD

Data Set: Z:\...\MW-20 Falling Head Test 3a.aqt
Date: 03/18/09 Time: 16:56:01

PROJECT INFORMATION

Company: Larson & Associates, Inc.
Client: Targa
Project: 2-0103
Location: Eunice Gas Plant
Test Well: MW-20
Test Date: 3/05/09

AQUIFER DATA

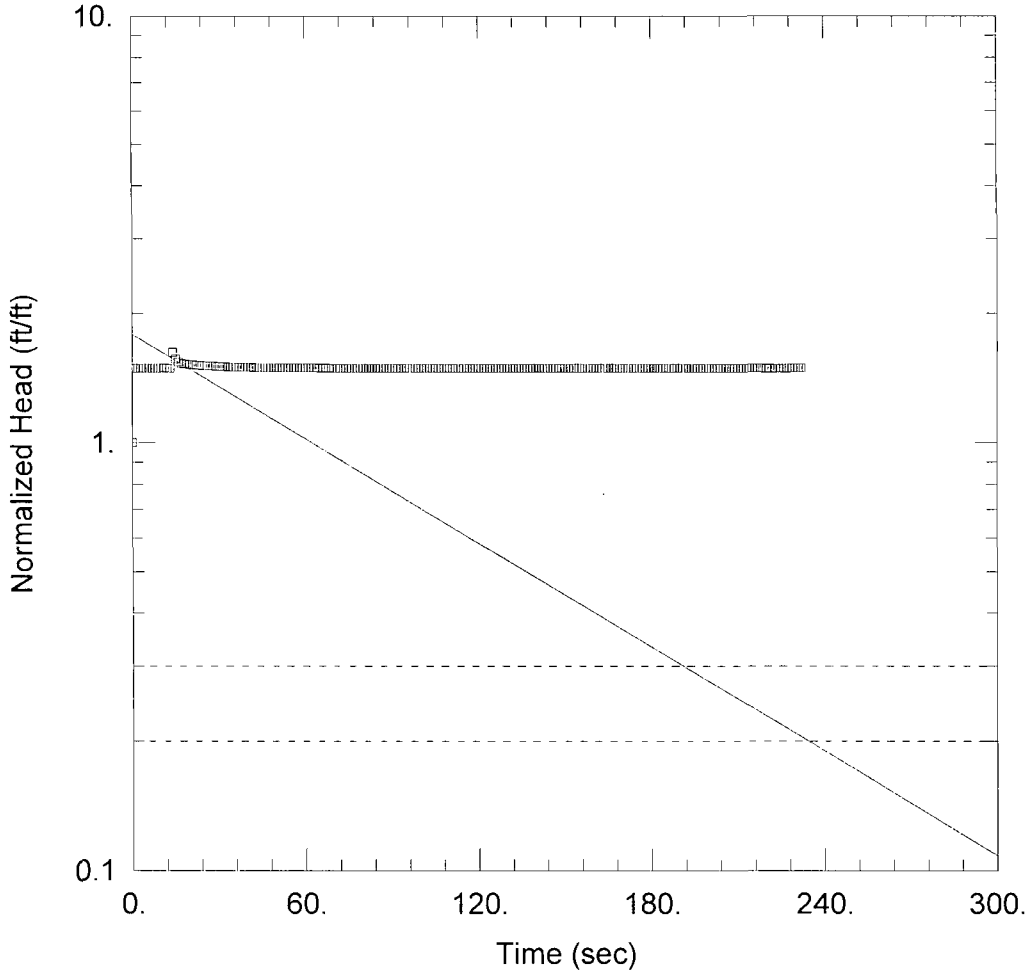
Saturated Thickness: 11.62 ft
Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-20)

Initial Displacement: 6. ft
Total Well Penetration Depth: 11.62 ft
Casing Radius: 0.083 ft
Static Water Column Height: 11.62 ft
Screen Length: 11.62 ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 0.2469 ft/day
y0 = 10. ft



MW-20 TEST 1 RISING HEAD

Data Set: Z:\...\MW-20 Rising Head Test 1.aqt
Date: 03/19/09 Time: 16:42:47

PROJECT INFORMATION

Company: Larson & Associates, Inc.
Client: Targa
Project: 2-0103
Location: Eunice Gas Plant
Test Well: MW-20
Test Date: 3/05/09

AQUIFER DATA

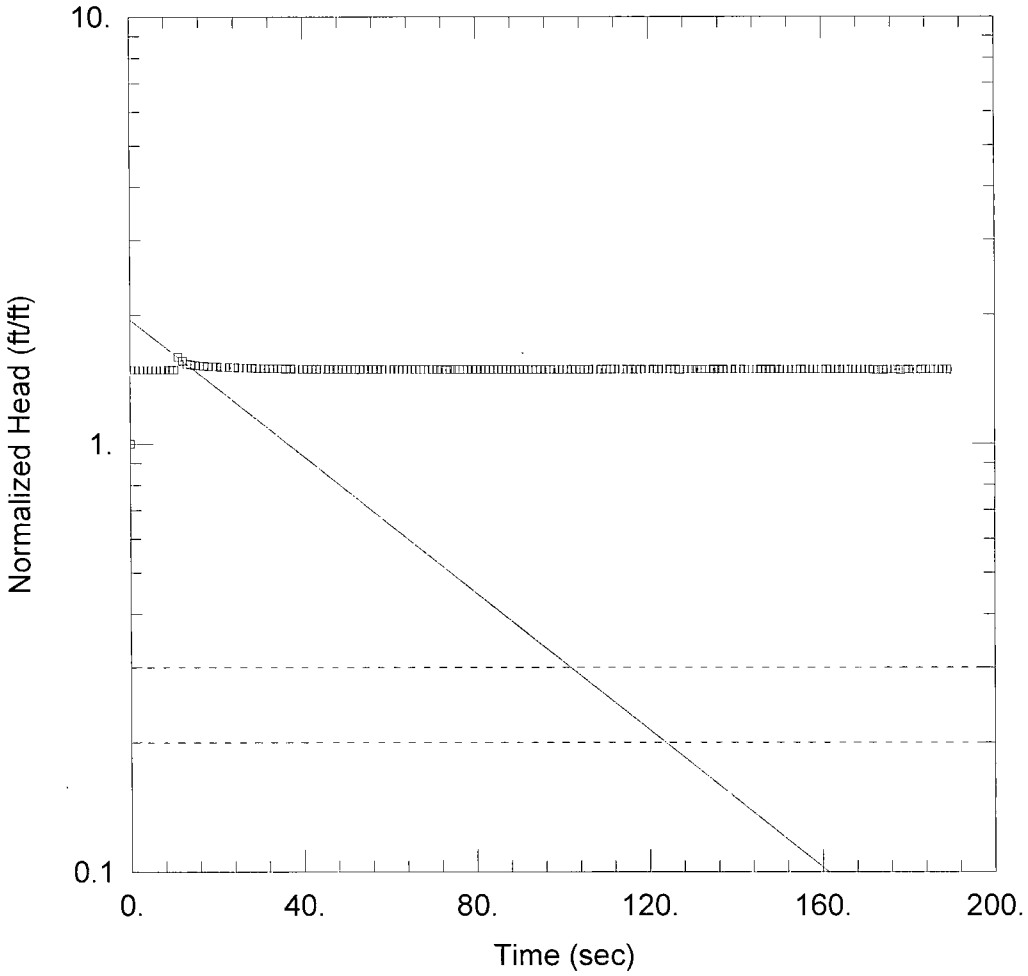
Saturated Thickness: 11.62 ft
Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-20)

Initial Displacement: 6. ft
Total Well Penetration Depth: 11.62 ft
Casing Radius: 0.083 ft
Static Water Column Height: 11.62 ft
Screen Length: 11.62 ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 0.9142 ft/day
y0 = 10.73 ft



MW-20 TEST 2 RISING HEAD

Data Set: Z:\...\MW-20 Rising Head Test 2.aqt
Date: 03/19/09 Time: 16:44:18

PROJECT INFORMATION

Company: Larson & Associates, Inc.
Client: Targa
Project: 2-0103
Location: Eunice Gas Plant
Test Well: MW-20
Test Date: 3/05/09

AQUIFER DATA

Saturated Thickness: 11.62 ft Anisotropy Ratio (Kz/Kr): 1.

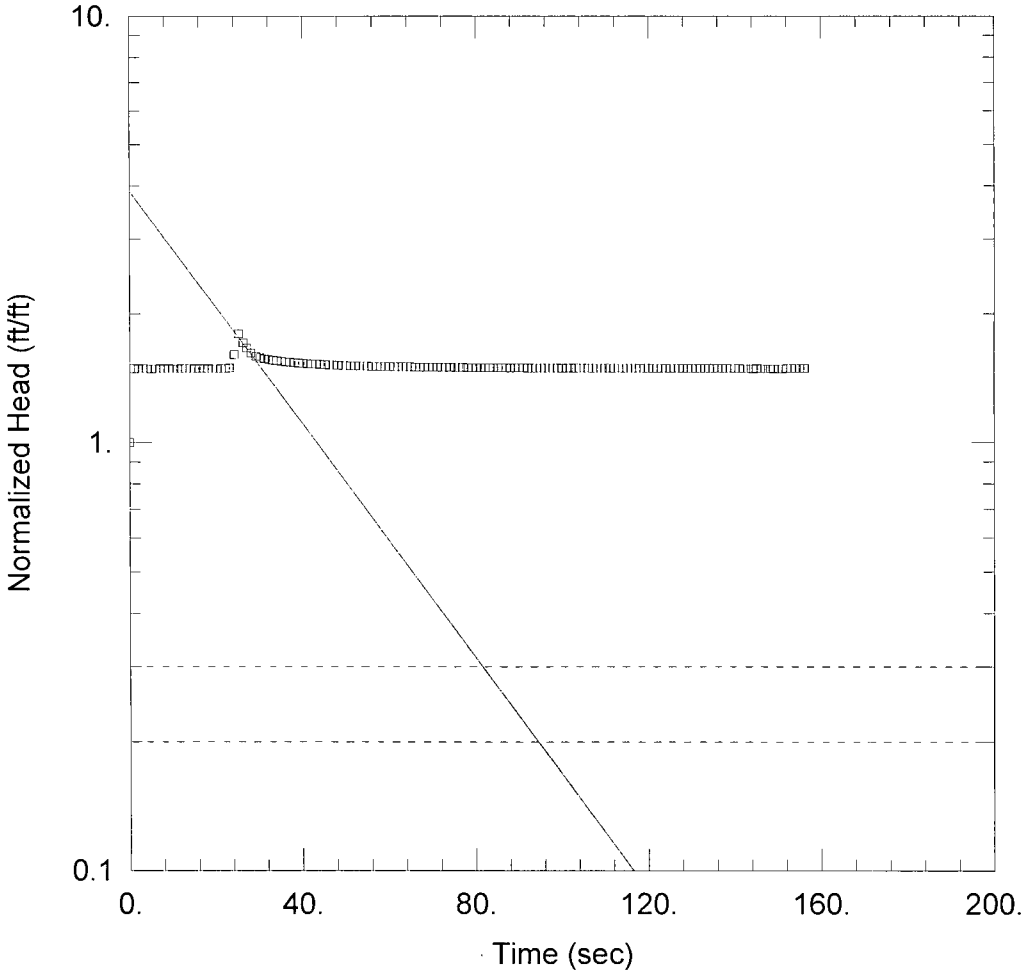
WELL DATA (MW-20)

Initial Displacement: 6. ft
Total Well Penetration Depth: 11.62 ft
Casing Radius: 0.083 ft
Static Water Column Height: 11.62 ft
Screen Length: 11.62 ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 1.802 ft/day y0 = 11.72 ft



MW-20 TEST 3 RISING HEAD

Data Set: Z:\...\MW-20 Rising Head Test 3.aqt
Date: 03/18/09 Time: 16:50:20

PROJECT INFORMATION

Company: Larson & Associates, Inc.
Client: Targa
Project: 2-0103
Location: Eunice Gas Plant
Test Well: MW-20
Test Date: 3/05/09

AQUIFER DATA

Saturated Thickness: 11.62 ft Anisotropy Ratio (Kz/Kr): 1.

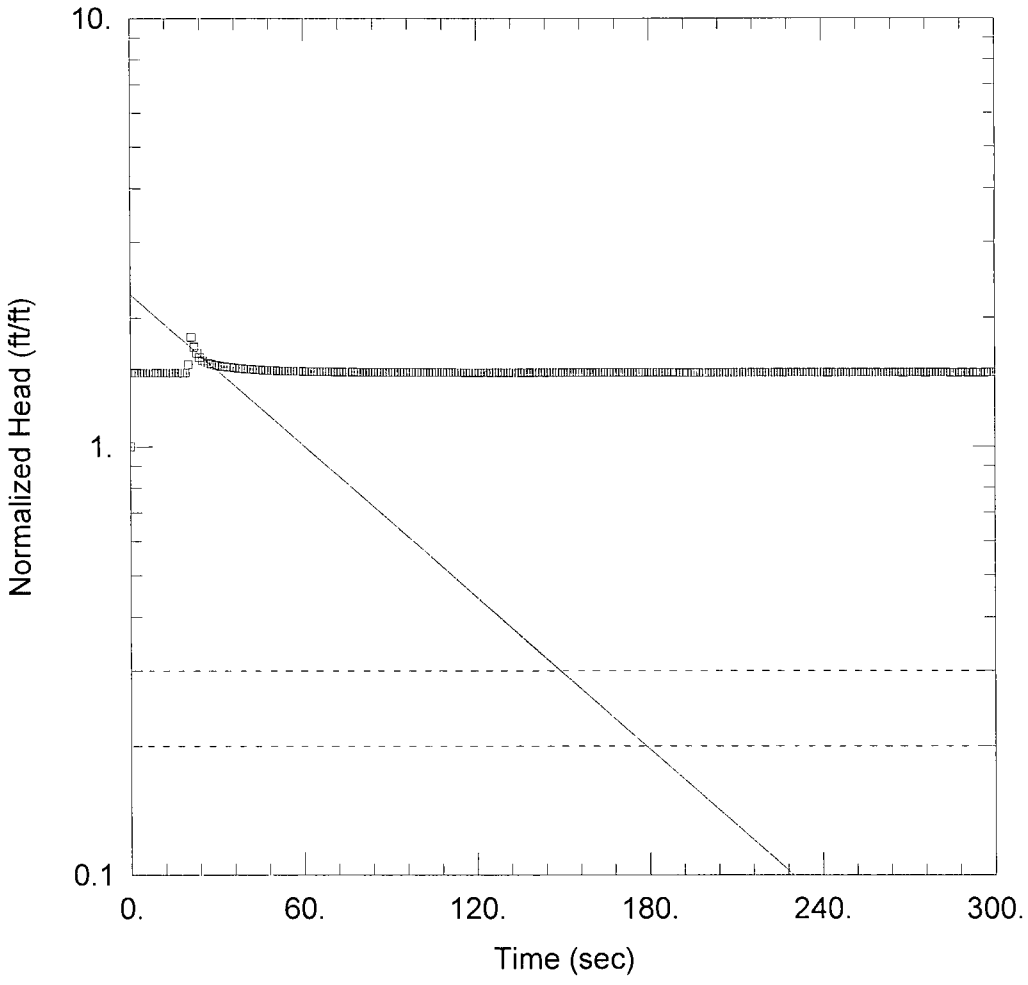
WELL DATA (MW-20)

Initial Displacement: 6. ft
Total Well Penetration Depth: 11.62 ft
Casing Radius: 0.083 ft
Static Water Column Height: 11.62 ft
Screen Length: 11.62 ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 3.072 ft/day y0 = 23.25 ft



MW-20 TEST 3A RISING HEAD

Data Set: Z:\...\MW-20 Rising Head Test 3a.aqt
Date: 03/18/09 Time: 17:03:11

PROJECT INFORMATION

Company: Larson & Associates, Inc.
Client: Targa
Project: 2-0103
Location: Eunice Gas Plant
Test Well: MW-20
Test Date: 3/05/09

AQUIFER DATA

Saturated Thickness: 11.62 ft Anisotropy Ratio (Kz/Kr): 1.

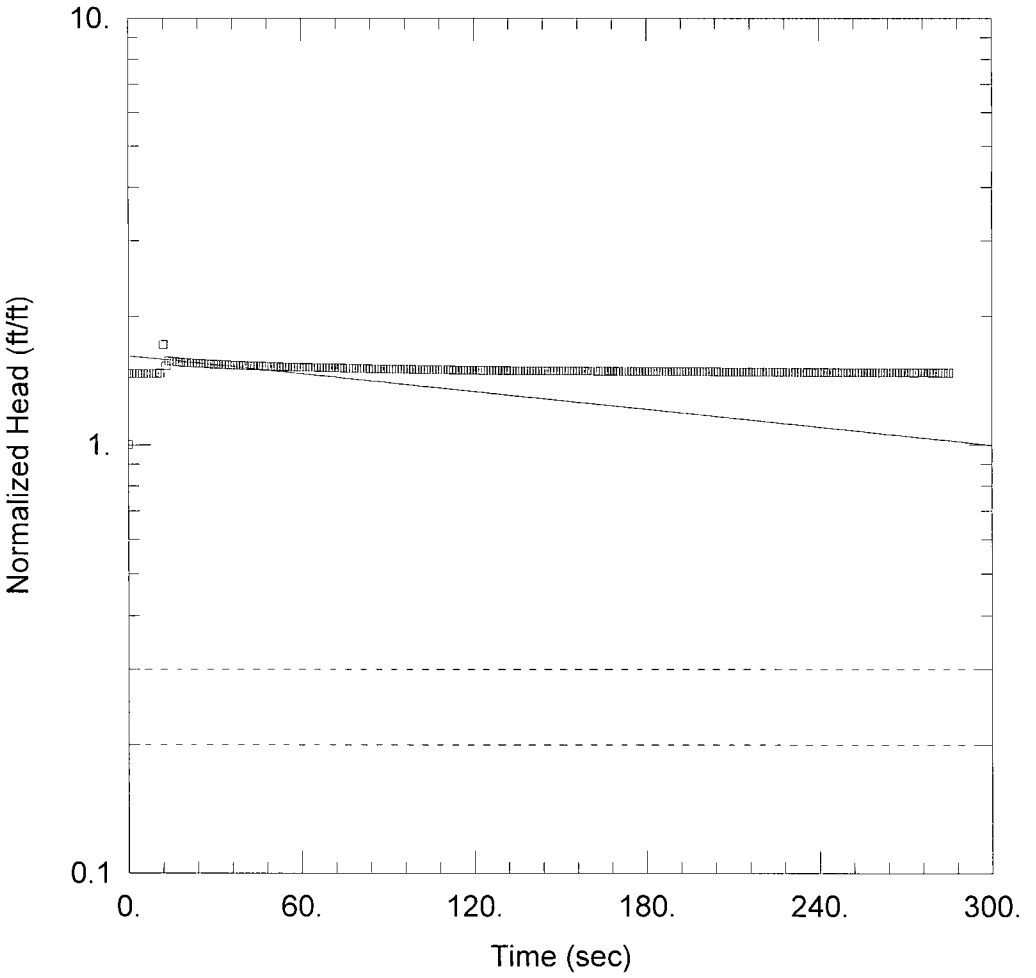
WELL DATA (MW-20)

Initial Displacement: 6. ft
Total Well Penetration Depth: 11.62 ft
Casing Radius: 0.083 ft
Static Water Column Height: 11.62 ft
Screen Length: 11.62 ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 1.329 ft/day y0 = 13.61 ft



MW-21 TEST1 FALLING HEAD

Data Set: Z:\...\MW-21 Falling Head Test 1.aqt
Date: 03/19/09 Time: 08:50:26

PROJECT INFORMATION

Company: Larson & Associates, Inc.
Client: Targa
Project: 2-0103
Location: Eunice Gas Plant
Test Well: MW-21
Test Date: 3/03/09

AQUIFER DATA

Saturated Thickness: 10.87 ft Anisotropy Ratio (Kz/Kr): 1.

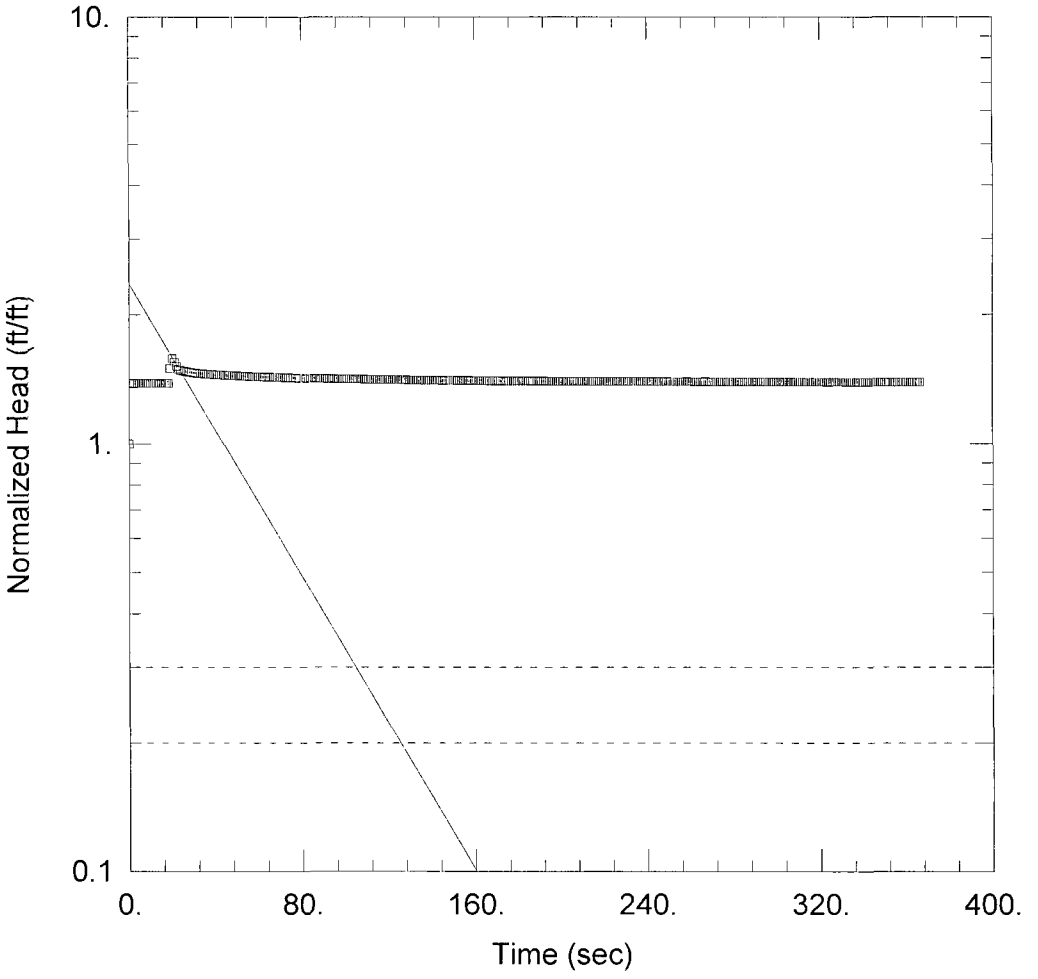
WELL DATA (MW-21)

Initial Displacement: 7. ft
Total Well Penetration Depth: 10.87 ft
Casing Radius: 0.083 ft
Static Water Column Height: 10.87 ft
Screen Length: 10.87 ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.166 ft/day y0 = 11.32 ft



MW-21 TEST 2 RISING HEAD

Data Set: Z:\...\MW-21 Falling Head Test 2.aqt
Date: 03/19/09 Time: 10:12:04

PROJECT INFORMATION

Company: Larson & Associates, Inc.
Client: Targa
Project: 2-0103
Location: Eunice Gas Plant
Test Well: MW-21
Test Date: 3/03/09

AQUIFER DATA

Saturated Thickness: 10.87 ft Anisotropy Ratio (Kz/Kr): 1.

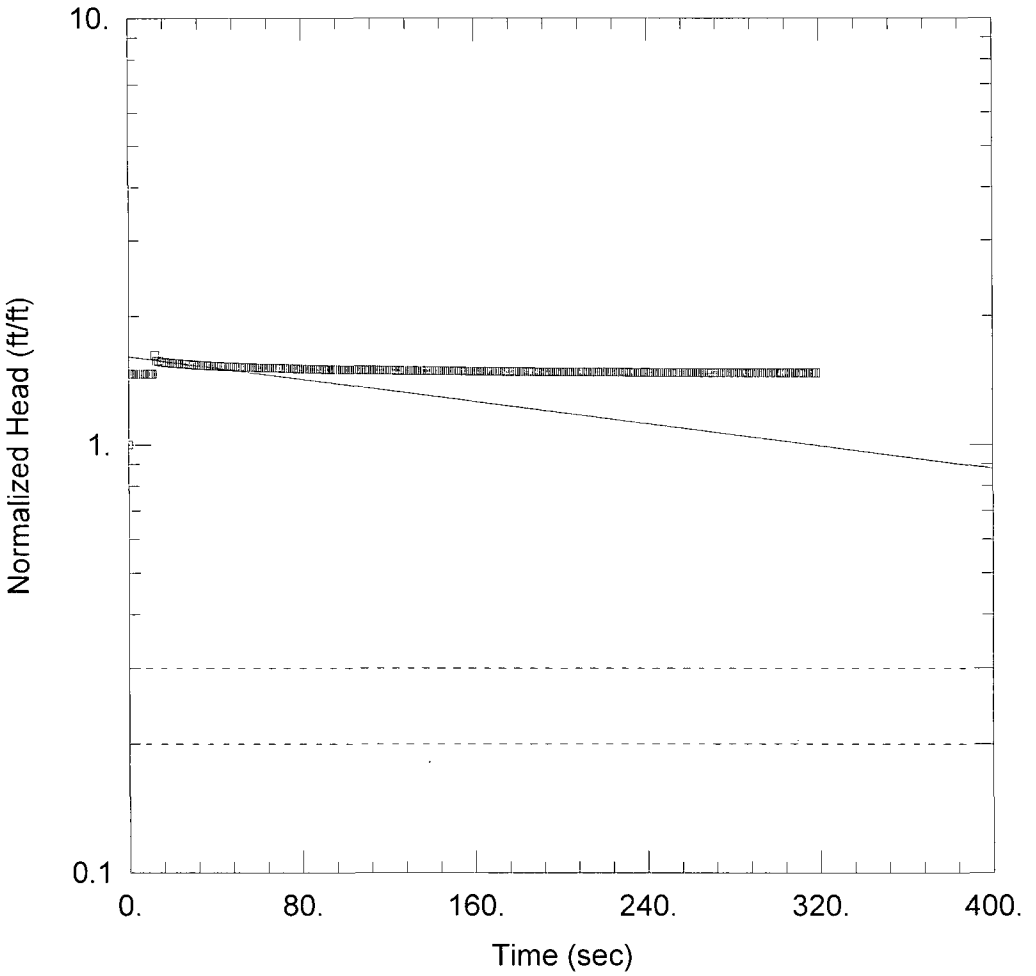
WELL DATA (MW-21)

Initial Displacement: 7. ft
Total Well Penetration Depth: 10.87 ft
Casing Radius: 0.083 ft
Static Water Column Height: 10.87 ft
Screen Length: 10.87 ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 2.034 ft/day y0 = 16.54 ft



MW-21 TEST 3 FALLING HEAD

Data Set: Z:\...\MW-21 Falling Head Test 3.aqt
Date: 03/19/09 Time: 10:58:06

PROJECT INFORMATION

Company: Larson & Associates, Inc.
Client: Targa
Project: 2-0103
Location: Eunice Gas Plant
Test Well: MW-21
Test Date: 3/03/09

AQUIFER DATA

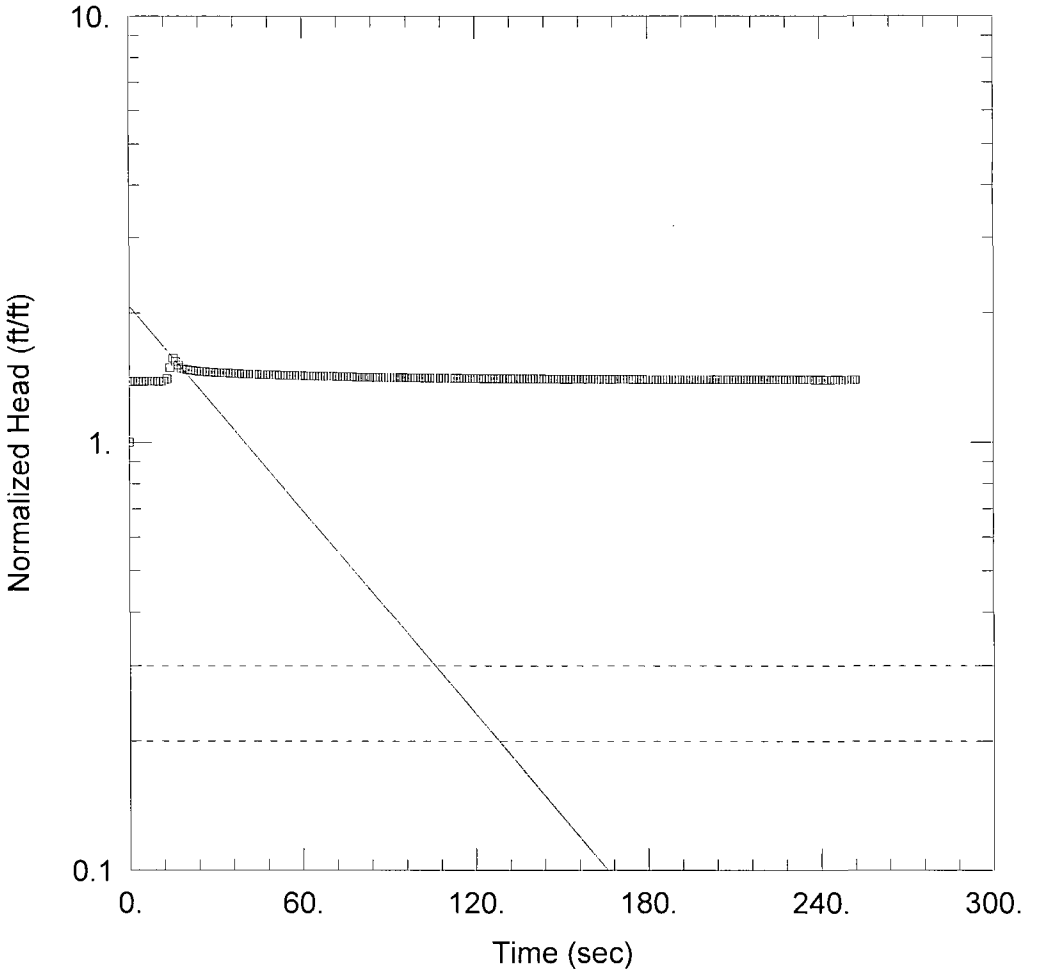
Saturated Thickness: 10.87 ft
Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-21)

Initial Displacement: 7. ft
Total Well Penetration Depth: 10.87 ft
Casing Radius: 0.083 ft
Static Water Column Height: 10.87 ft
Screen Length: 10.87 ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 0.1554 ft/day
y0 = 11.27 ft



MW-21 TEST1 RISING HEAD

Data Set: Z:\...\MW-21 Rising Head Test 1.aqt
Date: 03/19/09 Time: 09:37:35

PROJECT INFORMATION

Company: Larson & Associates, Inc.
Client: Targa
Project: 2-0103
Location: Eunice Gas Plant
Test Well: MW-21
Test Date: 3/03/09

AQUIFER DATA

Saturated Thickness: 10.87 ft Anisotropy Ratio (Kz/Kr): 1.

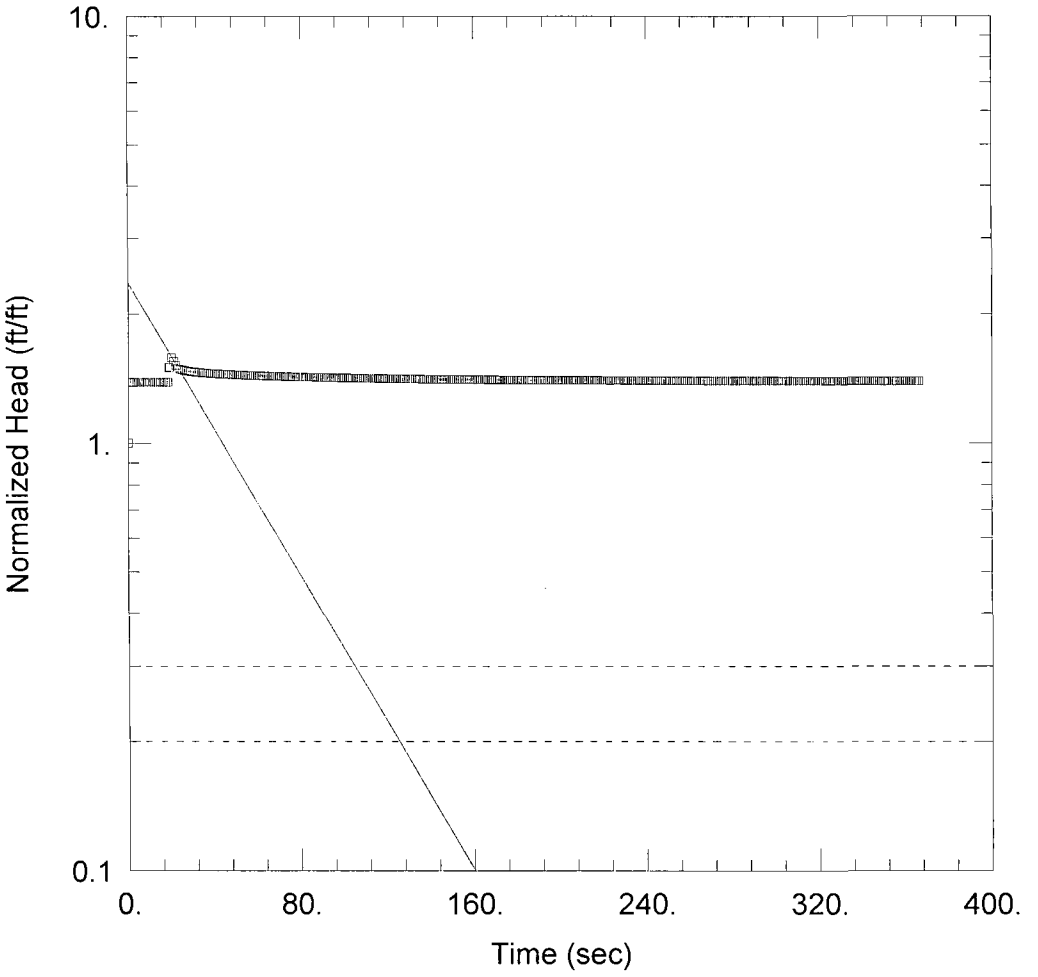
WELL DATA (MW-21)

Initial Displacement: 7. ft
Total Well Penetration Depth: 10.87 ft
Casing Radius: 0.083 ft
Static Water Column Height: 10.87 ft
Screen Length: 10.87 ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 1.883 ft/day y0 = 14.52 ft



MW-21 TEST 2 RISING HEAD

Data Set: Z:\...\MW-21 Falling Head Test 2.aqt
Date: 03/19/09 Time: 10:12:04

PROJECT INFORMATION

Company: Larson & Associates, Inc.
Client: Targa
Project: 2-0103
Location: Eunice Gas Plant
Test Well: MW-21
Test Date: 3/03/09

AQUIFER DATA

Saturated Thickness: 10.87 ft Anisotropy Ratio (Kz/Kr): 1.

