1R - 398

Annual GW Mon. Report

Year: 2012

PLAINS
ALL AMERICAN

March 19, 2013

Mr. Edward Hansen
New Mexico Oil Conservation Division
Environmental Bureau
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Re: Plains All American – 2012 Annual Monitoring Reports
2 Sites in Lea County, New Mexico

Dear Mr. Hansen:

Plains All American is an operator of crude oil pipelines and terminal facilities in the state of New Mexico. Plains All American actively monitors certain historical release sites exhibiting groundwater impacts, consistent with assessments and work plans developed in consultation with the New Mexico Oil Conservation Division (NMOCD). In accordance with the rules and regulations of the NMOCD, Plains All American hereby submits our Annual Monitoring reports for the following sites:

Livingston Line-Bob McCasland	1R-0395	Section 3, T21S, R37E, Lea County
Livingston Ridge to Hugh-P. Sims	1R-0398	Section 3, T21S, R37E, Lea County

Terracon prepared these documents and has vouched for their accuracy and completeness, and on behalf of Plains All American, I have personally reviewed the documents and interviewed Terracon personnel in order to verify the accuracy and completeness of these documents. It is based upon these inquiries and reviews that Plains All American submits the enclosed Annual Monitoring Reports for the above facilities.

If you have any questions or require further information, please contact me at (575) 441-1099.

Sincerely,

Jason Henry

Jason Henry
Remediation Coordinator
Plains All American

CC: Geoff Leking, NMOCD, Hobbs, NM

Enclosures

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2012 ANNUAL GROUNDWATER MONITORING REPORT

Livingston Ridge to Hugh - P. Sims
NE ¼ of the SE ¼ of Section 3, Township 21 South, Range 37 East
Plains Pipeline SRS Number 2001-11005
Lea County, New Mexico
NMOCD File Number 1R-0398

Terracon Project Number A4127008 (Formerly A4077008)

March 22, 2013

Prepared for:

Plains Pipeline, L.P.
2530 State Highway 214
Denver City, Texas 79323

Prepared by:

Terracon

Midland, Texas

Terracon

March 22, 2013

Plains Pipeline, L.P.
2530 State Highway 214
Denver City, Texas 79323
Attn: Mr. Jason Henry

Telephone: (806) 592-8305
Fax: (806) 592-7479

Re: 2012 Annual Groundwater Monitoring Report
Livingston Ridge to Hugh - P. Sims
NE ¼ of the SE ¼, Section 3, T21S, R37E
Lea County, New Mexico
NMOCD File Number 1R – 0398
Plains Pipeline, L.P. SRS Number 2001-11005
Terracon Project Number A4127008 (Formerly A4077008)

Dear Mr. Henry:

Terracon is pleased to submit four copies of the 2012 Annual Groundwater Monitoring Report for the above referenced site.

We appreciate the opportunity to perform these services for Plains Pipeline, L.P. Please contact either of the undersigned at (432) 684-9600 if you have questions regarding the information provided in the report.

Sincerely,
Terracon

Prepared by:

Wesley Ty Burrow
Staff Geologist

Reviewed by:

STATE OF TEXAS
DENNIS MICHAEL HOWARD
94116
LICENSED PROFESSIONAL ENGINEER

Dennis M. Howard, P.E.
Environmental Engineer

3/22/2013

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2012 Annual Groundwater Monitoring Report

Livingston Ridge to Hugh - P. Sims Site
NE ¼ of the SE ¼ of Section 3, T21S, R37E
Plains SRS Number 2001-11005
Lea County, New Mexico
NMOCD File Number 1R – 0398

Terracon Project Number A4127008 (Formerly A4077008)

1.0 INTRODUCTION

1.1 Site Description

Site Name	Livingston Ridge to Hugh - P. Sims
Site Location	Approximately 5 miles north-northeast of Eunice, Lea County, New Mexico on Loop 207.
General Site Description	Pipeline right-of-way surrounded by native pasture land, in close proximity of the Carbon Black Plant.

A topographic map is included as Figure 1 and a site plan is included as Figure 2 of Appendix A.

On June 22, 2001, a release of six barrels of crude oil was reported to the New Mexico Oil Conservation District (NMOCD). Initial excavation activities were reportedly conducted by Environmental Plus, Inc. (EPI) in an effort to stockpile saturated soils and expose the leak origin in order to repair the pipeline. The pipeline excavation activities continued during July 2001. A total of approximately 148 cubic yards of hydrocarbon impacted soil were excavated at the site and transported to EPI's landfarm south of Eunice, New Mexico. A temporary groundwater monitoring well (TMW-1) was installed in the bottom of the excavation. Phase-separated hydrocarbons (PSH) were detected on the groundwater surface and the NMOCD and landowner reportedly were immediately notified of the release. EPI installed three groundwater monitoring wells at the site to determine the extent and magnitude of the release and determine the groundwater gradient.

Environmental Technology Group, Inc. (ETGI), assumed control of remedial activities in August 2002 and installed twelve additional groundwater monitor wells at the site. These wells were installed to complete the delineation activities initiated by EPI. At the time of ETGI's investigation, the groundwater monitor wells had adequately delineated the dissolved phase plume and PSH plume at the site.

Plains appointed EPI to take over the remediation and sampling activities in 2004. Terracon assumed consulting duties on February 1, 2007. Available files for this site were given to Terracon at this time.

In July 2007, Terracon oversaw the installation of a PVC liner on the floor of the excavation and backfilling the excavation with remediated soils from the previous land treatment area at the site in accordance with the NMOCD approved work plan. Details of these activities can be found in Plains Soil Closure Compliance Report dated August 17, 2007.

1.2 Scope of Work

Terracon's scope of work included assuming oversight of remedial activities on February 1, 2007. Oversight activities included the preparation of 2006 through 2011 Annual Groundwater Monitoring Reports for submittal to the NMOCD. Four quarterly groundwater monitoring and sampling events were conducted during 2012 by Terracon. The events were performed on February 29, 2012, May 18, 2012, August 15, 2012 and November 6, 2012 at the Livingston Ridge to Hugh - P. Sims site located in Lea County, New Mexico.

The objective of the quarterly sampling events was to gauge the fifteen groundwater monitor wells (MW-1 through MW-15) and temporary monitor well (TMW-1), which is currently located in the center of the former excavation, and to collect samples of groundwater from each well not containing PSH for analysis of benzene, toluene, ethylbenzene, and total xylenes (BTEX, quarterly)) and polycyclic aromatic hydrocarbons (PAHs, annually). Groundwater samples for PAH analysis were collected from monitoring wells MW-1, MW-2, and MW-5 on November 6, 2012.

1.3 Standard of Care

Terracon was awarded this project on February 1, 2007. Activities prior to February 1, 2007 were performed by previous consultants hired by Plains. Terracon makes no assumptions or warranties regarding the previous consultants services being performed in a manner consistent with generally accepted practices of the profession undertaken in similar studies in the same geographical area during the same time period. Terracon makes no warranties, either express or implied, regarding the findings, conclusions or recommendations. Please note that Terracon does not warrant the work of laboratories, regulatory agencies or other third parties supplying information used in the preparation of the report.

1.4 Additional Scope Limitations

Findings, conclusions and recommendations resulting from these services are based upon information derived from the on-site activities and other services performed under this scope of work; such information is subject to change over time. Certain indicators of the presence of hazardous substances, petroleum products, or other constituents may have been latent, inaccessible, unobservable, non-detectable or not present during these services, and we cannot

represent that the site contains no hazardous substances, toxic materials, petroleum products, or other latent conditions beyond those identified during this remediation activities. Subsurface conditions may vary from those encountered at specific borings or wells or during other surveys, tests, assessments, investigations or exploratory services; the data, interpretations, findings, and our recommendations are based solely upon data obtained at the time and within the scope of these services.

1.5 Reliance

This report has been prepared for the exclusive use of Plains Pipeline, L. P., and any authorization for use or reliance by any other party (except a governmental entity having jurisdiction over the site) is prohibited without the express written authorization of Plains Pipeline, L.P. and Terracon. Any unauthorized distribution or reuse is at the client's sole risk. Notwithstanding the foregoing, reliance by authorized parties will be subject to the terms, conditions and limitations stated in this report, and Terracon's Terms and Conditions. The limitation of liability defined in the terms and conditions is the aggregate limit of Terracon's liability to the client and all relying parties unless otherwise agreed in writing.

2.0 FIELD ACTIVITIES

2.1 Groundwater Monitoring and Sampling

Quarterly monitoring and sampling events were performed on February 29, 2012, May 18, 2012, August 15, 2012 and November 6, 2012 by Terracon. Figure 1 presents the general boundaries and topography of the site on portions of the USGS topographic quadrangle map of Hobbs Southwest, New Mexico (Appendix A). Figure 2 is a site plan that indicates the approximate locations of the monitor wells in relation to the pertinent features, structures and general site boundaries (Appendix A).

Monitoring wells were gauged to determine the depth to groundwater and to check for the presence of PSH. Based on the gauging data, PSH was present as a heavy sheen in monitor wells MW-1 and MW-5 during 2012. Measurable PSH has not been present in monitor wells MW-1 since November 2011 and MW-5 since January 2010. Measurable PSH was present in MW-4 (ranging from a 0.04 to 0.31 feet thick), and temporary monitor well TMW-1 (ranging from a 0.33 to 4.70 feet thick) during 2012. Groundwater gradient maps for each quarter are included as Figures 3 through 6 (Appendix A). Gauging data is included in Appendix B as Table 1.

A groundwater sample was collected and analyzed from ten of the fifteen groundwater monitor wells in accordance with the NMOCD requirements. Groundwater samples were not collected from wells containing PSH or wells that were on the sample reduction program in 2012. Prior to

sample collection, each of these monitor wells was micro-purged until consistent values (i.e., less than 10% variance between consecutive readings) were obtained for pH, temperature and conductivity. Following purging, a groundwater sample was collected directly from polyethylene tubing attached to the downhole pump.

Groundwater samples were placed in laboratory-supplied containers appropriate to the analyses requested and placed on ice in a cooler. The sample coolers and completed chain-of-custody forms were delivered to Xenco Laboratories Company, in Odessa, Texas for standard turnaround for analysis of BTEX using EPA SW-846 Method 8021B in each of the four quarters, and PAHs using EPA SW-846 Method 8270C in November 2012.

3.0 DATA EVALUATION

3.1 Water Level Data

Water level measurement data collected during the respective quarterly sampling events were used to construct groundwater gradient maps that are included as Figures 3, 4, 5, and 6 (Appendix A). Groundwater elevation contours generated from the quarterly sampling events of 2012 indicated the general groundwater gradient was consistent with previous sampling events:

- The gradient/direction during the February 2012 sampling event was 0.003 ft/ft and toward the southeast;
- The gradient/direction during the May 2012 sampling event was 0.003 ft/ft and toward the southeast;
- The gradient/direction during the August 2012 sampling event was 0.003 ft/ft and toward the southeast; and,
- The gradient/direction during the November 2012 sampling event was 0.003 ft/ft and toward the southeast.

Groundwater flow direction remained relatively consistent throughout 2012, to the southeast. Water level measurement data is summarized in Table 1 in Appendix B.

Groundwater elevations in 2012 decreased an average of approximately 1.25 feet in site monitor wells. Monitor well MW-3 has been dry, containing no fluids, since September 2011.

3.2 Groundwater Analysis Data

Laboratory results from the analysis of groundwater samples collected from monitor wells MW-6 through MW-15 are summarized in Tables 2 and 3 in Appendix B and presented as Figures 7 through Figure 10 in Appendix A. The executed chain-of-custody forms and laboratory data sheets are provided in Appendix C.

1st Quarter 2012

Groundwater samples were collected and analyzed for BTEX constituents during the first quarter on February 29, 2012. The first quarter results are summarized below:

- Groundwater was not collected from monitor well MW-3, as the well was dry;
- Groundwater was not collected from monitor wells MW-2 (in February, May, and August 2012) and MW-8 (in February 2012) as they are on a sample reduction schedule;
- Groundwater was not collected from monitor wells MW-1, MW-4, MW-5, and TMW-1 due to either the presence of PSH, or PSH entering the well during purging process;
- Benzene was not detected in the groundwater samples collected from monitor wells MW-6 and MW-9 through MW-15 at concentrations which exceeded the NMWQCC groundwater standards; and
- Toluene, ethylbenzene and total xylene concentrations that exceeded their respective NMWQCC groundwater standards were not detected in any of the groundwater samples collected at the site;

2nd Quarter 2012

Groundwater samples were collected during the second quarter on May 18, 2012. The second quarter results are summarized below.

- Groundwater was not collected from monitor well MW-3, as the well was dry;
- Groundwater was not collected from monitor well MW-2 (in February, May, and August 2012) as it is on a sample reduction schedule;
- Groundwater was not collected from monitor wells MW-1, MW-4, MW-5, and TMW-1 due to either the presence of PSH, or entering the well during purging process;

- Benzene was not detected in the groundwater samples collected from monitor wells MW-6 through MW-11 and MW-12 through MW-15 at concentrations which exceeded NMWQCC groundwater standards; and,

- Toluene, ethylbenzene and total xylene concentrations that exceeded their respective NMWQCC groundwater standards were not detected in any of the groundwater samples collected at the site;

3rd Quarter 2012

Groundwater samples were collected during the third quarter on August 15, 2012. The third quarter results are summarized below:

- Groundwater was not collected from monitor well MW-3, as the well was dry;

- Groundwater was not collected from monitor well MW-2 (in February, May, and August 2012) as it is on a sample reduction schedule;

- Groundwater was not collected from monitor wells MW-1, MW-4, MW-5, and TMW-1 due to either the presence of PSH, or entering the well during purging process;

- Benzene was not detected in the groundwater samples collected from monitor wells MW-6 through MW-11 and MW-13 through MW-15 at concentrations which exceeded the NMWQCC groundwater standards;

- Groundwater sample collected from monitor well MW-12 contained a benzene concentration of **0.0132** mg/l, which either met or exceeded the NMWQCC groundwater standard of **0.01** mg/l; and,

- Toluene, ethylbenzene and total xylene concentrations that exceeded their respective NMWQCC groundwater standards were not detected in any of the groundwater samples collected at the site;

4th Quarter 2012

Groundwater samples were collected and analyzed for BTEX and PAH constituents during the fourth quarter on November 6, 2012. Results of the fourth quarter results are summarized below:

- Groundwater was not collected from monitor well MW-3 in November 2012, as the well was dry and contained no fluids;

- Groundwater was not collected from monitor wells MW-1, MW-4, MW-5, and TMW-1 due to either the presence of PSH, or entering the well during purging process;

- Groundwater from monitor wells MW-2, MW-4, and MW-5 was collected and analyzed for PAH constituents;

- Benzene was not detected in the groundwater samples collected from monitor wells MW-2 and MW-6 through MW-15 at concentrations which exceeded the NMWQCC groundwater standards;

- Toluene, ethylbenzene and total xylene concentrations that exceeded their respective NMWQCC groundwater standards were not detected in any of the groundwater samples collected at the site;

- PAH constituents were not detected in the groundwater sample collected from monitor well MW-2 at concentrations which exceeded their respective NMWQCC groundwater standards (where established);

- The groundwater samples collected from monitor wells MW-1 and MW-5 contained napthalene at concentrations of **0.0438** and mg/l **0.0448** mg/l, respectively, +1-methylnapthalene at concentrations of **0.0842** mg/l and **0.0615** mg/l, respectively, and +2-methylnapthalene concentrations of **0.0792** mg/l and **0.0596** mg/l, respectively, which collectively exceeded the NMWQCC standard of 0.03 mg/l.

3.3 Historical Data Comparisons

Measurable PSH has not been present in the groundwater monitor wells MW-2, MW-3 and MW-6 through MW-15 since they were installed at the site. Monitor wells that historically have contained PSH are MW-1, MW-4, and MW-5, of which only MW-4 ranged from a sheen to 0.50 feet thick in 2012. With a few exceptions, the temporary monitor well (TMW-1) which was installed in the center of the excavation, in August 2002, has contained measurable PSH at thicknesses ranging from non-detect to 5.47 feet. With a few exceptions, historically, benzene has not been present in groundwater samples collected from monitor wells MW-2, MW-3 and MW-6 through MW-15. Benzene has been present in the groundwater samples collected from monitor wells MW-1, MW-4, MW-5 and TMW-1 at concentrations exceeding the NMWQCC groundwater standard. Toluene, ethylbenzene and total xylenes were not detected in the groundwater at concentrations exceeding their respective NMWQCC groundwater standards in any of the groundwater samples in 2012. With the exception of periodic concentrations of

naphthalene detected in monitor wells MW-1 and MW-5, PAHs have not been detected at concentrations exceeding the laboratory reporting limits and/or NMWQCC groundwater standards since the monitor wells were installed. Terracon has been purging large volumes of dissolved phase groundwater from monitor wells MW-1, MW-4, MW-5, and TMW-1 during 2012 in an attempt to enhance remediation of the plume at the site.

4.0 FINDINGS AND RECOMMENDATION

4.1 Findings

The annual groundwater report presents the results of four groundwater monitoring and sampling events for the 2012 calendar year.

- Groundwater was not collected from monitor well MW-3 in 2012, as the well was dry and contained no fluids;
- Measurable PSH was detected in monitor wells MW-1 (sheen), MW-4 (sheen to 0.50 feet), MW-5 (sheen), and TMW-1 (0.33 to 4.70 feet);
- Groundwater samples collected from monitor wells MW-6 through MW-11, and MW-13 through MW-15 have not contained benzene concentrations exceeding the NMWQCC groundwater standard in 2012;
- Groundwater samples collected from monitor well MW-12 contained benzene at concentrations exceeding the NMWQCC groundwater standard during one of the four quarters in 2012;
- Toluene, ethylbenzene, and xylenes were not detected in the groundwater samples collected from monitoring wells in 2012 at concentrations which exceeded their respective NMWQCC groundwater standards;
- PAH constituents were not detected in the groundwater sample collected from monitor well MW-2 at concentrations which exceeded their respective NMWQCC groundwater standards (where established);
- The groundwater samples collected from monitor wells MW-1 and MW-5 contained napthalene at concentrations of **0.0438** mg/l **0.0448** mg/l, respectively, +1-methylnapthalene at concentrations of **0.0842** mg/l and **0.0615** mg/l, respectively, and +2-methylnapthalene concentrations of **0.0792** mg/l and **0.0596** mg/l, respectively, which collectively exceeded the NMWQCC standard of 0.03 mg/l; and

- The extent of the PSH plume and the dissolved phase plume exceeding the NMWQCC groundwater standards has been defined. Detected concentrations of BTEX and PAHs have demonstrated a decreasing trend since groundwater sampling activities were initiated.

4.2 RECOMMENDATIONS

Based upon the results of this report and approval from the NMOCD, Terracon recommends the following:

- Continue PSH recovery and purging groundwater from select wells at the site on a bi-monthly schedule to enhance recovery at the site;

- Continue quarterly groundwater sampling for BTEX for all monitor wells and PAH for select monitor wells during the 2013 calendar year, in accordance with the NMOCD standards;

- Submit an annual report to the NMOCD detailing the 2013 site activities.

DISTRIBUTION

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APPENDIX A

Figure 1 – Topographic Map
Figure 2 – Site Plan
Figure 3 – Groundwater Gradient Map (02/29/12)
Figure 4 – Groundwater Gradient Map (05/18/12)
Figure 5 – Groundwater Gradient Map (08/15/12)
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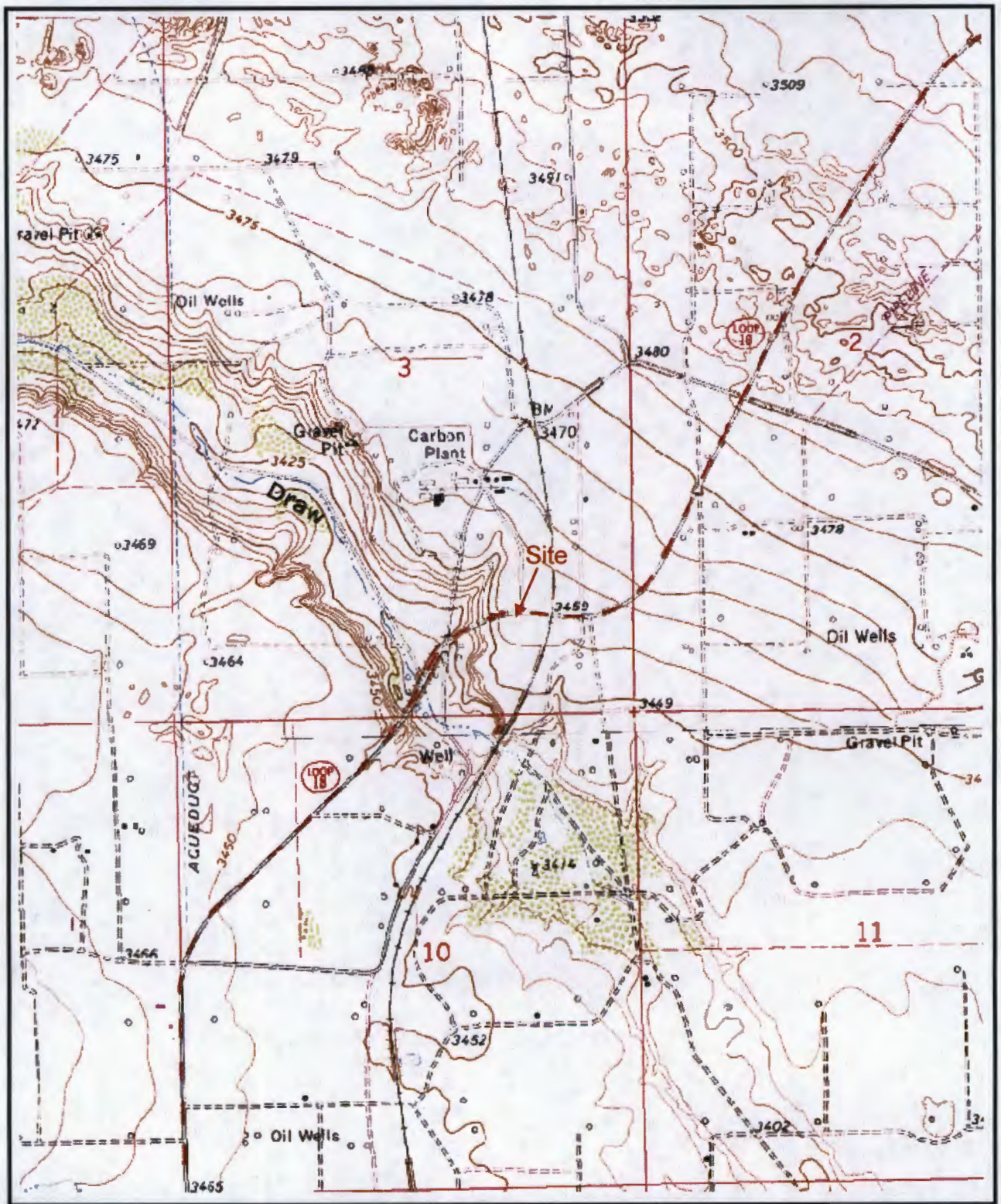
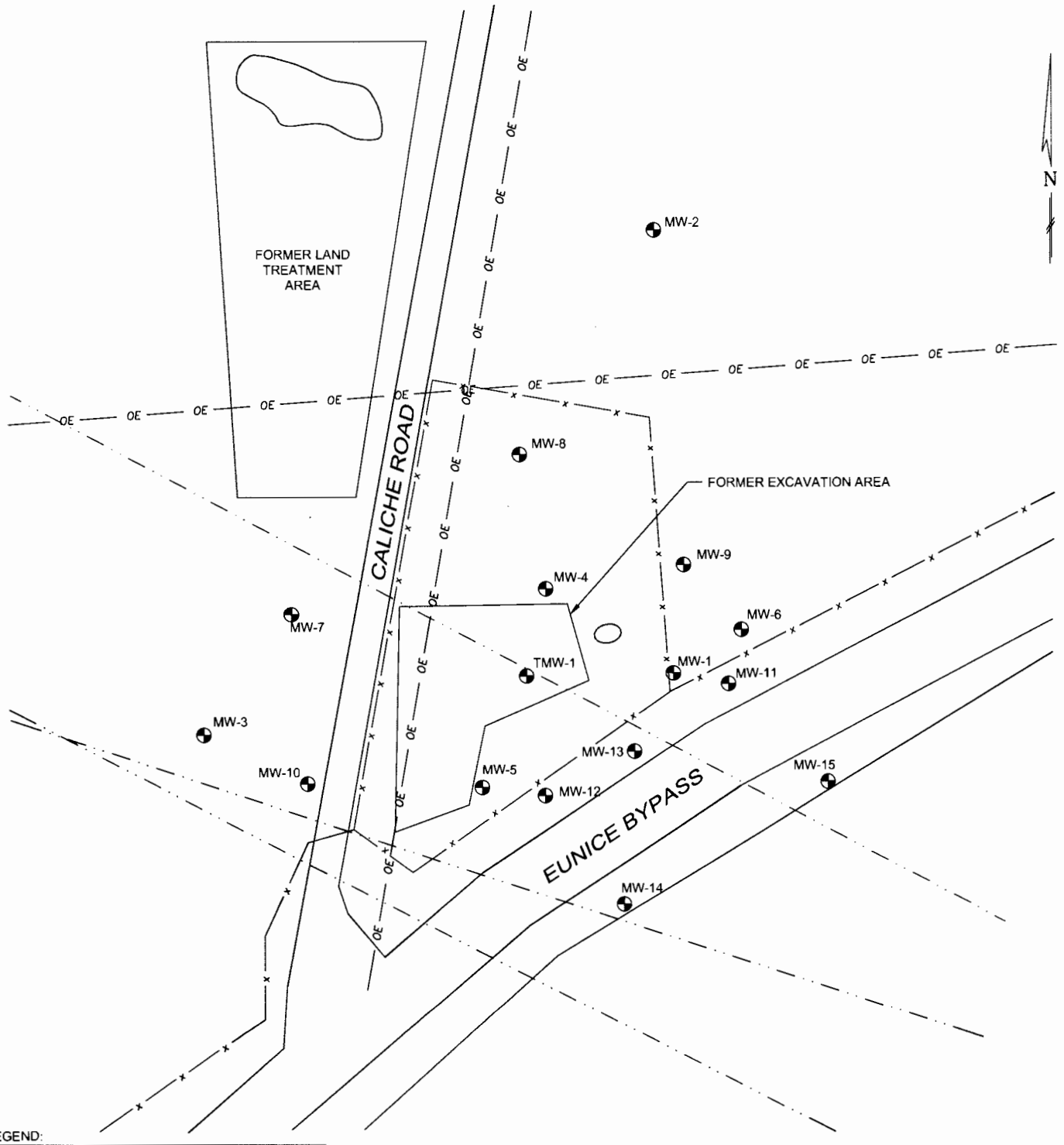
Figure 9 – Groundwater Contaminant Concentration Map (08/15/12)
Figure 10 – Groundwater Contaminant Concentration Map (11/6/12)



USGS TOPOGRAPHIC QUADRANGLE MAP Hobbs SW, NM			**Livingston Line to Hugh - P. Sims** NE 1/4 of SE 1/4, Sec. 3, T21S, R37E NMOCD File Number: 1R-0398 Eunice, Lea County, New Mexico
Dated: 1979 SCALE: 1" = 1,600'	↑ N	Terracon	
PROJECT NO. A4077008			**FIGURE 1: TOPOGRAPHIC MAP**



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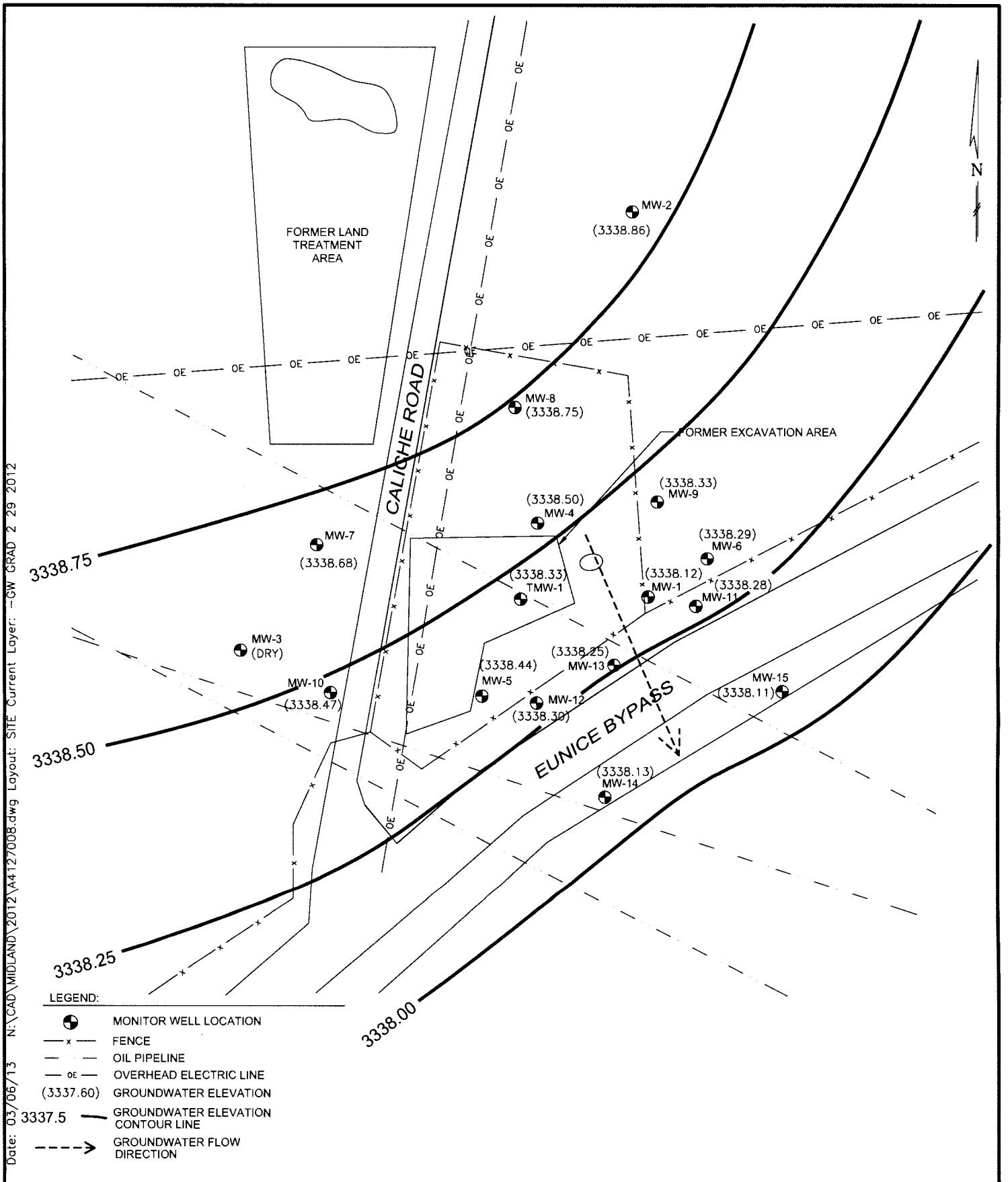
APPROXIMATE SCALE

PLAINS PIPELINE, L.P.
LIVINGSTON RIDGE TO HUGH P. SIMS
LEA COUNTY, NEW MEXICO
SRS# 2001-11005, NMOCD File# 1R-0398

Terracon **Project No.: A4077008**

FIGURE 2: SITE PLAN



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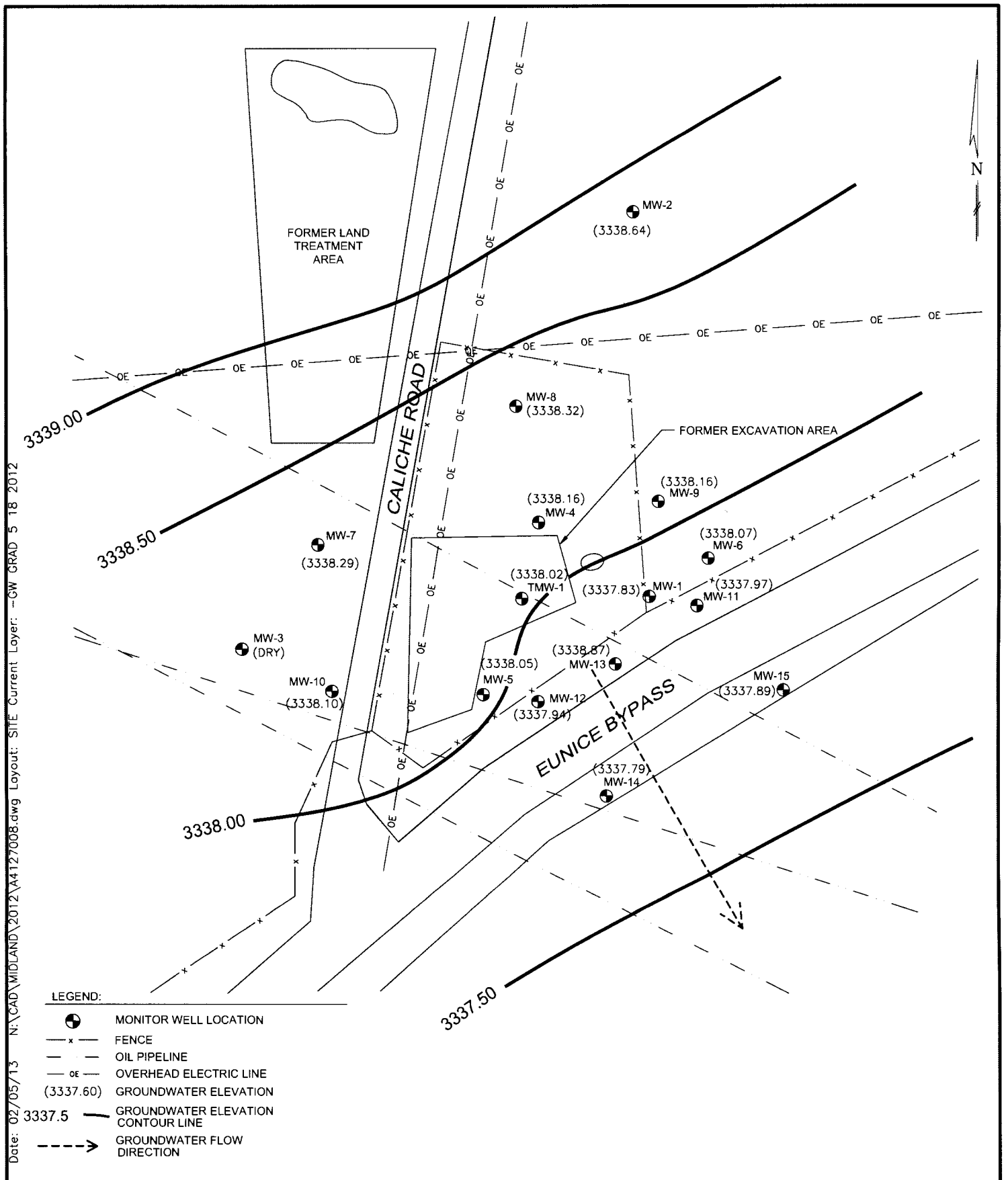
LEA COUNTY, NEW MEXICO
SRS# 2001-11005, NMOCD File# 1R-0398

Terracon Project No.: A4127008

FIGURE 3: GROUNDWATER GRADIENT MAP (2-29-12)