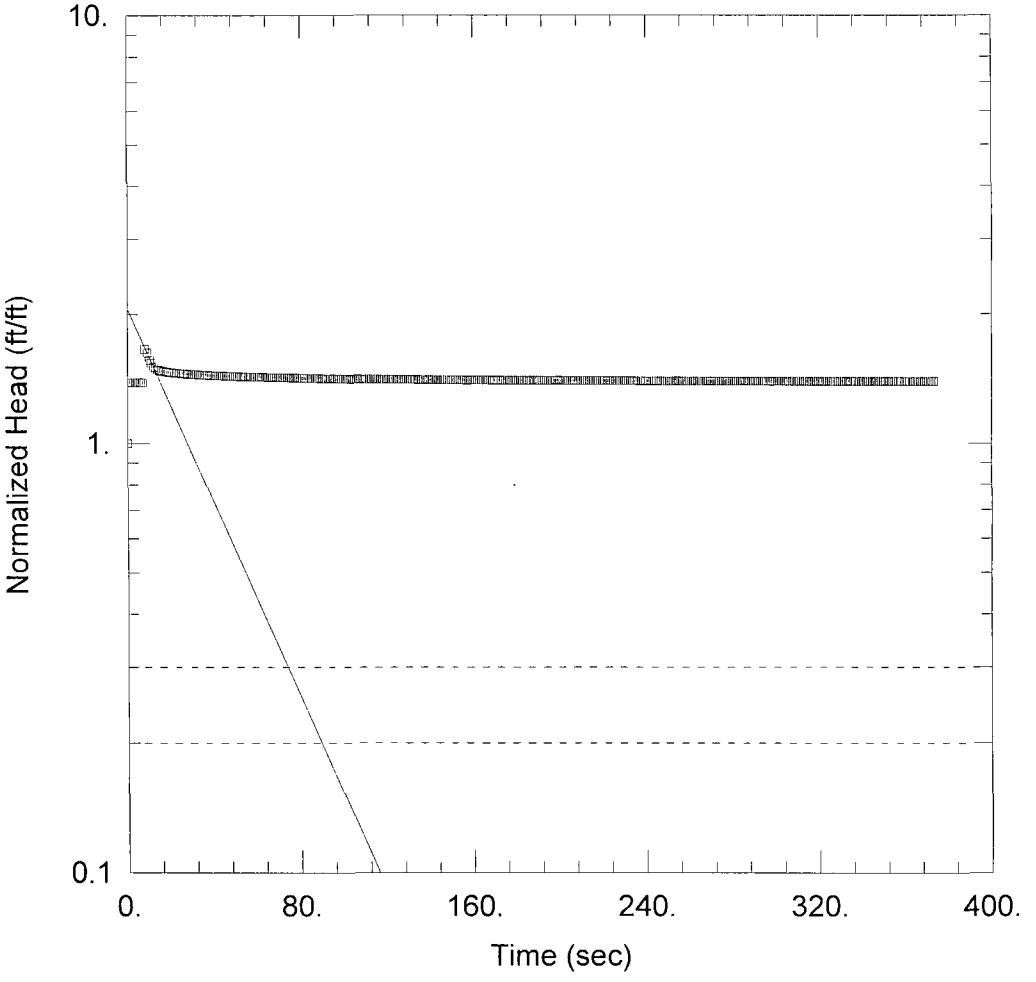
WELL DATA (MW-21)

Initial Displacement: 7. ft
Total Well Penetration Depth: 10.87 ft
Casing Radius: 0.083 ft
Static Water Column Height: 10.87 ft
Screen Length: 10.87 ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 2.034 ft/day y0 = 16.54 ft



MW-21 TEST 3 RISING HEAD

Data Set: Z:\...\MW-21 Rising Head Test 3.aqt
Date: 03/19/09 Time: 11:12:07

PROJECT INFORMATION

Company: Larson & Associates, Inc.
Client: Targa
Project: 2-0103
Location: Eunice Gas Plant
Test Well: MW-21
Test Date: 3/03/09

AQUIFER DATA

Saturated Thickness: 10.87 ft Anisotropy Ratio (Kz/Kr): 1.

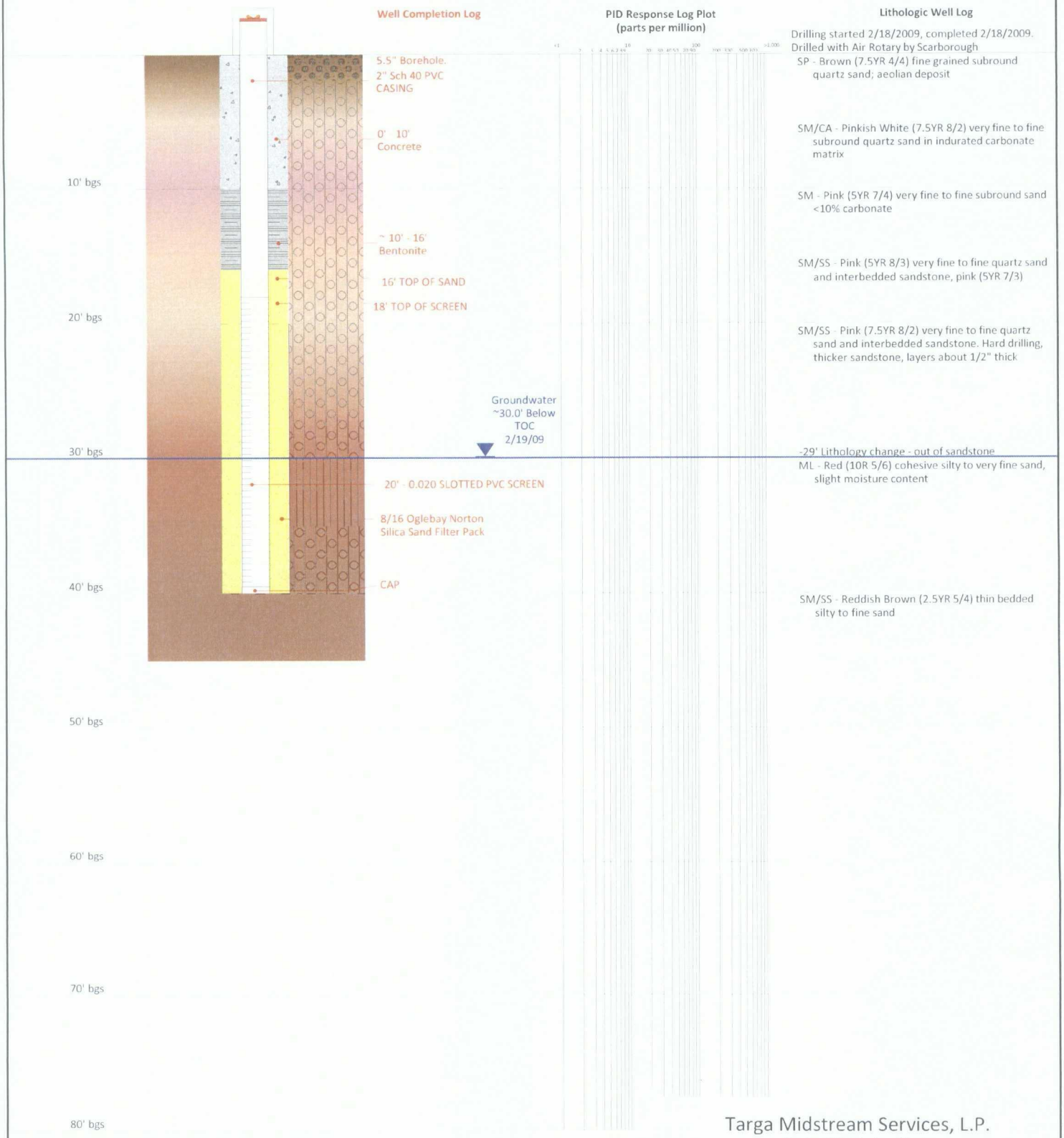
WELL DATA (MW-21)

Initial Displacement: 7. ft
Total Well Penetration Depth: 10.87 ft
Casing Radius: 0.083 ft
Static Water Column Height: 10.87 ft
Screen Length: 10.87 ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 2.685 ft/day y0 = 14.39 ft



Targa Midstream Services, L.P.
Eunice Middle Gas Plant
NE/4, Sec. 3, T-22-S, R-37-E
Lea County, New Mexico

N 32° 25' 29.3"
W 103° 08' 50.1"

MW-2A Boring & Completion Log

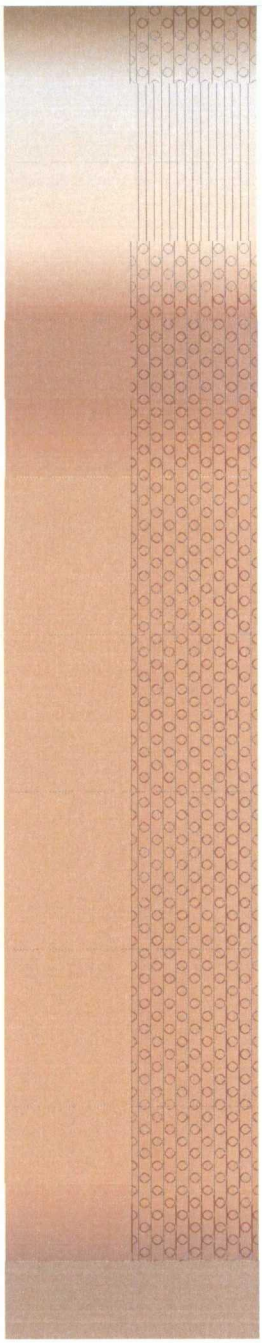
Larson & Associates, Inc.
Environmental Consultants

Boring Log

PID Response Log Plot
(parts per million)

Lithologic Bore Log

Drilling started 2/18/2009, completed 2/18/2009.
Drilled with Air Rotary by Scarborough



10' bgs

20' bgs

30' bgs

40' bgs

50' bgs

60' bgs

70' bgs

80' bgs

90' bgs

100' bgs

SM - Reddish Brown (5YR 4/4) very fine to fine subround sand

ML/CA - White (5YR 8/1) indurated massive carbonate with silty to very fine sand, no defined structure in hand samples

ML/CA - White (5YR 8/1) indurated massive silty to very fine sand in carbonate matrix

SM/CA - Pink (5YR 8/3) indurated silty to medium sand in massive carbonate
-17' Lithology change

SM - Red (10R 5/6) unconsolidated very fine quartz sand, powdery

SM - Red (10R 5/6) unconsolidated very fine quartz sand, powdery

SM/SS - Light Red (2.5YR 6/6) very fine to fine quartz sand, platy texture

SM/SS - Light Red (2.5YR 6/6) very fine to fine quartz sand in platy beds

SM/SS - Light Red (2.5YR 6/6) very fine to fine quartz sand in platy beds

SM/SS - Light Red (2.5YR 6/6) very fine to fine quartz sand in platy beds and chinle sandstone

SM/SS - Weak Red (2.5YR 6/6) silty to very fine sand, <10% collodial clay content or material that passes #200 seive

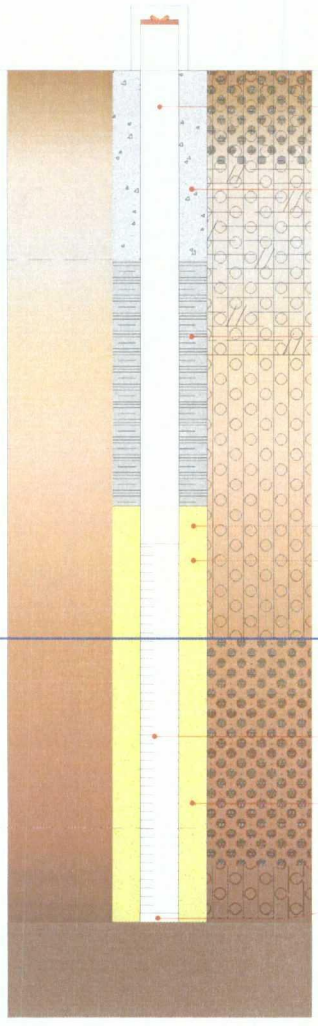
SM/SS - Weak Red (10R 5/4) silty to very fine sand, <10% collodial clay content or material that passes #200 seive

Targa Midstream Services, L.P.
Eunice Middle Gas Plant
NE/4, Sec. 3, T-22-S, R-37-E
Lea County, New Mexico

N 32° 25' 29.3"
W 103° 08' 50.1"

Larson & Associates, Inc.
Environmental Consultants

MW-17A Boring Log



Well Completion Log

5.5" Borehole
2" Sch 40 PVC CASING

0' - 10'
Concrete

~ 10' - 23'
Bentonite

23' TOP OF SAND

25' TOP OF SCREEN

Groundwater ~30.0' Below TOC 2/19/09

20' - 0.020 SLOTTED PVC SCREEN

8/16 Oglebay Norton Silica Sand Filter Pack

CAP

PID Response Log Plot (parts per million)

10' bgs

20' bgs

30' bgs

40' bgs

50' bgs

60' bgs

70' bgs

80' bgs

Lithologic Well Log

Drilling started 2/19/2009, completed 2/19/2009.
Drilled with Air Rotary by Scarborough

SP - Strong Brown (7.5YR 5/6) fine grained, subround quartz sand

Fill/CA - Pinkish White (7.5YR 8/2) caliche fill material

Fill/CA - Pinkish White (7.5YR 8/2) caliche fill material

SM/CA - Pink (7.5YR 8/3) very fine to fine subround quartz sand in carbonate matrix, doesn't have the same massive texture as previous samples

SM/CA - Pink (5YR 8/4) very fine to fine subround quartz sand in carbonate matrix

SP - Reddish Yellow (5YR 6/6) fine grained round quartz sand, slightly moist

SP - Red (2.5YR 5/6) wet - fine round quartz sand

SM - Red (2.5YR 4/4) red bed - sand

SM - Reddish Brown (2.5YR 4/4) silty to medium angular quartz sand; minor collodial clay content

Targa Midstream Services, L.P.
Eunice Middle Gas Plant
NE/4, Sec. 3, T-22-S, R-37-E
Lea County, New Mexico

N 32° 25' 29.3"
W 103° 08' 50.1"

Larson & Associates, Inc.
Environmental Consultants

MW-21 Boring & Completion Log

Larson & Associates, Inc.
Environmental Consultants

October 4, 2005

VIA EMAIL: wayne.price@state.nm.us

Mr. Wayne Price
Environmental Engineer
State of New Mexico - Oil Conservation Division
Environmental Bureau
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Re: Contaminant Source Identification and Investigation Work Plan, Dynegy Midstream Services, L.P., Eunice Gas Plant (GW-005), UL B (NW/4, NE/4), Section 3, Township 22 South, Range 37 East, Lea County, New Mexico

Dear Mr. Price:

This letter is submitted to the New Mexico Oil Conservation Division ("OCD") by Larson and Associates, Inc. ("LA"), on behalf of Dynegy Midstream Services, L.P. ("DMS"), and presents plans to identify potential source areas and investigate impacts to groundwater at the Eunice Gas Plant ("Facility"). The Facility is located in unit letter B (NW/4, NW/4), Section 3, Township 22 South, Range 37 East, in Lea County, New Mexico. Figure 1 presents a location and topographic map.

Background

On March 10, 2005, a report titled, *"2004 Annual Groundwater Monitoring Report, Eunice Gas Plant (GW-005), Lea County, New Mexico, March 10, 2005"*, was submitted to OCD, and presented laboratory analysis of groundwater samples collected from monitoring wells at the Facility between November 11, 2003 and November 11, 2004. On May 19, 2005, following a technical meeting, OCD required DMS to submit the following:

- A plan for OCD approval to identify the source of contamination in the areas of monitor well MW-11, MW-3, MW-6, MW-14; and
- A plan to investigate the contamination down gradient of MW-14.

Contaminants reported in groundwater samples from the monitoring wells include benzene, toluene, ethyl benzene and xylene ("BTEX") in groundwater from wells MW-3, MW-6, MW-11 and MW-14, arsenic (MW-3) and chloride and total dissolved solids

("TDS") in groundwater from wells MW-3 and MW-14. LA reviewed aerial photographs for the following dates to qualify potential source areas:

- February 7, 1949;
- May 12, 1955
- February 4, 1968
- March 29, 1977
- July 19, 1986; and
- November 1, 1997.

Appendix A presents the aerial photographs.

Referring to Appendix A, the photograph dated February 7, 1949, shows the gas plant, but no specific sources for contamination in the areas of wells MW-3, MW-6, MW-11 and MW-14.

The photograph dated May 12, 1955, shows two (2) above ground storage tanks near the southeast corner of the plant in the vicinity of well MW-3. The tanks may be a potential source for BTEX in well MW-3. The photograph also shows two (2) pits located southwest and southeast of the gas plant. The southwest pit was located about 150 feet northeast (up gradient) of the current location of well MW-6. The southeast pit was located approximately 200 feet southeast (down gradient) of the current location of well MW-3. The southwest pit may be a potential source for BTEX in well MW-6. It is not likely that the southeast is a potential source for BTEX in well MW-3 since the well is hydraulically up gradient of the pit. A tank battery is visible south of the current location of well MW-6, but is not considered a source since the well is located up gradient of the tank battery. Four (4) pits, which may be associated with gas storage wells, are visible from about 400 to 1,000 feet south of the gas plant, and include a large pit measuring approximately 250 x 250 feet. The large pit is located about 500 feet west and northwest of the current location of well MW-14. A darkened area, possibly a flare pit, is visible about 50 feet north of the current location of well MW-14. The brine pits may be considered potential sources for the chloride and TDS in well MW-14, but it is unlikely that BTEX would be related to the pits. The flare pit, if present, would be considered a potential source for the BTEX in well MW-14. No specific source for BTEX in the areas of well MW-11 was observed.

The photograph on February 4, 1968, shows tanks near southeast corner of the gas plant and the pits southwest and southeast of the gas plant. A small pit is also visible about 200 feet east of the southwest pit. The tank battery is visible about 150 feet south and down gradient of the current location of well MW-6. The four (4) pits previously observed south of the gas plant are also visible. The darkened area, possibly a flare pit, is also visible about 50 feet north of the current location of well MW-14. No specific source for the BTEX in well MW-11 is visible.

The photograph on March 29, 1977, does not clearly show tanks near the southeast corner of the gas plant, but the pits previously observed southwest and southeast of the gas plant are shown covered. The tank battery located south of well MW-6 is present, but is not clearly visible. The 4 pits located south of the gas plant are visible, but appear covered or empty. The darkened area, possibly a flare pit, located north of well MW-14, is not clearly visible. However, a darkened area is visible about 250 feet northwest of well MW-14, and may be associated with the flare. No source for the BTEX in well MW-11 is visible.

The photograph on July 19, 1986, shows tanks and equipment near the southeast corner of the gas plant, although the photograph is blurred. The pits previously observed southwest and southeast of the gas plant appear covered and vegetated. The tank battery located south of the current location of well MW-6 is present, but not clearly visible. The 4 pits previously observed south of the gas plant appear covered. The darkened areas previously observed north and northwest of well MW-14 are not visible. A large area in the vicinity of the current location of well MW-14 appears void of vegetation. A pipeline scar is visible east of the current location of well MW-11.

The photograph on November 1, 1997, shows tanks and equipment near the southeast corner of the gas plant, although the photograph is blurred. The pits previously observed southwest, southeast and south of the gas plant, including the large pit, appear covered and vegetated. The darkened areas previously identified north and northwest of the current location of well MW-14 are not visible. The large area void of vegetation previously identified north and northwest of the current location of well MW-14 is visible. A pipeline scar is also visible about 200 feet west of the current location of well MW-14. No source BTEX in well MW-11 is visible.

Recent field reconnaissance revealed two (2) aboveground tanks and an oil and water separator near the southeast corner of the gas plant, and approximately 50 feet west (up gradient) of well MW-3. The tanks store natural gas liquids (i.e., condensate) from plant scrubbers during first and second stage compression, and oil skimmed from the oil and water separator. The oil and water separator is located north of the tanks, and is connected to the drain system. Water from the oil and water separator is disposed in the Facility's permitted Class II injection well. The tanks are contained inside a firewall that is lined with high-density polyethylene. The oil and water separator has secondary containment that can be visually inspected for leaks. Trucks periodically remove product from the tanks at a load-out near the southeast corner of the gas plant.

The field reconnaissance also identified a spill along a crude oil pipeline owned by Link Energy, Inc., in unit letter P (SE/4, SE/4), Section 34, Township 21 South and Range 37 East. The spill is located about 250 feet north and northeast of well MW-11 on property of other ownership and is not affiliated with DMS operations. The spill measured about 50 x 50 feet.

In summary, potential sources for the BTEX in groundwater may include the tank battery, oil and water separator or truck load-out near the southeast corner of the gas pant (MW-3), former pit located southwest of the gas plant (MW-6), crude oil spill area north and northeast of well MW-11 and flare pit (MW-14). Potential sources for arsenic in groundwater in the area of well MW-3 may include the tank battery and oil and water separator near the southeast corner of the gas plant. Potential sources for the chloride and TDS in groundwater may include a produced water pipeline operated by Rice Operating, aboveground storage tanks, oil and water and truck load-out near the southeast corner of the gas plant (MW-3), brine pits and area of sparse vegetation (MW-14).

Proposed Investigation

DMS proposes to conduct additional field reconnaissance of the areas identified as potential sources for BTEX, arsenic, chloride and TDS near wells MW-3, MW-6 and MW-14. The field reconnaissance will involve visually inspecting the areas for the presence of contaminants (i.e., hydrocarbon liquids, staining, salt-crusted soil, etc.) and collecting photographic documentation. No additional field reconnaissance is planned for the area near well MW-11, since previous reconnaissance did not a source on DMS property. The spill identified at the crude oil pipeline was located on the adjoining property north of DMS property, and was not affiliated with DMS operations. The following is a description of areas that will be included in the field reconnaissance:

- Tanks, oil and water separator and truck loading area near southeast corner of gas plant (MW-3);
- Former pit located southwest of the gas plant (MW-6); and
- Brine pit, flare pit and area of sparse vegetation located south and southeast of gas plant (MW-14).

DMS will also install four (4) monitoring wells south and east of the Facility to investigate contamination down gradient of well MW-14. The wells will be drilled to approximately 50 feet below ground surface ("bgs") using an air rotary drilling rig. Grab samples of drill cuttings will be examined for lithology and impact (i.e., odor, staining, etc.), but no samples are anticipated for laboratory analysis since the wells will be installed at locations where soil impacts were not anticipated. The wells will be constructed with 2-inch schedule 40 screw-threaded PVC casing and screen. The well screen, about 20 feet in length, will be installed near the bottom of the boring and extend across the groundwater surface. The annulus between the well screen and boring will be filled with graded silica sand that will extend about 2 feet above the screen. The remaining annulus will be filled to about 1 foot bgs with bentonite chips. The wells will be secured with locking above-grade locking covers anchored in concrete. Drill cuttings will be placed on the ground adjacent to the wells. A State of New Mexico Licensed

Professional Land Surveyor will survey the wells for top-of-casing and ground elevation. Figure 2 presents the approximate locations for the monitoring wells.

The wells will be bailed to remove fine-grained sediment disturbed during drilling, and depth-to-groundwater and hydrocarbon product will be measured once groundwater has stabilized. Groundwater samples will be collected from the new and existing wells during semi-annual groundwater monitoring scheduled for November 2005. The wells will be purged by pumping or bailing to remove at least 3 casing-volumes of groundwater prior to sample collection. The samples will be collected using dedicated disposable polyethylene bailers and carefully transferred to laboratory-prepared containers. The laboratory containers will be labeled, chilled in an ice chest and delivered under chain-of-custody control to an environmental laboratory. The samples will be analyzed for BTEX, dissolved metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium, silver), cations (calcium, magnesium, sodium, potassium), anions (total carbonate, sulfate, chloride) and TDS.

The results of the reconnaissance, well installations and laboratory analysis of groundwater samples, including groundwater potentiometric and contaminant concentration maps, will be submitted to OCD in the annual groundwater monitoring report scheduled for delivery by 31, 2006. Please call Mr. Cal Wrangham at (432) 688-0542 or myself at (432) 687-0901 if you have questions. We may also be contacted by email at Cal.Wrangham@Dynegy.com or Mark@LAEnvironmental.com.

Sincerely,

Larson and Associates, Inc.

Mark J. Larson
Sr. Project Manager/President

Encl.

cc: Cal Wrangham/ Dynegy
James Lingnau/ Dynegy Eunice
Chris Williams / OCD District 1 Hobbs

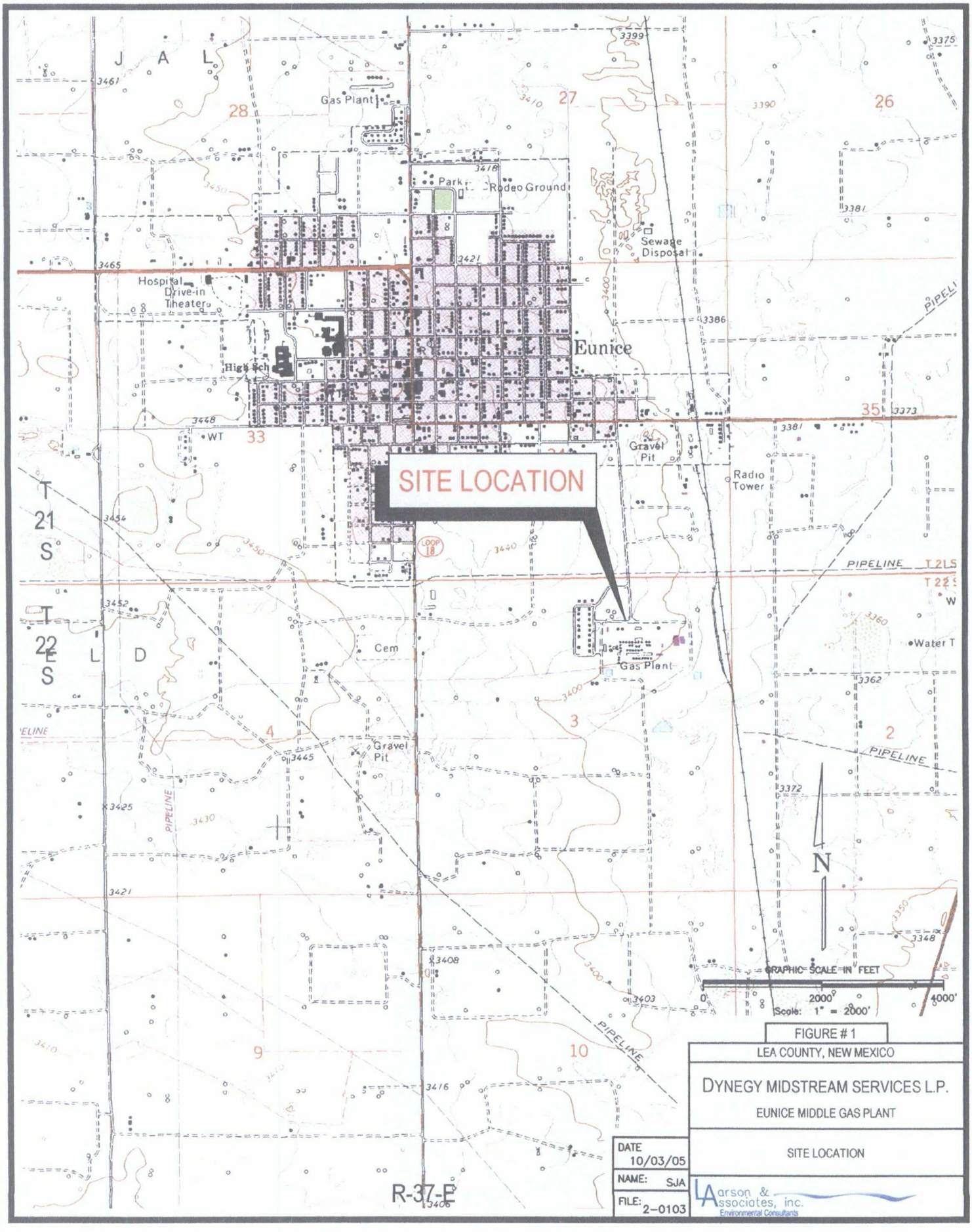


FIGURE # 1

LEA COUNTY, NEW MEXICO

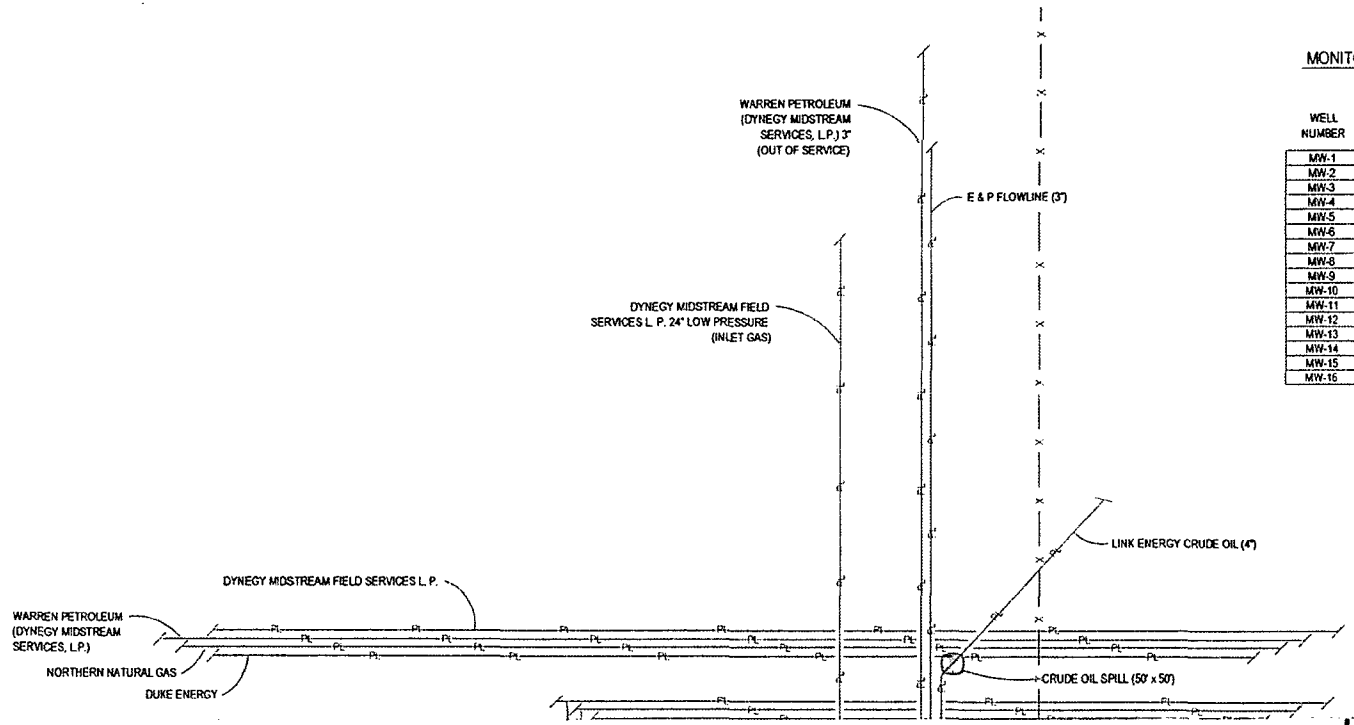
DYNEGY MIDSTREAM SERVICES L.P.

EUNICE MIDDLE GAS PLANT

SITE LOCATION

DATE	10/03/05
NAME:	SJA
FILE:	2-0103

Larson & Associates, inc.
Environmental Consultants



MONITORING WELL DATA

WELL NUMBER	TOP OF CASING ELEVATION (FEET) AMSL	GROUND ELEVATION (FEET AMSL)
MW-1	3418.44	3416.39
MW-2	3394.94	3392.80
MW-3	3398.46	3395.97
MW-4	3388.21	3385.73
MW-5	3396.84	3394.29
MW-6	3403.74	3401.15
MW-7	3419.71	3417.25
MW-8	3431.01	3428.66
MW-9	3420.59	3418.14
MW-10	3405.73	3403.31
MW-11	3398.01	3395.51
MW-12	3396.78	3394.81
MW-13	3387.69	3385.82
MW-14	3381.99	3379.66
MW-15	3396.61	3394.67
MW-16	3404.51	3402.48

GRAPHIC SCALE IN FEET

0 400' 800'

Scale: 1" = 400'

LEGEND

MW-1 ○ - MONITORING WELL LOCATION

MW-17 ◎ - PROPOSED MONITORING WELL

◎ - PROPOSED RECONNAISSANCE AREA

FIGURE # 2

LEA COUNTY, NEW MEXICO

DYNEGY MIDSTREAM SERVICES L.P.

EUNICE GAS PLANT

NE/4, SEC. 3, T-22-S, R-37-E

FACILITY DRAWING

DATE 10/4/05

NAME: SJA

FILE: 2-0103

Larson & Associates, Inc.
Environmental Consultants

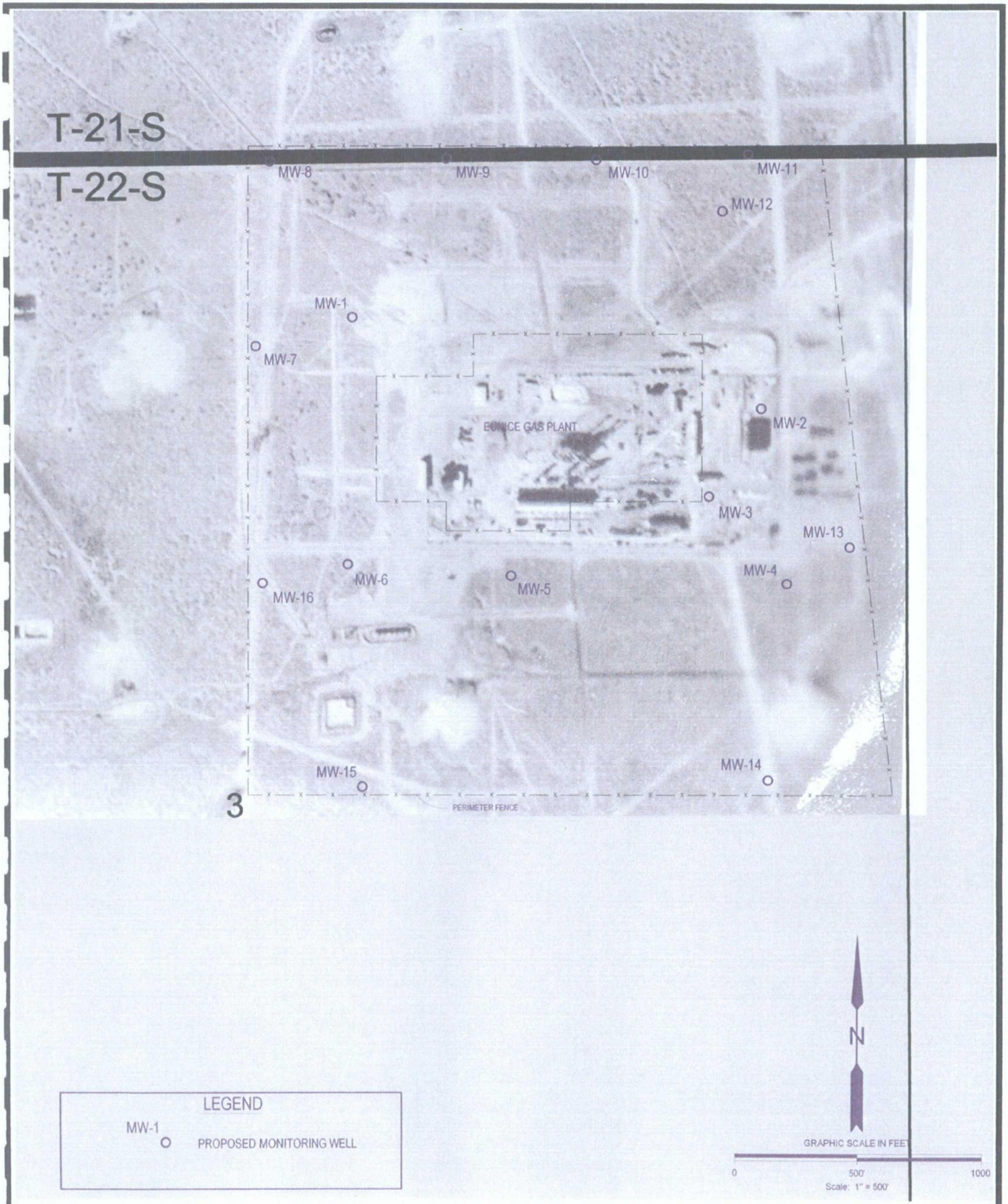
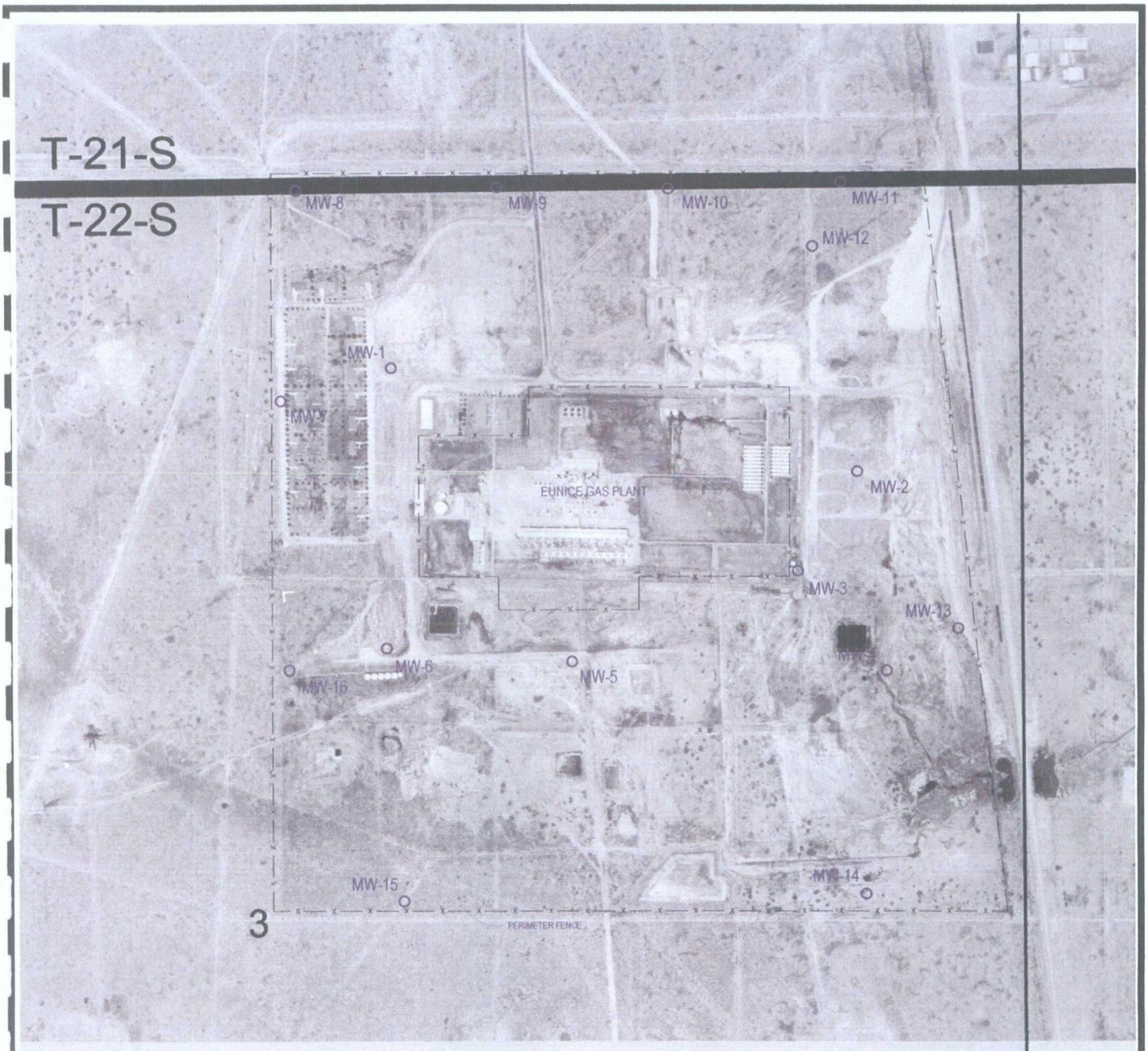


PHOTO DATE: 2-7-1949



N

GRAPHIC SCALE IN FEET

0 500' 1000'

Scale: 1" = 500'

LEGEND

MW-1 PROPOSED MONITORING WELL

PHOTO DATE: 5-12-1955

PHOTO DATE: 2-4-1968

PHOTO DATE: 3-29-1977

PHOTO DATE: 7-19-1986

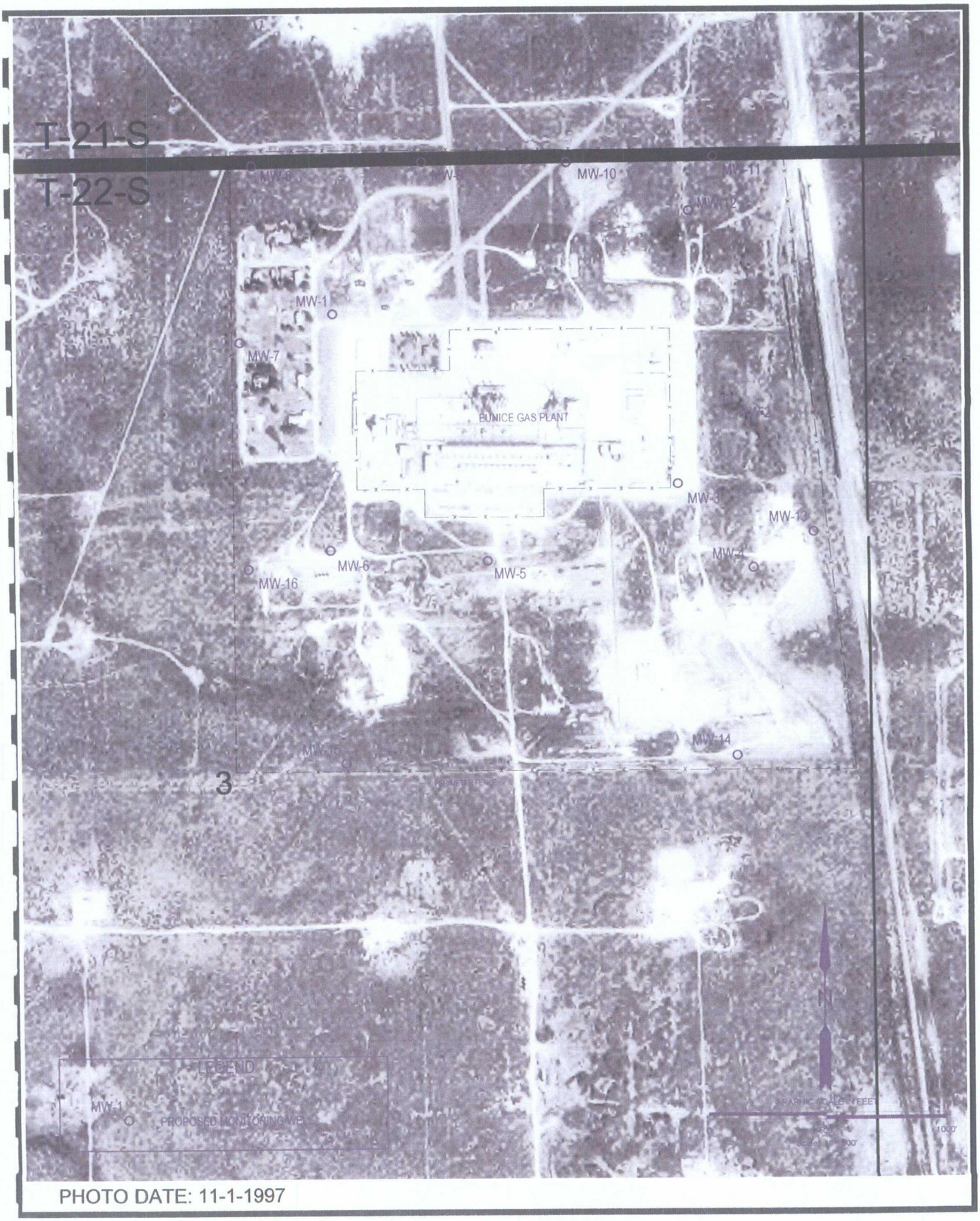


PHOTO DATE: 11-1-1997

Targa Midstream Services, L.P.
Eunice Middle Gas Pant Landfarm
Contaminated Soil Log 2008

Date	Lease	Location	Trucking Co.	Truck No.	Cubic Yards	Cell No.
1/3/2008	Eunice Middle	Ruth Property	E.D. Walton	399	12	2D
1/3/2008	Eunice Middle	Ruth Property	E.D. Walton	399	12	2D
1/3/2008	Eunice Middle	Ruth Property	E.D. Walton	399	12	2D
1/3/2008	Eunice Middle	Ruth Property	E.D. Walton	399	12	2D
1/3/2008	Eunice Middle	Ruth Property	E.D. Walton	399	12	2D
1/3/2008	Eunice Middle	Ruth Property	E.D. Walton	399	12	2D
1/3/2008	Eunice Middle	Ruth Property	E.D. Walton	399	12	2D
1/3/2008	Eunice Middle	Ruth Property	E.D. Walton	399	12	2D
1/3/2008	Eunice Middle	Ruth Property	E.D. Walton	399	12	2D
1/3/2008	Eunice Middle	Ruth Property	E.D. Walton	399	12	2D
1/4/2008	Eunice Middle	Ruth Property	E.D. Walton	399	12	2D
1/4/2008	Eunice Middle	Ruth Property	E.D. Walton	399	12	2D
1/4/2008	Eunice Middle	Ruth Property	E.D. Walton	399	12	2D
1/4/2008	Eunice Middle	Ruth Property	E.D. Walton	399	12	2D
1/4/2008	Eunice Middle	Ruth Property	E.D. Walton	399	12	2D
1/4/2008	Eunice Middle	Ruth Property	E.D. Walton	399	12	2D
1/4/2008	Eunice Middle	Ruth Property	E.D. Walton	399	12	2D
1/7/2008	Eunice Middle	Ruth Property	E.D. Walton	399	12	2D
1/7/2008	Eunice Middle	Ruth Property	E.D. Walton	399	12	2D
1/7/2008	Eunice Middle	Ruth Property	E.D. Walton	399	12	2D
1/9/2008	Eunice Middle	South 12"(Line Sims to SW 16)	E.D. Walton	399	12	2C
1/9/2008	Eunice Middle	South 12"(Line Sims to SW 16)	E.D. Walton	399	12	2C
1/9/2008	Eunice Middle	South 12"(Line Sims to SW 16)	E.D. Walton	399	12	2C
1/9/2008	Eunice Middle	South 12"(Line Sims to SW 16)	E.D. Walton	399	12	2C
1/11/2008	Eunice Middle	Ruth Property	E.D. Walton	399	12	2C
1/11/2008	Eunice Middle	Ruth Property	E.D. Walton	399	12	2C
1/11/2008	Eunice Middle	Ruth Property	E.D. Walton	399	12	2C
1/11/2008	Eunice Middle	Ruth Property	E.D. Walton	399	12	2C
1/14/2008	Eunice Middle	Ruth Property	E.D. Walton	399	12	2C
1/14/2008	Eunice Middle	Ruth Property	E.D. Walton	399	12	2C
1/14/2008	Eunice Middle	Ruth Property	E.D. Walton	399	12	2C
1/14/2008	Eunice Middle	Ruth Property	E.D. Walton	399	12	2C
1/14/2008	Eunice Middle	Ruth Property	E.D. Walton	399	12	2C
1/14/2008	Eunice Middle	Ruth Property	E.D. Walton	399	12	2C
2/6/2008	Eunice Middle	North 14" (Deck)	Watson Const.	INT	12	2A
2/6/2008	Eunice Middle	North 14" (Deck)	Watson Const.	INT	12	2A
2/21/2008	Eunice Middle	Ruth Property	Watson Const.	--	12	2A
2/21/2008	Eunice Middle	Ruth Property	Watson Const.	--	12	2A
2/21/2008	Eunice Middle	Ruth Property	Watson Const.	--	12	2A
2/21/2008	Eunice Middle	Ruth Property	Watson Const.	--	12	2A
2/21/2008	Eunice Middle	Ruth Property	Watson Const.	--	12	2A
2/21/2008	Eunice Middle	Ruth Property	Watson Const.	--	12	2A
2/21/2008	Eunice Middle	Ruth Property	Watson Const.	--	12	2A
2/21/2008	Eunice Middle	Ruth Property	Watson Const.	--	12	2A
2/21/2008	Eunice Middle	Ruth Property	Watson Const.	--	12	2A
2/22/2008	Eunice Middle	Ruth Property	Watson Const.	--	12	2A
2/22/2008	Eunice Middle	Ruth Property	Watson Const.	--	12	2A
2/22/2008	Eunice Middle	Ruth Property	Watson Const.	--	12	2A
2/22/2008	Eunice Middle	Ruth Property	Watson Const.	--	12	2A
2/22/2008	Eunice Middle	Ruth Property	Watson Const.	--	12	2A

Targa Midstream Services, L.P.
Eunice Middle Gas Pant Landfarm
Contaminated Soil Log 2008

Date	Lease	Location	Trucking Co.	Truck No.	Cubic Yards	Cell No.
2/22/2008	Eunice Middle	Ruth Property	Watson Const.	--	12	2A
2/22/2008	Eunice Middle	Ruth Property	Watson Const.	--	12	2A
2/22/2008	Eunice Middle	Ruth Property	Watson Const.	--	12	2A
2/25/2008	Eunice Middle	Ruth Property	Watson Const.	--	12	2A
2/25/2008	Eunice Middle	Ruth Property	Watson Const.	--	12	2A
2/25/2008	Eunice Middle	Ruth Property	Watson Const.	--	12	2A
2/25/2008	Eunice Middle	Ruth Property	Watson Const.	--	12	2A
2/25/2008	Eunice Middle	Ruth Property	Watson Const.	--	12	2A
2/26/2008	Eunice Middle	Ruth Property	Watson Const.	--	12	2A
2/26/2008	Eunice Middle	Ruth Property	Watson Const.	--	12	2A
2/26/2008	Eunice Middle	Ruth Property	Watson Const.	--	12	2A
2/26/2008	Eunice Middle	Ruth Property	Watson Const.	--	12	2A
2/26/2008	Eunice Middle	Ruth Property	Watson Const.	--	12	2A
2/26/2008	Eunice Middle	Ruth Property	Watson Const.	--	12	2A
2/26/2008	Eunice Middle	Ruth Property	Watson Const.	--	12	2A
2/26/2008	Eunice Middle	Ruth Property	Watson Const.	--	12	2A
2/26/2008	Eunice Middle	Ruth Property	Watson Const.	--	12	2A
2/26/2008	Eunice Middle	Ruth Property	Watson Const.	--	12	2A
2/26/2008	Eunice Middle	Ruth Property	Watson Const.	--	12	2A
2/29/2008	Eunice Middle	Bill Stephens 10"	Watson Const.	--	12	2A
2/29/2008	Eunice Middle	Bill Stephens 10"	Watson Const.	--	12	2A
2/29/2008	Eunice Middle	Bill Stephens 10"	Watson Const.	--	12	2A
2/29/2008	Eunice Middle	Bill Stephens 10"	Watson Const.	--	12	2A
3/4/2008	Eunice Middle	Bill Stephens 10"	Watson Const.	--	12	2A
3/4/2008	Eunice Middle	Bill Stephens 10"	Watson Const.	--	12	2A
3/4/2008	Eunice Middle	Bill Stephens 10"	Watson Const.	--	12	2A
3/4/2008	Eunice Middle	Bill Stephens 10"	Watson Const.	--	12	2A
3/6/2008	Eunice Middle	Bill Stephens 10"	Watson Const.	--	12	2A
3/7/2008	Eunice Middle	Bill Stephens 10"	Watson Const.	--	12	2A
3/10/2008	Eunice Middle	Bill Stephens 10"	Watson Const.	--	12	2A
3/10/2008	Eunice Middle	Bill Stephens 10"	Watson Const.	--	12	2A
3/10/2008	Eunice Middle	Bill Stephens 10"	Watson Const.	--	12	2A
3/10/2008	Eunice Middle	Bill Stephens 10"	Watson Const.	--	12	2A
3/10/2008	Eunice Middle	Bill Stephens 10"	Watson Const.	--	12	2A
3/10/2008	Eunice Middle	Bill Stephens 10"	Watson Const.	--	12	2A
3/10/2008	Eunice Middle	Bill Stephens 10"	Watson Const.	--	12	2A
3/11/2008	Eunice Middle	Bill Stephens 10"	Watson Const.	--	12	2A
3/11/2008	Eunice Middle	Bill Stephens 10"	Watson Const.	--	12	2A
3/11/2008	Eunice Middle	Bill Stephens 10"	Watson Const.	--	12	2A

Total Cubic Yards: **1068**

Targa Midstream Services, L.P.
Eunice Middle Gas Pant Landfarm
Contaminated Soil Log 2008

Date	Lease	Location	Trucking Co.	Truck No.	Cubic Yards	Cell No.
5/6/2008	Eunice Middle	Bill Stephens 10"	Watson Const.	89100	12	2A
5/6/2008	Eunice Middle	Bill Stephens 10"	Watson Const.	89100	12	2A
5/6/2008	Eunice Middle	Bill Stephens 10"	Watson Const.	89100	12	2A
5/6/2008	Eunice Middle	Bill Stephens 10"	Watson Const.	89100	12	2A
5/6/2008	Eunice Middle	Bill Stephens 10"	Watson Const.	89100	12	2A
5/6/2008	Eunice Middle	Bill Stephens 10"	Watson Const.	89100	12	2A
5/6/2008	Eunice Middle	Bill Stephens 10"	Watson Const.	89100	12	2A
5/6/2008	Eunice Middle	Bill Stephens 10"	Watson Const.	89100	12	2A
5/7/2008	Eunice Middle	Bill Stephens 10"	Watson Const.	89100	12	2A
5/7/2008	Eunice Middle	Bill Stephens 10"	Watson Const.	89100	12	2A
5/7/2008	Eunice Middle	Bill Stephens 10"	Watson Const.	89100	12	2A
5/7/2008	Eunice Middle	Bill Stephens 10"	Watson Const.	89100	12	2A
5/7/2008	Eunice Middle	Bill Stephens 10"	Watson Const.	89100	12	2A
5/7/2008	Eunice Middle	Bill Stephens 10"	Watson Const.	89100	12	2A
5/7/2008	Eunice Middle	Bill Stephens 10"	Watson Const.	89100	12	2A
5/7/2008	Eunice Middle	Bill Stephens 10"	Watson Const.	89100	12	2A
5/7/2008	Eunice Middle	Bill Stephens 10"	Watson Const.	89100	12	2A
5/7/2008	Eunice Middle	Bill Stephens 10"	Watson Const.	89100	12	2A
6/16/2008	Eunice Middle	North Twin 14"	Watson Const.	--	12	2B
6/16/2008	Eunice Middle	North Twin 14"	Watson Const.	--	12	2B
6/16/2008	Eunice Middle	North Twin 14"	Watson Const.	--	12	2B
6/16/2008	Eunice Middle	North Twin 14"	Watson Const.	--	12	2B
6/16/2008	Eunice Middle	North Twin 14"	Watson Const.	--	12	2B
6/17/2008	Eunice Middle	Bettis-Boyle-Stovall 6"	Watson Const.	--	12	2B
6/17/2008	Eunice Middle	Bettis-Boyle-Stovall 6"	Watson Const.	--	12	2B
6/18/2008	Eunice Middle	Bettis-Boyle-Stovall 6"	Watson Const.	--	12	2B
6/18/2008	Eunice Middle	Bettis-Boyle-Stovall 6"	Watson Const.	--	12	2B
6/18/2008	Eunice Middle	Bettis-Boyle-Stovall 6"	Watson Const.	--	12	2B
6/18/2008	Eunice Middle	Bettis-Boyle-Stovall 6"	Watson Const.	--	12	2B
6/18/2008	Eunice Middle	Bettis-Boyle-Stovall 6"	Watson Const.	--	12	2B
6/18/2008	Eunice Middle	Bettis-Boyle-Stovall 6"	Watson Const.	--	12	2B
6/23/2008	Eunice Middle	West Warren 24"	Watson Const.	--	12	2C
6/23/2008	Eunice Middle	West Warren 24"	Watson Const.	--	12	2C
6/23/2008	Eunice Middle	West Warren 24"	Watson Const.	--	12	2C
6/23/2008	Eunice Middle	West Warren 24"	Watson Const.	--	12	2C
6/24/2008	Eunice Middle	West Warren 24"	Watson Const.	--	12	2C
6/24/2008	Eunice Middle	West Warren 24"	Watson Const.	--	12	2C
6/24/2008	Eunice Middle	West Warren 24"	Watson Const.	--	12	2C
6/24/2008	Eunice Middle	West Warren 24"	Watson Const.	--	12	2C
6/24/2008	Eunice Middle	West Warren 24"	Watson Const.	--	12	2C
6/24/2008	Eunice Middle	West Warren 24"	Watson Const.	--	12	2C
6/25/2008	Eunice Middle	West Warren 24"	Watson Const.	--	12	2C

Total Cubic Yards: **504**

Targa Midstream Services, L.P.
Eunice Middle Gas Pant Landfarm
Contaminated Soil Log 2008

Date	Lease	Location	Trucking Co.	Truck No.	Cubic Yards	Cell No.
7/1/2008	Eunice Middle	West Warren 24"	Watson Const.	--	12	2C
7/2/2008	Eunice Middle	West Warren 24"	Watson Const.	--	12	2C
7/2/2008	Eunice Middle	West Warren 24"	Watson Const.	--	12	2C
7/2/2008	Eunice Middle	West Warren 24"	Watson Const.	--	12	2C
7/2/2008	Eunice Middle	West Warren 24"	Watson Const.	--	12	2C
7/28/2008	Eunice Middle	North Warren 16"	Watson Const.	89100	12	2C
7/28/2008	Eunice Middle	North Warren 16"	Watson Const.	89100	12	2C
7/28/2008	Eunice Middle	North Warren 16"	Watson Const.	89100	12	2C
7/28/2008	Eunice Middle	North Warren 16"	Watson Const.	89100	12	2C
7/28/2008	Eunice Middle	North Warren 16"	Watson Const.	89100	12	2C
7/28/2008	Eunice Middle	North Warren 16"	Watson Const.	89100	12	2C
7/28/2008	Eunice Middle	North Warren 16"	Watson Const.	89100	12	2C
7/29/2008	Eunice Middle	North Warren 16"	Watson Const.	89100	12	2C
7/29/2008	Eunice Middle	North Warren 16"	Watson Const.	89100	12	2C
7/29/2008	Eunice Middle	North Warren 16"	Watson Const.	89100	12	2C
7/29/2008	Eunice Middle	North Warren 16"	Watson Const.	89100	12	2C
7/29/2008	Eunice Middle	North Warren 16"	Watson Const.	89100	12	2C
7/29/2008	Eunice Middle	North Warren 16"	Watson Const.	89100	12	2C
7/29/2008	Eunice Middle	North Warren 16"	Watson Const.	89100	12	2C
7/30/2008	Eunice Middle	North Warren 16"	Watson Const.	89100	12	2C
7/30/2008	Eunice Middle	North Warren 16"	Watson Const.	89100	12	2C
7/30/2008	Eunice Middle	North Warren 16"	Watson Const.	89100	12	2C
7/30/2008	Eunice Middle	North Warren 16"	Watson Const.	89100	12	2C
7/30/2008	Eunice Middle	North Warren 16"	Watson Const.	89100	12	2C
7/30/2008	Eunice Middle	North Warren 16"	Watson Const.	89100	12	2C
7/30/2008	Eunice Middle	North Warren 16"	Watson Const.	89100	12	2C
7/31/2008	Eunice Middle	North Warren 16"	Watson Const.	89100	12	2C
7/31/2008	Eunice Middle	North Warren 16"	Watson Const.	89100	12	2C
7/31/2008	Eunice Middle	North Warren 16"	Watson Const.	89100	12	2C
7/31/2008	Eunice Middle	North Warren 16"	Watson Const.	89100	12	2C
7/31/2008	Eunice Middle	North Warren 16"	Watson Const.	89100	12	2C
7/31/2008	Eunice Middle	North Warren 16"	Watson Const.	89100	12	2C
7/31/2008	Eunice Middle	North Warren 16"	Watson Const.	89100	12	2C
8/1/2008	Eunice Middle	North Warren 16"	Watson Const.	89100	12	2C
8/1/2008	Eunice Middle	North Warren 16"	Watson Const.	89100	12	2C
8/1/2008	Eunice Middle	North Warren 16"	Watson Const.	89100	12	2C
8/1/2008	Eunice Middle	North Warren 16"	Watson Const.	89100	12	2C
8/4/2008	Eunice Middle	North Warren 16"	Watson Const.	89100	12	2C
8/4/2008	Eunice Middle	North Warren 16"	Watson Const.	89100	12	2C
8/4/2008	Eunice Middle	North Warren 16"	Watson Const.	89100	12	2C
8/4/2008	Eunice Middle	North Warren 16"	Watson Const.	89100	12	2C
8/4/2008	Eunice Middle	North Warren 16"	Watson Const.	89100	12	2C
8/4/2008	Eunice Middle	North Warren 16"	Watson Const.	89100	12	2C
8/4/2008	Eunice Middle	North Warren 16"	Watson Const.	89100	12	2C
8/5/2008	Eunice Middle	North Warren 16"	Watson Const.	89100	12	2C
8/5/2008	Eunice Middle	North Warren 16"	Watson Const.	89100	12	2C
8/5/2008	Eunice Middle	North Warren 16"	Watson Const.	89100	12	2C
8/5/2008	Eunice Middle	North Warren 16"	Watson Const.	89100	12	2C
8/5/2008	Eunice Middle	North Warren 16"	Watson Const.	89100	12	2C
8/5/2008	Eunice Middle	North Warren 16"	Watson Const.	89100	12	2C

Targa Midstream Services, L.P.

Eunice Middle Gas Pant Landfarm

Contaminated Soil Log 2008

Date	Lease	Location	Trucking Co.	Truck No.	Cubic Yards	Cell No.
8/5/2008	Eunice Middle	North Warren 16"	Watson Const.	89100	12	2C
8/6/2008	Eunice Middle	North Warren 16"	Watson Const.	89100	12	2C
8/6/2008	Eunice Middle	North Warren 16"	Watson Const.	89100	12	2C
8/6/2008	Eunice Middle	North Warren 16"	Watson Const.	89100	12	2C
8/6/2008	Eunice Middle	North Warren 16"	Watson Const.	89100	12	2C
8/6/2008	Eunice Middle	North Warren 16"	Watson Const.	89100	12	2C
8/7/2008	Eunice Middle	North Warren 16"	Watson Const.	89100	12	2C
8/7/2008	Eunice Middle	North Warren 16"	Watson Const.	89100	12	2C
8/7/2008	Eunice Middle	North Warren 16"	Watson Const.	89100	12	2C
8/7/2008	Eunice Middle	North Warren 16"	Watson Const.	89100	12	2C
8/7/2008	Eunice Middle	North Warren 16"	Watson Const.	89100	12	2C
8/7/2008	Eunice Middle	North Warren 16"	Watson Const.	89100	12	2C
8/7/2008	Eunice Middle	North Warren 16"	Watson Const.	89100	12	2C
8/8/2008	Eunice Middle	North Warren 16"	Watson Const.	89100	12	2C
8/8/2008	Eunice Middle	North Warren 16"	Watson Const.	89100	12	2C
8/11/2008	Eunice Middle	North Warren 16"	Watson Const.	89100	12	2C
8/11/2008	Eunice Middle	North Warren 16"	Watson Const.	89100	12	2C
8/11/2008	Eunice Middle	North Warren 16"	Watson Const.	89100	12	2C
8/11/2008	Eunice Middle	North Warren 16"	Watson Const.	89100	12	2C
8/11/2008	Eunice Middle	North Warren 16"	Watson Const.	89100	12	2C
8/11/2008	Eunice Middle	North Warren 16"	Watson Const.	89100	12	2C
8/12/2008	Eunice Middle	North Warren 16"	Watson Const.	89100	12	2C
8/12/2008	Eunice Middle	North Warren 16"	Watson Const.	89100	12	2C
8/12/2008	Eunice Middle	North Warren 16"	Watson Const.	89100	12	2C
8/12/2008	Eunice Middle	North Warren 16"	Watson Const.	89100	12	2C
8/12/2008	Eunice Middle	North Warren 16"	Watson Const.	89100	12	2C
8/12/2008	Eunice Middle	North Warren 16"	Watson Const.	89100	12	2C
8/12/2008	Eunice Middle	North Warren 16"	Watson Const.	89100	12	2C
8/13/2008	Eunice Middle	North Warren 16"	Watson Const.	89100	12	2C
8/13/2008	Eunice Middle	North Warren 16"	Watson Const.	89100	12	2C
8/13/2008	Eunice Middle	North Warren 16"	Watson Const.	89100	12	2C
8/14/2008	Eunice Middle	North Warren 16"	Watson Const.	89100	12	2C
8/14/2008	Eunice Middle	North Warren 16"	Watson Const.	89100	12	2C
8/14/2008	Eunice Middle	North Warren 16"	Watson Const.	89100	12	2C
8/15/2008	Eunice Middle	North Warren 16"	Watson Const.	89100	12	2C
8/20/2008	Eunice Middle	North Warren 16"	Watson Const.	89100	12	2C
8/20/2008	Eunice Middle	North Warren 16"	Watson Const.	89100	12	2C
8/20/2008	Eunice Middle	North Warren 16"	Watson Const.	89100	12	2C
8/20/2008	Eunice Middle	North Warren 16"	Watson Const.	89100	12	2C
8/21/2008	Eunice Middle	North Warren 16"	Watson Const.	89100	12	2C
8/25/2008	Eunice Middle	North Warren 16"	Watson Const.	89100	12	2C
9/18/2008	Eunice Middle	American Legion West 20"	Watson Const.	--	12	2B
9/18/2008	Eunice Middle	American Legion West 20"	Watson Const.	--	12	2B
9/18/2008	Eunice Middle	American Legion West 20"	Watson Const.	--	12	2B
9/19/2008	Eunice Middle	American Legion West 20"	Watson Const.	--	12	2B
9/22/2008	Eunice Middle	American Legion West 20"	Watson Const.	--	12	2B

Total Cubic Yards: **1152**

JWW

Y:\PROJECTS\TARGA\8-0172\Eunice Gas Plant.dwg, 4/1/2009 2:21:57 PM

EUNICE GAS PLANT

MW-7
MW-2
MW-3
MW-4
MW-UN-1
MW-UN-2
MW-5
MW-6
MW-8
MW-9
MW-10
MW-11
MW-12
MW-13
MW-14
MW-15
MW-16
MW-17
MW-18
SWD-1
Closed Pit
Five Drums On Ground
P&A Well Mark
Flare Pipe
Flare
Small Flare
Old Flare Pit
Lease Farm
PERIMETER FENCE
P&A Well Paddock

LEGEND

Monitoring Well Location

Fence

Surface Plot Generated Using Surfer® v.8 Software

300 0 300

Graphic Scale in Feet

Targa Midstream Services, L.P.

Eunice Gas Plant

NE/4, Sec. 3, T-22-S, R-37-E

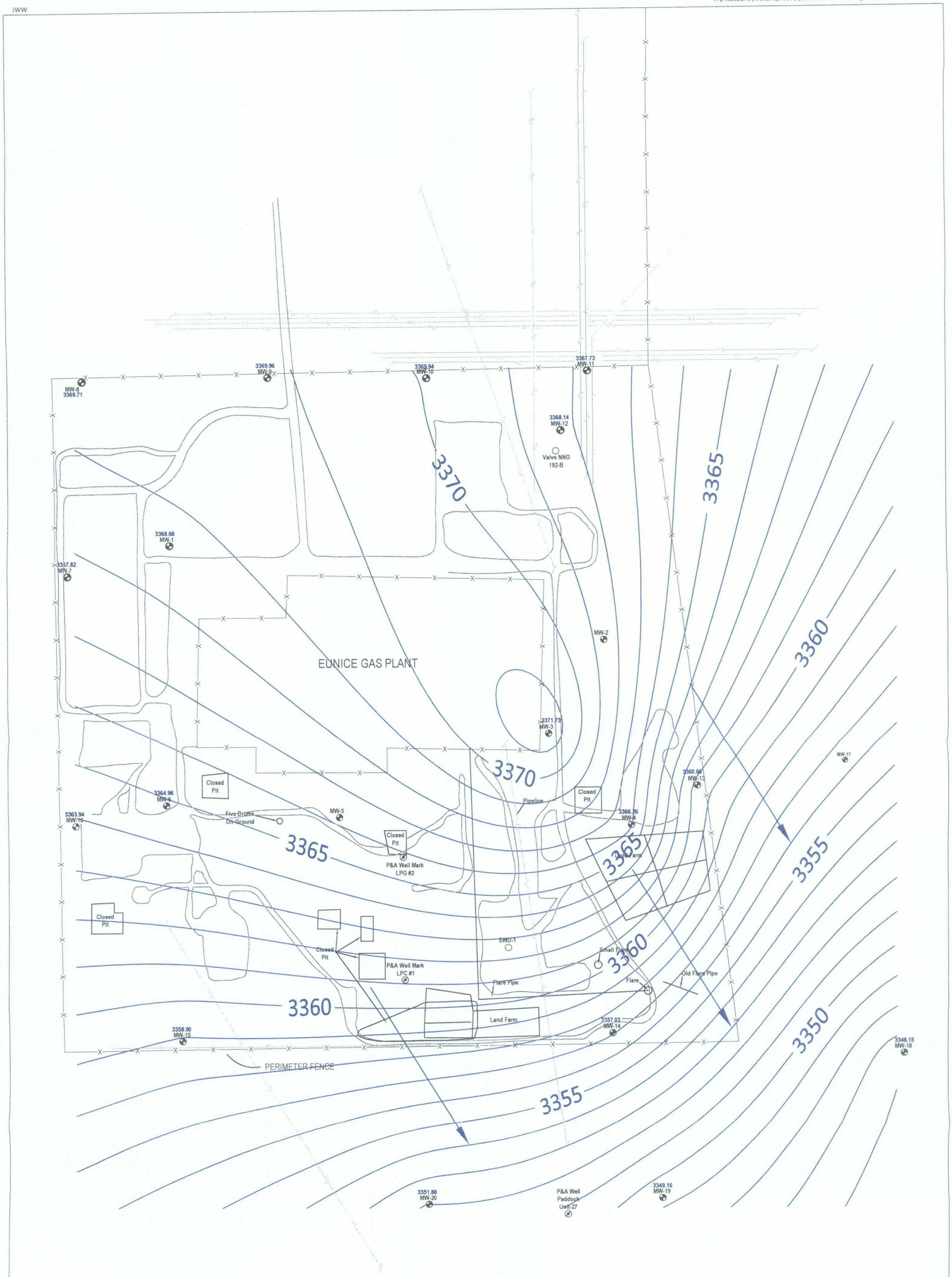
Lea County, New Mexico

N 32° 25' 29.3"

W 103° 08' 50.1"

Larson & Associates, Inc.