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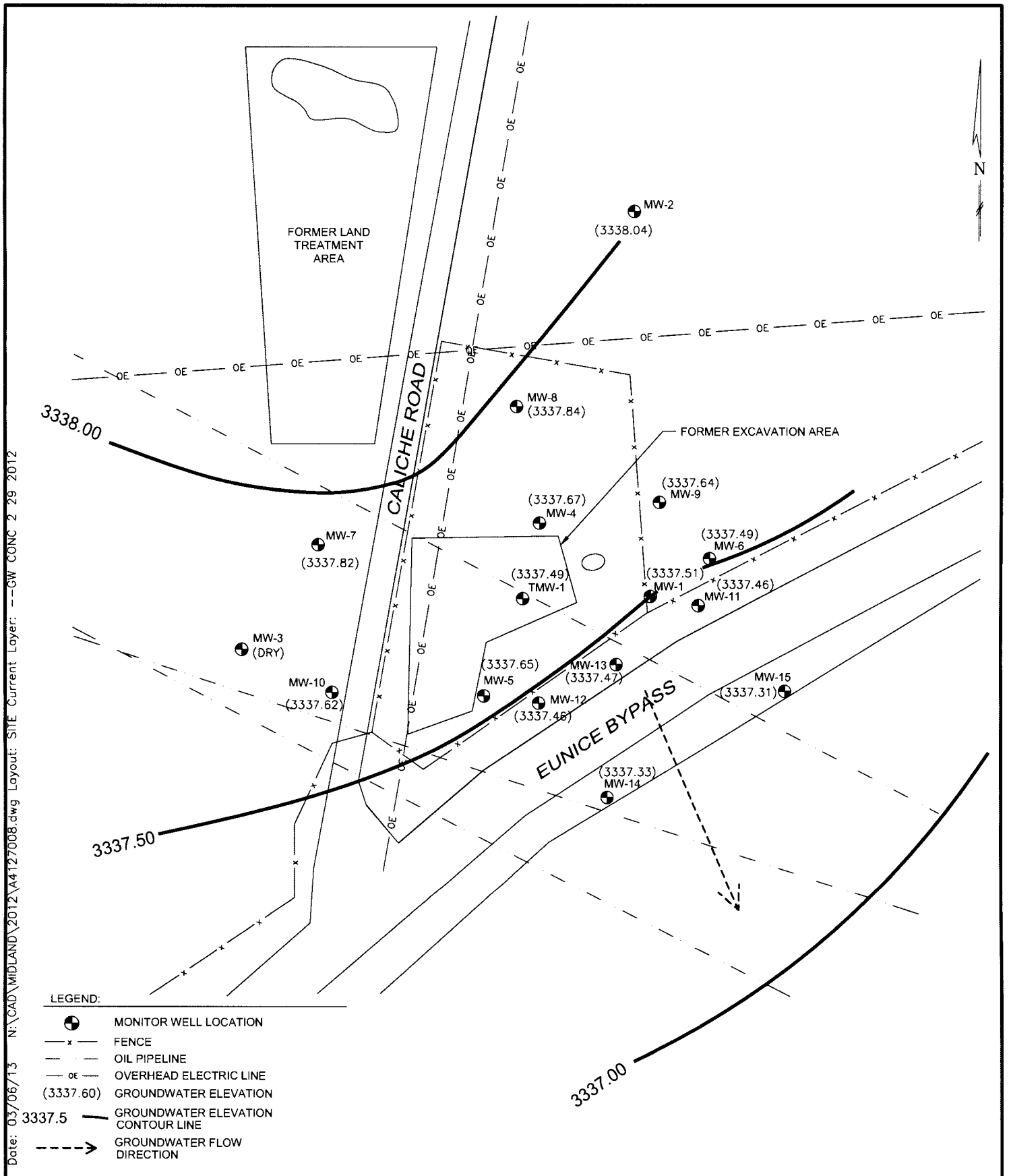
LEA COUNTY, NEW MEXICO
SRS# 2001-11005, NMOCD File# 1R-0398

Terracon **Project No.: A4127008**

FIGURE 4: GROUNDWATER GRADIENT MAP (5-18-12)



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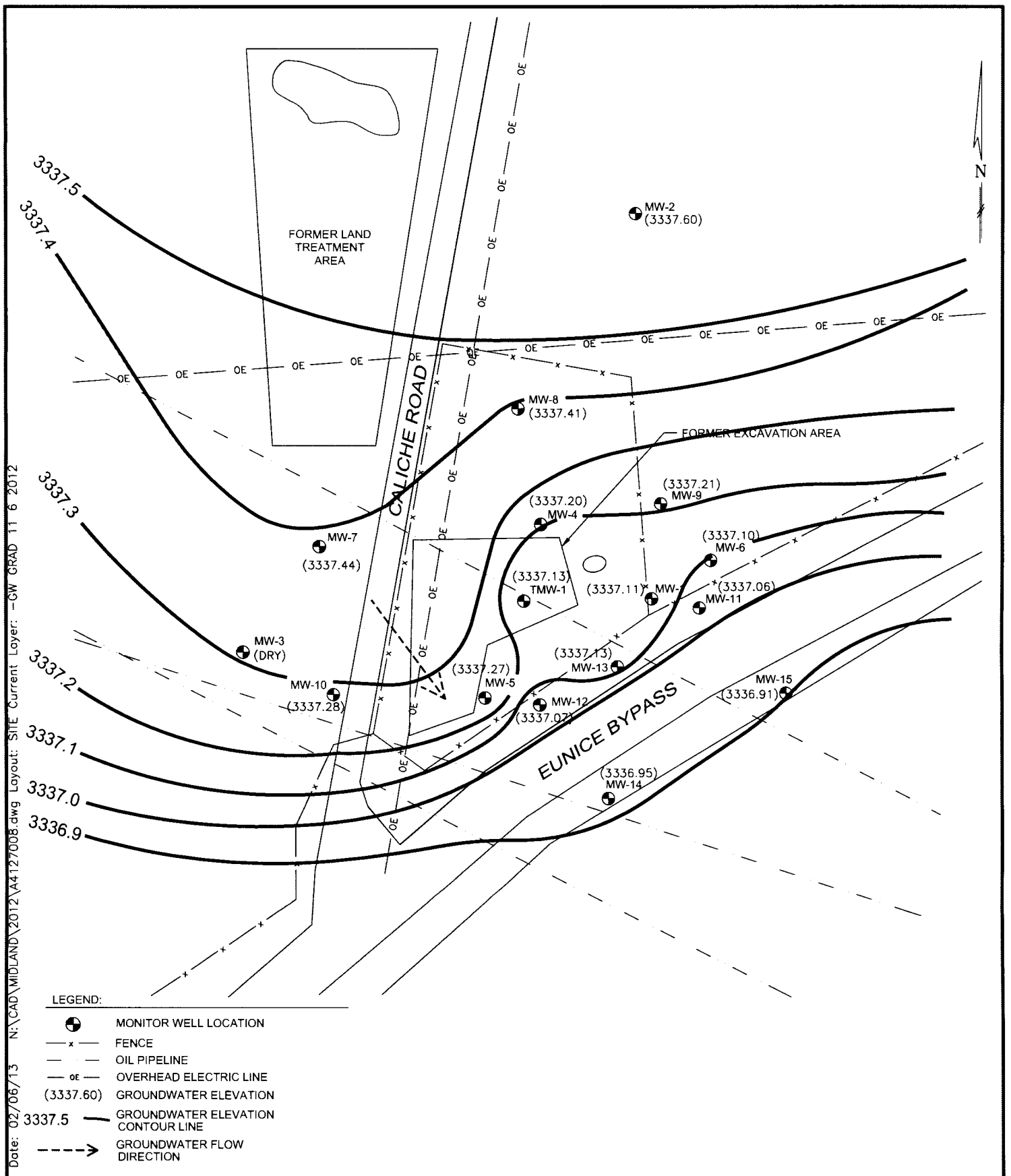
LEA COUNTY, NEW MEXICO
SRS# 2001-11005, NMOCD File# 1R-0398

Terracon **Project No.: A4127008**

FIGURE 5: GROUNDWATER GRADIENT MAP (8-15-12)



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APPROXIMATE SCALE

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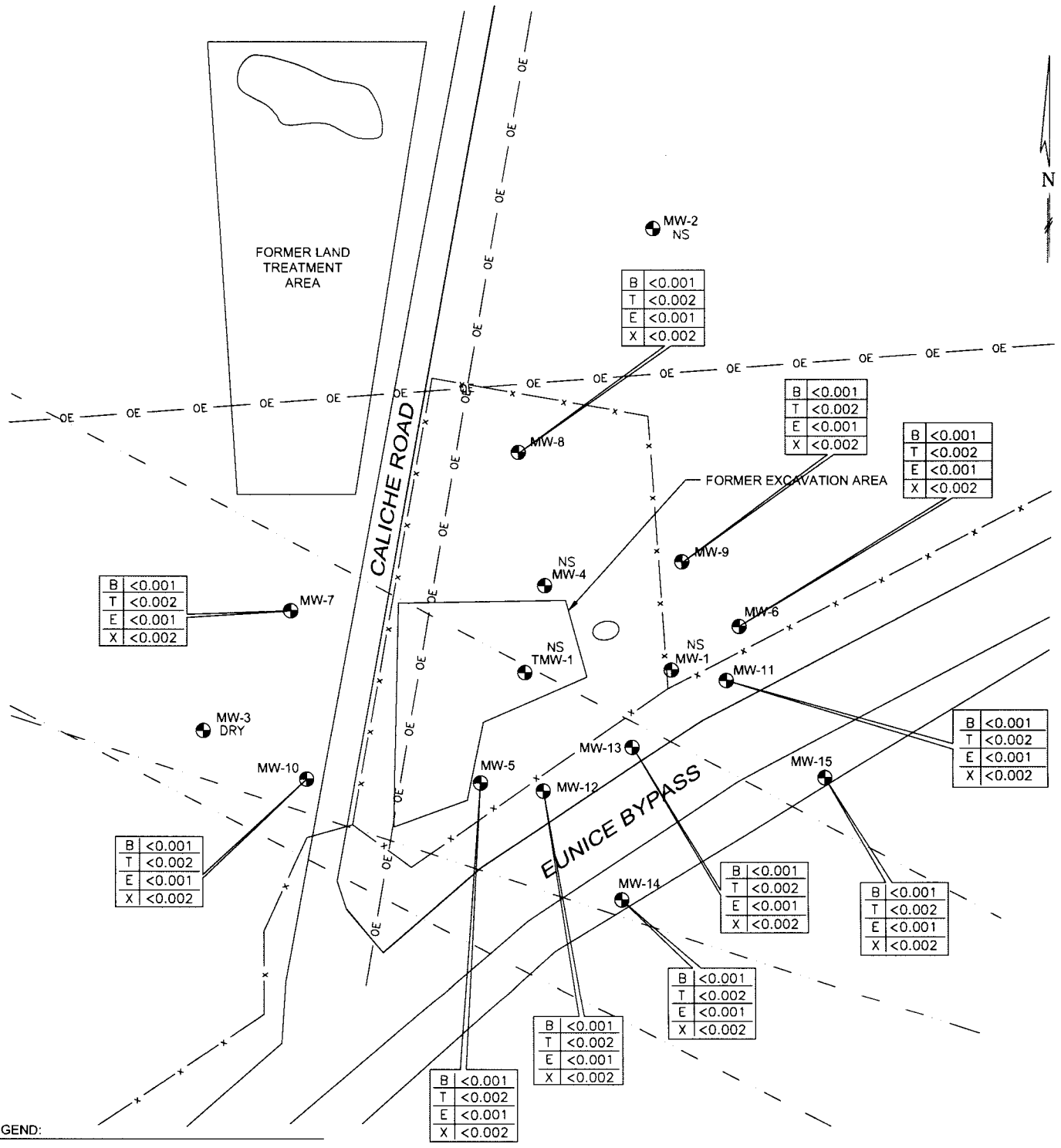
LIVINGSTON RIDGE TO HUGH P. SIMS
LEA COUNTY, NEW MEXICO
SRS# 2001-11005, NMOCD File# 1R-0398

Terracon **Project No.: A4127008**

FIGURE 6: GROUNDWATER GRADIENT MAP (11-6-12)



LEGEND:

- MONITOR WELL LOCATION
- FENCE
- OIL PIPELINE
- OE — OVERHEAD ELECTRIC LINE
- B BENZENE
- T TOLUENE
- E ETHYLBENZENE
- X TOTAL XYLENES
- PSH PHASE SEPARATED HYDROCARBONS

CONCENTRATIONS ARE IN mg/L

Date: 02/18/13 N:\CAD\MIDLAND\2012\A4127008.dwg Layout: SITE Current Layer: --GW CONC 2 29 2012

THIS DRAWING SHOULD NOT BE USED SEPARATELY FROM ORIGINAL REPORT.

0 40 80 FEET
APPROXIMATE SCALE

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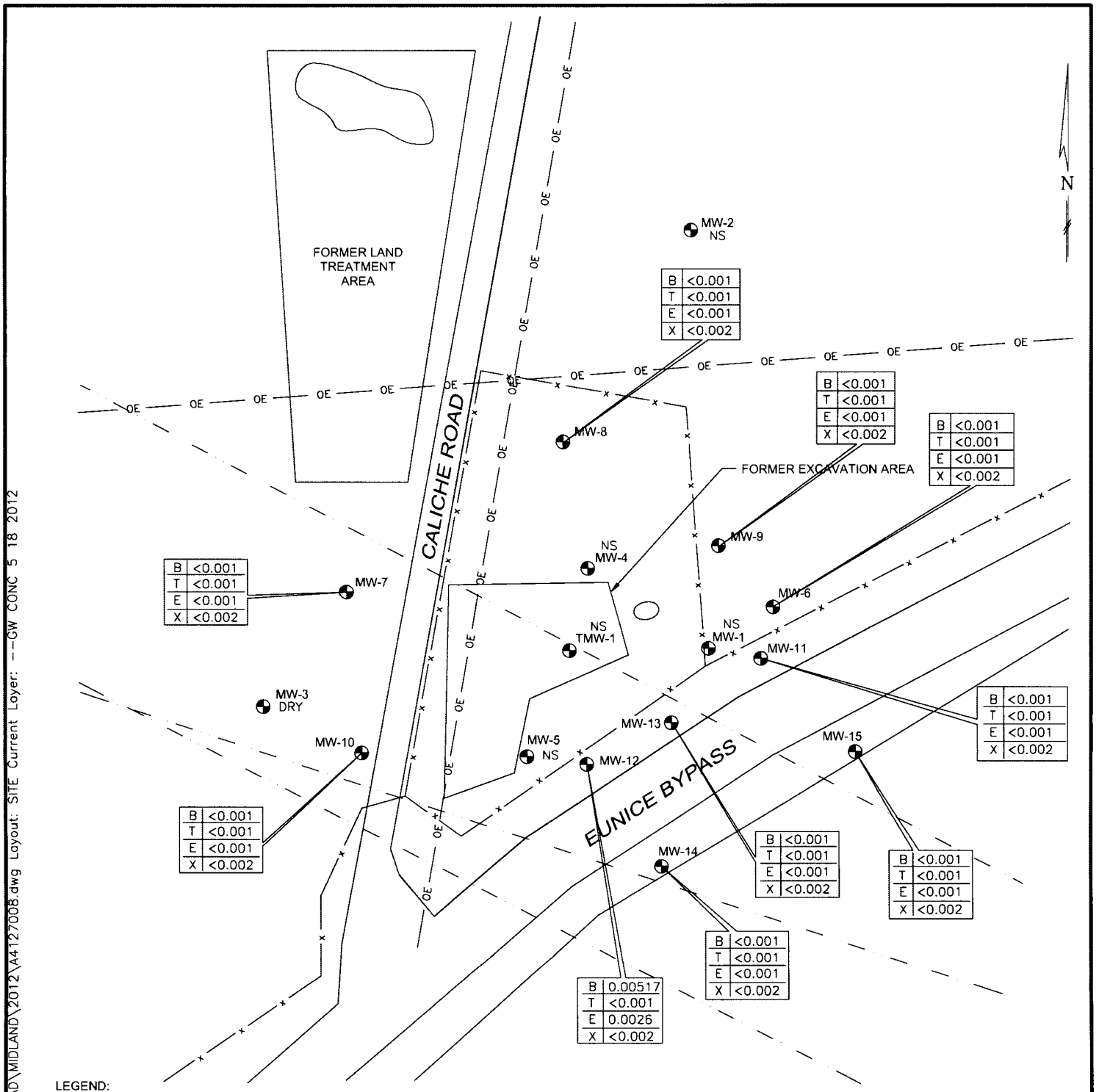
LIVINGSTON RIDGE TO HUGH P. SIMS
LEA COUNTY, NEW MEXICO
SRS# 2001-11005, NMOCD File# 1R-0398

Terracon **Project No.: A4127008**

FIGURE 7: GROUNDWATER CONTAMINANT CONCENTRATION MAP (2-29-12)



LEGEND:

- MONITOR WELL LOCATION
- FENCE
- OIL PIPELINE
- OVERHEAD ELECTRIC LINE
- B BENZENE
- T TOLUENE
- E ETHYLBENZENE
- X TOTAL XYLENES
- PSH PHASE SEPARATED HYDROCARBONS

CONCENTRATIONS ARE IN mg/L

Date: 03/06/13 N:\CAD\MIDLAND\2012\A4127008.dwg Layout: Site Current Layer: --GW CONC 5 18 2012

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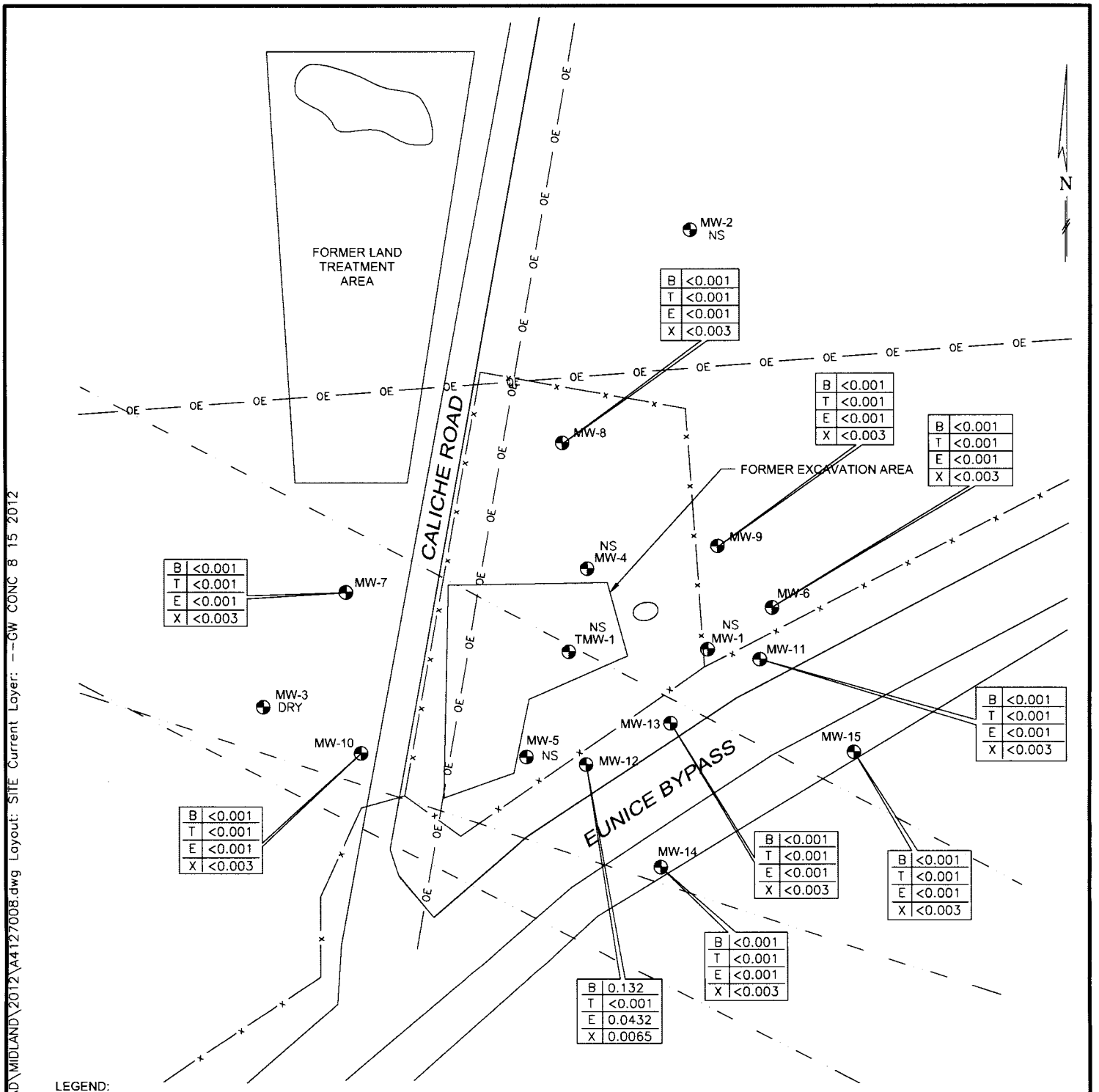
0 40 80 FEET
APPROXIMATE SCALE

PLAINS PIPELINE, L.P.
LIVINGSTON RIDGE TO HUGH P. SIMS
LEA COUNTY, NEW MEXICO
SRS# 2001-11005, NMOCD File# 1R-0398

Terracon **Project No.: A4127008**

FIGURE 8: GROUNDWATER CONTAMINANT CONCENTRATION MAP (5-18-12)



LEGEND:

- MONITOR WELL LOCATION
- FENCE
- OIL PIPELINE
- OE — OVERHEAD ELECTRIC LINE
- B — BENZENE
- T — TOLUENE
- E — ETHYLBENZENE
- X — TOTAL XYLENES
- PSH — PHASE SEPARATED HYDROCARBONS

CONCENTRATIONS ARE IN mg/L

Date: 03/06/13 N:\CAD\MIDLAND\2012\A4127008.dwg Layout: SITE Current Layer: --GW CONC 8 15 2012

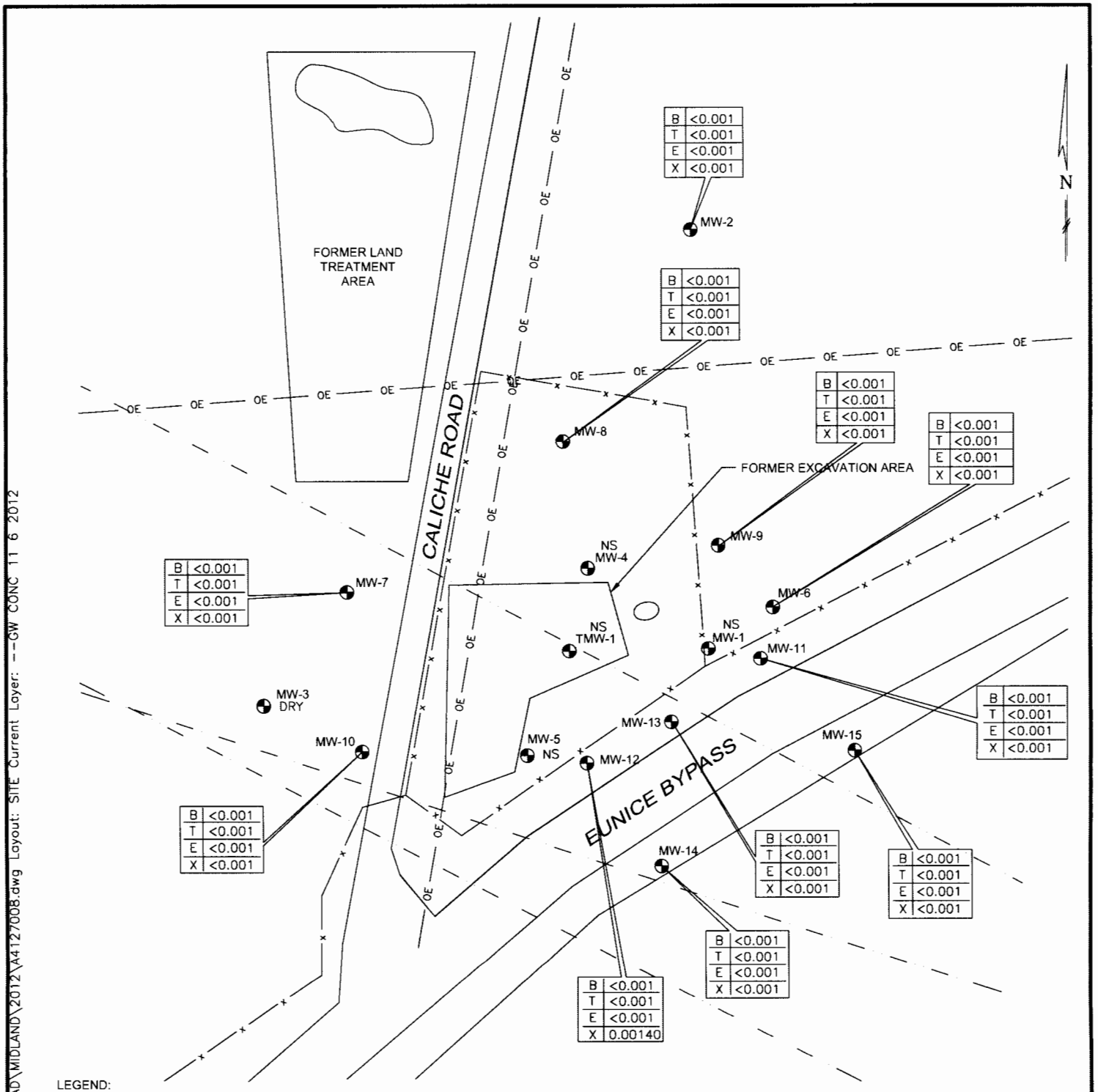
THIS DRAWING SHOULD NOT BE USED SEPARATELY FROM ORIGINAL REPORT.

0 40 80 FEET
APPROXIMATE SCALE

PLAINS PIPELINE, L.P.
LIVINGSTON RIDGE TO HUGH P. SIMS
LEA COUNTY, NEW MEXICO
SRS# 2001-11005, NMOCD File# 1R-0398

Terracon **Project No.: A4127008**

FIGURE 9: GROUNDWATER CONTAMINANT CONCENTRATION MAP (8-15-12)



LEGEND:

- MONITOR WELL LOCATION
- FENCE
- OIL PIPELINE
- OE — OVERHEAD ELECTRIC LINE
- B — BENZENE
- T — TOLUENE
- E — ETHYLBENZENE
- X — TOTAL XYLENES
- PSH — PHASE SEPARATED HYDROCARBONS

CONCENTRATIONS ARE IN mg/L

Date: 02/18/13 N:\CAD\MIDLAND\2012\A4127008.dwg Layout: SITE Current Layer: --GW CONC 11 6 2012

THIS DRAWING SHOULD NOT BE USED SEPARATELY FROM ORIGINAL REPORT.

0 40 80 FEET
APPROXIMATE SCALE

PLAINS PIPELINE, L.P.
LIVINGSTON RIDGE TO HUGH P. SIMS
LEA COUNTY, NEW MEXICO
SRS# 2001-11005, NMOCD File# 1R-0398

Terracon **Project No.: A4127008**

FIGURE 10: GROUNDWATER CONTAMINANT CONCENTRATION MAP (11-6-12)

APPENDIX B

Tables

Table 1

GROUNDWATER ELEVATION AND PSH DATA
Livingston Ridge to Hugh - P. Sims Pipeline Leak
Lea County, New Mexico
NMOCD File Number 1R-0398
Plains Pipeline, L. P. SRS Number 2001-1005
Terracon Project Number A4077008

All elevations are measured in feet above mean sea level, except where noted

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION	PSH PURGED (gallons)	VOLUME PURGED (gallons)
MW - 1	12/27/07	3,374.23	0.00	32.44	0.00	3,341.79	0.00	0.00
MW - 1	01/18/08		0.00	32.56	0.00	3,341.67	0.00	0.00
MW - 1	02/20/08		0.00	32.58	0.00	3,341.65	0.00	0.00
MW - 1	02/29/08		0.00	32.57	0.00	3,341.66	0.00	0.00
MW - 1	03/11/08		0.00	32.66	0.00	3,341.57	0.00	0.00
MW - 1	04/30/08		0.00	32.65	0.00	3,341.58	0.00	0.00
MW - 1	05/28/08		0.00	32.78	0.00	3,341.45	0.00	0.00
MW - 1	06/25/08		0.00	32.92	0.00	3,341.31	0.00	0.00
MW - 1	07/02/08		0.00	32.97	0.00	3,341.26	0.10	20.00
MW - 1	07/07/08		0.00	33.00	0.00	3,341.23	0.10	10.00
MW - 1	07/14/08		0.00	33.07	0.00	3,341.16	0.10	25.00
MW - 1	07/22/08		0.00	33.09	0.00	3,341.14	0.10	10.00
MW - 1	07/30/08		0.00	29.15	0.00	3,345.08	0.00	0.00
MW - 1	08/05/08		0.00	29.24	0.00	3,344.99	0.00	15.00
MW - 1	08/14/08		0.00	33.25	0.00	3,340.98	0.10	5.00
MW - 1	08/21/08		0.00	33.12	0.00	3,341.11	0.00	0.00
MW - 1	08/27/08		0.00	33.13	0.00	3,341.10	0.00	25.00
MW - 1	09/03/08							25.00
MW - 1	09/20/08		0.00	33.07	0.00	3,341.16	0.00	30.00
MW - 1	09/29/08		0.00	33.11	0.00	3,341.12	0.00	40.00
MW - 1	11/06/08		0.00	33.08	0.00	3,341.15	0.00	0.00
MW - 1	11/15/08		0.00	33.11	0.00	3,341.12	0.00	25.00
MW - 1	11/24/08		0.00	33.04	0.00	3,341.19	0.00	50.00
MW - 1	11/26/08		0.00	33.04	0.00	3,341.19	0.00	50.00
MW - 1	12/20/08		0.00	33.09	0.00	3,341.14	0.00	50.00
MW - 1	01/16/09		0.00	33.13	0.00	3,341.10	0.00	0.00
MW - 1	02/09/09		0.00	33.10	0.00	3,341.13	0.00	0.00
MW - 1	02/25/09		0.00		0.00		0.00	50.00
MW - 1	03/05/09		0.00		0.00		0.00	50.00
MW - 1	03/11/09		0.00		0.00		0.00	50.00
MW - 1	03/19/09		0.00		0.00		0.00	50.00
MW - 1	04/08/09		0.00	33.21	0.00	3,341.02	0.00	50.00
MW - 1	04/16/09		0.00	33.25	0.00	3,340.98	0.00	50.00
MW - 1	04/22/09		0.00	32.32	0.00	3,341.91	0.00	40.00
MW - 1	04/29/08		0.00	33.24	0.00	3,340.99	0.00	50.00
MW - 1	05/06/09		0.00	33.85	0.00	3,340.38	0.00	50.00
MW - 1	05/14/09		0.00	33.33	0.00	3,340.90	0.00	0.00
MW - 1	07/08/09		0.00	33.51	0.00	3,340.72	0.00	30.00
MW - 1	07/24/09		0.00	33.53	0.00	3,340.70	0.00	0.00
MW - 1	08/04/09		0.00	34.35	0.00	3,339.88	0.00	55.00
MW - 1	08/13/09		0.00	33.58	0.00	3,340.65	0.00	0.00
MW - 1	08/19/09		0.00	33.24	0.00	3,340.99	0.00	45.00
MW - 1	09/01/09		33.68	33.72	0.04	3,340.54	5.00	49.50
MW - 1	09/22/09		33.79	33.81	0.02	3,340.44	0.25	5.00
MW - 1	10/12/09		33.84	33.85	0.01	3,340.39	0.00	23.00
MW - 1	10/30/09			33.94	0.00	3,340.29	0.00	0.00
MW - 1	11/10/09			33.97	0.00	3,340.26	1.00	24.00
MW - 1	01/08/10			33.93	0.00	3,340.30	0.00	15.00
MW - 1	01/22/10			33.94	0.00	3,340.29	0.00	10.00
MW - 1	01/26/10			33.09	0.00	3,341.14	0.00	0.00
MW - 1	02/03/10			34.08	0.00	3,340.15	0.00	0.00
MW - 1	02/10/10			33.97	0.00	3,340.26	0.00	30.00

Table 1

GROUNDWATER ELEVATION AND PSH DATA
Livingston Ridge to Hugh - P. Sims Pipeline Leak
Lea County, New Mexico
NMOCD File Number 1R-0398
Plains Pipeline, L. P. SRS Number 2001-1005
Terracon Project Number A4077008

All elevations are measured in feet above mean sea level, except where noted

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION	PSH PURGED (gallons)	VOLUME PURGED (gallons)
MW - 1	02/22/10			33.92	0.00	3,340.31	0.00	30.00
MW - 1	03/09/10			33.95	0.00	3,340.28	0.00	50.00
MW - 1	03/24/10			34.00	0.00	3,340.23	0.00	50.00
MW - 1	04/12/10			33.92	0.00	3,340.31	0.00	50.00
MW - 1	04/27/10			34.93	0.00	3,339.30	0.00	50.00
MW - 1	05/27/10			34.09	0.00	3,340.14	0.00	0.00
MW - 1	06/21/10			34.15	0.00	3,340.08	0.00	45.00
MW - 1	07/07/10			34.13	0.00	3,340.10	0.00	50.00
MW - 1	07/20/10			34.00	0.00	3,340.23	0.00	55.00
MW - 1	08/03/10			34.16	0.00	3,340.07	0.00	50.00
MW - 1	08/16/10			34.23	0.00	3,340.00	0.00	45.00
MW - 1	09/02/10			34.28	0.00	3,339.95	0.00	30.00
MW - 1	09/17/10			34.36	0.00	3,339.87	0.00	30.00
MW - 1	10/05/10			34.43	0.00	3,339.80	0.00	20.00
MW - 1	11/11/10			34.55	0.00	3,339.68	0.00	0.00
MW - 1	12/15/10		34.39	34.42	0.03	3,339.84	0.00	0.00
MW - 1	12/29/10		34.36	34.40	0.04	3,339.86	0.00	20.00
MW - 1	02/18/11		34.44	34.50	0.06	3,339.78	0.00	0.00
MW - 1	03/02/11		34.45	34.65	0.20	3,339.75	0.10	25.00
MW - 1	03/16/11		34.57	34.64	0.07	3,339.65	0.10	20.00
MW - 1	03/29/11		34.51	34.54	0.03	3,339.72	0.00	30.00
MW - 1	04/15/11		34.56	34.57	0.01	3,339.67	0.00	20.00
MW - 1	04/18/11			34.53	0.00	3,339.70	0.00	25.00
MW - 1	04/29/11			34.58	0.00	3,339.65	0.00	20.00
MW - 1	05/06/11			34.58	0.00	3,339.65	0.00	20.00
MW - 1	05/20/11			34.65	0.00	3,339.58	0.00	25.00
MW - 1	05/25/11			34.69	0.00	3,339.54	0.00	0.00
MW - 1	06/01/11			34.75	0.00	3,339.48	0.00	20.00
MW - 1	06/14/11			25.60	0.00	3,348.63	0.00	0.00
MW - 1	07/30/11			35.24	0.00	3,338.99	0.00	0.00
MW - 1	09/20/11		35.59	35.60	0.01	3,338.64	0.00	0.00
MW - 1	10/03/11		35.75	36.05	0.30	3,338.44	<0.10	0.00
MW - 1	10/28/11		35.80	35.88	0.08	3,338.42	0.00	0.00
MW - 1	11/10/11		35.80	35.87	0.07	3,338.42	0.00	20.00
MW - 1	12/09/11			36.30	0.00	3,337.93	0.00	20.00
MW - 1	02/24/12			36.02	0.00	3,338.21	0.00	20.00
MW - 1	02/29/12			36.11	0.00	3,338.12	0.00	0.00
MW - 1	03/27/12			36.21	0.00	3,338.02	0.00	20.00
MW - 1	04/12/12			36.33	0.00	3,337.90	0.00	20.00
MW - 1	04/19/12			36.28	0.00	3,337.95	0.00	20.00
MW - 1	05/05/12			36.35	0.00	3,337.88	0.00	20.00
MW - 1	05/17/12			36.40	0.00	3,337.83	0.00	0.00
MW - 1	06/21/12			36.40	0.00	3,337.83	0.00	20.00
MW - 1	07/09/12			36.53	0.00	3,337.70	0.00	25.00
MW - 1	08/02/12			36.60	0.00	3,337.63	0.00	0.00
MW - 1	08/15/12			36.72	0.00	3,337.51	0.00	0.00
MW-1	08/28/12			36.80	0.00	3,337.43	0.00	0.00
MW-1	09/12/12			37.12	0.00	3,337.11	0.00	25.00
MW-1	09/26/12			37.10	0.00	3,337.13	0.00	0.00
MW-1	10/10/12			37.07	0.00	3,337.16	0.00	25.00
MW-1	10/26/12			37.08	0.00	3,337.15	0.00	0.00
MW-1	11/06/12			37.12	0.00	3,337.11	0.00	0.00

Table 1

GROUNDWATER ELEVATION AND PSH DATA
Livingston Ridge to Hugh - P. Sims Pipeline Leak
Lea County, New Mexico
NMOCD File Number 1R-0398
Plains Pipeline, L. P. SRS Number 2001-1005
Terracon Project Number A4077008