Environmental Consultants



LEGEND

- 3371.73 MW-03 - Monitoring Well Location And Depth to Groundwater In Monitoring Well Location, Feet AMSL, June 2008
- 3360 - Contour of Groundwater Potentiometrc Surface Elevation, Feet AMSL, June 2008
- —x—x— - Fence
- → - Groundwater Flow Direction

350 0 350

Graphic Scale in Feet

Targa Midstream Services, L.P.
Eunice Gas Plant
NE/4, Sec. 3, T-22-S, R-37-E
Lea County, New Mexico

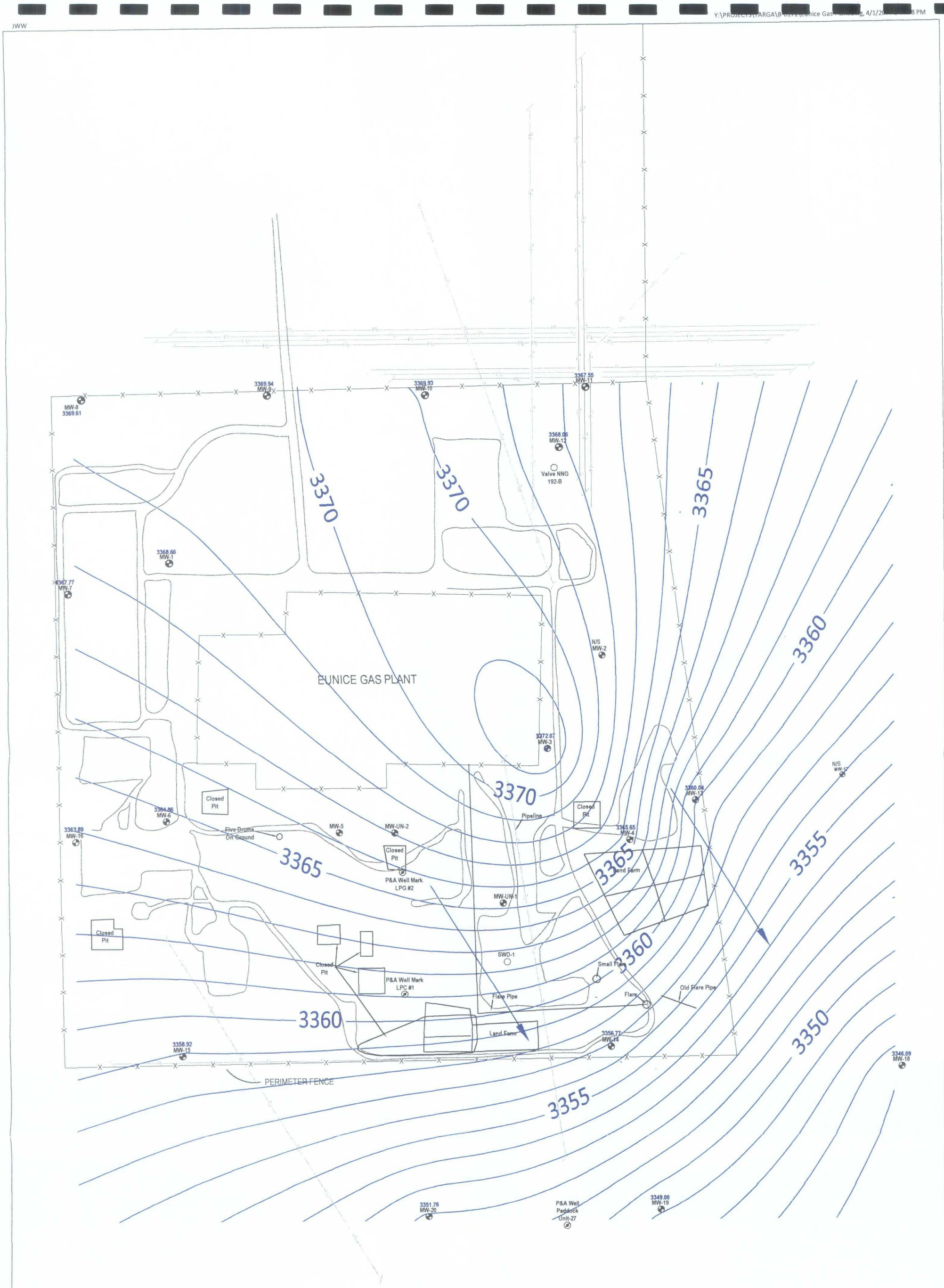
N 32° 25' 29.3"
W 103° 08' 50.1"

Larson & Associates, Inc.
Environmental Consultants

Surface Plot Generated Using Surfer® v.8 Software

Figure 3 - Groundwater Potentiometric Surface Map, June 2008

JWW



LEGEND

- 3372.07 MW-03 - Monitoring Well Location And Depth to Groundwater In Monitoring Well Location, Feet AMSL, November 2008
- 3355 - Contour of Groundwater Potentiometrc Surface Elevation, Feet AMSL, November 2008
- x——x——x - Fence
- N/S - Not Sampled
- → - Groundwater Flow Direction

350 0 350

Graphic Scale in Feet

Targa Midstream Services, L.P.
Eunice Gas Plant
NE/4, Sec. 3, T-22-S, R-37-E
Lea County, New Mexico

N 32° 25' 29.3"
W 103° 08' 50.1"

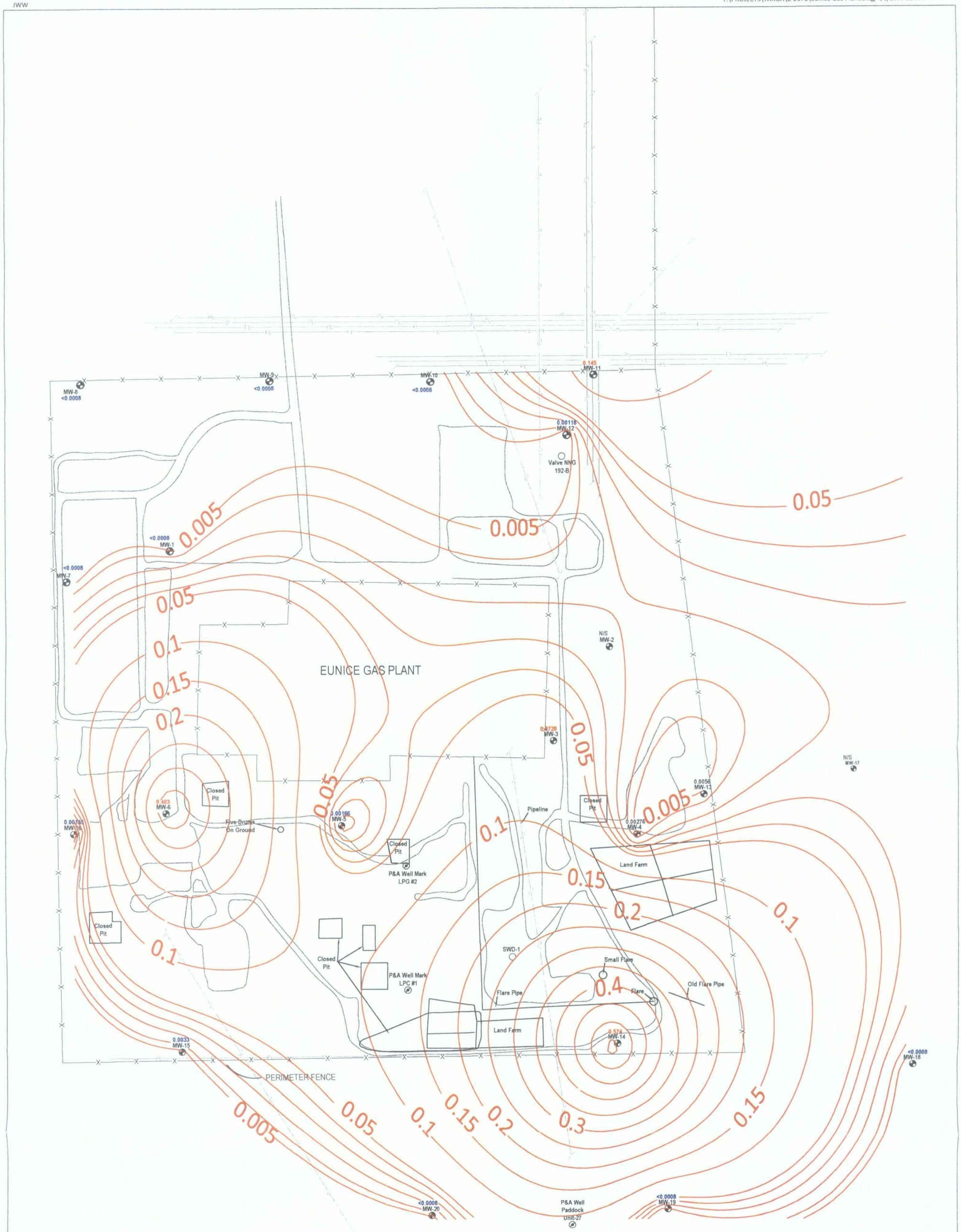
Larson & Associates, Inc.
Environmental Consultants

Surface Plot Generated Using Surfer® v.8 Software

Figure 4 - Groundwater Potentiometric Surface Map, November 2008

JWW

Y:\PROJECTS\TARGA\8-0172\Eunice Gas Plant.dwg, 4/1/2009 11:06:34 AM



LEGEND

0.0728 MW-03 - Monitoring Well Location And Benzene Concentration in Groundwater Monitoring Well Location, mg/L, June 2008

0.05 - Contour of Benzene Concentration in Groundwater, mg/L, June 2008

\-x-x- - Fence

N/S - Not Sampled

WQCC Human Health Standard: 0.01 mg/L

350 0 350

Graphic Scale in Feet

Targa Midstream Services, L.P.

Eunice Gas Plant

NE/4, Sec. 3, T-22-S, R-37-E

Lea County, New Mexico

N 32° 25' 29.3"

W 103° 08' 50.1"

Larson & Associates, Inc.

Environmental Consultants

Surface Plot Generated Using Surfer® v.8 Software

Figure 5 - Isopleth Map of Benzene Concentration In Groundwater, June 2008

JWW

Y:\PROJECTS\TARGA\8-017\Eunice Gas Plant.dwg, 4/1/2009 11:51:52 AM

EUNICE GAS PLANT

MW-8 <0.0008
MW-9 <0.0008
MW-10 <0.0008
MW-11 0.0279
MW-12 <0.0008
MW-1 <0.0008
MW-7 <0.0008
MW-6 0.52
MW-16 <0.0008
MW-5 0.000839
MW-UN-2 0.00127
MW-UN-1 0.00173
MW-3 0.159
N/S MW-2
MW-13 0.0043
N/S MW-17
MW-4 0.00561
MW-14 0.657
MW-15 0.00354
MW-18 <0.0008
MW-20 0.000936
MW-19 0.00262

Valve NNG 192-B
Closed Pit
Five Drums On Ground
P&A Well Mark LPG #2
P&A Well Mark LPC #1
Pipeline
Land Farm
SWD-1
Small Flare
Flare
Flare Pipe
Old Flare Pipe
PERIMETER FENCE
P&A Well Paddock Unit-27

0.005 0.02 0.05 0.1 0.2 0.3 0.4

LEGEND

0.159 MW-03 - Monitoring Well Location And Benzene Concentration in Groundwater Monitoring Well Location, mg/L, November 2008

0.02 - Contour of Benzene Concentration in Groundwater, mg/L, November 2008

—x—x— - Fence

N/S - Not Sampled

WQCC Human Health Standard: 0.01 mg/L

350 0 350

Graphic Scale in Feet

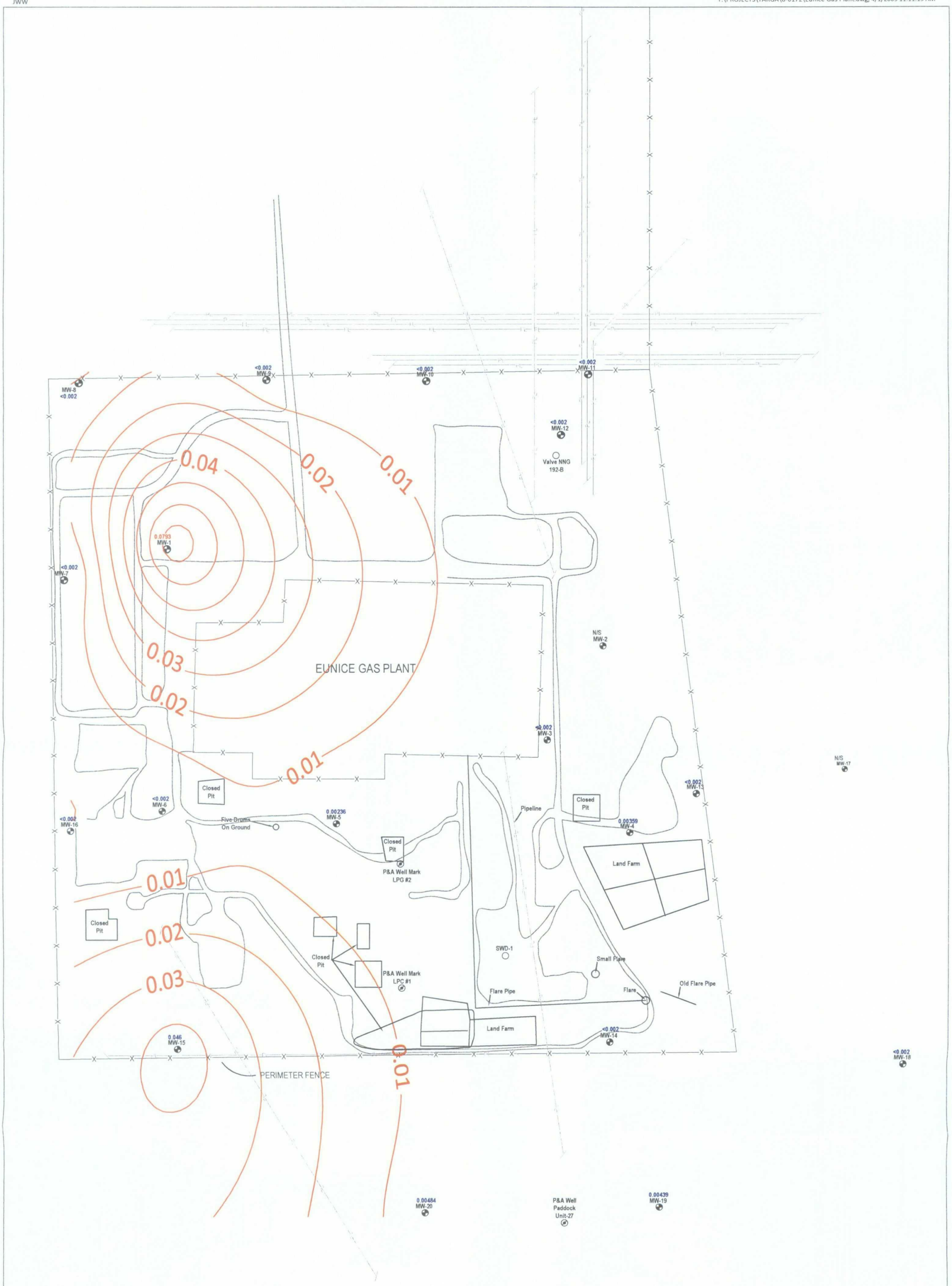
Targa Midstream Services, L.P.
Eunice Gas Plant
NE/4, Sec. 3, T-22-S, R-37-E
Lea County, New Mexico

N 32° 25' 29.3"
W 103° 08' 50.1"

Larson & Associates, Inc.
Environmental Consultants

Surface Plot Generated Using Surfer® v.8 Software

Figure 6 - Isopleth Map of Benzene Concentration In Groundwater, November 2008



LEGEND

- 0.00359 MW-03 - Monitoring Well Location And Dissolved Chromium Concentration in Groundwater Monitoring Well Location, mg/L, June 2008
- 0.03 - Contour of Dissolved Chromium Concentration in Groundwater, mg/L, June 2008
- —x—x— - Fence
- N/S - Not Sampled
- VOLO Human Health Standard: 0.05 mg/L

350 0 350

Graphic Scale in Feet

Targa Midstream Services, L.P.
Eunice Gas Plant
NE/4, Sec. 3, T-22-S, R-37-E
Lea County, New Mexico

N 32° 25' 29.3"
W 103° 08' 50.1"

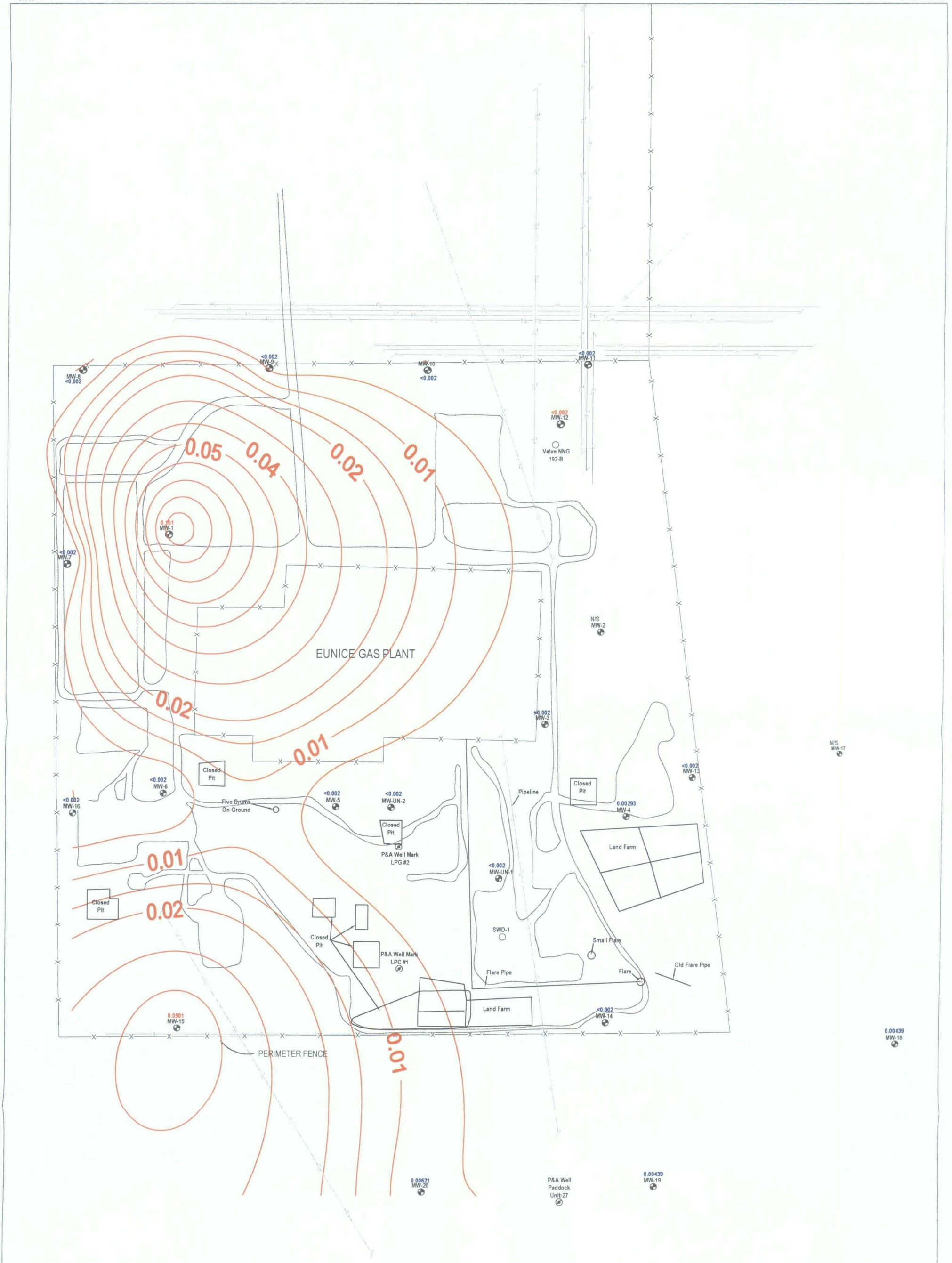
Larson & Associates, Inc.
Environmental Consultants

Surface Plot Generated Using Surfer® v.8 Software

Figure 7 - Isopleth Map of Dissolved Chromium In Groundwater, June 2008

JWW

Y:\PROJECTS\TARGA\8-0172\Eunice Gas Plant.dwg, 4/1/2009 11:50:36 AM



LEGEND

0.00359 MW-03 - Monitoring Well Location And Dissolved Chromium Concentration in Groundwater Monitoring Well Location, mg/L, November 2008

0.01 - Contour of Dissolved Chromium Concentration in Groundwater, mg/L, November 2008

x——x—— - Fence

N/S - Not Sampled

WQCC Human Health Standard: 0.05 mg/L

350 0 350

Graphic Scale in Feet

Targa Midstream Services, L.P.

Eunice Gas Plant

NE/4, Sec. 3, T-22-S, R-37-E

Lea County, New Mexico

N 32° 25' 29.3"

W 103° 08' 50.1"

Larson & Associates, Inc.

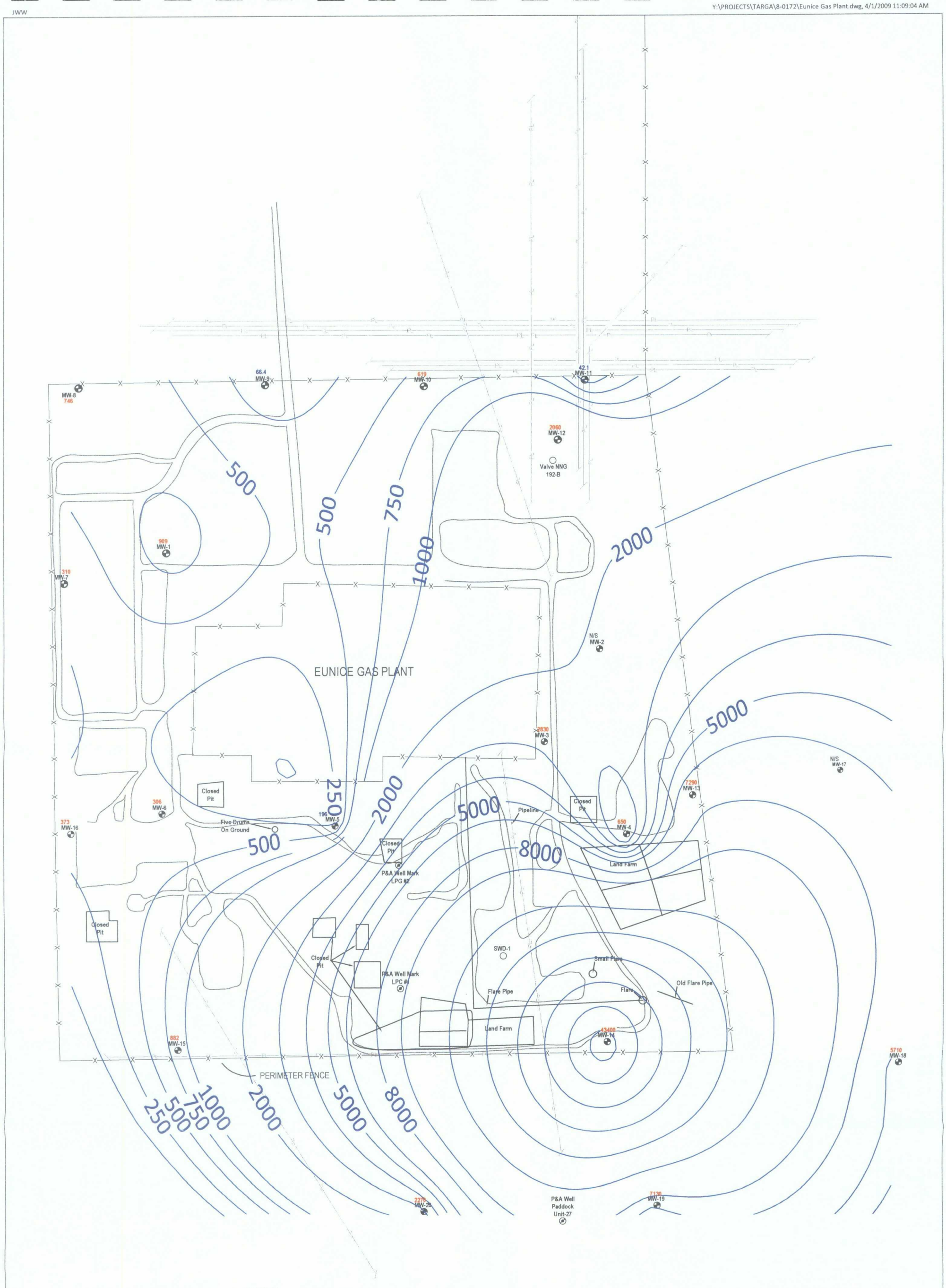
Environmental Consultants

Surface Plot Generated Using Surfer® v.8 Software

Figure 8 - Isopleth Map of Dissolved Chromium In Groundwater, November 2008

JWW

Y:\PROJECTS\TARGA\8-0172\Eunice Gas Plant.dwg, 4/1/2009 11:09:04 AM



LEGEND

2830 MW-03 - Monitoring Well Location And Chloride Concentration in Groundwater Monitoring Well Location, mg/L, June 2008

2000 - Contour of Chloride Concentration in Groundwater, mg/L, June 2008

- Fence

N/S - Not Sampled

WQCC Human Health Standard: 250 mg/L

350 0 350

Graphic Scale in Feet

Targa Midstream Services, L.P.
Eunice Gas Plant
NE/4, Sec. 3, T-22-S, R-37-E
Lea County, New Mexico

N 32° 25' 29.3"
W 103° 08' 50.1"

Larson & Associates, Inc.
Environmental Consultants

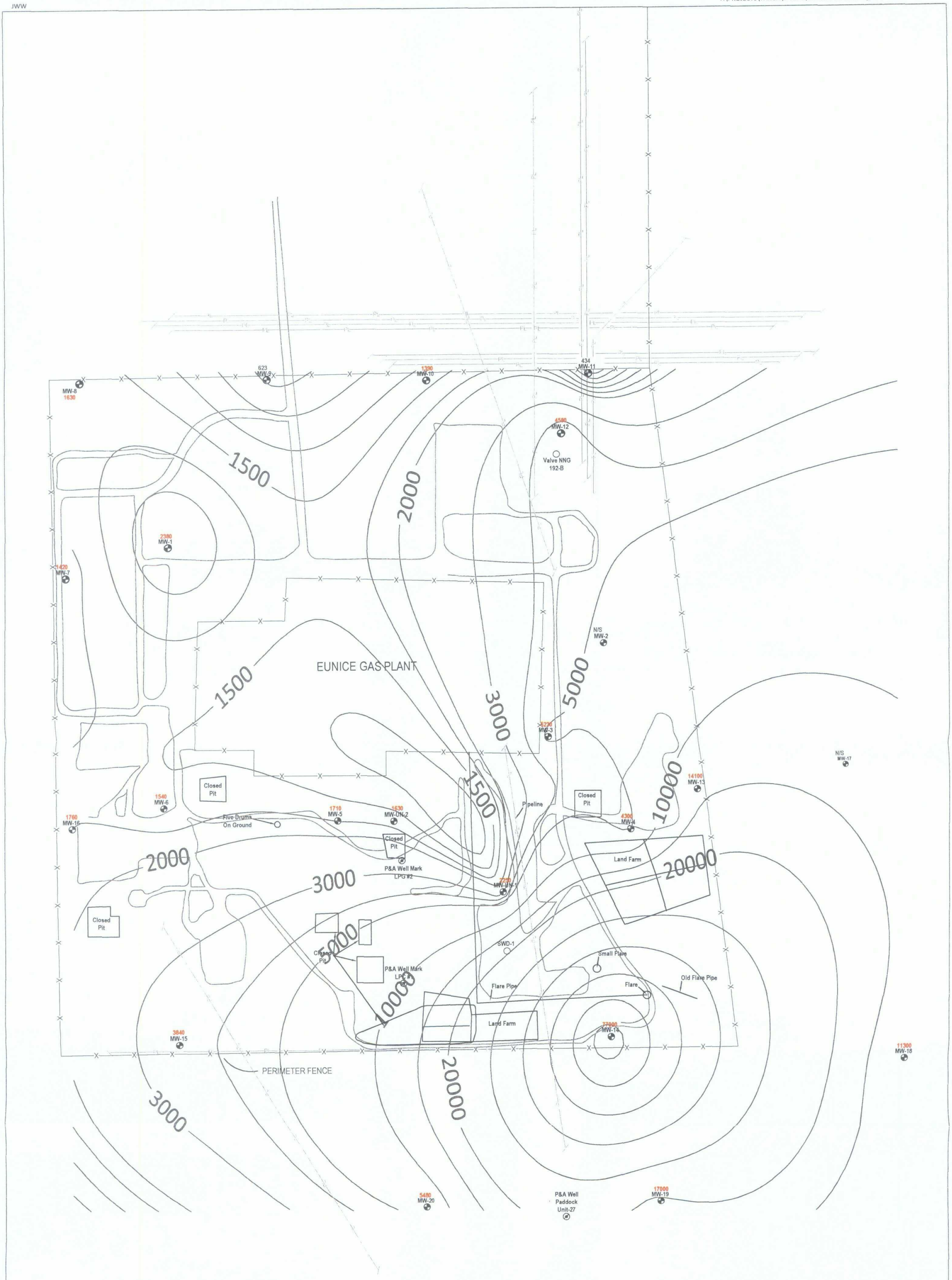
Surface Plot Generated Using Surfer® v.8 Software

Figure 9 - Isopleth Map of Chloride Concentration In Groundwater, June 2008

[redacted]

JWW

Y:\PROJECTS\TARGA\8-0172\Eunice Gas Plant.dwg, 4/1/2009 1:52:54 PM



LEGEND

5230 MW-03 - Monitoring Well Location And TDS Concentration in Groundwater
Monitoring Well Location, mg/L, November 2008

3000 - Contour of TDS Concentration in Groundwater, mg/L, November 2008

—x—x— - Fence

N/S - Not Sampled

350 0 350

Graphic Scale in Feet

Targa Midstream Services, L.P.
Eunice Gas Plant
NE/4, Sec. 3, T-22-S, R-37-E
Lea County, New Mexico

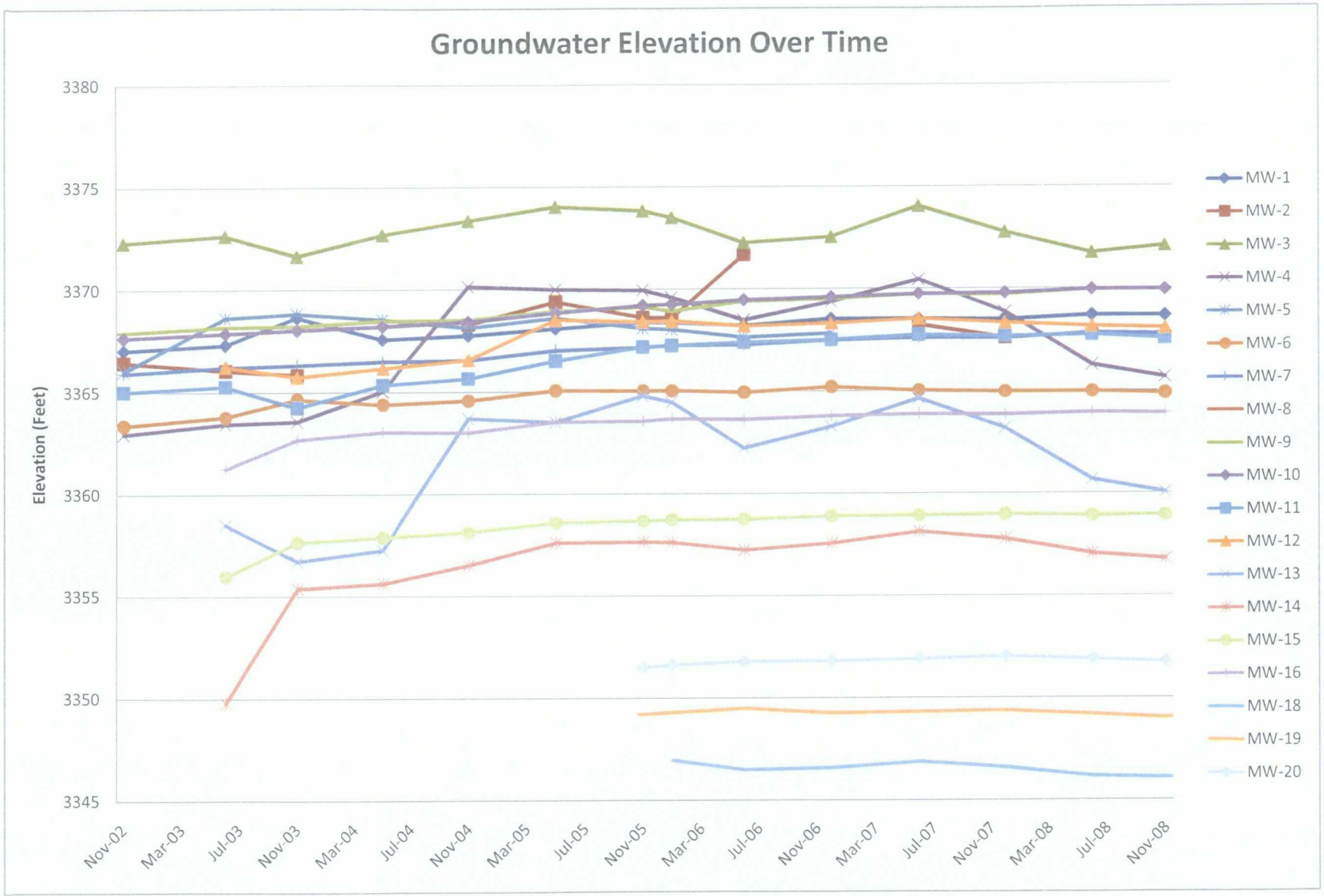
N 32° 25' 29.3"
W 103° 08' 50.1"

Larson & Associates, Inc.
Environmental Consultants

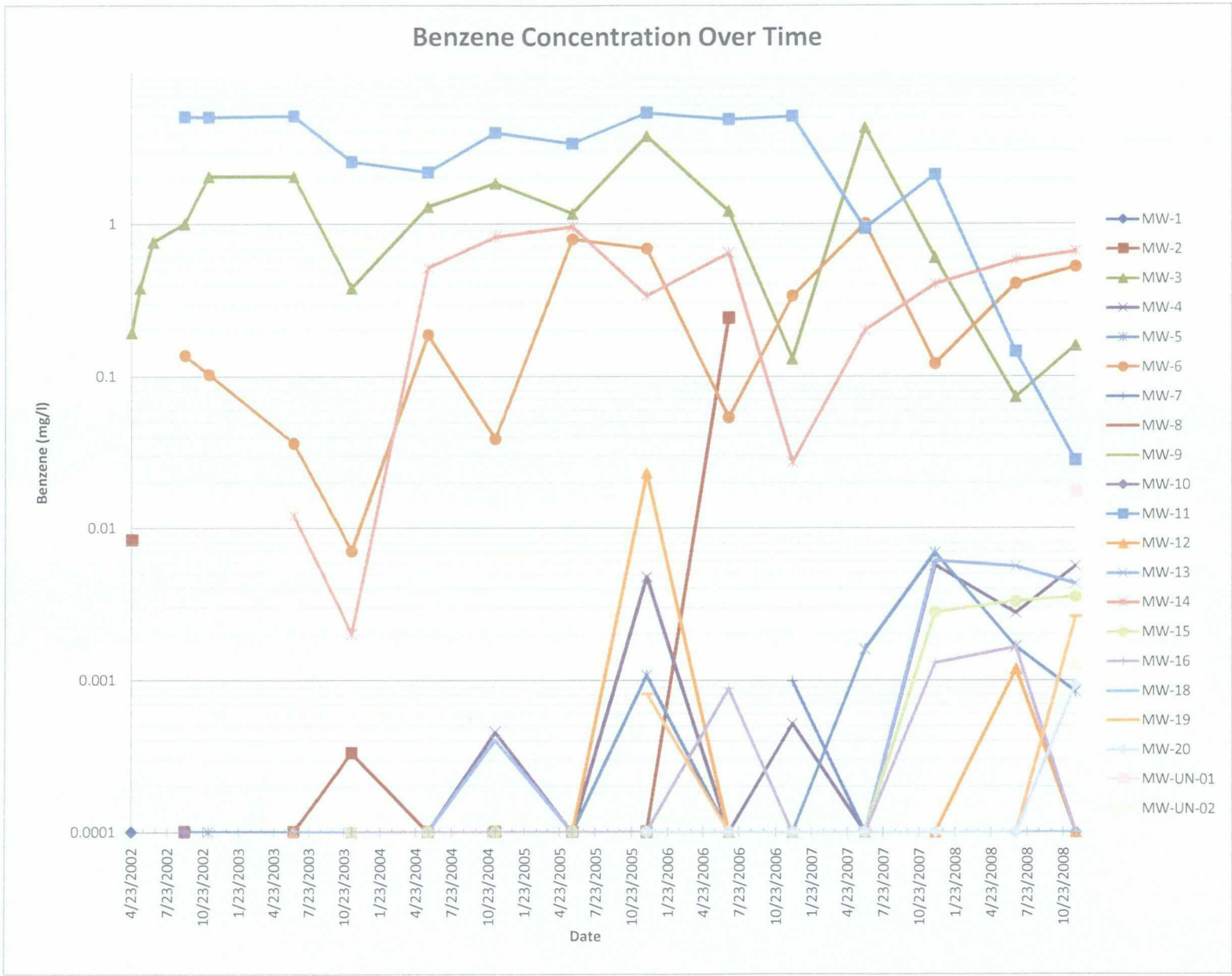
Surface Plot Generated Using Surfer® v.8 Software

Figure 12 - Isopleth Map of TDS Concentration In Groundwater, November 2008

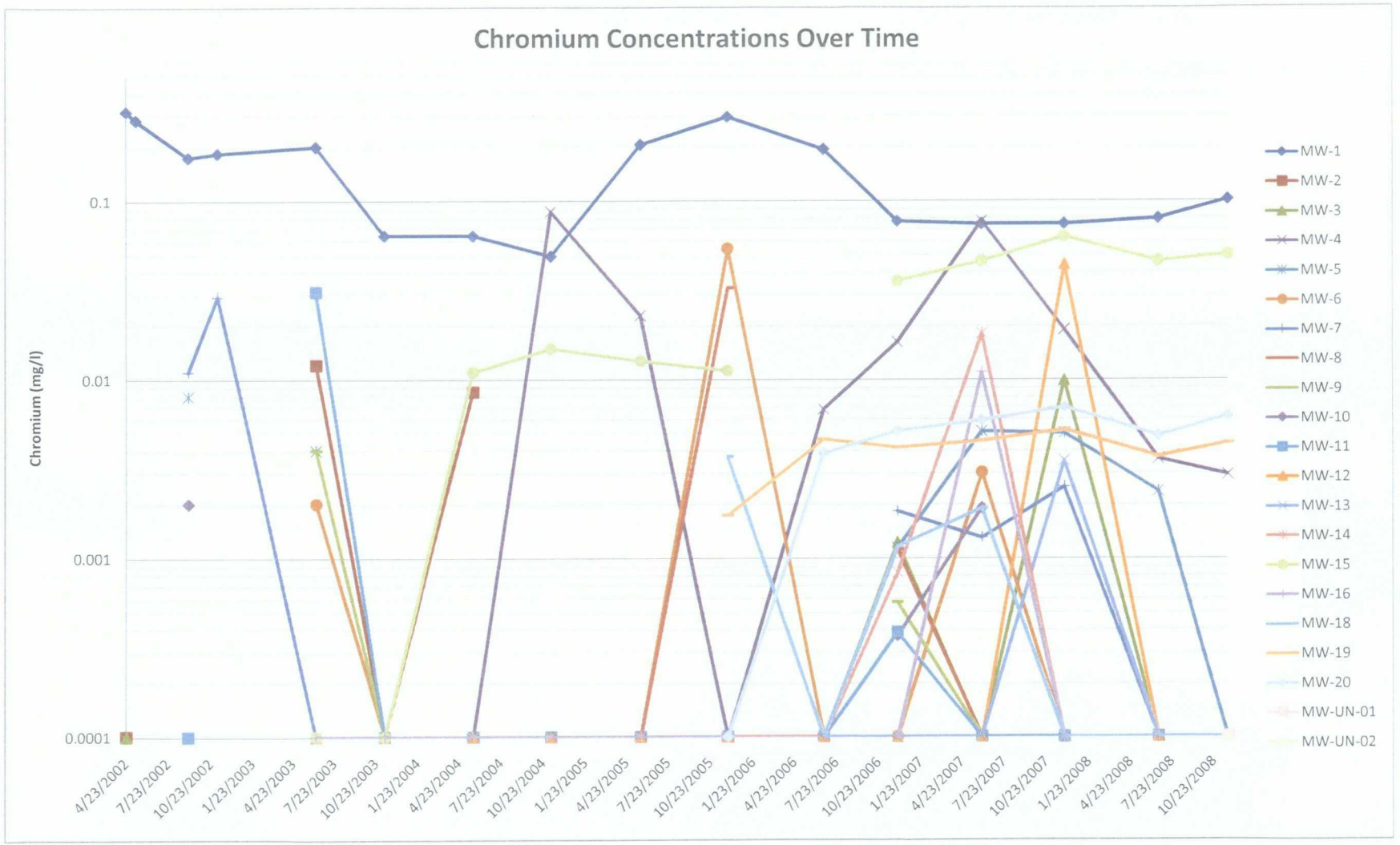
TARGA Eunice Gas Plant



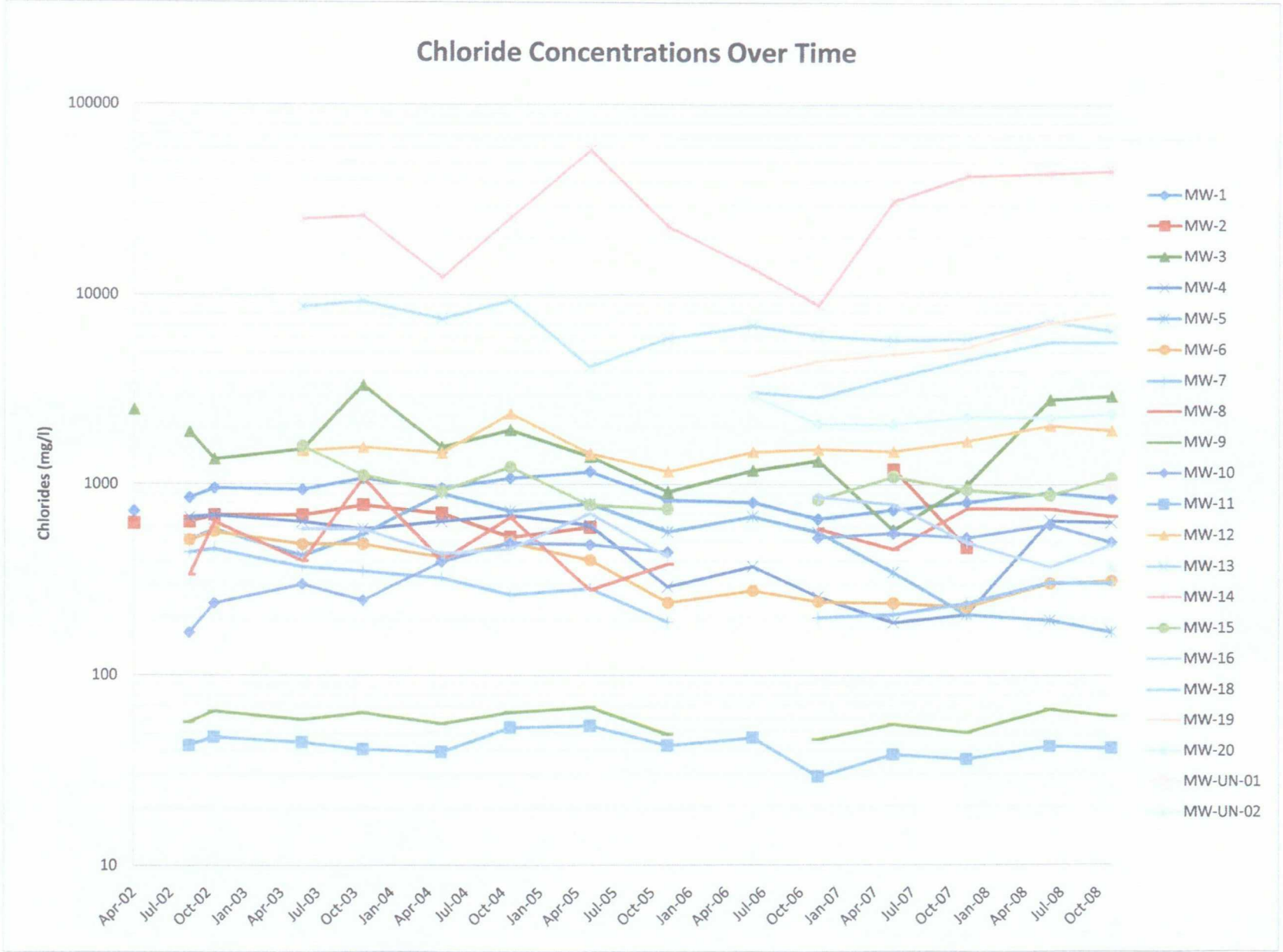
TARGA Eunice Gas Plant



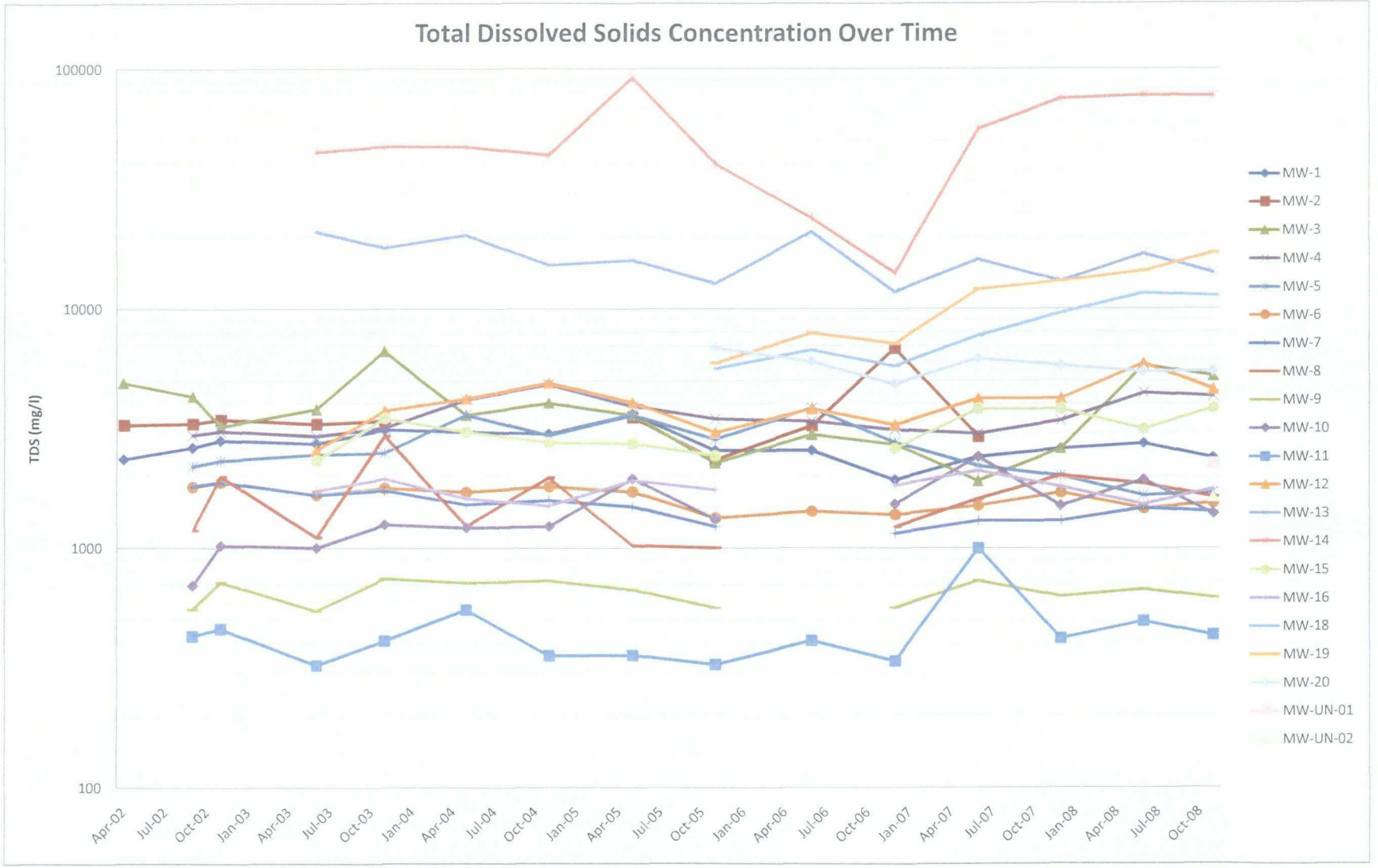
TARGA Eunice Gas Plant



TARGA Eunice Gas Plant



TARGA Eunice Gas Plant



JWW

Y:\PROJECTS\TARGA\8-0172\Eunice Gas Plant Main.dwg, 6/4/2009 4:11:38 PM

Figure 13 - 10 Meter Horizontal Dipole Map

Google Image - 2005

Jul 30, 2005

MW-06
MW-05
MW-03
MW-UN-02
MW-13
MW-17
MW-04
MW-UN-01
Eunice Plant SWD
MW-15
MW-21
MW-14
MW-20
MW-19
MW-18

Y:\PROJECTS\TARGA\8-0172\Eunice Gas Plant Main.dwg, 6/4/2009 4:14:21 PM

N

250 0

Graphic Scale in Feet

Targa Midstream Services, L.P.
Eunice Middle Gas Plant
NE/4, Sec. 3, T-22-S, R-37-E
Lea County, New Mexico

N 32° 25' 30...

Google Image - 2005

Figure 14 - 10 Meter Vertical Dipole Map

JWW

Y:\PROJECTS\TARGA\8-0172\Eunice Gas Plant Main.dwg, 6/4/2009 4:15:37 PM

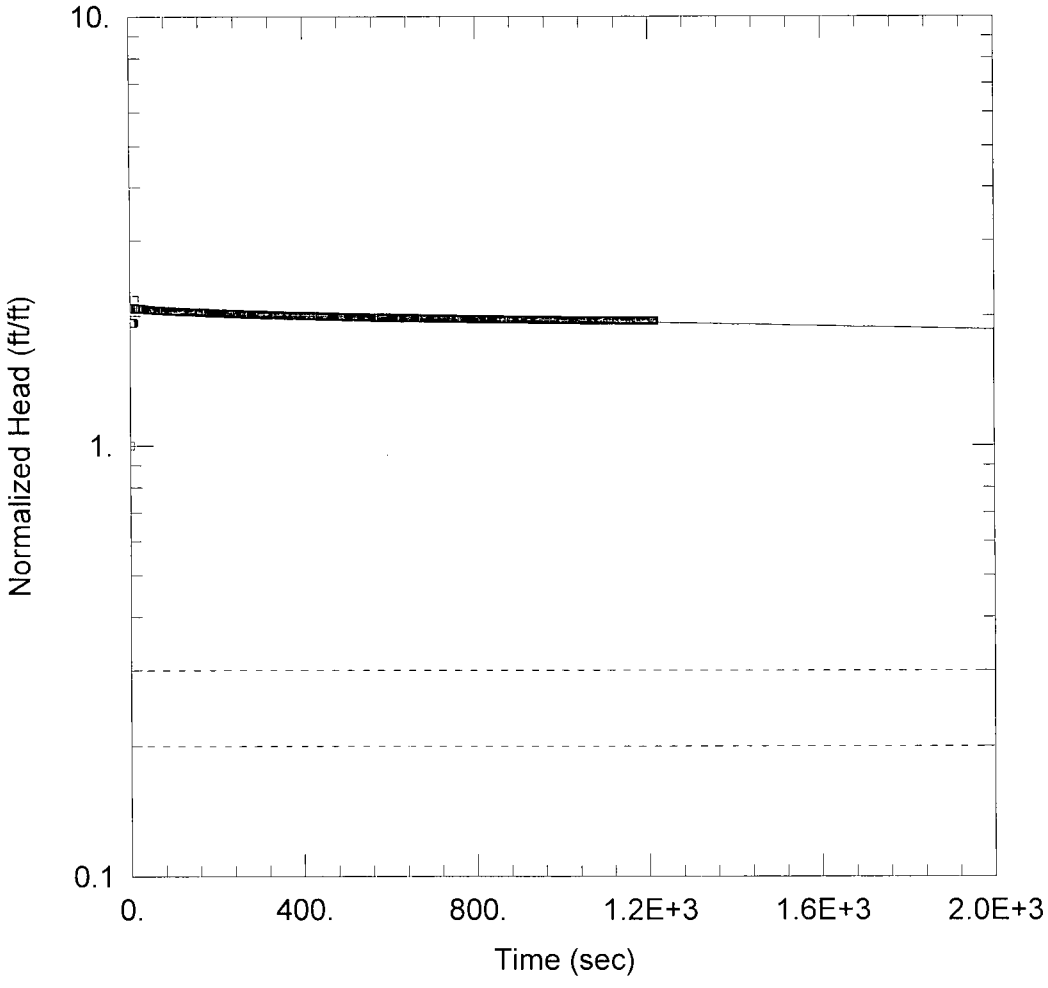
Figure 15 - 20 Meter Vertical Dipole Map

JWW

Y:\PROJECTS\TARGA\8-0172\Eunice Gas Plant Main.dwg, 6/4/2009 4:28:40 PM

Figure 16 - 20 Meter Vertical Dipole Map

MW-ID & Test	Falling Head K	Rising Head K	Well Average
MW-02A Test 1	0.004713	0.9614	
MW-02A Test 2	0.006118	0.8396	
MW-02A Test 2A	0.001596	1.313	
MW-02A Test 3	0.005734	1.084	
MW-02A Averages	0.005	1.050	0.527
MW-03 Test 1	0.001113	0.2414	
MW-03 Test 2	0.004799	0.213	
MW-03 Test 3	0.00341	0.1865	
MW-03 Averages	0.003	0.214	0.108
MW-05 Test 1	0.4355	1.528	
MW-05 Test 2	0.02323	2.217	
MW-05 Test 3	0.01982	3.413	
MW-05 Averages	0.160	2.386	1.273
MW-13 Test 1	0.6529	0.6801	
MW-13 Test 2	0.7021	0.8969	
MW-13 Test 3	0.8371	0.9068	
MW-13 Averages	0.731	0.828	0.779
MW-14 Test 1	0.7358	1.281	
MW-14 Test 2	2.403	1.201	
MW-14 Test 3	4.906	1.099	
MW-14 Averages	2.682	1.194	1.938
MW-18 Test 1	0.4375	3.534	
MW-18 Test 2	0.283	3.538	
MW-18 Test 3	0.2319	3.893	
MW-18 Averages	0.317	3.655	1.986
MW-19 Test 1	0.04329	1.503	
MW-19 Test 2	2.016	1.912	
MW-19 Test 3	0.06429	2.147	
MW-19 Averages	0.708	1.854	1.281
MW-20 Test 1	0.1031	0.9142	
MW-20 Test 2	0.8344	1.802	
MW-20 Test 3	0.2471	3.072	
MW-20 Test 3A	0.2469	1.329	
MW-20 Averages	0.358	1.779	1.069
MW-21 Test 1	0.166	1.883	
MW-21 Test 2	0.1706	2.034	
MW-21 Test 3	0.1554	2.685	
MW-21 Averages	0.164	2.201	1.182
Overall Averages	0.570	1.684	1.127



MW-02A TEST 1

Data Set: C:\Users\wgreen\Desktop\Targa Eunice\MW-02A Falling Head Test 1.aqt
Date: 03/13/09 Time: 10:23:31

PROJECT INFORMATION

Company: Larson & Associates, Inc.
Client: Targa
Project: 2-0103
Location: Eunice Gas Plant
Test Well: MW-02a
Test Date: 3/03/09

AQUIFER DATA

Saturated Thickness: 14.19 ft Anisotropy Ratio (Kz/Kr): 1.

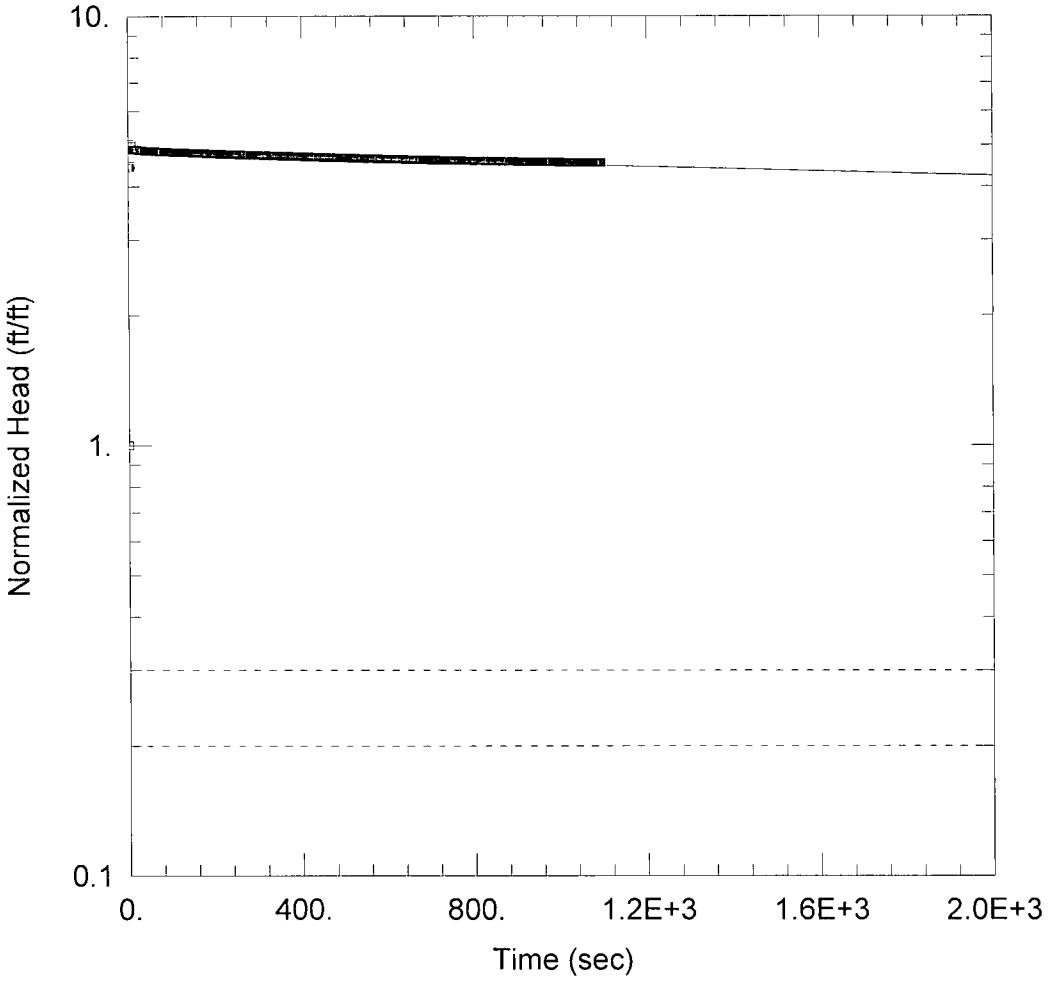
WELL DATA (MW-02a Falling Head)

Initial Displacement: 2. ft
Total Well Penetration Depth: 39.17 ft
Casing Radius: 0.083 ft
Static Water Column Height: 14.19 ft
Screen Length: 20. ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 0.004713 ft/day
y0 = 4.091 ft



MW-02A TEST 2

Data Set: C:\Users\wgreen\Desktop\Targa Eunice\MW-02A Falling Head Test 2.aqt
Date: 03/13/09 Time: 10:09:58

PROJECT INFORMATION

Company: Larson & Associates, Inc.
Client: Targa
Project: 2-0103
Location: Eunice Gas Plant
Test Well: MW-02a
Test Date: 3/03/09

AQUIFER DATA

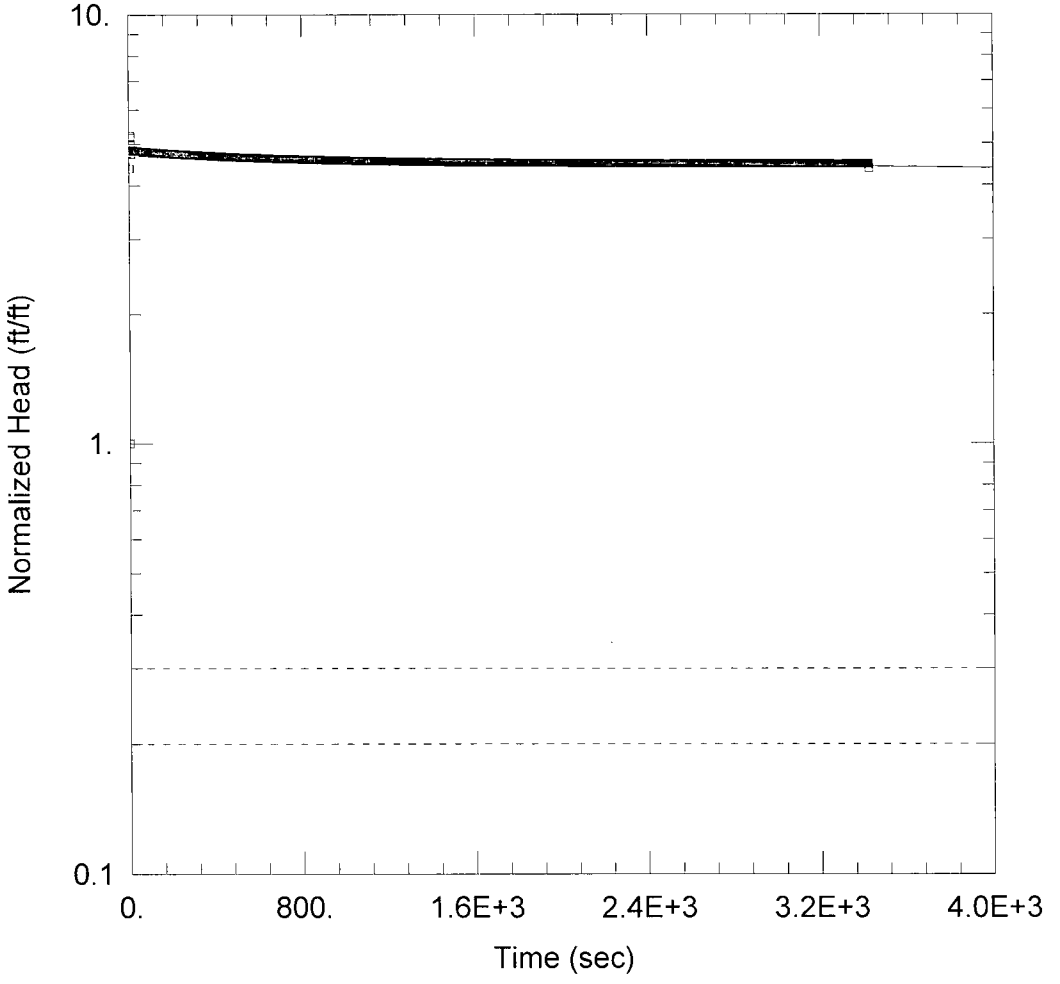
Saturated Thickness: 14.19 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-02a Falling Head Test 2)

Initial Displacement: 2. ft
Total Well Penetration Depth: 39.17 ft
Casing Radius: 0.083 ft
Static Water Column Height: 14.19 ft
Screen Length: 20. ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 0.006118 ft/day
y0 = 9.606 ft



MW-02A TEST 2A

Data Set: C:\Users\wgreen\Desktop\Targa Eunice\MW-02A Falling Head Test 2a.aqt
Date: 03/13/09 Time: 13:22:08

PROJECT INFORMATION

Company: Larson & Associates, Inc.
Client: Targa
Project: 2-0103
Location: Eunice Gas Plant
Test Well: MW-02a
Test Date: 3/03/09

AQUIFER DATA

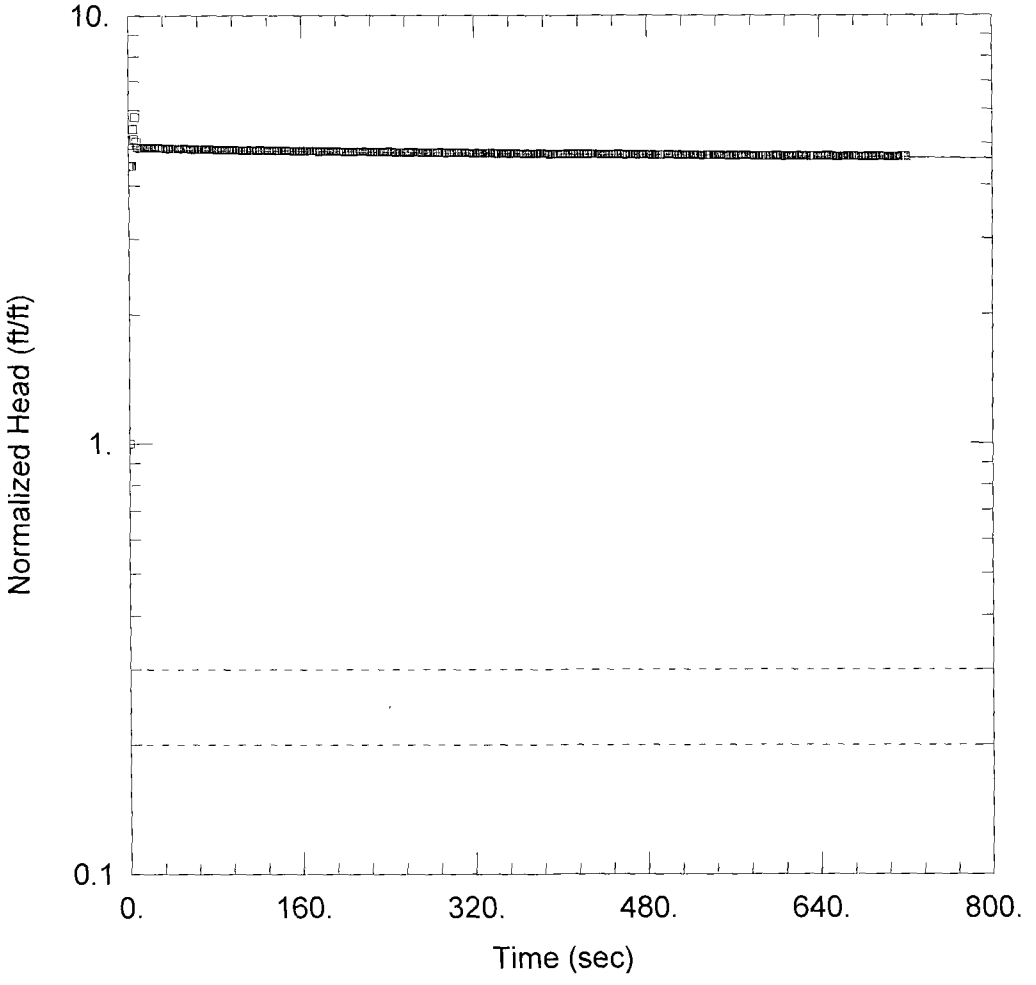
Saturated Thickness: 14.19 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-02a Falling Head Test 2)

Initial Displacement: 2. ft
Total Well Penetration Depth: 33.36 ft
Casing Radius: 0.083 ft
Static Water Column Height: 14.19 ft
Screen Length: 14.19 ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 0.001596 ft/day
y0 = 9.361 ft



MW-02A TEST 3

Data Set: C:\Users\wgreen\Desktop\Targa Eunice\MW-02A Falling Head Test 3.aqt
Date: 03/13/09 Time: 14:35:59

PROJECT INFORMATION

Company: Larson & Associates, Inc.
Client: Targa
Project: 2-0103
Location: Eunice Gas Plant
Test Well: MW-02a
Test Date: 3/03/09

AQUIFER DATA

Saturated Thickness: 14.19 ft Anisotropy Ratio (Kz/Kr): 1.