All elevations are measured in feet above mean sea level, except where noted

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION	PSH PURGED (gallons)	VOLUME PURGED (gallons)
MW-1	11/07/12			37.11	0.00	3,337.12	0.00	5.00
MW-1	11/20/12			37.16	0.00	3,337.07	0.00	25.00
MW-1	12/06/12			37.16	0.00	3,337.07	0.00	25.00
MW-1	12/18/12			37.18	0.00	3,337.05	0.00	25.00
MW-1	01/03/13			37.20	0.00	3,337.03	0.00	25.00
MW - 2	11/16/07	3,378.27		35.88	0.00	3,342.39	0.00	0.00
MW - 2	02/29/08			36.04	0.00	3,342.23	0.00	0.00
MW - 2	05/28/08			36.15	0.00	3,342.12	0.00	0.00
MW - 2	08/21/08			36.65	0.00	3,341.62	0.00	0.00
MW - 2	11/06/08			36.49	0.00	3,341.78	0.00	0.00
MW - 2	02/09/09			36.55	0.00	3,341.72	0.00	0.00
MW - 2	05/14/09			36.70	0.00	3,341.57	0.00	0.00
MW - 2	08/12/09			37.05	0.00	3,341.22	0.00	0.00
MW - 2	11/10/09			37.34	0.00	3,340.93	0.00	0.00
MW - 2	02/03/10			37.35	0.00	3,340.92	0.00	0.00
MW - 2	05/27/10			37.43	0.00	3,340.84	0.00	0.00
MW - 2	08/16/10			37.64	0.00	3,340.63	0.00	0.00
MW - 2	11/11/10			37.81	0.00	3,340.46	0.00	0.00
MW - 2	02/18/11			37.86	0.00	3,340.41	0.00	0.00
MW - 2	05/25/11			38.11	0.00	3,340.16	0.00	0.00
MW - 2	10/03/11			39.14	0.00	3,339.13	0.00	0.00
MW - 2	10/28/11			39.22	0.00	3,339.05	0.00	0.00
MW - 2	11/10/11			39.25	0.00	3,339.02	0.00	0.00
MW - 2	12/09/11			39.38	0.00	3,338.89	0.00	0.00
MW - 2	02/24/12			39.40	0.00	3,338.87	0.00	0.00
MW - 2	02/29/12			39.41	0.00	3,338.86	0.00	0.00
MW - 2	03/27/12			39.49	0.00	3,338.78	0.00	0.00
MW - 2	04/12/12			39.65	0.00	3,338.62	0.00	0.00
MW - 2	04/19/12			39.64	0.00	3,338.63	0.00	0.00
MW - 2	05/05/12			39.64	0.00	3,338.63	0.00	0.00
MW - 2	05/17/12			39.63	0.00	3,338.64	0.00	0.00
MW - 2	06/21/12			39.83	0.00	3,338.44	0.00	0.00
MW - 2	07/09/12			39.90	0.00	3,338.37	0.00	0.00
MW - 2	08/02/12			40.11	0.00	3,338.16	0.00	0.00
MW - 2	08/15/12			40.23	0.00	3,338.04	0.00	0.00
MW - 2	08/28/12			40.35	0.00	3,337.92	0.00	0.00
MW - 2	09/12/12			40.56	0.00	3,337.71	0.00	0.00
MW - 2	09/26/12			40.62	0.00	3,337.65	0.00	0.00
MW - 2	10/10/12			40.60	0.00	3,337.67	0.00	0.00
MW - 2	10/26/12			40.65	0.00	3,337.62	0.00	0.00
MW - 2	11/06/12			40.66	0.00	3,337.61	0.00	5.00
MW - 2	11/07/12			40.67	0.00	3,337.60	0.00	5.00
MW - 2	11/20/12			40.73	0.00	3,337.54	0.00	0.00
MW - 2	12/06/12			40.71	0.00	3,337.56	0.00	0.00
MW - 2	12/18/12			40.73	0.00	3,337.54	0.00	0.00
MW - 2	01/03/13			40.69	0.00	3,337.58	0.00	0.00
MW - 3	11/16/07	3,367.36		25.28	0.00	3,342.08	0.00	0.00
MW - 3	02/29/08			25.44	0.00	3,341.92	0.00	0.00
MW - 3	05/28/08			25.55	0.00	3,341.81	0.00	0.00
MW - 3	08/21/08			26.11	0.00	3,341.25	0.00	0.00

Table 1

GROUNDWATER ELEVATION AND PSH DATA
Livingston Ridge to Hugh - P. Sims Pipeline Leak
Lea County, New Mexico
NMOCD File Number 1R-0398
Plains Pipeline, L. P. SRS Number 2001-1005
Terracon Project Number A4077008

All elevations are measured in feet above mean sea level, except where noted

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION	PSH PURGED (gallons)	VOLUME PURGED (gallons)
MW - 3	11/06/08			25.89	0.00	3,341.47	0.00	0.00
MW - 3	02/09/09			25.98	0.00	3,341.38	0.00	0.00
MW - 3	05/14/09			26.18	0.00	3,341.18	0.00	0.00
MW - 3	08/13/09			26.48	0.00	3,340.88	0.00	0.00
MW - 3	11/10/09			26.83	0.00	3,340.53	0.00	0.00
MW - 3	02/03/10			26.80	0.00	3,340.56	0.00	0.00
MW - 3	05/25/11			30.79	0.00	3,336.57	0.00	0.00
MW - 3	05/27/10			26.88	0.00	3,340.48	0.00	0.00
MW - 3	08/16/10			27.13	0.00	3,340.23	0.00	0.00
MW - 3	11/11/10			27.15	0.00	3,340.21	0.00	0.00
MW - 3	09/20/11			dry	0.00		0.00	0.00
MW - 3	10/03/11			dry	0.00		0.00	0.00
MW - 3	10/28/11			dry	0.00		0.00	0.00
MW - 3	11/10/11			dry	0.00		0.00	0.00
MW - 3	12/09/11			dry	0.00		0.00	0.00
MW - 3	02/24/12			dry	0.00		0.00	0.00
MW - 3	02/29/12			dry	0.00		0.00	0.00
MW - 3	03/27/12			dry	0.00		0.00	0.00
MW - 3	04/12/12			dry	0.00		0.00	0.00
MW - 3	04/19/12			dry	0.00		0.00	0.00
MW - 3	05/05/12			dry	0.00		0.00	0.00
MW - 3	05/17/12			dry	0.00		0.00	0.00
MW - 3	06/21/12			dry	0.00		0.00	0.00
MW - 3	07/09/12			dry	0.00		0.00	0.00
MW - 3	08/02/12			dry	0.00		0.00	0.00
MW - 3	08/15/12			dry	0.00		0.00	0.00
MW - 3	08/28/12			dry	0.00		0.00	0.00
MW - 3	09/12/12			dry	0.00		0.00	0.00
MW - 3	09/26/12			dry	0.00		0.00	0.00
MW - 3	10/10/12			27.0 dry	0.00		0.00	0.00
MW - 3	10/26/12			27.0 dry	0.00		0.00	0.00
MW - 3	11/07/12			27.0 dry	0.00		0.00	0.00
MW - 3	11/20/12			27.0 dry	0.00		0.00	0.00
MW - 3	12/06/12			27.0 dry	0.00		0.00	0.00
MW - 3	12/18/12			27.0 dry	0.00		0.00	0.00
MW - 3	01/03/12			27.0 dry	0.00		0.00	0.00
MW - 4	12/27/07	3,372.73		30.69	0.00	3,342.04	0.00	0.00
MW - 4	01/18/08			30.78	0.00	3,341.95	0.00	0.00
MW - 4	02/20/08			31.83	0.00	3,340.90	0.00	0.00
MW - 4	02/29/08			30.86	0.00	3,341.87	0.00	0.00
MW - 4	04/30/08			30.82	0.00	3,341.91	0.00	0.00
MW - 4	05/28/08			31.09	0.00	3,341.64	0.00	0.00
MW - 4	06/25/08			37.66	0.00	3,335.07	0.00	0.00
MW - 4	07/02/08			31.28	0.00	3,341.45	0.00	20.00
MW - 4	07/07/08			31.34	0.00	3,341.39	0.00	10.00
MW - 4	07/14/08			34.51	0.00	3,338.22	0.00	25.00
MW - 4	07/22/08			31.39	0.00	3,341.34	0.00	10.00
MW - 4	07/30/08			31.40	0.00	3,341.33	0.00	10.00
MW - 4	08/05/08			31.50	0.00	3,341.23	0.00	10.00
MW - 4	08/14/08			31.55	0.00	3,341.18	0.00	5.00
MW - 4	08/21/08			31.43	0.00	3,341.30	0.00	0.00

Table 1

GROUNDWATER ELEVATION AND PSH DATA
Livingston Ridge to Hugh - P. Sims Pipeline Leak
Lea County, New Mexico
NMOCD File Number 1R-0398
Plains Pipeline, L. P. SRS Number 2001-1005
Terracon Project Number A4077008

All elevations are measured in feet above mean sea level, except where noted

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION	PSH PURGED (gallons)	VOLUME PURGED (gallons)
MW - 4	08/27/08			31.42	0.00	3,341.31	0.00	25.00
MW - 4	09/03/08							25.00
MW - 4	09/20/08			31.34	0.00	3,341.39	0.00	30.00
MW - 4	09/29/08			31.34	0.00	3,341.39	0.00	40.00
MW - 4	11/06/08			31.38	0.00	3,341.35	0.00	0.00
MW - 4	11/15/08			31.40	0.00	3,341.33	0.00	50.00
MW - 4	11/24/08			31.35	0.00	3,341.38	0.00	25.00
MW - 4	11/26/08			31.34	0.00	3,341.39	0.00	25.00
MW - 4	12/20/08			31.39	0.00	3,341.34	0.00	50.00
MW - 4	01/16/09			31.42	0.00	3,341.31	0.00	0.00
MW - 4	02/09/09			31.39	0.00	3,341.34	0.00	0.00
MW - 4	02/25/09				0.00		0.00	50.00
MW - 4	03/05/09				0.00		0.00	50.00
MW - 4	03/11/09				0.00		0.00	50.00
MW - 4	03/19/09				0.00		0.00	50.00
MW - 4	04/08/09			31.10	0.00	3,341.63	0.00	50.00
MW - 4	04/16/09			31.50	0.00	3,341.23	0.00	35.00
MW - 4	04/22/09			31.57	0.00	3,341.16	0.00	50.00
MW - 4	04/29/08				0.00		0.00	45.00
MW - 4	05/06/09				0.00		0.00	50.00
MW - 4	05/14/09			31.58	0.00	3,341.15	0.00	0.00
MW - 4	07/08/09			31.79	0.00	3,340.94	0.00	35.00
MW - 4	07/24/09			31.85	0.00	3,340.88	0.00	0.00
MW - 4	08/04/09			31.85	0.00	3,340.88	0.00	55.00
MW - 4	08/12/09			31.96	0.00	3,340.77	0.00	0.00
MW - 4	08/19/09			31.90	0.00	3,340.83	0.00	32.00
MW - 4	09/01/09			32.00	0.00	3,340.73	0.00	53.50
MW - 4	09/22/09			32.08	0.00	3,340.65	0.00	10.00
MW - 4	10/12/09			32.13	0.00	3,340.60	0.00	17.00
MW - 4	10/30/09			32.27	0.00	3,340.46	0.00	0.00
MW - 4	11/10/09			32.22	0.00	3,340.51	0.00	25.00
MW - 4	01/08/10			32.23	0.00	3,340.50	0.00	5.00
MW - 4	01/22/10			32.17	0.00	3,340.56	0.00	10.00
MW - 4	01/26/10			32.26	0.00	3,340.47	0.00	0.00
MW - 4	02/03/10			32.25	0.00	3,340.48	0.00	0.00
MW - 4	02/10/10			32.28	0.00	3,340.45	0.00	50.00
MW - 4	03/09/10			32.20	0.00	3,340.53	0.00	30.00
MW - 4	03/24/10			32.24	0.00	3,340.49	0.00	30.00
MW - 4	04/12/10			32.24	0.00	3,340.49	0.00	30.00
MW - 4	04/27/10			32.25	0.00	3,340.48	0.00	30.00
MW - 4	05/27/10			32.28	0.00	3,340.45	0.00	0.00
MW - 4	06/21/10			32.50	0.00	3,340.23	0.00	40.00
MW - 4	07/07/10			32.40	0.00	3,340.33	0.00	50.00
MW - 4	07/20/10			32.43	0.00	3,340.30	0.00	50.00
MW - 4	08/03/10			32.44	0.00	3,340.29	0.00	50.00
MW - 4	08/16/10			32.53	0.00	3,340.20	0.00	45.00
MW - 4	09/02/10			32.67	0.00	3,340.06	0.00	50.00
MW - 4	09/17/10			32.65	0.00	3,340.08	0.00	50.00
MW - 4	10/05/10			32.70	0.00	3,340.03	0.00	20.00
MW - 4	11/10/10			32.73	0.00	3,340.00	0.00	20.00
MW - 4	12/15/10			32.71	0.00	3,340.02	0.00	20.00
MW - 4	12/29/10			32.68	0.00	3,340.05	0.00	30.00

Table 1

GROUNDWATER ELEVATION AND PSH DATA
Livingston Ridge to Hugh - P. Sims Pipeline Leak
Lea County, New Mexico
NMOCD File Number 1R-0398
Plains Pipeline, L. P. SRS Number 2001-1005
Terracon Project Number A4077008

All elevations are measured in feet above mean sea level, except where noted

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION	PSH PURGED (gallons)	VOLUME PURGED (gallons)
MW - 4	02/18/11			32.76	0.00	3,339.97	0.00	0.00
MW - 4	03/02/11			32.74	0.00	3,339.99	0.00	25.00
MW - 4	03/16/11			32.73	0.00	3,340.00	0.00	20.00
MW - 4	03/29/11			32.70	0.00	3,340.03	0.00	25.00
MW - 4	04/15/11			32.88	0.00	3,339.85	0.00	30.00
MW - 4	04/18/11			32.85	0.00	3,339.88	0.00	30.00
MW - 4	04/29/11			32.85	0.00	3,339.88	0.00	30.00
MW - 4	05/06/11			32.91	0.00	3,339.82	0.00	25.00
MW - 4	05/20/11			32.98	0.00	3,339.75	0.00	25.00
MW - 4	05/25/11			33.00	0.00	3,339.73	0.00	0.00
MW - 4	06/01/11			32.95	0.00	3,339.78	0.00	20.00
MW - 4	07/30/11			33.53	0.00	3,339.20	0.00	20.00
MW - 4	09/20/11		33.94	33.95	0.01	3,338.79	0.00	0.00
MW - 4	10/03/11		34.06	35.10	1.04	3,338.51	0.00	0.00
MW - 4	10/28/11		34.12	34.23	0.11	3,338.59	0.00	0.00
MW - 4	11/10/11		34.12	34.30	0.18	3,338.58	1.00	20.00
MW - 4	12/09/11		34.21	34.38	0.17	3,338.49	1.00	20.00
MW - 4	02/24/12		34.20	34.40	0.20	3,338.50	1.00	20.00
MW - 4	03/27/12		34.30	34.50	0.20	3,338.40	1.00	20.00
MW - 4	04/12/12		34.45	34.60	0.15	3,338.26	1.00	20.00
MW - 4	04/19/12		34.47	34.60	0.13	3,338.24	1.00	20.00
MW - 4	05/05/12		34.50	34.80	0.30	3,338.19	1.00	20.00
MW - 4	05/17/12		34.55	34.70	0.15	3,338.16	0.00	0.00
MW - 4	06/21/12		34.75	35.06	0.31	3,337.93	2.00	23.00
MW - 4	07/09/12		34.92	35.11	0.19	3,337.78	0.00	25.00
MW - 4	08/02/12		29.50	30.00	0.50	3,343.16	0.00	0.00
MW - 4	08/15/12		35.04	35.17	0.13	3,337.67	0.00	0.00
MW - 4	08/28/12		35.14	35.35	0.21	3,337.56	0.00	0.00
MW - 4	09/12/12		35.47	35.70	0.23	3,337.23	0.00	25.00
MW - 4	09/26/12		35.60	35.66	0.06	3,337.12	0.00	0.00
MW - 4	10/10/12		35.39	35.53	0.14	3,337.32	0.00	25.00
MW - 4	10/26/12		35.46	35.50	0.04	3,337.26	0.00	0.00
MW - 4	11/06/12		35.49	35.75	0.26	3,337.20	0.00	5.00
MW - 4	11/20/12		35.56	35.70	0.14	3,337.15	2.00	23.00
MW - 4	12/06/12		35.54	35.66	0.12	3,337.17	0.00	25.00
MW - 4	12/18/12		35.50	35.62	0.12	3,337.21	2.00	23.00
MW - 4	01/03/13		35.47	35.60	0.13	3,337.24	1.00	24.00
MW - 5	12/27/07	3,370.92		29.29	0.00	3,341.63	0.10	0.00
MW - 5	01/18/08			29.40	0.00	3,341.52	0.00	0.00
MW - 5	02/20/08			29.43	0.00	3,341.49	0.00	0.00
MW - 5	02/29/08			29.43	0.00	3,341.49	0.00	0.00
MW - 5	03/11/08			29.87	0.00	3,341.05	0.00	0.00
MW - 5	04/30/08			29.45	0.00	3,341.47	0.00	0.00
MW - 5	05/28/08			29.55	0.00	3,341.37	0.00	0.00
MW - 5	06/25/08			29.70	0.00	3,341.22	0.00	0.00
MW - 5	07/02/08			29.75	0.00	3,341.17	0.00	20.00
MW - 5	07/07/08			28.83	0.00	3,342.09	0.00	10.00
MW - 5	07/14/08			29.82	0.00	3,341.10	0.00	25.00
MW - 5	07/22/08			29.87	0.00	3,341.05	0.00	10.00
MW - 5	07/30/08			29.93	0.00	3,340.99	0.00	15.00

Table 1

GROUNDWATER ELEVATION AND PSH DATA
Livingston Ridge to Hugh - P. Sims Pipeline Leak
Lea County, New Mexico
NMOCD File Number 1R-0398
Plains Pipeline, L. P. SRS Number 2001-1005
Terracon Project Number A4077008

All elevations are measured in feet above mean sea level, except where noted

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION	PSH PURGED (gallons)	VOLUME PURGED (gallons)
MW - 5	08/05/08			29.94	0.00	3,340.98	0.00	15.00
MW - 5	08/14/08			30.06	0.00	3,340.86	0.00	5.00
MW - 5	08/21/08			29.83	0.00	3,341.09	0.00	0.00
MW - 5	08/27/08			29.69	0.00	3,341.23	0.00	25.00
MW - 5	09/03/08							25.00
MW - 5	09/20/08			29.75	0.00	3,341.17	0.00	30.00
MW - 5	09/29/08			29.74	0.00	3,341.18	0.00	40.00
MW - 5	11/06/08			29.75	0.00	3,341.17	0.00	0.00
MW - 5	11/15/08			29.89	0.00	3,341.03	0.00	50.00
MW - 5	11/24/08			29.76	0.00	3,341.16	0.00	25.00
MW - 5	11/26/08			29.74	0.00	3,341.18	0.00	25.00
MW - 5	12/20/08			29.79	0.00	3,341.13	0.00	50.00
MW - 5	01/16/09			29.84	0.00	3,341.08	0.00	0.00
MW - 5	02/09/09			29.78	0.00	3,341.14	0.00	0.00
MW - 5	02/25/09				0.00		0.00	50.00
MW - 5	03/05/09				0.00		0.00	50.00
MW - 5	03/11/09				0.00		0.00	50.00
MW - 5	03/19/09				0.00		0.00	50.00
MW - 5	04/08/09			29.91	0.00	3,341.01	0.00	50.00
MW - 5	04/16/09			29.90	0.00	3,341.02	0.00	45.00
MW - 5	04/22/09			30.02	0.00	3,340.90	0.00	30.00
MW - 5	04/29/08			29.92	0.00	3,341.00	0.00	50.00
MW - 5	05/06/09				0.00		0.00	50.00
MW - 5	05/14/09			30.06	0.00	3,340.86	0.00	0.00
MW - 5	07/08/09			30.19	0.00	3,340.73	0.00	30.00
MW - 5	07/24/09			30.23	0.00	3,340.69	0.00	0.00
MW - 5	08/04/09			30.28	0.00	3,340.64	0.00	55.00
MW - 5	08/12/09			29.30	0.00	3,341.62	0.00	0.00
MW - 5	08/19/09			30.31	0.00	3,340.61	0.00	42.00
MW - 5	09/01/09			30.39	0.00	3,340.53	0.00	52.30
MW - 5	09/22/09		30.48	30.49	0.01	3,340.44	0.00	10.00
MW - 5	10/12/09			30.54	0.00	3,340.38	0.00	23.00
MW - 5	10/30/09			29.63	0.00	3,341.29	0.00	0.00
MW - 5	11/10/09			30.61	0.00	3,340.31	0.00	30.00
MW - 5	01/08/10			30.62	0.00	3,340.30	0.00	5.00
MW - 5	01/22/10		30.55	30.56	0.01	3,340.37	0.00	10.00
MW - 5	01/26/10		30.68	0.00	0.00	3,370.92	0.00	0.00
MW - 5	02/03/10			30.75	0.00	3,340.17	0.00	0.00
MW - 5	02/10/10			30.66	0.00	3,340.26	0.00	30.00
MW - 5	02/22/10			30.60	0.00	3,340.32	0.00	30.00
MW - 5	03/09/10			30.56	0.00	3,340.36	0.00	30.00
MW - 5	03/24/10			30.60	0.00	3,340.32	0.00	30.00
MW - 5	04/12/10			30.60	0.00	3,340.32	0.00	30.00
MW - 5	04/27/10			30.61	0.00	3,340.31	0.00	30.00
MW - 5	05/27/10			30.90	0.00	3,340.02	0.00	0.00
MW - 5	06/21/10			30.85	0.00	3,340.07	0.00	18.00
MW - 5	07/07/10			30.75	0.00	3,340.17	0.00	20.00
MW - 5	07/20/10			30.67	0.00	3,340.25	0.00	50.00
MW - 5	08/03/10			30.85	0.00	3,340.07	0.00	20.00
MW - 5	08/16/10			30.94	0.00	3,339.98	0.00	20.00
MW - 5	09/02/10			30.97	0.00	3,339.95	0.00	30.00
MW - 5	09/17/10			31.03	0.00	3,339.89	0.00	30.00

Table 1

GROUNDWATER ELEVATION AND PSH DATA
Livingston Ridge to Hugh - P. Sims Pipeline Leak
Lea County, New Mexico
NMOCD File Number 1R-0398
Plains Pipeline, L. P. SRS Number 2001-1005
Terracon Project Number A4077008

All elevations are measured in feet above mean sea level, except where noted

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION	PSH PURGED (gallons)	VOLUME PURGED (gallons)
MW - 5	10/05/10			31.13	0.00	3,339.79	0.00	25.00
MW - 5	11/11/10			31.12	0.00	3,339.80	0.00	20.00
MW - 5	12/15/10			31.00	0.00	3,339.92	0.00	30.00
MW - 5	12/29/10			31.08	0.00	3,339.84	0.00	20.00
MW - 5	02/18/11			31.16	0.00	3,339.76	0.00	0.00
MW - 5	03/02/11			31.12	0.00	3,339.80	0.00	30.00
MW - 5	03/16/11			31.31	0.00	3,339.61	0.00	20.00
MW - 5	03/29/11			31.15	0.00	3,339.77	0.00	30.00
MW - 5	04/15/11			31.23	0.00	3,339.69	0.00	20.00
MW - 5	04/18/11			31.11	0.00	3,339.81	0.00	20.00
MW - 5	04/29/11			31.16	0.00	3,339.76	0.00	20.00
MW - 5	05/06/11			31.17	0.00	3,339.75	0.00	25.00
MW - 5	05/20/11			31.26	0.00	3,339.66	0.00	25.00
MW - 5	05/25/11			31.30	0.00	3,339.62	0.00	0.00
MW - 5	06/01/11			31.34	0.00	3,339.58	0.00	25.00
MW - 5	08/18/11			32.05	0.00	3,338.87	0.00	0.00
MW - 5	09/20/11			32.23	0.00	3,338.69	0.00	0.00
MW - 5	10/03/11			32.35	0.00	3,338.57	0.00	0.00
MW - 5	10/28/11			32.45	0.00	3,338.47	0.00	0.00
MW - 5	11/10/11			32.42	0.00	3,338.50	0.00	20.00
MW - 5	12/09/11			32.50	0.00	3,338.42	0.00	20.00
MW - 5	02/24/12			32.45	0.00	3,338.47	0.00	20.00
MW - 5	02/29/12			32.48	0.00	3,338.44	0.00	0.00
MW - 5	03/27/12			32.59	0.00	3,338.33	0.00	20.00
MW - 5	04/12/12			32.73	0.00	3,338.19	0.00	20.00
MW - 5	04/19/12			32.85	0.00	3,338.07	0.00	20.00
MW - 5	05/05/12			32.81	0.00	3,338.11	0.00	20.00
MW - 5	05/17/12			32.87	0.00	3,338.05	0.00	0.00
MW - 5	06/21/12			33.01	0.00	3,337.91	0.00	20.00
MW - 5	07/09/12			32.24	0.00	3,338.68	0.00	25.00
MW - 5	08/02/12			33.17	0.00	3,337.75	0.00	0.00
MW - 5	08/15/12			33.27	0.00	3,337.65	0.00	0.00
MW - 5	08/28/12			33.37	0.00	3,337.55	0.00	0.00
MW - 5	09/12/12			33.77	0.00	3,337.15	0.00	25.00
MW - 5	09/26/12			33.86	0.00	3,337.06	0.00	0.00
MW - 5	10/10/12			33.60	0.00	3,337.32	0.00	25.00
MW - 5	10/26/12			33.67	0.00	3,337.25	0.00	0.00
MW - 5	11/07/12			33.65	0.00	3,337.27	0.00	5.00
MW - 5	11/20/12			33.82	0.00	3,337.10	0.00	25.00
MW - 5	12/06/12			33.85	0.00	3,337.07	0.00	25.00
MW - 5	12/18/12			33.82	0.00	3,337.10	0.00	25.00
MW - 5	01/03/13			33.79	0.00	3,337.13	0.00	25.00
MW - 6	11/16/07	3,377.02		35.22	0.00	3,341.80	0.00	0.00
MW - 6	02/29/08			35.36	0.00	3,341.66	0.00	0.00
MW - 6	03/11/08			35.37	0.00	3,341.65	0.00	0.00
MW - 6	05/28/08			35.46	0.00	3,341.56	0.00	0.00
MW - 6	08/21/08			35.99	0.00	3,341.03	0.00	0.00
MW - 6	11/06/08			35.94	0.00	3,341.08	0.00	0.00
MW - 6	02/09/09			35.91	0.00	3,341.11	0.00	0.00
MW - 6	05/14/09			35.96	0.00	3,341.06	0.00	0.00
MW - 6	08/12/09			36.53	0.00	3,340.49	0.00	0.00

Table 1

GROUNDWATER ELEVATION AND PSH DATA
Livingston Ridge to Hugh - P. Sims Pipeline Leak
Lea County, New Mexico
NMOCD File Number 1R-0398
Plains Pipeline, L. P. SRS Number 2001-1005
Terracon Project Number A4077008

All elevations are measured in feet above mean sea level, except where noted

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION	PSH PURGED (gallons)	VOLUME PURGED (gallons)
MW - 6	11/10/09			36.77	0.00	3,340.25	0.00	0.00
MW - 6	02/03/10			36.77	0.00	3,340.25	0.00	0.00
MW - 6	05/27/10			36.83	0.00	3,340.19	0.00	0.00
MW - 6	08/16/10			37.12	0.00	3,339.90	0.00	0.00
MW - 6	11/11/10			37.29	0.00	3,339.73	0.00	0.00
MW - 6	02/18/11			37.61	0.00	3,339.41	0.00	0.00
MW - 6	05/25/11			37.51	0.00	3,339.51	0.00	0.00
MW - 6	08/18/11			38.25	0.00	3,338.77	0.00	0.00
MW - 6	09/20/11			38.40	0.00	3,338.62	0.00	0.00
MW - 6	10/03/11			38.54	0.00	3,338.48	0.00	0.00
MW - 6	10/28/11			38.60	0.00	3,338.42	0.00	0.00
MW - 6	11/10/11			38.60	0.00	3,338.42	0.00	0.00
MW - 6	12/09/11			38.70	0.00	3,338.32	0.00	0.00
MW - 6	02/24/12			38.68	0.00	3,338.34	0.00	0.00
MW - 6	02/29/12			38.73	0.00	3,338.29	0.00	0.00
MW - 6	03/27/12			38.79	0.00	3,338.23	0.00	0.00
MW - 6	04/12/12			38.88	0.00	3,338.14	0.00	0.00
MW - 6	04/19/12			38.90	0.00	3,338.12	0.00	0.00
MW - 6	05/05/12			38.90	0.00	3,338.12	0.00	0.00
MW - 6	05/17/12			38.95	0.00	3,338.07	0.00	0.00
MW - 6	06/21/12			39.14	0.00	3,337.88	0.00	0.00
MW - 6	07/09/12			39.26	0.00	3,337.76	0.00	0.00
MW - 6	08/02/12			39.40	0.00	3,337.62	0.00	0.00
MW - 6	08/15/12			39.53	0.00	3,337.49	0.00	5.00
MW - 6	08/28/12			39.61	0.00	3,337.41	0.00	0.00
MW - 6	09/12/12			39.84	0.00	3,337.18	0.00	0.00
MW - 6	09/26/12			39.92	0.00	3,337.10	0.00	0.00
MW - 6	10/10/12			39.90	0.00	3,337.12	0.00	0.00
MW - 6	10/26/12			39.92	0.00	3,337.10	0.00	0.00
MW - 6	11/07/12			39.92	0.00	3,337.10	0.00	5.00
MW - 6	11/20/12			39.95	0.00	3,337.07	0.00	0.00
MW - 6	12/06/12			39.93	0.00	3,337.09	0.00	0.00
MW - 6	12/18/12			39.91	0.00	3,337.11	0.00	0.00
MW - 6	01/03/13			39.90	0.00	3,337.12	0.00	0.00
MW - 7	11/16/07	3,369.47		27.26	0.00	3,342.21	0.00	0.00
MW - 7	02/29/08			27.43	0.00	3,342.04	0.00	0.00
MW - 7	05/28/08			27.54	0.00	3,341.93	0.00	0.00
MW - 7	08/21/08			28.09	0.00	3,341.38	0.00	0.00
MW - 7	11/06/08			27.89	0.00	3,341.58	0.00	0.00
MW - 7	02/09/09			27.97	0.00	3,341.50	0.00	0.00
MW - 7	05/14/09			28.29	0.00	3,341.18	0.00	0.00
MW - 7	08/13/09			28.46	0.00	3,341.01	0.00	0.00
MW - 7	11/10/09			28.80	0.00	3,340.67	0.00	0.00
MW - 7	02/03/10			28.80	0.00	3,340.67	0.00	0.00
MW - 7	05/27/10			28.87	0.00	3,340.60	0.00	0.00
MW - 7	08/16/10			29.12	0.00	3,340.35	0.00	0.00
MW - 7	11/11/10			29.31	0.00	3,340.16	0.00	0.00
MW - 7	02/18/11			29.33	0.00	3,340.14	0.00	0.00
MW - 7	05/25/11			29.58	0.00	3,339.89	0.00	0.00
MW - 7	09/20/11			30.56	0.00	3,338.91	0.00	0.00
MW - 7	10/03/11			30.66	0.00	3,338.81	0.00	0.00

Table 1

GROUNDWATER ELEVATION AND PSH DATA
Livingston Ridge to Hugh - P. Sims Pipeline Leak
Lea County, New Mexico
NMOCD File Number 1R-0398
Plains Pipeline, L. P. SRS Number 2001-1005
Terracon Project Number A4077008

All elevations are measured in feet above mean sea level, except where noted

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION	PSH PURGED (gallons)	VOLUME PURGED (gallons)
MW - 7	10/28/11			30.73	0.00	3,338.74	0.00	0.00
MW - 7	11/10/11			30.74	0.00	3,338.73	0.00	0.00
MW - 7	12/09/11			30.77	0.00	3,338.70	0.00	0.00
MW - 7	02/24/12			30.75	0.00	3,338.72	0.00	0.00
MW - 7	02/29/12			30.79	0.00	3,338.68	0.00	0.00
MW - 7	03/27/12			30.90	0.00	3,338.57	0.00	0.00
MW - 7	04/12/12			31.02	0.00	3,338.45	0.00	0.00
MW - 7	04/19/12			31.06	0.00	3,338.41	0.00	0.00
MW - 7	05/05/12			31.13	0.00	3,338.34	0.00	0.00
MW - 7	05/17/12			31.18	0.00	3,338.29	0.00	0.00
MW - 7	06/21/12			31.15	0.00	3,338.32	0.00	0.00
MW - 7	07/09/12			31.59	0.00	3,337.88	0.00	0.00
MW - 7	08/02/12			31.53	0.00	3,337.94	0.00	0.00
MW - 7	08/15/12			31.65	0.00	3,337.82	0.00	5.00
MW - 7	08/28/12			31.76	0.00	3,337.71	0.00	0.00
MW - 7	09/12/12			32.16	0.00	3,337.31	0.00	0.00
MW - 7	09/26/12			32.23	0.00	3,337.24	0.00	0.00
MW - 7	10/10/12			31.98	0.00	3,337.49	0.00	0.00
MW - 7	10/26/12			31.99	0.00	3,337.48	0.00	0.00
MW - 7	11/06/12			32.03	0.00	3,337.44	0.00	5.00
MW - 7	11/20/12			32.02	0.00	3,337.45	0.00	0.00
MW - 7	12/06/12			32.01	0.00	3,337.46	0.00	0.00
MW - 7	12/18/12			32.00	0.00	3,337.47	0.00	0.00
MW - 7	01/03/13			31.99	0.00	3,337.48	0.00	0.00
MW - 8	11/16/07	3,373.77		31.58	0.00	3,342.19	0.00	0.00
MW - 8	02/29/08			31.72	0.00	3,342.05	0.00	0.00
MW - 8	05/28/08			31.96	0.00	3,341.81	0.00	0.00
MW - 8	08/21/08			32.33	0.00	3,341.44	0.00	0.00
MW - 8	11/06/08			32.19	0.00	3,341.58	0.00	0.00
MW - 8	02/09/09			32.27	0.00	3,341.50	0.00	0.00
MW - 8	05/14/09			32.52	0.00	3,341.25	0.00	0.00
MW - 8	08/12/09			32.78	0.00	3,340.99	0.00	0.00
MW - 8	11/10/09			33.09	0.00	3,340.68	0.00	0.00
MW - 8	02/03/10			33.09	0.00	3,340.68	0.00	0.00
MW - 8	05/27/10			33.16	0.00	3,340.61	0.00	0.00
MW - 8	08/16/10			33.39	0.00	3,340.38	0.00	0.00
MW - 8	11/11/10			33.59	0.00	3,340.18	0.00	0.00
MW - 8	02/18/11			33.63	0.00	3,340.14	0.00	0.00
MW - 8	05/25/11			33.85	0.00	3,339.92	0.00	0.00
MW - 8	09/20/11			34.80	0.00	3,338.97	0.00	0.00
MW - 8	10/03/11			34.92	0.00	3,338.85	0.00	0.00
MW - 8	10/28/11			35.00	0.00	3,338.77	0.00	0.00
MW - 8	11/10/11			35.30	0.00	3,338.47	0.00	0.00
MW - 8	12/09/11			35.10	0.00	3,338.67	0.00	0.00
MW - 8	02/24/12			35.06	0.00	3,338.71	0.00	0.00
MW - 8	02/29/12			35.02	0.00	3,338.75	0.00	0.00
MW - 8	03/27/12			35.21	0.00	3,338.56	0.00	0.00
MW - 8	04/12/12			35.33	0.00	3,338.44	0.00	0.00
MW - 8	04/19/12			35.35	0.00	3,338.42	0.00	0.00
MW - 8	05/05/12			35.40	0.00	3,338.37	0.00	0.00
MW - 8	05/17/12			35.45	0.00	3,338.32	0.00	0.00

Table 1

GROUNDWATER ELEVATION AND PSH DATA
Livingston Ridge to Hugh - P. Sims Pipeline Leak
Lea County, New Mexico
NMOCD File Number 1R-0398
Plains Pipeline, L. P. SRS Number 2001-1005
Terracon Project Number A4077008

All elevations are measured in feet above mean sea level, except where noted

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION	PSH PURGED (gallons)	VOLUME PURGED (gallons)
MW - 8	06/21/12			35.63	0.00	3,338.14	0.00	0.00
MW - 8	07/09/12			35.79	0.00	3,337.98	0.00	0.00
MW - 8	08/02/12			35.82	0.00	3,337.95	0.00	0.00
MW - 8	08/15/12			35.93	0.00	3,337.84	0.00	5.00
MW - 8	08/28/12			36.06	0.00	3,337.71	0.00	0.00
MW - 8	09/12/12			36.37	0.00	3,337.40	0.00	0.00
MW - 8	09/26/12			36.44	0.00	3,337.33	0.00	0.00
MW - 8	10/10/12			36.28	0.00	3,337.49	0.00	0.00
MW - 8	10/26/12			36.33	0.00	3,337.44	0.00	0.00
MW - 8	11/06/12			36.36	0.00	3,337.41	0.00	5.00
MW - 8	11/20/12			36.39	0.00	3,337.38	0.00	0.00
MW - 8	12/06/12			36.38	0.00	3,337.39	0.00	0.00
MW - 8	12/18/12			36.36	0.00	3,337.41	0.00	0.00
MW - 8	01/03/13			36.35	0.00	3,337.42	0.00	0.00
MW - 9	11/16/07	3,375.92		34.02	0.00	3,341.90	0.00	0.00
MW - 9	02/29/08			34.18	0.00	3,341.74	0.00	0.00
MW - 9	05/28/08			34.45	0.00	3,341.47	0.00	0.00
MW - 9	08/21/08			34.79	0.00	3,341.13	0.00	0.00
MW - 9	11/06/08			34.84	0.00	3,341.08	0.00	0.00
MW - 9	02/09/09			34.71	0.00	3,341.21	0.00	0.00
MW - 9	05/14/09			34.23	0.00	3,341.69	0.00	0.00
MW - 9	08/12/09			35.16	0.00	3,340.76	0.00	0.00
MW - 9	11/10/09			35.51	0.00	3,340.41	0.00	0.00
MW - 9	02/03/10			35.51	0.00	3,340.41	0.00	0.00
MW - 9	05/27/10			35.58	0.00	3,340.34	0.00	0.00
MW - 9	08/16/10			35.03	0.00	3,340.89	0.00	0.00
MW - 9	11/11/10			35.98	0.00	3,339.94	0.00	0.00
MW - 9	02/18/11							
MW - 9	05/25/11			36.35	0.00	3,339.57	0.00	0.00
MW - 9	08/18/11			36.95	0.00	3,338.97	0.00	0.00
MW - 9	09/20/11			37.20	0.00	3,338.72	0.00	0.00
MW - 9	10/03/11			37.33	0.00	3,338.59	0.00	0.00
MW - 9	10/28/11			37.38	0.00	3,338.54	0.00	0.00
MW - 9	11/10/11			37.40	0.00	3,338.52	0.00	0.00
MW - 9	12/09/11			37.48	0.00	3,338.44	0.00	0.00
MW - 9	02/24/12			37.52	0.00	3,338.40	0.00	0.00
MW - 9	02/29/12			37.59	0.00	3,338.33	0.00	0.00
MW - 9	03/27/12			37.59	0.00	3,338.33	0.00	0.00
MW - 9	04/12/12			37.68	0.00	3,338.24	0.00	0.00
MW - 9	04/19/12			37.71	0.00	3,338.21	0.00	0.00
MW - 9	05/05/12			37.73	0.00	3,338.19	0.00	0.00
MW - 9	05/17/12			37.76	0.00	3,338.16	0.00	0.00
MW - 9	06/21/12			37.94	0.00	3,337.98	0.00	0.00
MW - 9	07/09/12			38.09	0.00	3,337.83	0.00	0.00
MW - 9	08/02/12			38.17	0.00	3,337.75	0.00	0.00
MW - 9	08/15/12			38.28	0.00	3,337.64	0.00	5.00
MW - 9	08/28/12			38.40	0.00	3,337.52	0.00	0.00
MW - 9	09/12/12			38.52	0.00	3,337.40	0.00	0.00
MW - 9	09/26/12			38.75	0.00	3,337.17	0.00	0.00
MW - 9	10/10/12			38.68	0.00	3,337.24	0.00	0.00
MW - 9	10/26/12			38.72	0.00	3,337.20	0.00	0.00

Table 1

GROUNDWATER ELEVATION AND PSH DATA
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Lea County, New Mexico
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Terracon Project Number A4077008

All elevations are measured in feet above mean sea level, except where noted

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION	PSH PURGED (gallons)	VOLUME PURGED (gallons)
MW - 9	11/06/12			38.71	0.00	3,337.21	0.00	5.00
MW - 9	11/20/12			38.76	0.00	3,337.16	0.00	0.00
MW - 9	12/06/12			38.73	0.00	3,337.19	0.00	0.00
MW - 9	12/18/12			38.71	0.00	3,337.21	0.00	0.00
MW - 9	01/03/13			38.70	0.00	3,337.22	0.00	0.00
MW - 10	11/16/07	3,370.17		28.20	0.00	3,341.97	0.00	0.00
MW - 10	02/29/08			28.42	0.00	3,341.75	0.00	0.00
MW - 10	05/28/08			28.48	0.00	3,341.69	0.00	0.00
MW - 10	08/21/08			29.04	0.00	3,341.13	0.00	0.00
MW - 10	11/06/08			28.82	0.00	3,341.35	0.00	0.00
MW - 10	02/09/09			28.91	0.00	3,341.26	0.00	0.00
MW - 10	05/14/09			29.07	0.00	3,341.10	0.00	0.00
MW - 10	08/12/09			29.34	0.00	3,340.83	0.00	0.00
MW - 10	11/10/09			29.77	0.00	3,340.40	0.00	0.00
MW - 10	02/03/10			29.75	0.00	3,340.42	0.00	0.00
MW - 10	05/27/10			29.82	0.00	3,340.35	0.00	0.00
MW - 10	08/16/10			30.06	0.00	3,340.11	0.00	0.00
MW - 10	11/11/10			30.32	0.00	3,339.85	0.00	0.00
MW - 10	02/18/11			30.30	0.00	3,339.87	0.00	0.00
MW - 10	05/25/11			30.51	0.00	3,339.66	0.00	0.00
MW - 10	08/18/11			32.05	0.00	3,338.12	0.00	0.00
MW - 10	09/20/11			31.50	0.00	3,338.67	0.00	0.00
MW - 10	10/03/11			31.61	0.00	3,338.56	0.00	0.00
MW - 10	10/28/11			31.66	0.00	3,338.51	0.00	0.00
MW - 10	11/10/11			31.66	0.00	3,338.51	0.00	0.00
MW - 10	12/09/11			31.69	0.00	3,338.48	0.00	0.00
MW - 10	02/24/12			31.68	0.00	3,338.49	0.00	0.00
MW - 10	02/29/12			31.70	0.00	3,338.47	0.00	0.00
MW - 10	03/27/12			31.70	0.00	3,338.47	0.00	0.00
MW - 10	04/12/12			31.91	0.00	3,338.26	0.00	0.00
MW - 10	04/19/12			31.97	0.00	3,338.20	0.00	0.00
MW - 10	05/05/12			32.04	0.00	3,338.13	0.00	0.00
MW - 10	05/17/12			32.07	0.00	3,338.10	0.00	0.00
MW - 10	06/21/12			32.03	0.00	3,338.14	0.00	0.00
MW - 10	07/09/12			32.46	0.00	3,337.71	0.00	0.00
MW - 10	08/02/12			32.43	0.00	3,337.74	0.00	0.00
MW - 10	08/15/12			32.55	0.00	3,337.62	0.00	5.00
MW - 10	08/28/12			32.67	0.00	3,337.50	0.00	0.00
MW - 10	09/12/12			32.80	0.00	3,337.37	0.00	0.00
MW - 10	09/26/12			33.13	0.00	3,337.04	0.00	0.00
MW - 10	10/10/12			32.87	0.00	3,337.30	0.00	0.00
MW - 10	10/26/12			32.92	0.00	3,337.25	0.00	0.00
MW - 10	11/06/12			32.89	0.00	3,337.28	0.00	5.00
MW - 10	11/20/12			32.91	0.00	3,337.26	0.00	0.00
MW - 10	12/06/12			32.88	0.00	3,337.29	0.00	0.00
MW - 10	12/18/12			32.87	0.00	3,337.30	0.00	0.00
MW - 10	01/03/13			32.85	0.00	3,337.32	0.00	0.00
MW-11	11/16/07	3,373.96		29.69	0.00	3,344.27	0.00	0.00
MW-11	02/29/08			29.30	0.00	3,344.66	0.00	0.00
MW-11	05/28/08			32.41	0.00	3,341.55	0.00	0.00

Table 1

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Lea County, New Mexico
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Terracon Project Number A4077008

All elevations are measured in feet above mean sea level, except where noted

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION	PSH PURGED (gallons)	VOLUME PURGED (gallons)
MW-11	08/21/08			32.98	0.00	3,340.98	0.00	0.00
MW-11	11/06/08			32.85	0.00	3,341.11	0.00	0.00
MW-11	02/09/09			32.91	0.00	3,341.05	0.00	0.00
MW-11	05/14/09			33.01	0.00	3,340.95	0.00	0.00
MW-11	08/12/09			33.35	0.00	3,340.61	0.00	0.00
MW-11	11/10/09			33.71	0.00	3,340.25	0.00	0.00
MW-11	02/03/10			33.74	0.00	3,340.22	0.00	0.00
MW-11	05/27/10			33.78	0.00	3,340.18	0.00	0.00
MW-11	08/16/10			34.11	0.00	3,339.85	0.00	0.00
MW-11	11/11/10			34.19	0.00	3,339.77	0.00	0.00
MW-11	02/18/11			34.26	0.00	3,339.70	0.00	0.00
MW-11	05/25/11			34.51	0.00	3,339.45	0.00	0.00
MW-11	08/18/11			35.25	0.00	3,338.71	0.00	0.00
MW-11	10/03/11			35.55	0.00	3,338.41	0.00	0.00
MW-11	10/28/11			35.58	0.00	3,338.38	0.00	0.00
MW-11	11/10/11			35.65	0.00	3,338.31	0.00	0.00
MW-11	12/09/11			35.70	0.00	3,338.26	0.00	0.00
MW-11	02/24/12			35.78	0.00	3,338.18	0.00	0.00
MW-11	02/29/12			35.68	0.00	3,338.28	0.00	0.00
MW-11	03/27/12			35.70	0.00	3,338.26	0.00	0.00
MW-11	04/12/12			35.69	0.00	3,338.27	0.00	0.00
MW-11	04/19/12			35.90	0.00	3,338.06	0.00	0.00
MW-11	05/05/12			36.00	0.00	3,337.96	0.00	0.00
MW-11	05/17/12			35.99	0.00	3,337.97	0.00	0.00
MW-11	06/21/12			36.00	0.00	3,337.96	0.00	0.00
MW-11	07/09/12			36.32	0.00	3,337.64	0.00	0.00
MW-11	08/02/12			36.36	0.00	3,337.60	0.00	0.00
MW-11	08/15/12			36.50	0.00	3,337.46	0.00	5.00
MW-11	08/28/12			36.60	0.00	3,337.36	0.00	0.00
MW-11	09/12/12			36.87	0.00	3,337.09	0.00	0.00
MW-11	09/26/12			36.95	0.00	3,337.01	0.00	0.00
MW-11	10/10/12			36.85	0.00	3,337.11	0.00	0.00
MW-11	10/26/12			36.90	0.00	3,337.06	0.00	0.00
MW-11	11/06/12			36.90	0.00	3,337.06	0.00	5.00
MW-11	11/20/12			36.94	0.00	3,337.02	0.00	0.00
MW-11	12/06/12			36.90	0.00	3,337.06	0.00	0.00
MW-11	12/18/12			36.85	0.00	3,337.11	0.00	0.00
MW-11	01/03/13			36.86	0.00	3,337.10	0.00	0.00
MW- 12	11/16/07	3,372.41		33.32	0.00	3,339.09	0.00	0.00
MW- 12	02/29/08			27.29	0.00	3,345.12	0.00	0.00
MW- 12	05/28/08			27.35	0.00	3,345.06	0.00	0.00
MW- 12	08/21/08			27.92	0.00	3,344.49	0.00	0.00
MW- 12	11/06/08			27.74	0.00	3,344.67	0.00	0.00
MW- 12	02/09/09			27.83	0.00	3,344.58	0.00	0.00
MW- 12	05/14/09			27.96	0.00	3,344.45	0.00	0.00
MW- 12	08/13/09			28.26	0.00	3,344.15	0.00	0.00
MW- 12	11/10/09			28.66	0.00	3,343.75	0.00	0.00
MW- 12	02/03/10			28.69	0.00	3,343.72	0.00	0.00
MW- 12	05/27/10			28.71	0.00	3,343.70	0.00	0.00
MW- 12	08/16/10			28.95	0.00	3,343.46	0.00	0.00
MW- 12	11/11/10			32.69	0.00	3,339.72	0.00	0.00

Table 1

GROUNDWATER ELEVATION AND PSH DATA
Livingston Ridge to Hugh - P. Sims Pipeline Leak
Lea County, New Mexico
NMOCD File Number 1R-0398
Plains Pipeline, L. P. SRS Number 2001-1005
Terracon Project Number A4077008

All elevations are measured in feet above mean sea level, except where noted

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION	PSH PURGED (gallons)	VOLUME PURGED (gallons)
MW- 12	02/18/11			29.16	0.00	3,343.25	0.00	0.00
MW- 12	05/25/11			32.92	0.00	3,339.49	0.00	0.00
MW- 12	08/18/11			33.67	0.00	3,338.74	0.00	0.00
MW- 12	10/03/11			35.45	0.00	3,336.96	0.00	0.00
MW- 12	10/28/11			34.10	0.00	3,338.31	0.00	0.00
MW- 12	11/10/11			34.23	0.00	3,338.18	0.00	0.00
MW- 12	12/09/11			34.32	0.00	3,338.09	0.00	0.00
MW- 12	02/24/12			34.40	0.00	3,338.01	0.00	0.00
MW- 12	02/29/12			34.11	0.00	3,338.30	0.00	0.00
MW- 12	03/27/12			34.24	0.00	3,338.17	0.00	0.00
MW- 12	04/12/12			34.21	0.00	3,338.20	0.00	0.00
MW- 12	04/19/12			34.40	0.00	3,338.01	0.00	0.00
MW- 12	05/05/12			34.43	0.00	3,337.98	0.00	0.00
MW- 12	05/17/12			34.47	0.00	3,337.94	0.00	0.00
MW- 12	06/21/12			34.45	0.00	3,337.96	0.00	0.00
MW- 12	07/09/12			34.81	0.00	3,337.60	0.00	0.00
MW- 12	08/02/12			34.85	0.00	3,337.56	0.00	0.00
MW- 12	08/15/12			34.95	0.00	3,337.46	0.00	5.00
MW- 12	08/28/12			35.06	0.00	3,337.35	0.00	0.00
MW- 12	09/12/12			36.40	0.00	3,336.01	0.00	0.00
MW- 12	09/26/12			35.48	0.00	3,336.93	0.00	0.00
MW- 12	10/10/12			35.28	0.00	3,337.13	0.00	0.00
MW- 12	10/26/12			35.35	0.00	3,337.06	0.00	0.00
MW- 12	11/06/12			35.34	0.00	3,337.07	0.00	5.00
MW- 12	11/20/12			35.39	0.00	3,337.02	0.00	0.00
MW- 12	12/06/12			35.36	0.00	3,337.05	0.00	0.00
MW- 12	12/18/12			35.33	0.00	3,337.08	0.00	0.00
MW- 12	01/03/13			35.30	0.00	3,337.11	0.00	0.00
MW- 13	11/16/07	3,368.91		27.11	0.00	3,341.80	0.00	0.00
MW- 13	02/29/08			30.80	0.00	3,338.11	0.00	0.00
MW- 13	05/28/08			30.28	0.00	3,338.63	0.00	0.00
MW- 13	08/21/08			31.43	0.00	3,337.48	0.00	0.00
MW- 13	11/06/08			31.26	0.00	3,337.65	0.00	0.00
MW- 13	02/09/09			31.36	0.00	3,337.55	0.00	0.00
MW- 13	05/14/09			31.51	0.00	3,337.40	0.00	0.00
MW- 13	08/12/09			31.81	0.00	3,337.10	0.00	0.00
MW- 13	11/10/09			32.17	0.00	3,336.74	0.00	0.00
MW- 13	02/03/10			33.19	0.00	3,335.72	0.00	0.00
MW- 13	05/27/10			33.23	0.00	3,335.68	0.00	0.00
MW- 13	08/16/10			32.47	0.00	3,336.44	0.00	0.00
MW- 13	11/11/10			29.14	0.00	3,339.77	0.00	0.00
MW- 13	02/18/11			32.71	0.00	3,336.20	0.00	0.00
MW- 13	05/25/11			29.40	0.00	3,339.51	0.00	0.00
MW- 13	08/18/11			30.15	0.00	3,338.76	0.00	0.00
MW- 13	10/03/11			34.00	0.00	3,334.91	0.00	0.00
MW- 13	10/28/11			30.57	0.00	3,338.34	0.00	0.00
MW- 13	11/10/11			30.62	0.00	3,338.29	0.00	0.00
MW- 13	12/09/11			30.75	0.00	3,338.16	0.00	0.00
MW- 13	02/24/12			30.67	0.00	3,338.24	0.00	0.00
MW- 13	02/29/12			30.66	0.00	3,338.25	0.00	0.00
MW- 13	03/27/12			30.65	0.00	3,338.26	0.00	0.00

Table 1

GROUNDWATER ELEVATION AND PSH DATA
Livingston Ridge to Hugh - P. Sims Pipeline Leak
Lea County, New Mexico
NMOCD File Number 1R-0398
Plains Pipeline, L. P. SRS Number 2001-1005
Terracon Project Number A4077008

All elevations are measured in feet above mean sea level, except where noted

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION	PSH PURGED (gallons)	VOLUME PURGED (gallons)
MW- 13	04/12/12			30.64	0.00	3,338.27	0.00	0.00
MW- 13	04/19/12			30.25	0.00	3,338.66	0.00	0.00
MW- 13	05/05/12			29.98	0.00	3,338.93	0.00	0.00
MW- 13	05/17/12			30.04	0.00	3,338.87	0.00	0.00
MW- 13	06/21/12			30.90	0.00	3,338.01	0.00	0.00
MW- 13	07/09/12			31.34	0.00	3,337.57	0.00	0.00
MW- 13	08/02/12			31.27	0.00	3,337.64	0.00	0.00
MW- 13	08/15/12			31.44	0.00	3,337.47	0.00	5.00
MW- 13	08/28/12			31.55	0.00	3,337.36	0.00	0.00
MW- 13	09/12/12			31.98	0.00	3,336.93	0.00	0.00
MW- 13	09/26/12			32.05	0.00	3,336.86	0.00	0.00
MW- 13	10/10/12			31.77	0.00	3,337.14	0.00	0.00
MW- 13	10/26/12			31.84	0.00	3,337.07	0.00	0.00
MW- 13	11/06/12			31.78	0.00	3,337.13	0.00	5.00
MW- 13	11/20/12			31.86	0.00	3,337.05	0.00	0.00
MW- 13	12/06/12			31.81	0.00	3,337.10	0.00	0.00
MW- 13	12/18/12			31.80	0.00	3,337.11	0.00	0.00
MW- 13	01/03/13			31.83	0.00	3,337.08	0.00	0.00
MW- 14	11/16/07	3,371.54		29.94	0.00	3,341.60	0.00	0.00
MW- 14	02/29/08			30.08	0.00	3,341.46	0.00	0.00
MW- 14	05/28/08			30.27	0.00	3,341.27	0.00	0.00
MW- 14	08/21/08			30.70	0.00	3,340.84	0.00	0.00
MW- 14	11/06/08			30.55	0.00	3,340.99	0.00	0.00
MW- 14	02/09/09			30.65	0.00	3,340.89	0.00	0.00
MW- 14	05/14/09			30.75	0.00	3,340.79	0.00	0.00
MW- 14	08/12/09			31.11	0.00	3,340.43	0.00	0.00
MW- 14	11/10/09			31.46	0.00	3,340.08	0.00	0.00
MW- 14	02/03/10			31.48	0.00	3,340.06	0.00	0.00
MW- 14	05/27/10			31.52	0.00	3,340.02	0.00	0.00
MW- 14	08/16/10			31.76	0.00	3,339.78	0.00	0.00
MW- 14	11/11/10			31.97	0.00	3,339.57	0.00	0.00
MW- 14	02/18/11			31.99	0.00	3,339.55	0.00	0.00
MW- 14	05/25/11			32.20	0.00	3,339.34	0.00	0.00
MW- 14	08/18/11			32.95	0.00	3,338.59	0.00	0.00
MW- 14	10/03/11			33.30	0.00	3,338.24	0.00	0.00
MW- 14	10/28/11			33.32	0.00	3,338.22	0.00	0.00
MW- 14	11/10/11			33.53	0.00	3,338.01	0.00	0.00
MW- 14	12/09/11			33.82	0.00	3,337.72	0.00	0.00
MW- 14	02/24/12			33.93	0.00	3,337.61	0.00	0.00
MW- 14	02/29/12			33.41	0.00	3,338.13	0.00	0.00
MW- 14	03/27/12			33.44	0.00	3,338.10	0.00	0.00
MW- 14	04/12/12			33.48	0.00	3,338.06	0.00	0.00
MW- 14	04/19/12			33.60	0.00	3,337.94	0.00	0.00
MW- 14	05/05/12			33.68	0.00	3,337.86	0.00	0.00
MW- 14	05/17/12			33.75	0.00	3,337.79	0.00	0.00
MW- 14	06/21/12			33.70	0.00	3,337.84	0.00	0.00
MW- 14	07/09/12			31.10	0.00	3,340.44	0.00	0.00
MW- 14	08/02/12			34.09	0.00	3,337.45	0.00	0.00
MW- 14	08/15/12			34.21	0.00	3,337.33	0.00	5.00
MW- 14	08/28/12			34.32	0.00	3,337.22	0.00	0.00
MW- 14	09/12/12			34.67	0.00	3,336.87	0.00	0.00

Table 1

GROUNDWATER ELEVATION AND PSH DATA
Livingston Ridge to Hugh - P. Sims Pipeline Leak
Lea County, New Mexico
NMOCD File Number 1R-0398
Plains Pipeline, L. P. SRS Number 2001-1005
Terracon Project Number A4077008

All elevations are measured in feet above mean sea level, except where noted

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION	PSH PURGED (gallons)	VOLUME PURGED (gallons)
MW- 14	09/26/12			34.74	0.00	3,336.80	0.00	0.00
MW- 14	10/10/12			34.54	0.00	3,337.00	0.00	0.00
MW- 14	10/26/12			34.58	0.00	3,336.96	0.00	0.00
MW- 14	11/06/12			34.59	0.00	3,336.95	0.00	5.00
MW- 14	11/20/12			34.65	0.00	3,336.89	0.00	0.00
MW- 14	12/06/12			34.59	0.00	3,336.95	0.00	0.00
MW- 14	12/18/12			34.56	0.00	3,336.98	0.00	0.00
MW- 14	01/03/13			34.57	0.00	3,336.97	0.00	0.00
MW- 15	11/16/07	3,377.64		36.09	0.00	3,341.55	0.00	0.00
MW- 15	02/29/08			36.20	0.00	3,341.44	0.00	0.00
MW- 15	05/28/08			36.31	0.00	3,341.33	0.00	0.00
MW- 15	08/21/08			36.80	0.00	3,340.84	0.00	0.00
MW- 15	11/06/08			36.69	0.00	3,340.95	0.00	0.00
MW- 15	02/09/09			36.77	0.00	3,340.87	0.00	0.00
MW- 15	05/14/09			36.91	0.00	3,340.73	0.00	0.00
MW- 15	08/12/09			37.21	0.00	3,340.43	0.00	0.00
MW- 15	11/10/09			37.57	0.00	3,340.07	0.00	0.00
MW- 15	02/03/10			37.60	0.00	3,340.04	0.00	0.00
MW- 15	05/27/10			37.61	0.00	3,340.03	0.00	0.00
MW- 15	08/16/10			37.87	0.00	3,339.77	0.00	0.00
MW- 15	11/11/10			38.09	0.00	3,339.55	0.00	0.00
MW- 15	02/18/11			38.08	0.00	3,339.56	0.00	0.00
MW- 15	05/25/11			38.35	0.00	3,339.29	0.00	0.00
MW- 15	08/18/11			39.06	0.00	3,338.58	0.00	0.00
MW- 15	10/03/11			39.38	0.00	3,338.26	0.00	0.00
MW- 15	10/28/11			39.42	0.00	3,338.22	0.00	0.00
MW- 15	11/10/11			39.47	0.00	3,338.17	0.00	0.00
MW- 15	12/09/11			39.43	0.00	3,338.21	0.00	0.00
MW- 15	02/24/12			39.43	0.00	3,338.21	0.00	0.00
MW- 15	02/29/12			39.53	0.00	3,338.11	0.00	0.00
MW- 15	03/27/12			39.57	0.00	3,338.07	0.00	0.00
MW- 15	04/12/12			39.32	0.00	3,338.32	0.00	0.00
MW- 15	04/19/12			39.67	0.00	3,337.97	0.00	0.00
MW- 15	05/05/12			39.71	0.00	3,337.93	0.00	0.00
MW- 15	05/17/12			39.75	0.00	3,337.89	0.00	0.00
MW- 15	06/21/12			39.80	0.00	3,337.84	0.00	0.00
MW- 15	07/09/12			40.05	0.00	3,337.59	0.00	0.00
MW- 15	08/02/12			40.21	0.00	3,337.43	0.00	0.00
MW- 15	08/15/12			40.33	0.00	3,337.31	0.00	5.00
MW- 15	08/28/12			40.45	0.00	3,337.19	0.00	0.00
MW- 15	09/12/12			40.65	0.00	3,336.99	0.00	0.00
MW- 15	09/26/12			40.69	0.00	3,336.95	0.00	0.00
MW- 15	10/10/12			40.69	0.00	3,336.95	0.00	0.00
MW- 15	10/26/12			40.73	0.00	3,336.91	0.00	0.00
MW- 15	11/06/12			40.73	0.00	3,336.91	0.00	5.00
MW- 15	11/20/12			40.75	0.00	3,336.89	0.00	0.00
MW- 15	12/06/12			40.71	0.00	3,336.93	0.00	0.00
MW- 15	12/18/12			40.68	0.00	3,336.96	0.00	0.00
MW- 15	01/03/13			40.70	0.00	3,336.94	0.00	0.00
TMW-1	12/27/07	3372.24	30.28	30.60	0.32	3,341.91	2.00	0.00

Table 1

GROUNDWATER ELEVATION AND PSH DATA
Livingston Ridge to Hugh - P. Sims Pipeline Leak
Lea County, New Mexico
NMOCD File Number 1R-0398
Plains Pipeline, L. P. SRS Number 2001-1005
Terracon Project Number A4077008

All elevations are measured in feet above mean sea level, except where noted

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION	PSH PURGED (gallons)	VOLUME PURGED (gallons)
TMW-1	01/18/08		30.51	30.59	0.08	3,341.72	0.10	0.00
TMW-1	02/20/08		30.59	30.78	0.19	3,341.62	0.50	0.00
TMW-1	02/29/08		30.53	30.55	0.02	3,341.71	0.00	0.00
TMW-1	03/11/08		30.56	30.66	0.10	3,341.67	0.10	0.00
TMW-1	04/30/08		30.42	30.93	0.51	3,341.74	0.20	0.00
TMW-1	05/28/08		30.83	31.07	0.24	3,341.37	0.00	0.00
TMW-1	06/25/08		30.84	31.22	0.38	3,341.34	1.10	0.00
TMW-1	07/02/08		29.90	31.64	1.74	3,342.08	0.10	20.00
TMW-1	07/07/08		31.24	31.32	0.08	3,340.99	0.10	10.00
TMW-1	07/14/08		31.00	32.00	1.00	3,341.09	1.00	25.00
TMW-1	07/22/08		31.00	31.28	0.28	3,341.20	0.50	10.00
TMW-1	07/30/08		31.03	31.43	0.40	3,341.15	0.10	10.00
TMW-1	08/05/08		31.24	31.50	0.26	3,340.96	0.10	15.00
TMW-1	08/14/08		31.18	31.58	0.40	3,341.00	0.25	5.00
TMW-1	08/21/08		31.00	31.61	0.61	3,341.15	0.00	0.00
TMW-1	08/27/08		31.06	31.39	0.33	3,341.13	0.25	25.00
TMW-1	09/03/08							25.00
TMW-1	09/20/08		30.91	31.43	0.52	3,341.25	0.50	30.00
TMW-1	09/29/08		30.88	31.55	0.67	3,341.26	0.50	40.00
TMW-1	11/06/08		30.84	32.00	1.16	3,341.23	0.00	0.00
TMW-1	11/15/08		30.94	31.82	0.88	3,341.17	0.50	50.00
TMW-1	11/24/08		30.93	31.30	0.37	3,341.25	0.10	25.00
TMW-1	11/26/08		30.91	31.43	0.52	3,341.25	0.10	25.00
TMW-1	12/20/08			31.45	0.00	3,340.79	0.50	50.00
TMW-1	01/16/09		30.96	31.70	0.74	3,341.17	0.00	0.00
TMW-1	02/09/09		30.85	32.15	1.30	3,341.20	0.00	0.00
TMW-1	02/25/09						2.00	50.00
TMW-1	03/05/09						2.00	50.00
TMW-1	03/11/09						1.00	50.00
TMW-1	03/19/09		0.00	0.00	0.00		1.00	50.00
TMW-1	04/08/09		31.10	31.80	0.70	3,341.04	0.50	50.00
TMW-1	04/16/09		30.92	31.99	1.07	3,341.16	1.00	50.00
TMW-1	04/22/09		31.01	31.80	0.79	3,341.11	0.50	50.00
TMW-1	04/29/08		31.01	32.02	1.01	3,341.08	0.30	50.00
TMW-1	05/06/09							40.00
TMW-1	05/14/09		31.56	32.09	0.53	3,340.60	0.00	0.00
TMW-1	07/08/09		31.14	33.46	2.32	3,340.75	1.50	48.50
TMW-1	07/24/09		31.35	32.35	1.00	3,340.74	1.00	49.00
TMW-1	08/04/09		31.42	32.18	0.76	3,340.71	1.00	55.00
TMW-1	08/12/09		31.41	32.36	0.95	3,340.69	0.00	0.00
TMW-1	08/19/09		31.41	32.55	1.14	3,340.66	3.00	15.00
TMW-1	09/01/09		32.23	32.83	0.60	3,339.92	11.00	47.00
TMW-1	09/22/09		31.52	33.27	1.75	3,340.46	10.00	0.00
TMW-1	10/12/09		31.64	32.42	0.78	3,340.48	4.00	41.00
TMW-1	10/30/09		31.78	31.80	0.02	3,340.46	0.25	0.00
TMW-1	11/10/09		31.96	32.06	0.10	3,340.27	1.00	25.00
TMW-1	01/08/10		31.86	32.49	0.63	3,340.29	1.00	15.00
TMW-1	01/22/10		31.70	32.55	0.85	3,340.41	8.00	5.00
TMW-1	01/26/10		32.65	32.80	0.15	3,339.57	0.10	10.00
TMW-1	02/03/10		31.75	32.49	0.74	3,340.38	0.10	10.00
TMW-1	02/10/10		31.75	32.77	1.02	3,340.34	0.10	20.00
TMW-1	02/22/10		31.64	33.07	1.43	3,340.39	4.00	50.00
TMW-1	03/09/10		31.65	32.87	1.22	3,340.41	4.00	50.00
TMW-1	03/09/10		31.65	32.87	1.22	3,340.41	4.00	50.00
TMW-1	03/24/10		31.65	33.07	1.42	3,340.38	4.00	30.00

Table 1

GROUNDWATER ELEVATION AND PSH DATA
Livingston Ridge to Hugh - P. Sims Pipeline Leak
Lea County, New Mexico
NMOCD File Number 1R-0398
Plains Pipeline, L. P. SRS Number 2001-1005
Terracon Project Number A4077008

All elevations are measured in feet above mean sea level, except where noted

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION	PSH PURGED (gallons)	VOLUME PURGED (gallons)
TMW-1	04/12/10		31.57	33.61	2.04	3,340.36	4.00	30.00
TMW-1	04/27/10		31.66	33.02	1.36	3,340.38	4.00	50.00
TMW-1	05/27/10		31.70	33.45	1.75	3,340.28	0.00	0.00
TMW-1	06/21/10		31.70	34.24	2.54	3,340.16	2.50	50.00
TMW-1	07/07/10		31.87	32.96	1.09	3,340.21	0.00	50.00
TMW-1	07/20/10		31.81	32.94	1.13	3,340.26	0.00	50.00
TMW-1	08/03/10		32.00	33.09	1.09	3,340.08	0.00	0.00
TMW-1	08/16/10		32.02	33.61	1.59	3,339.98	2.00	30.00
TMW-1	09/02/10		32.02	33.74	1.72	3,339.96	2.00	50.00
TMW-1	09/17/10		32.15	33.24	1.09	3,339.93	2.00	50.00
TMW-1	10/05/10		32.12	33.94	1.82	3,339.85	2.00	30.00
TMW-1	11/11/10		32.23	33.39	1.16	3,339.84	0.00	30.00
TMW-1	12/15/10		32.16	33.56	1.40	3,339.87	0.00	0.00
TMW-1	12/29/10		32.05	33.93	1.88	3,339.91	0.00	30.00
TMW-1	02/18/11		32.12	34.10	1.98	3,339.82	0.00	0.00
TMW-1	03/02/11		31.16	34.68	3.52	3,340.55	0.00	30.00
TMW-1	03/16/11		32.14	33.12	0.98	3,339.95	0.00	30.00
TMW-1	03/29/11		32.05	34.55	2.50	3,339.82	0.00	25.00
TMW-1	04/15/11		31.96	36.09	4.13	3,339.66	0.00	0.00
TMW-1	04/18/11		31.92	36.08	4.16	3,339.70	4.00	30.00
TMW-1	04/29/11		31.85	31.87	0.02	3,340.39	0.00	20.00
TMW-1	05/06/11		31.93	36.40	4.47	3,339.64	5.00	20.00
TMW-1	05/20/11		32.26	34.97	2.71	3,339.57	5.00	20.00
TMW-1	05/25/11		32.30	34.95	2.65	3,339.54	2.50	0.00
TMW-1	06/01/11		32.43	34.20	1.77	3,339.54	5.00	20.00
TMW-1	06/14/11		32.56	34.16	1.60	3,339.44	5.00	0.00
TMW-1	06/30/11		32.65	34.49	1.84	3,339.31	5.00	0.00
TMW-1	07/30/11		32.79	35.75	2.96	3,339.01	4.00	40.00
TMW-1	09/20/11		33.53	34.00	0.47	3,338.64	0.00	0.00
TMW-1	09/23/11		33.53	34.50	0.97	3,338.56	0.00	0.00
TMW-1	10/03/11		33.41	35.71	2.30	3,338.49	0.00	0.00
TMW-1	10/28/11		33.25	37.20	3.95	3,338.40	5.00	0.00
TMW-1	11/10/11		33.20	37.50	4.30	3,338.40	5.00	20.00
TMW-1	12/09/11		33.33	37.43	4.10	3,338.30	5.00	20.00
TMW-1	02/17/12		33.53	35.30	1.77	3,338.44	0.00	0.00
TMW-1	02/24/12		33.45	36.50	3.05	3,338.33	5.00	20.00
TMW-1	03/27/12		33.70	36.60	2.90	3,338.11	5.00	20.00
TMW-1	04/12/12		33.60	37.00	3.40	3,338.13	5.00	20.00
TMW-1	04/19/12		33.55	37.50	3.95	3,338.10	8.00	60.00
TMW-1	05/05/12		33.68	37.10	3.42	3,338.05	5.00	20.00
TMW-1	05/17/12		33.73	37.00	3.27	3,338.02	0.00	0.00
TMW-1	06/21/12		33.56	38.47	4.91	3,337.94	0.00	0.00
TMW-1	07/09/12		33.91	38.61	4.70	3,337.63	0.00	~25.00
TMW-1	08/02/12		34.52	34.85	0.33	3,337.67	0.00	0.00
TMW-1	08/15/12		34.26	37.50	3.24	3,337.49	10.00	0.00
TMW-1	08/28/12		34.33	37.70	3.37	3,337.40	5.00	75.00
TMW-1	09/12/12		34.62	38.10	3.48	3,337.10	10.00	0.00
TMW-1	09/26/12		34.77	38.03	3.26	3,336.98	13.00	75.00
TMW-1	10/10/12		34.60	37.74	3.14	3,337.17	3.00	0.00
TMW-1	10/26/12		34.58	38.13	3.55	3,337.13	8.00	75.00
TMW-1	11/06/12		34.68	37.53	2.85	3,337.13	0.00	0.00
TMW-1	11/20/12		34.57	38.04	3.47	3,337.15	8.00	18.00
TMW-1	12/06/12		34.58	38.24	3.66	3,337.11	5.00	20.00
TMW-1	12/18/12		34.61	38.06	3.45	3,337.11	5.00	20.00
TMW-1	01/03/13		34.69	37.99	3.30	3,337.06	5.00	20.00

Table 1

GROUNDWATER ELEVATION AND PSH DATA
Livingston Ridge to Hugh - P. Sims Pipeline Leak
Lea County, New Mexico
NMOCD File Number 1R-0398
Plains Pipeline, L. P. SRS Number 2001-1005
Terracon Project Number A4077008

All elevations are measured in feet above mean sea level, except where noted

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION	PSH PURGED (gallons)	VOLUME PURGED (gallons)
							197.70	Total Gallons
							4.71	Total Barrels

MDPE on 8/1/12

Elevations are based on the North American Vertical Datum of 1929.
PSH - Phase Separated Hydrocarbons
ND - PSH not detected
(1) Well extended to ground surface, resurveyed on September 7, 2007.