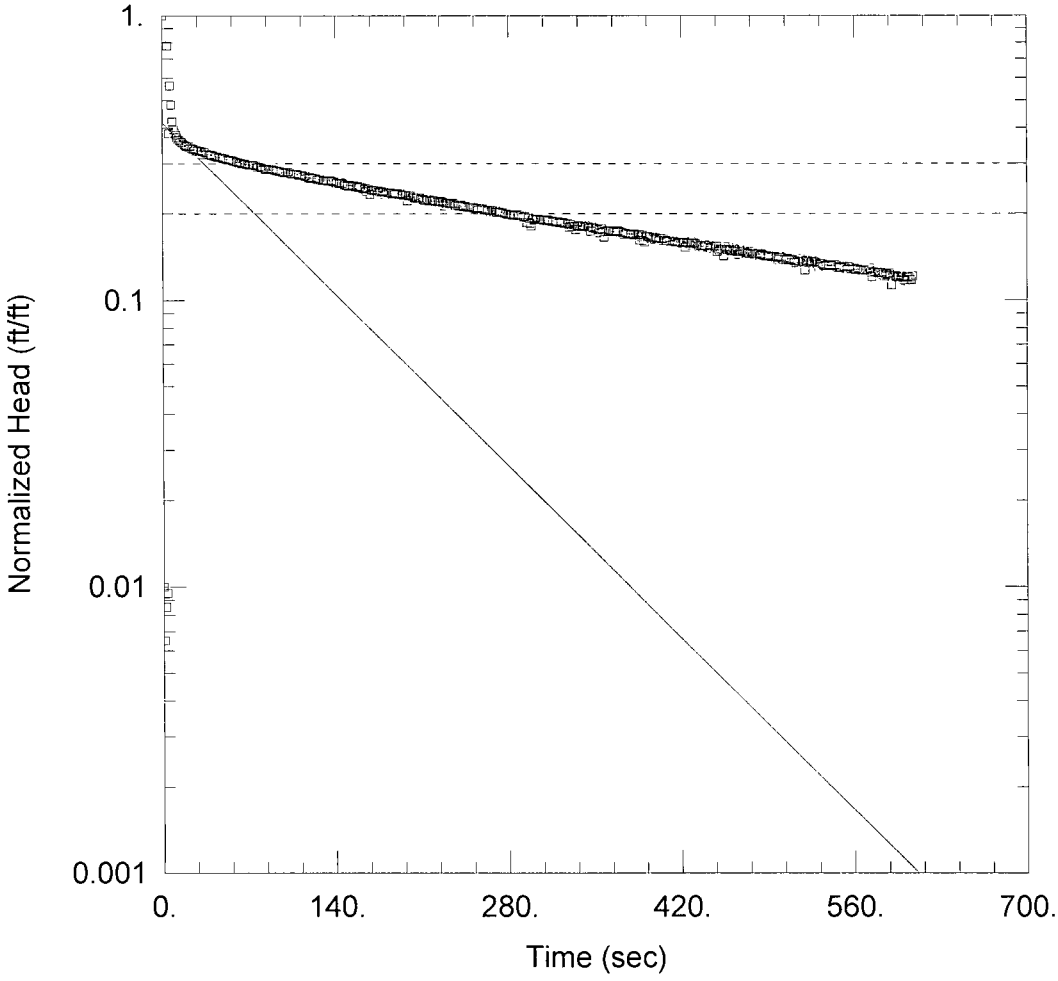
WELL DATA (MW-02a Falling Head Test 3)

Initial Displacement: 2. ft
Total Well Penetration Depth: 14.19 ft
Casing Radius: 0.083 ft
Static Water Column Height: 14.19 ft
Screen Length: 14.19 ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.005734 ft/day y0 = 9.745 ft



MW-2A TEST 1

Data Set: Z:\...\MW-02A Rising Head Test 1.aqt
Date: 03/19/09 Time: 15:35:08

PROJECT INFORMATION

Company: Larson & Associates, Inc.
Client: Targa
Project: 2-0103
Location: Eunice Gas Plant
Test Well: MW-02a
Test Date: 3/03/09

AQUIFER DATA

Saturated Thickness: 14.19 ft Anisotropy Ratio (Kz/Kr): 1.

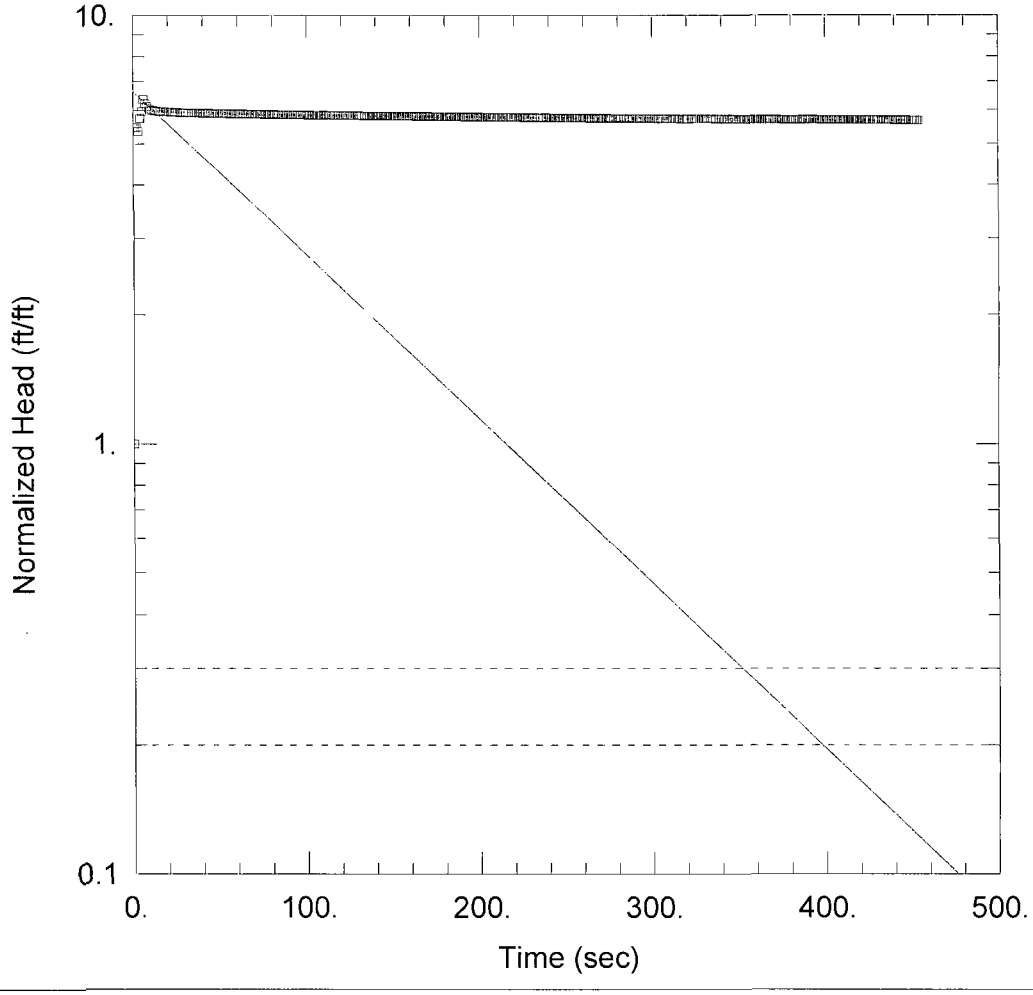
WELL DATA (MW-02a Rising Head)

Initial Displacement: 2. ft
Total Well Penetration Depth: 39.17 ft
Casing Radius: 0.083 ft
Static Water Column Height: 14.19 ft
Screen Length: 20. ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 0.9614 ft/day
y0 = 0.8351 ft



MW-2A TEST 2

Data Set: Z:\...\MW-02A Rising Head Test 2.aqt
Date: 03/19/09 Time: 15:37:31

PROJECT INFORMATION

Company: Larson & Associates, Inc.
Client: Targa
Project: 2-0103
Location: Eunice Gas Plant
Test Well: MW-02a
Test Date: 3/03/09

AQUIFER DATA

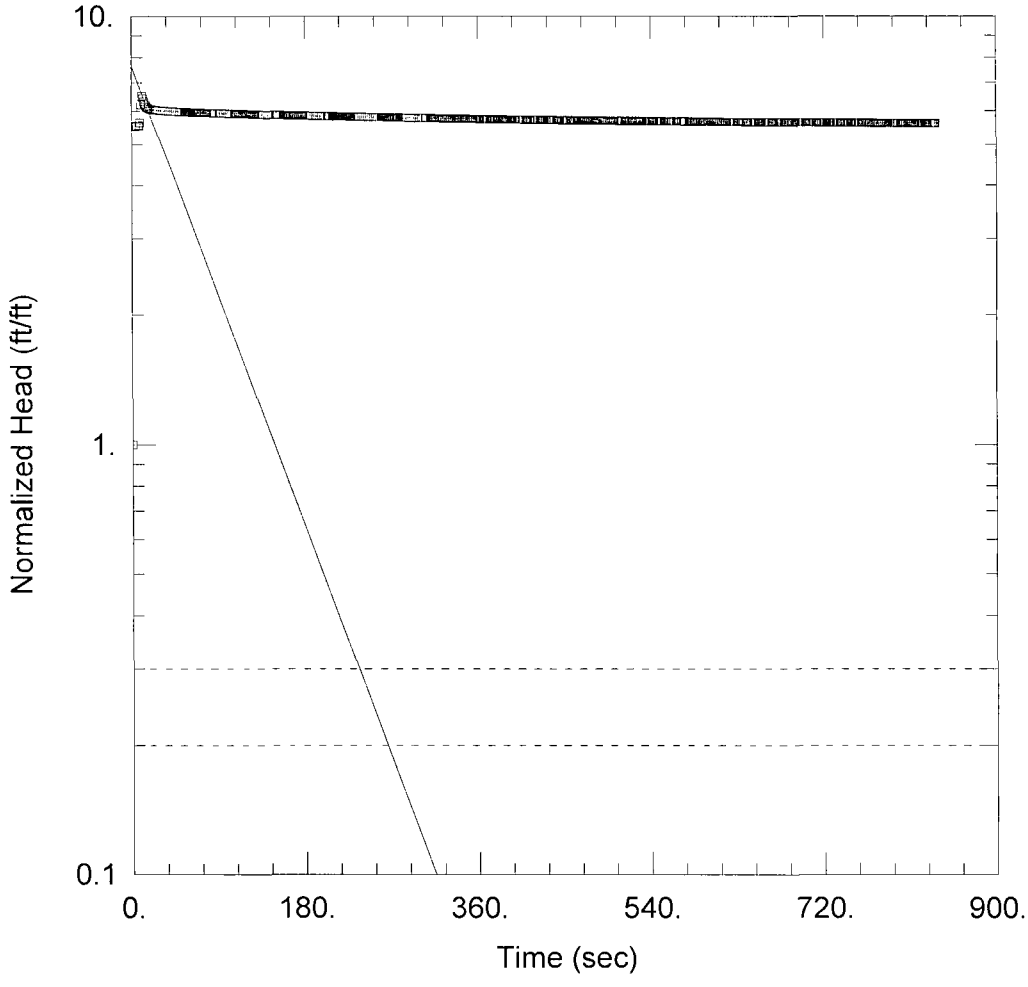
Saturated Thickness: 14.19 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-02a)

Initial Displacement: 2. ft
Total Well Penetration Depth: 33.36 ft
Casing Radius: 0.083 ft
Static Water Column Height: 14.19 ft
Screen Length: 14.19 ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 0.8396 ft/day
y0 = 13.27 ft



MW-02A TEST 2A RISING HEAD

Data Set: Z:\...\MW-02A Rising Head Test 2a.aqt
Date: 03/19/09 Time: 15:39:51

PROJECT INFORMATION

Company: Larson & Associates, Inc.
Client: Targa
Project: 2-0103
Location: Eunice Gas Plant
Test Well: MW-02a
Test Date: 3/03/09

AQUIFER DATA

Saturated Thickness: 14.19 ft Anisotropy Ratio (Kz/Kr): 1.

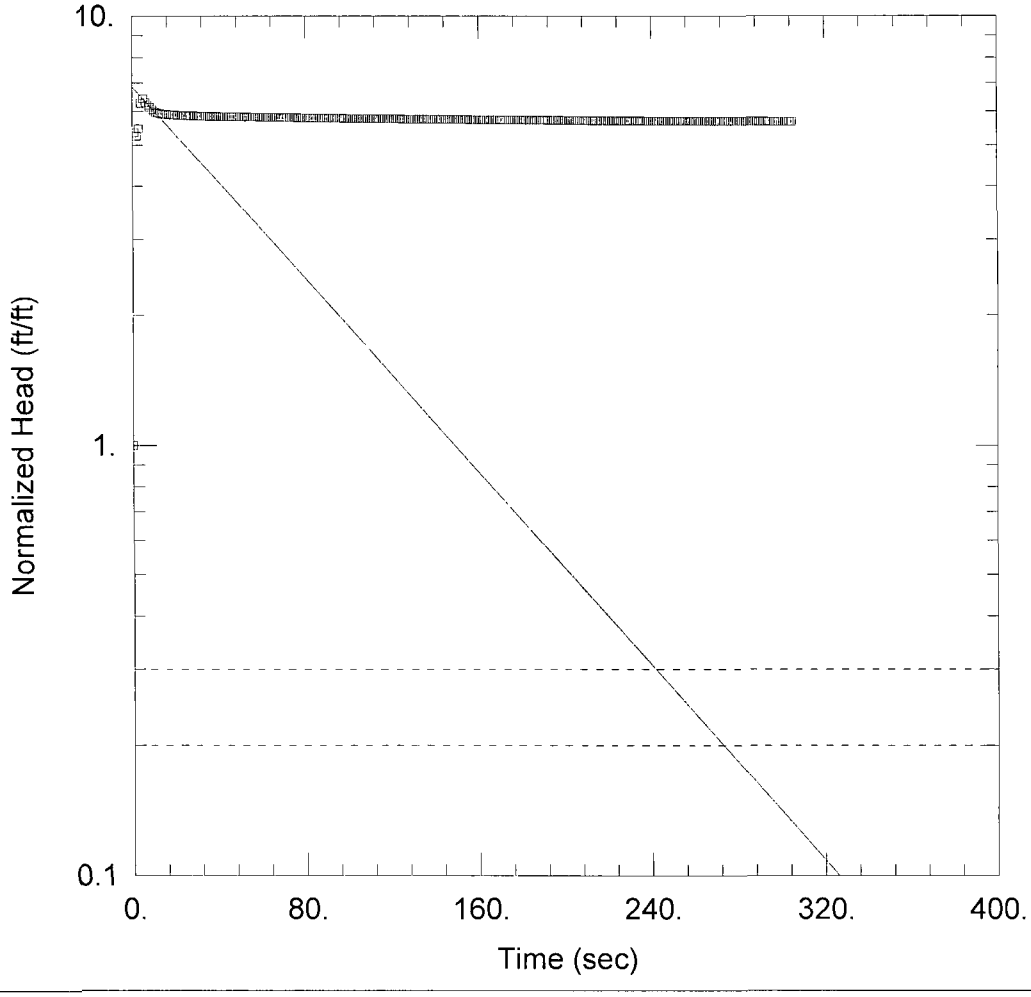
WELL DATA (MW-02a Rising Head Test 2a)

Initial Displacement: 2. ft
Total Well Penetration Depth: 33.36 ft
Casing Radius: 0.083 ft
Static Water Column Height: 14.19 ft
Screen Length: 14.19 ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 1.313 ft/day
y0 = 15.29 ft



MW-02A TEST 3 RISING HEAD

Data Set: Z:\...\MW-02A Rising Head Test 3.aqt
Date: 03/19/09 Time: 15:41:33

PROJECT INFORMATION

Company: Larson & Associates, Inc.
Client: Targa
Project: 2-0103
Location: Eunice Gas Plant
Test Well: MW-02a
Test Date: 3/03/09

AQUIFER DATA

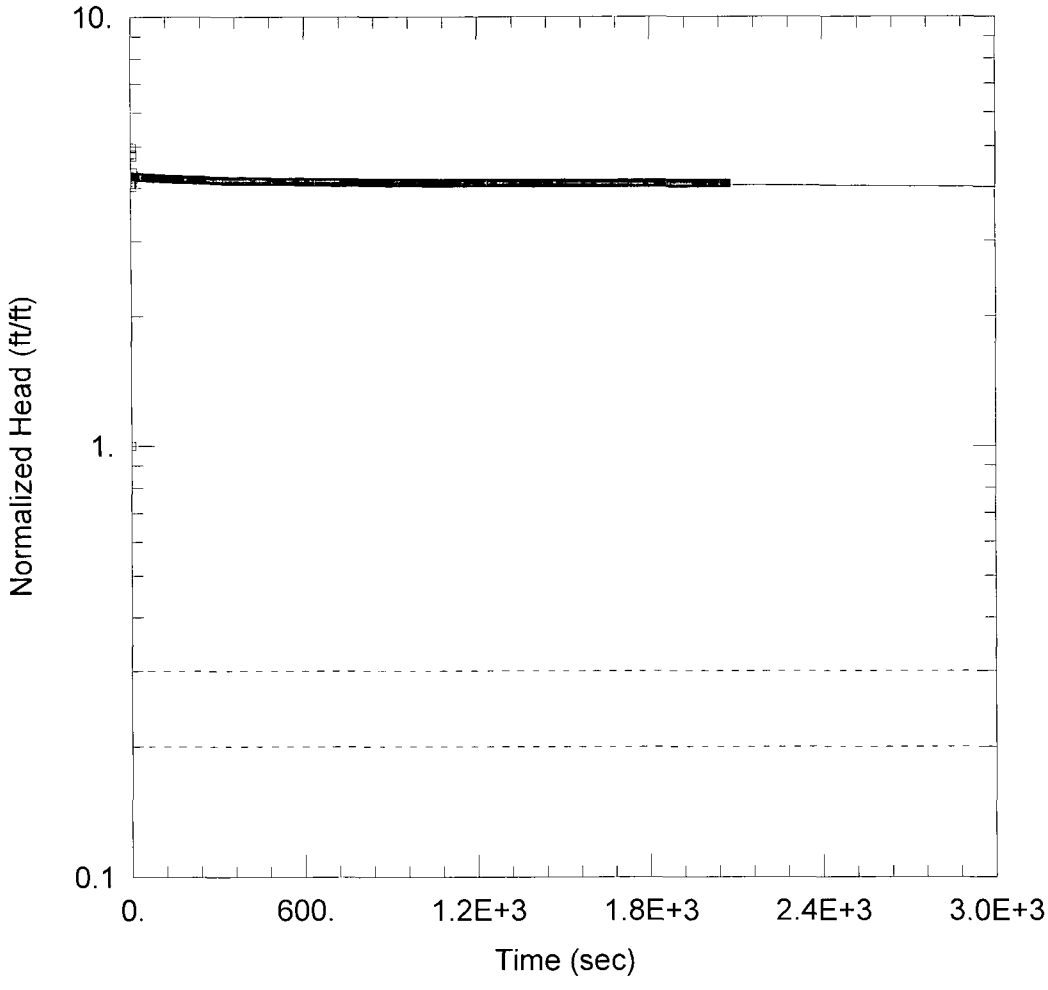
Saturated Thickness: 14.19 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-02a Risling Head Test 3)

Initial Displacement: 2. ft
Total Well Penetration Depth: 14.19 ft
Casing Radius: 0.083 ft
Static Water Column Height: 14.19 ft
Screen Length: 14.19 ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 1.084 ft/day
y0 = 13.71 ft



MW-03 TEST 1 FALLING HEAD

Data Set: C:\Users\wgreen\Desktop\Targa Eunice\Reduced Data\MW-03 Falling Head Test 1.aqt
Date: 03/16/09 Time: 09:14:16

PROJECT INFORMATION

Company: Larson & Associates, Inc.
Client: Targa
Project: 2-0103
Location: Eunice Gas Plant
Test Well: MW-03
Test Date: 3/05/09

AQUIFER DATA

Saturated Thickness: 15.5 ft Anisotropy Ratio (Kz/Kr): 1.

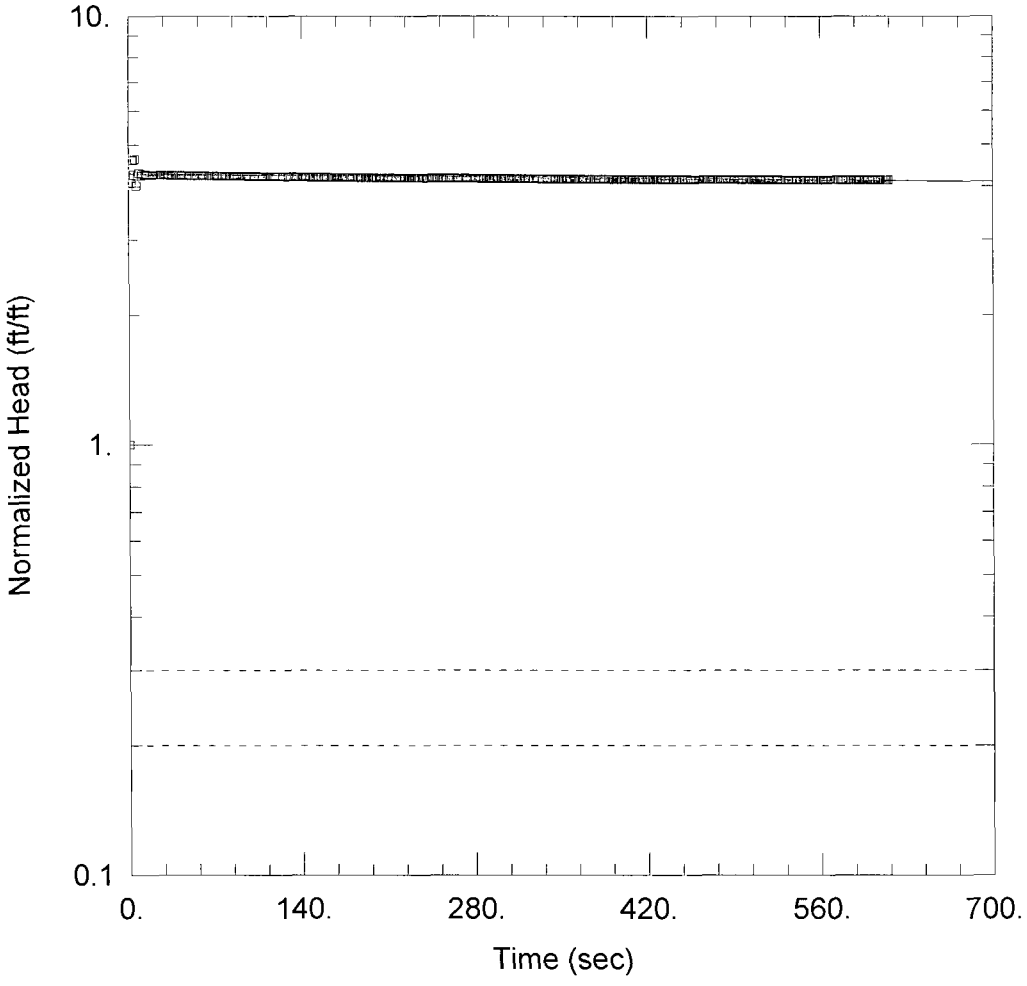
WELL DATA (MW-03)

Initial Displacement: 3.5 ft
Total Well Penetration Depth: 15.5 ft
Casing Radius: 0.0833 ft
Static Water Column Height: 15.5 ft
Screen Length: 15.5 ft
Well Radius: 0.0833 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.001113 ft/day y0 = 14.62 ft



MW-03 TEST 2 FALLING HEAD

Data Set: Z:\...\MW-03 Falling Head Test 2.aqt
Date: 03/16/09 Time: 10:15:17

PROJECT INFORMATION

Company: Larson & Associates, Inc.
Client: Targa
Project: 2-0103
Location: Eunice Gas Plant
Test Well: MW-03
Test Date: 3/05/09

AQUIFER DATA

Saturated Thickness: 15.5 ft Anisotropy Ratio (Kz/Kr): 1.

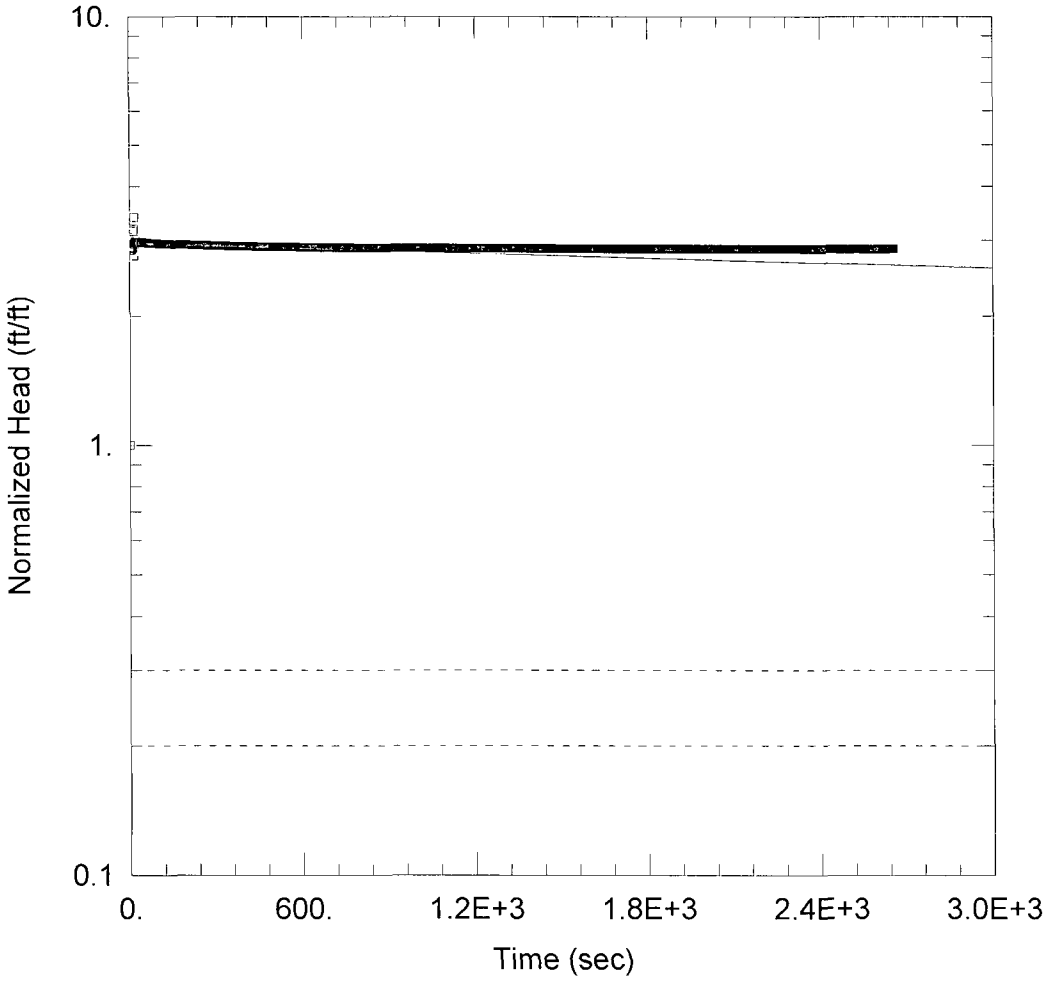
WELL DATA (MW-03)

Initial Displacement: 3.5 ft
Total Well Penetration Depth: 15.5 ft
Casing Radius: 0.0833 ft
Static Water Column Height: 15.5 ft
Screen Length: 15.5 ft
Well Radius: 0.0833 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.004799 ft/day y0 = 15. ft



MW-03 TEST 3 FALLING HEAD

Data Set: Z:\...\MW-03 Falling Head Test 3.aqt
Date: 03/16/09 Time: 11:28:34

PROJECT INFORMATION

Company: Larson & Associates, Inc.
Client: Targa
Project: 2-0103
Location: Eunice Gas Plant
Test Well: MW-03
Test Date: 3/05/09

AQUIFER DATA

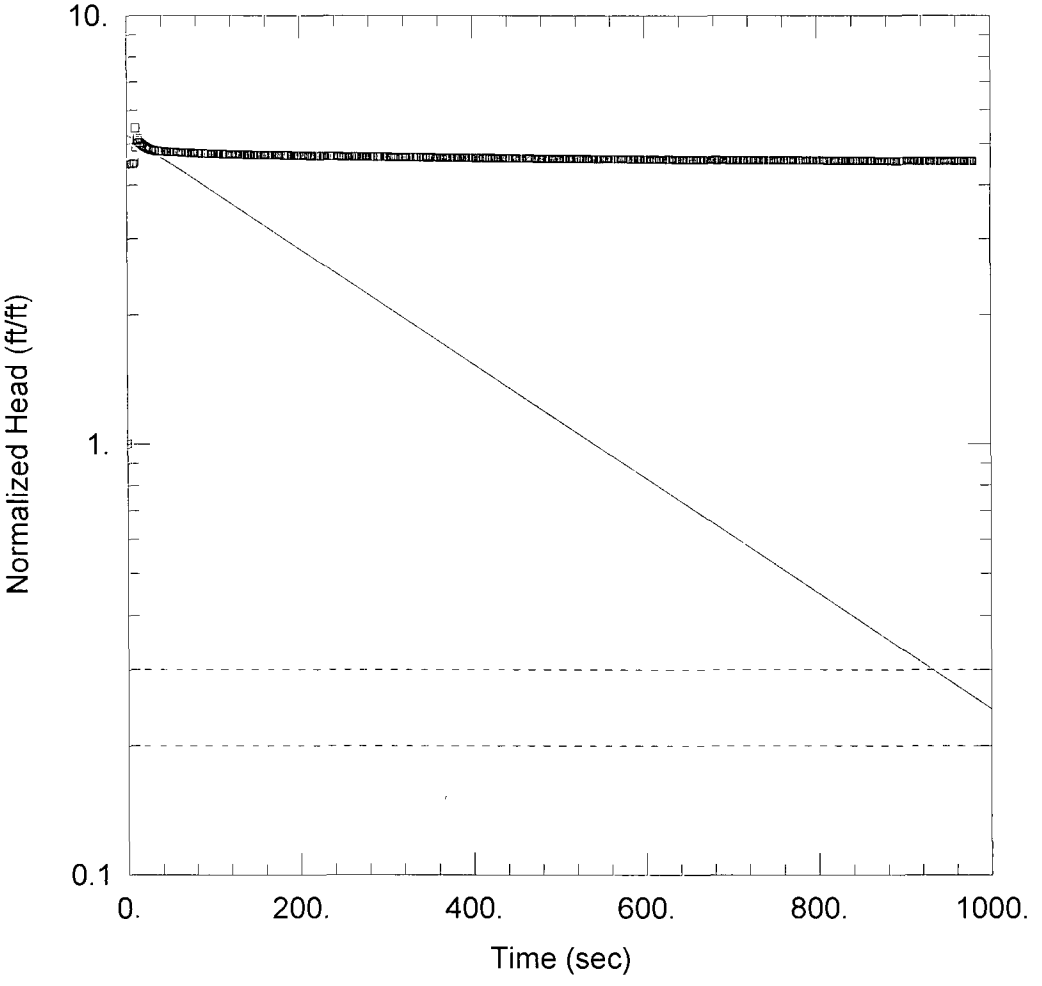
Saturated Thickness: 15.5 ft
Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-03)

Initial Displacement: 5. ft
Total Well Penetration Depth: 15.5 ft
Casing Radius: 0.0833 ft
Static Water Column Height: 15.5 ft
Screen Length: 15.5 ft
Well Radius: 0.0833 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 0.00341 ft/day
y0 = 14.75 ft



MW-03 TEST 1 RISING HEAD

Data Set: Z:\...\MW-03 Rising Head Test 1.aqt
Date: 03/19/09 Time: 15:51:18

PROJECT INFORMATION

Company: Larson & Associates, Inc.
Client: Targa
Project: 2-0103
Location: Eunice Gas Plant
Test Well: MW-03
Test Date: 3/05/09

AQUIFER DATA

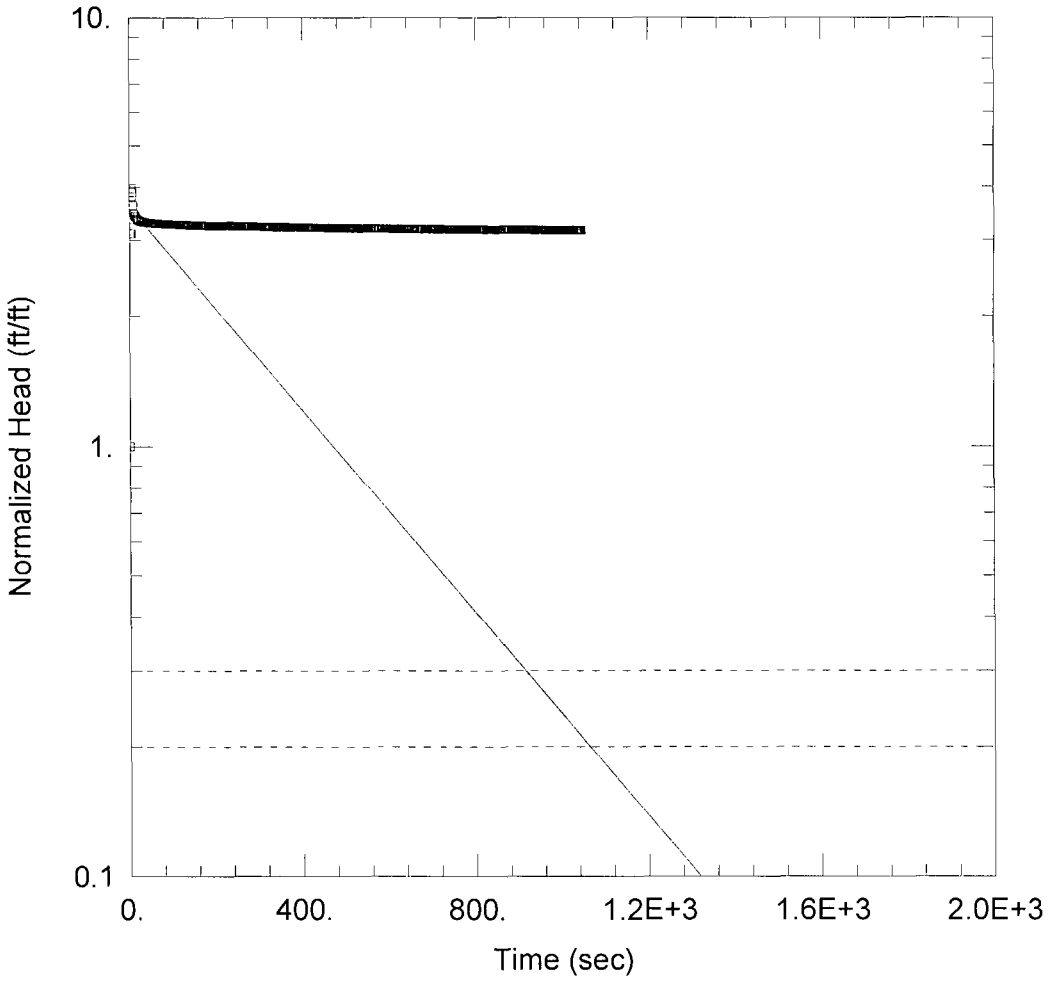
Saturated Thickness: 15.5 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-03)

Initial Displacement: 3.5 ft
Total Well Penetration Depth: 15.5 ft
Casing Radius: 0.0833 ft
Static Water Column Height: 15.5 ft
Screen Length: 15.5 ft
Well Radius: 0.0833 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 0.2414 ft/day
y0 = 18.38 ft



MW-03 TEST 2 RISING HEAD

Data Set: Z:\...\MW-03 Rising Head Test 2.aqt
Date: 03/19/09 Time: 15:53:21

PROJECT INFORMATION

Company: Larson & Associates, Inc.
Client: Targa
Project: 2-0103
Location: Eunice Gas Plant
Test Well: MW-03
Test Date: 3/05/09

AQUIFER DATA

Saturated Thickness: 15.5 ft Anisotropy Ratio (Kz/Kr): 1.