Table 2

CONCENTRATIONS OF TPH AND BTEX IN GROUNDWATER
Livingston Ridge to Hugh - P. Sims
Lea County, New Mexico
NMOCD File Number 1R-0398
Plains Pipeline, L. P. SRS Number 2001-1005
Terracon Project Number A4077008

All concentrations are in mg/l

Well ID	Sample Date	EPA Method SW 846-8260B/8021B					TPH Method 8015M			
		Benzene	Toluene	Ethylbenzene	m, p, o-	Total Xylene	Gasoline	Diesel	Oil	Total
MW-1	11/02/04	**0.725**	0.321	**0.995**	**1.68**	**0.537**	NA	NA	NA	NA
MW-1	03/22/05	Not Sampled Due to Sample Reduction								
MW-1	05/17/05	Not Sampled Due to Sample Reduction								
MW-1	08/15/05	Not Sampled Due to Sample Reduction								
MW-1	11/18/05	**0.104**	<0.001	0.0328	0.0347	0.00736	NA	NA	NA	NA
MW-1	02/16/06	**1.08**	<0.001	0.4	0.37	0.0838	NA	NA	NA	NA
MW-1	05/22/06	**1.06**	<0.005	1.1	1.07	0.0732	NA	NA	NA	NA
MW-1	08/07/06	**1.15**	<0.001	0.323	0.336	0.0276	NA	NA	NA	NA
MW-1	11/21/06	Not Sampled								
MW-1	02/28/07	**0.714**	<0.02	0.439	0.498		NA	NA	NA	NA
MW-1	05/11/07	**0.966**	0.0309	0.288	0.396	0.0397	NA	NA	NA	NA
MW-1	08/10/07	**1.031**	<0.05	0.167	0.1945	<0.05	NA	NA	NA	NA
MW-1	11/15/07	Not Sampled Due to the Presence of PSH								
MW-1	02/29/08	0.0033	<0.002	<0.001	<0.002	<0.001	3.68	3.44	<1.5	7.12
MW-1	05/28/08	Not Sampled Due to the Presence of PSH								
MW-1	08/21/08	Not Sampled Due to the Presence of PSH								
MW-1	11/08/08	Not Sampled Due to the Presence of PSH								
MW-1	02/10/09	**0.4048**	0.0022	0.0436	0.0166	<0.001	3.71	<2.5	<2.5	3.71
MW-1	05/15/09	**0.5686**	<0.002	0.0719	0.0561	<0.001	NA	NA	NA	NA
MW-1	0813/09	**0.2665**	<0.02	0.0628	0.0341	<0.1	NA	NA	NA	NA
MW-1	11/11/09	Not Sampled Due to the Presence of PSH								
MW-1	02/05/10	**0.6889**	0.0139	0.0796	0.0556	0.0278	NA	NA	NA	NA
MW-1	05/27/10	Not Sampled Due to the Presence of PSH								
MW-1	08/16/10	Not Sampled Due to the Presence of PSH								
MW-1	11/11/10	Not Sampled Due to the Presence of PSH								
MW-1	02/29/12	Not Sampled Due to the Presence of PSH								
MW-1	05/18/12	Not Sampled Due to the Presence of PSH								
MW-1	08/15/12	Not Sampled Due to the Presence of PSH								
MW-1	11/07/12	**0.111**	<0.02	0.0695	NA	<0.02	NA	NA	NA	NA
MW-2	09/30/02	<0.001	<0.001	<0.001	<0.001	<0.001	NA	NA	NA	NA
MW-2	11/06/02	<0.001	<0.001	<0.001	<0.001	<0.001	NA	NA	NA	NA
MW-2	02/27/03	<0.001	<0.001	<0.001	<0.001	<0.001	NA	NA	NA	NA
MW-2	05/12/03	<0.001	<0.001	<0.001	<0.001	<0.001	NA	NA	NA	NA
MW-2	08/20/03	<0.001	<0.001	<0.001	<0.001	<0.001	NA	NA	NA	NA
MW-2	11/10/03	<0.001	<0.001	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-2	02/17/04	<0.001	<0.001	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-2	05/06/04	<0.001	<0.001	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-2	08/18/04	Well placed in annual sampling program								
MW-2	03/22/05	Not Sampled Due to Sample Reduction								
MW-2	05/17/05	Not Sampled Due to Sample Reduction								
MW-2	08/15/05	<0.001	<0.001	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-2	11/18/05	Not Sampled Due to Sample Reduction								
MW-2	02/16/06	<0.001	<0.001	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-2	05/22/06	Not Sampled								
MW-2	08/07/06	Not Sampled								
MW-2	02/28/07	<0.001	<0.001	<0.001	<0.001		NA	NA	NA	NA
MW-2	05/11/07	Not Sampled Due to Sample Reduction								
MW-2	08/10/07	Not Sampled Due to Sample Reduction								
MW-2	11/15/07	Not Sampled Due to Sample Reduction								
MW-2	02/29/08	<0.001	<0.002	0.001	<0.002	<0.001	<1.5	3.51	3.15	6.66
MW-2	05/28/08	Not Sampled Due to Sample Reduction								
MW-2	08/21/08	Not Sampled Due to Sample Reduction								
MW-2	11/08/08	Not Sampled Due to Sample Reduction								
MW-2	02/10/09	<0.001	<0.002	<0.001	<0.002	<0.001	<2.5	<2.5	<2.5	<2.5
MW-2	05/14/09	Not Sampled Due to Sample Reduction								
MW-2	08/12/09	Not Sampled Due to Sample Reduction								
MW-2	11/11/09	Not Sampled Due to Sample Reduction								
MW-2	02/05/10	<0.001	<0.002	<0.001	<0.002	<0.001	<2.5	<2.5	<2.5	<2.5
MW-2	05/27/10	Not Sampled Due to Sample Reduction								
MW-2	08/16/10	Not Sampled Due to Sample Reduction								
MW-2	11/11/10	<0.001	<0.001	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-2	11/17/11	<0.001	<0.001	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-2	02/29/12	Not Sampled Due to Sample Reduction								
MW-2	05/18/12	Not Sampled Due to Sample Reduction								
MW-2	08/15/12	Not Sampled Due to Sample Reduction								
MW-2	11/06/12	<0.001	<0.001	<0.001	NA	<0.001	NA	NA	NA	NA
MW-3	09/30/02	<0.001	<0.001	<0.001	<0.001	<0.001	NA	NA	NA	NA
MW-3	11/06/02	<0.001	<0.001	<0.001	<0.001	<0.001	NA	NA	NA	NA

Table 2

CONCENTRATIONS OF TPH AND BTEX IN GROUNDWATER
Livingston Ridge to Hugh - P. Sims
Lea County, New Mexico
NMOCD File Number 1R-0398
Plains Pipeline, L. P. SRS Number 2001-1005
Terracon Project Number A4077008

All concentrations are in mg/l

Well ID	Sample Date	EPA Method SW 846-8260B/8021B					TPH Method 8015M			
		Benzene	Toluene	Ethylbenzene	m, p, o-	Total Xylene	Gasoline	Diesel	Oil	Total
MW-3	02/27/03	<0.001	<0.001	<0.001	<0.001	<0.001	NA	NA	NA	NA
MW-3	05/12/03	<0.001	<0.001	<0.001	<0.001	<0.001	NA	NA	NA	NA
MW-3	08/20/03	<0.001	<0.001	<0.001	<0.001	<0.001	NA	NA	NA	NA
MW-3	11/10/03	0.005	<0.001	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-3	11/25/03	0.001	<0.001	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-3	02/17/04	<0.001	<0.001	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-3	05/06/04	<0.001	<0.001	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-3	08/18/04	Well placed in annual sampling program								
MW-3	03/22/05	Not Sampled Due to Sample Reduction								
MW-3	05/17/05	Not Sampled Due to Sample Reduction								
MW-3	08/15/05	0.00976	0.00189	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-3	11/18/05	Not Sampled Due to Sample Reduction								
MW-3	02/16/06	0.00816	<0.001	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-3	05/22/06	Not Sampled								
MW-3	08/07/06	Not Sampled								
MW-3	11/21/06	Not Sampled								
MW-3	02/28/07	<0.001	<0.001	<0.001	<0.001	<0.001	NA	NA	NA	NA
MW-3	05/11/07	Not Sampled Due to Sample Reduction								
MW-3	08/10/07	Not Sampled Due to Sample Reduction								
MW-3	11/15/07	Not Sampled Due to Sample Reduction								
MW-3	02/29/08	<0.001	<0.002	<0.001	<0.002	<0.001	<1.5	<1.5	<1.5	<1.5
MW-3	05/28/08	Not Sampled Due to Sample Reduction								
MW-3	08/21/08	Not Sampled Due to Sample Reduction								
MW-3	11/08/08	Not Sampled Due to Sample Reduction								
MW-3	02/10/09	<0.001	<0.002	<0.001	<0.002	<0.001	<2.5	<2.5	<2.5	<2.5
MW-3	05/14/09	Not Sampled Due to Sample Reduction								
MW-3	08/12/09	Not Sampled Due to Sample Reduction								
MW-3	11/11/09	Not Sampled Due to Sample Reduction								
MW-3	02/05/10	<0.001	<0.002	<0.001	<0.002	<0.001	<2.5	<2.5	<2.5	<2.5
MW-3	05/27/10	Not Sampled Due to Sample Reduction								
MW-3	08/16/10	Not Sampled Due to Sample Reduction								
MW-3	11/11/10	Not Sampled Due to Sample Reduction								
MW-3	02/29/12	Dry								
MW-3	05/18/12	Dry								
MW-3	08/15/12	Dry								
MW-3	11/06/12	Dry								
MW-4	09/30/02	**2.43**	0.74	0.466	**0.946**	**0.284**	NA	NA	NA	NA
MW-4	11/06/02	**3.96**	0.015	0.174	**0.58**	**0.108**	NA	NA	NA	NA
MW-4	02/27/03	Not Sampled Due to the Presence of PSH								
MW-4	05/12/03	**1.88**	0.004	0.723	0.548	0.056	NA	NA	NA	NA
MW-4	08/20/03	Not Sampled Due to the Presence of PSH								
MW-4	11/10/03	**0.408**	0.001	0.011	0.011	0.001	NA	NA	NA	NA
MW-4	02/17/04	**0.069**	0.001	0.003	0.004	0.001	NA	NA	NA	NA
MW-4	05/06/04	**0.549**	0.213	0.394	0.296	0.194	NA	NA	NA	NA
MW-4	08/18/04	Not Sampled Due to the Presence of PSH								
MW-4	11/02/04	**0.745**	<0.001	0.00856	0.00648	0.00364	NA	NA	NA	NA
MW-4	03/22/05	Not Sampled Due to Sample Reduction								
MW-4	05/17/05	Not Sampled Due to Sample Reduction								
MW-4	08/15/05	0.00375	<0.001	0.02	0.0412	0.00844	NA	NA	NA	NA
MW-4	11/18/05	**0.103**	<0.001	0.0909	0.0727	<0.001	NA	NA	NA	NA
MW-4	02/16/06	**0.0282**	<0.001	0.122	0.11	<0.001	NA	NA	NA	NA
MW-4	05/22/06	**0.0854**	<0.001	0.355	0.224	<0.001	NA	NA	NA	NA
MW-4	08/07/06	**0.0331**	<0.001	0.139	0.112	<0.001	NA	NA	NA	NA
MW-4	11/21/06	**0.0361**	<0.005	0.252	0.105	<0.005	NA	NA	NA	NA
MW-4	02/28/07	**0.0221**	<0.001	0.0142	0.116		NA	NA	NA	NA
MW-4	05/11/07	**0.039**	0.00629	0.336	0.187	0.00725	NA	NA	NA	NA
MW-4	08/10/07	**0.0171**	<0.01	0.3113	0.1332	<0.01	NA	NA	NA	NA
MW-4	11/15/07	**0.0108**	<0.002	<0.001	<0.002	0.0031	NA	NA	NA	NA
MW-4	02/29/08	**0.0578**	<0.002	0.065	0.0047	<0.001	<1.5	<1.5	<1.5	<1.5
MW-4	05/28/08	Not Sampled Due to the Presence of PSH								
MW-4	08/21/08	**0.0232**	<0.002	0.0303	0.022	0.0147	NA	NA	NA	NA
MW-4	11/08/08	**0.0374**	<0.002	0.0041	<0.002	<0.001	NA	NA	NA	NA
MW-4	02/10/09	**0.0539**	<0.002	0.0206	<0.002	<0.001	<2.5	<2.5	<2.5	<2.5
MW-4	05/15/09	**0.0632**	0.0043	0.1016	0.0232	<0.001	NA	NA	NA	NA
MW-4	08/12/09	**0.0322**	<0.002	0.035	0.0024	0.0025	NA	NA	NA	NA
MW-4	11/11/09	**0.0725**	<0.002	0.0414	0.0074	<0.001	NA	NA	NA	NA
MW-4	02/05/10	**0.0198**	<0.002	0.0175	<0.002	<0.001	NA	NA	NA	NA
MW-4	05/27/10	**0.0787**	<0.002	0.0595	0.0083	<0.001	NA	NA	NA	NA
MW-4	08/16/10	**0.208**	<0.1	0.135	<0.1	<0.05	NA	NA	NA	NA

Table 2

CONCENTRATIONS OF TPH AND BTEX IN GROUNDWATER
Livingston Ridge to Hugh - P. Sims
Lea County, New Mexico
NMOCD File Number 1R-0398
Plains Pipeline, L. P. SRS Number 2001-1005
Terracon Project Number A4077008

All concentrations are in mg/l

Well ID	Sample Date	EPA Method SW 846-8260B/8021B					TPH Method 8015M			
		Benzene	Toluene	Ethylbenzene	m, p, o-	Total Xylene	Gasoline	Diesel	Oil	Total
MW-4	11/11/10	**0.0335**	<0.002	0.0196	0.0029	<0.001	NA	NA	NA	NA
MW-4	02/29/12	Not Sampled Due to the Presence of PSH								
MW-4	05/18/12	Not Sampled Due to the Presence of PSH								
MW-4	08/15/12	Not Sampled Due to the Presence of PSH								
MW-4	11/06/12	Not Sampled Due to the Presence of PSH								
MW-5	09/30/02	Not Sampled Due to the Presence of PSH								
MW-5	11/06/02	Not Sampled Due to the Presence of PSH								
MW-5	02/27/03	Not Sampled Due to the Presence of PSH								
MW-5	05/12/03	**0.226**	0.01	0.399	**0.704**	**0.567**	NA	NA	NA	NA
MW-5	08/20/03	Not Sampled Due to the Presence of PSH								
MW-5	11/10/03	**0.511**	<0.001	**1.07**	**0.625**	**0.02**	NA	NA	NA	NA
MW-5	02/17/04	**0.445**	0.048	**3.33**	**3.01**	**0.153**	NA	NA	NA	NA
MW-5	05/06/04	**0.0744**	0.0207	0.222	0.273	0.148	NA	NA	NA	NA
MW-5	08/24/04	**0.156**	0.00385	0.232	0.161	0.124	NA	NA	NA	NA
MW-5	11/02/04	**0.371**	<0.001	0.0209	0.0407	0.00102	NA	NA	NA	NA
MW-5	03/22/05	Not Sampled Due to Sample Reduction								
MW-5	05/17/05	Not Sampled Due to Sample Reduction								
MW-5	08/15/05	Not Sampled Due to Sample Reduction								
MW-5	11/18/05	**0.0886**	<0.001	0.0448	0.0394	0.018	NA	NA	NA	NA
MW-5	02/16/06	**0.0108**	<0.001	0.00861	0.002	0.00202	NA	NA	NA	NA
MW-5	05/22/06	<0.001	<0.001	0.00152	<0.002	<0.001	NA	NA	NA	NA
MW-5	08/07/06	**0.0386**	<0.001	0.0619	0.0669	0.0204	NA	NA	NA	NA
MW-5	11/21/06	Not Sampled								
MW-5	02/28/07	**0.36**	<0.005	0.412	**5.04**		NA	NA	NA	NA
MW-5	05/11/07	**0.397**	0.0141	0.387	0.291	0.196	NA	NA	NA	NA
MW-5	08/10/07	**0.2765**	<0.025	0.2858	0.2025	0.1315	NA	NA	NA	NA
MW-5	11/15/07	0.0039	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-5	02/29/08	0.003	<0.002	0.0036	0.003	0.0018	9.46	11.7	<1.5	21.16
MW-5	05/28/08	Not Sampled Due to the Presence of PSH								
MW-5	08/21/08	**0.0107**	<0.002	0.0032	<0.002	0.0027	NA	NA	NA	NA
MW-5	11/08/08	**0.2551**	<0.01	0.2323	0.164	0.1145	NA	NA	NA	NA
MW-5	02/10/09	**0.2425**	<0.01	0.2885	0.1932	0.117	4.47	<2.5	<2.5	4.47
MW-5	05/15/09	**0.2339**	0.0234	0.1006	0.1087	0.0782	NA	NA	NA	NA
MW-5	08/12/09	**0.2247**	<0.01	0.2958	0.1891	0.1264	NA	NA	NA	NA
MW-5	11/11/09	Not Sampled Due to the Presence of PSH								
MW-5	02/05/10	**0.7078**	<0.01	0.4458	0.4786	0.1105	NA	NA	NA	NA
MW-5	05/27/10	Not Sampled Due to the Presence of PSH								
MW-5	08/16/10	Not Sampled Due to the Presence of PSH								
MW-5	11/11/10	**0.226**	<0.001	0.2402	0.1391	0.1087	NA	NA	NA	NA
MW-5	02/17/11	**0.165**	<0.001	0.202	0.103	0.0906	NA	NA	NA	NA
MW-5	08/18/11	**0.128**	0.00336	0.162	0.032	0.0413	NA	NA	NA	NA
MW-5	02/29/12	Not Sampled Due to Sample Reduction								
MW-5	05/18/12	Not Sampled Due to Sample Reduction								
MW-5	08/15/12	Not Sampled Due to Sample Reduction								
MW-5	11/07/12	**0.125**	<0.005	0.337	NA	0.177	NA	NA	NA	NA
MW-6	09/30/02	<0.001	<0.001	<0.001	<0.001	<0.001	NA	NA	NA	NA
MW-6	11/06/02	<0.001	<0.001	<0.001	<0.001	<0.001	NA	NA	NA	NA
MW-6	02/27/03	<0.001	<0.001	<0.001	<0.001	<0.001	NA	NA	NA	NA
MW-6	05/12/03	<0.001	<0.001	<0.001	<0.001	<0.001	NA	NA	NA	NA
MW-6	08/20/03	<0.001	<0.001	<0.001	<0.001	<0.001	NA	NA	NA	NA
MW-6	11/10/03	<0.001	<0.001	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-6	02/17/04	<0.001	<0.001	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-6	05/06/04	0.00426	<0.001	<0.001	0.00254	0.0013	NA	NA	NA	NA
MW-6	08/18/04	Well placed in annual sampling program								
MW-6	11/02/04	<0.001	<0.001	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-6	03/22/05	Not Sampled Due to Sample Reduction								
MW-6	05/17/05	Not Sampled Due to Sample Reduction								
MW-6	08/15/05	<0.001	<0.001	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-6	11/18/05	Not Sampled Due to Sample Reduction								
MW-6	02/16/06	0.00133	<0.001	0.00298	<0.002	<0.001				
MW-6	05/22/06	Not Sampled								
MW-6	08/07/06	Not Sampled								
MW-6	11/21/06	Not Sampled								
MW-6	02/28/07	<0.001	<0.001	<0.001	0.0027		NA	NA	NA	NA
MW-6	05/11/07	0.0007 (J)	0.000698 (J)	0.00211	0.000687 (J)	0.00672	NA	NA	NA	NA
MW-6	08/10/07	0.0012	<0.001	0.0059	<0.002	0.0014	NA	NA	NA	NA
MW-6	11/15/07	<0.001	<0.002	0.001	<0.002	<0.001	NA	NA	NA	NA
MW-6	02/29/08	<0.001	<0.002	<0.001	<0.002	<0.001	<1.5	<1.5	<1.5	<1.5

Table 2

CONCENTRATIONS OF TPH AND BTEX IN GROUNDWATER
Livingston Ridge to Hugh - P. Sims
Lea County, New Mexico
NMOCD File Number 1R-0398
Plains Pipeline, L. P. SRS Number 2001-1005
Terracon Project Number A4077008

All concentrations are in mg/l

Well ID	Sample Date	EPA Method SW 846-8260B/8021B					TPH Method 8015M			
		Benzene	Toluene	Ethylbenzene	m, p, o-	Total Xylene	Gasoline	Diesel	Oil	Total
MW-6	05/28/08	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-6	08/21/08	0.0017	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-6	11/08/08	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-6	02/10/09	<0.001	<0.002	<0.001	<0.002	<0.001	<2.5	<2.5	<2.5	<2.5
MW-6	05/15/09	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-6	08/13/09	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-6	11/11/09	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-6	02/05/10	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-6	05/27/10	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-6	08/16/10	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-6	11/11/10	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-6	02/17/11	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-6	05/25/11	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-6	08/18/11	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-6	11/17/11	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-6	02/29/12	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-6	05/18/12	<0.001	<0.001	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-6	08/15/12	<0.001	<0.001	<0.001	NA	<0.001	<5.0	NA	NA	<5.0
MW-6	11/06/12	<0.001	<0.001	<0.001	NA	<0.001	NA	NA	NA	NA
MW-7	09/30/02	<0.001	<0.001	<0.001	<0.001	<0.001	NA	NA	NA	NA
MW-7	11/06/02	<0.001	<0.001	<0.001	<0.001	<0.001	NA	NA	NA	NA
MW-7	02/27/03	<0.001	<0.001	<0.001	<0.001	<0.001	NA	NA	NA	NA
MW-7	05/12/03	<0.001	<0.001	<0.001	<0.001	<0.001	NA	NA	NA	NA
MW-7	08/20/03	<0.001	<0.001	<0.001	<0.001	<0.001	NA	NA	NA	NA
MW-7	11/10/03	<0.001	<0.001	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-7	02/17/04	<0.001	<0.001	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-7	05/06/04	<0.001	<0.001	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-7	08/18/04	Well placed in annual sampling program								
MW-7	03/22/05	Not Sampled Due to Sample Reduction								
MW-7	05/17/05	Not Sampled Due to Sample Reduction								
MW-7	08/15/05	0.0059	<0.001	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-7	11/18/05	Not Sampled Due to Sample Reduction								
MW-7	02/16/06	<0.001	<0.001	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-7	05/22/06	Not Sampled								
MW-7	08/07/06	Not Sampled								
MW-7	11/21/06	Not Sampled					NA	NA	NA	NA
MW-7	02/28/07	<0.001	<0.001	<0.001	<0.001		NA	NA	NA	NA
MW-7	05/11/07	Not Sampled Due to Sample Reduction								
MW-7	08/10/07	Not Sampled Due to Sample Reduction								
MW-7	11/15/07	Not Sampled Due to Sample Reduction								
MW-7	02/29/08	<0.001	<0.002	<0.001	<0.002	<0.001	<1.5	<1.5	<1.5	<1.5
MW-7	05/28/08	Not Sampled Due to Sample Reduction								
MW-7	08/21/08	Not Sampled Due to Sample Reduction								
MW-7	11/08/08	Not Sampled Due to Sample Reduction								
MW-7	02/10/09	<0.001	<0.002	<0.001	<0.002	<0.001	<2.5	<2.5	<2.5	<2.5
MW-7	05/14/09	Not Sampled Due to Sample Reduction								
MW-7	08/12/09	Not Sampled Due to Sample Reduction								
MW-7	11/11/09	Not Sampled Due to Sample Reduction								
MW-7	02/05/10	<0.001	<0.002	<0.001	<0.002	<0.001	<2.5	<2.5	<2.5	<2.5
MW-7	05/27/10	Not Sampled Due to Sample Reduction								
MW-7	08/16/10	Not Sampled Due to Sample Reduction								
MW-7	11/11/10	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-7	11/17/11	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-7	02/29/12	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-7	05/18/12	<0.001	<0.001	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-7	08/15/12	<0.001	<0.001	<0.001	NA	<0.001	<5.0	NA	NA	<5.0
MW-7	11/07/12	<0.001	<0.001	<0.001	NA	<0.001	NA	NA	NA	NA
MW-8	09/30/02	<0.001	<0.001	<0.001	<0.001	<0.001	NA	NA	NA	NA
MW-8	11/06/02	<0.001	<0.001	<0.001	<0.001	<0.001	NA	NA	NA	NA
MW-8	02/27/03	<0.001	<0.001	<0.001	<0.001	<0.001	NA	NA	NA	NA
MW-8	05/12/03	<0.001	<0.001	<0.001	<0.001	<0.001	NA	NA	NA	NA
MW-8	08/20/03	<0.001	<0.001	<0.001	<0.001	<0.001	NA	NA	NA	NA
MW-8	11/10/03	<0.001	<0.001	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-8	02/17/04	<0.001	<0.001	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-8	05/06/04	<0.001	<0.001	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-8	08/18/04	Well placed in annual sampling program								
MW-8	03/22/05	Not Sampled Due to Sample Reduction								
MW-8	05/17/05	Not Sampled Due to Sample Reduction								

Table 2

CONCENTRATIONS OF TPH AND BTEX IN GROUNDWATER
Livingston Ridge to Hugh - P. Sims
Lea County, New Mexico
NMOCD File Number 1R-0398
Plains Pipeline, L. P. SRS Number 2001-1005
Terracon Project Number A4077008

All concentrations are in mg/l

Well ID	Sample Date	EPA Method SW 846-8260B/8021B					TPH Method 8015M			
		Benzene	Toluene	Ethylbenzene	m, p, o-	Total Xylene	Gasoline	Diesel	Oil	Total
MW-8	08/15/05	<0.001	<0.001	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-8	11/18/05	Not Sampled Due to Sample Reduction								
MW-8	02/16/06	<0.001	<0.001	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-8	05/22/06	Not Sampled								
MW-8	08/07/06	Not Sampled								
MW-8	11/21/06	Not Sampled								
MW-8	02/28/07	<0.001	<0.001	<0.001	<0.001		NA	NA	NA	NA
MW-8	05/11/07	Not Sampled Due to Sample Reduction								
MW-8	08/10/07	Not Sampled Due to Sample Reduction								
MW-8	11/15/07	Not Sampled Due to Sample Reduction								
MW-8	02/29/08	<0.001	<0.002	<0.001	<0.002	<0.001	<1.5	<1.5	<1.5	<1.5
MW-8	05/28/08	Not Sampled Due to Sample Reduction								
MW-8	08/21/08	Not Sampled Due to Sample Reduction								
MW-8	11/08/08	Not Sampled Due to Sample Reduction								
MW-8	02/10/09	<0.001	<0.002	<0.001	<0.002	<0.001	<2.5	<2.5	<2.5	<2.5
MW-8	05/14/09	Not Sampled Due to Sample Reduction								
MW-8	08/12/09	Not Sampled Due to Sample Reduction								
MW-8	11/11/09	Not Sampled Due to Sample Reduction								
MW-8	02/05/10	<0.001	<0.002	<0.001	<0.002	<0.001	<2.5	<2.5	<2.5	<2.5
MW-8	05/27/10	Not Sampled Due to Sample Reduction								
MW-8	08/16/10	Not Sampled Due to Sample Reduction								
MW-8	11/11/10	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-8	11/17/11	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-8	02/29/12	Not Sampled Due to Sample Reduction								
MW-8	05/18/12	<0.001	<0.001	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-8	08/15/12	<0.001	<0.001	<0.001	NA	<0.001	<5.0	NA	NA	<5.0
MW-8	11/06/12	<0.001	<0.001	<0.001	NA	<0.001	NA	NA	NA	NA
MW-9	09/30/02	<0.001	<0.001	<0.001	<0.001	<0.001	NA	NA	NA	NA
MW-9	11/06/02	<0.001	<0.001	<0.001	<0.001	<0.001	NA	NA	NA	NA
MW-9	02/27/03	<0.001	<0.001	<0.001	<0.001	<0.001	NA	NA	NA	NA
MW-9	05/12/03	<0.001	<0.001	<0.001	<0.001	<0.001	NA	NA	NA	NA
MW-9	08/20/03	<0.001	<0.001	<0.001	<0.001	<0.001	NA	NA	NA	NA
MW-9	11/10/03	<0.001	<0.001	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-9	02/17/04	0.003	<0.001	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-9	05/06/04	0.00267	<0.001	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-9	08/18/04	Well placed in annual sampling program								
MW-9	11/02/04	**0.136**	<0.001	<0.001	0.0116	0.00951	NA	NA	NA	NA
MW-9	03/22/05	**0.0146**	<0.001	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-9	05/17/05	0.0036	<0.001	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-9	08/15/05	<0.001	<0.001	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-9	11/18/05	<0.001	<0.001	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-9	02/16/06	<0.001	<0.001	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-9	05/22/06	<0.001	<0.001	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-9	08/07/06	<0.001	<0.001	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-9	11/21/06	<0.001	<0.001	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-9	02/28/07	<0.001	<0.001	<0.001	<0.001		NA	NA	NA	NA
MW-9	05/11/07	<0.001	<0.001	<0.001	<0.001	<0.001	NA	NA	NA	NA
MW-9	08/10/07	<0.001	<0.001	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-9	11/15/07	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-9	02/29/08	<0.001	<0.002	<0.001	<0.002	<0.001	<1.5	<1.5	<1.5	<1.5
MW-9	05/28/08	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-9	08/21/08	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-9	11/08/08	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-9	02/10/09	<0.001	<0.002	<0.001	<0.002	<0.001	<2.5	<2.5	<2.5	<2.5
MW-9	05/15/09	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-9	0813/09	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-9	11/11/09	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-9	02/05/10	0.0016	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-9	05/27/10	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-9	08/16/10	<0.001	<0.002	<0.001	0.0032	<0.001	NA	NA	NA	NA
MW-9	11/11/10	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-9	02/17/11	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-9	05/25/11	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-9	08/18/11	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-9	11/17/11	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-9	02/29/12	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-9	05/18/12	<0.001	<0.001	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-9	08/15/12	<0.001	<0.001	<0.001	NA	<0.001	<5.0	NA	NA	<5.0
MW-9	11/06/12	<0.001	<0.001	<0.001	NA	<0.001	NA	NA	NA	NA

Table 2

CONCENTRATIONS OF TPH AND BTEX IN GROUNDWATER
Livingston Ridge to Hugh - P. Sims
Lea County, New Mexico
NMOCD File Number 1R-0398
Plains Pipeline, L. P. SRS Number 2001-1005
Terracon Project Number A4077008

All concentrations are in mg/l

Well ID	Sample Date	EPA Method SW 846-8260B/8021B					TPH Method 8015M			
		Benzene	Toluene	Ethylbenzene	m, p, o-	Total Xylene	Gasoline	Diesel	Oil	Total
MW-10	09/30/02	<0.001	<0.001	<0.001	<0.001	<0.001	NA	NA	NA	NA
MW-10	11/06/02	<0.001	<0.001	<0.001	<0.001	<0.001	NA	NA	NA	NA
MW-10	02/27/03	<0.001	<0.001	<0.001	<0.001	<0.001	NA	NA	NA	NA
MW-10	05/12/03	<0.001	<0.001	<0.001	<0.001	<0.001	NA	NA	NA	NA
MW-10	08/20/03	<0.001	<0.001	<0.001	<0.001	<0.001	NA	NA	NA	NA
MW-10	11/10/03	<0.001	<0.001	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-10	02/17/04	<0.001	<0.001	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-10	05/06/04	<0.001	<0.001	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-10	08/18/04	Well placed in annual sampling program								
MW-10	03/22/05	Not Sampled Due to Sample Reduction								
MW-10	05/17/05	Not Sampled Due to Sample Reduction								
MW-10	08/15/05	**0.0251**	0.0106	0.00197	0.00231	0.00102	NA	NA	NA	NA
MW-10	11/18/05	Not Sampled Due to Sample Reduction								
MW-10	02/16/06	**0.0361**	<0.001	0.00319	<0.002	<0.001	NA	NA	NA	NA
MW-10	05/22/06	**0.151**	<0.001	0.00279	<0.002	<0.001	NA	NA	NA	NA
MW-10	08/07/06	**0.0247**	<0.001	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-10	11/21/06	0.00557	<0.001	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-10	02/28/07	<0.001	<0.001	<0.001	<0.001		NA	NA	NA	NA
MW-10	05/11/07	0.00145	<0.001	0.000361 (J)	<0.001	<0.001	NA	NA	NA	NA
MW-10	08/10/07	0.002	<0.001	0.0028	<0.002	<0.001	NA	NA	NA	NA
MW-10	11/15/07	0.004	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-10	02/29/08	<0.001	<0.002	<0.001	<0.002	<0.001	<1.5	<1.5	<1.5	<1.5
MW-10	05/28/08	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-10	08/21/08	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-10	11/08/08	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-10	02/10/09	<0.001	<0.002	<0.001	<0.002	<0.001	<2.5	<2.5	<2.5	<2.5
MW-10	05/14/09	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-10	08/12/09	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-10	11/11/09	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-10	02/05/10	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-10	05/27/10	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-10	08/16/10	0.0011	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-10	11/11/10	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-10	02/17/11	<0.001	<0.002	0.0012	<0.002	<0.001	NA	NA	NA	NA
MW-10	05/25/11	<0.001	<0.002	0.0012	<0.002	<0.001	NA	NA	NA	NA
MW-10	08/18/11	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-10	11/17/11	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-10	02/29/12	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-10	05/18/12	<0.001	<0.001	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-10	08/15/12	<0.001	<0.001	<0.001	NA	<0.001	<5.0	NA	NA	<5.0
MW-10	11/06/12	<0.001	<0.001	<0.001	NA	<0.001	NA	NA	NA	NA
MW-11	11/06/02	<0.001	<0.001	<0.001	<0.001	<0.001	NA	NA	NA	NA
MW-11	02/27/03	<0.001	<0.001	<0.001	<0.001	<0.001	NA	NA	NA	NA
MW-11	05/12/03	<0.001	<0.001	<0.001	<0.001	<0.001	NA	NA	NA	NA
MW-11	08/20/03	**0.147**	<0.001	0.069	0.069	0.033	NA	NA	NA	NA
MW-11	11/10/03	**0.526**	<0.001	<0.001	0.08	0.047	NA	NA	NA	NA
MW-11	02/17/04	**0.103**	<0.001	<0.001	0.013	0.007	NA	NA	NA	NA
MW-11	05/06/04	**2.05**	<0.005	0.253	0.137	0.119	NA	NA	NA	NA
MW-11	08/18/04	**0.0973**	<0.001	<0.001	0.00263	0.00137	NA	NA	NA	NA
MW-11	11/02/04	**0.087**	<0.001	0.00163	<0.002	<0.001	NA	NA	NA	NA
MW-11	03/22/05	**0.0246**	<0.001	0.00163	<0.002	<0.001	NA	NA	NA	NA
MW-11	05/17/05	**0.0263**	<0.001	0.00353	<0.002	<0.001	NA	NA	NA	NA
MW-11	08/15/05	**0.0127**	<0.001	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-11	11/18/05	0.00922	<0.001	0.00115	<0.002	<0.001	NA	NA	NA	NA
MW-11	02/16/06	0.00283	<0.001	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-11	05/22/06	0.00173	<0.001	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-11	08/07/06	<0.001	<0.001	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-11	11/21/06	0.00166	<0.001	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-11	02/28/07	<0.001	<0.001	<0.001	0.0039		NA	NA	NA	NA
MW-11	05/11/07	0.00348	0.00089 (J)	0.000537 (J)	<0.001	0.000277 (J)	NA	NA	NA	NA
MW-11	08/10/07	<0.001	<0.001	<0.001	<0.002	0.0011	NA	NA	NA	NA
MW-11	11/15/07	0.0021	<0.002	0.0014	0.0022	0.0076	NA	NA	NA	NA
MW-11	02/29/08	<0.001	<0.002	<0.001	<0.002	<0.001	<1.5	<1.5	<1.5	<1.5
MW-11	05/28/08	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-11	08/21/08	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-11	11/08/08	0.0012	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-11	02/10/09	<0.001	<0.002	<0.001	<0.002	<0.001	<2.5	<2.5	<2.5	<2.5
MW-11	05/14/09	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA

Table 2

CONCENTRATIONS OF TPH AND BTEX IN GROUNDWATER
Livingston Ridge to Hugh - P. Sims
Lea County, New Mexico
NMOCD File Number 1R-0398
Plains Pipeline, L. P. SRS Number 2001-1005
Terracon Project Number A4077008

All concentrations are in mg/l

Well ID	Sample Date	EPA Method SW 846-8260B/8021B					TPH Method 8015M			
		Benzene	Toluene	Ethylbenzene	m, p, o-	Total Xylene	Gasoline	Diesel	Oil	Total
MW-11	08/12/09	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-11	11/11/09	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-11	02/05/10	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-11	05/27/10	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-11	08/16/10	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-11	11/11/10	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-11	02/17/11	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-11	05/25/11	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-11	08/18/11	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-11	11/17/11	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-11	02/29/12	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-11	05/18/12	<0.001	<0.001	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-11	08/15/12	<0.001	<0.001	<0.001	NA	<0.001	<5.0	NA	NA	<5.0
MW-11	11/06/12	<0.001	<0.001	<0.001	NA	<0.001	NA	NA	NA	NA
MW-12	11/06/02	**2.3**	0.012	0.005	0.292	0.092	NA	NA	NA	NA
MW-12	02/27/03	<0.001	<0.001	<0.001	<0.001	<0.001	NA	NA	NA	NA
MW-12	05/12/03	**0.24**	<0.001	<0.001	0.008	0.015	NA	NA	NA	NA
MW-12	08/20/03	**0.257**	<0.001	<0.001	0.072	0.013	NA	NA	NA	NA
MW-12	11/10/03	**0.544**	<0.001	<0.001	<0.002	0.01	NA	NA	NA	NA
MW-12	02/17/04	**1.21**	<0.001	<0.001	0.009	0.002	NA	NA	NA	NA
MW-12	05/06/04	**1.17**	<0.002	0.0659	0.117	0.0304	NA	NA	NA	NA
MW-12	08/18/04	**0.0612**	<0.001	0.0222	<0.001	<0.001	NA	NA	NA	NA
MW-12	11/02/04	**0.0322**	<0.001	0.00253	<0.002	<0.001	NA	NA	NA	NA
MW-12	03/22/05	0.00545	<0.001	0.00366	<0.002	<0.001	NA	NA	NA	NA
MW-12	05/17/05	0.00103	<0.001	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-12	08/15/05	<0.001	<0.001	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-12	11/18/05	<0.001	<0.001	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-12	02/16/06	<0.001	<0.001	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-12	05/22/06	<0.001	<0.001	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-12	08/07/06	<0.001	<0.001	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-12	11/21/06	<0.001	<0.001	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-12	02/28/07	<0.001	<0.001	<0.001	0.0031		NA	NA	NA	NA
MW-12	05/11/07	0.00205	0.000858 (J)	0.000546 (J)	<0.001	0.000378 (J)	NA	NA	NA	NA
MW-12	08/10/07	<0.005	<0.005	<0.005	<0.01	<0.005	NA	NA	NA	NA
MW-12	11/15/07	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-12	02/29/08	0.0011	<0.002	<0.001	<0.002	0.003	<1.5	<1.5	<1.5	<1.5
MW-12	05/28/08	<0.001	<0.002	<0.001	<0.002	0.002	NA	NA	NA	NA
MW-12	08/21/08	**0.0518**	<0.002	0.0398	0.0036	<0.001	NA	NA	NA	NA
MW-12	11/08/08	0.0033	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-12	02/10/09	<0.001	<0.002	<0.001	<0.002	<0.001	<2.5	<2.5	<2.5	<2.5
MW-12	05/14/09	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-12	08/12/09	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-12	11/11/09	0.002	<0.002	0.002	<0.002	0.0071	NA	NA	NA	NA
MW-12	02/05/10	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-12	05/27/10	0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-12	08/16/10	<0.001	<0.002	<0.001	<0.002	0.0017	NA	NA	NA	NA
MW-12	11/11/10	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-12	02/17/11	<0.001	<0.002	<0.001	<0.002	0.00261	NA	NA	NA	NA
MW-12	05/25/11	0.00219	<0.002	<0.001	<0.002	0.00271	NA	NA	NA	NA
MW-12	08/18/11	0.0248	<0.002	0.00744	0.00294	<0.001	NA	NA	NA	NA
MW-12	11/17/11	0.00235	<0.002	<0.001	<0.002	0.00283	NA	NA	NA	NA
MW-12	02/29/12	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-12	05/18/12	0.00517	<0.001	0.0026	<0.002	<0.001	NA	NA	NA	NA
MW-12	08/15/12	0.132	<0.001	0.0432	NA	0.0065	<5.0	NA	NA	<5.0
MW-12	11/06/12	<0.001	<0.001	<0.001	NA	0.0014	NA	NA	NA	NA
MW-13	11/06/02	**0.08**	<0.001	<0.001	0.002	0.001	NA	NA	NA	NA
MW-13	02/27/03	**2.14**	0.001	0.095	**0.711**	**0.111**	NA	NA	NA	NA
MW-13	05/12/03	**1.65**	0.001	0.202	0.069	0.17	NA	NA	NA	NA
MW-13	08/20/03	**1.71**	<0.001	0.138	0.015	0.511	NA	NA	NA	NA
MW-13	11/10/03	**1.55**	<0.001	0.084	0.003	0.002	NA	NA	NA	NA
MW-13	02/17/04	**0.043**	<0.001	0.015	0.003	<0.001	NA	NA	NA	NA
MW-13	05/06/04	**0.0873**	<0.001	<0.001	0.00274	0.00242	NA	NA	NA	NA
MW-13	08/18/04	**0.0903**	<0.001	0.00982	<0.002	<0.001	NA	NA	NA	NA
MW-13	11/02/04	**0.233**	<0.001	0.00348	0.00464	0.0038	NA	NA	NA	NA
MW-13	03/22/05	**0.18**	<0.001	0.00239	<0.002	<0.001	NA	NA	NA	NA
MW-13	05/17/05	**0.0758**	<0.001	0.00277	<0.002	<0.001	NA	NA	NA	NA
MW-13	08/15/05	0.00668	<0.001	0.00121	<0.002	<0.001	NA	NA	NA	NA
MW-13	11/18/05	0.00134	<0.001	0.00121	<0.002	<0.001	NA	NA	NA	NA

Table 2

CONCENTRATIONS OF TPH AND BTEX IN GROUNDWATER
Livingston Ridge to Hugh - P. Sims
Lea County, New Mexico
NMOCD File Number 1R-0398
Plains Pipeline, L. P. SRS Number 2001-1005
Terracon Project Number A4077008

All concentrations are in mg/l

Well ID	Sample Date	EPA Method SW 846-8260B/8021B					TPH Method 8015M			
		Benzene	Toluene	Ethylbenzene	m, p, o-	Total Xylene	Gasoline	Diesel	Oil	Total
MW-13	02/16/06	<0.001	<0.001	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-13	05/22/06	<0.001	<0.001	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-13	08/07/06	0.0013	<0.001	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-13	11/21/06	0.00214	<0.001	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-13	02/28/07	<0.001	0.0022	0.0049	0.112		NA	NA	NA	NA
MW-13	05/11/07	0.000684 (J)	0.000352 (J)	0.00293	0.000972 (J)	0.00625	NA	NA	NA	NA
MW-13	08/10/07	<0.005	<0.005	<0.005	<0.01	0.0079	NA	NA	NA	NA
MW-13	11/15/07	0.0013	<0.002	<0.001	<0.002	0.007	NA	NA	NA	NA
MW-13	02/29/08	<0.001	<0.002	<0.001	<0.002	0.0028	<1.5	<1.5	<1.5	<1.5
MW-13	05/28/08	<0.001	<0.002	<0.001	<0.002	0.0018	NA	NA	NA	NA
MW-13	08/21/08	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-13	11/08/08	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-13	02/10/09	<0.001	<0.002	<0.001	<0.002	<0.001	<2.5	<2.5	<2.5	<2.5
MW-13	05/14/09	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-13	08/12/09	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-13	11/11/09	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-13	02/05/10	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-13	05/27/10	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-13	08/16/10	0.0014	<0.002	<0.001	<0.002	0.002	NA	NA	NA	NA
MW-13	11/11/10	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-13	02/17/11	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-13	05/25/11	<0.001	<0.002	<0.001	<0.002	0.00365	NA	NA	NA	NA
MW-13	08/18/11	<0.001	<0.002	0.00143	<0.002	<0.001	NA	NA	NA	NA
MW-13	11/17/12	0.00118	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-13	02/29/12	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-13	05/18/12	<0.001	<0.001	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-13	08/15/12	<0.001	<0.001	<0.001	NA	<0.001	<5.0	NA	NA	<5.0
MW-13	11/06/12	<0.001	<0.001	<0.001	NA	<0.001	NA	NA	NA	NA
MW-14	11/06/02	<0.001	<0.001	<0.001	<0.001	<0.001	NA	NA	NA	NA
MW-14	02/27/03	<0.001	<0.001	<0.001	<0.001	<0.001	NA	NA	NA	NA
MW-14	05/12/03	<0.001	<0.001	<0.001	<0.001	<0.001	NA	NA	NA	NA
MW-14	08/20/03	<0.001	<0.001	<0.001	<0.001	<0.001	NA	NA	NA	NA
MW-14	11/10/03	<0.001	<0.001	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-14	02/17/04	<0.001	<0.001	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-14	05/06/04	<0.001	<0.001	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-14	08/18/04	<0.001	<0.001	<0.001	0.0157	0.00796	NA	NA	NA	NA
MW-14	11/02/04	**0.0106**	<0.001	<0.001	0.00618	0.00537	NA	NA	NA	NA
MW-14	03/22/05	<0.001	<0.001	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-14	05/17/05	0.00906	<0.001	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-14	08/15/05	<0.001	<0.001	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-14	11/18/05	0.00494	<0.001	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-14	02/16/06	<0.001	<0.001	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-14	05/22/06	<0.001	<0.001	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-14	08/07/06	<0.001	<0.001	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-14	11/21/06	<0.001	<0.001	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-14	02/28/07	<0.001	<0.001	<0.001	<0.001		NA	NA	NA	NA
MW-14	05/11/07	0.000836 (J)	<0.001	<0.001	<0.001	<0.001	NA	NA	NA	NA
MW-14	08/10/07	<0.001	<0.001	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-14	11/15/07	0.0012	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-14	02/29/08	<0.001	<0.002	<0.001	<0.002	<0.001	<1.5	<1.5	<1.5	<1.5
MW-14	05/28/08	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-14	08/21/08	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-14	11/08/08	<0.001	0.0023	0.001	<0.002	0.0012	NA	NA	NA	NA
MW-14	02/10/09	<0.001	<0.002	<0.001	<0.002	<0.001	<2.5	<2.5	<2.5	<2.5
MW-14	05/14/09	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-14	08/12/09	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-14	11/11/09	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-14	02/05/10	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-14	05/27/10	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-14	08/16/10	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-14	11/11/10	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-14	02/17/11	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-14	05/25/11	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-14	08/18/11	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-14	11/17/11	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-14	02/29/12	<0.001	<0.002	<0.001	<0.002	0.00121	NA	NA	NA	NA
MW-14	05/18/12	<0.001	<0.001	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-14	08/15/12	<0.001	<0.001	<0.001	NA	<0.001	<5.0	NA	NA	<5.0
MW-14	11/06/12	<0.001	<0.001	<0.001	NA	<0.001	NA	NA	NA	NA

Table 2

CONCENTRATIONS OF TPH AND BTEX IN GROUNDWATER
Livingston Ridge to Hugh - P. Sims
Lea County, New Mexico
NMOCD File Number 1R-0398
Plains Pipeline, L. P. SRS Number 2001-1005
Terracon Project Number A4077008

All concentrations are in mg/l

Well ID	Sample Date	EPA Method SW 846-8260B/8021B					TPH Method 8015M			
		Benzene	Toluene	Ethylbenzene	m, p, o-	Total Xylene	Gasoline	Diesel	Oil	Total
MW-15	11/06/02	<0.001	<0.001	<0.001	<0.001	<0.001	NA	NA	NA	NA
MW-15	02/27/03	<0.001	<0.001	<0.001	<0.001	<0.001	NA	NA	NA	NA
MW-15	05/12/03	<0.001	<0.001	<0.001	<0.001	<0.001	NA	NA	NA	NA
MW-15	08/20/03	<0.001	<0.001	<0.001	<0.001	<0.001	NA	NA	NA	NA
MW-15	11/10/03	<0.001	<0.001	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-15	02/17/04	<0.001	<0.001	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-15	05/06/04	<0.001	<0.001	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-15	08/24/04	<0.001	<0.001	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-15	11/02/04	Well placed in annual sampling program								
MW-15	03/22/05	Not Sampled Due to Sample Reduction								
MW-15	05/17/05	Not Sampled Due to Sample Reduction								
MW-15	08/15/05	**0.137**	<0.001	<0.001	0.00927	0.0102	NA	NA	NA	NA
MW-15	11/18/05	Not Sampled Due to Sample Reduction								
MW-15	02/16/06	**0.0693**	<0.001	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-15	05/22/06	**0.0183**	<0.001	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-15	08/07/06	0.00957	<0.001	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-15	11/21/06	0.00546	<0.001	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-15	02/28/07	<0.001	<0.001	<0.001	<0.001		NA	NA	NA	NA
MW-15	05/11/07	0.000462 (J)	<0.001	<0.001	<0.001	<0.001	NA	NA	NA	NA
MW-15	08/10/07	<0.001	<0.001	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-15	11/15/07	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-15	02/29/08	<0.001	<0.002	<0.001	<0.002	<0.001	<1.5	<1.5	<1.5	<1.5
MW-15	05/28/08	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-15	08/21/08	0.0041	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-15	11/08/08	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-15	02/10/09	<0.001	<0.002	<0.001	<0.002	<0.001	<2.5	<2.5	<2.5	<2.5
MW-15	05/14/09	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-15	08/12/09	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-15	11/11/09	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-15	02/05/10	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-15	05/27/10	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-15	08/16/10	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-15	11/11/10	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-15	02/17/11	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-15	05/25/11	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-15	08/18/11	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-15	11/17/11	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-15	02/29/12	<0.001	<0.002	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-15	05/18/12	<0.001	<0.001	<0.001	<0.002	<0.001	NA	NA	NA	NA
MW-15	08/15/12	<0.001	<0.001	<0.001	NA	<0.001	<5.0	NA	NA	<5.0
MW-15	11/06/12	<0.001	<0.001	<0.001	NA	<0.001	NA	NA	NA	NA
TMW-1	11/02/04	**4.95**	**2.78**	**1.72**	**2.71**	**0.783**	NA	NA	NA	NA
TMW-1	11/18/05	**1.86**	<0.002	**1.06**	**1.71**	**0.435**	NA	NA	NA	NA
TMW-1	02/16/06	**1.69**	<0.002	**1.03**	**2.19**	**0.604**	NA	NA	NA	NA
TMW-1	05/22/06	Not Sampled								
TMW-1	08/07/06	Not Sampled								
TMW-1	11/21/06	Not Sampled								
TMW-1	02/28/07	**1.66**	<0.05	**0.777**	**1.6**		NA	NA	NA	NA
TMW-1	05/11/07	**0.843**	0.334	**1.03**	**2.75**	**0.439**	NA	NA	NA	NA
TMW-1	08/10/07	Not Sampled Due to the Presence of PSH								
TMW-1	11/15/07	Not Sampled Due to the Presence of PSH								
TMW-1	02/29/08	**3.004**	<0.04	**1.046**	**1.838**	0.0402	16.6	7.06	<1.5	23.66
TMW-1	05/28/08	Not Sampled Due to the Presence of PSH								
TMW-1	08/21/08	Not Sampled Due to the Presence of PSH								
TMW-1	11/08/08	Not Sampled Due to the Presence of PSH								
TMW-1	02/25/09	**2.044**	**<2**	**<1**	**<2**	**<1**	32.7	44.3	4	81
TMW-1	05/14/09	Not Sampled Due to the Presence of PSH								
TMW-1	08/12/09	Not Sampled Due to the Presence of PSH								
TMW-1	11/11/09	Not Sampled Due to the Presence of PSH								
TMW-1	02/05/10	Not Sampled Due to the Presence of PSH								
TMW-1	05/27/10	Not Sampled Due to the Presence of PSH								
TMW-1	08/16/10	Not Sampled Due to the Presence of PSH								
THMW-1	11/11/10	Not Sampled Due to the Presence of PSH								
THMW-1	02/29/12	Not Sampled Due to the Presence of PSH								
THMW-1	05/18/12	Not Sampled Due to the Presence of PSH								
THMW-1	08/15/12	Not Sampled Due to the Presence of PSH								
THMW-1	11/06/12	Not Sampled Due to the Presence of PSH								

Table 2

CONCENTRATIONS OF TPH AND BTEX IN GROUNDWATER
Livingston Ridge to Hugh - P. Sims
Lea County, New Mexico
NMOCD File Number 1R-0398
Plains Pipeline, L. P. SRS Number 2001-1005
Terracon Project Number A4077008

All concentrations are in mg/l

Well ID	Sample Date	EPA Method SW 846-8260B/8021B					TPH Method 8015M			
		Benzene	Toluene	Ethylbenzene	m, p, o-	Total Xylene	Gasoline	Diesel	Oil	Total
EB-1	09/30/02	<0.001	<0.001	<0.001	<0.001	<0.001	NA	NA	NA	NA
NMWQCC Groundwater		**0.01**	**0.75**	**0.75**	**0.62**		**NE**	**NE**	**NE**	**NE**

BTEX - Benzene, Toluene, Ethylbenzene, and Xylenes
NMWQCC - New Mexico Water Quality Control Commission
Results in **BOLD** are above the NMWQCC Groundwater Standards
PSH - Phase Separated Hydrocarbons

TABLE 3

CONCENTRATIONS OF PAHs IN GROUNDWATER
Livingston Ridge to Hugh - P. Sims
Lea County, New Mexico
NMOCD File Number: 1R-0398
Plains Pipeline, L. P. SRS Number 2001-11005
Terracon Project Number A4077008

All concentrations are in mg/L

SAMPLE LOCATION	SAMPLE DATE	EPA SW846-8270C and 3510																	
		Acenaphthene	Acenaphthylene	Anthracene	Benzo(a) anthracene	Benzo(a) pyrene	Benzo(b) fluoranthene	Benzo(g,h,i) perylene	Benzo(j,k) fluoranthene	Chrysene	Dibenz(a,h) anthracene	Fluoranthene	Fluorene	Indeno (1,2,3-cd) pyrene	Naphthalene	Phenanthrene	Pyrene	2-Methylnaphthalene	Benzo(k) fluoranthene	1-Methylnaphtalene
MW - 1	02/16/06	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	0.00229	<0.00005	0.0000136	0.00399	<0.00005	NA	NA	NA
MW - 1	05/11/07	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NA	<0.001	<0.001	<0.001	0.001	<0.001	0.017	0.012	<0.001	0.028	<0.001	NA
MW - 1	02/29/08	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	NA	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.008
MW - 1	11/07/12	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	**0.0438**	**0.0180**	<0.002	**0.0792**	<0.002	**0.0842**
MW - 2	06/18/03	0.000118	<0.00005	0.000061	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	0.000056	0.000078	<0.00005	<0.00005	<0.00005	0.000121	NA	NA	NA
MW - 2	03/22/05	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	NA	NA	NA
MW - 2	02/16/06	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	NA	NA	NA
MW - 2	05/11/07	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NA	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NA
MW - 2	02/29/08	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	NA	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
MW - 2	11/07/12	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
MW - 3	06/18/03	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	NA	NA	NA
MW - 3	02/16/06	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	NA	NA	NA
MW - 3	05/11/07	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NA	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	NA
MW - 3	02/29/08	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	NA	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
MW - 4	06/18/03	0.000156	0.000144	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	0.000498	<0.00005	0.000167	0.000891	<0.00005	NA	NA	NA
MW - 4	11/02/04	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	0.0002	<0.00005	0.0025	0.000227	<0.00005	NA	NA	NA
MW - 4	02/16/06	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	6.8E-05	<0.00005	<0.00005	0.000251	<0.00005	0.00492	0.000312	<0.00005	NA	NA	NA
MW - 4	05/11/07	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NA	<0.001	<0.001	<0.001	0.001	<0.001	0.034	0.006	<0.001	0.042	<0.001	NA
MW - 4	02/29/08	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	NA	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
MW - 5	06/18/03	0.000732	0.000856	0.00507	0.000459	0.00025	0.000129	<0.00005	0.00007	0.00033	<0.00005	0.000087	0.00268	<0.00005	**0.0403**	<0.00005	0.000284	NA	NA	NA
MW - 5	08/24/04	0.000092	0.00007	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	0.00006	0.00011	<0.00005	<0.00005	0.000419	<0.00005	0.00768	0.000898	<0.00005	NA	NA	NA
MW - 5	02/16/06	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	0.00012	<0.00005	<0.00005	0.000306	<0.00005	0.00136	0.000427	<0.00005	NA	NA	NA
MW - 5	05/11/07	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NA	<0.001	<0.001	<0.001	0.606	<0.001	0.019	<0.001	<0.001	0.022	<0.001	NA
MW - 5	02/29/08	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	NA	<0.005	<0.005	<0.005	<0.005	<0.005	**0.031**	<0.005	<0.005	0.024	<0.005	0.028
MW - 5	12/30/11	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	NA	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
MW - 5	11/07/12	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	**0.0448**	**0.0161**	<0.002	**0.0596**	<0.002	**0.0615**
MW - 6	06/18/03	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	NA	NA	NA
MW - 6	11/02/04	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	NA	NA	NA
MW - 6	02/16/06	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	0.000126	<0.00005	<0.00005	0.000063	<0.00005	NA	NA	NA
MW - 6	05/11/07	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NA	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	NA
MW - 6	02/29/08	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	NA	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
MW - 7	06/18/03	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	NA	NA	NA
MW - 7	02/16/06	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	NA	NA	NA
MW - 7	05/11/07	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NA	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NA
MW - 7	02/29/08	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	NA	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
MW - 8	06/18/03	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	NA	NA	NA
MW - 8	02/16/06	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	NA	NA	NA
MW - 8	05/11/07	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NA	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NA
MW - 8	02/29/08	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	NA	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005

TABLE 3

CONCENTRATIONS OF PAHs IN GROUNDWATER
Livingston Ridge to Hugh - P. Sims
Lea County, New Mexico
NMOCD File Number: 1R-0398
Plains Pipeline, L. P. SRS Number 2001-11005
Terracon Project Number A4077008

All concentrations are in mg/L

SAMPLE LOCATION	SAMPLE DATE	EPA SW846-8270C and 3510																		
		Acenaphthene	Acenaphthylene	Anthracene	Benzo(a) anthracene	Benzo(a) pyrene	Benzo(b) fluoranthene	Benzo(g,h,i) perylene	Benzo(j,k) fluoranthene	Chrysene	Dibenz(a,h) anthracene	Fluoranthene	Fluorene	Indeno (1,2,3-cd) pyrene	Naphthalene	Phenanthrene	Pyrene	2-Methylnaphthalene	Benzo(k) fluoranthene	1-Methylnaphtalene
MW - 9	06/18/03	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	NA	NA	NA
MW - 9	03/22/05	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	0.000084	<0.00005	0.000544	0.000058	<0.00005	NA	NA	NA
MW - 9	02/16/06	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	NA	NA	NA
MW - 9	05/11/07	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NA	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NA
MW - 9	02/29/08	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	NA	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
MW - 10	06/18/03	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	NA	NA	NA
MW - 10	02/16/06	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	NA	NA	NA
MW - 10	05/11/07	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NA	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NA
MW - 10	02/29/08	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	NA	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
MW - 11	11/06/02	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	NA	NA	NA
MW - 11	08/18/04	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	0.000075	<0.00005	0.0014	0.000154	<0.00005	NA	NA	NA
MW - 11	03/22/05	0.000068	0.000055	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	0.00008	<0.00005	0.00167	0.000296	<0.00005	NA	NA	NA
MW - 11	02/16/06	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	NA	NA	NA
MW - 11	05/11/07	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NA	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NA
MW - 11	02/29/08	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	NA	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
MW - 12	11/06/02	0.00007	0.000151	0.000096	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	0.000662	<0.00005	0.000198	0.000722	0.000071	NA	NA	NA
MW - 12	08/18/04	0.000079	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	0.000078	<0.00005	0.000262	0.000246	<0.00005	NA	NA	NA
MW - 12	03/22/05	0.0011	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	0.000166	<0.00005	0.000107	0.000285	<0.00005	NA	NA	NA
MW - 12	02/16/06	0.000055	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	0.000053	<0.00005	<0.00005	0.000174	<0.00005	NA	NA	NA
MW - 12	05/11/07	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NA	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NA
MW - 12	02/29/08	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	NA	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
MW - 13	11/06/02	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	0.000232	<0.00005	<0.00005	NA	NA	NA
MW - 13	08/18/04	0.000139	0.000086	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	0.000141	<0.00005	0.00234	0.000702	<0.00005	NA	NA	NA
MW - 13	03/22/05	0.000105	0.000072	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	0.000366	<0.00005	0.000746	0.000426	<0.00005	NA	NA	NA
MW - 13	02/16/06	0.000079	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	0.000079	<0.00005	0.000064	0.000132	<0.00005	NA	NA	NA
MW - 13	05/11/07	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NA	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NA
MW - 13	02/29/08	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	NA	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
MW - 14	11/06/02	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	NA	NA	NA
MW - 14	08/18/04	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	0.00119	0.000079	<0.00005	NA	NA	NA
MW - 14	03/22/05	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	0.000071	<0.00005	<0.00005	NA	NA	NA
MW - 14	02/16/06	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	NA	NA	NA
MW - 14	05/11/07	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NA	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	0.001	<0.001	NA
MW - 14	02/29/08	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	NA	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
MW - 15	11/06/02	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	NA	NA	NA
MW - 15	08/24/04	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	NA	NA	NA
MW - 15	02/16/06	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	0.0033	<0.00005	<0.00005	NA	NA	NA
MW - 15	05/11/07	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NA	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NA
MW - 15	02/29/08	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	NA	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TMW - 1	02/16/06	0.00146	0.00147	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	0.00221	<0.00005	<0.00005	0.00818	<0.00005	**0.0886**	0.0149	0.000788	NA	NA	NA
TMW - 1	05/11/07	<0.002	<0.002	<0.004	<0.002	<0.003	<0.002	<0.006	NA	<0.002	<0.001	<0.002	0.008	<0.003	**0.062**	<0.002	<0.002	0.197	<0.002	NA
TMW - 1	02/29/08	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	NA	<0.025	<0.025	<0.025	<0.025	<0.025	**0.069**	<0.025	<0.025	0.04	<0.025	0.042
NMWQCC Standards		NE	NE	NE	NE	0.0007	NE	NE	NE	NE	NE	NE	NE	NE	0.03	NE	NE	NE	NE	NE

PAHs - Polycyclic Aromatic Hydrocarbons
NMWQCC - New Mexico Water Quality Control Commission
NE - Stardards for these constituents has not been established by the NMWQCC

APPENDIX C

Laboratory Data Sheets

Analytical Report 437964

for

PLAINS ALL AMERICAN EH&S

Project Manager: Jason Henry

Livingston Ridge

2001-11005

12-MAR-12

Collected By: Client

Celebrating 20 Years of commitment to excellence in Environmental Testing Services

12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215-10-6-TX), Arizona (AZ0765), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)
Rhode Island (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):
Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)
Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)
Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona(AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)
Xenco Tucson (EPA Lab code:AZ000989): Arizona (AZ0758)

12-MAR-12

Project Manager: **Jason Henry**
PLAINS ALL AMERICAN EH&S
1301 S. COUNTY ROAD 1150
Midland, TX 79706

Reference: XENCO Report No: **437964**
Livingston Ridge
Project Address:

Jason Henry:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 437964. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 437964 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Brent Barron II
Odessa Laboratory Manager

Sample Cross Reference 437964

PLAINS ALL AMERICAN EH&S, Midland, TX

Livingston Ridge

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW-12	W	02-29-12 13:11		437964-001
MW-13	W	02-29-12 14:18		437964-002
MW-14	W	02-29-12 13:58		437964-003
MW-15	W	02-29-12 13:33		437964-004
MW-11	W	02-29-12 12:46		437964-005
MW-10	W	02-29-12 12:22		437964-006
MW-9	W	02-29-12 11:33		437964-007
MW-6	W	02-29-12 11:59		437964-008

CASE NARRATIVE

Client Name: PLAINS ALL AMERICAN EH&S
Project Name: Livingston Ridge

Project ID:	*2001-11005*	*Report Date:*	*12-MAR-12*
Work Order Number:	*437964*	*Date Received:*	*03/01/2012*

Sample receipt non conformances and comments:
None

Sample receipt non conformances and comments per sample:

None

Analytical non nonformances and comments:

Batch: LBA-883262 BTEX by EPA 8021
SW8021BM

Batch 883262, Benzene, Ethylbenzene, Toluene, m_p-Xylenes , o-Xylene RPD was outside laboratory control limits.
Samples affected are: 437964-005

Certificate of Analysis Summary 437964

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: Livingston Ridge

Project Id: 2001-11005
Contact: Jason Henry
Project Location:

Date Received in Lab: Thu Mar-01-12 09:43 am
Report Date: 12-MAR-12
Project Manager: Brent Barron II

Analysis Requested													
	Lab Id:	437964-001		437964-002		437964-003		437964-004		437964-005		437964-006	
	Field Id:	MW-12		MW-13		MW-14		MW-15		MW-11		MW-10	
	Depth:												
	Matrix:	WATER		WATER		WATER		WATER		WATER		WATER	
	Sampled:	Feb-29-12 13:11		Feb-29-12 14:18		Feb-29-12 13:58		Feb-29-12 13:33		Feb-29-12 12:46		Feb-29-12 12:22	
BTEX by EPA 8021	***Extracted:***	Mar-02-12 10:04		Mar-02-12 10:04		Mar-02-12 10:04		Mar-02-12 10:04		Mar-09-12 09:49		Mar-02-12 10:04	
	Analyzed:	Mar-02-12 13:30		Mar-02-12 13:53		Mar-02-12 14:16		Mar-02-12 14:39		Mar-09-12 12:27		Mar-02-12 15:02	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Benzene		ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100
Toluene		ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200
Ethylbenzene		ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100
m_p-Xylenes		ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200
o-Xylene		ND	0.00100	ND	0.00100	0.00121	0.00100	ND	0.00100	ND	0.00100	ND	0.00100
Xylenes, Total		ND	0.00100	ND	0.00100	0.00121	0.00100	ND	0.00100	ND	0.00100	ND	0.00100
Total BTEX		ND	0.00100	ND	0.00100	0.00121	0.00100	ND	0.00100	ND	0.00100	ND	0.00100

Brent Barron II
Odessa Laboratory Manager

Certificate of Analysis Summary 437964

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: Livingston Ridge

Project Id: 2001-11005
Contact: Jason Henry
Project Location:

Date Received in Lab: Thu Mar-01-12 09:43 am
Report Date: 12-MAR-12
Project Manager: Brent Barron II

Analysis Requested							
	Lab Id:	437964-007		437964-008			
	Field Id:	MW-9		MW-6			
	Depth:						
	Matrix:	WATER		WATER			
	Sampled:	Feb-29-12 11:33		Feb-29-12 11:59			
BTEX by EPA 8021	***Extracted:***	Mar-02-12 10:04		Mar-02-12 10:04			
	Analyzed:	Mar-02-12 15:25		Mar-02-12 15:48			
	Units/RL:	mg/L	RL	mg/L	RL		
Benzene		ND	0.00100	ND	0.00100		
Toluene		ND	0.00200	ND	0.00200		
Ethylbenzene		ND	0.00100	ND	0.00100		
m_p-Xylenes		ND	0.00200	ND	0.00200		
o-Xylene		ND	0.00100	ND	0.00100		
Xylenes, Total		ND	0.00100	ND	0.00100		
Total BTEX		ND	0.00100	ND	0.00100		

Brent Barron II
Odessa Laboratory Manager

XENCO Laboratories

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantiation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

* Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

\+ NELAC certification not offered for this compound.

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

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Certified and approved by numerous States and Agencies.

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9701 Harry Hines Blvd , Dallas, TX 75220	(214) 902 0300	(214) 351-9139
5332 Blackberry Drive, San Antonio TX 78238	(210) 509-3334	(210) 509-3335
2505 North Falkenburg Rd, Tampa, FL 33619	(813) 620-2000	(813) 620-2033
12600 West I-20 East, Odessa, TX 79765	(432) 563-1800	(432) 563-1713
6017 Financial Drive, Norcross, GA 30071	(770) 449-8800	(770) 449-5477
3725 E. Atlanta Ave, Phoenix, AZ 85040	(602) 437-0330	

XENCO Laboratories

Form 2 - Surrogate Recoveries

Project Name: Livingston Ridge

Work Orders : 437964,

Project ID: 2001-11005

Lab Batch #: 882799 **Sample:** 437964-001 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03/02/12 13:30

BTEX by EPA 8021	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0269	0.0300	90	80-120	
4-Bromofluorobenzene	0.0320	0.0300	107	80-120	

Lab Batch #: 882799 **Sample:** 437964-002 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03/02/12 13:53

BTEX by EPA 8021	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0280	0.0300	93	80-120	
4-Bromofluorobenzene	0.0325	0.0300	108	80-120	

Lab Batch #: 882799 **Sample:** 437964-003 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03/02/12 14:16

BTEX by EPA 8021	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0275	0.0300	92	80-120	
4-Bromofluorobenzene	0.0318	0.0300	106	80-120	

Lab Batch #: 882799 **Sample:** 437964-004 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03/02/12 14:39

BTEX by EPA 8021	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0273	0.0300	91	80-120	
4-Bromofluorobenzene	0.0314	0.0300	105	80-120	

Lab Batch #: 882799 **Sample:** 437964-006 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03/02/12 15:02

BTEX by EPA 8021	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0275	0.0300	92	80-120	
4-Bromofluorobenzene	0.0313	0.0300	104	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

XENCO Laboratories

Form 2 - Surrogate Recoveries

Project Name: Livingston Ridge

Work Orders : 437964,

Project ID: 2001-11005

Lab Batch #: 882799 **Sample:** 437964-007 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03/02/12 15:25

BTEX by EPA 8021	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0273	0.0300	91	80-120	
4-Bromofluorobenzene	0.0314	0.0300	105	80-120	

Lab Batch #: 882799 **Sample:** 437964-008 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03/02/12 15:48

BTEX by EPA 8021	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0276	0.0300	92	80-120	
4-Bromofluorobenzene	0.0309	0.0300	103	80-120	

Lab Batch #: 883262 **Sample:** 437964-005 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03/09/12 12:27

BTEX by EPA 8021	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0270	0.0300	90	80-120	
4-Bromofluorobenzene	0.0300	0.0300	100	80-120	

Lab Batch #: 882799 **Sample:** 618710-1-BLK / BLK **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03/02/12 13:08

BTEX by EPA 8021	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0274	0.0300	91	80-120	
4-Bromofluorobenzene	0.0304	0.0300	101	80-120	

Lab Batch #: 883262 **Sample:** 618993-1-BLK / BLK **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03/09/12 12:04

BTEX by EPA 8021	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0278	0.0300	93	80-120	
4-Bromofluorobenzene	0.0309	0.0300	103	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

XENCO Laboratories

Form 2 - Surrogate Recoveries

Project Name: Livingston Ridge

Work Orders : 437964, **Project ID:** 2001-11005

Lab Batch #: 882799 **Sample:** 618710-1-BKS / BKS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03/02/12 11:36

BTEX by EPA 8021 Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0268	0.0300	89	80-120	
4-Bromofluorobenzene	0.0322	0.0300	107	80-120	

Lab Batch #: 883262 **Sample:** 618993-1-BKS / BKS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03/09/12 10:33

BTEX by EPA 8021 Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0301	0.0300	100	80-120	
4-Bromofluorobenzene	0.0319	0.0300	106	80-120	

Lab Batch #: 882799 **Sample:** 618710-1-BSD / BSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03/02/12 11:59

BTEX by EPA 8021 Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0271	0.0300	90	80-120	
4-Bromofluorobenzene	0.0334	0.0300	111	80-120	

Lab Batch #: 883262 **Sample:** 618993-1-BSD / BSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03/09/12 10:56

BTEX by EPA 8021 Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0293	0.0300	98	80-120	
4-Bromofluorobenzene	0.0330	0.0300	110	80-120	

Lab Batch #: 882799 **Sample:** 437966-001 S / MS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03/02/12 17:42

BTEX by EPA 8021 Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0272	0.0300	91	80-120	
4-Bromofluorobenzene	0.0334	0.0300	111	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

XENCO Laboratories

Form 2 - Surrogate Recoveries

Project Name: Livingston Ridge

Work Orders : 437964, **Project ID:** 2001-11005

Lab Batch #: 883262 **Sample:** 438202-001 S / MS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03/09/12 16:59

BTEX by EPA 8021	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0294	0.0300	98	80-120	
4-Bromofluorobenzene	0.0350	0.0300	117	80-120	

Lab Batch #: 882799 **Sample:** 437966-001 SD / MSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03/02/12 18:05

BTEX by EPA 8021	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0274	0.0300	91	80-120	
4-Bromofluorobenzene	0.0334	0.0300	111	80-120	

Lab Batch #: 883262 **Sample:** 438202-001 SD / MSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03/09/12 17:22

BTEX by EPA 8021	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0294	0.0300	98	80-120	
4-Bromofluorobenzene	0.0334	0.0300	111	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

BS / BSD Recoveries

Project Name: Livingston Ridge

Work Order #: 437964 **Project ID:** 2001-11005

Analyst: ASA **Date Prepared:** 03/02/2012 **Date Analyzed:** 03/02/2012

Lab Batch ID: 882799 **Sample:** 618710-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00100	0.100	0.0935	94	0.100	0.0889	89	5	70-125	25	
Toluene	<0.00200	0.100	0.0966	97	0.100	0.0920	92	5	70-125	25	
Ethylbenzene	<0.00100	0.100	0.102	102	0.100	0.0951	95	7	71-129	25	
m_p-Xylenes	<0.00200	0.200	0.213	107	0.200	0.205	103	4	70-131	25	
o-Xylene	<0.00100	0.100	0.101	101	0.100	0.0971	97	4	71-133	25	

Analyst: ASA **Date Prepared:** 03/09/2012 **Date Analyzed:** 03/09/2012

Lab Batch ID: 883262 **Sample:** 618993-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00100	0.150	0.151	101	0.100	0.0803	80	61	70-125	25	F
Toluene	<0.00200	0.150	0.160	107	0.100	0.0860	86	60	70-125	25	F
Ethylbenzene	<0.00100	0.150	0.169	113	0.100	0.0921	92	59	71-129	25	F
m_p-Xylenes	<0.00200	0.300	0.346	115	0.200	0.191	96	58	70-131	25	F
o-Xylene	<0.00100	0.150	0.174	116	0.100	0.0949	95	59	71-133	25	F

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

Project Name: Livingston Ridge

Work Order # : 437964 **Project ID:** 2001-11005

Lab Batch ID: 882799 **QC- Sample ID:** 437966-001 S **Batch #:** 1 **Matrix:** Water

Date Analyzed: 03/02/2012 **Date Prepared:** 03/02/2012 **Analyst:** ASA

Reporting Units: mg/L

BTEX by EPA 8021 Analytes	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00100	0.100	0.0950	95	0.100	0.0972	97	2	70-125	25	
Toluene	<0.00200	0.100	0.0976	98	0.100	0.0993	99	2	70-125	25	
Ethylbenzene	<0.00100	0.100	0.100	100	0.100	0.100	100	0	71-129	25	
m_p-Xylenes	<0.00200	0.200	0.208	104	0.200	0.207	104	0	70-131	25	
o-Xylene	<0.00100	0.100	0.101	101	0.100	0.102	102	1	71-133	25	