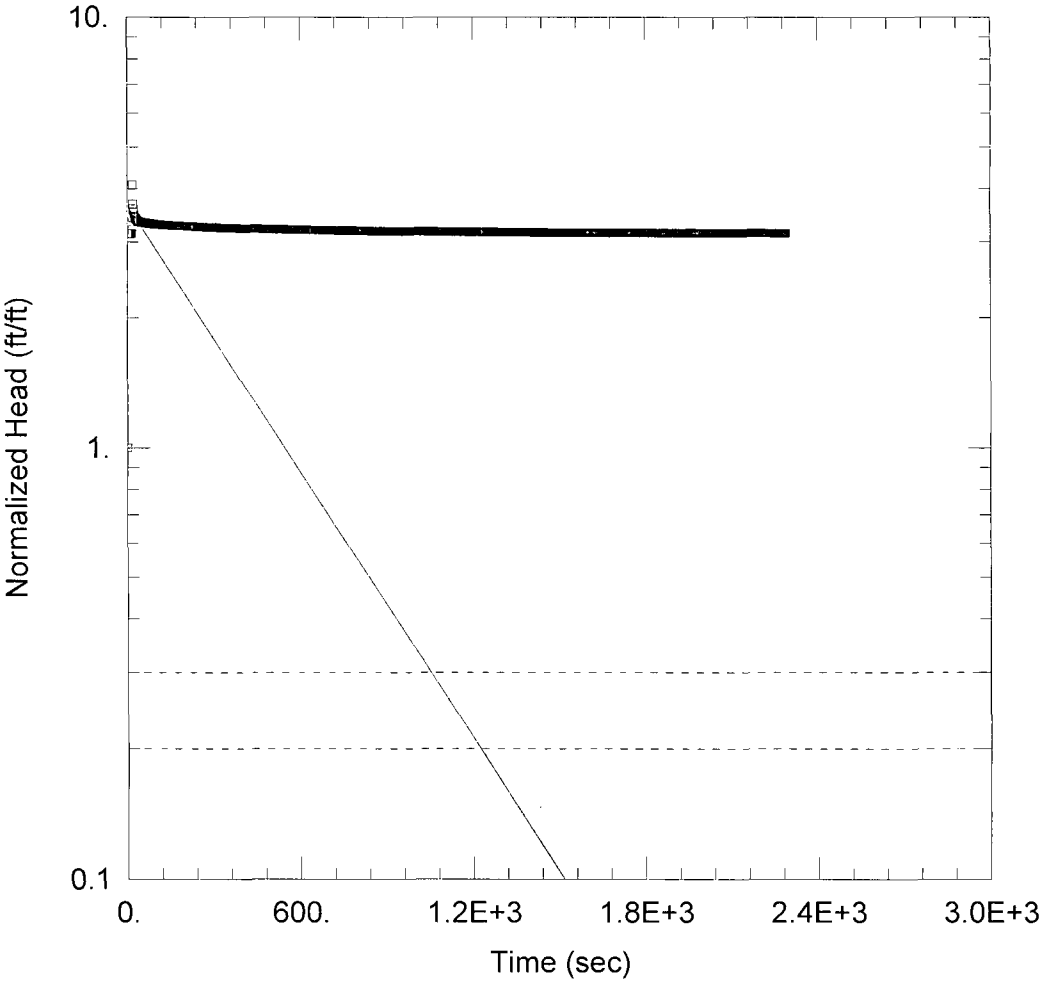
WELL DATA (MW-03)

Initial Displacement: 5. ft
Total Well Penetration Depth: 15.5 ft
Casing Radius: 0.0833 ft
Static Water Column Height: 15.5 ft
Screen Length: 15.5 ft
Well Radius: 0.0833 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.213 ft/day y0 = 17.82 ft



MW-03 TEST 3 RISING HEAD

Data Set: Z:\...\MW-03 Rising Head Test 3.aqt
Date: 03/19/09 Time: 15:46:44

PROJECT INFORMATION

Company: Larson & Associates, Inc.
Client: Targa
Project: 2-0103
Location: Eunice Gas Plant
Test Well: MW-03
Test Date: 3/05/09

AQUIFER DATA

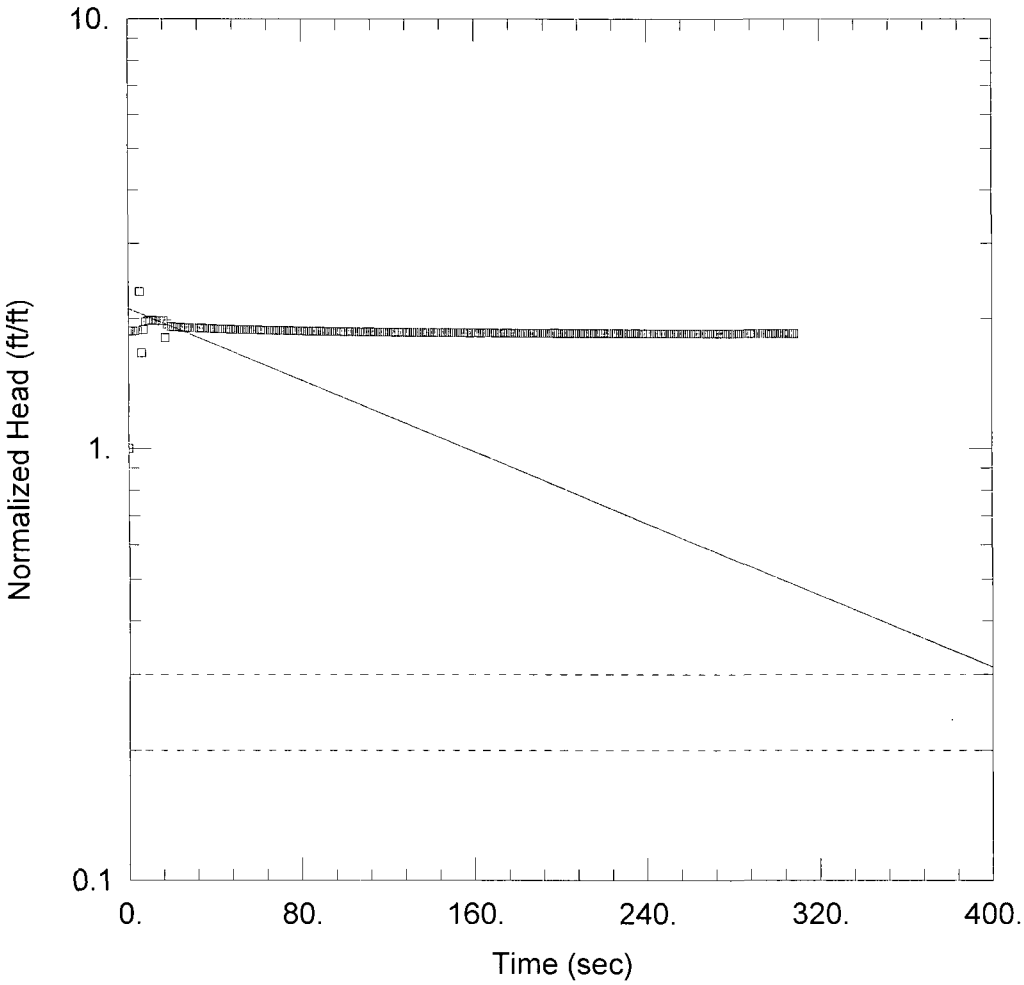
Saturated Thickness: 15.5 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-03)

Initial Displacement: 5. ft
Total Well Penetration Depth: 15.5 ft
Casing Radius: 0.0833 ft
Static Water Column Height: 15.5 ft
Screen Length: 15.5 ft
Well Radius: 0.0833 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 0.1865 ft/day
y0 = 18.23 ft



MW-05 TEST 1 FALLING HEAD

Data Set:
Date: 03/16/09 Time: 13:59:17

PROJECT INFORMATION

Company: Larson & Associates, Inc.
Client: Targa
Project: 2-0103
Location: Eunice Gas Plant
Test Well: MW-05
Test Date: 3/03/09

AQUIFER DATA

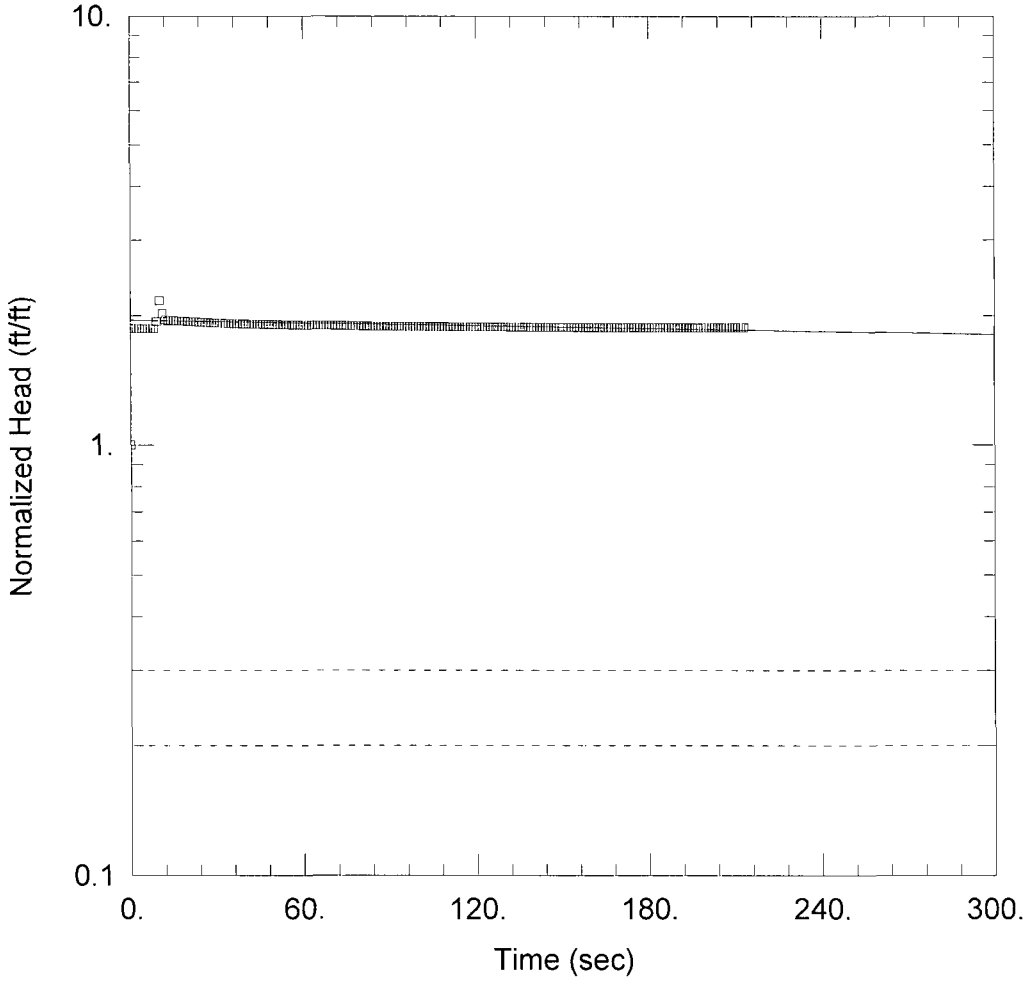
Saturated Thickness: 12.71 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-05)

Initial Displacement: 3. ft
Total Well Penetration Depth: 12.71 ft
Casing Radius: 0.083 ft
Static Water Column Height: 12.71 ft
Screen Length: 12.71 ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 0.4355 ft/day
y0 = 6.338 ft



MW-05 TEST 2 FALLING HEAD

Data Set: Z:\...\MW-05 Falling Head Test 2.aqt
Date: 03/16/09 Time: 15:18:27

PROJECT INFORMATION

Company: Larson & Associates, Inc.
Client: Targa
Project: 2-0103
Location: Eunice Gas Plant
Test Well: MW-05
Test Date: 3/03/09

AQUIFER DATA

Saturated Thickness: 12.71 ft Anisotropy Ratio (Kz/Kr): 1.

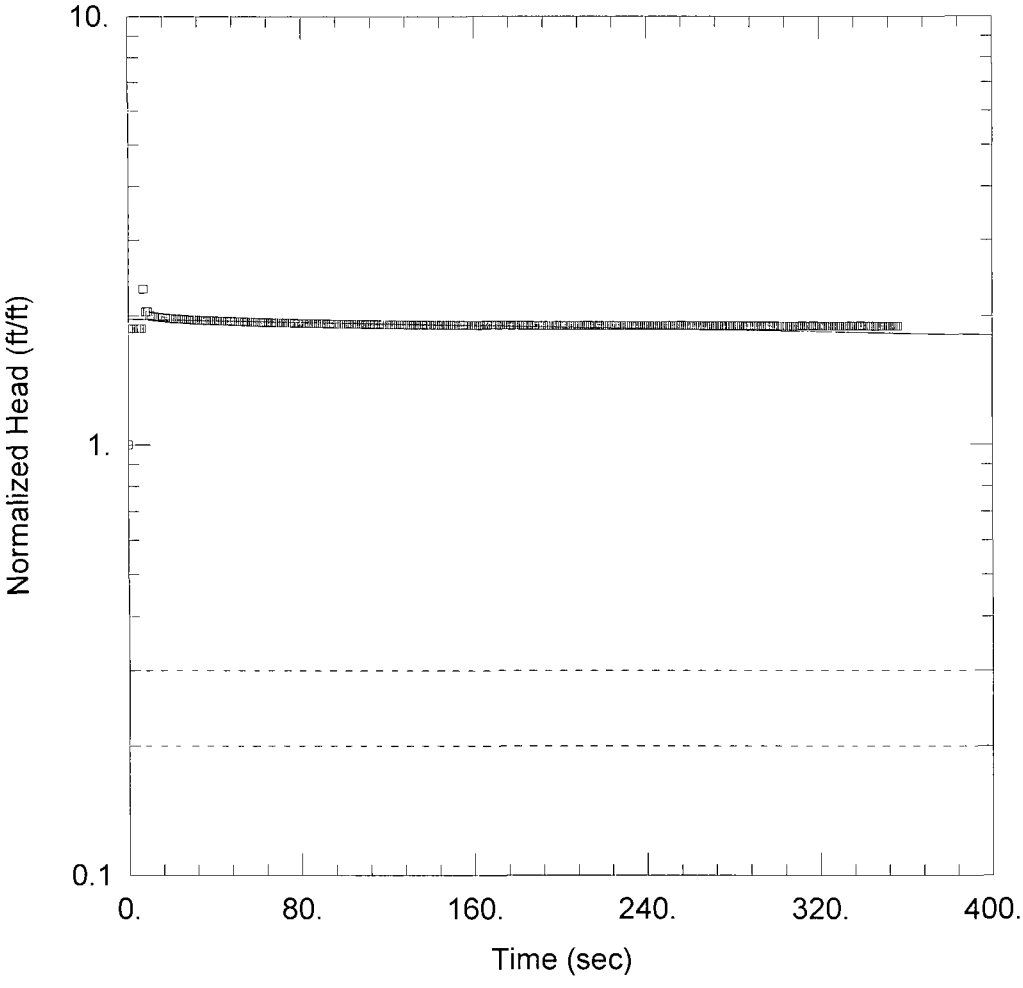
WELL DATA (MW-05)

Initial Displacement: 3. ft
Total Well Penetration Depth: 12.71 ft
Casing Radius: 0.083 ft
Static Water Column Height: 12.71 ft
Screen Length: 12.71 ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.02323 ft/day y0 = 5.868 ft



MW-05 TEST 3 FALLING HEAD

Data Set: Z:\...\MW-05 Falling Head Test 3.aqt
Date: 03/16/09 Time: 15:53:07

PROJECT INFORMATION

Company: Larson & Associates, Inc.
Client: Targa
Project: 2-0103
Location: Eunice Gas Plant
Test Well: MW-05
Test Date: 3/03/09

AQUIFER DATA

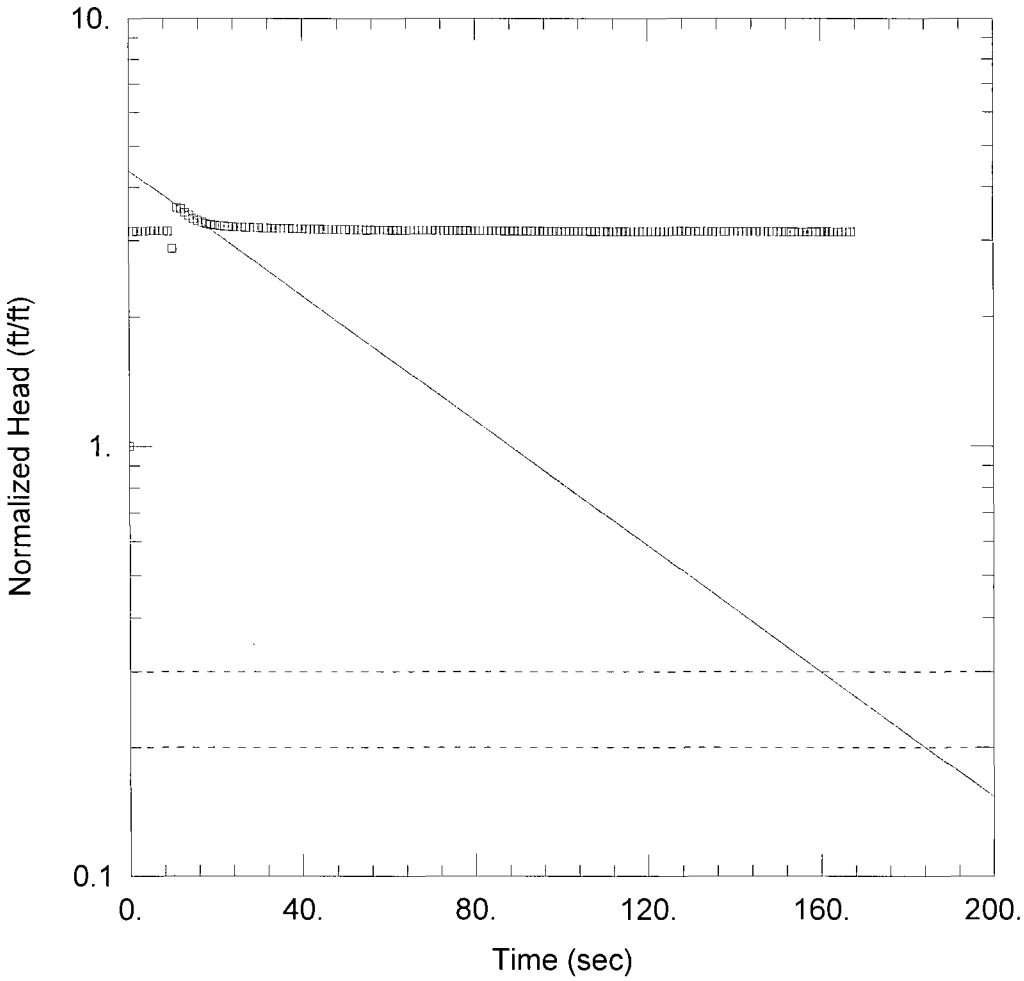
Saturated Thickness: 12.71 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-05)

Initial Displacement: 3. ft
Total Well Penetration Depth: 12.71 ft
Casing Radius: 0.083 ft
Static Water Column Height: 12.71 ft
Screen Length: 12.71 ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 0.01982 ft/day
y0 = 5.908 ft



MW-05 TEST 1 RISING HEAD

Data Set: Z:\...\MW-05 Rising Head Test 1.aqt
Date: 03/19/09 Time: 16:17:16

PROJECT INFORMATION

Company: Larson & Associates, Inc.
Client: Targa
Project: 2-0103
Location: Eunice Gas Plant
Test Well: MW-05
Test Date: 3/03/09

AQUIFER DATA

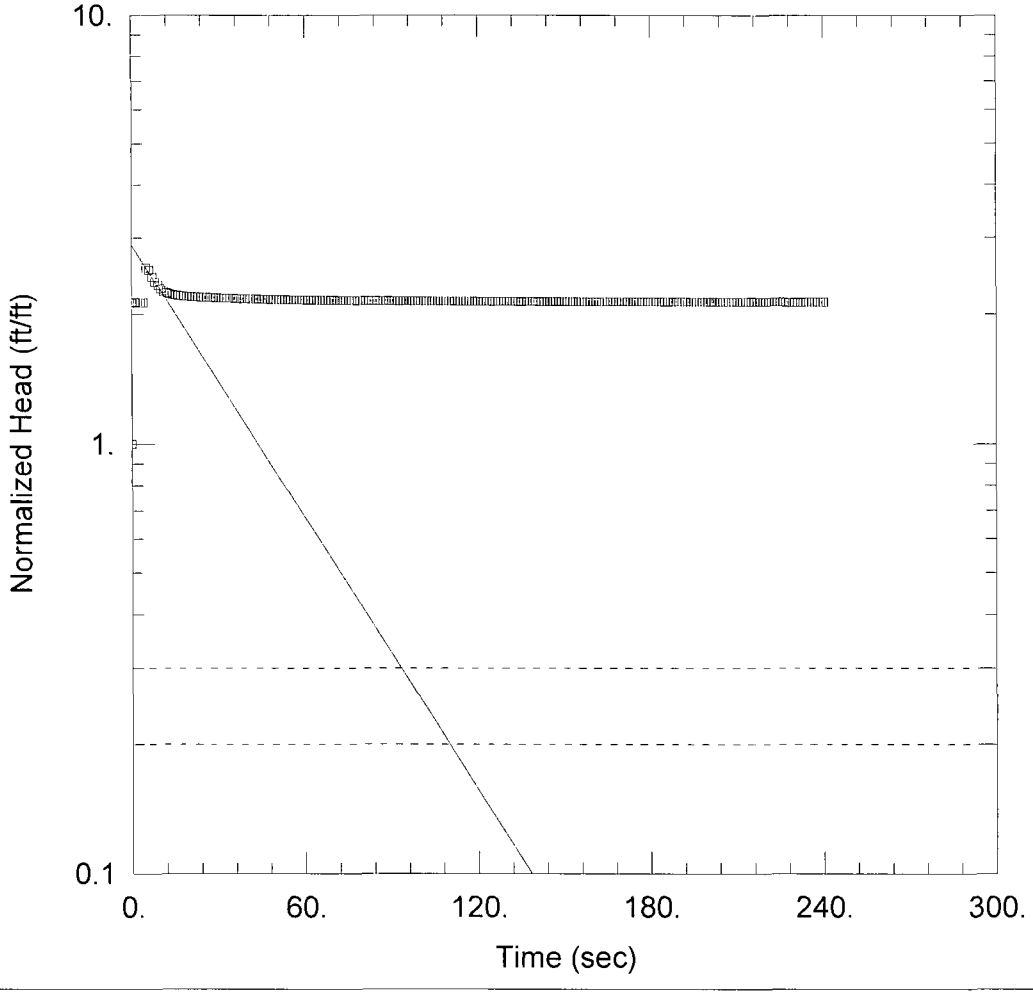
Saturated Thickness: 12.71 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-05)

Initial Displacement: 3. ft
Total Well Penetration Depth: 12.71 ft
Casing Radius: 0.083 ft
Static Water Column Height: 12.71 ft
Screen Length: 12.71 ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 1.528 ft/day
y0 = 13.12 ft



MW-05 TEST 2 RISING HEAD

Data Set: Z:\...\MW-05 Rising Head Test 2.aqt
Date: 03/16/09 Time: 15:44:06

PROJECT INFORMATION

Company: Larson & Associates, Inc.
Client: Targa
Project: 2-0103
Location: Eunice Gas Plant
Test Well: MW-05
Test Date: 3/03/09

AQUIFER DATA

Saturated Thickness: 12.71 ft Anisotropy Ratio (Kz/Kr): 1.

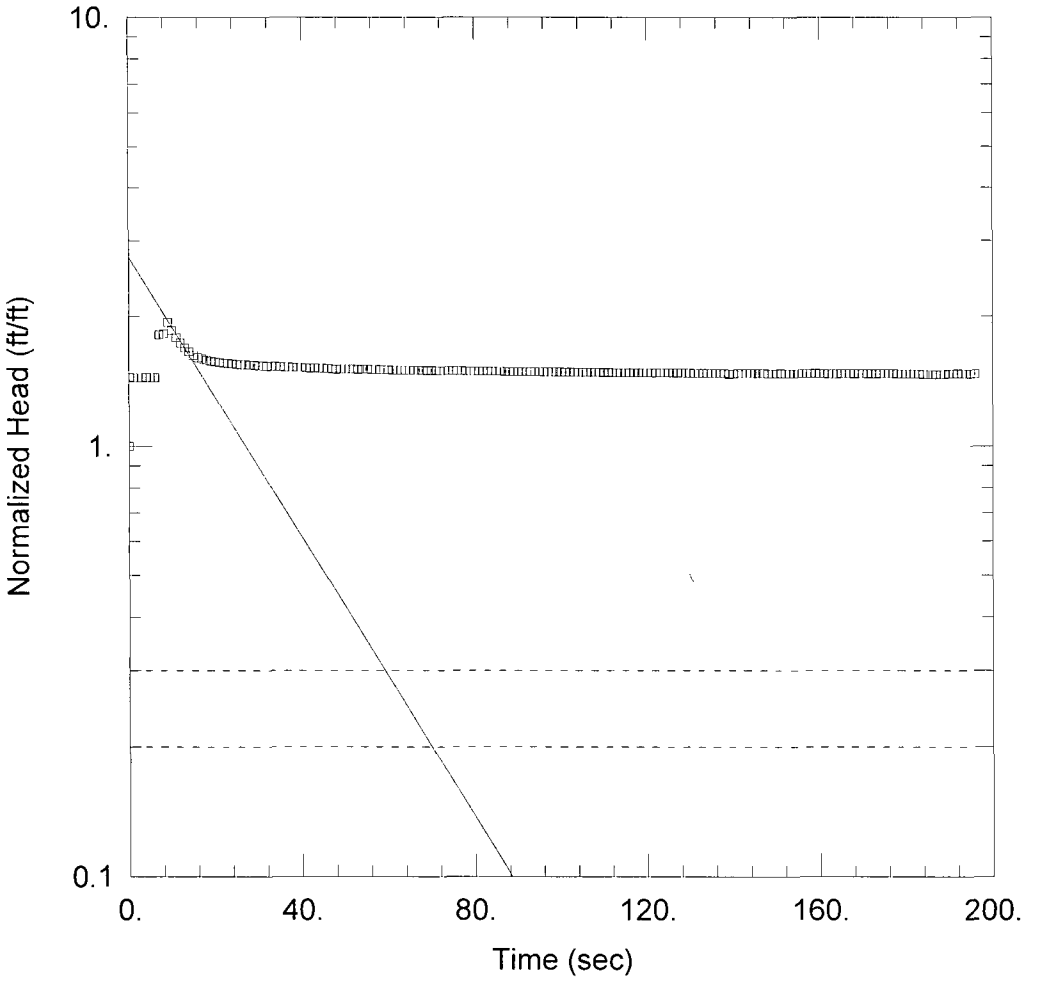
WELL DATA (MW-05)

Initial Displacement: 3. ft
Total Well Penetration Depth: 12.71 ft
Casing Radius: 0.083 ft
Static Water Column Height: 12.71 ft
Screen Length: 12.71 ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 2.217 ft/day y0 = 8.665 ft



MW-05 TEST 3 RISING HEAD

Data Set: Z:\...\MW-05 Rising Head Test 3.aqt
Date: 03/16/09 Time: 16:13:39

PROJECT INFORMATION

Company: Larson & Associates, Inc.
Client: Targa
Project: 2-0103
Location: Eunice Gas Plant
Test Well: MW-05
Test Date: 3/03/09

AQUIFER DATA

Saturated Thickness: 12.71 ft Anisotropy Ratio (Kz/Kr): 1.

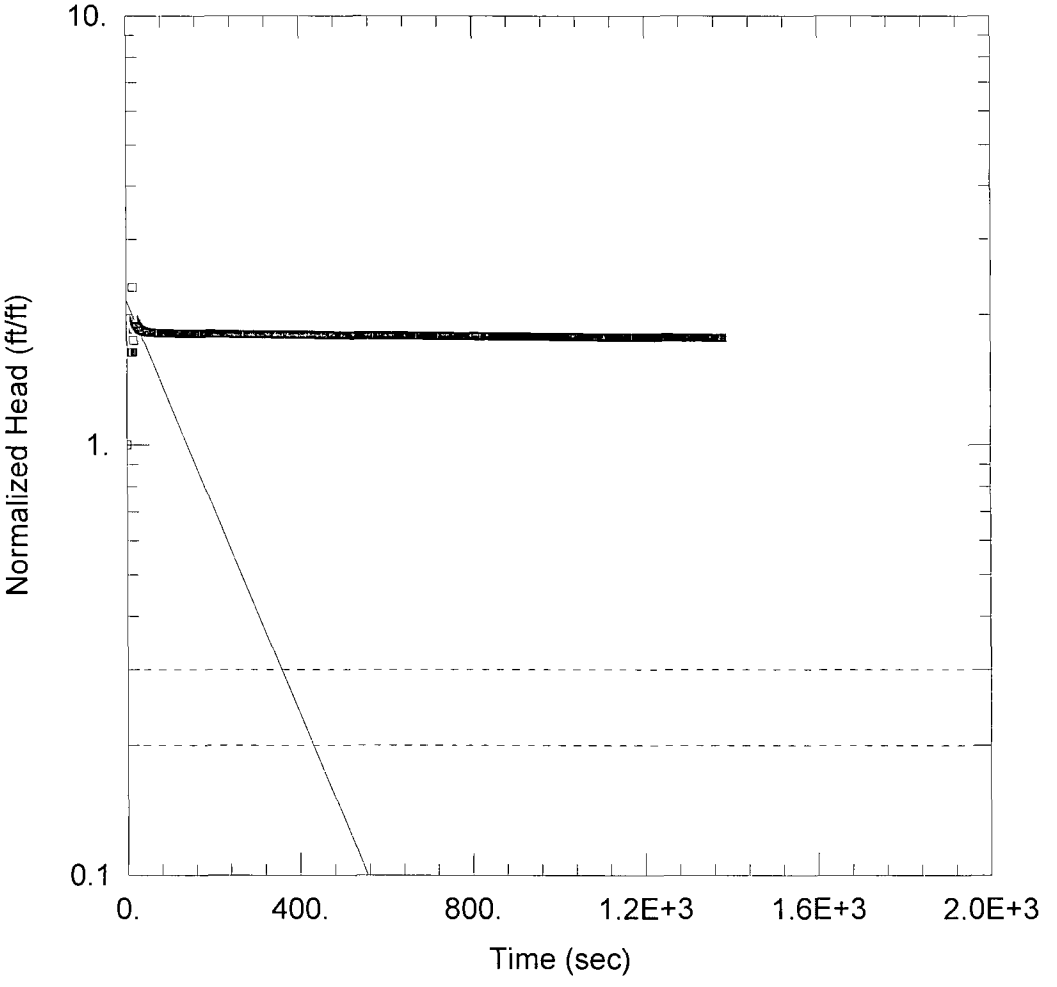
WELL DATA (MW-05)

Initial Displacement: 3. ft
Total Well Penetration Depth: 12.71 ft
Casing Radius: 0.083 ft
Static Water Column Height: 12.71 ft
Screen Length: 12.71 ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 3.413 ft/day y0 = 8.227 ft



WELL TEST ANALYSIS

Data Set: Z:\...\MW-13 Falling Head Test 1.aqt
Date: 03/16/09 Time: 16:57:52

PROJECT INFORMATION

Company: Larson & Associates, Inc.
Client: Targa
Project: 2-0103
Location: Eunice Gas Plant
Test Well: MW-13
Test Date: 3/04/09

AQUIFER DATA

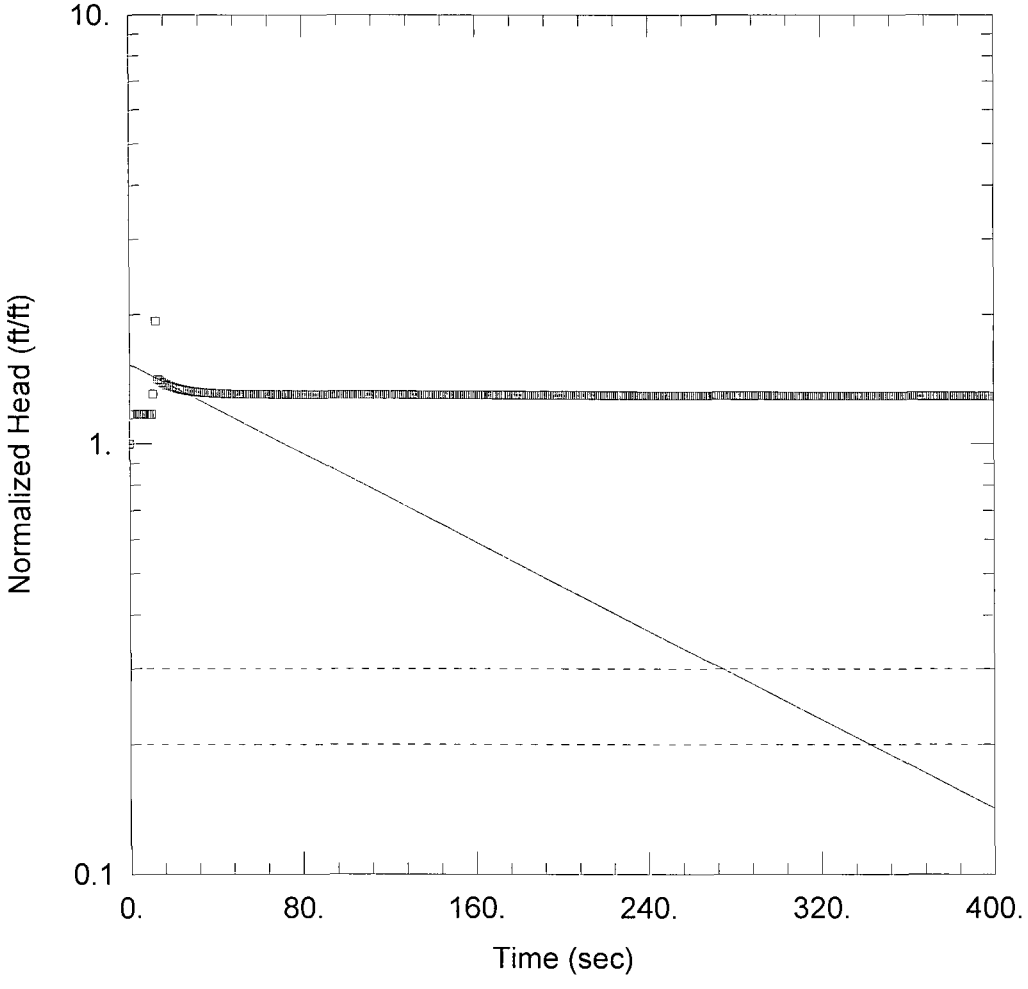
Saturated Thickness: 9.12 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-13)

Initial Displacement: 5.5 ft
Total Well Penetration Depth: 9.12 ft
Casing Radius: 0.083 ft
Static Water Column Height: 9.12 ft
Screen Length: 9.12 ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 0.6529 ft/day
y0 = 11.9 ft



MW-13 TEST 2 FALLING HEAD

Data Set: Z:\...\MW-13 Falling Head Test 2.aqt
Date: 03/17/09 Time: 09:12:12

PROJECT INFORMATION

Company: Larson & Associates, Inc.
Client: Targa
Project: 2-0103
Location: Eunice Gas Plant
Test Well: MW-13
Test Date: 3/04/09

AQUIFER DATA

Saturated Thickness: 9.12 ft Anisotropy Ratio (Kz/Kr): 1.