Lab Batch ID: 883262 **QC- Sample ID:** 438202-001 S **Batch #:** 1 **Matrix:** Water

Date Analyzed: 03/09/2012 **Date Prepared:** 03/09/2012 **Analyst:** ASA

Reporting Units: mg/L

BTEX by EPA 8021 Analytes	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00100	0.100	0.0777	78	0.100	0.0773	77	1	70-125	25	
Toluene	<0.00200	0.100	0.0822	82	0.100	0.0816	82	1	70-125	25	
Ethylbenzene	<0.00100	0.100	0.0873	87	0.100	0.0858	86	2	71-129	25	
m_p-Xylenes	<0.00200	0.200	0.168	84	0.200	0.160	80	5	70-131	25	
o-Xylene	<0.00100	0.100	0.0892	89	0.100	0.0870	87	2	71-133	25	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not ApplicableN = See Narrative, EQL = Estimated Quantitation Limit

ENVIRONMENTAL, GEOTECHNICAL AND CONSTRUCTION MATERIALS SERVICES

CHAIN OF CUSTODY RECORD

Terracon
Consulting Engineers & Scientists

Office Location: MIDLAND, TX

Project Manager: BENNETT BOLE

Laboratory: XENCO

Address:

Contact:

Phone:

PO/SO #: 2001-11005

Lab use only
Due Date:

Temp. of coolers when received (C°): 2.0

1	2	3	4	5

Page ____ of ____

Sampler's Name: MIKE OFFENHAUSER

Sampler's Signature: Michael O'Ferrall

Proj. No.: 114127008

Project Name: LIVINGSTON RIDGE

ANALYSIS REQUESTED: BTEX

Matrix	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	Start Depth	End Depth	No/Type of Containers: VOA	A/G 1 Lt.	250 ml	P/O	BTEX	Lab Sample ID (Lab Use Only)
W	2-29-12	1311		X	MW-12			2				X	137964-01
		1418			MW-13								-02
		1358 ~~1244~~			MW-14								-03
		1333			MW-15								-04
		1246			MW-11								-05
		1222			MW-10								-06
		1133			MW-9								-07
		1159			MW-6								-08

Turn around time: [X] Normal [ ] 25% Rush [ ] 50% Rush [ ] 100% Rush

Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Michael O'Ferrall	3/1/12	9:43			
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Relinquished by (Signature)	Date:	Time:	Received by: (Signature) Andrea Elam	Date: 3-1-12	Time: 09:43

NOTES:
EMAIL TO:
WTHURROW@TERRACON
KWSOLE@TERRACON

Matrix: WW - Wastewater; W - Water; S - Soil; SD - Solid; L - Liquid; A - Air Bag; C - Charcoal tube; SL - sludge; O - Oil
Container: VOA - 40 ml vial; A/G - Amber / Or Glass 1 Liter; 250 ml - Glass wide mouth; P/O - Plastic or other ____

Houston Office
11555 Clay Road, Suite 100
Houston, Texas 77043
(713) 690-8989 Fax (713) 690-8787

Dallas Office
8901 Carpenter Freeway, Suite 100
Dallas, Texas 75247
(214) 630-1010 Fax (214) 630-7070

Fort Worth Office
2601 Gravel Drive
Fort Worth, Texas 76118
(817) 268-8600 Fax (817) 268-8602

Austin Office
5307 Industrial Oaks Blvd. # 160
Austin, Texas 78735
(512) 442-1122 Fax (512) 442-1181

Midland Office
24 Smith Rd., # 261
Midland, Texas 79705
(432) 684-9600 Fax (432) 684-9608

XENCO Laboratories

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Atlanta, Boca Raton, Corpus Christi, Dallas
Houston, Miami, Odessa, Philadelphia
Phoenix, San Antonio, Tampa

Document Title: Sample Receipt Checklist
Document No.: SYS-SRC
Revision/Date: No. 01, 5/27/2010
Effective Date: 6/1/2010 Page 1 of 1

Prelogin / Nonconformance Report - Sample Log-In

Client: Terracon, Plains
Date/Time: 3.1.12 09.43
Lab ID #: 437764
Initials: AE

Sample Receipt Checklist

1. Samples on ice?	Blue	Water	No	
2. Shipping container in good condition?	(Yes)	No	None	
3. Custody seals intact on shipping container (cooler) and bottles?	Yes	No	(N/A)	
4. Chain of Custody present?	(Yes)	No		
5. Sample instructions complete on chain of custody?	(Yes)	No		
6. Any missing / extra samples?	Yes	(No)		
7. Chain of custody signed when relinquished / received?	(Yes)	No		
8. Chain of custody agrees with sample label(s)?	(Yes)	No		
9. Container labels legible and intact?	(Yes)	No		
10. Sample matrix / properties agree with chain of custody?	(Yes)	No		
11. Samples in proper container / bottle?	(Yes)	No		
12. Samples properly preserved?	(Yes)	No	N/A	
13. Sample container intact?	(Yes)	No		
14. Sufficient sample amount for indicated test(s)?	(Yes)	No		
15. All samples received within sufficient hold time?	(Yes)	No		
16. Subcontract of sample(s)?	Yes	No	(N/A)	
17. VOC sample have zero head space?	(Yes)	No	N/A	

18. Cooler 1 No.		Cooler 2 No.		Cooler 3 No.		Cooler 4 No.		Cooler 5 No.	
lbs	2.0 °C	lbs	°C	lbs	°C	lbs	°C	lbs	°C

Nonconformance Documentation

Contact:_____ Contacted by:_____ Date/Time:_____

Regarding: _____

Corrective Action Taken: _____

Check all that apply:
- ☐ Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.
- ☐ Initial and Backup Temperature confirm out of temperature conditions
- ☐ Client understands and would like to proceed with analysis

Analytical Report 442653

for

PLAINS ALL AMERICAN EH&S

Project Manager: Jason Henry

Livingston Ridge

2001-11005

29-MAY-12

Collected By: Client

Celebrating 20 Years of commitment to excellence in Environmental Testing Services

12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215-10-6-TX), Arizona (AZ0765), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)
Rhode Island (LAO00312), USDA (S-44102), DoD (L11-54)

Xenco-Atlanta (EPA Lab Code: GA00046):
Florida (E87429), North Carolina (483), South Carolina (98015), Kentucky (85), DoD (L10-135)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)
Xenco-Lakeland: Florida (E84098)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)
Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona(AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)
Xenco Tucson (EPA Lab code:AZ000989): Arizona (AZ0758)

29-MAY-12

Project Manager: **Jason Henry**
PLAINS ALL AMERICAN EH&S
1301 S. COUNTY ROAD 1150
Midland, TX 79706

Reference: XENCO Report No: **442653**
Livingston Ridge
Project Address:

Jason Henry:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 442653. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 442653 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Nicholas Straccione
Project Manager

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.
Certified and approved by numerous States and Agencies.
A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Houston - Dallas - Odessa - San Antonio - Tampa - Lakeland - Atlanta - Phoenix - Oklahoma - Latin America

Sample Cross Reference 442653

PLAINS ALL AMERICAN EH&S, Midland, TX

Livingston Ridge

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW-11	W	05-18-12 11:20		442653-001
MW-12	W	05-18-12 11:35		442653-002
MW-13	W	05-18-12 11:55		442653-003
MW-15	W	05-18-12 12:10		442653-004
MW-14	W	05-18-12 12:27		442653-005
MW-10	W	05-18-12 12:45		442653-006
MW-7	W	05-18-12 13:00		442653-007
MW-9	W	05-18-12 13:20		442653-008
MW-6	W	05-18-12 13:35		442653-009
MW-8	W	05-18-12 13:55		442653-010

CASE NARRATIVE

Client Name: PLAINS ALL AMERICAN EH&S
Project Name: Livingston Ridge

Project ID:	*2001-11005*	*Report Date:*	*29-MAY-12*
Work Order Number:	*442653*	*Date Received:*	*05/18/2012*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Certificate of Analysis Summary 442653

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: Livingston Ridge

Project Id: 2001-11005
Contact: Jason Henry
Project Location:

Date Received in Lab: Fri May-18-12 03:50 pm
Report Date: 29-MAY-12
Project Manager: Nicholas Straccione

Analysis Requested													
	Lab Id:	442653-001		442653-002		442653-003		442653-004		442653-005		442653-006	
	Field Id:	MW-11		MW-12		MW-13		MW-15		MW-14		MW-10	
	Depth:												
	Matrix:	WATER		WATER		WATER		WATER		WATER		WATER	
	Sampled:	May-18-12 11:20		May-18-12 11:35		May-18-12 11:55		May-18-12 12:10		May-18-12 12:27		May-18-12 12:45	
BTEX by SW 8260B	***Extracted:***	May-23-12 14:48		May-23-12 14:49		May-23-12 14:50		May-23-12 14:38		May-23-12 14:51		May-23-12 14:43	
SUB: TX104704215	***Analyzed:***	May-23-12 21:14		May-23-12 21:39		May-23-12 22:05		May-23-12 18:41		May-23-12 22:30		May-23-12 19:07	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Benzene		ND	0.00100	0.00517	0.00100	ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100
Toluene		ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100
Ethylbenzene		ND	0.00100	0.00260	0.00100	ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100
m,p-Xylenes		ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200
o-Xylene		ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100
Total Xylenes		ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100
Total BTEX		ND	0.00100	0.00777	0.00100	ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100

Nicholas Straccione
Project Manager

Certificate of Analysis Summary 442653

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: Livingston Ridge

Project Id: 2001-11005
Contact: Jason Henry
Project Location:

Date Received in Lab: Fri May-18-12 03:50 pm
Report Date: 29-MAY-12
Project Manager: Nicholas Straccione

Analysis Requested													
	Lab Id:	442653-007		442653-008		442653-009		442653-010					
	Field Id:	MW-7		MW-9		MW-6		MW-8					
	Depth:												
	Matrix:	WATER		WATER		WATER		WATER					
	Sampled:	May-18-12 13:00		May-18-12 13:20		May-18-12 13:35		May-18-12 13:55					
BTEX by SW 8260B	***Extracted:***	May-23-12 14:44		May-23-12 14:45		May-23-12 14:46		May-23-12 14:47					
SUB: TX104704215	***Analyzed:***	May-23-12 19:32		May-23-12 19:58		May-23-12 20:23		May-23-12 20:48					
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL				
Benzene		ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100				
Toluene		ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100				
Ethylbenzene		ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100				
m,p-Xylenes		ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200				
o-Xylene		ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100				
Total Xylenes		ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100				
Total BTEX		ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100				

Nicholas Straccione
Project Manager

XENCO Laboratories

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantiation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

***** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

\+ NELAC certification not offered for this compound.

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

XENCO Laboratories

Form 2 - Surrogate Recoveries

Project Name: Livingston Ridge

Work Orders : 442653,

Project ID: 2001-11005

Lab Batch #: 888595 **Sample:** 442653-004 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 05/23/12 18:41

BTEX by SW 8260B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0502	0.0500	100	74-124	
Dibromofluoromethane	0.0527	0.0500	105	75-131	
1,2-Dichloroethane-D4	0.0571	0.0500	114	63-144	
Toluene-D8	0.0508	0.0500	102	80-117	

Lab Batch #: 888595 **Sample:** 442653-006 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 05/23/12 19:07

BTEX by SW 8260B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0504	0.0500	101	74-124	
Dibromofluoromethane	0.0537	0.0500	107	75-131	
1,2-Dichloroethane-D4	0.0575	0.0500	115	63-144	
Toluene-D8	0.0499	0.0500	100	80-117	

Lab Batch #: 888595 **Sample:** 442653-007 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 05/23/12 19:32

BTEX by SW 8260B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0522	0.0500	104	74-124	
Dibromofluoromethane	0.0533	0.0500	107	75-131	
1,2-Dichloroethane-D4	0.0574	0.0500	115	63-144	
Toluene-D8	0.0514	0.0500	103	80-117	

Lab Batch #: 888595 **Sample:** 442653-008 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 05/23/12 19:58

BTEX by SW 8260B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0509	0.0500	102	74-124	
Dibromofluoromethane	0.0553	0.0500	111	75-131	
1,2-Dichloroethane-D4	0.0586	0.0500	117	63-144	
Toluene-D8	0.0507	0.0500	101	80-117	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

XENCO Laboratories

Form 2 - Surrogate Recoveries

Project Name: Livingston Ridge

Work Orders : 442653,

Project ID: 2001-11005

Lab Batch #: 888595 **Sample:** 442653-009 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 05/23/12 20:23

BTEX by SW 8260B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0515	0.0500	103	74-124	
Dibromofluoromethane	0.0535	0.0500	107	75-131	
1,2-Dichloroethane-D4	0.0582	0.0500	116	63-144	
Toluene-D8	0.0510	0.0500	102	80-117	

Lab Batch #: 888595 **Sample:** 442653-010 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 05/23/12 20:48

BTEX by SW 8260B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0516	0.0500	103	74-124	
Dibromofluoromethane	0.0543	0.0500	109	75-131	
1,2-Dichloroethane-D4	0.0577	0.0500	115	63-144	
Toluene-D8	0.0501	0.0500	100	80-117	

Lab Batch #: 888595 **Sample:** 442653-001 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 05/23/12 21:14

BTEX by SW 8260B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0511	0.0500	102	74-124	
Dibromofluoromethane	0.0535	0.0500	107	75-131	
1,2-Dichloroethane-D4	0.0586	0.0500	117	63-144	
Toluene-D8	0.0518	0.0500	104	80-117	

Lab Batch #: 888595 **Sample:** 442653-002 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 05/23/12 21:39

BTEX by SW 8260B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0510	0.0500	102	74-124	
Dibromofluoromethane	0.0551	0.0500	110	75-131	
1,2-Dichloroethane-D4	0.0579	0.0500	116	63-144	
Toluene-D8	0.0528	0.0500	106	80-117	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

XENCO Laboratories

Form 2 - Surrogate Recoveries

Project Name: Livingston Ridge

Work Orders : 442653,

Project ID: 2001-11005

Lab Batch #: 888595 **Sample:** 442653-003 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 05/23/12 22:05

BTEX by SW 8260B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0506	0.0500	101	74-124	
Dibromofluoromethane	0.0536	0.0500	107	75-131	
1,2-Dichloroethane-D4	0.0555	0.0500	111	63-144	
Toluene-D8	0.0523	0.0500	105	80-117	

Lab Batch #: 888595 **Sample:** 442653-005 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 05/23/12 22:30

BTEX by SW 8260B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0543	0.0500	109	74-124	
Dibromofluoromethane	0.0521	0.0500	104	75-131	
1,2-Dichloroethane-D4	0.0543	0.0500	109	63-144	
Toluene-D8	0.0529	0.0500	106	80-117	

Lab Batch #: 888595 **Sample:** 622293-1-BLK / BLK **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 05/23/12 15:17

BTEX by SW 8260B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0491	0.0500	98	74-124	
Dibromofluoromethane	0.0500	0.0500	100	75-131	
1,2-Dichloroethane-D4	0.0511	0.0500	102	63-144	
Toluene-D8	0.0500	0.0500	100	80-117	

Lab Batch #: 888595 **Sample:** 622293-1-BKS / BKS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 05/23/12 14:00

BTEX by SW 8260B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0501	0.0500	100	74-124	
Dibromofluoromethane	0.0477	0.0500	95	75-131	
1,2-Dichloroethane-D4	0.0491	0.0500	98	63-144	
Toluene-D8	0.0498	0.0500	100	80-117	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Livingston Ridge

Work Orders : 442653,

Project ID: 2001-11005

Lab Batch #: 888595 **Sample:** 442653-004 S / MS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 05/23/12 17:25

BTEX by SW 8260B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0496	0.0500	99	74-124	
Dibromofluoromethane	0.0516	0.0500	103	75-131	
1,2-Dichloroethane-D4	0.0509	0.0500	102	63-144	
Toluene-D8	0.0505	0.0500	101	80-117	

Lab Batch #: 888595 **Sample:** 442653-004 SD / MSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 05/23/12 17:50

BTEX by SW 8260B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0494	0.0500	99	74-124	
Dibromofluoromethane	0.0531	0.0500	106	75-131	
1,2-Dichloroethane-D4	0.0556	0.0500	111	63-144	
Toluene-D8	0.0507	0.0500	101	80-117	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Blank Spike Recovery

Project Name: Livingston Ridge

Work Order #: 442653 **Project ID:** 2001-11005

Lab Batch #: 888595 **Sample:** 622293-1-BKS **Matrix:** Water

Date Analyzed: 05/23/2012 **Date Prepared:** 05/23/2012 **Analyst:** BEC

Reporting Units: mg/L **Batch #:** 1

BTEX by SW 8260B Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
			BLANK /BLANK SPIKE RECOVERY STUDY			
Benzene	<0.00100	0.100	0.102	102	66-142	
Toluene	<0.00100	0.100	0.109	109	59-139	
Ethylbenzene	<0.00100	0.100	0.109	109	75-125	
m,p-Xylenes	<0.00200	0.200	0.218	109	75-125	
o-Xylene	<0.00100	0.100	0.115	115	75-125	

Blank Spike Recovery [D] = 100*[C]/[B]
All results are based on MDL and validated for QC purposes.
RL - Below Reporting Limit

XENCO Laboratories

Form 3 - MS / MSD Recoveries

Project Name: Livingston Ridge

Work Order # : 442653 **Project ID:** 2001-11005

Lab Batch ID: 888595 **QC- Sample ID:** 442653-004 S **Batch #:** 1 **Matrix:** Water

Date Analyzed: 05/23/2012 **Date Prepared:** 05/23/2012 **Analyst:** BEC

Reporting Units: mg/L

BTEX by SW 8260B Analytes	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00100	0.100	0.0984	98	0.100	0.101	101	3	66-142	20	
Toluene	<0.00100	0.100	0.105	105	0.100	0.107	107	2	59-139	20	
Ethylbenzene	<0.00100	0.100	0.106	106	0.100	0.103	103	3	75-125	20	
m,p-Xylenes	<0.00200	0.200	0.212	106	0.200	0.202	101	5	75-125	20	
o-Xylene	<0.00100	0.100	0.112	112	0.100	0.105	105	6	75-125	20	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not ApplicableN = See Narrative, EQL = Estimated Quantitation Limit

ENVIRONMENTAL & TECHNICAL CONSTRUCTION MATERIALS SERVICES

CHAIN OF CUSTODY RECORD

Terracon
Consulting Engineers & Scientists

Office Location: Midland

Project Manager: Barrett Bole

Laboratory: Xenco

Address:

Contact:

Phone:

PO/SO #: 2001-11005

ANALYSIS REQUESTED: 8021B 8021B BTEX

Lab use only
Due Date:

Temp. of coolers when received (C°): 5/16C

1	2	3	4	5

Page 1 of 1

Sampler's Name: Michael O'Ferrall

Sampler's Signature: Michael O'Ferrall

Proj. No.: #127008

Project Name: Livingston Ridge

Matrix	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	Start Depth	End Depth	No/Type of Containers: VOA	A/G 1 Lt.	250 ml	P/O	Lab Sample ID (Lab Use Only)
W	5-18-12	11:20			MW - 11			2				442653-01
		11:35			MW - 12							-02
		11:55			MW - 13							-03
		12:10			MW - 15							-04
		12:27			MW - 14							-05
		12:45			MW - 10							-06
		1:00			MW - 7							-07
		1:20			MW - 9							-08
		1:35			MW - 6							-09
		1:55			MW - 8							-10

Turn around time: ☑ Normal ☐ 25% Rush ☐ 50% Rush ☐ 100% Rush

Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Michael O'Ferrall	5-18-12	3:50			
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Relinquished by (Signature)	Date:	Time:	Received by: (Signature) Andrea Flam	Date: 5-18-12	Time: 15:50

NOTES: E mail Results to.
bwbole@terracon.com
wtburrow@terracon.com
and
Jason Henry@PlainsPipeline

Matrix: WW - Wastewater; W - Water; S - Soil; SD - Solid; L - Liquid; A - Air Bag; C - Charcoal tube; SL - sludge; O - Oil
Container: VOA - 40 ml vial; A/G - Amber / Or Glass 1 Liter; 250 ml - Glass wide mouth; P/O - Plastic or other

Houston Office
11555 Clay Road, Suite 100
Houston, Texas 77043
(713) 690-8989 Fax (713) 690-8787

Dallas Office
8901 Carpenter Freeway, Suite 100
Dallas, Texas 75247
(214) 630-1010 Fax (214) 630-7070

Fort Worth Office
2601 Gravel Drive
Fort Worth, Texas 76118
(817) 268-8600 Fax (817) 268-8602

Austin Office
5307 Industrial Oaks Blvd. # 160
Austin, Texas 78735
(512) 442-1122 Fax (512) 442-1181

Midland Office
24 Smith Rd., # 261
Midland, Texas 79705
(432) 684-9600 Fax (432) 684-9608

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800-378-1296 806-794-1296 FAX 806-794-1298
200 East Sunset Road, Suite E El Paso, Texas 79922 915-585-3443 FAX 915-585-4944
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(BioAquatic) 2501 Mayes Rd., Suite 100 Carrollton, Texas 75006 972-242-7750
E-Mail lab@traceanalysis.com WEB www.traceanalysis.com

Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

Barrett Bole
Terracon - Midland
1211 W. Florida Ave.
Midland, TX, 79705

Report Date: August 28, 2012

Work Order: 12081713

Project Name: Livingston Ridge
Project Number: A4127008

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
306990	MW 6	water	2012-08-15	14:40	2012-08-17
306991	MW 7	water	2012-08-15	13:15	2012-08-17
306992	MW 8	water	2012-08-15	13:40	2012-08-17
306993	MW 9	water	2012-08-15	14:15	2012-08-17
306994	MW 10	water	2012-08-15	12:40	2012-08-17
306995	MW 11	water	2012-08-15	10:40	2012-08-17
306996	MW 12	water	2012-08-15	10:05	2012-08-17
306997	MW 13	water	2012-08-15	09:40	2012-08-17
306998	MW 14	water	2012-08-15	11:55	2012-08-17
306999	MW 15	water	2012-08-15	11:25	2012-08-17

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

Dr. Blair Leftwich, Director
Dr. Michael Abel, Project Manager

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Case Narrative

Samples for project Livingston Ridge were received by TraceAnalysis, Inc. on 2012-08-17 and assigned to work order 12081713. Samples for work order 12081713 were received intact without headspace and at a temperature of 13.4 C. Samples were received on ice.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	79861	2012-08-23 at 14:22	94234	2012-08-23 at 14:23
BTEX	S 8021B	79905	2012-08-27 at 08:33	94290	2012-08-27 at 08:33
TX1005 Extended - NEW	TX1005	79717	2012-08-17 at 10:00	94036	2012-08-20 at 08:59

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 12081713 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Analytical Report

Sample: 306990 - MW 6

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	94234	Date Analyzed:	2012-08-23	Analyzed By:	YG
Prep Batch:	79861	Sample Preparation:	2012-08-23	Prepared By:	YG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Qs,U	1	<0.00100	mg/L	1	0.00100
Toluene	U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	1	<0.00100	mg/L	1	0.00100
Xylene	Qs,U	1	<0.00300	mg/L	1	0.00300

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0926	mg/L	1	0.100	93	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0811	mg/L	1	0.100	81	70 - 130

Sample: 306990 - MW 6

Laboratory:	Midland				
Analysis:	TX1005 Extended - NEW	Analytical Method:	TX1005	Prep Method:	N/A
QC Batch:	94036	Date Analyzed:	2012-08-20	Analyzed By:	CW
Prep Batch:	79717	Sample Preparation:	2012-08-17	Prepared By:	CW

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
C6-C12	U	1	<5.00	mg/L	1	5.00
>C12-C35	U	1	<5.00	mg/L	1	5.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane			8.18	mg/L	1	10.0	82	70 - 130
n-Octane			9.57	mg/L	1	10.0	96	70 - 130
n-Tricosane			9.42	mg/L	1	10.0	94	70 - 130

Sample: 306991 - MW 7

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	94234	Date Analyzed:	2012-08-23	Analyzed By:	YG
Prep Batch:	79861	Sample Preparation:	2012-08-23	Prepared By:	YG

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Benzene	Qs,U	1	<0.00100	mg/L	1	0.00100
Toluene	U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	1	<0.00100	mg/L	1	0.00100
Xylene	Qs,U	1	<0.00300	mg/L	1	0.00300

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0951	mg/L	1	0.100	95	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0833	mg/L	1	0.100	83	70 - 130

Sample: 306991 - MW 7

Laboratory:	Midland				
Analysis:	TX1005 Extended - NEW	Analytical Method:	TX1005	Prep Method:	N/A
QC Batch:	94036	Date Analyzed:	2012-08-20	Analyzed By:	CW
Prep Batch:	79717	Sample Preparation:	2012-08-17	Prepared By:	CW

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
C6-C12	U	1	<5.00	mg/L	1	5.00
>C12-C35	U	1	<5.00	mg/L	1	5.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane			8.43	mg/L	1	10.0	84	70 - 130
n-Octane			9.77	mg/L	1	10.0	98	70 - 130
n-Tricosane			9.64	mg/L	1	10.0	96	70 - 130

Sample: 306992 - MW 8

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	94234	Date Analyzed:	2012-08-23	Analyzed By:	YG
Prep Batch:	79861	Sample Preparation:	2012-08-23	Prepared By:	YG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Qs,U	1	<0.00100	mg/L	1	0.00100
Toluene	U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	1	<0.00100	mg/L	1	0.00100
Xylene	Qs,U	1	<0.00300	mg/L	1	0.00300

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0913	mg/L	1	0.100	91	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0809	mg/L	1	0.100	81	70 - 130

Sample: 306992 - MW 8

Laboratory:	Midland				
Analysis:	TX1005 Extended - NEW	Analytical Method:	TX1005	Prep Method:	N/A
QC Batch:	94036	Date Analyzed:	2012-08-20	Analyzed By:	CW
Prep Batch:	79717	Sample Preparation:	2012-08-17	Prepared By:	CW

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
C6-C12	U	1	<5.00	mg/L	1	5.00
>C12-C35		1	<5.00	mg/L	1	5.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane			9.28	mg/L	1	10.0	93	70 - 130
n-Octane			11.4	mg/L	1	10.0	114	70 - 130
n-Tricosane			10.8	mg/L	1	10.0	108	70 - 130

Sample: 306993 - MW 9

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	94234	Date Analyzed:	2012-08-23	Analyzed By:	YG
Prep Batch:	79861	Sample Preparation:	2012-08-23	Prepared By:	YG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Qs,U	1	<0.00100	mg/L	1	0.00100
Toluene	U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	1	<0.00100	mg/L	1	0.00100
Xylene	Qs,U	1	<0.00300	mg/L	1	0.00300

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0908	mg/L	1	0.100	91	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0819	mg/L	1	0.100	82	70 - 130

Sample: 306993 - MW 9

Laboratory:	Midland				
Analysis:	TX1005 Extended - NEW	Analytical Method:	TX1005	Prep Method:	N/A
QC Batch:	94036	Date Analyzed:	2012-08-20	Analyzed By:	CW
Prep Batch:	79717	Sample Preparation:	2012-08-17	Prepared By:	CW

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
C6-C12	U	1	<5.00	mg/L	1	5.00
>C12-C35	U	1	<5.00	mg/L	1	5.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane			9.04	mg/L	1	10.0	90	70 - 130
n-Octane			11.4	mg/L	1	10.0	114	70 - 130
n-Tricosane			10.8	mg/L	1	10.0	108	70 - 130

Sample: 306994 - MW 10

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	94290	Date Analyzed:	2012-08-27	Analyzed By:	YG
Prep Batch:	79905	Sample Preparation:	2012-08-27	Prepared By:	YG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Qr,Qs,U	1	<0.00100	mg/L	1	0.00100
Toluene	Qr,Qs,U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	Qr,Qs,U	1	<0.00100	mg/L	1	0.00100
Xylene	Qr,Qs,U	1	<0.00300	mg/L	1	0.00300

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0952	mg/L	1	0.100	95	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0850	mg/L	1	0.100	85	70 - 130

Sample: 306994 - MW 10

Laboratory:	Midland				
Analysis:	TX1005 Extended - NEW	Analytical Method:	TX1005	Prep Method:	N/A
QC Batch:	94036	Date Analyzed:	2012-08-20	Analyzed By:	CW
Prep Batch:	79717	Sample Preparation:	2012-08-17	Prepared By:	CW

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
C6-C12	U	1	<5.00	mg/L	1	5.00
>C12-C35	U	1	<5.00	mg/L	1	5.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane			8.77	mg/L	1	10.0	88	70 - 130
n-Octane			10.8	mg/L	1	10.0	108	70 - 130
n-Tricosane			10.3	mg/L	1	10.0	103	70 - 130

Sample: 306995 - MW 11

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	94290	Date Analyzed:	2012-08-27	Analyzed By:	YG
Prep Batch:	79905	Sample Preparation:	2012-08-27	Prepared By:	YG

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Benzene	Qr,Qs,U	1	<0.00100	mg/L	1	0.00100
Toluene	Qr,Qs,U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	Qr,Qs,U	1	<0.00100	mg/L	1	0.00100
Xylene	Qr,Qs,U	1	<0.00300	mg/L	1	0.00300

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0959	mg/L	1	0.100	96	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0858	mg/L	1	0.100	86	70 - 130

Sample: 306995 - MW 11

Laboratory:	Midland				
Analysis:	TX1005 Extended - NEW	Analytical Method:	TX1005	Prep Method:	N/A
QC Batch:	94036	Date Analyzed:	2012-08-20	Analyzed By:	CW
Prep Batch:	79717	Sample Preparation:	2012-08-17	Prepared By:	CW

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
C6-C12	U	1	<5.00	mg/L	1	5.00
>C12-C35	U	1	<5.00	mg/L	1	5.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane			8.72	mg/L	1	10.0	87	70 - 130
n-Octane			10.5	mg/L	1	10.0	105	70 - 130
n-Tricosane			10.1	mg/L	1	10.0	101	70 - 130

Sample: 306996 - MW 12

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	94290	Date Analyzed:	2012-08-27	Analyzed By:	YG
Prep Batch:	79905	Sample Preparation:	2012-08-27	Prepared By:	YG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Q1,Qs	1	**0.132**	mg/L	1	0.00100
Toluene	Qr,Qs,U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	Qr,Qs	1	**0.0432**	mg/L	1	0.00100
Xylene	Qr,Qs	1	**0.00650**	mg/L	1	0.00300

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0968	mg/L	1	0.100	97	70 - 130
4-Bromofluorobenzene (4-BFB)			0.115	mg/L	1	0.100	115	70 - 130

Sample: 306996 - MW 12

Laboratory:	Midland				
Analysis:	TX1005 Extended - NEW	Analytical Method:	TX1005	Prep Method:	N/A
QC Batch:	94036	Date Analyzed:	2012-08-20	Analyzed By:	CW
Prep Batch:	79717	Sample Preparation:	2012-08-17	Prepared By:	CW

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
C6-C12	U	1	<5.00	mg/L	1	5.00
>C12-C35	U	1	<5.00	mg/L	1	5.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane			8.78	mg/L	1	10.0	88	70 - 130
n-Octane			10.8	mg/L	1	10.0	108	70 - 130
n-Tricosane			10.3	mg/L	1	10.0	103	70 - 130

Sample: 306997 - MW 13

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	94290	Date Analyzed:	2012-08-27	Analyzed By:	YG
Prep Batch:	79905	Sample Preparation:	2012-08-27	Prepared By:	YG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Qr,Qs,U	1	<0.00100	mg/L	1	0.00100
Toluene	Qr,Qs,U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	Qr,Qs,U	1	<0.00100	mg/L	1	0.00100
Xylene	Qr,Qs,U	1	<0.00300	mg/L	1	0.00300

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0934	mg/L	1	0.100	93	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0887	mg/L	1	0.100	89	70 - 130

Sample: 306997 - MW 13

Laboratory:	Midland				
Analysis:	TX1005 Extended - NEW	Analytical Method:	TX1005	Prep Method:	N/A
QC Batch:	94036	Date Analyzed:	2012-08-20	Analyzed By:	CW
Prep Batch:	79717	Sample Preparation:	2012-08-17	Prepared By:	CW

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
C6-C12	U	1	<5.00	mg/L	1	5.00
>C12-C35	U	1	<5.00	mg/L	1	5.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane			9.31	mg/L	1	10.0	93	70 - 130
n-Octane			10.8	mg/L	1	10.0	108	70 - 130
n-Tricosane			10.8	mg/L	1	10.0	108	70 - 130

Sample: 306998 - MW 14

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	94290	Date Analyzed:	2012-08-27	Analyzed By:	YG
Prep Batch:	79905	Sample Preparation:	2012-08-27	Prepared By:	YG

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Benzene	Qr,Qs,U	1	<0.00100	mg/L	1	0.00100
Toluene	Qr,Qs,U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	Qr,Qs,U	1	<0.00100	mg/L	1	0.00100
Xylene	Qr,Qs,U	1	<0.00300	mg/L	1	0.00300

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0967	mg/L	1	0.100	97	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0856	mg/L	1	0.100	86	70 - 130

Sample: 306998 - MW 14

Laboratory:	Midland				
Analysis:	TX1005 Extended - NEW	Analytical Method:	TX1005	Prep Method:	N/A
QC Batch:	94036	Date Analyzed:	2012-08-20	Analyzed By:	CW
Prep Batch:	79717	Sample Preparation:	2012-08-17	Prepared By:	CW

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
C6-C12	U	1	<5.00	mg/L	1	5.00
>C12-C35	U	1	<5.00	mg/L	1	5.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane			8.14	mg/L	1	10.0	81	70 - 130
n-Octane			9.42	mg/L	1	10.0	94	70 - 130
n-Tricosane			9.22	mg/L	1	10.0	92	70 - 130

Sample: 306999 - MW 15

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	94290	Date Analyzed:	2012-08-27	Analyzed By:	YG
Prep Batch:	79905	Sample Preparation:	2012-08-27	Prepared By:	YG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Qr,Qs,U	1	<0.00100	mg/L	1	0.00100
Toluene	Qr,Qs,U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	Qr,Qs,U	1	<0.00100	mg/L	1	0.00100
Xylene	Qr,Qs,U	1	<0.00300	mg/L	1	0.00300

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0939	mg/L	1	0.100	94	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0842	mg/L	1	0.100	84	70 - 130

Sample: 306999 - MW 15

Laboratory:	Midland				
Analysis:	TX1005 Extended - NEW	Analytical Method:	TX1005	Prep Method:	N/A
QC Batch:	94036	Date Analyzed:	2012-08-20	Analyzed By:	CW
Prep Batch:	79717	Sample Preparation:	2012-08-17	Prepared By:	CW

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
C6-C12	U	1	<5.00	mg/L	1	5.00
>C12-C35	U	1	<5.00	mg/L	1	5.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane			9.55	mg/L	1	10.0	96	70 - 130
n-Octane			11.4	mg/L	1	10.0	114	70 - 130
n-Tricosane			11.0	mg/L	1	10.0	110	70 - 130

Method Blanks

Method Blank (1) QC Batch: 94036

QC Batch: 94036 Date Analyzed: 2012-08-20 Analyzed By: CW
Prep Batch: 79717 QC Preparation: 2012-08-17 Prepared By: CW

Parameter	Flag	Cert	MDL Result	Units	RL
C6-C12		1	<1.04	mg/L	5
>C12-C35		1	<0.970	mg/L	5

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane			9.92	mg/L	1	10.0	99	70 - 130
n-Octane			12.0	mg/L	1	10.0	120	70 - 130
n-Tricosane			11.7	mg/L	1	10.0	117	70 - 130

Method Blank (1) QC Batch: 94234

QC Batch: 94234 Date Analyzed: 2012-08-23 Analyzed By: YG
Prep Batch: 79861 QC Preparation: 2012-08-23 Prepared By: YG

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.000600	mg/L	0.001
Toluene		1	<0.000400	mg/L	0.001
Ethylbenzene		1	<0.000600	mg/L	0.001
Xylene		1	<0.00130	mg/L	0.003

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0975	mg/L	1	0.100	98	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0856	mg/L	1	0.100	86	70 - 130

Method Blank (1) QC Batch: 94290

QC Batch: 94290 Date Analyzed: 2012-08-27 Analyzed By: YG
Prep Batch: 79905 QC Preparation: 2012-08-27 Prepared By: YG

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.000600	mg/L	0.001
Toluene		1	<0.000400	mg/L	0.001
Ethylbenzene		1	<0.000600	mg/L	0.001
Xylene		1	<0.00130	mg/L	0.003

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0926	mg/L	1	0.100	93	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0854	mg/L	1	0.100	85	70 - 130

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 94036 | Date Analyzed: 2012-08-20 | Analyzed By: CW
Prep Batch: 79717 | QC Preparation: 2012-08-17 | Prepared By: CW

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
C6-C12		1	24.8	mg/L	1	25.0	<1.04	99	75 - 125
>C12-C35		1	26.2	mg/L	1	25.0	<0.970	105	75 - 125

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
C6-C12		1	24.4	mg/L	1	25.0	<1.04	98	75 - 125	2	20
>C12-C35		1	22.5	mg/L	1	25.0	<0.970	90	75 - 125	15	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Triacontane	10.7	10.4	mg/L	1	10.0	107	104	70 - 130
n-Octane	12.8	12.9	mg/L	1	10.0	128	129	70 - 130
n-Tricosane	11.8	11.2	mg/L	1	10.0	118	112	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 94234 | Date Analyzed: 2012-08-23 | Analyzed By: YG
Prep Batch: 79861 | QC Preparation: 2012-08-23 | Prepared By: YG

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0988	mg/L	1	0.100	<0.000600	99	70 - 130
Toluene		1	0.0999	mg/L	1	0.100	<0.000400	100	70 - 130
Ethylbenzene		1	0.100	mg/L	1	0.100	<0.000600	100	70 - 130
Xylene		1	0.303	mg/L	1	0.300	<0.00130	101	70 - 130

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

continued ...

control spikes continued ...

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.0845	mg/L	1	0.100	<0.000600	84	70 - 130	16	20
Toluene		1	0.0825	mg/L	1	0.100	<0.000400	82	70 - 130	19	20
Ethylbenzene		1	0.0842	mg/L	1	0.100	<0.000600	84	70 - 130	17	20
Xylene		1	0.250	mg/L	1	0.300	<0.00130	83	70 - 130	19	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.102	0.101	mg/L	1	0.100	102	101	70 - 130
4-Bromofluorobenzene (4-BFB)	0.104	0.104	mg/L	1	0.100	104	104	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 94290
Prep Batch: 79905

Date Analyzed: 2012-08-27
QC Preparation: 2012-08-27

Analyzed By: YG
Prepared By: YG

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.122	mg/L	1	0.100	<0.000600	122	70 - 130
Toluene		1	0.124	mg/L	1	0.100	<0.000400	124	70 - 130
Ethylbenzene		1	0.124	mg/L	1	0.100	<0.000600	124	70 - 130
Xylene		1	0.374	mg/L	1	0.300	<0.00130	125	70 - 130

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.124	mg/L	1	0.100	<0.000600	124	70 - 130	2	20
Toluene		1	0.124	mg/L	1	0.100	<0.000400	124	70 - 130	0	20
Ethylbenzene		1	0.124	mg/L	1	0.100	<0.000600	124	70 - 130	0	20
Xylene		1	0.375	mg/L	1	0.300	<0.00130	125	70 - 130	0	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.101	0.101	mg/L	1	0.100	101	101	70 - 130
4-Bromofluorobenzene (4-BFB)	0.106	0.105	mg/L	1	0.100	106	105	70 - 130

Matrix Spike (MS-1) Spiked Sample: 306981

QC Batch: 94036 | Date Analyzed: 2012-08-20 | Analyzed By: CW
Prep Batch: 79717 | QC Preparation: 2012-08-17 | Prepared By: CW

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
C6-C12		1	22.0	mg/L	1	25.0	<1.04	88	75 - 125
>C12-C35		1	23.4	mg/L	1	25.0	<0.970	94	75 - 125

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
C6-C12		1	21.8	mg/L	1	25.0	<1.04	87	75 - 125	1	20
>C12-C35		1	22.6	mg/L	1	25.0	<0.970	90	75 - 125	4	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Triacontane	10.1	9.92	mg/L	1	10	101	99	70 - 130
n-Octane	11.8	11.7	mg/L	1	10	118	117	70 - 130
n-Tricosane	11.2	10.9	mg/L	1	10	112	109	70 - 130

Matrix Spike (MS-1) Spiked Sample: 306983

QC Batch: 94234 | Date Analyzed: 2012-08-23 | Analyzed By: YG
Prep Batch: 79861 | QC Preparation: 2012-08-23 | Prepared By: YG

Param		F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	Qs	Qs	1	2.72	mg/L	20	2.00	<0.0120	136	70 - 130
Toluene			1	2.57	mg/L	20	2.00	<0.00800	128	70 - 130
Ethylbenzene			1	2.58	mg/L	20	2.00	<0.0120	129	70 - 130
Xylene	Qs	Qs	1	7.72	mg/L	20	2.00	<0.0260	386	70 - 130

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

Param		F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	Qs	Qs	1	2.60	mg/L	20	2.00	<0.0120	130	70 - 130	4	20
Toluene			1	2.46	mg/L	20	2.00	<0.00800	123	70 - 130	4	20
Ethylbenzene			1	2.50	mg/L	20	2.00	<0.0120	125	70 - 130	3	20
Xylene	Qs	Qs	1	7.48	mg/L	20	2.00	<0.0260	374	70 - 130	3	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	2.02	2.04	mg/L	20	2	101	102	70 - 130
4-Bromofluorobenzene (4-BFB)	2.16	2.11	mg/L	20	2	108	106	70 - 130

Matrix Spike (MS-1) Spiked Sample: 307343

QC Batch: 94290
Prep Batch: 79905

Date Analyzed: 2012-08-27
QC Preparation: 2012-08-27

Analyzed By: YG
Prepared By: YG

Param		F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	Qs	Qs	1	0.482	mg/L	20	2.00	<0.0120	24	70 - 130
Toluene	Qs	Qs	1	0.428	mg/L	20	2.00	<0.00800	21	70 - 130
Ethylbenzene	Qs	Qs	1	0.425	mg/L	20	2.00	<0.0120	21	70 - 130
Xylene	Qs	Qs	1	1.29	mg/L	20	2.00	<0.0260	64	70 - 130

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

Param		F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	Qr	Qr	1	1.97	mg/L	20	2.00	<0.0120	98	70 - 130	121	20
Toluene	Qr	Qr	1	1.98	mg/L	20	2.00	<0.00800	99	70 - 130	129	20
Ethylbenzene	Qr	Qr	1	2.01	mg/L	20	2.00	<0.0120	100	70 - 130	130	20
Xylene	Qr,Qs	Qr,Qs	1	6.03	mg/L	20	2.00	<0.0260	302	70 - 130	130	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	2.01	2.00	mg/L	20	2	100	100	70 - 130
4-Bromofluorobenzene (4-BFB)	1.90	2.11	mg/L	20	2	95	106	70 - 130

Calibration Standards

Standard (CCV-1)

QC Batch: 94036 Date Analyzed: 2012-08-20 Analyzed By: CW

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
C6-C12		1	mg/L	250	240	96	75 - 125	2012-08-20
>C12-C35		1	mg/L	250	259	104	75 - 125	2012-08-20

Standard (CCV-2)

QC Batch: 94036 Date Analyzed: 2012-08-20 Analyzed By: CW

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
C6-C12		1	mg/L	250	212	85	75 - 125	2012-08-20
>C12-C35		1	mg/L	250	193	77	75 - 125	2012-08-20

Standard (CCV-3)

QC Batch: 94036 Date Analyzed: 2012-08-20 Analyzed By: CW

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
C6-C12		1	mg/L	250	218	87	75 - 125	2012-08-20
>C12-C35		1	mg/L	250	194	78	75 - 125	2012-08-20

Standard (CCV-4)

QC Batch: 94036 Date Analyzed: 2012-08-20 Analyzed By: CW

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
C6-C12		1	mg/L	250	234	94	75 - 125	2012-08-20
>C12-C35		1	mg/L	250	244	98	75 - 125	2012-08-20

Standard (CCV-1)

QC Batch: 94234 Date Analyzed: 2012-08-23 Analyzed By: YG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.107	107	80 - 120	2012-08-23
Toluene		1	mg/L	0.100	0.108	108	80 - 120	2012-08-23
Ethylbenzene		1	mg/L	0.100	0.111	111	80 - 120	2012-08-23
Xylene		1	mg/L	0.300	0.329	110	80 - 120	2012-08-23

Standard (CCV-2)

QC Batch: 94234 Date Analyzed: 2012-08-23 Analyzed By: YG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.118	118	80 - 120	2012-08-23
Toluene		1	mg/L	0.100	0.119	119	80 - 120	2012-08-23
Ethylbenzene		1	mg/L	0.100	0.120	120	80 - 120	2012-08-23
Xylene		1	mg/L	0.300	0.360	120	80 - 120	2012-08-23

Standard (CCV-3)

QC Batch: 94234 Date Analyzed: 2012-08-23 Analyzed By: YG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.120	120	80 - 120	2012-08-23
Toluene		1	mg/L	0.100	0.119	119	80 - 120	2012-08-23
Ethylbenzene		1	mg/L	0.100	0.119	119	80 - 120	2012-08-23

continued ...

standard continued ...

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Xylene		1	mg/L	0.300	0.356	119	80 - 120	2012-08-23

Standard (CCV-1)

QC Batch: 94290 Date Analyzed: 2012-08-27 Analyzed By: YG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.117	117	80 - 120	2012-08-27
Toluene		1	mg/L	0.100	0.117	117	80 - 120	2012-08-27
Ethylbenzene		1	mg/L	0.100	0.119	119	80 - 120	2012-08-27
Xylene		1	mg/L	0.300	0.356	119	80 - 120	2012-08-27

Standard (CCV-2)

QC Batch: 94290 Date Analyzed: 2012-08-27 Analyzed By: YG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.116	116	80 - 120	2012-08-27
Toluene		1	mg/L	0.100	0.117	117	80 - 120	2012-08-27
Ethylbenzene		1	mg/L	0.100	0.118	118	80 - 120	2012-08-27
Xylene		1	mg/L	0.300	0.356	119	80 - 120	2012-08-27

Standard (CCV-3)

QC Batch: 94290 Date Analyzed: 2012-08-27 Analyzed By: YG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.119	119	80 - 120	2012-08-27
Toluene		1	mg/L	0.100	0.120	120	80 - 120	2012-08-27
Ethylbenzene		1	mg/L	0.100	0.120	120	80 - 120	2012-08-27

continued ...

standard continued ...

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Xylene		1	mg/L	0.300	0.360	120	80 - 120	2012-08-27

Appendix

Report Definitions

Name	Definition
MDL	Method Detection Limit
MQL	Minimum Quantitation Limit
SDL	Sample Detection Limit

Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704392-12-4	Midland

Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less then ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

Attachments

The scanned attachments will follow this page.
Please note, each attachment may consist of more than one page.

ENVIRONMENTAL, GEOTECHNICAL AND CONSTRUCTION MATERIALS SERVICES

CHAIN OF CUSTODY RECORD

Terracon
Consulting Engineers & Scientists

Office Location: Midland, Tx

Project Manager: Barrett Bole

Laboratory: Trace Analysis

Address:

Contact:

Phone:

PO/SO #:

Lab use only
Due Date: 1340 Instant

Temp. of coolers when received (C°):

1	2	3	4	5

Page ____ of ____

Sampler's Name: Guy Falzarano

Sampler's Signature: Guy Falzarano

Proj. No.: AA12700B

Project Name: Livingston Ridge

No/Type of Containers: 40

ANALYSIS REQUESTED: BTEX 8021 / TPH TX1005

Matrix	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	Start Depth	End Depth	VOA	A/G 1 Lt.	250 ml	P/O											Lab Sample ID (Lab Use Only)
W	8-15-12	14:40		✓	MW6			4				✓	✓									306990
"	"	13:15		✓	MW7			4				✓	✓									991
"	8-15-12	13:40		✓	MW8			4				✓	✓									992
"	"	14:15		✓	MW9			4				✓	✓									993
"	"	12:40		✓	MW10			4				✓	✓									994
"	"	10:40		✓	MW11			4				✓	✓									995
"	"	10:05		✓	MW12			4				✓	✓									996
"	"	9:40		✓	MW13			4				✓	✓									997
"	"	11:55		✓	MW14			4				✓	✓									998
W	8-15-12	11:25		✓	MW15			4				✓	✓									999

Turn around time: ☐ Normal ☐ 25% Rush ☐ 50% Rush ☐ 100% Rush

Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Guy Falzarano	8.17.12	10:55		8/17/12	1055
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:

NOTES: Please Email Results
BWBole@
AGFalzarano@ } terracon.com
WTBurrow@
SMHarris@PAAlp.com

thanks!

Matrix: WW - Wastewater; W - Water; S - Soil; SD - Solid; L - Liquid; A - Air Bag; C - Charcoal tube; SL - sludge; O - Oil
Container: VOA - 40 ml vial; A/G - Amber / Or Glass 1 Liter; 250 ml - Glass wide mouth; P/O - Plastic or other ____

Houston Office
11555 Clay Road, Suite 100
Houston, Texas 77043
(713) 690-8989 Fax (713) 690-8787

Dallas Office
8901 Carpenter Freeway, Suite 100
Dallas, Texas 75247
(214) 630-1010 Fax (214) 630-7070

Fort Worth Office
2601 Gravel Drive
Fort Worth, Texas 76118
(817) 268-8600 Fax (817) 268-8602

Austin Office
5307 Industrial Oaks Blvd. # 160
Austin, Texas 78735
(512) 442-1122 Fax (512) 442-1181

Midland Office
24 Smith Rd., # 261
Midland, Texas 79705
(432) 684-9600 Fax (432) 684-9608

Midland Lab

XENCO Laboratories

XENCO Laboratories
Atlanta, Boca Raton, Corpus Christi, Dallas
Houston, Miami, Odessa, Philadelphia
Phoenix, San Antonio, Tampa

Document Title: Sample Receipt Checklist
Document No.: SYS-SRC
Revision/Date: No. 01, 5/27/2010
Effective Date: 6/1/2010 Page 1 of 1

Prelogin / Nonconformance Report - Sample Log-In

Client: Plains
Date/Time: 5.18.12 15:50
Lab ID # : 442653
Initials: AL

Sample Receipt Checklist

1. Samples on ice?	Blue	(Water)	No	
2. Shipping container in good condition?	(Yes)	No	None	
3. Custody seals intact on shipping container (cooler) and bottles?	Yes	No	(N/A)	
4. Chain of Custody present?	(Yes)	No		
5. Sample instructions complete on chain of custody?	(Yes)	No		
6. Any missing / extra samples?	Yes	(No)		
7. Chain of custody signed when relinquished / received?	(Yes)	No		
8. Chain of custody agrees with sample label(s)?	(Yes)	No		
9. Container labels legible and intact?	(Yes)	No		
10. Sample matrix / properties agree with chain of custody?	(Yes)	No		
11. Samples in proper container / bottle?	(Yes)	No		
12. Samples properly preserved?	(Yes)	No	N/A	
13. Sample container intact?	(Yes)	No		
14. Sufficient sample amount for indicated test(s)?	(Yes)	No		
15. All samples received within sufficient hold time?	(Yes)	No		
16. Subcontract of sample(s)?	Yes	No	(N/A)	
17. VOC sample have zero head space?	(Yes)	No	N/A	

18. Cooler 1 No.		Cooler 2 No.		Cooler 3 No.		Cooler 4 No.		Cooler 5 No.	
lbs	6.0 °C	lbs	°C	lbs	°C	lbs	°C	lbs	°C

Nonconformance Documentation

Contact: _____ Contacted by: _____ Date/Time: _____

Regarding: _____

Corrective Action Taken: _____

Check all that apply:
- ☐ Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.
- ☐ Initial and Backup Temperature confirm out of temperature conditions
- ☐ Client understands and would like to proceed with analysis

TRACEANALYSIS, INC.

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E-Mail lab@traceanalysis.com WEB www.traceanalysis.com

Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

Wesley Ty Burrow
Terracon - Midland
1211 W. Florida Ave.
Midland, TX, 79705

Report Date: November 14, 2012

Work Order: 12110701

Project Name: Livingston Ridge
Project Number: A4127008
SRS #: 2001-11005

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
313580	MW-2	water	2012-11-06	13:15	2012-11-06
313581	MW-6	water	2012-11-06	13:51	2012-11-06
313582	MW-8	water	2012-11-06	14:12	2012-11-06
313583	MW-9	water	2012-11-06	13:45	2012-11-06
313584	MW-10	water	2012-11-06	12:30	2012-11-06
313585	MW-11	water	2012-11-06	10:45	2012-11-06
313586	MW-12	water	2012-11-06	10:20	2012-11-06
313587	MW-13	water	2012-11-06	09:45	2012-11-06
313588	MW-14	water	2012-11-06	11:55	2012-11-06
313589	MW-15	water	2012-11-06	11:15	2012-11-06

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

Dr. Blair Leftwich, Director
Dr. Michael Abel, Project Manager

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Case Narrative

Samples for project Livingston Ridge were received by TraceAnalysis, Inc. on 2012-11-06 and assigned to work order 12110701. Samples for work order 12110701 were received intact without headspace and at a temperature of 5.4 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	81737	2012-11-08 at 12:28	96451	2012-11-08 at 12:28
BTEX	S 8021B	81785	2012-11-10 at 10:56	96515	2012-11-11 at 10:56
BTEX	S 8021B	81811	2012-11-13 at 08:30	96546	2012-11-13 at 08:30

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 12110701 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Analytical Report

Sample: 313580 - MW-2

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	96451	Date Analyzed:	2012-11-08	Analyzed By:	YG
Prep Batch:	81737	Sample Preparation:	2012-11-08	Prepared By:	YG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Qr,Qs,U	1	<0.00100	mg/L	1	0.00100
Toluene	Qr,Qs,U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	Qr,Qs,U	1	<0.00100	mg/L	1	0.00100
Xylene	Qr,Qs,U	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0903	mg/L	1	0.100	90	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0853	mg/L	1	0.100	85	70 - 130

Sample: 313581 - MW-6

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	96451	Date Analyzed:	2012-11-08	Analyzed By:	YG
Prep Batch:	81737	Sample Preparation:	2012-11-08	Prepared By:	YG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Qr,Qs,U	1	<0.00100	mg/L	1	0.00100
Toluene	Qr,Qs,U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	Qr,Qs,U	1	<0.00100	mg/L	1	0.00100
Xylene	Qr,Qs,U	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0902	mg/L	1	0.100	90	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0838	mg/L	1	0.100	84	70 - 130

Sample: 313582 - MW-8

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	96451	Date Analyzed:	2012-11-08	Analyzed By:	YG
Prep Batch:	81737	Sample Preparation:	2012-11-08	Prepared By:	YG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Qr,Qs,U	1	<0.00100	mg/L	1	0.00100
Toluene	Qr,Qs,U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	Qr,Qs,U	1	<0.00100	mg/L	1	0.00100
Xylene	Qr,Qs,U	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0895	mg/L	1	0.100	90	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0845	mg/L	1	0.100	84	70 - 130

Sample: 313583 - MW-9

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	96515	Date Analyzed:	2012-11-11	Analyzed By:	YG
Prep Batch:	81785	Sample Preparation:	2012-11-10	Prepared By:	YG

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0890	mg/L	1	0.100	89	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0843	mg/L	1	0.100	84	70 - 130

Sample: 313584 - MW-10

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	96515	Date Analyzed:	2012-11-11	Analyzed By:	YG
Prep Batch:	81785	Sample Preparation:	2012-11-10	Prepared By:	YG

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0908	mg/L	1	0.100	91	70 - 130
4-Bromofluorobenzene (4-BFB)			0.100	mg/L	1	0.100	100	70 - 130

Sample: 313585 - MW-11

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	96515	Date Analyzed:	2012-11-11	Analyzed By:	YG
Prep Batch:	81785	Sample Preparation:	2012-11-10	Prepared By:	YG

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0880	mg/L	1	0.100	88	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0842	mg/L	1	0.100	84	70 - 130

Sample: 313586 - MW-12

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	96515	Date Analyzed:	2012-11-11	Analyzed By:	YG
Prep Batch:	81785	Sample Preparation:	2012-11-10	Prepared By:	YG

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Benzene	Qs,U	1	<0.00100	mg/L	1	0.00100
Toluene	Qs,U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	Qs,U	1	<0.00100	mg/L	1	0.00100
Xylene	Qs	1	**0.00140**	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0887	mg/L	1	0.100	89	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0856	mg/L	1	0.100	86	70 - 130

Sample: 313587 - MW-13

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	96546	Date Analyzed:	2012-11-13	Analyzed By:	YG
Prep Batch:	81811	Sample Preparation:	2012-11-13	Prepared By:	YG

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0892	mg/L	1	0.100	89	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0867	mg/L	1	0.100	87	70 - 130

Sample: 313588 - MW-14

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	96515	Date Analyzed:	2012-11-11	Analyzed By:	YG
Prep Batch:	81785	Sample Preparation:	2012-11-10	Prepared By:	YG

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0878	mg/L	1	0.100	88	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0836	mg/L	1	0.100	84	70 - 130

Sample: 313589 - MW-15

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	96515	Date Analyzed:	2012-11-11	Analyzed By:	YG
Prep Batch:	81785	Sample Preparation:	2012-11-10	Prepared By:	YG

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0888	mg/L	1	0.100	89	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0840	mg/L	1	0.100	84	70 - 130

Method Blanks

Method Blank (1) QC Batch: 96451

QC Batch: 96451 | Date Analyzed: 2012-11-08 | Analyzed By: YG
Prep Batch: 81737 | QC Preparation: 2012-11-08 | Prepared By: YG

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.000600	mg/L	0.001
Toluene		1	<0.000600	mg/L	0.001
Ethylbenzene		1	<0.000800	mg/L	0.001
Xylene		1	<0.000767	mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0912	mg/L	1	0.100	91	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0850	mg/L	1	0.100	85	70 - 130

Method Blank (1) QC Batch: 96515

QC Batch: 96515 | Date Analyzed: 2012-11-11 | Analyzed By: YG
Prep Batch: 81785 | QC Preparation: 2012-11-10 | Prepared By: YG

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.000600	mg/L	0.001
Toluene		1	<0.000600	mg/L	0.001
Ethylbenzene		1	<0.000800	mg/L	0.001
Xylene		1	<0.000767	mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0899	mg/L	1	0.100	90	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0846	mg/L	1	0.100	85	70 - 130

Method Blank (1) QC Batch: 96546

QC Batch: 96546 | Date Analyzed: 2012-11-13 | Analyzed By: YG
Prep Batch: 81811 | QC Preparation: 2012-11-13 | Prepared By: YG

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.000200	mg/L	0.001
Toluene		1	<0.000300	mg/L	0.001
Ethylbenzene		1	<0.000400	mg/L	0.001
Xylene		1	<0.00120	mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0907	mg/L	1	0.100	91	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0875	mg/L	1	0.100	88	70 - 130

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 96451 Date Analyzed: 2012-11-08 Analyzed By: YG
Prep Batch: 81737 QC Preparation: 2012-11-08 Prepared By: YG

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0942	mg/L	1	0.100	<0.000600	94	70 - 130
Toluene		1	0.0927	mg/L	1	0.100	<0.000600	93	70 - 130
Ethylbenzene		1	0.0876	mg/L	1	0.100	<0.000800	88	70 - 130
Xylene		1	0.275	mg/L	1	0.300	<0.000767	92	70 - 130

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.0930	mg/L	1	0.100	<0.000600	93	70 - 130	1	20
Toluene		1	0.0912	mg/L	1	0.100	<0.000600	91	70 - 130	2	20
Ethylbenzene		1	0.0858	mg/L	1	0.100	<0.000800	86	70 - 130	2	20
Xylene		1	0.270	mg/L	1	0.300	<0.000767	90	70 - 130	2	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0906	0.0904	mg/L	1	0.100	91	90	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0867	0.0869	mg/L	1	0.100	87	87	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 96515 Date Analyzed: 2012-11-11 Analyzed By: YG
Prep Batch: 81785 QC Preparation: 2012-11-10 Prepared By: YG

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0944	mg/L	1	0.100	<0.000600	94	70 - 130
Toluene		1	0.0932	mg/L	1	0.100	<0.000600	93	70 - 130
Ethylbenzene		1	0.0881	mg/L	1	0.100	<0.000800	88	70 - 130
Xylene		1	0.277	mg/L	1	0.300	<0.000767	92	70 - 130

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.0911	mg/L	1	0.100	<0.000600	91	70 - 130	4	20
Toluene		1	0.0898	mg/L	1	0.100	<0.000600	90	70 - 130	4	20
Ethylbenzene		1	0.0850	mg/L	1	0.100	<0.000800	85	70 - 130	4	20
Xylene		1	0.267	mg/L	1	0.300	<0.000767	89	70 - 130	4	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0903	0.0898	mg/L	1	0.100	90	90	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0871	0.0865	mg/L	1	0.100	87	86	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 96546 Date Analyzed: 2012-11-13 Analyzed By: YG
Prep Batch: 81811 QC Preparation: 2012-11-13 Prepared By: YG

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0932	mg/L	1	0.100	<0.000200	93	70 - 130
Toluene		1	0.0910	mg/L	1	0.100	<0.000300	91	70 - 130
Ethylbenzene		1	0.0854	mg/L	1	0.100	<0.000400	85	70 - 130
Xylene		1	0.268	mg/L	1	0.300	<0.00120	89	70 - 130

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.0940	mg/L	1	0.100	<0.000200	94	70 - 130	1	20
Toluene		1	0.0921	mg/L	1	0.100	<0.000300	92	70 - 130	1	20
Ethylbenzene		1	0.0865	mg/L	1	0.100	<0.000400	86	70 - 130	1	20
Xylene		1	0.272	mg/L	1	0.300	<0.00120	91	70 - 130	2	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0878	0.0888	mg/L	1	0.100	88	89	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0871	0.0878	mg/L	1	0.100	87	88	70 - 130

Matrix Spike (MS-1) Spiked Sample: 313372

QC Batch: 96451 | Date Analyzed: 2012-11-08 | Analyzed By: YG
Prep Batch: 81737 | QC Preparation: 2012-11-08 | Prepared By: YG

Param		F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	Qs	Qs	1	0.0486	mg/L	1	0.100	<0.000600	49	70 - 130
Toluene	Qs	Qs	1	0.0453	mg/L	1	0.100	<0.000600	45	70 - 130
Ethylbenzene	Qs	Qs	1	0.0420	mg/L	1	0.100	<0.000800	42	70 - 130
Xylene	Qs	Qs	1	0.136	mg/L	1	0.300	<0.000767	45	70 - 130

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

Param		F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	Qr	Qr	1	0.0987	mg/L	1	0.100	<0.000600	99	70 - 130	68	20
Toluene	Qr	Qr	1	0.0948	mg/L	1	0.100	<0.000600	95	70 - 130	71	20
Ethylbenzene	Qr	Qr	1	0.0884	mg/L	1	0.100	<0.000800	88	70 - 130	71	20
Xylene	Qr	Qr	1	0.281	mg/L	1	0.300	<0.000767	94	70 - 130	70	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0935	0.0929	mg/L	1	0.1	94	93	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0899	0.0896	mg/L	1	0.1	90	90	70 - 130

Matrix Spike (MS-1) Spiked Sample: 313583

QC Batch: 96515 | Date Analyzed: 2012-11-11 | Analyzed By: YG
Prep Batch: 81785 | QC Preparation: 2012-11-10 | Prepared By: YG

Param		F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	Qs	Qs	1	0.0554	mg/L	1	0.100	<0.000600	55	70 - 130
Toluene	Qs	Qs	1	0.0540	mg/L	1	0.100	<0.000600	54	70 - 130
Ethylbenzene	Qs	Qs	1	0.0507	mg/L	1	0.100	<0.000800	51	70 - 130
Xylene	Qs	Qs	1	0.159	mg/L	1	0.300	<0.000767	53	70 - 130

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

Param		F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	Qs	Qs	1	0.0514	mg/L	1	0.100	<0.000600	51	70 - 130	8	20
Toluene	Qs	Qs	1	0.0501	mg/L	1	0.100	<0.000600	50	70 - 130	8	20

continued ...

matrix spikes continued ...

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Ethylbenzene	Qs	Qs	0.0473	mg/L	1	0.100	<0.000800	47	70 - 130	7	20
Xylene	Qs	Qs	0.149	mg/L	1	0.300	<0.000767	50	70 - 130	6	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0898	0.0893	mg/L	1	0.1	90	89	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0864	0.0862	mg/L	1	0.1	86	86	70 - 130

Matrix Spike (MS-1) Spiked Sample: 313587

QC Batch: 96546 | Date Analyzed: 2012-11-13 | Analyzed By: YG
Prep Batch: 81811 | QC Preparation: 2012-11-13 | Prepared By: YG

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0862	mg/L	1	0.100	<0.000200	86	70 - 130
Toluene		1	0.0849	mg/L	1	0.100	<0.000300	85	70 - 130
Ethylbenzene		1	0.0811	mg/L	1	0.100	<0.000400	81	70 - 130
Xylene		1	0.259	mg/L	1	0.300	0.0013	86	70 - 130

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.0893	mg/L	1	0.100	<0.000200	89	70 - 130	4	20
Toluene		1	0.0879	mg/L	1	0.100	<0.000300	88	70 - 130	4	20
Ethylbenzene		1	0.0840	mg/L	1	0.100	<0.000400	84	70 - 130	4	20
Xylene		1	0.271	mg/L	1	0.300	0.0013	90	70 - 130	4	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0887	0.0901	mg/L	1	0.1	89	90	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0880	0.0888	mg/L	1	0.1	88	89	70 - 130

Calibration Standards

Standard (CCV-1)

QC Batch: 96451 | Date Analyzed: 2012-11-08 | Analyzed By: YG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0945	94	80 - 120	2012-11-08
Toluene		1	mg/L	0.100	0.0928	93	80 - 120	2012-11-08
Ethylbenzene		1	mg/L	0.100	0.0874	87	80 - 120	2012-11-08
Xylene		1	mg/L	0.300	0.275	92	80 - 120	2012-11-08

Standard (CCV-2)

QC Batch: 96451 | Date Analyzed: 2012-11-08 | Analyzed By: YG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0947	95	80 - 120	2012-11-08
Toluene		1	mg/L	0.100	0.0927	93	80 - 120	2012-11-08
Ethylbenzene		1	mg/L	0.100	0.0868	87	80 - 120	2012-11-08
Xylene		1	mg/L	0.300	0.272	91	80 - 120	2012-11-08

Standard (CCV-3)

QC Batch: 96451 | Date Analyzed: 2012-11-08 | Analyzed By: YG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0930	93	80 - 120	2012-11-08
Toluene		1	mg/L	0.100	0.0908	91	80 - 120	2012-11-08
Ethylbenzene		1	mg/L	0.100	0.0849	85	80 - 120	2012-11-08
Xylene		1	mg/L	0.300	0.267	89	80 - 120	2012-11-08

Standard (CCV-1)

QC Batch: 96515 Date Analyzed: 2012-11-11 Analyzed By: YG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0937	94	80 - 120	2012-11-11
Toluene		1	mg/L	0.100	0.0926	93	80 - 120	2012-11-11
Ethylbenzene		1	mg/L	0.100	0.0882	88	80 - 120	2012-11-11
Xylene		1	mg/L	0.300	0.277	92	80 - 120	2012-11-11

Standard (CCV-2)

QC Batch: 96515 Date Analyzed: 2012-11-11 Analyzed By: YG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0923	92	80 - 120	2012-11-11
Toluene		1	mg/L	0.100	0.0904	90	80 - 120	2012-11-11
Ethylbenzene		1	mg/L	0.100	0.0848	85	80 - 120	2012-11-11
Xylene		1	mg/L	0.300	0.266	89	80 - 120	2012-11-11

Standard (CCV-3)

QC Batch: 96515 Date Analyzed: 2012-11-11 Analyzed By: YG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0953	95	80 - 120	2012-11-11
Toluene		1	mg/L	0.100	0.0935	94	80 - 120	2012-11-11
Ethylbenzene		1	mg/L	0.100	0.0876	88	80 - 120	2012-11-11
Xylene		1	mg/L	0.300	0.275	92	80 - 120	2012-11-11

Standard (CCV-1)

QC Batch: 96546 Date Analyzed: 2012-11-13 Analyzed By: YG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0909	91	80 - 120	2012-11-13
Toluene		1	mg/L	0.100	0.0895	90	80 - 120	2012-11-13
Ethylbenzene		1	mg/L	0.100	0.0842	84	80 - 120	2012-11-13
Xylene		1	mg/L	0.300	0.265	88	80 - 120	2012-11-13

Standard (CCV-2)

QC Batch: 96546 Date Analyzed: 2012-11-13 Analyzed By: YG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0941	94	80 - 120	2012-11-13
Toluene		1	mg/L	0.100	0.0926	93	80 - 120	2012-11-13
Ethylbenzene		1	mg/L	0.100	0.0871	87	80 - 120	2012-11-13
Xylene		1	mg/L	0.300	0.273	91	80 - 120	2012-11-13

Appendix

Report Definitions

Name	Definition
MDL	Method Detection Limit
MQL	Minimum Quantitation Limit
SDL	Sample Detection Limit

Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704392-12-4	Midland

Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less then ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

Attachments

The scanned attachments will follow this page.
Please note, each attachment may consist of more than one page.

ENVIRONMENTAL, GEOTECHNICAL AND CONSTRUCTION MATERIALS SERVICES

CHAIN OF CUSTODY RECORD

Terracon
Consulting Engineers & Scientists

Office Location: Midland
Project Manager: Ty Burrow

Laboratory: Trace Analysis
Address:
Contact:
Phone:
PO/SO #: 2001-11005

Sampler's Name: Guy Falzarano
Sampler's Signature: Guy Falzarano

Proj. No.: AA127008
Project Name: Livingston Ridge (LR)
No/Type of Containers: 40

ANALYSIS REQUESTED: BTEX 8021

Lab use only
Due Date: 5.4.0

Temp. of coolers when received (C°): 1 | 2 | 3 | 4 | 5

Page ____ of ____

Matrix	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	Start Depth	End Depth	VOA	A/G 1 Lt.	250 ml	P/O	Lab Sample ID (Lab Use Only)
W	11-6-12	13:15		✓	MW 2			4				313580
"	"	13:51		✓	MW 6			4				581
~~"~~	~~"~~	~~12:50~~		✓	~~MW 7~~			4				5
"	"	14:12		✓	MW 8			4				582
"	"	13:49		✓	MW 9			4				583
"	"	12:30		✓	MW 10			4				584
"	"	10:45		✓	MW 11			4				585
"	"	10:20		✓	MW 12			4				586
"	"	9:45		✓	MW 13			4				587
W	11-6-12	11:55		✓	MW 14			4				588

Turn around time: ☑ Normal ☐ 25% Rush ☐ 50% Rush ☐ 100% Rush

Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Guy Falzarano	11-6-12	4:42		11/6/12	16:42
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:

NOTES: Email Result
WTBurrow@Terracon.com
AGFalzarano@Terracon.com
SMHarris@paapl.com
Bill to 2001-11005
MW-7 missing - as per Guy- he will bring in or a separate COC at later date (11/7)

Matrix: WW - Wastewater; W - Water; S - Soil; SD - Solid; L - Liquid; A - Air Bag; C - Charcoal tube; SL - sludge; O - Oil
Container: VOA - 40 ml vial; A/G - Amber / Or Glass 1 Liter; 250 ml - Glass wide mouth; P/O - Plastic or other

Houston Office: 11555 Clay Road, Suite 100, Houston, Texas 77043, (713) 690-8989 Fax (713) 690-8787
Dallas Office: 8901 Carpenter Freeway, Suite 100, Dallas, Texas 75247, (214) 630-1010 Fax (214) 630-7070
Fort Worth Office: 2601 Gravel Drive, Fort Worth, Texas 76118, (817) 268-8600 Fax (817) 268-8602
Austin Office: 5307 Industrial Oaks Blvd. # 160, Austin, Texas 78735, (512) 442-1122 Fax (512) 442-1181
Midland Office: 24 Smith Rd., # 261, Midland, Texas 79705, (432) 684-9600 Fax (432) 684-9608

4 of 4

ENVIRONMENTAL, GEOTECHNICAL AND CONSTRUCTION MATERIALS SERVICES

CHAIN OF CUSTODY RECORD

Terracon
Consulting Engineers & Scientists

Office Location: Midland

Project Manager: Ty Burrow

Laboratory: Trace Analysis
Address:
Contact:
Phone:
PO/SO #: 2001-11005

Lab use only
Due Date: 5(4)0

Temp. of coolers when received (C°):
1 | 2 | 3 | 4 | 5

Page ____ of ____

Sampler's Name: Guy Falzarano
Sampler's Signature:

Proj. No.: A412-7008
Project Name: Livingston Ridge (LR)
No/Type of Containers: 4

ANALYSIS REQUESTED: BTEX 8021

Matrix	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	Start Depth	End Depth	VOA	A/G 1 Lt.	250 ml	P/O	Lab Sample ID (Lab Use Only)
W	11-6-12			✓	MW15			4				313589

Turn around time: ☑ Normal ☐ 25% Rush ☐ 50% Rush ☐ 100% Rush

Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	11/6/12	4:42		11/6/12	16:42
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:

NOTES: Please email results
WTBURROW2@Terracon.com
AGFALZARANO@Terracon.com
SMITHERSJSE@people.com
Bill direct 2001-11005

Matrix: WW - Wastewater; W - Water; S - Soil; SD - Solid; L - Liquid; A - Air Bag; C - Charcoal tube; SL - sludge; O - Oil
Container: VOA - 40 ml vial; A/G - Amber / Or Glass 1 Liter; 250 ml - Glass wide mouth; P/O - Plastic or other ____

Houston Office
11555 Clay Road, Suite 100
Houston, Texas 77043
(713) 690-8989 Fax (713) 690-8787

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8901 Carpenter Freeway, Suite 100
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Fort Worth, Texas 76118
(817) 268-8600 Fax (817) 268-8602

Austin Office
5307 Industrial Oaks Blvd. # 160
Austin, Texas 78735
(512) 442-1122 Fax (512) 442-1181

Midland Office
24 Smith Rd., # 261
Midland, Texas 79705
(432) 684-9600 Fax (432) 684-9608

ATT

APPENDIX D

CD of 2012 Annual Groundwater Monitoring Report