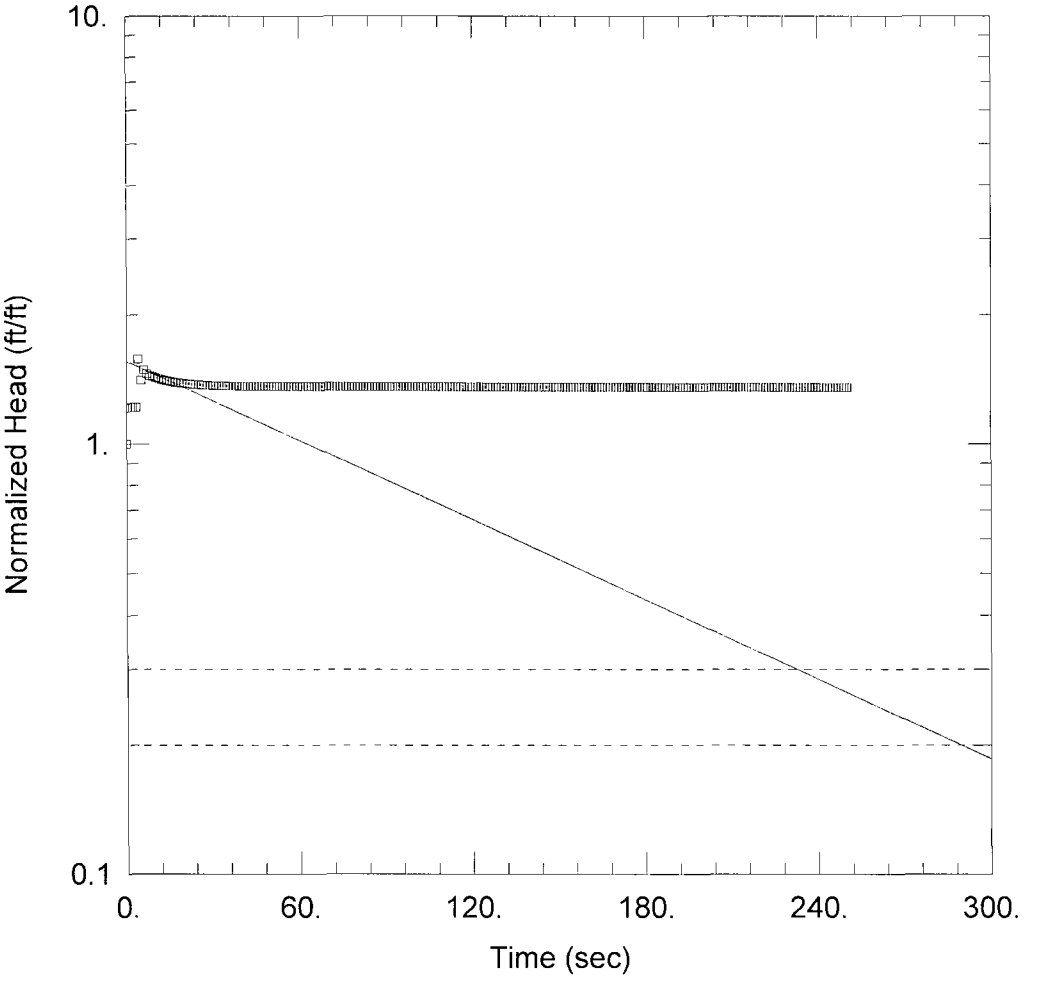
WELL DATA (MW-13)

Initial Displacement: 7.5 ft
Total Well Penetration Depth: 9.12 ft
Casing Radius: 0.083 ft
Static Water Column Height: 9.12 ft
Screen Length: 9.12 ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.7021 ft/day y0 = 11.48 ft



MW-13 TEST 3 FALLING HEAD

Data Set: Z:\...\MW-13 Falling Head Test 3.aqt
Date: 03/17/09 Time: 09:59:50

PROJECT INFORMATION

Company: Larson & Associates, Inc.
Client: Targa
Project: 2-0103
Location: Eunice Gas Plant
Test Well: MW-13
Test Date: 3/04/09

AQUIFER DATA

Saturated Thickness: 9.12 ft Anisotropy Ratio (Kz/Kr): 1.

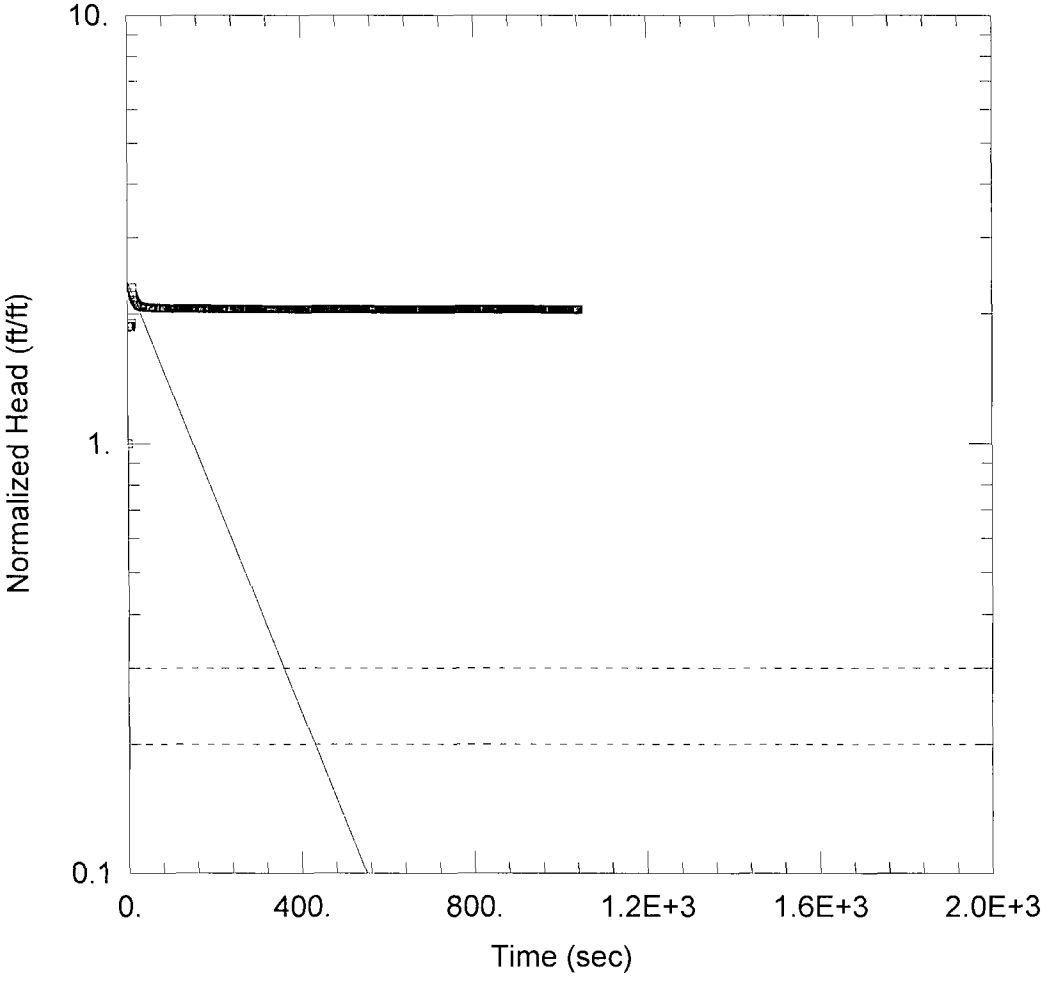
WELL DATA (MW-13)

Initial Displacement: 7. ft
Total Well Penetration Depth: 9.12 ft
Casing Radius: 0.083 ft
Static Water Column Height: 9.12 ft
Screen Length: 9.12 ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.8371 ft/day y0 = 10.9 ft



MW-13 TEST 1 RISING HEAD

Data Set: Z:\...\MW-13 Rising Head Test 1.aqt
Date: 03/17/09 Time: 08:12:45

PROJECT INFORMATION

Company: Larson & Associates, Inc.
Client: Targa
Project: 2-0103
Location: Eunice Gas Plant
Test Well: MW-13
Test Date: 3/04/09

AQUIFER DATA

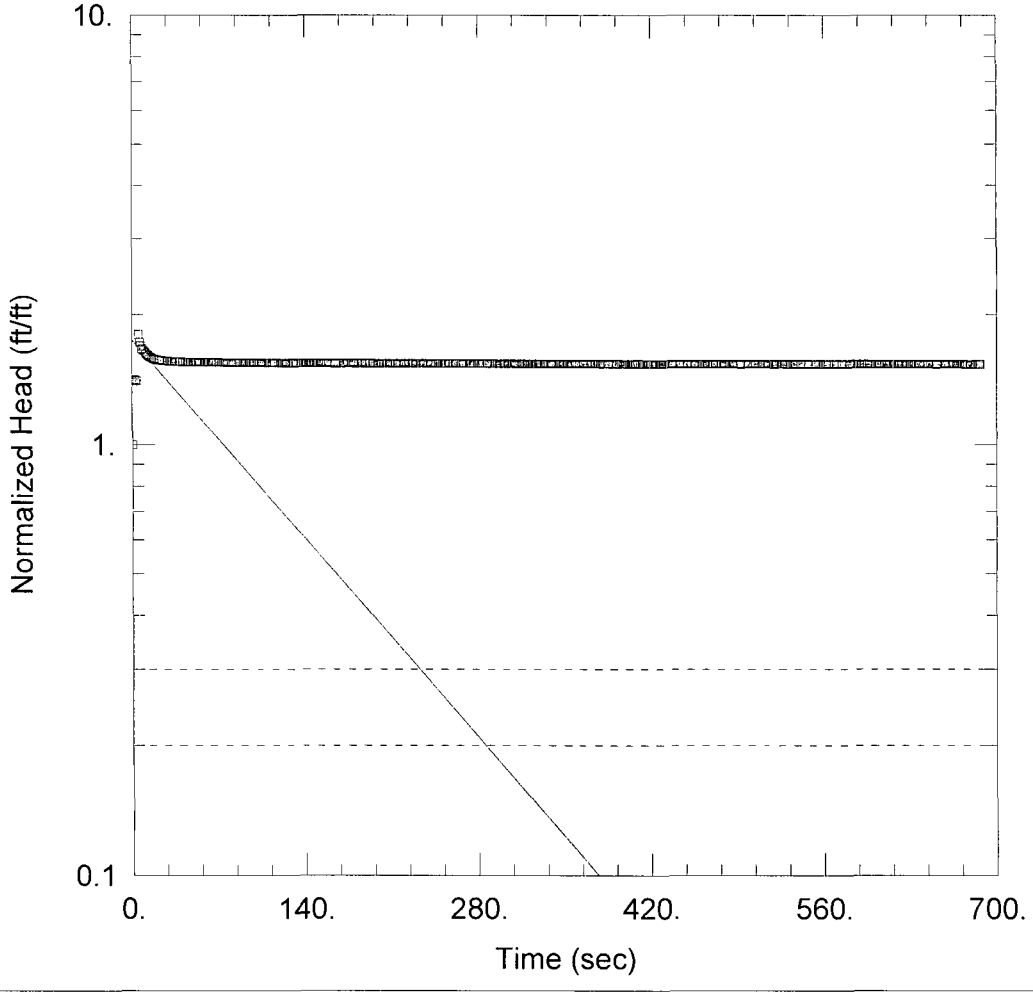
Saturated Thickness: 9.12 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-13)

Initial Displacement: 5.5 ft Static Water Column Height: 9.12 ft
Total Well Penetration Depth: 9.12 ft Screen Length: 9.12 ft
Casing Radius: 0.083 ft Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice
K = 0.6801 ft/day y0 = 13.06 ft



MW-13 TEST 2 RISING HEAD

Data Set: Z:\...\MW-13 Rising Head Test 2.aqt
Date: 03/17/09 Time: 09:32:35

PROJECT INFORMATION

Company: Larson & Associates, Inc.
Client: Targa
Project: 2-0103
Location: Eunice Gas Plant
Test Well: MW-13
Test Date: 3/04/09

AQUIFER DATA

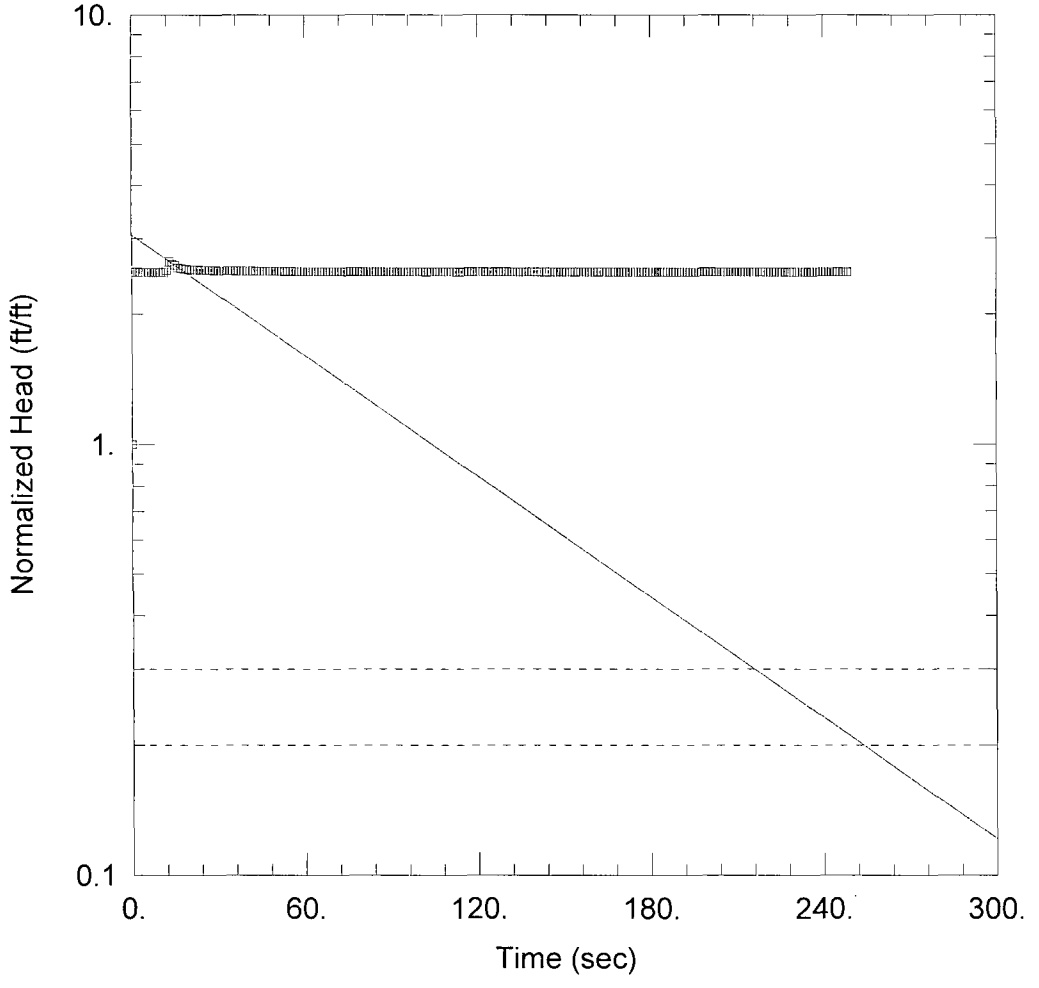
Saturated Thickness: 9.12 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-13)

Initial Displacement: 7.5 ft
Total Well Penetration Depth: 9.12 ft
Casing Radius: 0.083 ft
Static Water Column Height: 9.12 ft
Screen Length: 9.12 ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 0.8969 ft/day
y0 = 13.11 ft



MW-14 TEST 1 FALLING HEAD

Data Set: Z:\...\MW-14 Falling Head Test 1.aqt
Date: 03/17/09 Time: 11:11:53

PROJECT INFORMATION

Company: Larson & Associates, Inc.
Client: Targa
Project: 2-0103
Location: Eunice Gas Plant
Test Well: MW-14
Test Date: 3/04/09

AQUIFER DATA

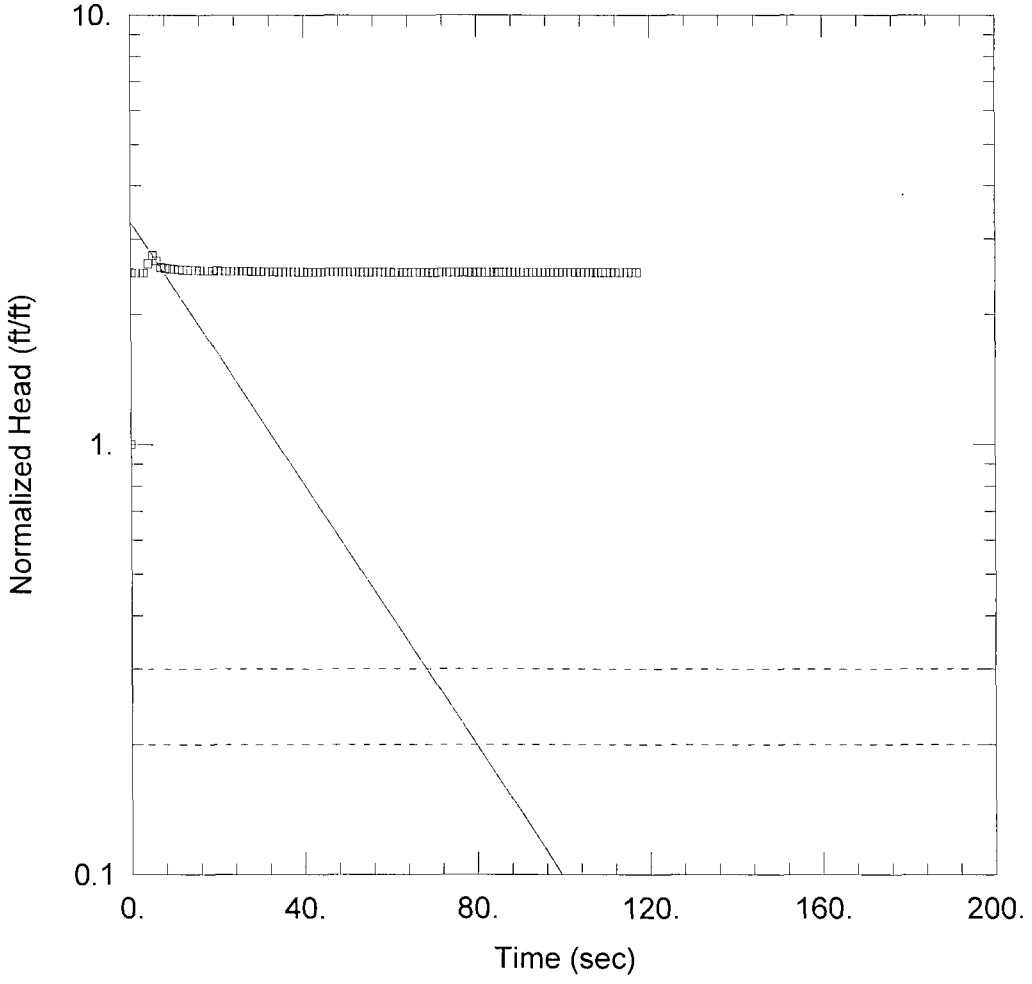
Saturated Thickness: 18.35 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-14)

Initial Displacement: 7. ft
Total Well Penetration Depth: 18.35 ft
Casing Radius: 0.083 ft
Static Water Column Height: 18.35 ft
Screen Length: 18.35 ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 0.7358 ft/day
y0 = 21.39 ft



MW-14 TEST 2 FALLING HEAD

Data Set: Z:\...\MW-14 Falling Head Test 2.aqt
Date: 03/17/09 Time: 13:16:21

PROJECT INFORMATION

Company: Larson & Associates, Inc.
Client: Targa
Project: 2-0103
Location: Eunice Gas Plant
Test Well: MW-14
Test Date: 3/04/09

AQUIFER DATA

Saturated Thickness: 18.35 ft Anisotropy Ratio (Kz/Kr): 1.

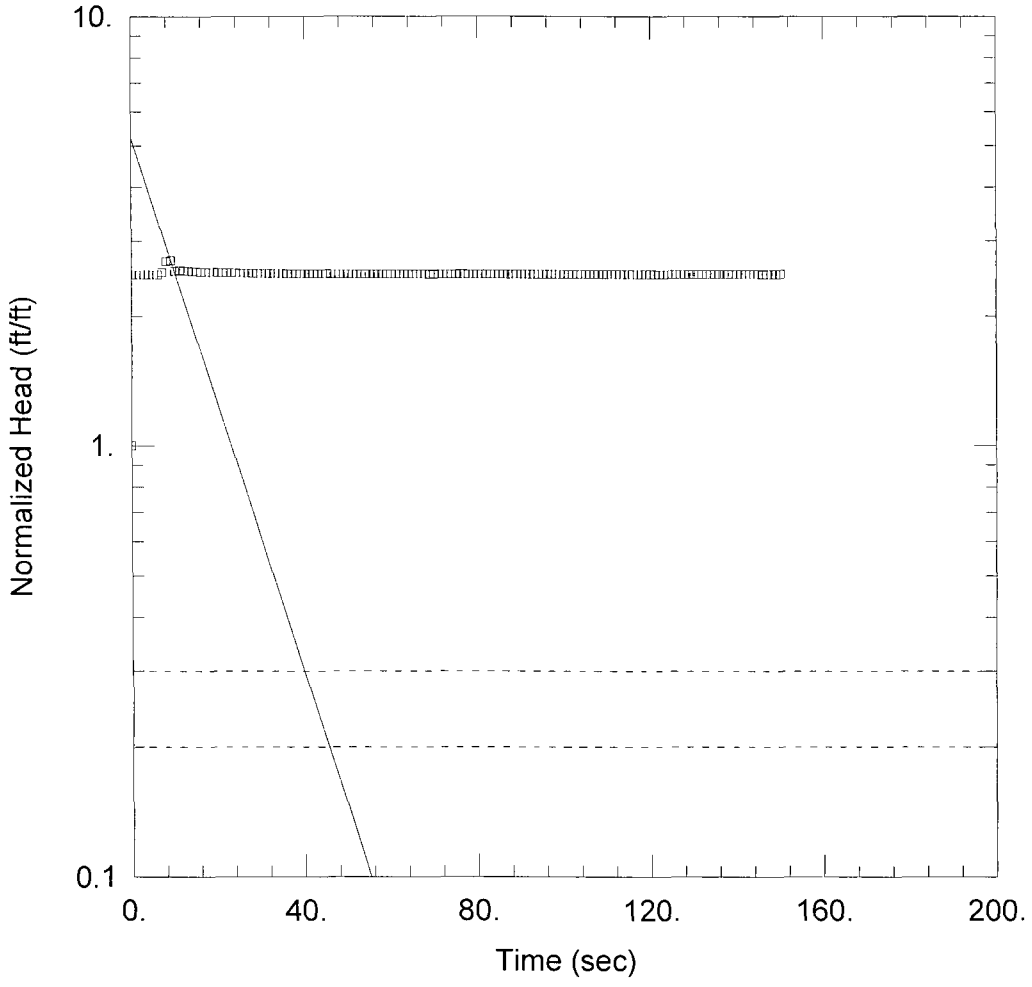
WELL DATA (MW-14)

Initial Displacement: 7. ft
Total Well Penetration Depth: 18.35 ft
Casing Radius: 0.083 ft
Static Water Column Height: 18.35 ft
Screen Length: 18.35 ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 2.403 ft/day y0 = 22.97 ft



MW-14 TEST 3 FALLING HEAD

Data Set: Z:\...\MW-14 Falling Head Test 3.aqt
Date: 03/17/09 Time: 14:07:59

PROJECT INFORMATION

Company: Larson & Associates, Inc.
Client: Targa
Project: 2-0103
Location: Eunice Gas Plant
Test Well: MW-14
Test Date: 3/04/09

AQUIFER DATA

Saturated Thickness: 18.35 ft Anisotropy Ratio (Kz/Kr): 1.

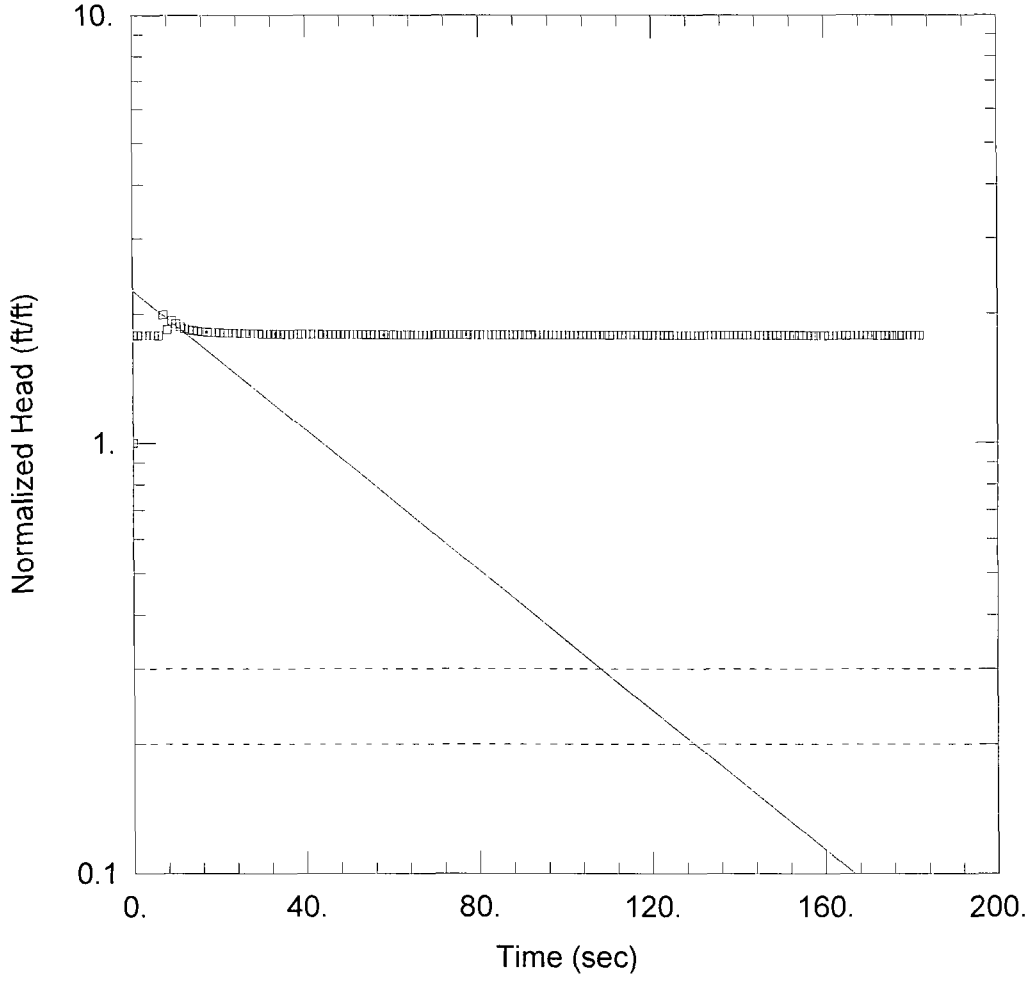
WELL DATA (MW-14)

Initial Displacement: 7. ft
Total Well Penetration Depth: 18.35 ft
Casing Radius: 0.083 ft
Static Water Column Height: 18.35 ft
Screen Length: 18.35 ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 4.906 ft/day y0 = 36.3 ft



MW-14 TEST 1 RISING HEAD

Data Set: Z:\...\MW-14 Risling Head Test 1.aqt
Date: 03/17/09 Time: 11:28:59

PROJECT INFORMATION

Company: Larson & Associates, Inc.
Client: Targa
Project: 2-0103
Location: Eunice Gas Plant
Test Well: MW-14
Test Date: 3/04/09

AQUIFER DATA

Saturated Thickness: 18.35 ft Anisotropy Ratio (Kz/Kr): 1.

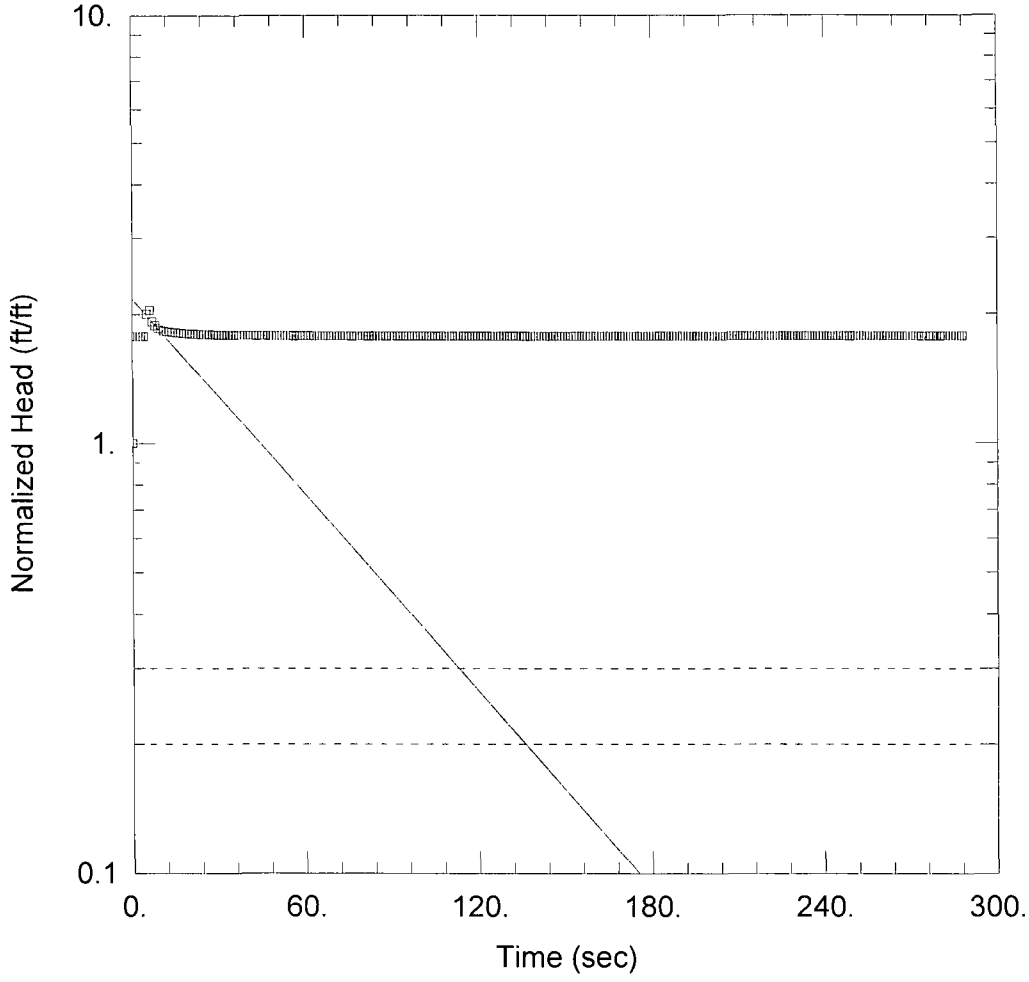
WELL DATA (MW-14)

Initial Displacement: 7. ft
Total Well Penetration Depth: 18.35 ft
Casing Radius: 0.083 ft
Static Water Column Height: 18.35 ft
Screen Length: 18.35 ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 1.281 ft/day y0 = 15.86 ft



MW-14 TEST 2 RISING HEAD

Data Set: Z:\...\MW-14 Rising Head Test 2.aqt
Date: 03/17/09 Time: 13:58:34

PROJECT INFORMATION

Company: Larson & Associates, Inc.
Client: Targa
Project: 2-0103
Location: Eunice Gas Plant
Test Well: MW-14
Test Date: 3/04/09

AQUIFER DATA

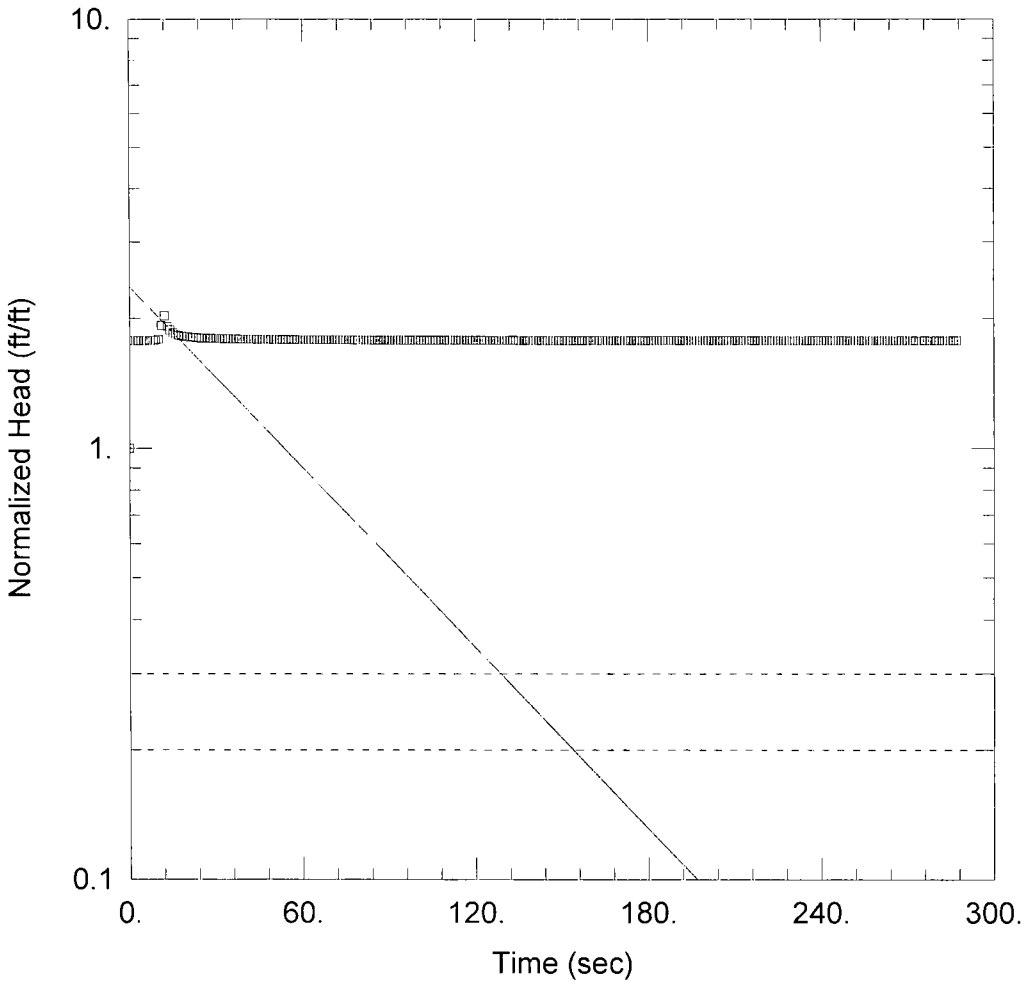
Saturated Thickness: 18.35 ft
Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-14)

Initial Displacement: 7. ft
Total Well Penetration Depth: 18.35 ft
Casing Radius: 0.083 ft
Static Water Column Height: 18.35 ft
Screen Length: 18.35 ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined
K = 1.201 ft/day
Solution Method: Bouwer-Rice
y0 = 15.21 ft



MW-14 TEST 3 RISING HEAD

Data Set: Z:\...\MW-14 Rising Head Test 3.aqt
Date: 03/17/09 Time: 14:33:04

PROJECT INFORMATION

Company: Larson & Associates, Inc.
Client: Targa
Project: 2-0103
Location: Eunice Gas Plant
Test Well: MW-14
Test Date: 3/04/09

AQUIFER DATA

Saturated Thickness: 18.35 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-14)

Initial Displacement: 7. ft
Total Well Penetration Depth: 18.35 ft
Casing Radius: 0.083 ft
Static Water Column Height: 18.35 ft
Screen Length: 18.35 ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 1.099 ft/day y0 = 16.54 ft